United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503

In Reply Refer To:
13410-2011-F-0063-R001

JAN 10 2012

Daniel M. Mathis
Division Administrator
Federal Highway Administration
Evergreen Plaza Building
711 Capitol Way South, Suite 501
Olympia, Washington 98501-1284

ATTN: Randy Everett

Dear Mr. Mathis:

On April 15, 2011, the U.S. Fish and Wildlife Service (Service) concluded formal consultation on the State Route 520, Interstate-5 to Medina Bridge Replacement and HOV Project and provided a Biological Opinion (Opinion) to the Federal Highway Administration (FHWA). Since then, staff from our office have continued to meet and discuss the project with the FHWA and the Washington State Department of Transportation (WSDOT). On December 6, 2011, the Service received a letter from the FHWA identifying changes associated with the first design-build phase of the project, and requesting reinitiation of formal consultation. This letter is in response to your request for reinitiation of formal consultation. This formal consultation has been completed in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Final design and construction of the project will commence under a series of design-build contracts, administered by the FHWA and WSDOT (Opinion, p. 11). The first of these design-build contracts has been awarded (Floating Bridge and Landings), and the FHWA and WSDOT have summarized for the Service a number of design and construction changes. These changes include:

- Temporary use of an existing port and industrial facility located in north Lake Washington, for the purpose of floating bridge anchor construction and/or pontoon outfitting (Kenmore Support Yard).

- Use of barges, temporary mooring dolphins, and anchors for the purpose of staging construction along, and to the north of, the proposed floating bridge alignment and east approach (Eastside Overwater Staging Area).

- Design modifications for the east approach bridge piers, adjacent maintenance facilities, and associated revised quantities for temporary and permanent impacts (East Approach Bridge Piers and Maintenance Facility).

- Design modifications for floating bridge pontoon anchors, and associated revised quantities for temporary and permanent impacts (Pontoon Anchors).

The Service has determined that the identified design and construction changes will not result in additional, measurable effects to the bull trout (*Salvelinus confluentus*) or designated bull trout critical habitat. For a fuller explanation of our findings, please see the rationale presented below.

Kenmore Support Yard

On November 15, 2011, the FHWA and WSDOT provided notice of their intent to use properties in north Lake Washington (Kenmore Industrial Park and Pioneer Towing Company) for the purpose of floating bridge anchor construction and/or pontoon outfitting (*see Figures 1 and 2*). The proposal, as described by the WSDOT, fully complies with the following criteria for use of existing port and industrial facilities (Opinion, p. 12):

- Only existing deep water berths with appropriate infrastructure; and,

- No needed improvements requiring in-water work.

The proposal includes limited upland excavation, installation of casting slabs with a process water collection system, and installation of utilities. The properties lie adjacent to the mouth of the Sammamish River and the Kenmore Navigation Channel, but no dredging, channel maintenance, or other significant in-water work is proposed. The WSDOT and their Contractor will use barges and tugs to deliver materials, equipment, and finished bridge components to and from the Kenmore Support Yard, and may also use moored barges as a temporary lay-down area or for the purpose of casting the largest bridge/anchor components.

The WSDOT and their Contractor will obtain a Construction General Stormwater Permit, and a wastewater discharge permit from the Northshore Utility District and/or King County. All process water from the construction site will be pre-treated prior to discharge to a sanitary sewer for further treatment and discharge. All other site stormwater will be collected and discharged to ground, or otherwise managed consistent with the existing, operational site stormwater permit(s).

With successful implementation of the proposed conservation measures, we expect that activities conducted at the Kenmore Support Yard will have no measurable, permanent or temporary effects to the bull trout, bull trout prey resources, or the Primary Constituent Elements (PCEs) of designated bull trout critical habitat. Any temporary effects to bull trout habitat, resulting from barge transport and moorage, or site stormwater discharges, will not significantly disrupt normal bull trout behaviors (i.e., feeding, moving, and sheltering), will not measurably affect habitat function in either the short or long term, and are therefore considered insignificant.

