

Chapter 5 – Section 4(f) Evaluation

Section 4(f) of the Department of Transportation Act of 1966, codified in Federal law at 49 U.S.C. §303, declares that it is the policy of the United States Government 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. Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project ... “requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

- (1) There is no feasible and prudent alternative to using that land; and
- (2) 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.”

WSDOT evaluated the Section 4(f) resources for the State Route 167 Extension project in Chapter 5 of the 2006 FEIS. Five historic properties and one archaeological site eligible for listing in the NRHP and six recreational areas were identified as eligible or potentially eligible Section 4(f) resources that would be *used* by the project. The Section 4(f) evaluation report was prepared and was available as Appendix “H” of the 2006 FEIS.

This phase will replace the Meridian Street Bridge (167/20E) and is a small phase of the larger SR 167, Extension project. This Puyallup River steel truss bridge was not eligible for the NRHP in 2006 when the 4(f) evaluation was prepared. Now it is determined eligible for NRHP.

An addendum to the original Section 4(f) evaluation is now prepared for the Puyallup River Bridge which will be available in Appendix B of this Draft Supplemental EIS.

5.1 What are the additional Section 4(f) resources?

During a recent review of the status of the SR 167 Puyallup River steel truss bridge, WSDOT determined the bridge is now eligible for listing in the NRHP. The State Historic Preservation Officer (SHPO) has also concurred with WSDOT’s determination.

5.2 What is the background and description of the Section 4(f) resources?

The SR 167 Puyallup River Bridge is designated bridge number 167/20E by the Washington State Department of Transportation and it is located at milepost 6.40 just outside the City of Puyallup. The existing steel truss bridge, built in 1925, is structurally deficient; the steel members are exhibiting severe corrosion and the concrete deck and piers are delaminating.

The Puyallup River Bridge is 371 feet long. The traveled lane width on the bridge is 21 feet from curb to curb with a 5 foot wooden sidewalk structure attached to the right side of the bridge. In January of 2011, WSDOT implemented a load restriction requiring vehicles larger than 10,000 pounds gross vehicle weight to use the right lane only. This was due to floor beam deterioration detected during a routine bridge inspection. In addition, the width of the bridge does not meet current standards for lane and shoulder widths, which is problematic due to the high volume of truck traffic that utilizes the bridge. As a result, the bridge is repetitively damaged due to traffic impacts to the barriers and sides of the bridge, which adds to the need for replacement of this structure.

The structure is rated as *structurally deficient* based on the floor beam deterioration. Due to the magnitude of deterioration of the structure, annual maintenance costs will begin to rise dramatically unless major rehabilitation of the structure occurs.

Since original construction of the bridge in 1925, two major projects have taken place to lengthen the life span of the bridge. The first project occurred in 1951, and it replaced the approach spans with new wooden truss structures. In 1991 a second project took place that added new horizontal members to the main steel truss structure, replaced the end bearings, replaced the expansion joints and overlaid the slab. Since those projects have occurred, routine maintenance has occurred with repairs consisting mainly of replacing sheared rivets and spalled concrete.

5.3 What are the avoidance measures taken to protect Section 4(f) resources?

The goal of this phase is to provide bridges and a roadway profile compatible with the larger SR 167 Extension project, which is currently in the preliminary engineering stage and for which new right of way has been acquired.

Several alternatives to removing the bridge, and avoiding a Section 4(f) resource, have been considered. No alternative to removing the bridge was determined to be a feasible and prudent alternative to the use of the Section 4(f) resource. Alternatives considered include: *No Build, Rehabilitation of the Existing Steel Truss, Preserve Steel Truss / Construct New Bridge & Alignment and Remove Steel Truss / Construct New Bridge.*

