



US Army Corps
of Engineers
Seattle District



WASHINGTON STATE
DEPARTMENT OF
ECOLOGY

US Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle, WA 98124-3755
Telephone (360) 407-6912
Attn: Ms. Sandra Manning,
Project Manager

WA Department of Ecology
SEA Program
Post Office Box 47600
Olympia, WA 98504-7600
Telephone: (360) 407-6068
ATTN: SEA Program,
Federal Permit Coordinator

Public Notice Date: April 04, 2014
Expiration Date: May 04, 2014

Reference No.: NWS-2007-2080-DOT
Name: Washington State
Dept of Transportation
I-90 Widening Project

Joint Public Notice

Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification

Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received an application to perform work in waters of the United States as described below and shown on the enclosed drawings, dated March 2014.

The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA). The Corps Section 404 permit, if issued, will be valid for a 10-year period. Ecology will review the work pursuant to Section 401 of the CWA, with applicable provisions of State water pollution control laws.

APPLICANT: Washington State Dept of Transportation
ATTN: Mr. Jason Smith
2809 Rudkin Road
Union Gap, Washington 98903-1648
Telephone: (509) 577-1750

LOCATION: In wetlands, Lake Keechelus, and tributaries to the Yakima River and Lake Keechelus, near Snoqualmie Pass, Kittitas County, Washington.

WORK: The Washington Department of Transportation (WSDOT) proposes to continue widening Interstate 90 (I-90) from 4 lanes to 6 lanes (adding a third lane in each direction) from Mile Post (MP) 59.5 near Resort Creek to MP 62 just east of the Price Creek Safety Rest Area. The proposed project is the second phase of a larger 15-mile corridor project called the I-90 Snoqualmie Pass East Project (MP 55.1 to MP 70.3). Phase 1, currently under construction, includes widening from Hyak at MP 55.1 to the start of this proposed phase at MP 59.5, which is referred to as Phase 2A.

Phase 2A construction work includes:

- Highway widening from two to three lanes in each direction, and highway improvements including stabilizing rock slopes and adding new chain up areas.
- Three new bridges to replace culverts at Unnamed Creek at MP 60.9 (24-inch culvert replaced with a 180-foot bridge), Price Creek (10-foot box culvert replaced with a 120-foot bridge), and Noble Creek (54-inch culvert replaced with a 120-foot bridge). These new bridges will improve wildlife and surface water connectivity and allow fish passage.
- The 10-foot wide culvert at Unnamed Creek at MP 59.7 will be upgraded to a 15-foot wide culvert to

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improve flow and allow for small animal wildlife crossing.

- The 72-inch fish barrier culvert at Townsend Creek will be upgraded to a 15-foot by 25-foot box culvert to provide fish passage.
- A new 150-foot wildlife crossing will be constructed over I-90 for large mammal connectivity.
- Four new, low mobility species, wildlife crossing culverts will be added to improve wildlife connectivity.
- New culverts will be added in areas of ground water flow and seeping (Hydrologic Connectivity Zones) to improve ground and surface water connections across the highway.
- Stormwater treatment will be added to meet the current Highway Runoff Manual standards for 100 percent of the new and replaced impervious surfaces.
- Removal of pavement and restoration to natural conditions at the Price Creek Sno-Park and Safety Rest Area as mitigation proposed by WSDOT for project impacts (see mitigation section below).
- Bank stabilization will be added along Keechelus Lake to protect against wave erosion.
- Wildlife fencing will be added to direct wildlife to new crossing structures, reducing wildlife-vehicle collisions.

These modifications to the roadway, bridges and culverts will result in placement of fill material along Keechelus Lake, 15 wetlands and 6 streams. Impacts to jurisdictional waters include long-term temporary impacts from vegetation clearing; fill for stream diversion; and construction access to 0.74 acre of wetlands. For construction of the new lanes and bridges, there will be permanent fill to 2.41 acres of wetland. For Ecology categories of impacted wetlands, see table below. The project will result in 0.08 acre of permanent impacts and 0.13 acre of temporary impacts to streams. A total of 2.90 acres of permanent, and 1.73 acres of temporary wetland, lake and stream buffer impacts will also occur.

Phase 2A Summary Aquatic Resource Impacts			
Impact Type		Impact Size	
	Category	Permanent (acres)	Temporary (acres)
Wetlands			
	II	0.33	0.29
	III	1.81	0.45
	IV	0.27	<0.01
TOTALS		2.41	0.74
	Open Water	1.73	1.48
Streams		Permanent (sq feet)	Temporary (sq feet)
	Price Creek	436	1,742
	Un-named Creek at MP 59.7	436	436
	Noble Creek	436	436
	Un-named Creek at MP 60.9	436	872
	Un-named Creek at MP 61.1A and 61.1B	436 at each	436 at each
	Townsend Creek	436	1300
TOTALS		0.08 acre	0.13 acre

NWS-2007-2080-DOT, WA St Dept of Transportation, I-90 Widening

PURPOSE: The purpose of the project is to increase capacity to meet projected traffic demands, improve public safety, correct structural deficiencies, and reduce avalanche and slope instability on I-90.

ADDITIONAL INFORMATION: Copies of this public notice which have been mailed or otherwise physically distributed feature project drawings in black and white. The electronic version features those drawings in color, which we think more accurately communicates the scope of project impacts. In addition, the wetland and stream buffer impacts are only shown on the color drawings. To access the electronic version of this public notice, go to the Seattle District's web page at: <http://www.nws.usace.army.mil/> and under the heading Open Public Comment Periods select Regulatory Public Notices. Recently-issued public notices are listed in chronological order of the date of issuance. Select and view the listing for this project.

The wetland boundaries and location of the ordinary high water mark shown on the project drawings have not yet been verified by the Corps. If the Corps determines the boundaries of the wetland/waters are substantially inaccurate a new public notice may be published.

MITIGATION: WSDOT minimized impacts to wetlands and streams by utilizing the existing roadway over alternatives that created new roadways. For the preferred alternative, WSDOT minimized impacts through minor alignment shifts, construction of retaining walls, bridging, changes in roadway profile, changes in lane or median width, and steepening roadway slopes.

Mitigation for project impacts is described in the Phase 2A, Wetlands and Aquatic Resources Mitigation (WARM) Plan which is available by contacting the applicant listed on page 1. The plan was developed in cooperation with the I-90 Snoqualmie Pass East Inter-Disciplinary Team (IDT) which includes the U.S. Forest Service, Washington Department of Fish and Wildlife, Ecology, Environmental Protection Agency, National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS). The WARM Plan was developed in conjunction with the project's "landscape level watershed based approach" that focuses compensatory mitigation on restoring, protecting and improving the ecological connectivity of the surrounding sub-alpine Cascade landscape. WSDOT maintains a balance of impacts and mitigation for the entire I-90 Project, which is updated periodically at project milestones. If the Corps and Ecology grant approvals for Phase 2A, the balance will be updated to reflect authorized impacts and mitigation.

The draft WARM Plan is currently being evaluated by the Corps and Ecology. No final decisions have been made on the adequacy of the proposal. The plan identifies proposed wetland and stream mitigation sites and includes the following:

- 2.07 acres of wetland re-establishment
- 0.63 acre of stream channel restoration
- 5.85 acres of wetland buffer enhancement
- 3.95 acres of stream buffer enhancement
- 3.58 acres of upland preservation
- Replace fish barrier culverts with fish and wildlife passable culverts and bridges
- Construct a wildlife overcrossing for large mammals
- Replant all temporary impact areas with native vegetation

ENDANGERED SPECIES: The Endangered Species Act (ESA) requires federal agencies to consult with the NMFS and/or USFWS pursuant to Section 7 of ESA on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered or any designated critical habitat.

The Federal Highway Administration (FHWA), as the lead agency for ESA consultation for the entire corridor, has consulted with the NMFS and the USFWS as required under Section 7 of the ESA. The Corps agrees with NMFS

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determination that the project “may affect, not likely to adversely affect” for Middle Columbia River Steelhead and their designated critical habitat. Concurrence was issued on April 7, 2008. Due to a “likely to adversely affect” determination the FHWA initiated formal consultation with USFWS for Columbia River bull trout, Northern Spotted Owl, and Marbled murrelet. Additional species or habitats that are determined to be “may affect, not likely to adversely affect” are Gray Wolf, Grizzly Bear, Canada Lynx, designated habitat for Columbia River bull trout and Northern Spotted Owl. The Biological Opinion from USFWS was issued on September 3, 2008, and concurrence was issued August 5, 2008. A Biological Assessment, dated July 28, 2010 was submitted to re-initiate consultation to address project changes and the listing of bull trout critical habitat. Another re-initiation of consultation is currently under review by NMFS and USFWS to address project design changes.

ESSENTIAL FISH HABITAT (EFH): The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect EFH. The proposed action would not impact EFH in the project area.

The FHWA, as the lead agency for the entire corridor regarding EFH, has consulted with the NMFS. The Corps agrees with their determination that the project will not adversely affect EFH species. Concurrence was issued by NMFS on April 7, 2008.

CULTURAL RESOURCES: The FHWA, as the lead agency for the entire corridor for determining compliance with Section 106 of the National Historic Preservation Act, has consulted with the State Historic Preservation Office (SHPO) as appropriate. WSDOT as the designated federal lead has been consulting with the Confederated Tribes of the Colville Reservation, Yakama Nation, Snoqualmie Tribe, Muckleshoot Tribe, Tulalip Tribe, Wanapum Tribe, and SHPO. This consultation will continue through construction of the project.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

EVALUATION – CORPS: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

NWS-2007-2080-DOT, WA St Dept of Transportation, I-90 Widening

The described discharge will be evaluated for compliance with guidelines promulgated by the Environmental Protection Agency under authority of Section 404(b)(1) of the CWA. These guidelines require an alternatives analysis for any proposed discharge of dredged or fill material into waters of the United States.

SOURCE OF FILL MATERIAL: The source of the fill material will be from rock cuts within the project areas, as well as additional material as needed from a WSDOT-approved and permitted site provided by the contractor.

EVALUATION – ECOLOGY: Ecology is soliciting comments from the public; Federal, Native American Nations or Tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to certify or deny certification for the proposed project.

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether it would be in the public interest to authorize this proposal. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commentator's name, address, and phone number. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration.

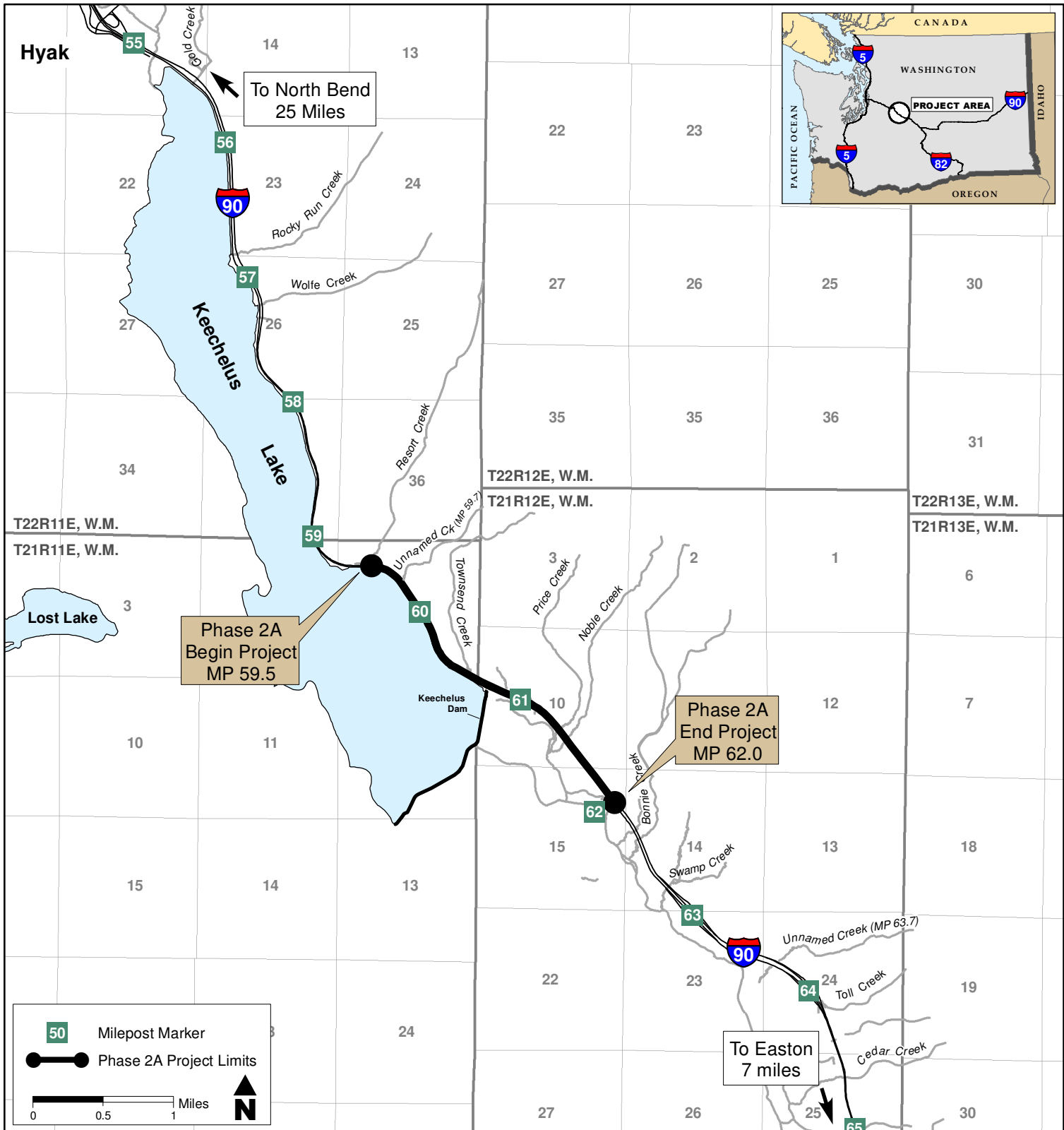
CORPS COMMENTS: All e-mail comments should be sent to sandra.l.manning@usace.army.mil. Conventional mail comments should be sent to: U.S. Army Corps of Engineers, Regulatory Branch, Attention: Ms. Sandra Manning, P.O. Box 3755, Seattle, Washington 98124-3755. All comments received will become part of the administrative record and are subject to public release under the Freedom of Information Act including any personally identifiable information such as names, phone numbers, and addresses.

ECOLOGY COMMENTS: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA, may do so by submitting written comments to the following address: Washington State Department of Ecology, Attention: Federal Permit Coordinator, P.O. Box 47600, Olympia, Washington 98504-7600, or e-mail to ecyrefedpermits@ecy.wa.gov.

To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: WA St Dept of Transportation, NWS-2007-2080-DOT.

Encl: Figures (28)

I-90 Snoqualmie Pass East Project Phase 2A Vicinity



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

PURPOSE: Meet projected traffic demands, improve public safety and meet identified project needs.

DATUM: NAD 83

ADJACENT PROPERTY OWNERS:

1. USDA Forest Service
2. Washington State Department of Transportation
3. US Bureau of Reclamation
4. Individuals listed in applications



PROJECT NAME: I-90 Keechelus Dam to Stampede Pass - Add Lanes / Build Wildlife Bridges (Phase 2A)

USACE REF.# NWS-2007-2080-DOT

SITE LOCATION ADDRESS:

T21R11E S1, S12, W.M.,
T21R12E S10, S15, W.M.
From Interstate 90 Milepost (MP) 59.5;
Lat 47° 20' 25.8" N Long 121° 21' 19.3" W
To Interstate 90 MP 62.0;
Lat 47° 18' 59.0" N Long 121° 19' 5.5" W

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

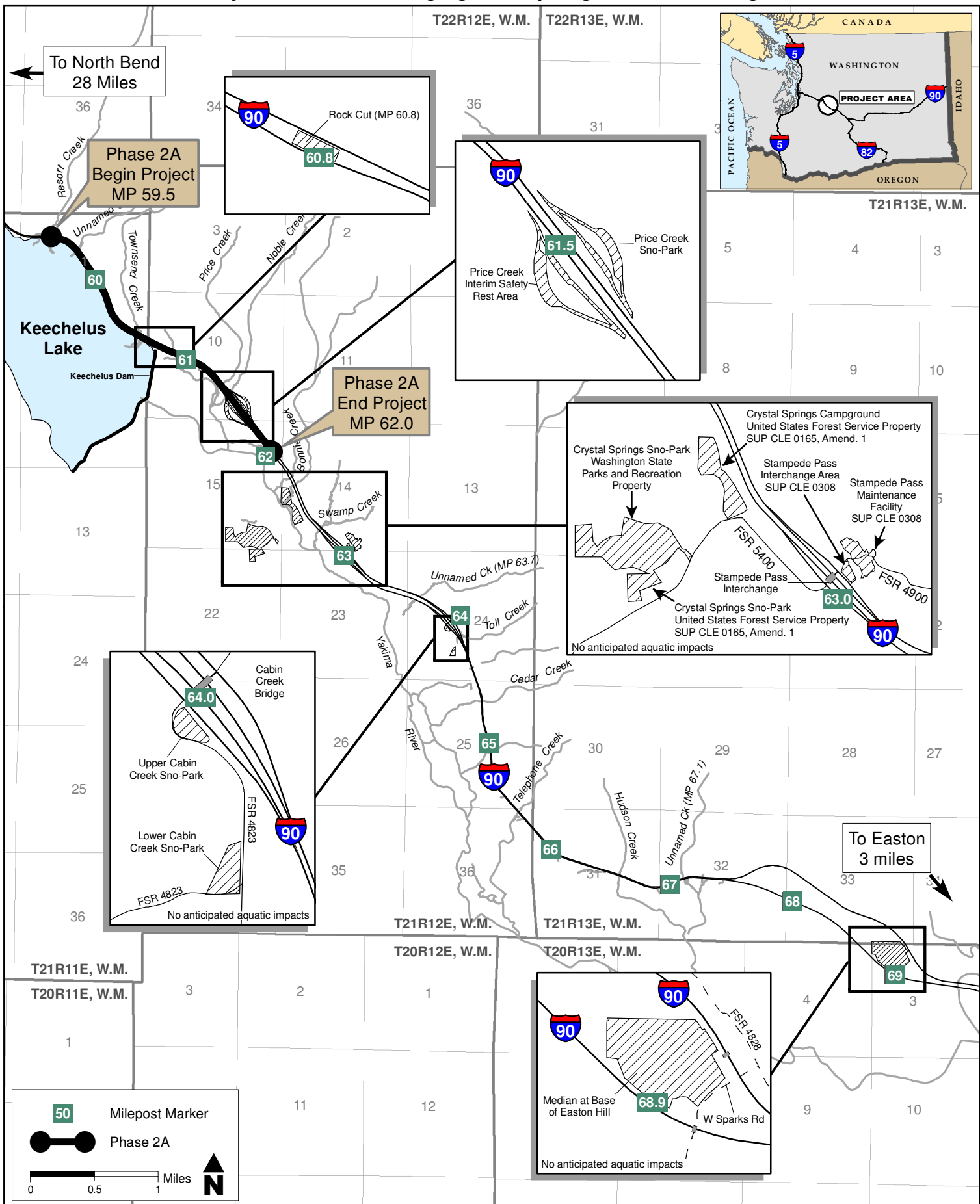
IN: Adjacent to Keechelus Lake
MP 59.5 to MP 62.0