Eastside Overwater Staging Area

The FHWA and WSDOT propose the use of barges, temporary mooring dolphins, and anchors for the purpose of staging construction along, and to the north of, the floating bridge alignment and east approach. Use of a floating, overwater, eastside staging area would facilitate easy access to both sides of the new floating bridge pontoons as they are outfitted with their modular components (i.e., superstructure) and made ready for final positioning along the new alignment.

Temporary impacts will result from the placement of approximately twenty-four, 30-inch diameter steel piles with a vibratory and impact hammer, prolonged use of an extensive overwater structure, and subsequent removal of the temporary in-water structures (i.e., piles/dolphins and conventional anchors). The proposed staging area will extend over approximately 4 acres, for a duration of approximately three years (2012-2014). These portions of Lake Washington have a depth of 40 ft or more, and therefore are not within designated bull trout critical habitat.

With successful implementation of the proposed conservation measures, including use of a vibratory hammer(s) to the fullest extent practicable, we expect that resulting temporary underwater sound pressure levels will not exceed the limits of incidental take specified in the Opinion for piling installation operations at the east approach (p. 118): Harm – All adult or subadult bull trout within approximately 1,800 ft of piling installation operations in Lake Washington (150 acres during 2012-13; 134 acres during 2013-14); and, Harassment – All adult or subadult bull trout within approximately 7,100 ft of piling installation operations in Lake Washington (1,810 acres during 2012-13; 1,760 acres during 2013-14) (*see Figure 3*). Similarly, we expect that exposures to elevated turbidity and sedimentation during construction will not exceed the limits of incidental take specified in the Opinion (pp. 117-118).

With successful implementation of the proposed conservation measures, we expect that activities conducted at the Eastside Overwater Staging Area will not introduce new or additional effects, and will not exceed the limits of incidental take specified in the Opinion. We expect that related effects to prey resources and bull trout habitat will not significantly disrupt normal bull trout behaviors (i.e., feeding, moving, and sheltering).

East Approach Bridge Piers and Maintenance Facility

Design and construction changes for the east approach bridge piers and maintenance facility include significantly fewer and smaller temporary structures during construction, and relatively minor adjustments to the number and size of permanent in-water features.

Whereas the Opinion describes two, permanent, mudline footings below the Ordinary High Water Mark associated with the east approach bridge piers (p. 16), the modified design calls for a single, permanent, spread footing buried below native substrate. Whereas the Opinion describes approximately five, permanent, concrete columns associated with the new bridge maintenance dock (p. 9), the modified design calls for approximately ten, permanent, 24-inch diameter

concrete piles (*see Figure 4*). The permanent features below the Ordinary High Water Mark will have a reduced in-water footprint. The combined total, in-water footprint described in the Opinion (approximately 8,500 ft^2)(p. 16), will not be exceeded.

The elimination of falsework and other design and construction changes dramatically reduce the number of temporary pilings, and the size of temporary work trestles, needed in support of construction. Whereas the Opinion describes placement and subsequent removal of approximately 165 temporary steel piles (p. 16), the number of required temporary piles has been reduced to approximately 40. Whereas the Opinion quantifies the peak, combined total, over-water structure at approximately 2.4 acres (p. 14), the design and construction changes will reduce this combined total by more than 0.5 acre for the duration of construction. The modified design will make little or no change to the size of the permanent, combined total, over-water structure, estimated at approximately 1.3 acres (Opinion, p. 14).

The proposed design and construction changes for the east approach bridge piers and maintenance facility will lessen the physical extent and duration of temporary impacts, including underwater sound pressure levels and turbidity and sedimentation during construction. We expect that with successful implementation of the proposed conservation measures, construction activities will not exceed the limits of incidental take specified in the Opinion (pp. 117-118). The modified design includes relatively minor adjustments to the number and size of permanent in-water features, and therefore we expect little or no change to the permanent impacts previously described by the Opinion. With successful implementation of the proposed conservation measures, we expect that the design and construction changes for the East Approach Bridge Piers and Maintenance Facility will not introduce new or additional effects, and will not exceed the limits of incidental take specified in the Opinion.

