Section 4(f) Resources Affected
by the Alaskan Way Viaduct and Seawall Replacement Project
SECTION 4(F) EVALUATION

What is Section 4(f)?

Section 4(f) refers to a section of the Department of Transportation Act of 1966 that established the policy “that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.” (These requirements are codified in federal law at 49 U.S.C. 303.)

Section 4(f) requires that transportation projects with federal involvement avoid use of:

- Park and recreation land (specifically publicly owned land of a significant public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance), or
- Historic resources (specifically a historic site of national, state, or local significance) on or eligible for the National Register of Historic Places.

In discussing 4(f), the term “use” may mean either a direct use or constructive use. A direct use occurs when land is permanently incorporated into a transportation facility or when there is a temporary occupancy of land that is adverse to a 4(f) resource. Temporary occupancy of a property is not considered adverse under the Section 4(f) statute if the following conditions are satisfied: (1) duration must be temporary (i.e., shorter than the period of construction); (2) the scope of work must be minor, with only minimal changes to the protected resource; (3) there are no anticipated permanent adverse physical impacts, or interference with the activities or purposes of the resource on either a temporary or permanent basis; (4) the property being used must be fully restored to a condition which is at least as good as that which existed prior to the proposed project; and; (5) there must be documented agreement of the appropriate officials having jurisdiction over the resource regarding the above conditions. Constructive use occurs when a project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired.

In order to make use of such lands or resources, the Federal Highway Administration (FHWA) must determine that:

- There is no feasible and prudent avoidance alternative to using that land; and
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

How is it determined that there are no alternatives to use of the Section 4(f) resource?

To demonstrate that there is no feasible and prudent avoidance alternative to the use of Section 4(f) land or resources, an evaluation must address:

- Location alternatives; and
- Design shifts that avoid the Section 4(f) land.

Avoidance is required unless the alternatives that would not involve Section 4(f) resources result in unique problems. Unique problems are present when there are truly unusual factors or when the costs or community disruption reach extraordinary magnitude.

How were alternatives selected?

For this project, a number of alternatives were considered in an initial screening process. These were narrowed to five alternatives in the Draft Environmental Impact Statement (EIS) published in March 2004.

This evaluation considers two alternatives developed since the Draft EIS that meet the purpose of and need for the project.

What is the project’s purpose and need?

In April 2005, the lead agencies amended the project’s purpose and need statement to address the need for access and safety improvements to the State Route (SR) 99 Corridor north of the Battery Street Tunnel.

Purpose of the Proposed Action

The main purpose of the proposed action is to provide a transportation facility and seawall with improved earthquake resistance. The project will maintain or improve mobility, accessibility, and traffic safety for people and goods along the Alaskan Way Viaduct Corridor as well as improve access to and from SR 99 from the Battery Street Tunnel north to Roy Street.

Need for the Proposed Action

The Alaskan Way Viaduct and Alaskan Way Seawall are both at the end of their useful life. Improvements to both are required to protect public safety and maintain the transportation corridor. Because these facilities are at risk of sudden and catastrophic failure in an earthquake, FHWA, Washington State Department of Transportation...
Under the Tunnel Alternative, several design choices are under consideration for the configuration of facilities in various portions of the corridor. There are two potential designs for the tunnel in the central section of the corridor:

- Stacked tunnel (preferred)
- Side-by-side tunnel

Both designs would have three lanes in each direction. The tunnel would extend from approximately S. Dearborn Street to Pine Street. In addition to the tunnel portion of the corridor, there are several design choices in different sections of the corridor.

In the south section, there are two design choices:

- The Reconfigured Whatcom Railyard choice is part of the preferred alignment. SR 99 would remain in its current alignment between the Burlington Northern Santa Fe Railway Company (BNSF) Seattle International Gateway (SIG) Railyard on the east and the Whatcom Railyard to the west, with a short bridge over the new tail track and connection between the railyards.
  - The Relocated Whatcom Railyard choice would shift SR 99 to the west into the site of the existing Whatcom Railyard and shift the railyard to the east to occupy the existing highway right-of-way next to the BNSF SIG Railyard. The SR 99 roadway would be at-grade.

From Union Street to Steinbrueck Park at about Virginia Street, the following design choices are considered for structures above the roadway:

- The Steinbrueck Park Walkway choice (part of the Preferred Alternative) would consist of a lid over the entire roadway to just past Pine Street, and then it would become a 29-foot-wide pedestrian walkway east of and elevated above the level of the SR 99 roadway.
- The Steinbrueck Park Lid choice would construct a lid covering the entire width of the roadway from the north end of Victor Steinbrueck Park to the waterfront, approximately 560 feet in length.

