

Affected Section 4(f) Resources



Section 4(f) Evaluation

1 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 Section 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 Section 4(f) resource. Temporary occupancy of a resource is not considered adverse under the Section 4(f) statute if all of the following conditions are satisfied:

1. The 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 effects, or interference with the activities or purposes of the resource on either a temporary or permanent basis.
4. The resource being used must be fully restored to a condition which is at least as good as that which existed prior to the proposed project.
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 effects are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired.

To make use of such resources, the Federal Highway Administration (FHWA) must determine that:

- There is no feasible and prudent avoidance alternative to using that resource; 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.

2 How is it determined that there are no alternatives to using a Section 4(f) resource?

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

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

3 What alternatives were considered?

This evaluation considers the Build Alternative because it more effectively meets the purpose and need for the project than other alternatives considered during project development. Alternatives that would retain or repair the viaduct are not considered because the ability of the viaduct to withstand earthquakes needs to be improved. The viaduct is vulnerable to earthquakes because of its age, design, and location. The viaduct's existing foundations are embedded in liquefiable soil, and the structure is deteriorating. These factors make the structure vulnerable to earthquakes and necessitate its replacement. An effort to seismically retrofit and repair the viaduct would not be reasonable as a long-term solution because it would cost more than 80 percent of the cost of a new structure without meeting modern design standards.

Roadways

The Build Alternative will replace the existing viaduct between S. Holgate Street and S. King Street with a safer facility that meets current seismic and roadway design standards. These improvements will replace approximately 40 percent of the existing viaduct structure located between S. Holgate Street and the Battery Street Tunnel. The section of the viaduct that will be replaced is shown in Exhibit 4(f)-1.

Near S. Holgate Street, SR 99 will transition from an at-grade roadway to a side-by-side aerial roadway crossing over S. Atlantic Street and the BNSF tail track. SR 99 will return to grade for a short distance north of S. Royal Brougham Way. SR 99 will then transition to a stacked, aerial structure to match the existing viaduct at about S. King Street. Between S. Atlantic Street and Railroad Way S., both the northbound and southbound lanes of Alaskan Way S. will be routed along the east side of SR 99. As part of the design, S. Royal Brougham Way will be closed to through traffic between First Avenue S. and Alaskan Way S. A new northbound off-ramp and southbound on-ramp will be provided just south of S. King Street. The existing northbound on-ramp and southbound off-

What is the tail track?

The tail track is a single railroad track that connects the BNSF Seattle International Gateway (SIG) Railyard on the east side of SR 99 to the Whatcom Railyard located west of SR 99. The tail track is used to assemble and sort railroad cars for both railyards.

ramp at First Avenue S. near Railroad Way S. will be maintained.

New roadways and connections will be provided near S. Atlantic Street. These connections include:

- Providing a new grade-separated access for freight and general purpose traffic traveling between the Seattle International Gateway (SIG) Railyard, SR 519, the Port of Seattle, and the stadiums. This access will be provided by a new U-shaped undercrossing below SR 99 on the north side of S. Atlantic Street. This new connection will improve vehicle access by providing a route for east-west traffic when railroad cars on the tail track block the at-grade roadway.
- Improving Colorado Avenue S. to enhance access to the new North SIG Railyard. These improvements include providing two dedicated truck-only lanes southbound and one dedicated truck-only lane northbound on the west half of Colorado Avenue S., and one general purpose traffic lane in each direction on the east half of Colorado Avenue S.
- Relocating Alaskan Way S. to the east side of SR 99 between S. Atlantic Street and Railroad Way S. will provide access to E. Marginal Way S. via S. Atlantic Street. The northbound roadway will also provide access to the new remote ferry holding area north of S. Royal Brougham Way.
- Reconfiguring the intersections where S. Atlantic Street meets Alaskan Way S., the new U-shaped undercrossing, Colorado Avenue S., the new frontage roads, and Utah Avenue S.