Pontoon Anchors

Design and construction changes for the floating bridge pontoon anchors identify a need for additional fill, in the form of structural anchor pads and ballast. The Opinion states that bridge pontoon anchors will occupy, and/or disturb during installation, approximately 3.3 acres of lake bottom substrate (p. 15). The modified design would result in permanent and temporary impacts to approximately 6.1 acres of lake bottom substrate, an approximately 85 percent increase. There is little or no change to the proposed anchor positions and depths. Fluke anchors will be installed at depths in excess of 180 ft, and gravity anchors at depths between 60 and 180 ft. These portions of Lake Washington are greater than 10 meters deep, and therefore do not provide designated bull trout critical habitat.

The Service's Opinion does not attribute measurable, adverse effects to bull trout, prey resources, or habitat resulting from the proposed floating bridge pontoon anchors, or their installation. With successful implementation of the proposed conservation measures, we expect that the modified design for Pontoon Anchors will have no measurable, permanent or temporary effects to normal bull trout behaviors (i.e., feeding, moving, and sheltering), bull trout prey resources, or the PCEs of designated bull trout critical habitat.

The Service has determined that the identified design and construction changes will not introduce new effects, result in additional, measurable effects to the bull trout or designated bull trout critical habitat, or exceed the limits of incidental take specified in the Opinion. In addition, we find that the rationale and conclusions reached by the Service's Opinion remain valid, and essentially unchanged (Jeopardy and Adverse Modification Determinations, pp. 113-116). The anticipated direct and indirect effects of the action, combined with the effects of interrelated and interdependent actions, and the cumulative effects associated with future State, tribal, local, and private actions will not appreciably reduce the likelihood of bull trout survival and recovery. The anticipated direct and indirect effects of the action, combined with the effects of interrelated and interdependent actions, and the cumulative effects associated with future State, tribal, local, and private actions will not prevent the PCEs of critical habitat from being maintained, and will not degrade the current ability to establish functioning PCEs at the scale of the action area.

Accordingly, no amendment to the Opinion is necessary at this time, and therefore the Incidental Take Statement, required Reasonable and Prudent Measures, and implementing Terms and Conditions remain unchanged. However, we do appreciate the care and attention the FHWA and WSDOT have exercised in addressing these design and construction changes, and we encourage continued, close cooperation as future design-build contracts are awarded and additional changes become known.

If you have any questions about this letter or your responsibilities under the Endangered Species Act of 1973 (as amended), please contact Ryan McReynolds at (360) 753-6047, or Emily Teachout at (360) 753-9583, of my staff.

Sincerely,

Ken S. Berg, Manager
Washington Fish and Wildlife Office

Enclosure(s)

cc:
WSDOT, Seattle, WA (A. Hanson)
WSDOT, Seattle, WA (M. Meade)
NMFS, Seattle, WA (M. Grady)