The central section of the corridor also includes the following design choices:

- The SR 99 Under Elliott and Western Avenues choice (part of the Preferred Alternative) would cross over the BNSF railroad tunnel and enter a cut section below Elliott and Western Avenues, which crosses above SR 99 at grade. This choice requires modification to the Battery Street Tunnel to meet the existing tunnel portal about 12 feet below the existing tunnel floor. To accommodate the new roadway, the tunnel floor would be substantially lowered for about 450 feet into the tunnel.
- The SR 99 Over Elliott and Western Avenues choice would cross over the BNSF railroad tunnel and over Elliott and Western Avenues on a side-by-side aerial structure slightly wider than the existing structure and would connect with the Battery Street Tunnel similar to the existing configuration. Within the Battery Street Tunnel, the vertical clearance in the tunnel would be increased to 16.5 feet. Fire/life safety improvements (which include seismic upgrades and access and egress improvements) would be added. Ventilation buildings would be located above each tunnel portal. The Lowered Aurora design choice for the Battery Street Tunnel would add modifications to the curves at both the south and north portals.

North of the Battery Street Tunnel, there are two design choices for SR 99:

- The Partially Lowered Aurora choice (part of the Preferred Alternative) would provide improvements from Denny Way to Aloha Street. From Denny Way to Republican Street, SR 99 would be lowered in a retained cut with Thomas and Harrison Streets crossing over Aurora Avenue N. Mercer Street would continue to cross under Aurora but would be reconfigured to a two-way street. In addition, Roy Street would be regraded to connect to SR 99.
- The Lowered Aurora choice would place SR 99 in a retained cut between Denny Way and Comstock Street with Thomas, Harrison, Republican, Mercer, and Roy Streets crossing over the highway.

Elevated Structure Alternative

From S. Holgate Street to south of S. Atlantic Street, the Elevated Structure Alternative includes the same design choices for the Reconfigured or Relocated Whatcom Railyard. The roadway would become a side-by-side aerial structure south of S. Atlantic Street to near S. King Street, where it would transition to a new wider double-level aerial structure. Between Union Street and about Pine Street, the double-level stacked structure would transition to a side-by-side structure as it climbs the hill to the Battery Street Tunnel. There would be no lidded structure (over the roadway) or walkway from Steinbrueck Park at the north end of the Pike Place Market to the central waterfront along Alaskan Way below. The Elliott and Western Avenue ramp configuration for the Elevated Structure Alternative would be the same as the existing ramps. SR 99 would then pass over Elliott and Western Avenues.

The Battery Street Tunnel would be upgraded with fire/life safety improvements, and the vertical clearance would be increased to 16.5 feet by lowering the existing roadway. Ventilation buildings would be located above each tunnel portal. SR 99 would be lowered and widened with the Partially Lowered Aurora design choice, as described above under the Tunnel Alternative.

What local, state, and federal agencies were coordinated with to determine what park and recreation land and historic resources would be affected?

Section 4(f) requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs that use lands protected by Section 4(f). Coordination for the Section 4(f) review included coordination meetings, field visits, and preliminary memoranda outlining Section 4(f) issues with representatives of FHWA, WSDOT, the City of Seattle, the State Historic Preservation Officer (SHPO), and the National Park Service (NPS).

What is Section 106, and how does it affect the way we evaluate park and recreation land and historic resources?

Section 106 of the National Historic Preservation Act requires agencies to consider the effects of federal actions on historic properties and archaeological resources. In compliance with Section 106 requirements, the project team has and will continue to consult with the SHPO, tribes, and other interested parties in developing mitigation measures. As part of our consultation with SHPO we will do the following:

- Develop agreements to address how we will deal with known and unknown effects to historic and cultural resources. Any historically significant discoveries encountered during construction will be subject to Section 4(f) provisions.
• Seattle Office of Arts and Cultural Affairs
• City of Seattle, DPD
• Seattle Aquarium
• City of Seattle, Department of Transportation
• City of Seattle, Department of Parks and Recreation

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As a result of consultation with the agencies listed above, park and recreation facilities within three to five blocks of the proposed project facilities were identified for further analysis as potentially affected by the alternatives.

Historic Resources

- The State Historic Preservation Officer
- The City of Seattle Preservation Officer
- The WSDOT Cultural Resources specialist
- FHWA

Through these meetings, agreement was reached on the Area of Potential Effect and the overall approach to the survey and inventory process. Information on potential use was shared with these agencies as project engineering progressed. Detailed coordination on eligibility for the National Historic Register involved coordination with Craig Holstine of WSDOT.

What park and recreation land affected by the project is protected by the provisions of Section 4(f)?

Alaskan Way Viaduct & Seawall Replacement Project Supplemental Draft Environmental Impact Statement

Why is the Alaskan Way Viaduct protected under the provisions of Section 4(f)?