NEAR: Hyak, Washington
COUNTY: Kittitas **STATE:** WA

SHEET: 1 of 28

DATE: March 2014

I-90 Snoqualmie Pass East Project, Phase 2A (MP 59.5 to MP 62.0) Vicinity With Potential Staging, Stockpiling, and Processing Sites



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

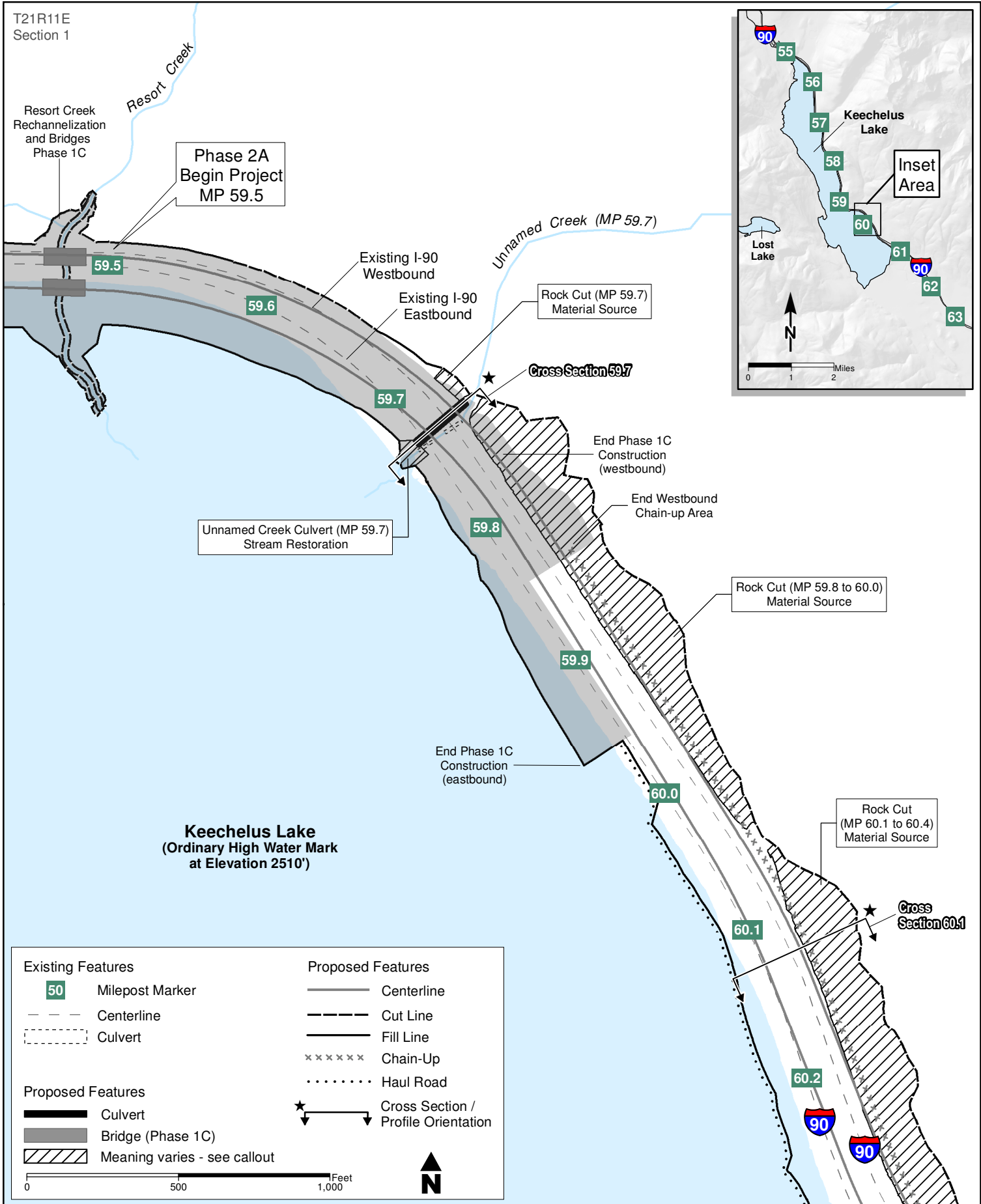
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 2 of 28 **DATE:** March 2014

Phase 2A Overview Showing From MP 59.5 to MP 60.2



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

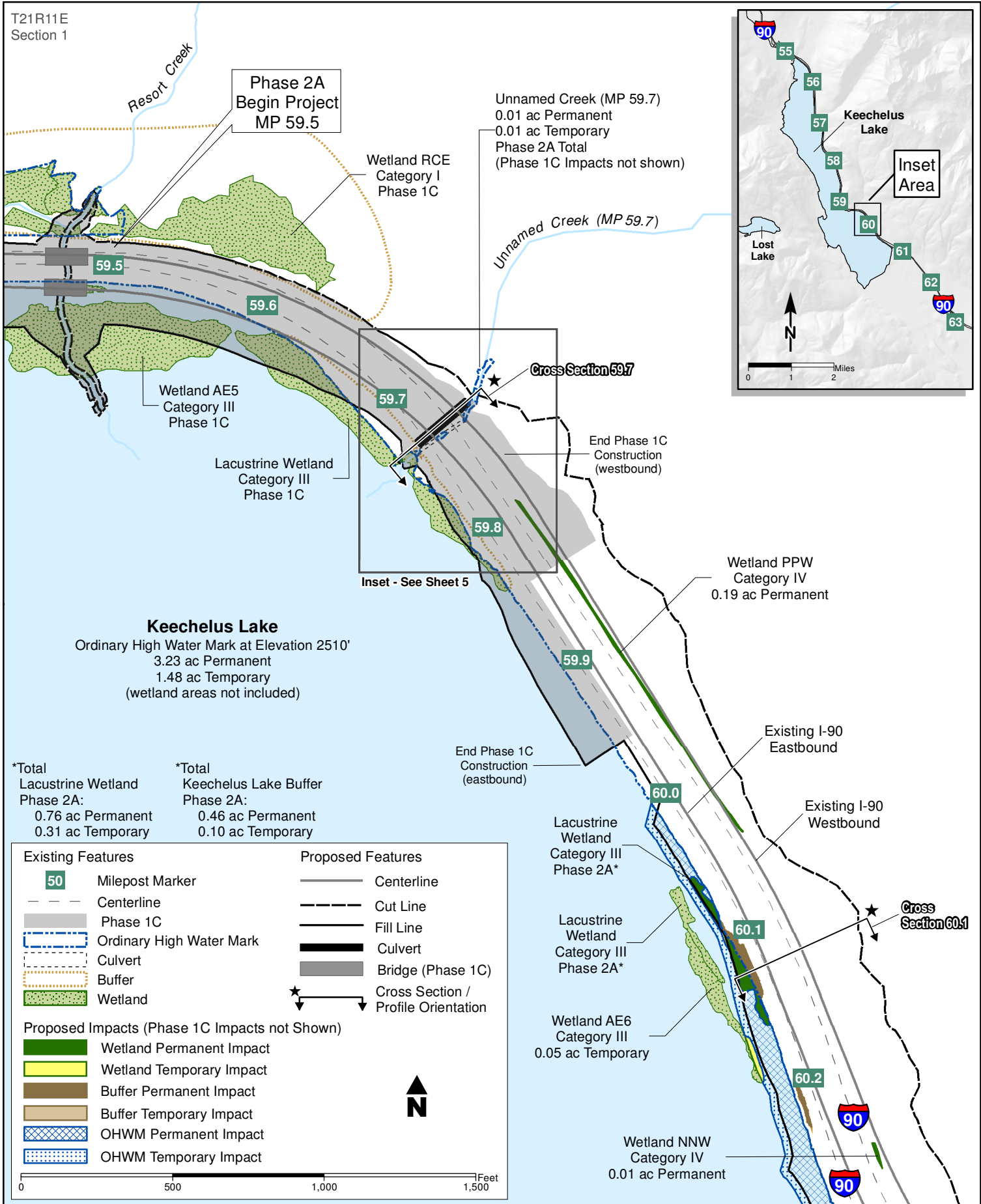
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 3 of 28 **DATE:** March 2014

Phase 2A Overview of Impacts From MP 59.5 to MP 60.2



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

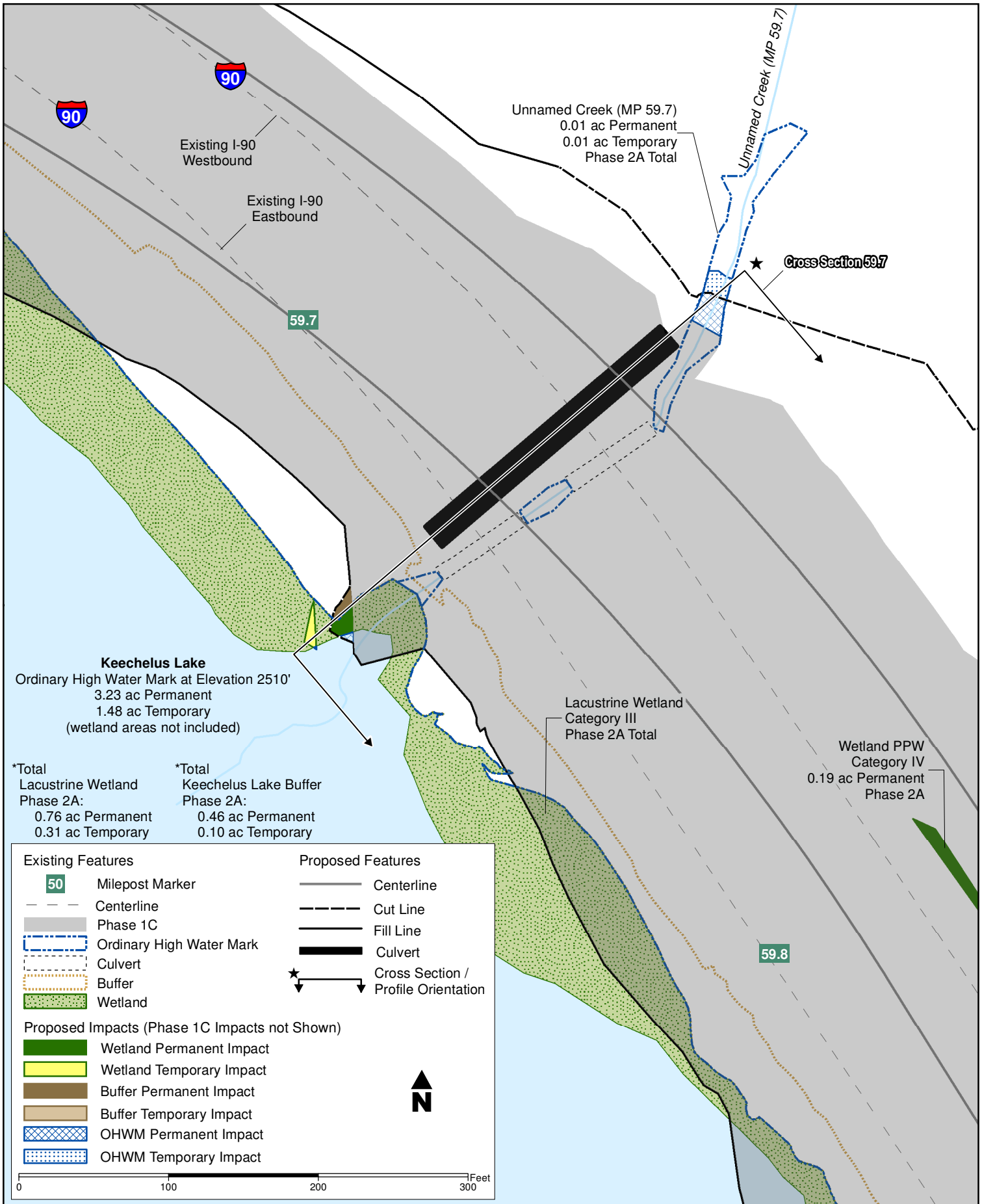
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 4 of 28 **DATE:** March 2014

Phase 2A Unnamed Creek (MP 59.7) Culvert Inset



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

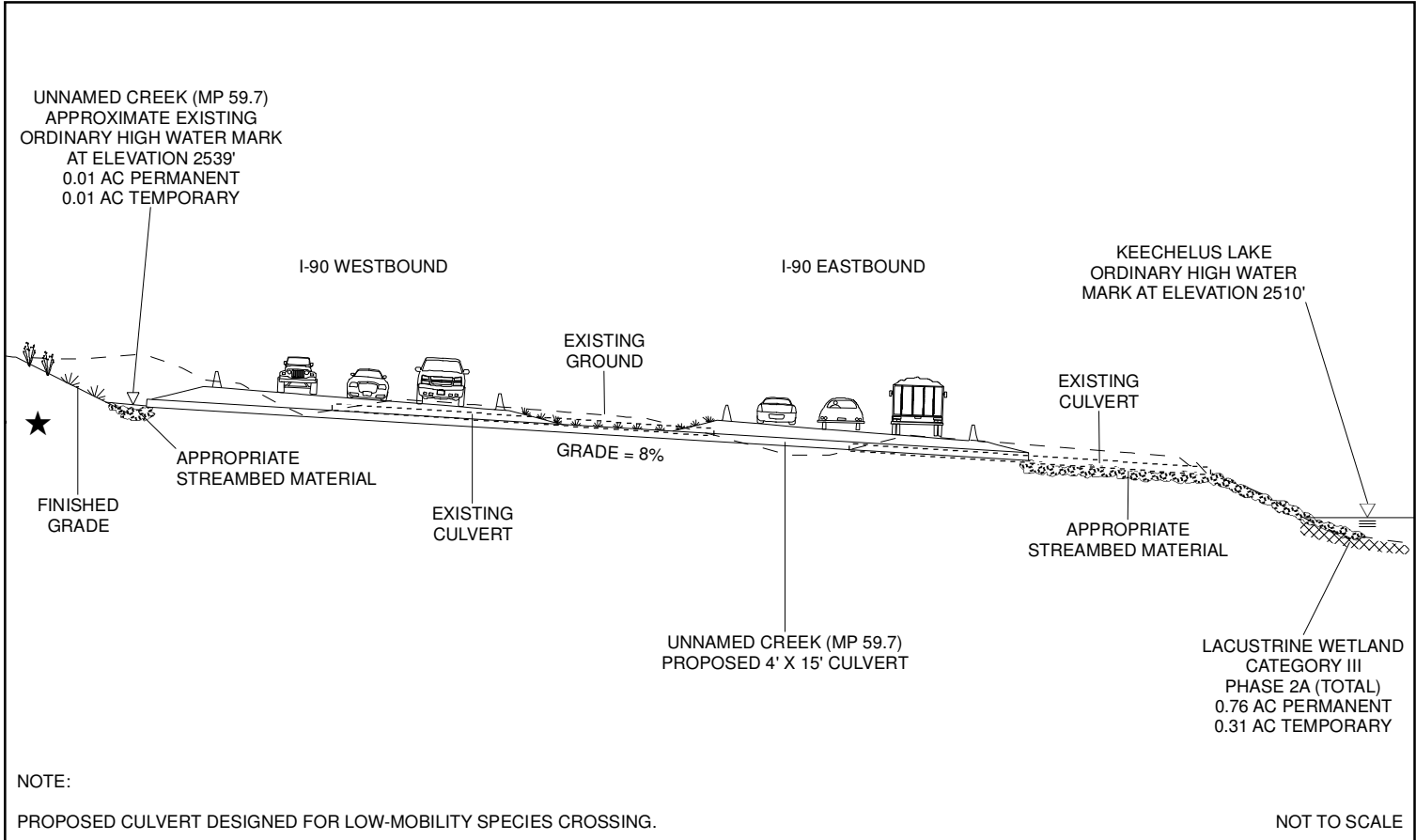
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

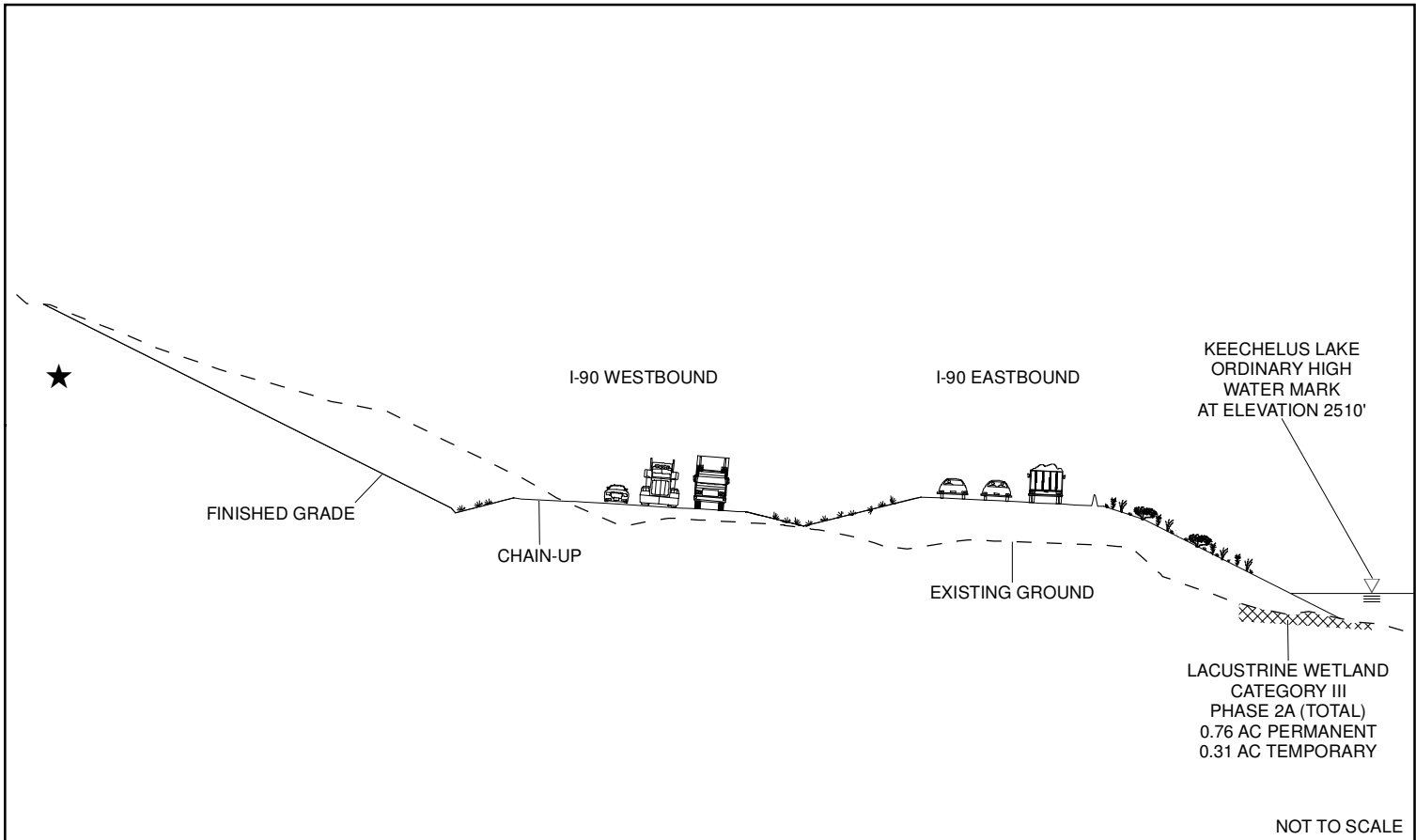
NEAR: Hyak, Washington

SHEET: 5 of 28 **DATE:** March 2014

Unnamed Creek (MP 59.7) Culvert Cross Section 59.7



Typical Rock Cut Cross Section 60.1



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 6 of 28 **DATE:** March 2014

