Washington State Department of Transportation

Publications Transmittal

Transmittal Number	Date
PT 12-051	July 2012
Publication Distribution: To: *Roadside Manual* holders	
Publication Title: *Roadside Manual* – July 2012	Publication Number: M 25-30.01
Originating Organization: WSDOT Development Division, Design Office – Roadside and Site Development Section	

Remarks and Instructions

What's changed in the Roadside Manual for July 2012?

The *Roadside Manual* changes are limited in scope for this revision. They include the following:

- In Chapter 110, Exhibit 110-3, Roadside Management Zones, has been updated.
- Chapter 210 has been updated to reflect new federal laws and policies and to add links to all documents shown in the chapter. The chapter has been reorganized by topics.
- The contents of Chapter 610 have been incorporated into the *Design Manual* and a link has been placed in the chapter.
- The contents of Chapter 620 have been incorporated into the *Design Manual* and a link has been placed in the chapter.

Remove/Insert instructions for those who maintain a printed manual:

CHAPTER	REMOVE PAGES	INSERT PAGES
110 Roadside Functions	110-1 – 110-4	110-1 – 110-4
210 Federal Legislation and Directives	210-1 – 210-4	210-1 – 210-6
610 Safety Rest Areas & Traveler Services	610-1 – 610-26	610-1 – 610-2
620 Universal Access	620-1 – 620-6	620-1 – 620-2

Revision marks:

- A new date appears on the footer of each page that has changes or different pagination.
- Revision marks (underlines/sidebars) are used as a convenience to show designers what has changed.
- When a chapter is new or substantially rewritten, no revision marks are applied.

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Washington State
Department of Transportation

Roadside Manual

M 25-30.01

July 2012

Engineering and Regional Operations
Development Division, Design Office

Americans with Disabilities Act (ADA) Information

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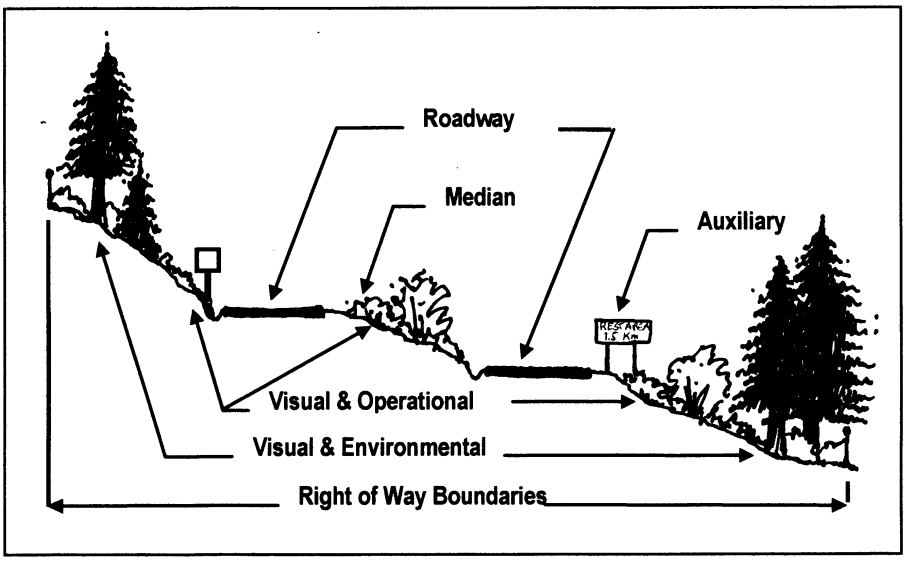
Chapter 110 Roadside Functions

110.01 General
110.02 Roadside Management

110.01 General

The roadway is the portion of a highway, including shoulders, for vehicular use. A divided highway has two or more roadways.

Exhibit 110-1 shows the extent of a typical forested roadside and an example of the possible locations of roadside functional features.



Roadside Functional Area Examples
Figure 110-1

The Washington State Department of Transportation (WSDOT) is responsible for the stewardship of approximately 97,500 acres of roadsides along 7,061 miles (in 2001) of state roadway, including hundreds of auxiliary facilities.

Roadside management encompasses planning, design, construction, and maintenance of the roadside environment. The roadside is managed to fulfill four functional categories: operational, environmental, visual, and auxiliary functions. In reality, these functions are interrelated and inseparable, but the four functions help communicate the range of roadside management issues.

The roadside provides the essential area for these functions and contributes to WSDOT's delivery of transportation services. Exhibit 110-2 shows the functions and some examples of those functions.

In the next several chapters these examples and their applications are discussed in greater detail.