The Alaskan Way Viaduct has been determined eligible for listing in the NRHP under Criterion A for its association with bridge and tunnel building in Washington in the 1920s and under Criterion C for its type, period, materials, and methods of construction. It is the only multispans concrete double-level bridge in the state. It is also significant for its role in the development of the regional transportation system and of Seattle’s waterfront. (See additional description in the 2006 Supplemental Draft EIS Appendix N, Part A.)
What use would occur under the Build Alternatives?
Both alternatives would demolish the existing structure.

What avoidance alternatives have been identified?
There are no avoidance or design alternatives that would avoid replacement or reconstruction of the existing viaduct given its inherent structural limitations and high risk of failure during a seismic event.

What planning to minimize harm has been incorporated into the proposal?
Replacement of the existing viaduct is included in both Build Alternatives. Prior to issuance of the Final EIS and Record of Decision, a documentation plan will be required to ensure that fully adequate records are made of the viaduct in accordance with Historic American Engineering Record (HAER) standards.

What is the Battery Street Tunnel protected under the provisions of Section 4(f)?
The Battery Street Tunnel, along with the Alaskan Way Viaduct, has been determined eligible for listing in the NRHP under Criterion A for its association with tunnel building in Washington in the 1950s and as the first tunnel designed and built by the City of Seattle Engineering Department. It is also significant under Criterion C for the type, period, materials, and methods of construction. It was designed and built to disrupt street traffic and to minimize the risk to adjacent buildings. In addition to its engineering importance, it is significant for its contribution to the development of the local transportation system, connecting SR 99, built in the 1950s, with the Alaskan Way Viaduct, completed in the 1950s. (See additional description in the 2006 Supplemental Draft EIS Appendix N, Part A.)

What use would occur under the Build Alternatives?
The Tunnel Alternative would replace the seawall from S. Washington Street up to Broad Street. Between S. Washington Street and Union Street, the existing seawall would be replaced by the outer wall of the tunnel. From Union Street to Broad Street, the seawall would be rebuilt by improving the soils and replacing the existing seawall in most locations.

The Elevated Structure Alternative would replace the seawall in most locations from S. Washington Street up to Broad Street by improving the soils and replacing the existing seawall.

What avoidance alternatives have been identified?
There are no avoidance or design alternatives to replacement or reconstruction of the existing seawall given its inherent structural limitations and high risk of failure during a seismic event.

What planning to minimize harm has been incorporated into the proposal?
Because replacement of the existing seawall is included in both Build Alternatives, prior to issuance of the Final EIS and Record of Decision, the project proponents will ensure that the Preferred Alternative includes a specific documentation plan to ensure that fully adequate records are made of the facility in accordance with the HAER standards.

What is the Bemis Building and why is it protected by Section 4(f)?
The Bemis Building is a design and built by the Seattle Engineering Department using a unique piling and platform design. (See additional description in the 2006 Supplemental Draft EIS Appendix N, Part A.)

Why is the Alaskan Way Seawall protected under the provisions of Section 4(f)?
The Alaskan Way Seawall has been determined eligible for listing in the NRHP under Criterion A for its association with development of the central waterfront from the early 1900s to the mid 1950s. It is also significant under Criterion C for the type, period, materials, and methods of construction. It was designed and built to disrupt street traffic and to minimize the risk to adjacent buildings. In addition to its engineering importance, it is significant for its contribution to the development of the local transportation system, connecting SR 99, built in the 1950s, with the Alaskan Way Viaduct, completed in the 1950s. (See additional description in the 2006 Supplemental Draft EIS Appendix N, Part A.)

What use would occur under the Build Alternatives?
Both alternatives would demolish the existing structure.

What avoidance alternatives have been identified?
There is no feasible alternative to the location of a high-way facility adjacent to this building due to the location of SR 99. The relocation of the north-south roadway is not feasible because of the lack of alternative alignments. Alternatives to the ramp are discussed below.

What planning to minimize harm has been incorporated into the proposal?
A design with no elevated structures through use of an at-grade full-movement intersection for the SR 99/SR 519 connection was explored for early phases of development of the Surface Alternative described in the Draft EIS. With this alternative, traffic was found to operate at unacceptable levels of service and create substantial delays.

What use would occur under the Build Alternatives?
The SR 99 Under Elliott and Western design choice, which is part of the Preferred Alternative, would have the greatest effect on the existing configuration of the south end of the Battery Street Tunnel because it would require the tunnel floor to be substantially lowered about 450 feet into the tunnel.

What avoidance alternatives have been identified?
The Rebuild Alternative considered in the March 2004 Draft EIS did not include safety-related alterations to the Battery Street Tunnel. The current Elevated Structure Alternative includes the increased vertical clearance and added fire/life safety improvements because retaining the current configuration would not meet minimum safety standards.