T21R12E Section 10

Existing Features

- 50 Milepost Marker
- Centerline
- Culvert

Proposed Features

- Culvert
- Bridge
- Meaning varies - see callout
- Centerline
- Cut Line
- Fill Line
- Chain-Up
- Haul Road
- Cross Section / Profile Orientation

Map Labels:

- Townsend Creek
- Rock Cut (MP 60.1 to 60.4) Material Source
- Townsend Creek Old US 10 Roadway Restoration, Stream Restoration, Wetland Mitigation Phase 1C
- Existing I-90 Eastbound
- Existing I-90 Westbound
- Townsend Creek Culvert Stream Restoration
- Cross Section 60.6
- Rock Stabilization (MP 60.8)
- Rock Cut (MP 60.8) Material Source
- Rock Stabilization (MP 60.8)
- Cross Section 60.8
- Unnamed Creek (MP 60.9) Bridge Profile
- Cross Section 60.9
- Dam Spillway
- Unnamed Creek (MP 61.1A)
- Unamed Creek (MP 60.9) Ecological Connectivity, Restoration, Stream Mitigation
- Sunset Highway Wetland Mitigation Site Wetland Re-establishment Phase 1C
- Keechelus Lake
- Ordinary High Water Mark at Elevation 2510'

Inset Area:

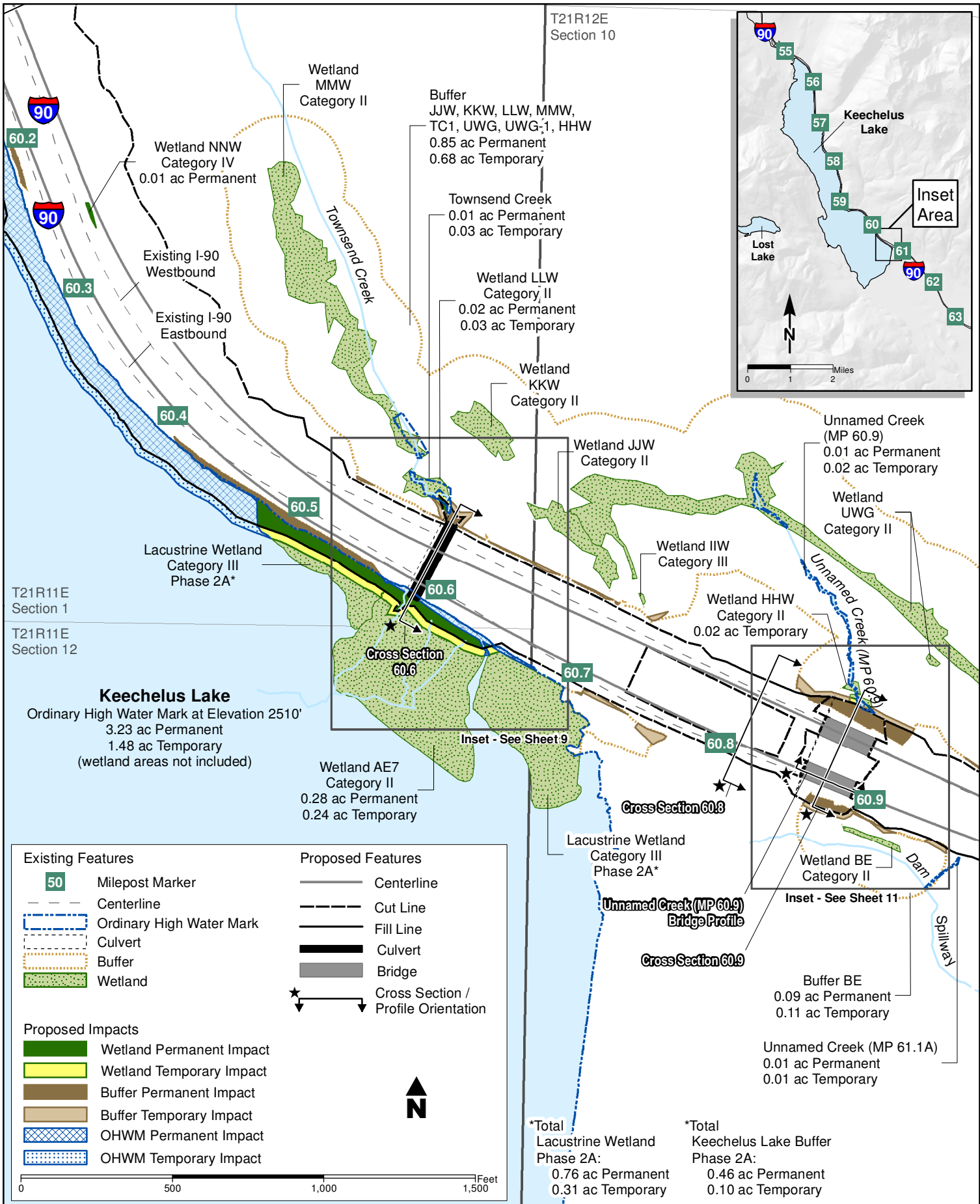
- Lost Lake
- Keechelus Lake
- Scale: 0 to 2 Miles
- North Arrow

USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

NEAR: Hyak, Washington

SHEET: 7 of 28 **DATE:** March 2014

Phase 2A Overview of Impacts From MP 60.2 to MP 60.9



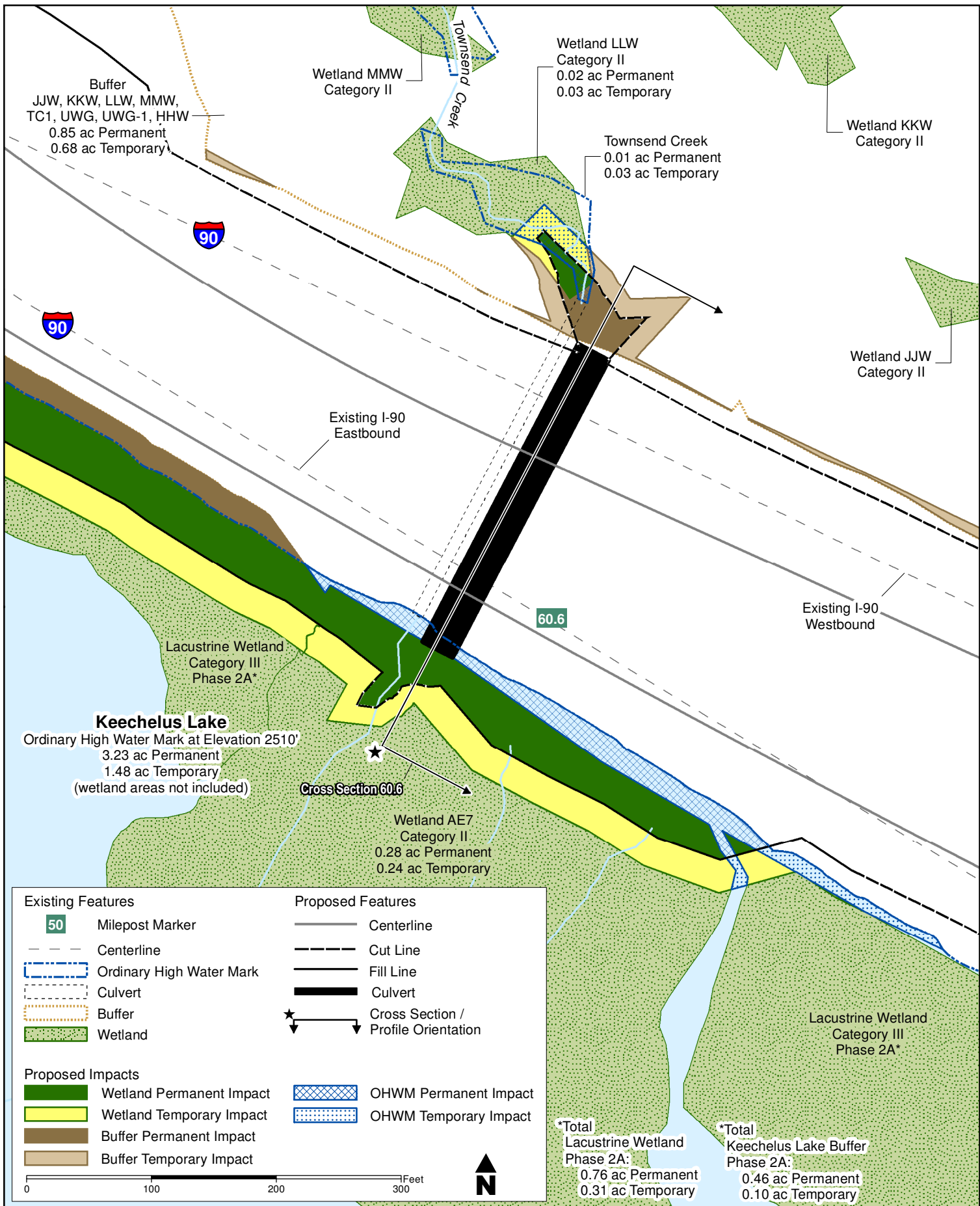
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 8 of 28 **DATE:** March 2014

Phase 2A Townsend Creek Culvert Inset



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

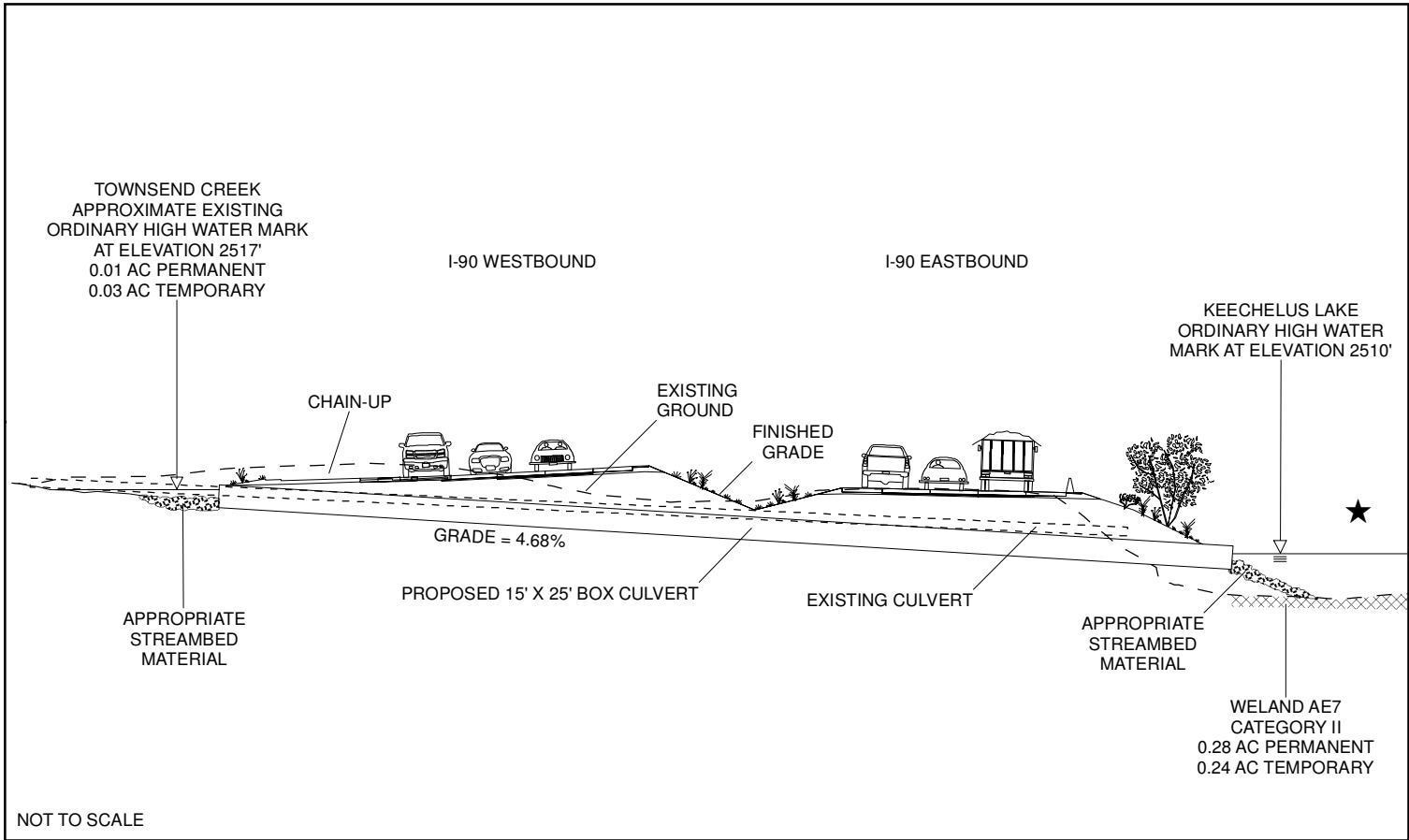
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

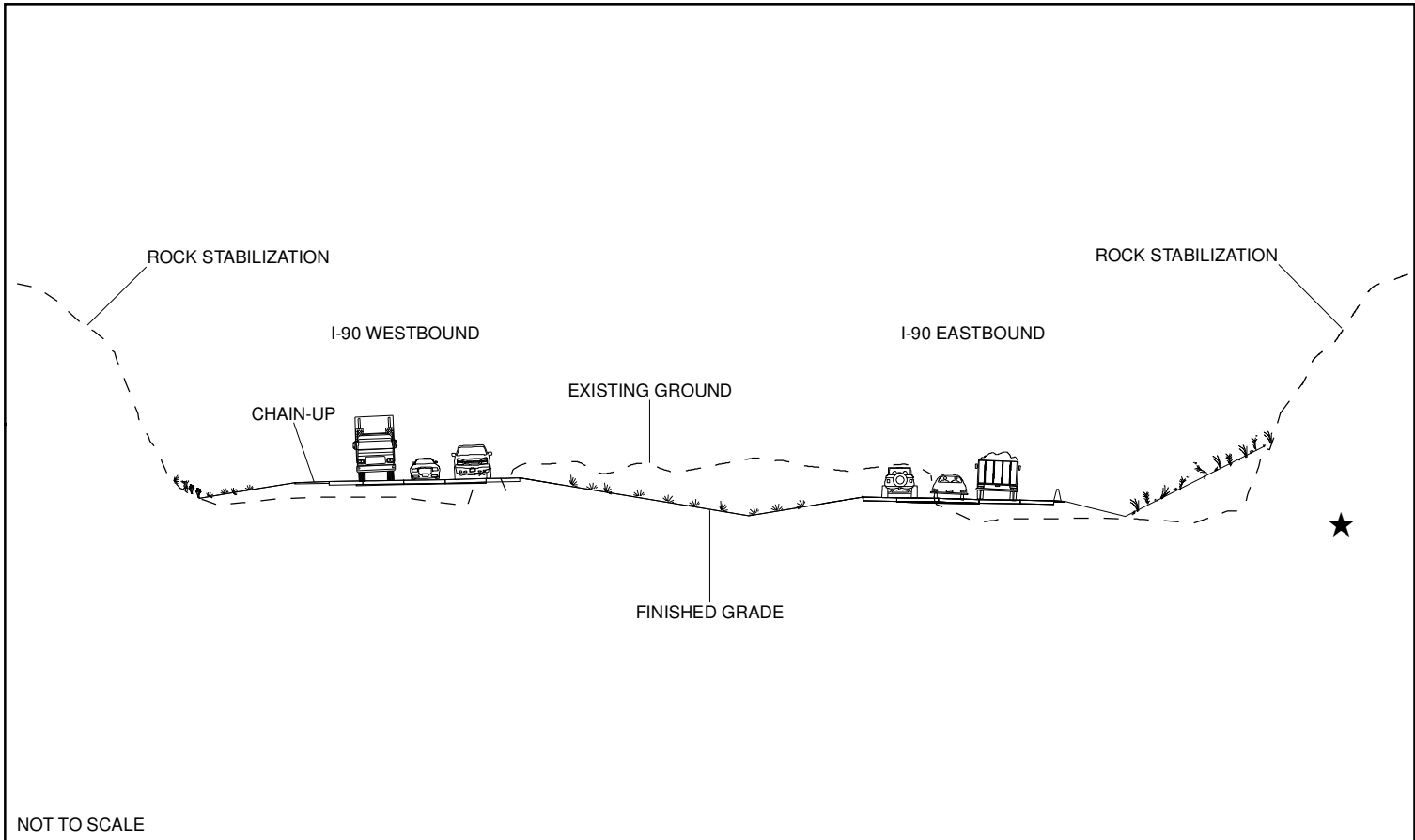
NEAR: Hyak, Washington

SHEET: 9 of 28 **DATE:** March 2014

Townsend Creek Cross Section 60.6



Rock Cut Cross Section 60.8



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

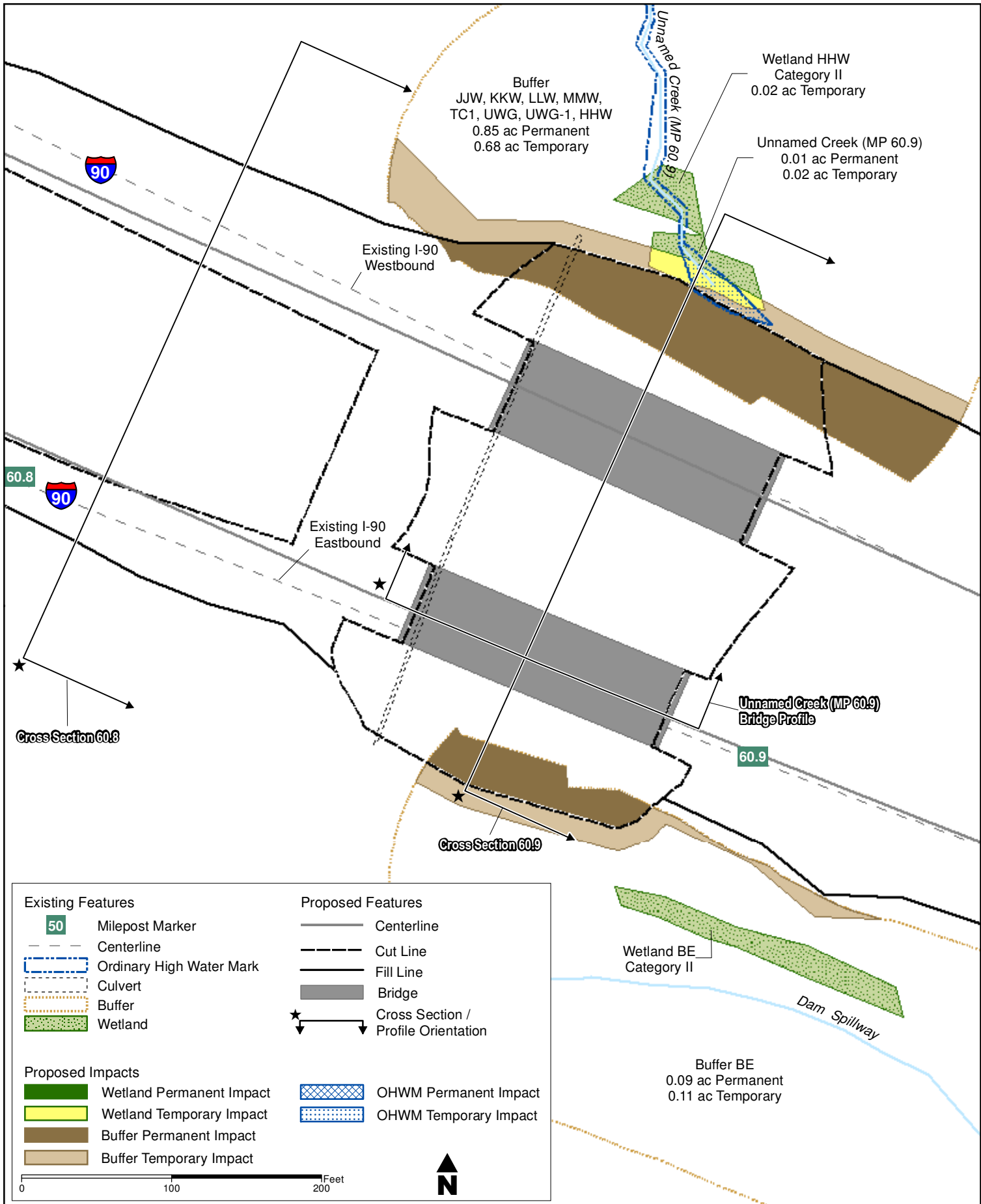
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 10 of 28 **DATE:** March 2014