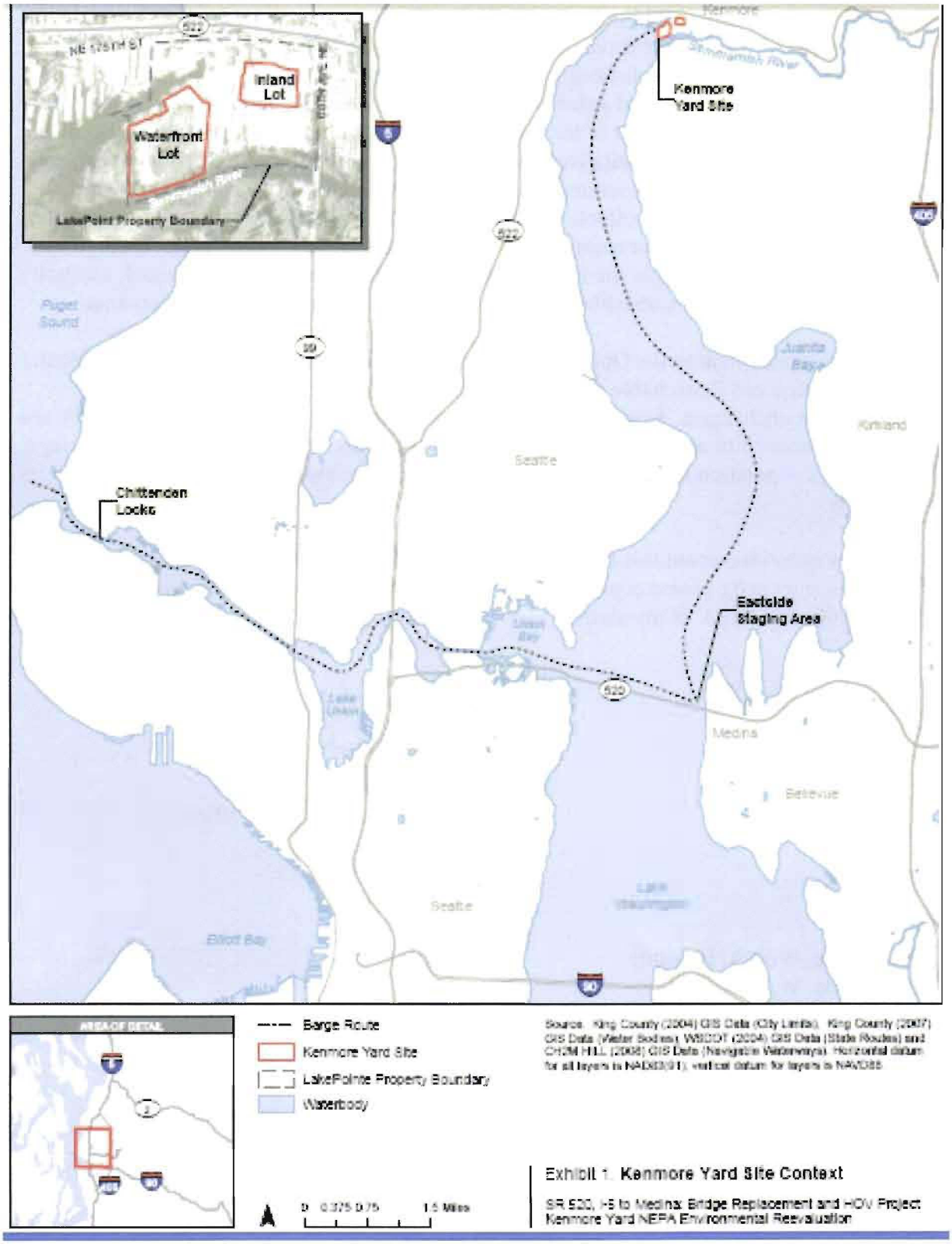

Figure 1. Kenmore Support Yard – Vicinity map.