What planning to minimize harm has been incorporated into the proposal?
Prior to proceeding with alternatives that include substantial alterations to the Battery Street Tunnel and prior to issuance of the Final EIS and Record of Decision, the project proponents will ensure that the Preferred Alternative includes a specific documentation plan to ensure that fully adequate records are made of the facility in accordance with the HAER standards.

What is the Bemis Building and why is it protected by Section 4(f)?
This building at S. Atlantic Street east of the existing viaduct was the manufacturing plant for Bemis Brothers Bag Company for more than 80 years. It is currently used for artists’ living quarters and studios, requiring truck loading access. It has been determined eligible for listing in the NRHP under Criterion C as an example of an early 20th century industrial building. The main façade is on the north, with a distinctive entry and terra cotta ornament. (See additional description of the Bemis Building in the 2006 Supplemental Draft EIS Appendix N, Part A.)

What use would occur under the Build Alternatives?
The crossing of S. Atlantic Street over SR 99 could restrict access for the Bemis Building. The elevation of the S. Atlantic Street deck or the location of columns may limit or preclude continued truck access to a single loading dock that fronts S. Atlantic Street. The elevated ramp in the current conceptual design may also restrict access to the majority of truck loading access to the building, which is from the west from Colorado Avenue S.

The elevated S. Atlantic Street overcrossing over SR 99 would obstruct much of the decorative north façade of the building. This visual obstruction of the façade may permanently affect the building’s historic setting and context.

What avoidance alternatives have been identified?
There is no feasible alternative to the location of a highway facility adjacent to this building due to the location of SR 99. The re-decoration of the north-south roadway is not feasible because of the lack of alternative alignments. Alternatives to the ramp are discussed below.

What planning to minimize harm has been incorporated into the proposal?
A design with no elevated structures through use of an at-grade full-movement intersection for the SR 99/SR 519 connection was explored for early phases of development of the Surface Alternative described in the Draft EIS. With this alternative, traffic was found to operate at unacceptable levels of service and create substantial delays. Such an at-grade intersection was found to be infeasible for either of the alternatives discussed in the Supplemental Draft EIS because the delays would substantially degrade the performance of either alternative.

Providing no ramps for access to S. Atlantic Street would avoid obstructing the north façade of the building. Additional design choices are being evaluated that may result in a different configuration for S. Atlantic Street such that the north façade of the building would not be obstructed.

The enhanced access from Colorado Avenue S. to S. Atlantic Street incorporated into the current design choices may be further analyzed with respect to effects on the loading docks on the west side of the building. It may be feasible to maintain access to the loading docks through traffic control on Colorado Avenue S. Other roadway design choices providing the enhanced arterial access to the south through routes other than Colorado Avenue S. may result in fewer impacts on the loading docks. An additional non-roadway alternative may involve reorienting the loading docks away from Colorado Avenue S.
Avenue S. with enough maneuvering area to avoid disrupting traffic flow on Colorado Avenue S.

For the alternatives under consideration, prior to designation of the Preferred Alternative and issuance of the Final EIS and Record of Decision, further design choices will be explored to document whether there are avoidance alternatives to the elevated ramps north of the building. As project planning continues, additional options may be developed. This also includes all possible planning of design alternatives for the roadway or the building to ensure that truck access to the building is maintained from the existing loading docks on Colorado Avenue S. or that adequate alternative facilities are provided.

What is the Washington Street Boat Landing and why is it protected by Section 4(f)?

The Washington Street Boat Landing is both a park property and a historic resource. It has been determined eligible for listing in the NRHP under Criterion C, for its design characteristics. It is on City of Seattle right-of-way. The pergola and an additional feature, the dock, which includes a float and ramp to connect with the pergola. This facility has been operated by the City of Seattle Parks Department for public open space and includes benches as well as being operated as temporary moorage. The floats typically were removed in winter to avoid possible storm damage. The floats were replaced in the summer of 2001, after the Nisqually earthquake, due to the need for replacement of pilings and because the investment was deemed unwise due to uncertainty about future plans for the viaduct and seawall. The floats are not a 4(f) issue because they have already been removed by the City. (See additional description in the 2006 Supplemental Draft EIS Appendix N, Part A.)

What use would occur under the Build Alternatives?

What avoidance alternatives have been identified? No specific alternatives have been identified that would avoid the temporary relocation of the pergola.

What planning to minimize harm has been incorporated into the proposal? Planning to minimize harm includes relocation of the pergola and will provide the same facility farther to the west after completion of construction.

What is the McGraw Kittenger Case (Blu Canary/MGM) Building and why is it protected by Section 4(f)?