Phase 2A Unnamed Creek (MP 60.9) Bridge Inset



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

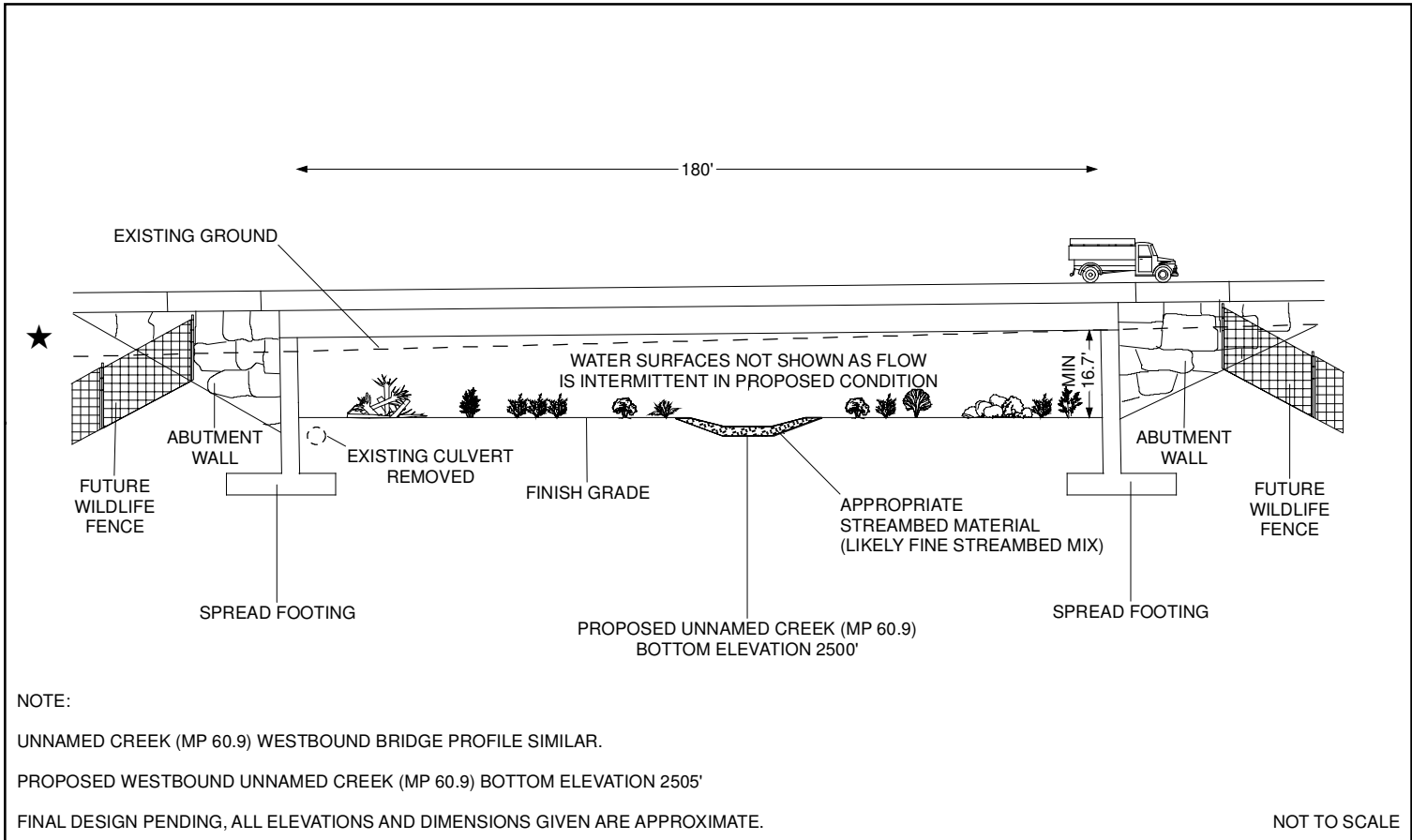
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

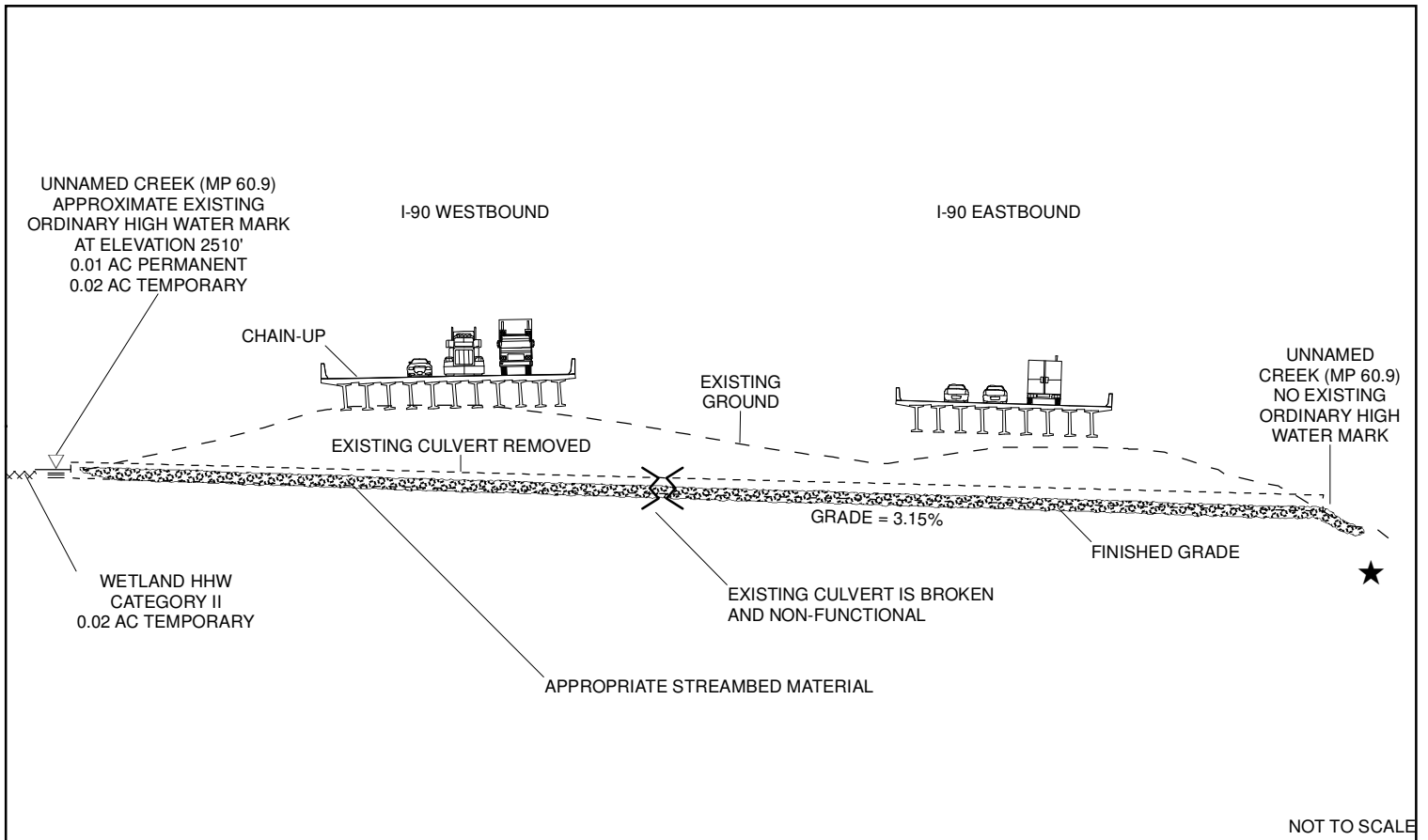
NEAR: Hyak, Washington

SHEET: 11 of 28 **DATE:** March 2014

Unnamed Creek (MP 60.9) Eastbound Bridge Profile



Unnamed Creek (MP 60.9) Bridges Cross Section 60.9



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

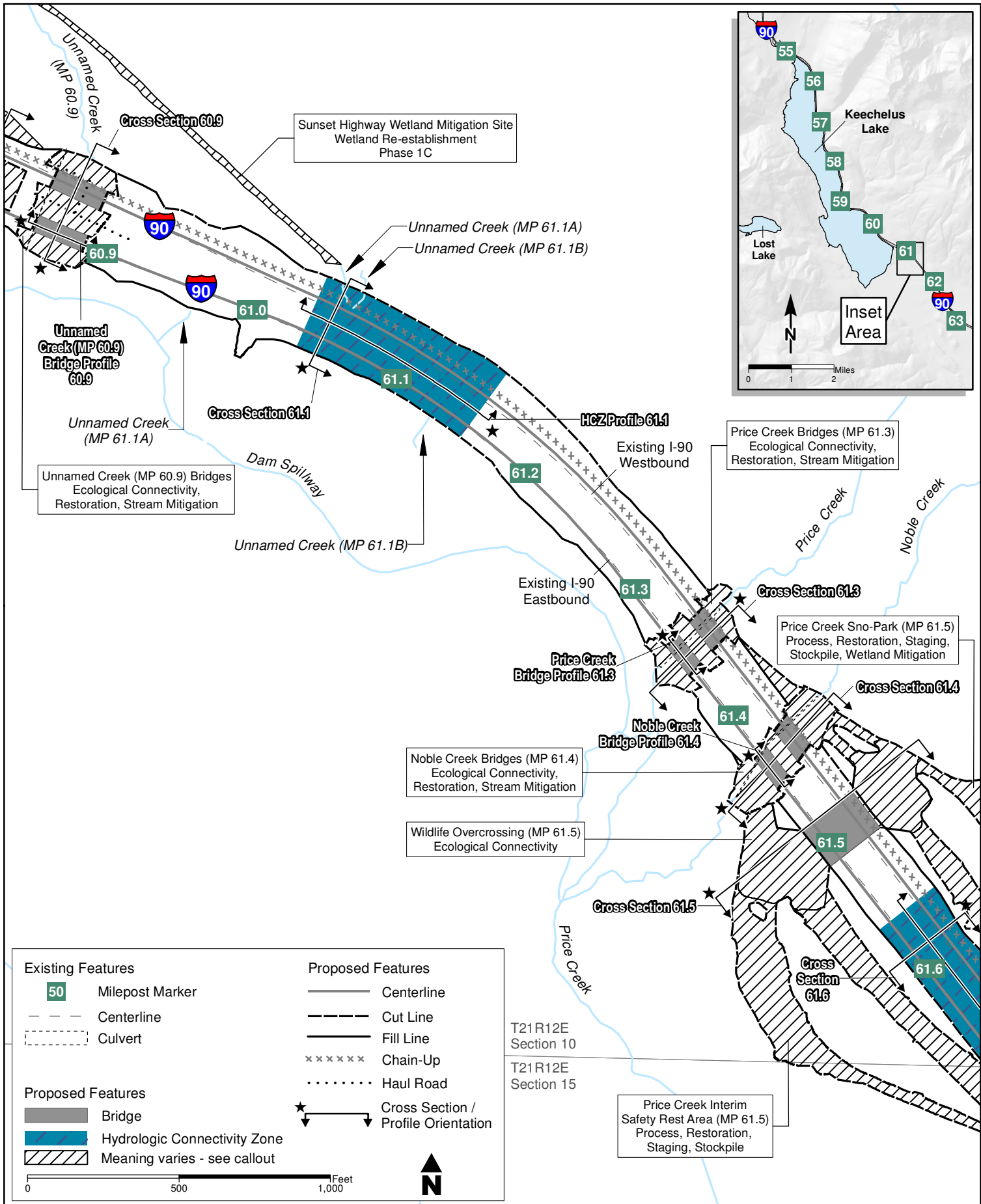
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 12 of 28 **DATE:** March 2014

Phase 2A Overview Showing From MP 60.9 to MP 61.6



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 13 of 28 **DATE:** March 2014

Existing Features

- 50 Milepost Marker
- Centerline
- Ordinary High Water Mark
- Culvert
- Buffer
- Wetland

Proposed Features

- Centerline
- Cut Line
- Fill Line
- Bridge
- Hydrologic Connectivity Zone
- Cross Section / Profile Orientation

Proposed Impacts

- Wetland Permanent Impact
- Wetland Temporary Impact
- Buffer Permanent Impact
- Buffer Temporary Impact
- OHWL Permanent Impact
- OHWL Temporary Impact

Wetland Categories and Impacts:

- Wetland HHW Category II: 0.02 ac Temporary
- Wetland UGW Category II: 0.85 ac Permanent, 0.68 ac Temporary
- Wetland UGW1 Category II
- Wetland TC1 Category III
- Wetland FFW Category IV: 0.63 ac Permanent
- Wetland GGW Category II: 0.16 ac Permanent
- Wetland HM Category III: 0.16 ac Permanent
- Wetland EEW Category III: 0.06 ac Permanent, 0.02 ac Temporary
- Wetland CCE Category III: 0.07 ac Temporary
- Wetland CE Category II: <0.01 ac Temporary

Buffer Categories and Impacts:

- Buffer JJW, KKW, LLW, MMW, TC1, UGW, UGW-1, HHW: 0.85 ac Permanent, 0.68 ac Temporary
- Buffer BE: 0.09 ac Permanent, 0.11 ac Temporary
- Buffer CCE: 0.04 ac Temporary
- Buffer CE: 0.26 ac Temporary

Hydrologic Connectivity Zones (HCZ):

- HCZ Profile 61.1
- HCZ Profile 61.3
- HCZ Profile 61.4
- HCZ Profile 61.6

Bridge Profiles:

- Bridge Profile 60.9
- Bridge Profile 61.3
- Bridge Profile 61.4
- Bridge Profile 61.6

Cross Sections:

- Cross Section 60.9
- Cross Section 61.1
- Cross Section 61.3
- Cross Section 61.4
- Cross Section 61.5
- Cross Section 61.6

Other Features:

- Price Creek
- Noble Creek
- Unnamed Creek (MP 60.9)
- Unnamed Creek (MP 61.1A)
- Unnamed Creek (MP 61.1B)
- Dam Spillway
- Existing I-90 Westbound
- Existing I-90 Eastbound
- Inset - See Sheet 16

Inset Map:

Inset Area showing the location of the study area within a larger region, including Keeshelus Lake, Lost Lake, and various mileposts (55, 56, 57, 58, 59, 60, 61, 62, 63).