Function	Examples
operational functions	Those functions that provide safe and multiuse roadsides. Operational functions include access control, and providing recovery areas and sight distances with accommodations for signs and utilities, and snow storage. The *Design Manual* remains the primary guidance for operational design guidance.
environmental functions	Those functions that protect and enhance our natural and built surroundings. Environmental functions include water quality preservation, protection and improvement, stormwater detention and retention, wetland and sensitive area protection, noxious weed control, noise control, habitat protection, habitat connectivity, air quality improvement, and erosion control.
visual functions	Those functions that are designed and experienced primarily from a visual perspective. Visual functions promote a positive quality of life and are integral to operational, environmental, and auxiliary functions. They include positive guidance and navigation, distraction screening, corridor continuity, roadway and adjacent property buffering, and scenic view preservation. There are two primary roadside views: those from the roadway and those toward the roadway. In addition, many environmental functions, such as noxious weed control, wetland and sensitive area preservation, and habitat preservation are readily perceived and evaluated through sight.
auxiliary functions	Those functions that provide additional operational, environmental, and visual functions for a complete transportation system. Examples of auxiliary facilities are community enhancement areas, safety rest areas, roadside parks, viewpoints, agricultural uses, heritage markers, bicycle and pedestrian facilities, park and ride lots, and quarries and pits.

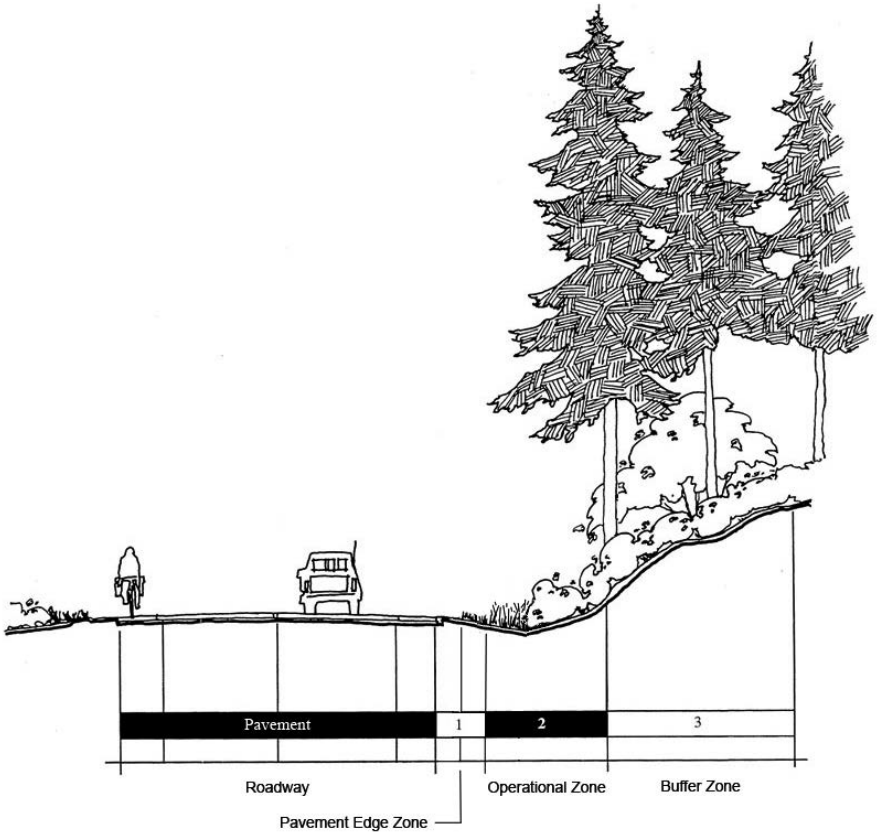
Roadside Functions
Exhibit 110-2

110.02 Roadside Management

The roadside is managed to fulfill the operational, environmental, visual, and auxiliary functions. Decisions concerning roadside management must be balanced to coordinate and integrate these functions without compromising safety.

Roadside functions vary at different locations according to specific highway and site conditions. Although every area of roadside simultaneously provides many functions, some roadside sections are used primarily to serve very specific functions that are dictated by highway traffic and safety needs, the physical environment, legislated requirements, commitments, and WSDOT policies and programs.

Roadsides are managed in three zones. Zone 1, when present, is a vegetation-free zone immediately adjacent to the roadway. Zone 2 typically contains the clear zone (although in some locations, the Design Clear Zone may extend beyond the right of way line). Zone 3 extends from Zone 2 to the right of way line, as seen in Exhibit 110-3. Please see the *Maintenance Manual* or the *Roadside Classification Plan* for more information.



Pavement Edge Zone
Low Growing or Routinely Mowed Vegetation and/or Vegetation-Free Strip
Maintained using mechanical and/or chemical methods for sight distance, stormwater drainage and filtration, noxious weed control, pavement preservation and roadside hardware maintenance.