This structure at the southwest corner of Battery Street and Second Avenue is the most architecturally interesting and most intact of the local film distribution buildings. This small art deco building was constructed in the 1930s for the Alexander Myers Company. From 1936 until the 1950s, it was the regional film distribution center for Metro-Goldwyn-Mayer. It is now a card shop and small restaurant. The reinforced concrete building was designed by a San Francisco architect, Edmund W. Denle. Interior alterations have been made; however, the art deco exterior remains highly intact, with buff-colored brick cladding and extensive black terra cotta ornament with an arrow motif, including pilasters, window trim, and medallions along the parapet. The building has been determined eligible for listing in the NRHP under Criterion A for its association with the film distribution industry, and Criterion C for its architectural design. (See additional description in the 2006 Supplemental Draft EIS Appendix N, Part A.)

What use would occur under the Build Alternatives?

The Tunnel Alternative could be paired with either the Lowered Aurora or the Partially Lowered design choices. Lowered Aurora would include widening the Battery Street Tunnel portals, which would have the greater impact on this property. The Lowered Aurora design choice would require the tunnel to pass under a portion of the northwest corner of the building. With this design choice, the corner of the building foundation would need to be supported temporarily while the soil below is excavated and the tunnel is constructed. The Tunnel Alternative in the absence of widened curves at the Battery Street Tunnel portals would not require the same support methods but may require soil stabilization during tunnel construction to prevent the cracking or settlement of the building.

What avoidance alternatives have been identified? The design choice not to widen the Battery Street Tunnel curves would avoid effects to this resource.

With the Lowered Aurora design choice, refinements for widening the Battery Street Tunnel curves, or particular construction methods, may allow construction to take place under the building. At this time, design has not proceeded in sufficient detail, but efforts to avoid construction effects that may affect the historic integrity of the structure would be incorporated into the design process. Prior to issuance of the Final EIS and Record of Decision, the Preferred Alternative will include specific plans to protect the building while the tunnel is constructed beneath, so that its associations with the film distribution center can be retained.

What planning to minimize harm has been incorporated into the proposal? Prior to issuance of the Final EIS, the Preferred Alternative will include specific plans to protect the building from construction effects such as cracking or settlement while the modifications to the Battery Street Tunnel are constructed beneath.

What park, recreation, and historic resources are not discussed in this evaluation?

Park, recreation, and historic resources not discussed in this section are either:

1. Not protected by Section 4(f), or
2. Are subject to effects that would not substantially impair the activities, features, or attributes that qualified the resource for protection under Section 4(f).

The 2006 Supplemental Draft EIS Appendix N, Part D addresses in detail the resources that were evaluated but were not subject to use or substantial impairment. The 2006 Supplemental Draft EIS Appendix N, Part C includes historic inventory forms for buildings evaluated as part of the project. The 2006 Supplemental Draft EIS Appendix N, Part D is a list of Section 4(f) facilities that have received funding from the Federal Land and Water Conservation Fund. There is no use of these specified facilities.

In many cases, although these resources are adjacent to the construction site, such as the Waterfront Park between Piers 57 and 59, the construction of the seawall under the Tunnel or Elevated Structure Alternative would maintain access to the facility and would not result in noise or other effects that would substantially impair the public’s ability to access and enjoy the resource.
 Purpose and Need

Annotated to summarize changes from 2003 Purpose and Need

Introduction: Function and Role of the Alaskan Way Viaduct Corridor and Alaskan Way Seawall

Identified function of the seawall.

The Federal Highway Administration (FHWA), the Washington State Department of Transportation (WSDOT), and the City of Seattle (City) are proposing major improvements to the Alaskan Way Viaduct Corridor and to the Alaskan Way Seawall. Both the Alaskan Way Viaduct Corridor and the Alaskan Way Seawall are located in downtown Seattle, King County, Washington. As defined for this project, the Alaskan Way Viaduct Corridor extends north from approximately South Spokane Street to Roy Street. The Alaskan Way Seawall extends from South Washington Street to Bay Street along Elliott Bay on Puget Sound. From South Washington Street to approximately Pike Street the seawall supports the viaduct. The entire length of the seawall supports surface streets, and utilities.

The Alaskan Way Viaduct Corridor (part of SR 99) and Interstate 5 (I-5) are the two primary north-south routes to and through downtown Seattle. The Alaskan Way Viaduct Corridor currently carries about 110,000 vehicles a day and serves both through trips and trips accessing the downtown business district and nearby neighborhoods. The Alaskan Way Viaduct Corridor provides the quickest and most convenient route to and through downtown Seattle for communities located to the northwest and southwest of downtown. The Corridor plays a vital role in freight mobility, providing a major truck route through downtown, and providing access to the Ballard-Interbay and greater Duwamish manufacturing and industrial centers. The Corridor also serves as a transit route for local and express bus service.

Simplified description of existing corridor access.