Scale: 0 to 1,500 Feet

North Arrow: N

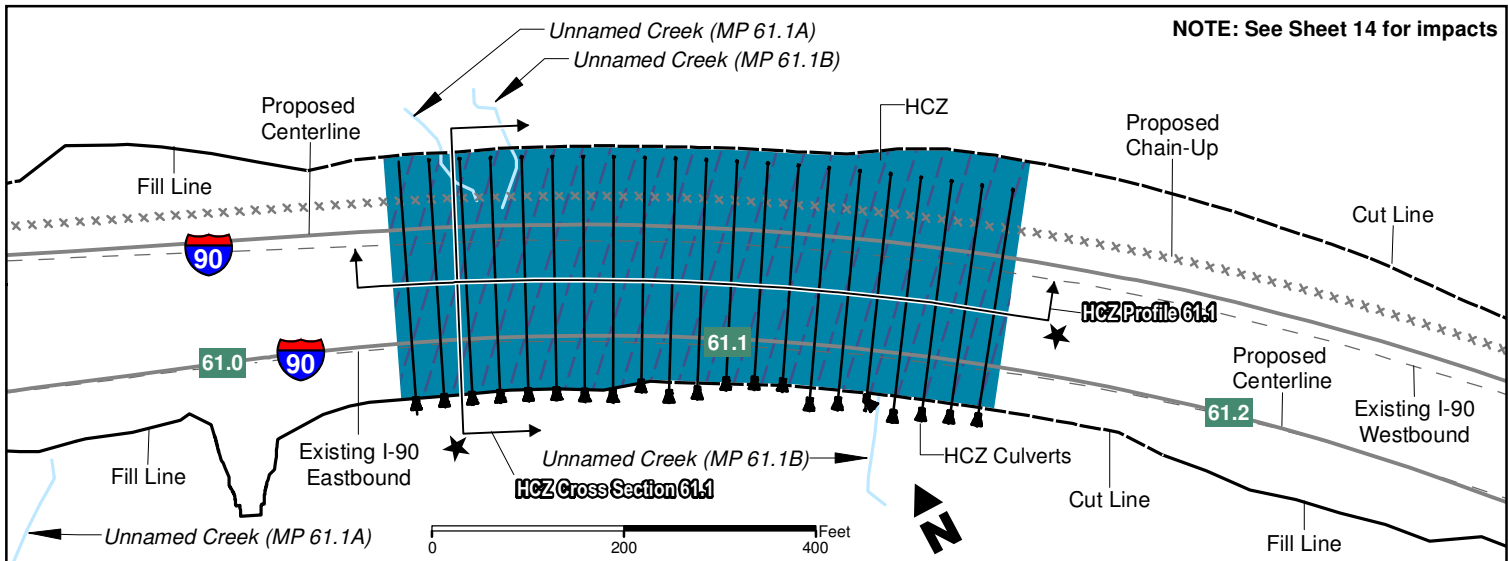
Section Labels: T21R12E Section 10, T21R12E Section 15

USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

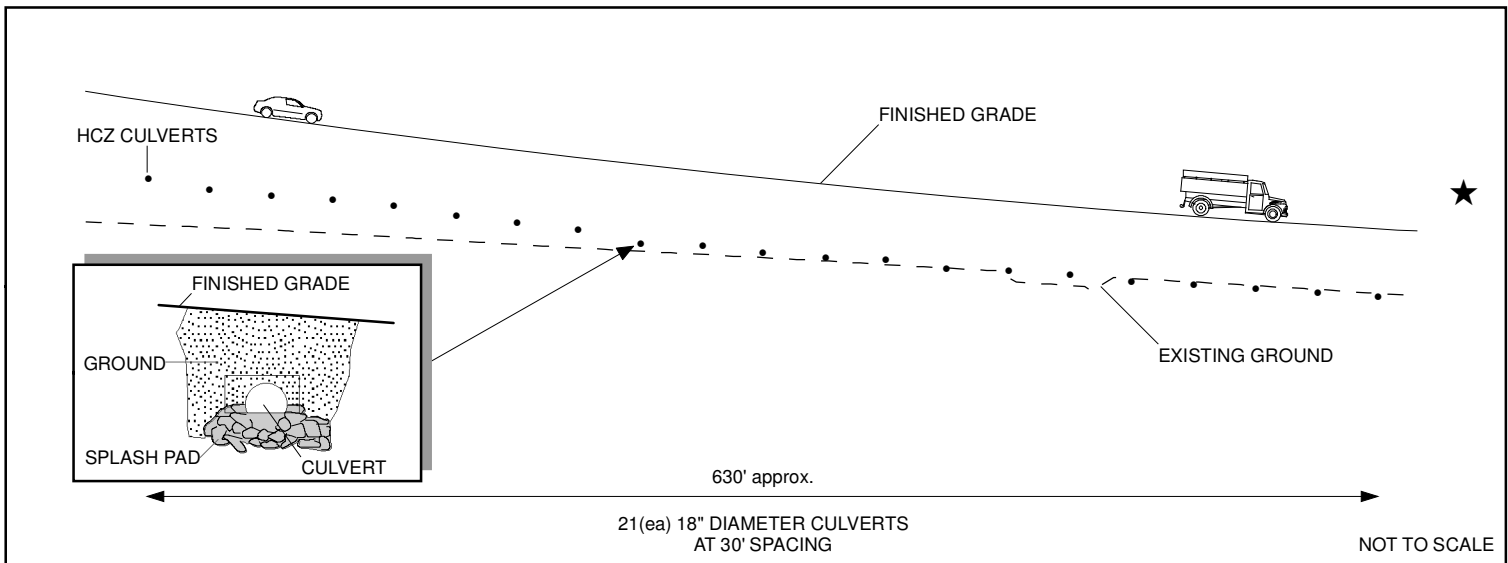
NEAR: Hyak, Washington

SHEET: 14 of 28 **DATE:** March 2014

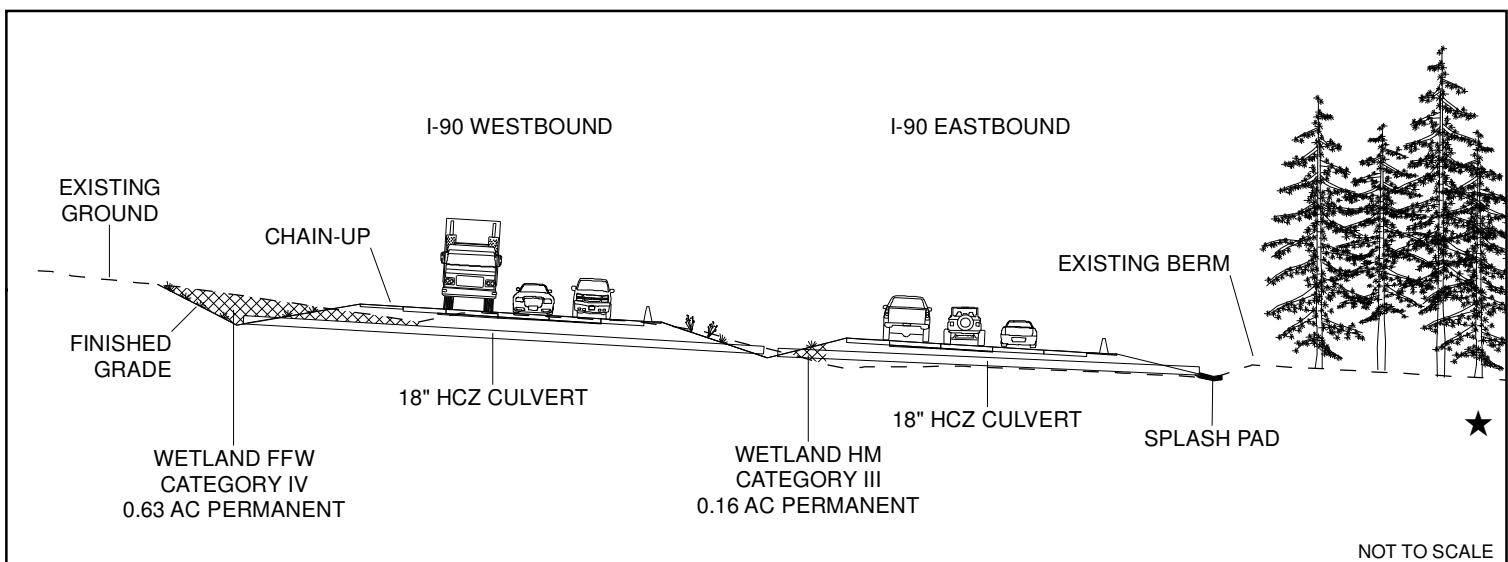
Hydrologic Connectivity Zone (HCZ) Plan View (MP 61.1)



HCZ Profile 61.1



HCZ Cross Section 61.1



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

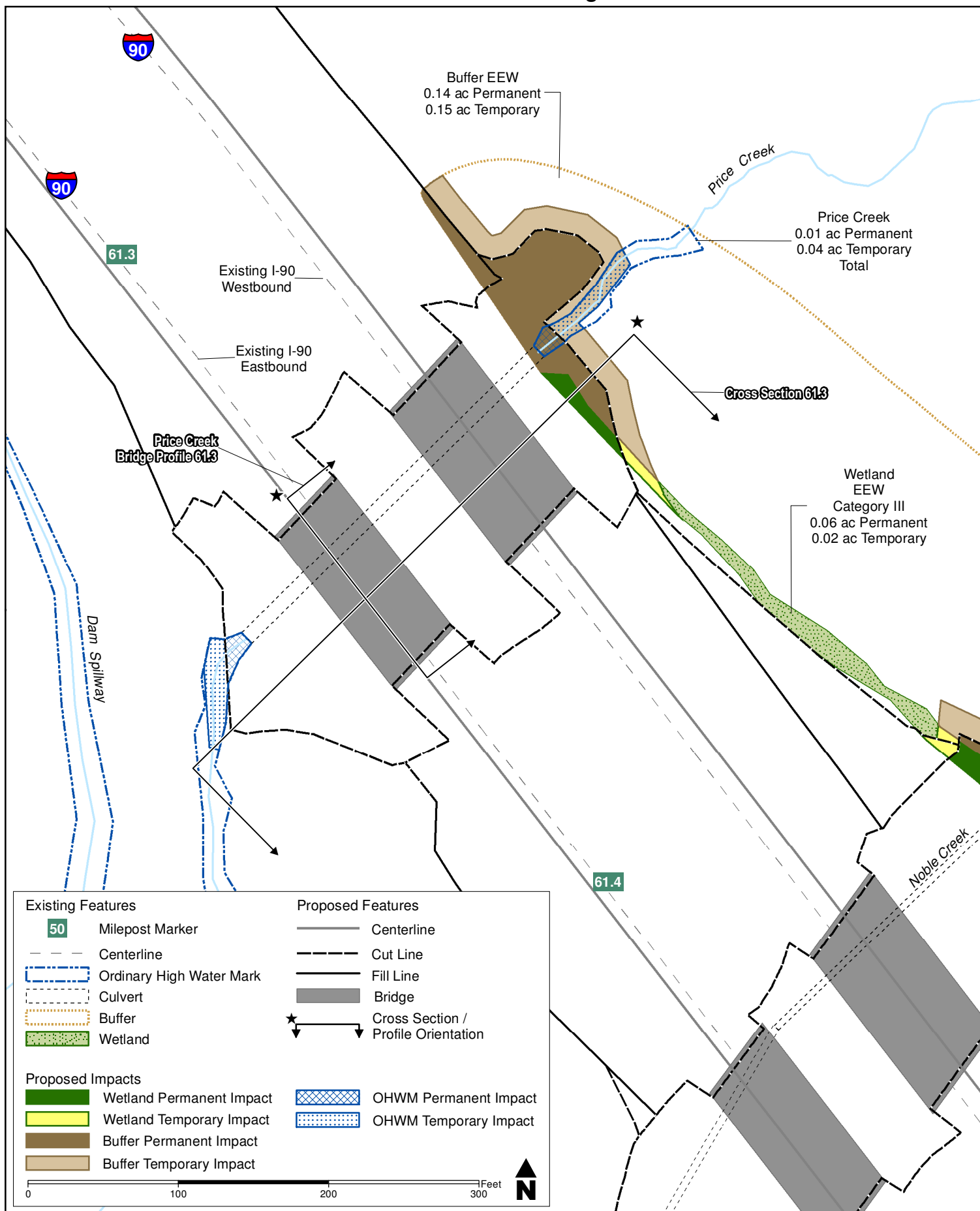
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 15 of 28 **DATE:** March 2014

Phase 2A Price Creek Bridge Inset



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

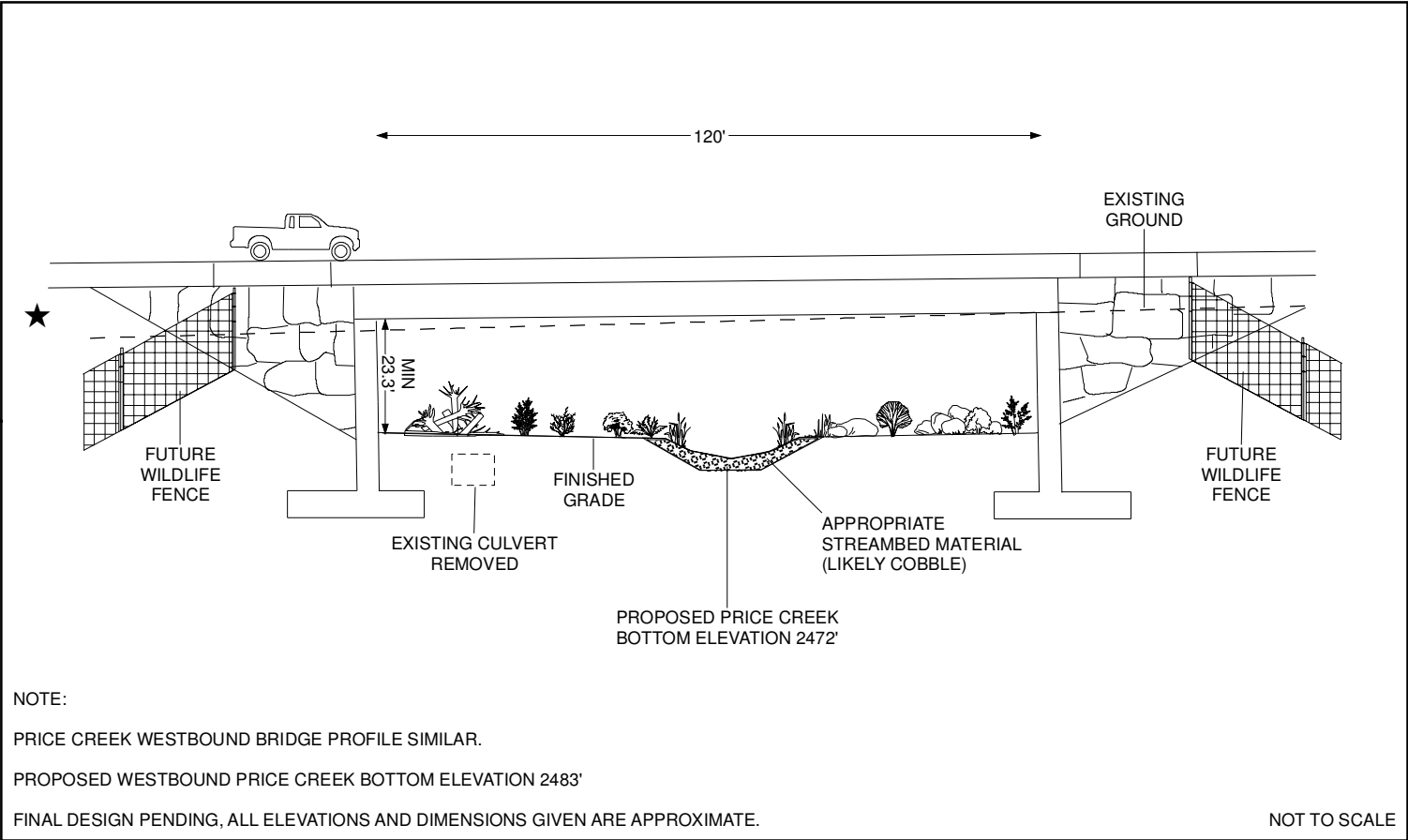
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