Operational Zone
No Vegetation with Stem Diameter Greater than 4"
Maintained using IVM techniques for sign visibility, sight distance, errant vehicle recovery and weed control.

Buffer Zone
Native or Naturally Occurring Vegetation
Where adequate right of way exists, maintained using IVM techniques to encourage desirable, self-sustaining plant communities.

Roadside Management Zones
Exhibit 110-3

Chapter 210 Federal Legislation and Directives

210.01 General
210.02 Environmental Preservation and Protection
210.03 Visual Quality and Scenic Enhancement
210.04 Accessibility
210.05 Funding and Planning

210.01 General

Federal legislative acts and policies govern many roadside activities. (See the *Design Manual*, Chapter 220, for documentation requirements.) The *Environmental Procedures Manual* (EPM) contains extensive references to laws and directives applicable to the environment. FHWA's website also contains references to environmental regulations:
www.fhwa.dot.gov/environment/env_sum.htm#AN

Following is a brief summary of the major acts and policies affecting roadsides.

210.02 Environmental Preservation and Protection

(1) National Environmental Policy Act (NEPA), 42 USC 4321 (1969)

Established to ensure consideration of environmental factors through a systematic interdisciplinary approach before committing the department and FHWA to a course of action.

Declares that it is the "continuous responsibility" of the federal government to "use all practicable means" to "assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings."

(2) Clean Water Act, 33 USC 1251 et seq.

The Water Pollution Control Act, better known as the Clean Water Act (CWA), was established to restore and maintain the chemical, physical, and biological integrity of the nation's water through the prevention, reduction, and elimination of pollution. Section 404 addresses discharge of dredge and fill in all waters of the United States, including wetlands, and is enforced by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency (EPA).

The CWA provides for comprehensive federal regulation of all sources of water pollution. It prohibits the discharge of pollutants from non-permitted sources. The CWA authorizes the EPA to administer or delegate water quality regulations covered under the act. In Washington, the EPA has delegated administrative authority of the CWA to the Washington State Department of Ecology (Ecology) except on tribal and federal lands.

To promote compliance with state surface water quality standards, Ecology issues:

- CWA Section 401 certificates of water quality compliance for each project requiring a CWA Section 404 permit.
- Administrative orders for projects not requiring Section 404 permits.

- National Pollutant Discharge Elimination System (NPDES) Construction individual and general permits.
- NPDES Municipal Permits.

(3) Clean Air Act, 42 USC 7401 et seq.

Established to protect and enhance air quality and to assist state and local governments with air pollution prevention programs.

(4) Endangered Species Act of 1973 as amended, 16 USC 1531-1543

Established to conserve species of fish, wildlife, and plants facing extinction.

(5) Rivers and Harbors Act of 1899, 33 USC 410 et seq.

Protects navigable waters of the United States. It is enforced by the U.S. Army Corps of Engineers.

(6) Noise Control Act of 1972, 42 USC 4901 et seq.

Established to promote an environment free from detrimental noise that jeopardizes the public's health and welfare.

(7) National Forest Management Act (NFMA), 16 USC 1604 (g)(3)(B)

Requires the Secretary of Agriculture to assess forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the National Forest System. The NFMA applies directly to lands administered by the United States Forrest Service (USFS), but also provides direction for Bureau of Land Management (BLM) land management plans. The BLM and USFS have integrated National Environmental Policy Act requirements with their land management regulations.

The USFS has developed forest-specific "forest plans" that identify "species of concern" found within each forest.

WSDOT projects that involve federal forest lands must comply with regulations under the NFMA and the Northwest Forest Plan (EPM, Chapter 436).

(8) Preservation of the Nation's Wetlands, EO 11990

Provides policy and implementing procedures that require all agencies to plan, construct, and operate to ensure protection, preservation, and enhancement of the nation's wetlands to the fullest extent practicable.

(9) Prevention of Invasive Species, EO 13112, February 1999

Directs federal agencies to expand and coordinate their efforts to combat the introduction and spread of plants and animals not native to the United States. FHWA has developed guidelines that provide a framework for preventing the introduction of and controlling the spread of invasive plant species on highway rights of way.

(10) Executive Order (EO) 13423 – Strengthening Federal Environmental, Energy, and Transportation Management

Signed by President Bush on January 24, 2007, EO 13423 instructs federal agencies to conduct their environmental, transportation, and energy-related activities under the law in support of their respective missions in an environmentally, economically, and fiscally sound, integrated, continuously improving, efficient, and sustainable manner.