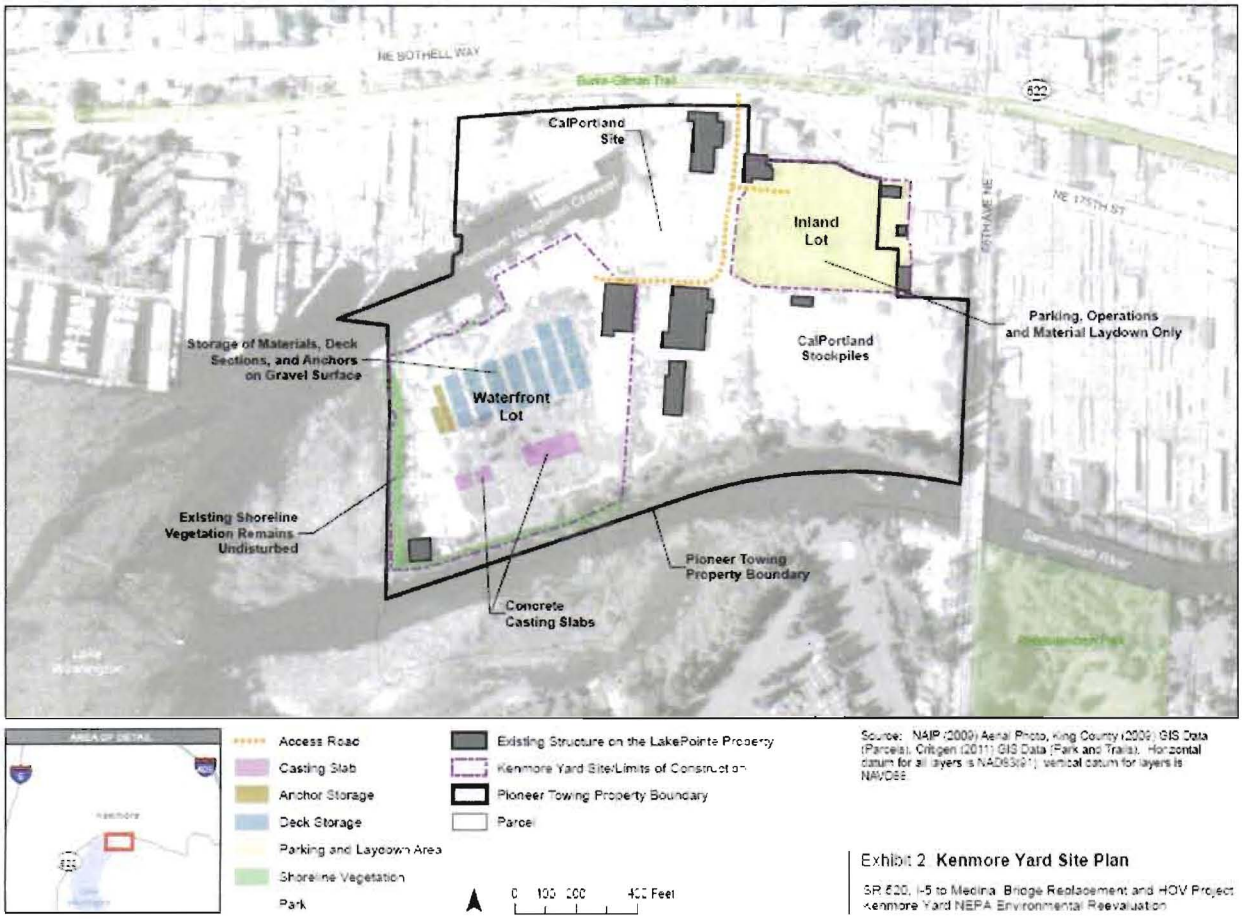

Figure 2. Kenmore Support Yard – Site map.