Access to SR 99 along the southern and central parts of the corridor is via ramps at selected locations. North of the Battery Street Tunnel access is via right turns from intersecting city streets. North and southbound traffic is physically separated to increase traffic flow and to minimize conflicting left-turning traffic movements. Congestion that currently develops is typically the result of incidents or backups at access ramps.

WSDOT studies in 1995 and 1996 concluded that the soils on which the Alaskan Way Viaduct is constructed are vulnerable to soil liquefaction and may lose their ability to support the structure. Studies concluded that if an earthquake of magnitude 7.5 or higher occurred close to Seattle, the Alaskan Way Viaduct could be rendered unusable or even collapse.

Condensed description of seismic vulnerability.

The February 28, 2001 Nisqually earthquake (magnitude 6.8, located 35 miles from Seattle and deep below the surface) caused moderate damage to the Alaskan Way Viaduct. The structure was closed for inspection and repairs intermittently for several days over a period of several months. The extent of damage and loss of the heavily traveled corridor heightened awareness of the need for immediate improvements to the corridor. A Structural Sufficiency Report was prepared after the earthquake and it concluded that continued reliance on the existing viaduct is not prudent.

The seawall supports Alaskan Way (the surface street) and a variety of utilities. The fills retained by the wall provide lateral support for some of the foundations of the Alaskan Way Viaduct. Alaskan Way includes King County Metro’s Waterfront Streetcar, which provides trolley access to various waterfront locations. Alaskan Way also provides access to Colman Dock, which supports vehicle and passenger ferry.

Following the Nisqually earthquake, field investigations and liquefaction analyses were performed for a portion of Alaskan Way (the surface street) where settlements of the roadway had occurred. These investigations concluded that a portion of the loose fills below the relieving platform liquefied and settled in areas where the Seawall structure has been heavily damaged by marine borers activity.

Purpose of the Proposed Action

Added improved access to and from SR 99 north of Battery Street Tunnel to project purpose.

The main purpose of the proposed action is to provide a transportation facility and seawall with improved earthquake resistance. The project will maintain or improve mobility, accessibility, and traffic safety for people and goods along the existing Alaskan Way Viaduct Corridor as well as improve access to and from SR 99 from the Battery Street Tunnel north to Roy Street.

Need for the Proposed Action

Added improved access to and from SR 99 north of Battery Street Tunnel to project purpose.

The Alaskan Way Viaduct and Alaskan Way Seawall are both at the end of their useful life. Improvements to both are required to protect public safety and maintain the transportation corridor. Because these facilities are at risk of sudden and catastrophic failure in an earthquake, FHWA, WSDOT and the City of Seattle seek to implement these improvements as quickly as possible. Improvements between the Battery Street Tunnel and Roy Street will be needed to improve access to and from SR 99 and to improve local street connections once the viaduct is replaced. FHWA, WSDOT and the City of Seattle have identified the following underlying needs the project should address:

Seismic Vulnerability

The ability of the Alaskan Way Viaduct and Alaskan Way Seawall to withstand earthquakes needs to be improved. The Alaskan Way Viaduct is vulnerable to earthquakes because of its age, design and location. Built in the 1950s, the Alaskan Way Viaduct is past the halfway point in its 75-year design life and does not meet today’s seismic design standards. Additionally, the soils around the foundations of the Alaskan Way Viaduct consist of former tidal flats covered with wet, loose fill material. The Alaskan Way Seawall holds these soils in place along the majority of the Alaskan Way Viaduct corridor, which is also vulnerable to earthquakes.

Traffic Safety

Condensed description of traffic safety problems.

Traffic safety along the Alaskan Way Viaduct Corridor needs to be improved. Traffic incident data for the years 1998 through 2000 indicate that high levels of traffic crashes occur in some portions of the Alaskan Way Viaduct Corridor. Many locations on the Alaskan Way Corridor meet WSDOT criteria for a notably high level of vehicle crashes.

Roadway Design Deficiencies

The Alaskan Way Viaduct Corridor does not meet current roadway design standards and has several types of deficiencies, which need to be improved.

Condensed description of roadway design deficiencies.

The lane width provided on the Viaduct does not meet current design requirements. Narrow lane widths affect roadway capacity and operating speeds as well as safety. In addition, substantial sections of the Viaduct have minimal or no shoulders. Lack of shoulders or narrow shoulder width can adversely affect roadway operations, safety, and capacity.

The on- and off-ramps of the Viaduct and at the south end of the Battery Street Tunnel also do not meet current WSDOT roadway design standards. Short acceleration and deceleration lane lengths may affect the ability of drivers to safely enter and exit the freeway system. Non-standard ramp tapers may not provide drivers with adequate length to exit or enter into through traffic.

