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900.01 General

The Washington State Department of Transportation (WSDOT) recognizes roadsides as an asset. WSDOT is committed to highway designs that meet the transportation needs in a way that reduces the potential for fatal and injury crashes, is cost-effective, ecologically appropriate, context appropriate, and maintainable by managing roadsides that balance the natural and environmental functions within the right of way.

The roadside integrates natural processes and visual continuity into the built (roadway) environment, preserving and promoting these natural and environmental functions. Highway projects achieve this integration through introduction and configuration of specific design elements such as structures, vegetation, signs, pedestrian and bicycle movement, erosion control, stormwater treatment facilities, etc.

Develop highway designs in accordance with the criteria provided in the current version of WSDOT Roadside Policy Manual (RPM). Use guidance provided in the WSDOT Roadside Manual (RM), where appropriate, when implementing the provisions of the RPM. Provide coordination and engagement with WSDOT partners when designing roadsides. Also refer to the RM when addressing design issues such as law and policy, soil bioengineering, contour grading, vegetation, irrigation, etc. These manuals can be found at: www.wsdot.wa.gov/design/roadside/.

900.02 Project Development

900.02(1) Region Landscape Architect

The region Landscape Architect is responsible for the following:

- Designs, supervises, has approval authority over, and stamps plans for wetland mitigation, roadside restoration, and revegetation.
- Coordinates the visual elements within highway corridors, in conjunction with the State Bridge and Structures Architect.
- Designs and supervises other roadside work, such as site design for park & ride lots or safety rest areas, to ensure roadside restoration is designed and constructed to WSDOT guidelines and standards.
- Provides visual discipline reports for environmental documentation.
- Assists the region in completing the plant establishment phase of projects.

The Headquarters (HQ) Roadside and Site Development Section will provide roadside and mitigation design, visual impact assessment, and construction inspection work for the project offices in regions without a Landscape Architect. Refer to the [Project Management Online Guide](#) for further descriptions of the roles and responsibilities of project teams.

900.02(2) Roadside Restoration Projects

There are typically two types of roadside restoration projects pertaining to vegetation-related roadway construction projects: regulatory and restoration.

900.02(2)(a) Regulatory

The first type of project is work related to regulatory or permit requirements. Examples are wetland mitigation work or Hydraulic Permit Approvals (HPAs). This work typically must occur by the time the impacting project is complete.

900.02(2)(b) Restoration

The second type of project is the restoration of construction impacts to roadside functions to meet the WSDOT policy requirements outlined in the [Roadside Policy Manual](#).

900.02(3) Stand-Alone Project or Part of Roadway Construction?

Roadside restoration work should be evaluated by the design team to determine whether it will be most efficient as part of the roadway construction contract or as a separate stage contract.

900.02(3)(a) Roadway Construction Contract

The benefits of roadside restoration during roadway construction include the following:

- All work can be done under one contract.
- The restoration can be completed without waiting for a new contract to be let and administered.
- Plant establishment can often begin sooner.

900.02(3)(b) Separate Stage Project

A separate stage contract provides the following opportunities because it would be done when road construction is completed:

- If construction impacts are different than originally anticipated, the restoration contract can be changed. For example, if disturbance is minimized, fewer plants and soil amendments may be needed.
- The site can be watched to see how the grading and hydrology interact before plants are planted.
- The prime contractor can be someone who specializes in roadside work.

900.02(4) **Plant Establishment**

Plant establishment periods are included as part of roadside restoration and on all environmental mitigation projects.

- A minimum of three years of plant establishment work is required for all planted areas in western Washington, and planted and/or seeded areas in eastern Washington.
- In situations where it is important to provide a full cover of vegetation to achieve the environmental or operational functions, five years of plant establishment may be needed.
- If the plant establishment period will last longer than three years on a roadside restoration contract, discussion should occur with Program Management to request and justify additional funding.
- In an environment that uses woody plants, plant establishment may take up to 10 years for the woody vegetation to exclude weeds and reach a condition with the lowest life cycle cost.
- Regulatory aspects of projects can require 10 years of plant establishment to ensure the standards of success outlined in the permit, although aggressive weed control and favorable weather can allow sites to close out early.

The goal is to give WSDOT Maintenance a site that is nearly self-sustaining after the plant establishment period is complete.

900.03 **Documentation**

Refer to Chapter 300 for design documentation requirements.

900.04 **References**

Maintenance Manual, M 51-01, WSDOT

Roadside Manual, M 25-30, WSDOT

Roadside Policy Manual, M 3110, WSDOT

Understanding Flexibility in Transportation Design – Washington, WSDOT, 2004

Utilities Accommodation Policy, M 22-86, WSDOT

For utility-related roadside issues, see the *Utilities Manual*, and for Scenic Classification ratings, see the *Utilities Accommodation Policy*

For WSDOT Project Management web resources, start here:

 www.wsdot.wa.gov/projects/projectmgmt/

Roadside Design Guide, AASHTO, 2011

Roadside development concepts covered elsewhere in the *Design Manual* include the following:

- Fencing (Chapter 560)
- Jurisdiction (Chapters 300, 1100, 1600)
- Noise barriers (Chapter 740)
- Pedestrian facilities (Chapter 1510)

- Public art (Chapter 950)
- Retaining walls (Chapter 730)
- Roadside safety, traffic barriers, and energy attenuators (Chapters 1600, 1610, 1620)
- Safety rest areas, parks, viewpoints, and historical markers (Chapter 1710)
- Signs (Chapter 1020)