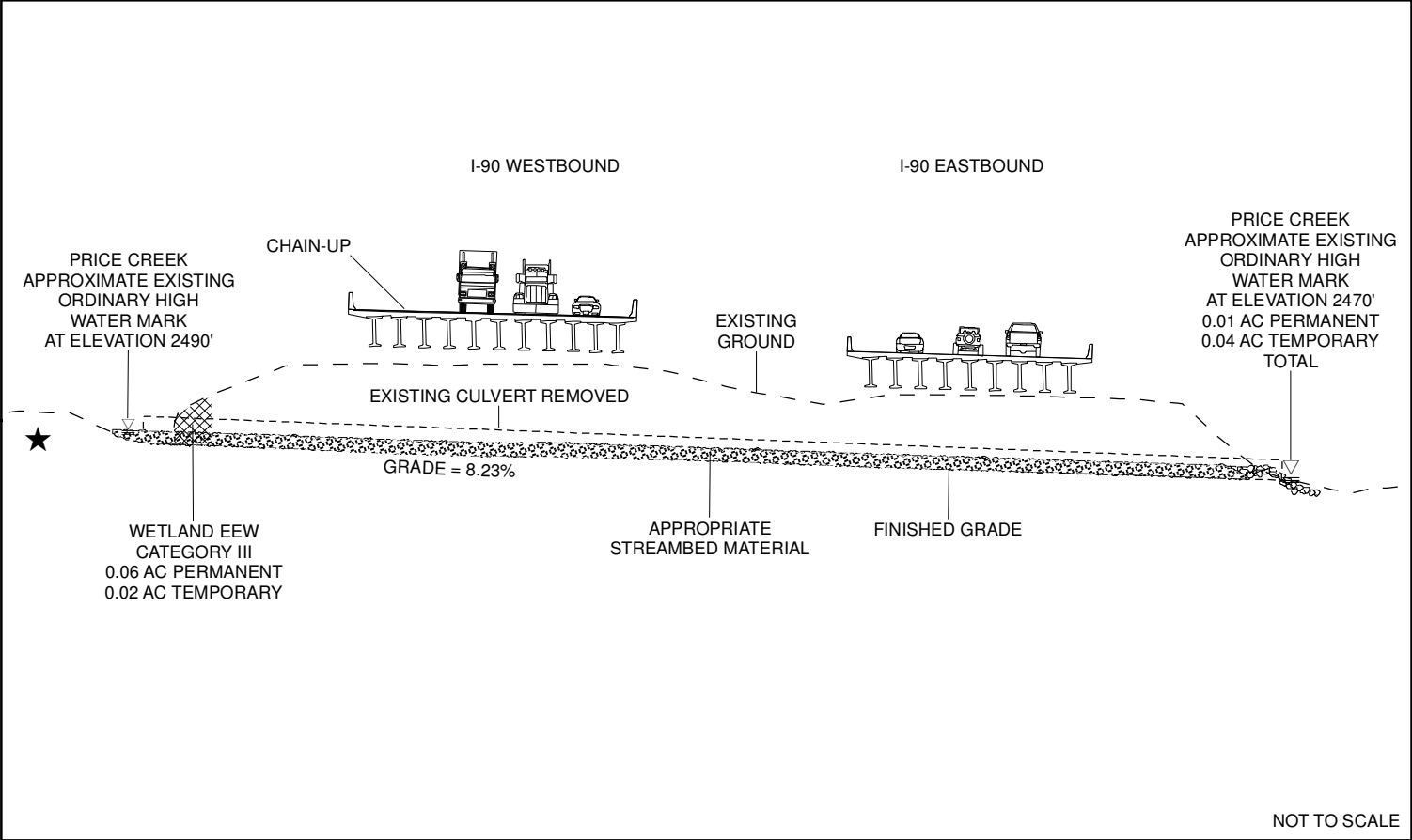
NEAR: Hyak, Washington

SHEET: 16 of 28 **DATE:** March 2014

Price Creek Eastbound Bridge Profile



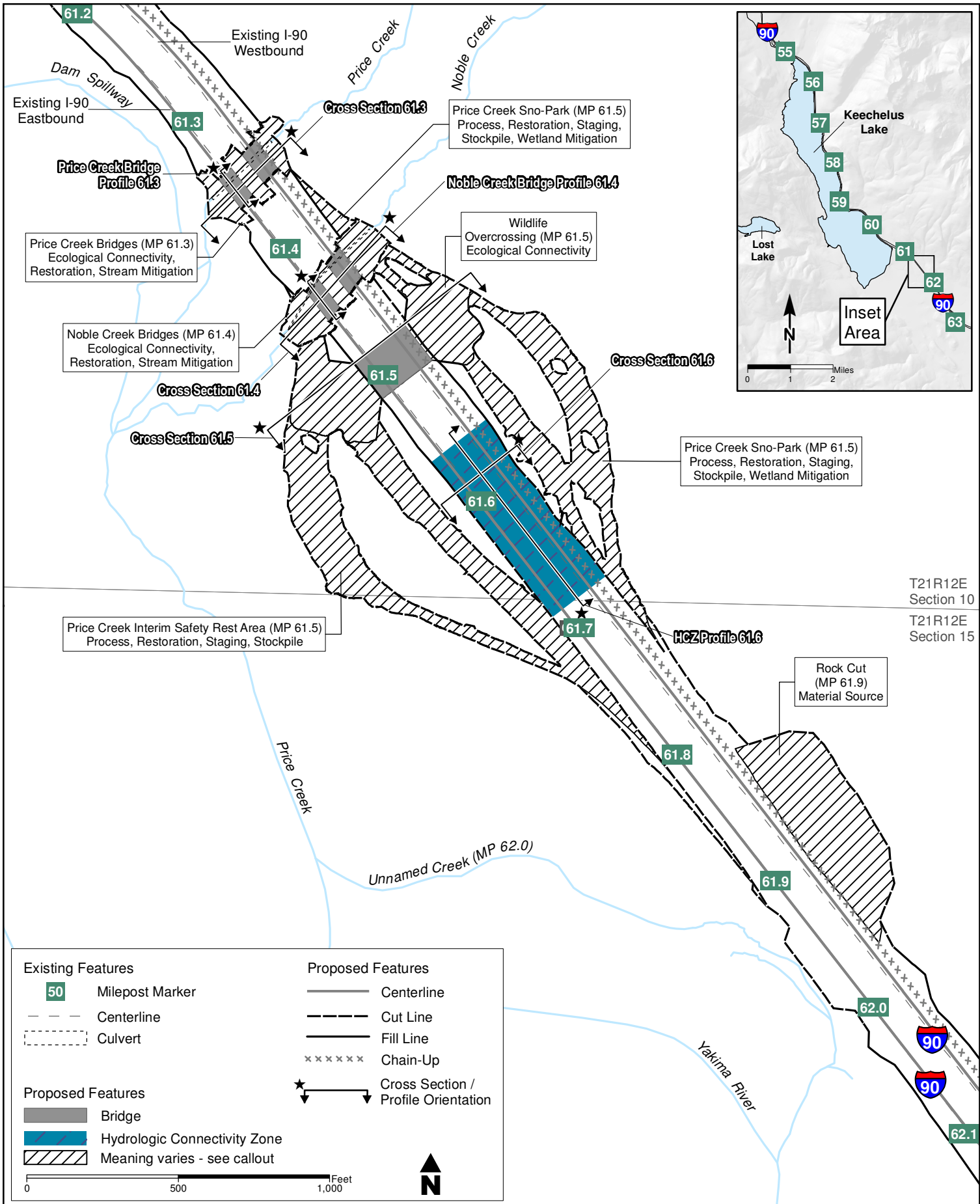
Price Creek Bridges Cross Section 61.3



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

USACE REF. # NWS-2007-2080-DOT APPLICANT: WSDOT	PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.	NEAR: Hyak, Washington SHEET: 17 of 28 DATE: March 2014
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Phase 2A Overview Showing From MP 61.3 to MP 62.0



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 18 of 28 **DATE:** March 2014

Existing Features

- 50 Milepost Marker
- Centerline
- Ordinary High Water Mark
- Culvert
- Buffer
- Wetland

Proposed Features

- Centerline
- Cut Line
- Fill Line
- Bridge
- Hydrologic Connectivity Zone
- Cross Section / Profile Orientation

Proposed Impacts

- Wetland Permanent Impact
- Wetland Temporary Impact
- Buffer Permanent Impact
- Buffer Temporary Impact
- OHWM Permanent Impact
- OHWM Temporary Impact

Map Labels:

- Existing I-90 Westbound
- Existing I-90 Eastbound
- Price Creek Bridge Profile 61.3
- Cross Section 61.3
- Noble Creek Bridge Profile 61.4
- Cross Section 61.4
- Cross Section 61.5
- Cross Section 61.6
- Cross Section 61.7
- Cross Section 61.8
- Cross Section 61.9
- Cross Section 62.0
- Cross Section 62.1
- Price Creek
- Noble Creek
- Unnamed Creek (MP 62.0)
- Yakima River
- Dam Spillway
- Inset - See Sheet 20
- EEW Category III: 0.06 ac Permanent, 0.02 ac Temporary
- Noble Creek: 0.02 ac Permanent, 0.01 ac Temporary, Total
- Buffer EEW: 0.14 ac Permanent, 0.15 ac Temporary
- Wetland CE Category II: <0.01 ac Temporary
- Wetland CCE Category III: 0.07 ac Temporary
- Buffer CCE: 0.04 ac Temporary
- Wetland BBW Category IV: 0.07 ac Permanent
- Wetland DE Category II: 0.03 ac Permanent
- Buffer DE: 0.42 ac Permanent, 0.09 ac Temporary
- Wetland ZZW Category II: 0.04 ac Permanent
- Wetland CE Category II: <0.01 ac Temporary
- Wetland CCE Category III: 0.07 ac Temporary
- Buffer CCE: 0.04 ac Temporary
- Wetland BBW Category IV: 0.07 ac Permanent
- Wetland DE Category II: 0.03 ac Permanent
- Buffer DE: 0.42 ac Permanent, 0.09 ac Temporary
- Wetland ZZW Category II: 0.04 ac Permanent

Inset Map:

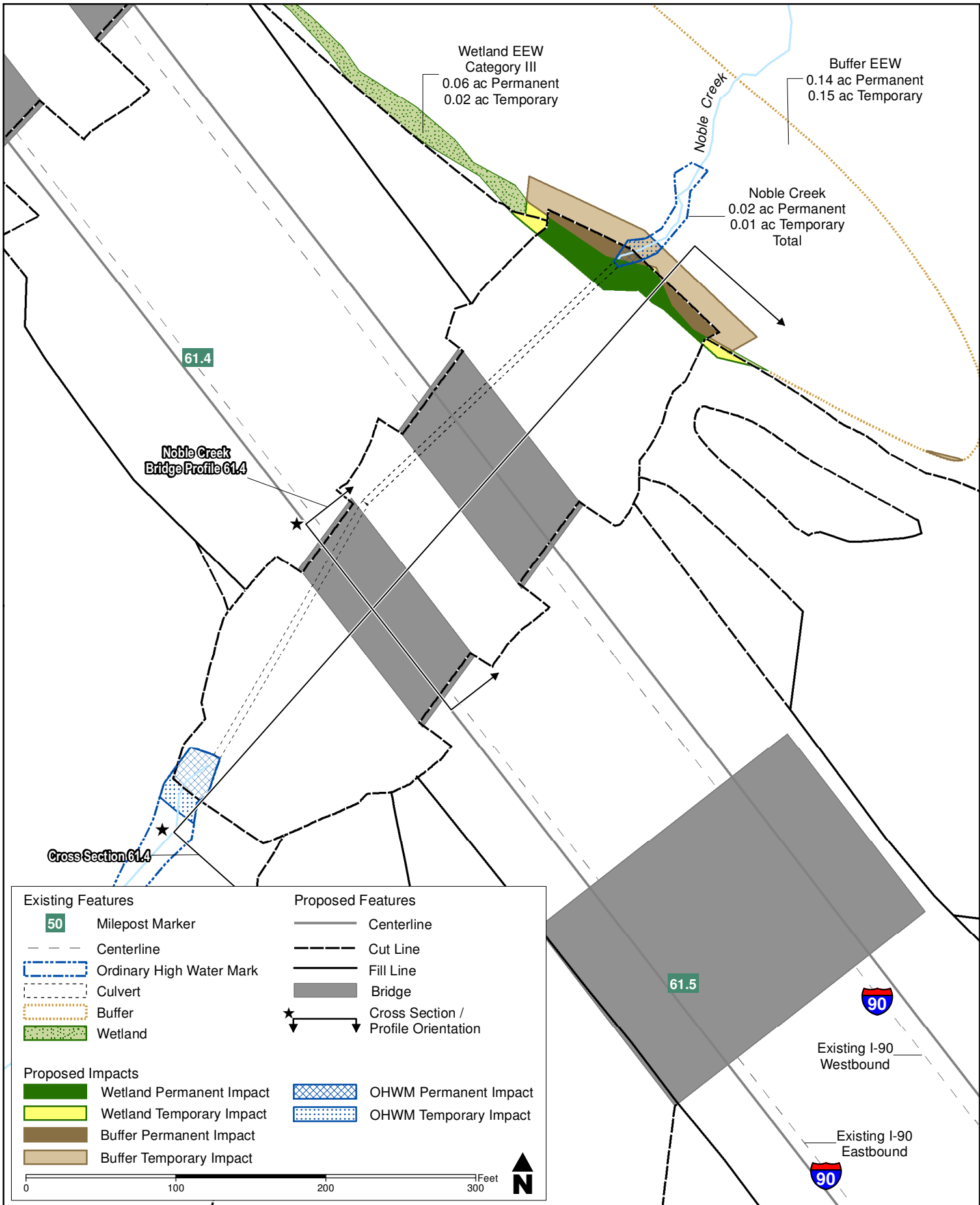
- Keenelus Lake
- Lost Lake
- Inset Area
- Scale: 0 to 2 Miles
- North Arrow

USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

NEAR: Hyak, Washington

SHEET: 19 of 28 **DATE:** March 2014

Phase 2A Noble Creek Bridge Inset



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

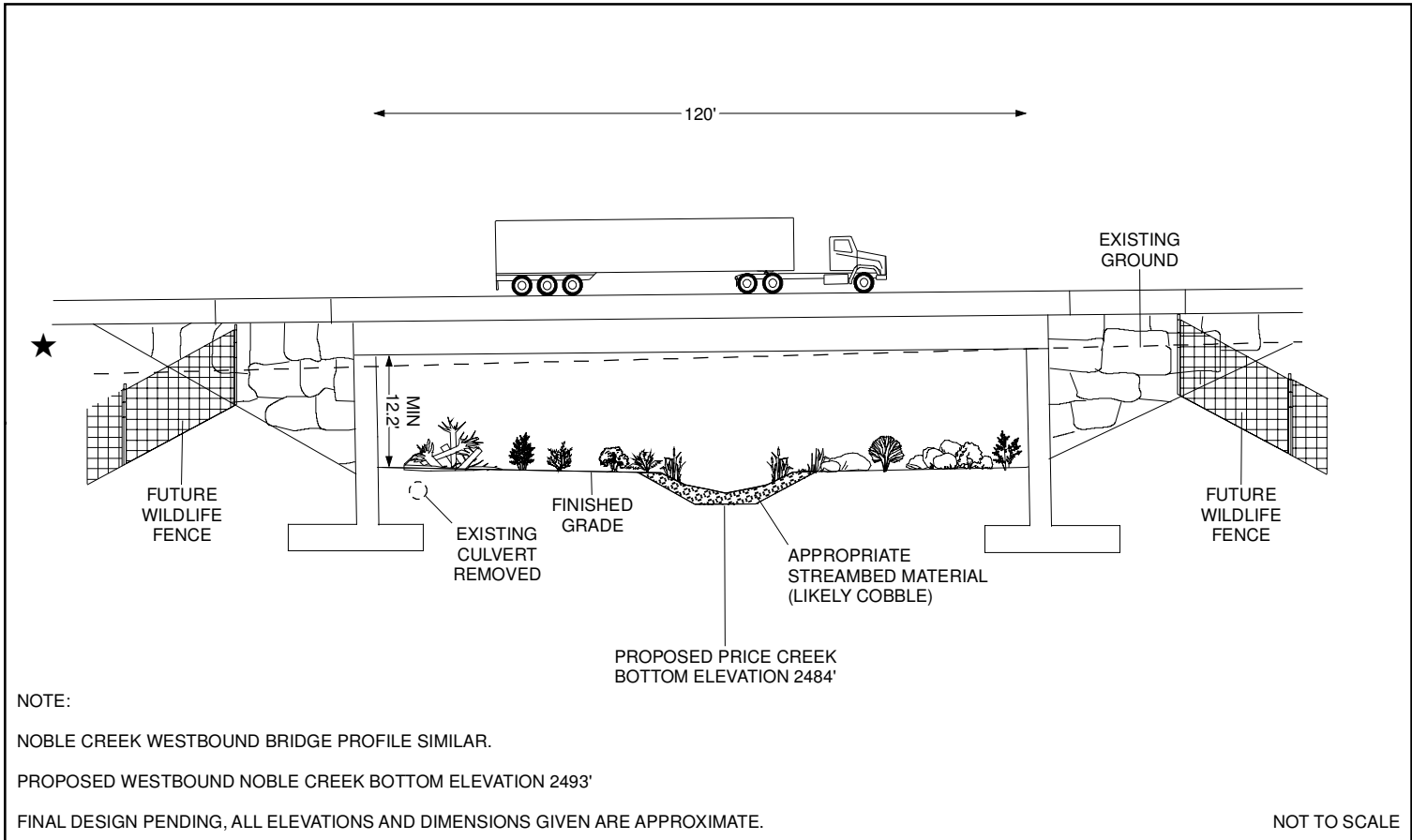
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

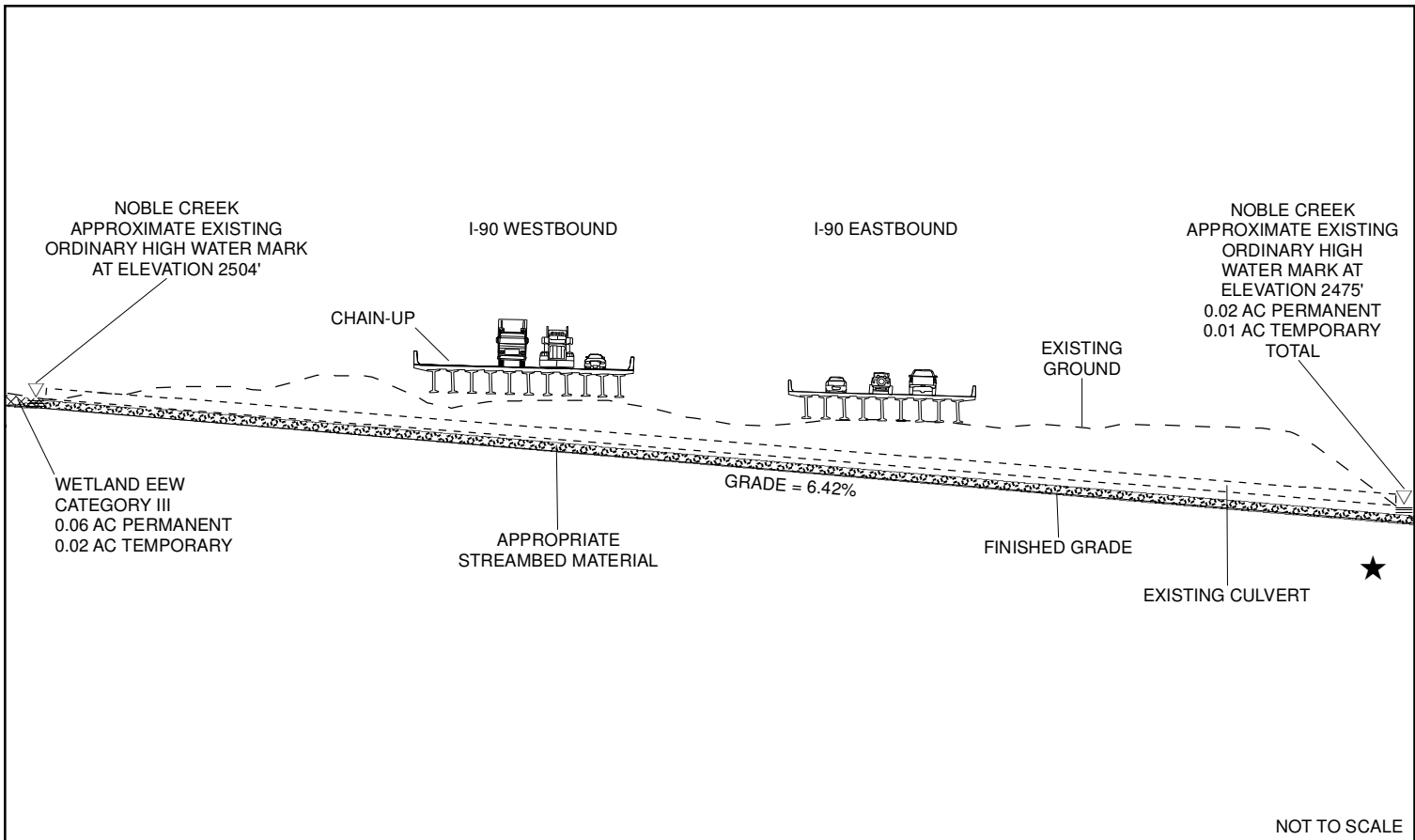
NEAR: Hyak, Washington

SHEET: 20 of 28 **DATE:** March 2014

Noble Creek Eastbound Bridge Profile



Noble Creek Bridges Cross Section 61.4



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

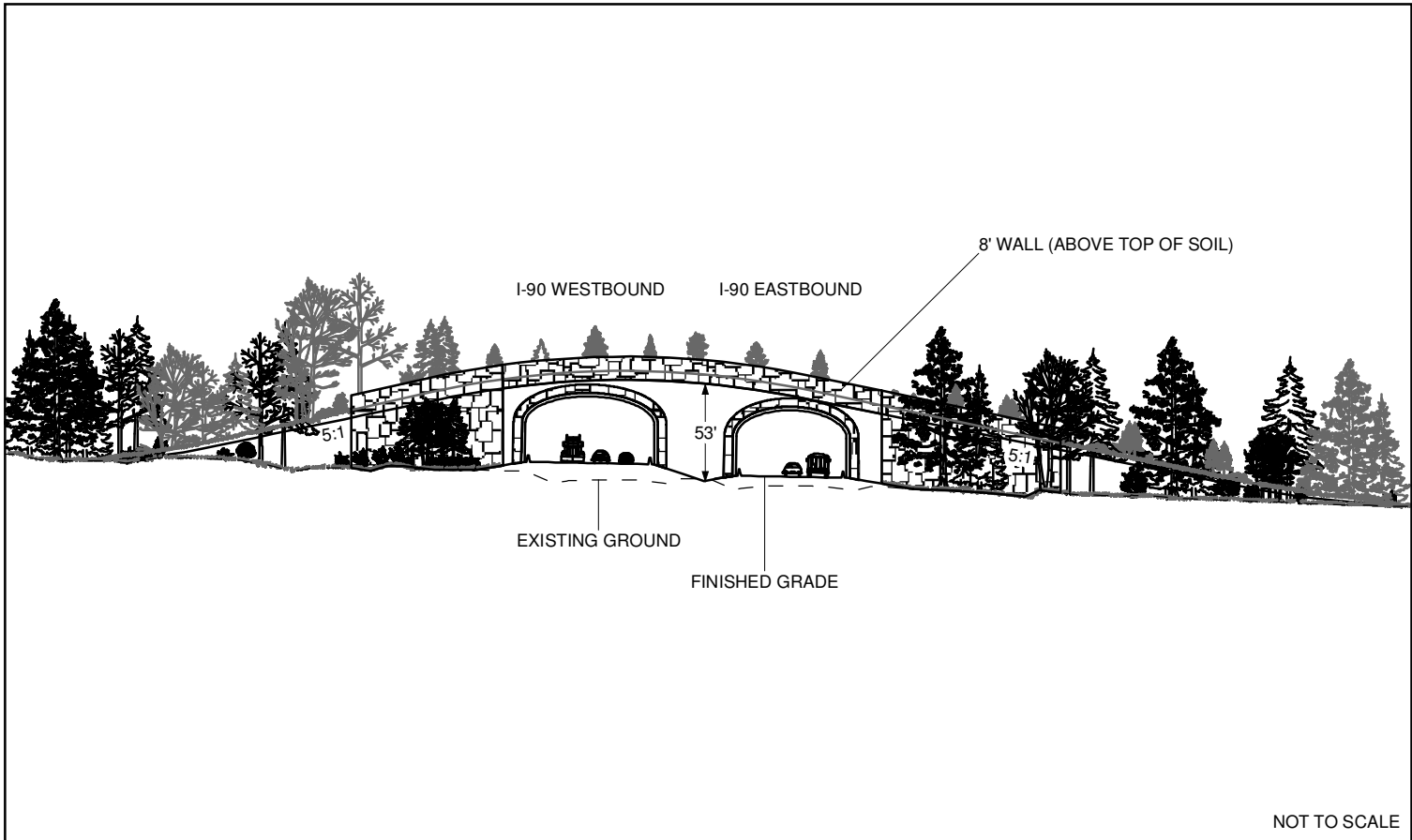
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 21 of 28 **DATE:** March 2014