Added description of design issues in and north of Battery Street Tunnel.

The lane widths within the Battery Street Tunnel do not meet current WSDOT design standards. Limited sight distance may contribute to rear-end collisions. North of the Battery Street Tunnel, several local streets connect directly to the corridor. Drivers entering and exiting SR 99 may not have room to accelerate or decelerate without adversely affecting traffic flow or safety.
GOALS AND OBJECTIVES
In addition to the project purpose and need, the following goals and objectives will guide project development.

System Linkage
An objective of the project is support of an integrated regional transportation system. The WSDOT is currently planning to extend SR 509 south from its current terminus near South 188TH Street to connect with I-5 and improve access to and from communities south of Seattle-Tacoma International Airport. SR 509 connects to SR 99 at the First Avenue S. Bridge, and serves as a major route from the south to downtown Seattle and nearby port facilities and industrial areas. Changes proposed as part of the SR 519 Intermodal Access Project in the vicinity of Safeco Field would improve east-west connections between the waterfront and I-5 and I-90, both of which are principal corridors in the regional transportation system. A portion of the SR 519 Intermodal Access Project has been completed.

Washington State Ferries are a division of the State Department of Transportation, and the ferry system is part of the state highway system. The Colman Ferry Dock connects downtown Seattle with ferry service to Bremerton, Bainbridge Island, and passenger ferry service to Vashon Island. Over 10 million passengers and 3 million vehicles currently use these ferries annually. Service expansion is included in the State's long-range plans for the ferry system.

Added need for improved connections to and from SR 99 north of Battery Street Tunnel.
As part of implementing the South Lake Union neighborhood plan, the City is currently exploring options for improving mobility in the area, including east-west mobility between SR 99 and I-5. Improved connections are needed to provide access to and from SR 99 and the local arterial network. The City is also planning to widen the Spokane Street Viaduct. The Spokane Street Viaduct provides the major link between I-5 and West Seattle (via the West Seattle Bridge). The major transit route from West Seattle to downtown Seattle is by way of the West Seattle Bridge and the Alaskan Way Viaduct.

Seattle’s Plans for the Downtown Waterfront
Simplified description of Seattle’s waterfront plans.
Improvements to the Alaskan Way Viaduct and Alaskan Way Seawall need to be integrated with and supportive of existing activities and land use plans for the Seattle waterfront. The Seattle downtown waterfront has been transformed from its origins as a working waterfront, characterized by shipping, warehouse and industrial uses, to an important area for tourism and recreation. The central waterfront now has a vibrant mix of uses which include office, retail, hotel, residential, conference center, aquarium, museum, parks, cruise ship terminal, ferry terminal, and various types of commercial and recreational moorage. Land use plans and policies for downtown Seattle and the waterfront will help guide improvements in the Corridor to provide opportunities for access to and along the waterfront for freight, pedestrians and bicyclists, and an improved surface street.

Plans for Habitat Improvement
Clarified that project will consider habitat enhancement.
The existing Alaskan Way Seawall provides poor habitat for chinook salmon (listed as threatened under the Endangered Species Act) and other marine species. Reconstruction of the Alaskan Way Seawall offers an opportunity to improve habitat where practicable and feasible. Elliott Bay is an important link for juvenile salmon migrating from the Duwamish River toward the Pacific Ocean. The vertical bulkheads of the Alaskan Way Seawall and other features of the waterfront provide minimal habitat for the numerous young chinook and chum salmon that migrate across the Seattle waterfront to the north shore of Elliott Bay during their critical rearing period. This project will consider measures to enhance habitat.
ACRONYMS

A
AWV Project Alaskan Way Viaduct and Seawall Replacement Project

B
BMPs Best Management Practices
BNSF Burlington Northern Santa Fe Railway

C
CEVP* Cost Estimate Validation Process
City City of Seattle
Corps United States Army Corps of Engineers
CZMA Coastal Zone Management Act

D
dBA A-weighted decibels

E
EIS Environmental Impact Statement
EMFs electric and magnetic fields
EPA Environmental Protection Agency
ESA Endangered Species Act

F
FHWA Federal Highway Administration

H
HOV high-occupancy vehicle
HPA Hydraulic Project Approval

I
I-5 Interstate 5

N
NAQS National Ambient Air Quality Standards
NEPA National Environmental Policy Act
NPDES National Pollutant Discharge Elimination System
NPS National Park Service
NRHP National Register of Historic Places

P
PAHs polynuclear aromatic hydrocarbons
ppm parts per million
PSRC Puget Sound Regional Council

R
RALF Resource Agency Leadership Forum

S
SEPA State Environmental Policy Act
SHPO State Historic Preservation Officer
SIG Seattle International Gateway
SODO South of Downtown
SOVs single occupant vehicles
SR State Route