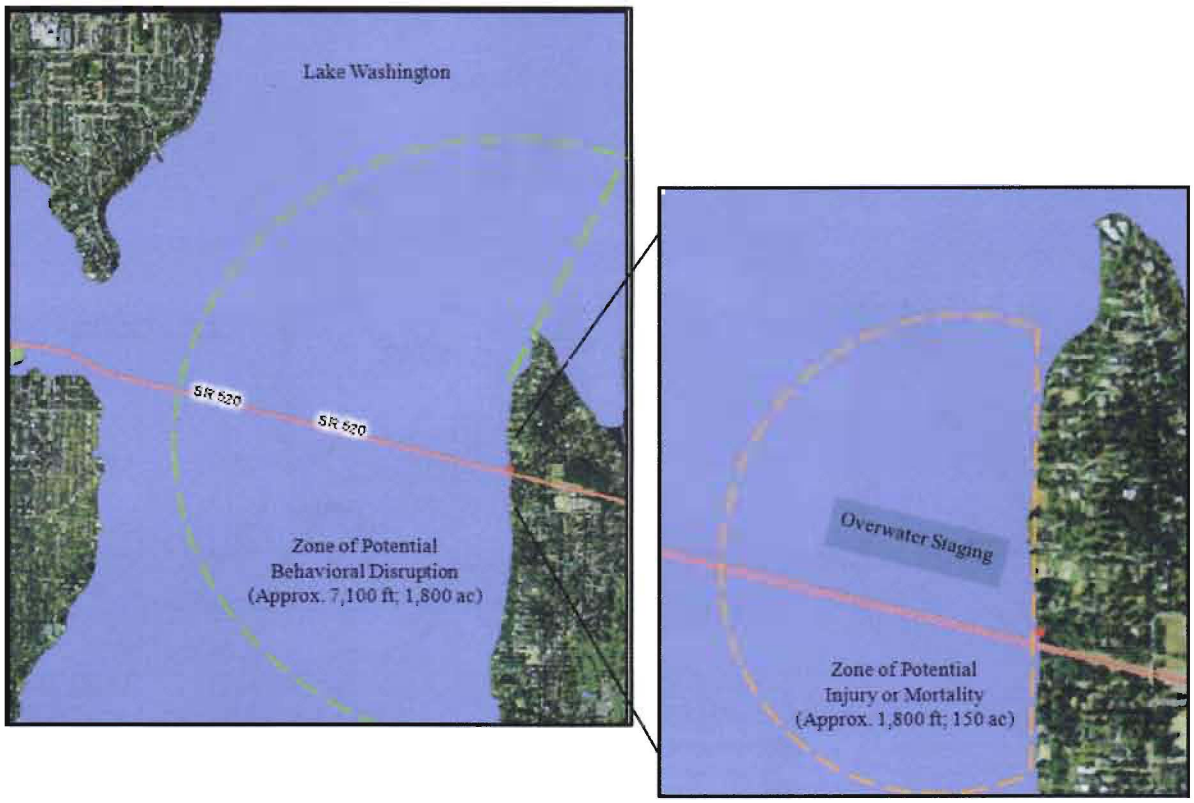

Figure 3. East Approach – Zones of potential injury and behavioral disruption.

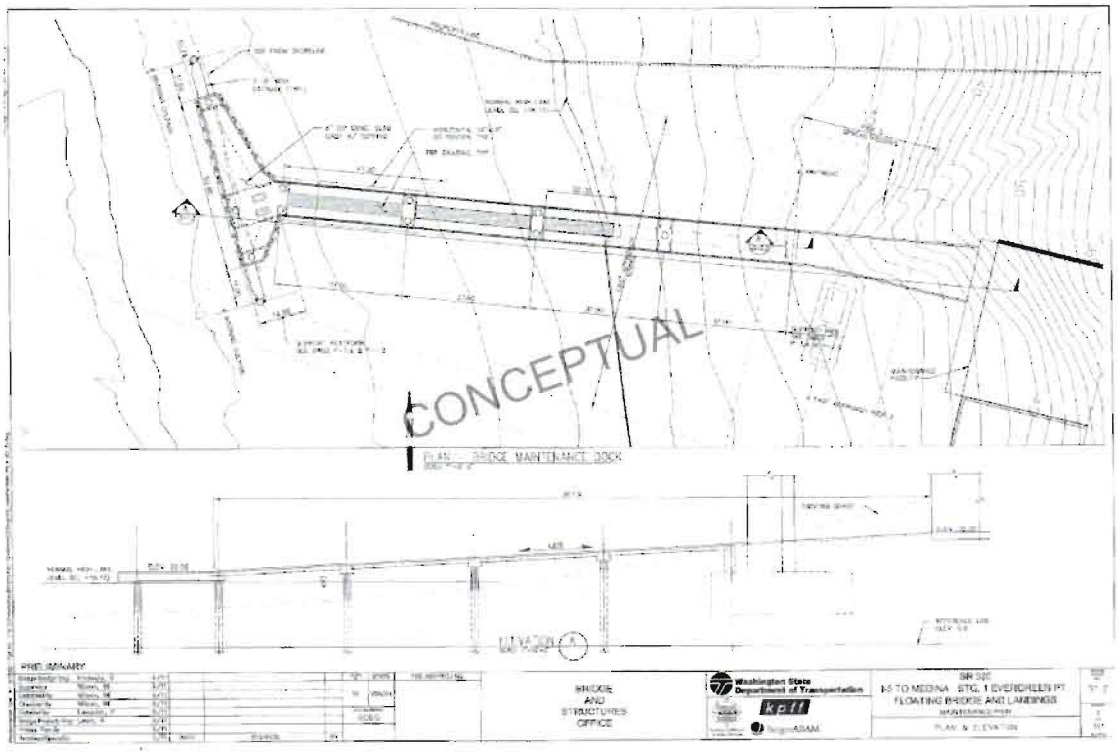

Figure 4. Bridge Maintenance Facility – Modified design.