Rail

The existing BNSF tail track will be relocated west of the new SR 99 roadway and will extend north from the SIG Railyard to the vicinity of S. King Street. The Whatcom lead track will also be relocated to connect to the relocated tail track so that the railroad cars can be maneuvered between the Whatcom

What is remote ferry holding?

Remote ferry holding is an area where vehicles would wait to enter the Seattle Ferry Terminal when the dock is full. Typically, remote ferry holding is needed during the peak summer season and on holidays.

Railyard on the west side of SR 99 and the SIG Railyard on the east side of SR 99.

Ferry Holding

A new remote holding area for Seattle Ferry Terminal traffic will be added between S. Royal Brougham Way and Railroad Way S. along the east side of SR 99. Traffic will access the new remote holding area north of S. Royal Brougham Way from northbound Alaskan Way S.

Bicycle and Pedestrian Facilities

Existing bicycle and pedestrian access will be maintained or improved as part of this project.

4 What is the project's purpose and need?

The purpose of this project is to replace the SR 99 mainline with a seismically sound structure between approximately S. Holgate Street and S. King Street. In this area, the new SR 99 facility will maintain or improve access to, from, and across SR 99 for general purpose vehicles, transit, and freight. This portion of SR 99 (also known as the Alaskan Way Viaduct) is deteriorating and vulnerable to earthquakes.

The project is not only needed to address seismic vulnerability, but also to correct roadway design deficiencies and to support transportation functions in the area. The viaduct has narrow lanes and lacks or has narrow shoulders that do not meet current roadway design standards. This affects roadway safety, operations, and capacity. The transportation system in this area plays a crucial role in the movement of goods and services. Specific areas where access needs to be improved to support key transportation functions in this area include:

- Transit access into downtown. Transit access to downtown is currently provided at Columbia and Seneca Streets, which are located in the middle of downtown. Transit access could be improved if access to and from SR 99 were provided south of downtown.
- East-west access across SR 99 between the Port and Duwamish industrial facilities, railyards, and the stadiums.

This access is currently provided via at-grade connections at S. Atlantic Street and S. Royal Brougham Way and is often blocked by trains.

5 Who did we coordinate with to determine what resources would be affected?

Section 4(f) requires consultation with the Department of the Interior (DOI) and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs that use resources protected by Section 4(f).

Coordination for this Section 4(f) evaluation included meetings, field visits, and drafting preliminary memoranda outlining Section 4(f) issues with representatives of the City of Seattle and the Washington State Department of Archaeology and Historic Preservation (DAHP).

DOI submitted a comment letter (see Comment A-001 in Attachment 5) concurring with this report's assessment that there is no prudent and feasible alternative to demolishing the existing viaduct. The letter noted that the historic landmarks of most concern would not be adversely affected by the project, nor would the project result in impacts to lands purchased with funds provided under the Land and Water Conservation Fund Act. DOI supported the completion of documentation on the viaduct structure in accordance with Level 2 Historic American Engineering Record (HAER) standards. This means that an "intermediate level of site/structure documentation, including full descriptive and historical narrative (including relevant contexts), measured drawings, and medium format black and white photography, in archivally stable format" is now available for the record.

As noted in the discussion of minimizing harm, as well as in the Memorandum of Agreement (Attachment 6) developed to comply with Section 106 of the National Historic Preservation Act, this documentation has been completed.

6 What archaeological resources affected by the project are protected by the provisions of Section 4(f)?

Construction activities for the new SR 99 structure could potentially affect archaeological resources through excavation, pile driving, and soil improvement. Subsurface coring at excavation and foundation locations has not encountered any archaeological resources. However, any archaeological site encountered during construction that is historically significant would be subject to Section 4(f) provisions, unless it is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place.

What avoidance measures have been identified?

There are no avoidance or design alternatives that would eliminate the need for excavation and other activities that could potentially affect archaeological resources.