(11) Executive Order 13514 – Federal Leadership in Environmental, Energy, and Economic Performance

Signed by President Obama on October 5, 2009, EO 13514 expands on the energy reduction and environmental performance requirements for federal agencies identified in EO 13423. The goal of this EO is to establish an integrated strategy toward sustainability in the federal government and to make reduction of greenhouse gas emissions a priority for federal agencies.

(12) Presidential Memorandum on Environmentally Beneficial Landscaping, FRL-5054-1 (1994)

Directs federal agencies to lead the country toward more environmentally and economically beneficial landscape practices, including:

- Use of regionally native plants.
- Construction with minimal impact to habitat.
- Reduced use of fertilizers, pesticides, and other chemicals.
- Use of water-efficient and runoff-reduction practices.
- Use of demonstration projects employing these practices.

Pertains to all highway programs using federal funds and provides for the development of implementation guidance.

(13) US DOT Policy Statement on Climate Change Adaptation, June 2011

Based on EO 13514, this policy statement directs that USDOT "shall integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely and that transportation infrastructure, services and operations remain effective in current and future climate conditions."

The policy notes that all modal administrations within the agency have the responsibility to consider the impacts of climate change on their current systems and future investments:
www.fhwa.dot.gov/environment/climate_change/adaptation/policy_and_guidance/usdot.cfm

(14) Sustainable Highways Program, FHWA

Supports programs and activities conducted across the country to facilitate balanced decision making among "environmental, economic, and social values—the triple bottom line of sustainability." To read more about the Sustainable Highways Program, visit:
www.sustainablehighways.dot.gov/

210.03 Visual Quality and Scenic Enhancement

(1) Highway Beautification Act (HBA) of 1965, 23 CFR 750

Establishes provisions and controls to protect the public investment, promote safety and recreation, and preserve natural beauty along federal and primary highway system roadsides, including:

- Control of outdoor advertising signs.
- Authorization for information centers at safety rest areas.
- Control of junkyards.

Allocated of 3% of federal-aid funds that were apportioned to states for landscape and roadside development and for acquisition of interest in, and improvement of, strips of land necessary for the restoration, preservation, and enhancement of scenic beauty adjacent to the highways.

(2) Control of Outdoor Advertising, 23 USC 131

Congress finds outdoor advertising signs should be controlled in order to promote the safety and recreational value of public travel and preservation of natural beauty.

(3) Junkyard Control and Acquisition, 23 CFR 751 and 23 USC 136

Congress finds junkyards should be controlled to promote the safety and recreational value of public travel and preservation of natural beauty.

(4) Landscaping and Scenic Enhancement, 23 USC 319

Provides for the acquisition and improvement of strips of land necessary for the restoration, preservation, and enhancement of scenic beauty to federal-aid highways.

(5) Landscape and Roadside Development, 23 CFR 752

"Highway esthetics is a most important consideration in the Federal-aid highway program. Highways must not only blend with our natural, social, and cultural environment, but also provide pleasure and satisfaction in their use…. The development of the roadside to include landscape development, safety rest areas, and the preservation of valuable adjacent scenic lands is a necessary component of highway development. Planning and development of the roadside should be concurrent with or closely follow that of the highway."

(7) FHWA Scenic Enhancement Initiatives Memorandum, HRW-12 (1990)

Rescinds a 1977 memorandum permitting selective clearing of right of way vegetation to improve visibility of outdoor advertising structures.

Encourages states to retain excess lands that could be used to restore, preserve, or enhance the scenic beauty and quality of the highway environment, including scenic vistas, wetlands, and preservation of wildlife habitat.

210.04 Accessibility

Americans with Disabilities Act of 1990

Requires all services, programs, and activities, when viewed in their entirety, to be readily accessible to, and usable by, people with disabilities: www.ada.gov

210.05 Funding and Planning

(1) Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

SAFETEA-LU, reauthorized June 2012, extends federal highway, transit, and highway safety programs through fiscal year 2014 at 2012 spending levels. Environmental streamlining provisions are expanded and there are significant reforms to transportation enhancements and program consolidation.

(2) Federal Highway Administration Strategic Plan

The vision for this strategic plan is to create the best transportation system in the world by creating the safest, most efficient, and most effective highway and intermodal transportation system for the American people. FHWA's strategic goal for system performance is that the nation's highway system provides safe, reliable, effective, and sustainable mobility for all users: www.fhwa.dot.gov/policy/fhplan.htm

Chapter 610 Safety Rest Areas & Traveler Services

The safety rest area and traveler services information is now located in the *Design Manual*, Chapter 1710:

www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/1710.pdf

Chapter 620 Universal Access

The universal access information is now located in the *Design Manual*, Chapter 1510:

www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/1510.pdf