- The *No Build* alternative is not prudent because it does not meet the project's purpose and need. Specifically, the *No Build* would not provide a structurally sufficient bridge that meets current standards, would not accommodate an interchange, and would not accommodate truck traffic on SR 167.
- *Rehabilitation of the Existing Steel Truss* was also rejected in the EIS as five lanes will be necessary for the ultimate configuration of northbound traffic instead of the present two lanes. The rehabilitation issue was again considered for this phase of work and concerns are identified below.
- The *Preserve Steel Truss / Construct New Bridge & Alignment* alternative would construct a new bridge on an alternate alignment, and preserve the existing steel truss bridge in place. This alternative is not feasible or prudent due to the challenges related to maintaining the structural integrity of the bridge for an extended period of time, lack of funding required to maintain the bridge and because the bridge must be displaced to construct the ultimate SR 167/161 interchange.
- The *Remove Steel Truss / Construct New Bridge* alternative would construct a new bridge in place of the existing steel truss. This alternative would not avoid the use of the Section 4(f) resource. Additionally, because the bridge would have to be removed as a first order of work, it would constrain the amount of time WSDOT would have to locate a site to preserve the bridge and secure the necessary funding from a third party.

Rehabilitation of the bridge is not a feasible and prudent alternative to use of the Puyallup River Bridge/Meridian Street Bridge. There are two primary issues to address in considering preserving the steel truss Puyallup River Bridge in its current use for vehicular traffic. The first and immediate concern is the deteriorated condition of the floor beams. Replacing the floor beams would be very costly and would cause significant short term traffic and environmental impacts. Also, the steel truss does not meet the current seismic code and will require extensive seismic retrofit work. This work would create significant aesthetic impacts to the truss, thus impacting its historic value. The second issue involves capacity and safety concerns. The current bridge width is too narrow to safely carry two lanes of traffic, in particular considering the high volume of truck traffic. To widen the structure, virtually all of the horizontal steel members would need to be replaced and the layout of the members would also change. This drastic change to the steel truss would virtually eliminate its historical value.

The project team investigated the surrounding area to determine if the steel truss could be moved upstream and utilized as a pedestrian facility. There are no pedestrian facilities or destinations on the north side of the river, so it is not likely the bridge would be utilized by pedestrians in the vicinity of its present location. In addition, there would be significant right of way costs associated with moving the bridge to a location near where it is currently.

Therefore, there is no feasible and prudent alternative to the use of Puyallup River Bridge/Meridian Street Bridge.

5.4 What are the measures taken to minimize the harm to Section 4(f) resources?

DAHP concurred with the determination of Adverse Effect on October 8, 2012. All prudent measures have been considered to minimize harm and to provide necessary mitigation of Section 4(f) property as detailed below: (FHWA and WSDOT will negotiate with DAHP before finalizing.)

1. WSDOT will arrange to remove from its current location, store and maintain the NRHP eligible steel truss structure to preserve it for an alternate use.
2. The documentation of the Puyallup River steel bridge will be completed in accordance with the Historic American Engineering Record standards.
3. Agreement between SHPO and FHWA has been reached through the Section 106 process of the National Historic Preservation Act and an MOA is being drafted which details measures to minimize harm.
4. In the event it is not economically feasible to re-use the steel truss bridge for the Foothills Trail, WSDOT is prepared to store the bridge and advertise its availability for preservation at an alternate site. The advertisement of the availability of the bridge would occur as soon as it became apparent that the current plan was not feasible. The steel truss would remain in-place until the end of the current project in late 2015, being advertised the entire duration. If no alternative interested parties came forward during that time, WSDOT would remove the steel truss from its current location and store it until 2019 at which time funding for further storage and maintenance of the bridge would be evaluated.

5.5 What type of coordination will be done to mitigate impacts to Section 4(f) resources?

WSDOT has negotiated with King and Pierce Counties regarding the potential for use of the Puyallup River steel truss on the Foothills Trail connecting Enumclaw and Buckley across the White River. King and Pierce Counties were very receptive to the potential preservation of the truss on their trail system and the counties proceeded with further engineering analysis to confirm that the structure could be successfully refurbished and relocated to the trail crossing. The engineering analysis was completed in June of 2012. The result of the analysis was that to re-use the steel truss will cost an additional \$1.6 million more than constructing a new, narrower pedestrian bridge. WSDOT is now working with King and Pierce Counties to apply for grants and obtain funding to bridge the gap in project cost. Preservation and use of the steel truss as a pedestrian facility would be a positive result of the project, and WSDOT will continue to pursue this as the preferred alternative.