Conceptual Wildlife Overcrossing Cross Section 61.5



Wildlife Overcrossing (MP 61.5) Conceptual Design



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

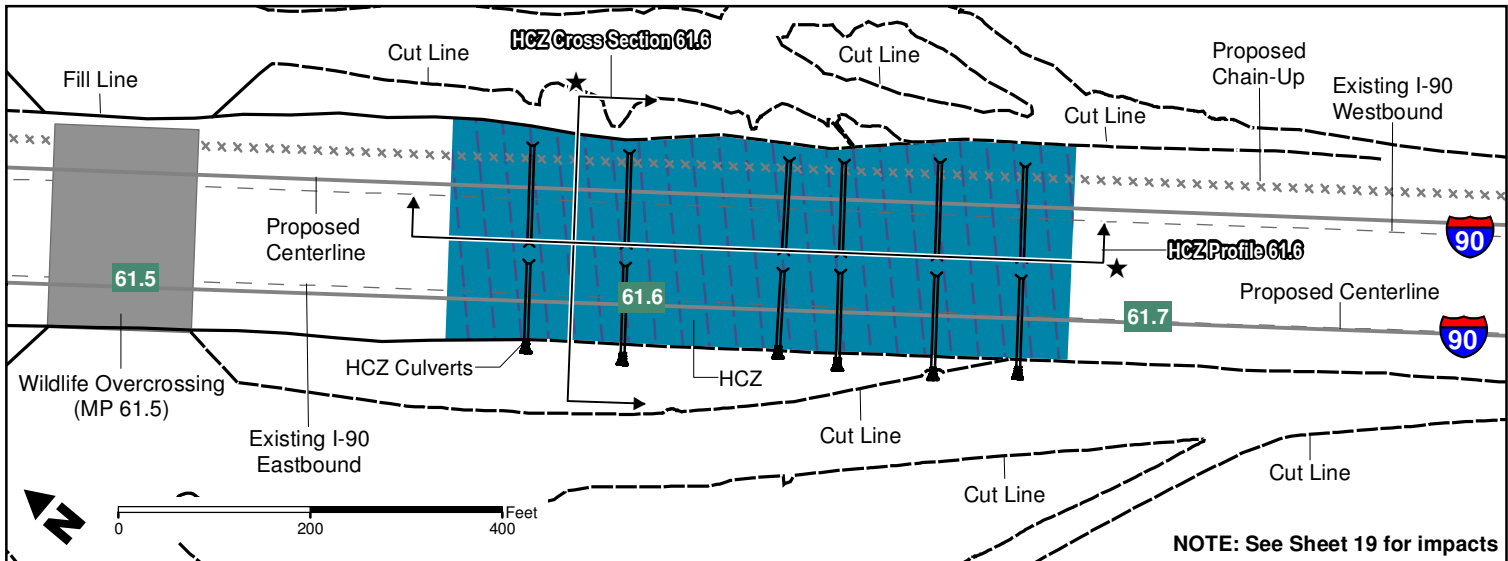
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

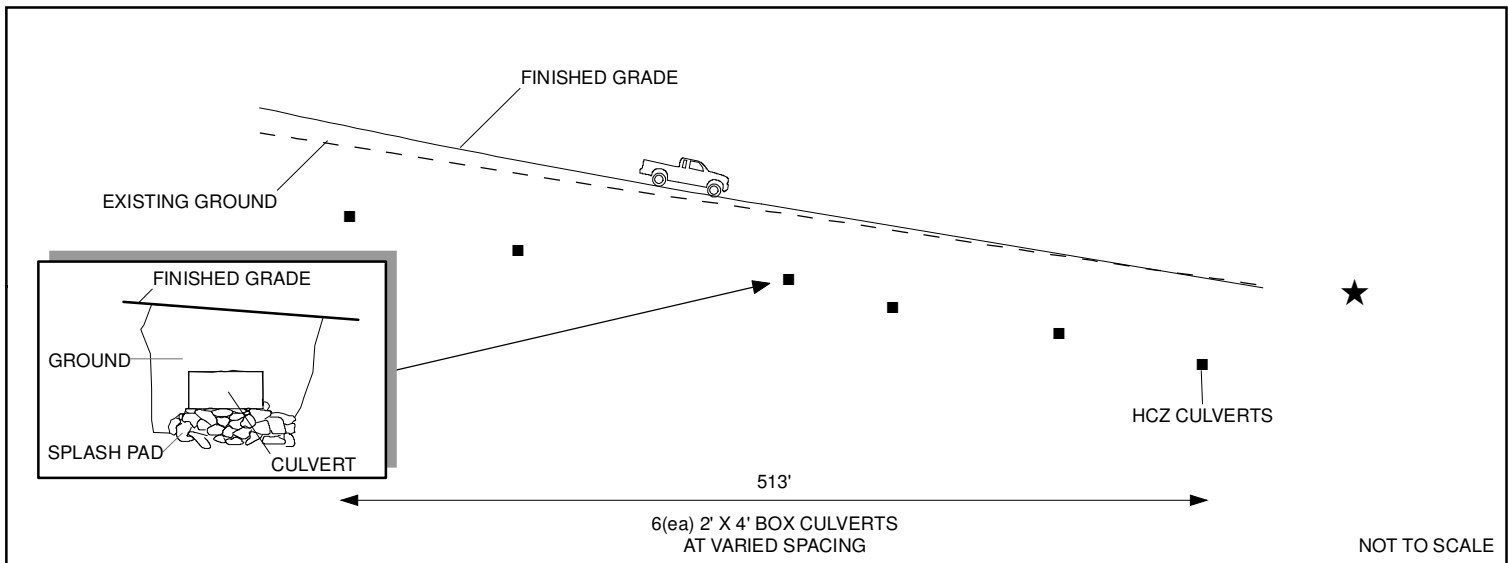
NEAR: Hyak, Washington

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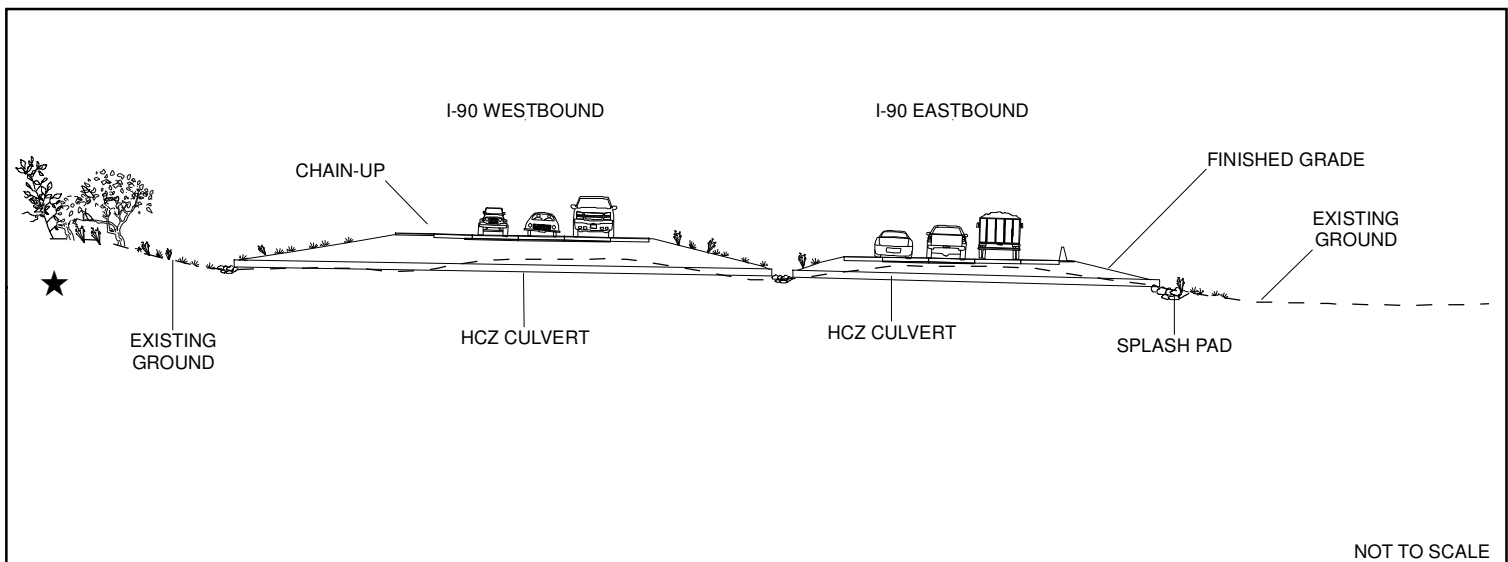
Hydrologic Connectivity Zone (HCZ) Plan View (MP 61.6)



HCZ Profile 61.6



HCZ Cross Section 61.6



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

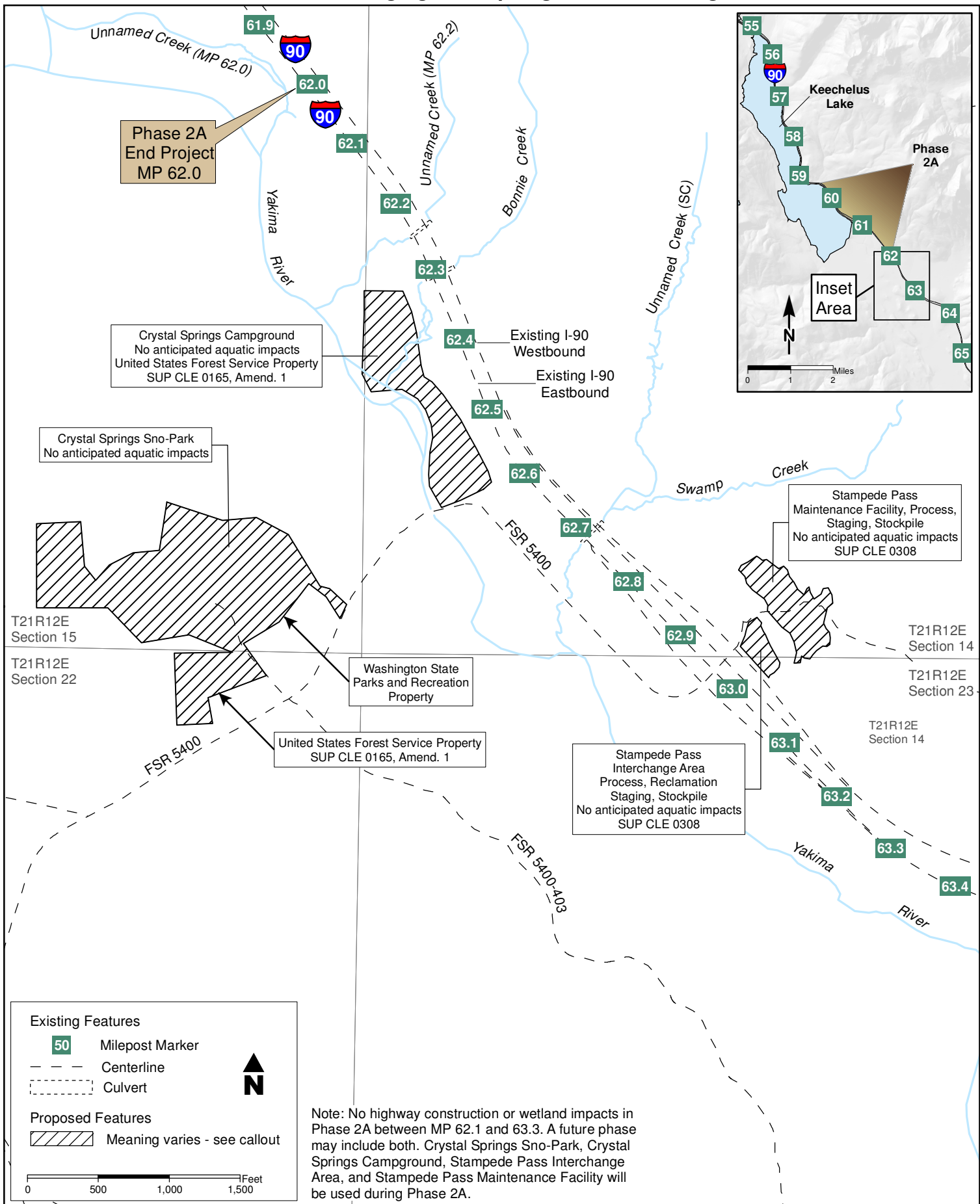
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 23 of 28 **DATE:** March 2014

Phase 2A Overview Showing From MP 62.0 to MP 63.4 With Potential Staging, Stockpiling, and Processing Sites



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

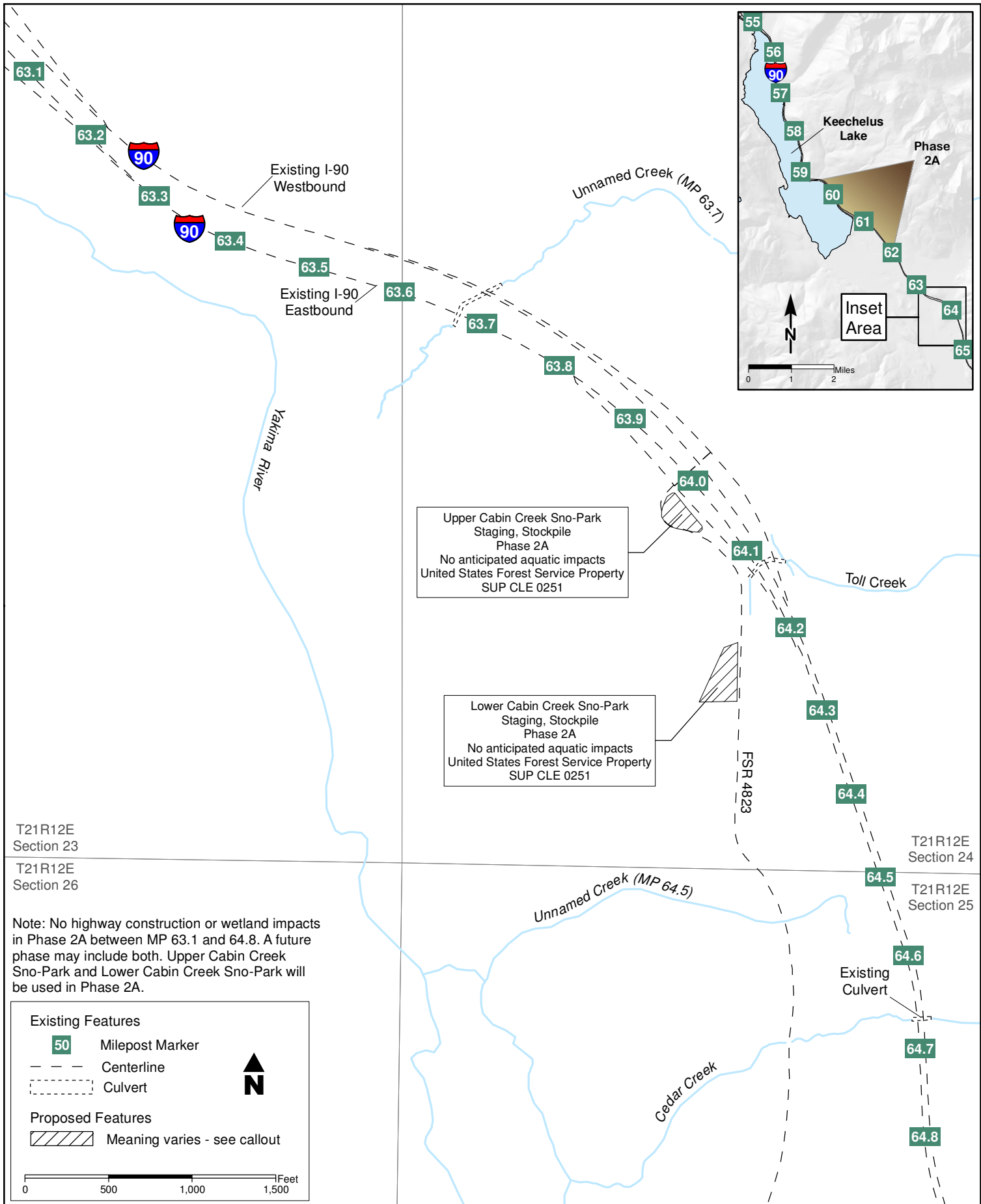
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 24 of 28 **DATE:** March 2014

Phase 2A Overview Showing From MP 63.1 to MP 64.8 With Potential Staging, Stockpiling, and Processing Sites