T
TMC Traffic Management Center

W
WOSCA Washington-Oregon Shippers Cooperative Association
WSDOT Washington State Department of Transportation
WSF Washington State Ferries

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International Examiner
NW Vietnamese Weekly
Puyet Sound Business Journal
Seattle Post-Intelligencer
Seattle Skanner
Seattle Times
Seattle Weekly
The Hispanic News
The Medium
The Stranger
Real Change

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Duwamish
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Yakama Nation

Resource Agency Leadership Forum
City of Seattle
Environmental Protection Agency – Region 10
Federal Highway Administration
Federal Transit Administration
King County
National Marine Fisheries Service
Puget Sound Clean Air Agency
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U.S. Fish and Wildlife Service
Washington State Department of Ecology
Washington State Department of Fish and Wildlife
Washington State Department of Natural Resources
Washington State Department of Transportation

Other Federal/State Agencies
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Washington State Department of Transportation – Environmental Services Office
Washington State Department of Archaeology and Historic Preservation
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Seattle City Light. 2005. Personal communication with Chuck Kichner, Environmental Review consultant to the City of Seattle, Seattle Department of Transportation, and Seattle City Light staff through email correspondence dated September 30, 2005.


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2 Why do we need this project?
3 Who is leading this project?
4 Where is the project located?
5 What is the purpose of the Supplemental Draft EIS?

Chapter 2: Project Update
1 What alternatives have been eliminated since the Draft EIS was published?
2 What other things have changed since the Draft EIS was published?
3 What have we heard from the public since the Draft EIS was published?
4 What other things have changed since the Draft EIS was published?
5 How would noise during construction affect surrounding areas?
6 How would the Elevated Structure Alternative replace SR 99 and the viaduct?
7 What other alternatives are being considered for the Elevated Structure Alternative?
8 What would we do to keep people and traffic moving during construction?
9 How would traffic on SR 99 and Alaskan Way be restricted during construction?
10 How would construction affect traffic and congestion on other routes?
11 How would construction affect other trips?
12 What other projects are underway or planned in or near Seattle?
13 How would soil conditions change once the project is built?
14 How would water resources be affected?
15 How would fish and aquatic habitat be affected?
16 How would air quality be affected?
17 How would historic properties be affected?
18 How would low-income populations be affected?
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21 How would views be affected?
22 How would the alternatives change conditions for vehicles, bicyclists, and pedestrians?
23 What issues remain to be resolved?
24 What issues are controversial?
25 What are the temporary effects of building the alternatives?
26 How would construction affect traffic and congestion on other routes?
27 What construction plans are evaluated in this document?
28 How would traffic on SR 99 and Alaskan Way be restricted during construction?
29 How would the Elevated Structure Alternative replace SR 99 and the viaduct?
30 What construction plans are evaluated in the Supplemental Draft EIS?
31 How would the construction plans evaluated in the Supplemental Draft EIS affect traffic?
32 How would soil and contaminated materials be affected during construction?
33 Would noise levels increase?
34 What are the tradeoffs between short-term uses of environmental resources and long-term gains (or productivity) from the project?
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COMMENT FORM

All comments must be received by September 22, 2006

Use the form on this page to send your comments on this Supplemental Draft EIS to the lead agencies. All comments received by September 22, 2006 will have a response in the Final EIS. Additional comments, or if the form has already been used, should be sent to:

WSDOT
Attn: Kate Stenberg, AWV Environmental Manager
AWV Project Office (Wells Fargo Building)
999 Third Avenue S., Suite 2424
Seattle, WA 98104-4019

Comments can also be sent by email to:
awvsdeiscomments@wsdot.wa.gov

Alaskan Way Viaduct and Seawall Replacement Project Supplemental Draft EIS
Comment Form

Please use this form to give us comments on the Supplemental Draft Environmental Impact Statement (EIS) for the Alaskan Way Viaduct and Seawall Replacement Project. The comments you make will become part of the public record for this project. Responses to your comments will be provided in the Final EIS.

Contact Information
At a minimum, please provide your name and zip code. If you would like to be added to the project mailing list, please fill out the rest of the contact information and check the box below.

Choose a topic
☐ Overall Project ☐ Elevated Structure Alternative ☐ Construction Impacts & Mitigation
☐ All of the Alternatives ☐ Design Choices ☐ Traffic Impacts & Mitigation
☐ Tunnel Alternative ☐ Seawall ☐ Other

What are your comments about the Project?

Your answers to the questions below will let the agencies know if the Supplemental Draft EIS format was helpful. Your answers to these questions are not part of the EIS process and they will not receive a response.

1. Is this the first EIS you have read? ☐ Yes ☐ No
2. Have you previously participated in public meetings/comment periods related to the AWV project? ☐ Yes ☐ No
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