What planning to minimize harm has been incorporated into the project?

Harm to significant archaeological sites discovered during construction would be minimized through scientific data recovery or other suitable measures determined in consultation with the State Historic Preservation Officer (SHPO), interested and affected Indian tribes, and other concerned parties. To minimize potential damage, construction will be conducted under the auspices of a discovery plan that will include a provision for inadvertent discovery of cultural material or human remains. The Unanticipated Discovery Plan will be developed prior to construction.

7 What historic resources affected by the project are protected by the provisions of Section 4(f)?

The only historic resource determined to be protected under the provisions of Section 4(f) and subject to use by the proposed project is the existing Alaskan Way Viaduct, which would be demolished within the project area.

The viaduct is protected under Section 4(f) because it was determined eligible for inclusion in the National Register. Authorized under the National Historic Preservation Act of 1966 and administered by the National Park Service, the National Register is part of a program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archaeological resources.

What resources would be used by the proposed action?

The viaduct has been determined eligible for listing in the National Register under Criterion A (see sidebar) for its association with bridge and tunnel building in Washington in the 1950s and under Criterion C for its type, period, materials, and methods of construction. It is the only multi-span 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. It will be demolished within the project area to construct the new SR 99 structure.

What avoidance measures have been identified?

There are no avoidance or design alternatives that would avoid replacement or complete 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 project?

To comply with the National Historic Preservation Act, a Memorandum of Agreement for effects to historic and archaeological resources was completed in coordination with WSDOT, FHWA, DAHP, interested and affected tribes, and the City of Seattle. To mitigate for removal of the viaduct, documentation on the viaduct structure was completed in accordance with Level 2 HAER standards.

What determines National Register eligibility?

To be eligible for inclusion in the National Register, a resource must meet one or more of the following criteria:

- Criterion A – the resource is associated with events that have made a significant contribution to the broad patterns of our history.
 - Criterion B – the resource is associated with the lives of persons significant in our past.
 - Criterion C – the resource embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
 - Criterion D – the resource has yielded, or may be likely to yield, information important in prehistory or history.
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8 What park, recreation, and historic resources are not discussed in this evaluation?

Park, recreation, and historic resources not discussed in this evaluation 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).

Appendix D Part B of the Environmental Assessment (EA) prepared for the project addresses in detail the resources that were evaluated but were not subject to use or substantial impairment, such as the Pioneer Square-Skid Road National Historic District and the Bemis Building. Appendix D Part C of the EA includes historic inventory forms for buildings evaluated as part of the project.

In many cases, although these resources are adjacent to the construction site, the new SR 99 structure would maintain access to the resource and would not result in noise or other effects that would substantially impair the features or attributes that contribute to the National Register eligibility of the historic site.

9 What did we conclude about the project's use of Section 4(f) resources?

The S. Holgate Street to S. King Street Viaduct Replacement Project will replace the SR 99 mainline with a seismically sound structure between approximately S. Holgate Street and S. King Street. In this area, the new SR 99 facility will maintain or improve access to, from, and across SR 99 for general purpose vehicles, transit, and freight.

The only historic resource determined to be protected under the provisions of Section 4(f) and subject to use by the proposed project is the existing Alaskan Way Viaduct, which will be demolished within the project area. No other resources, such as publicly owned parks, historic or archaeological resources, or

waterfowl or wildlife refuges, would be subject to use by the proposed project.

Given the existing viaduct's inherent structural limitations and high risk of failure during a seismic event, there are no reasonable and prudent avoidance or design alternatives that would avoid its replacement or complete reconstruction.

To mitigate for removal of the viaduct, documentation was completed on the viaduct structure in accordance with Level 2 HAER standards.

Based upon the above considerations, there is no feasible and prudent alternative to the use of the Section 4(f) resource, and the project includes all possible planning to minimize harm to the Section 4(f) resource resulting from such use.