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

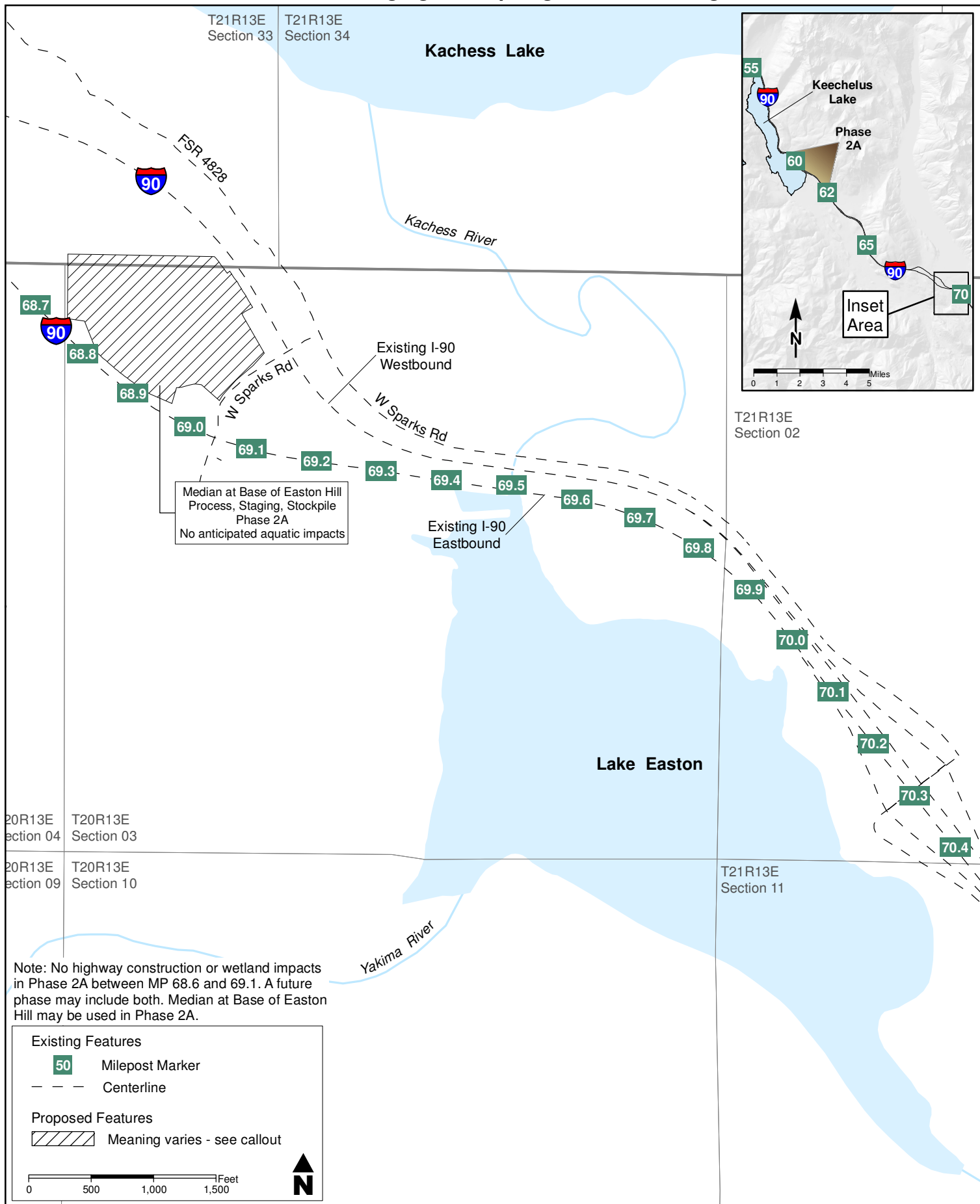
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 25 of 28 **DATE:** March 2014

Phase 2A Overview Showing From MP 68.7 to MP 70.3 With Potential Staging, Stockpiling, and Processing Sites



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

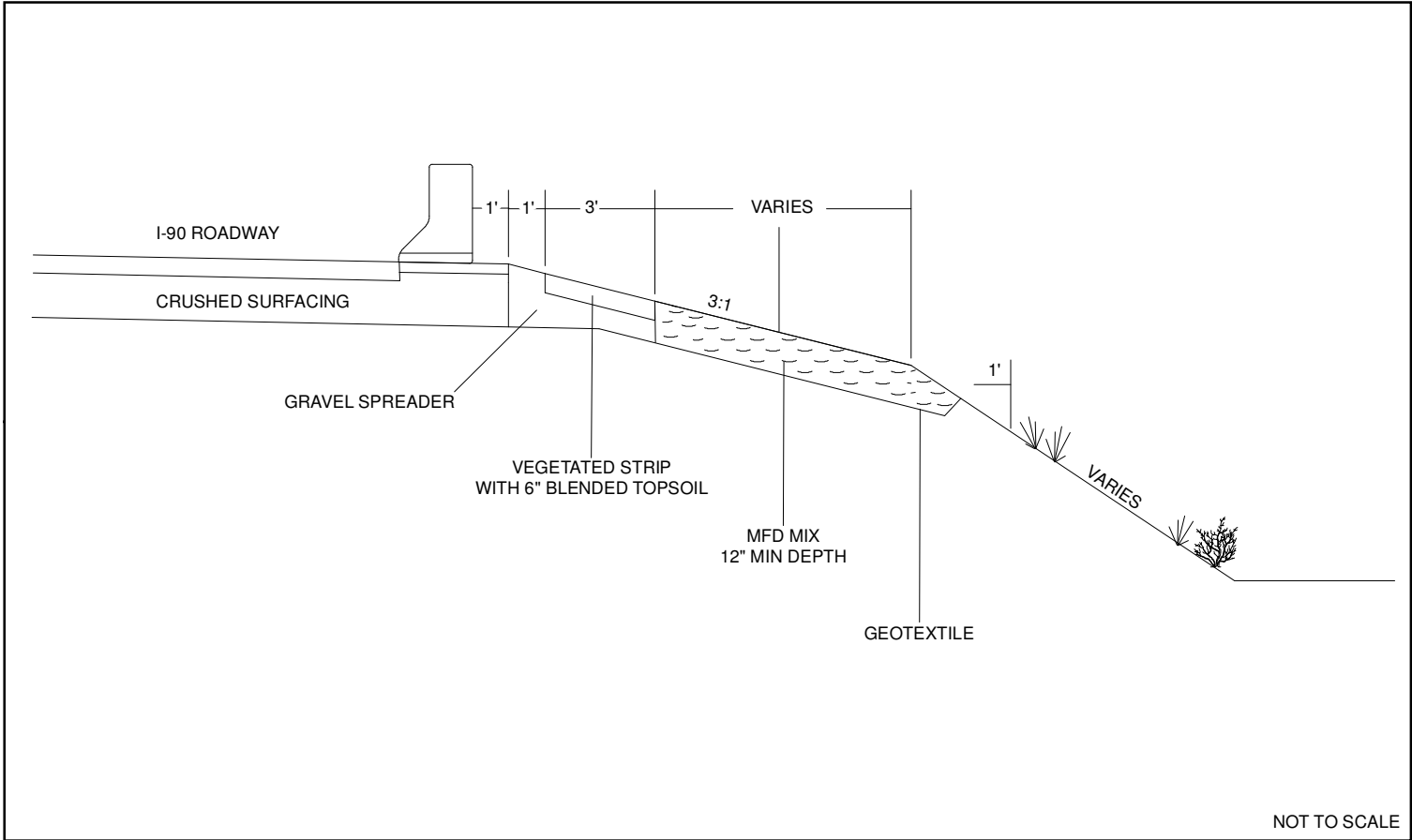
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

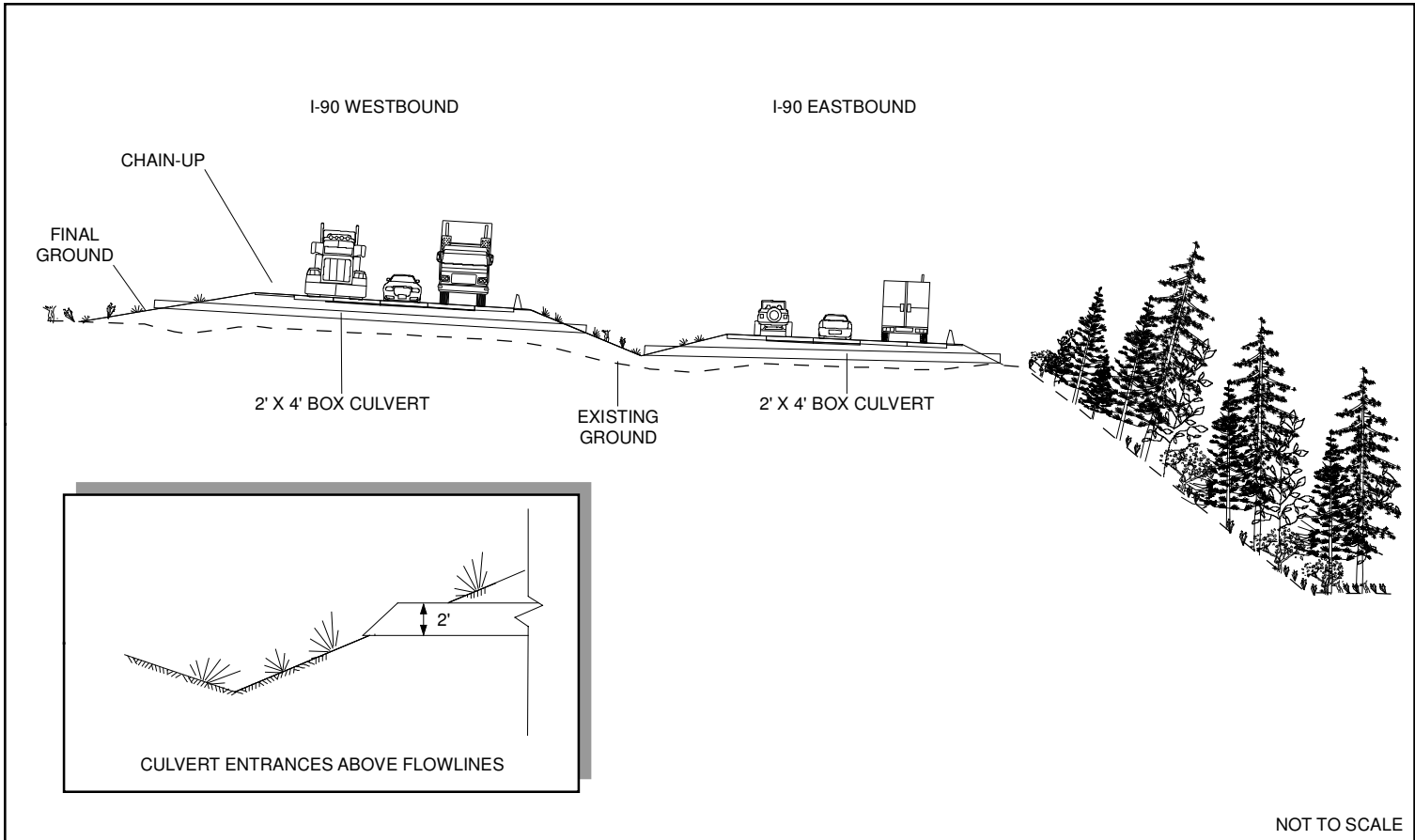
NEAR: Hyak, Washington

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Typical Media Filter Drain (MFD)



Typical Low Mobility Culvert



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

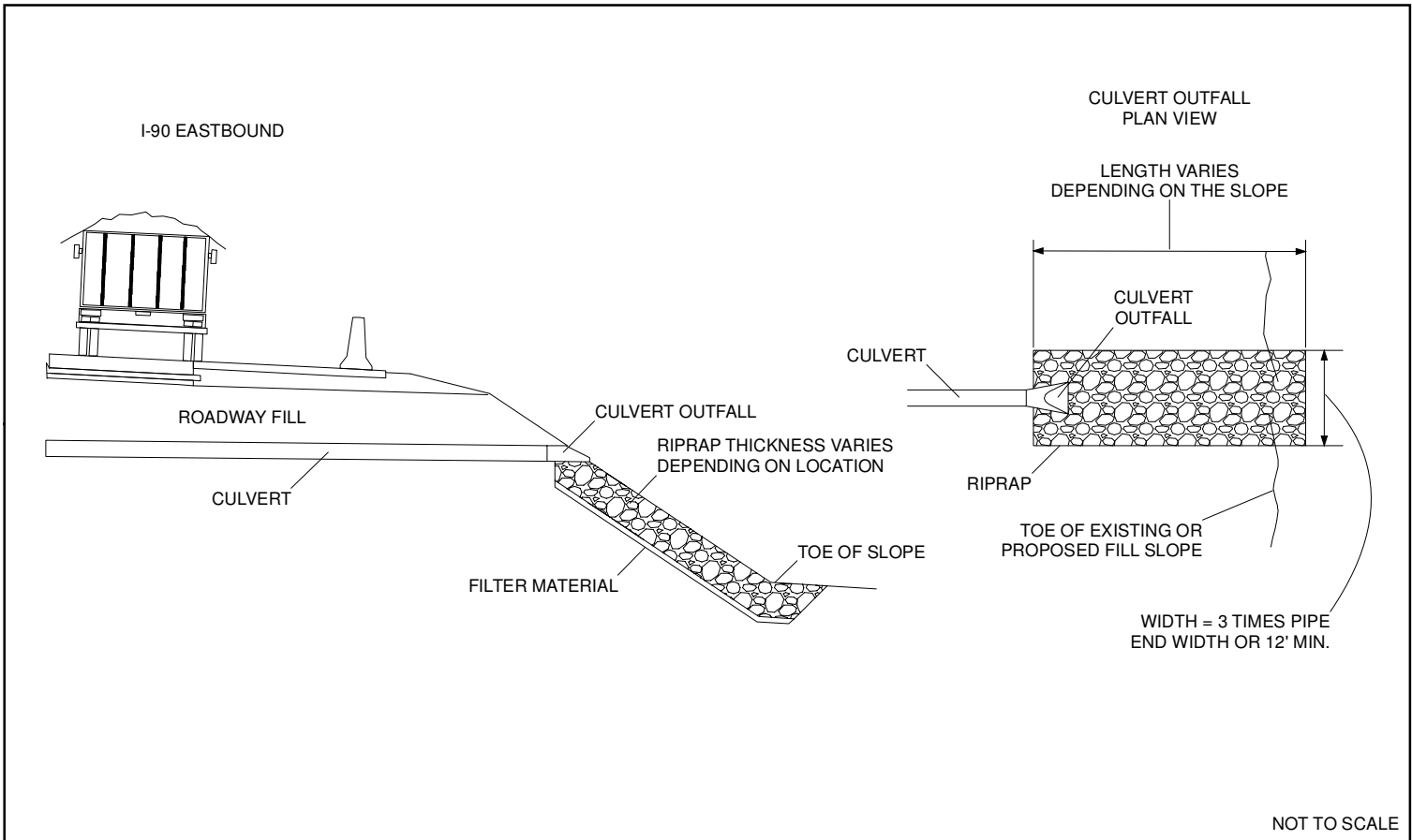
USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

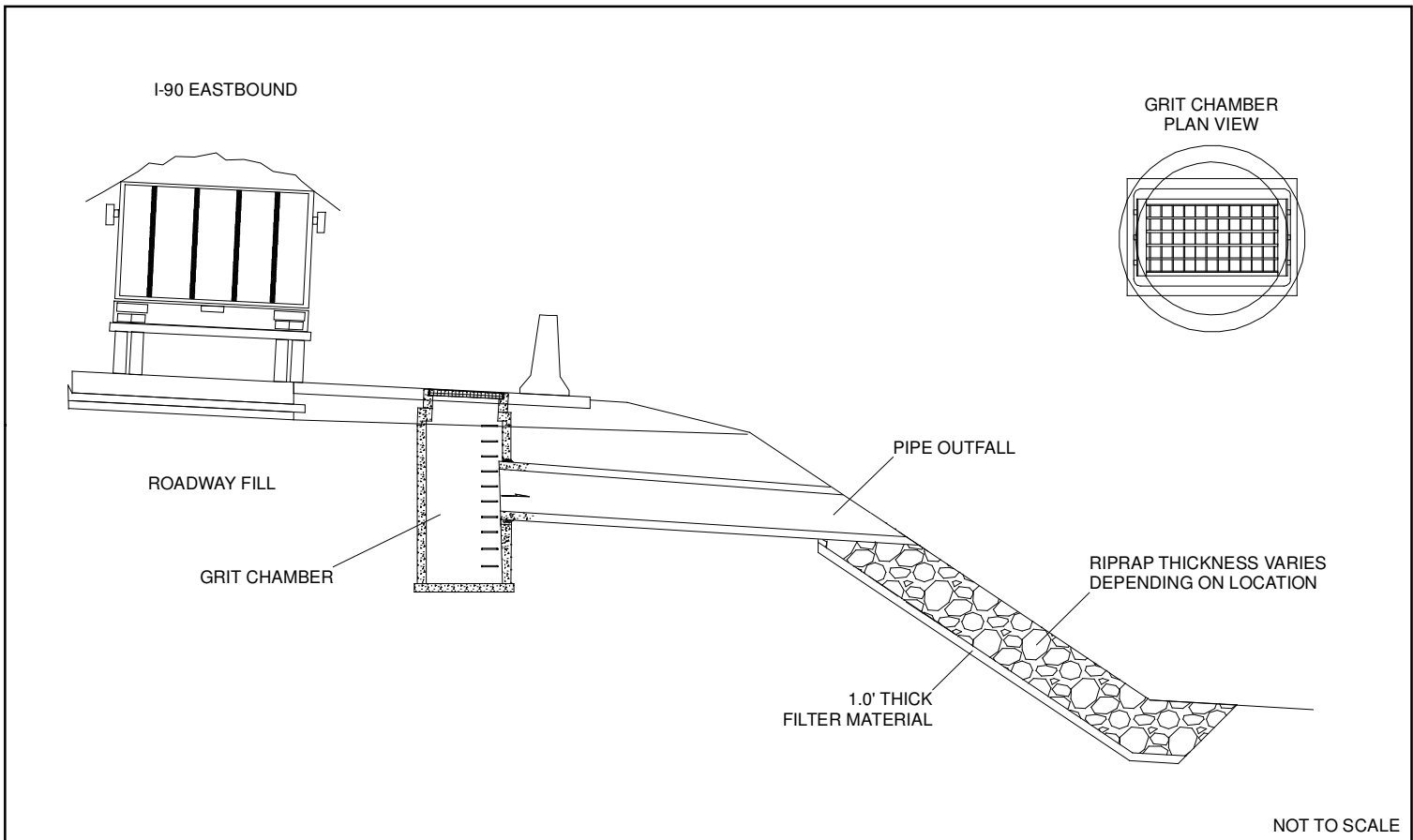
NEAR: Hyak, Washington

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Typical Rock Outfall Protection at Culvert Ends



Typical Grit Removal Chamber



Footprint R10A. Data and maps from WSDOT GIS. Details shown are based upon 60% design information and are subject to change.

USACE REF. # NWS-2007-2080-DOT
APPLICANT: WSDOT

PROPOSED: Widen the roadway; stabilize rock slopes; replace deteriorating pavement, bridges, and culverts; and provide habitat connectivity.

NEAR: Hyak, Washington

SHEET: 28 of 28 **DATE:** March 2014