

JOINT APPLICATION FOR PERMITS

U.S. ARMY CORPS OF ENGINEERS - IDAHO DEPARTMENT OF WATER RESOURCES - IDAHO DEPARTMENT OF LANDS

Authorities: The Department of Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 38, Idaho Code and Lake Protection Act (Section 58, Chapter 13 et seq., Idaho Code). In addition the information will be used to determine compliance with Section 401 of the Clean Water Act by the appropriate State, Tribal or Federal entity.

Joint Application: Information provided on this application will be used in evaluating the proposed activities. Disclosure of requested information is voluntary. Failure to supply the requested information may delay processing and issuance of the appropriate permit or authorization. **Applicant will need to send a completed application, along with one (1) set of legible, black and white (8½"x11"), reproducible drawings that illustrate the location and character of the proposed project / activities to both the Corps and the State of Idaho.**

See Instruction Guide for assistance with Application. Accurate submission of requested information can prevent delays in reviewing and permitting your application. Drawings including vicinity maps, plan-view and section-view drawings must be submitted on 8-1/2 x 11 papers.

Do not start work until you have received all required permits from both the Corps and the State of Idaho

FOR AGENCY USE ONLY

USACE NWW-	Date Received:	<input type="checkbox"/> Incomplete Application Returned	Date Returned:
Idaho Department of Water Resources No.	Date Received:	<input type="checkbox"/> Fee Received DATE:	Receipt No.:
Idaho Department of Lands No.	Date Received:	<input type="checkbox"/> Fee Received DATE:	Receipt No.:

INCOMPLETE APPLICATIONS MAY NOT BE PROCESSED

1. CONTACT INFORMATION - APPLICANT Required:				2. CONTACT INFORMATION - AGENT:				
Name: Ken Helm				Name: Michelle Anderson				
Company: State of Idaho Transportation Department - District 2				Company: Anderson Environmental Consulting LLC				
Mailing Address: P.O. Box 837				Mailing Address: 14234 N. Tormey Rd.				
City: Lewiston		State: ID	Zip Code: 83843	City: Nine Mile Falls		State: WA	Zip Code: 99026	
Phone Number (include area code): (208) 799-5090		E-mail: ken.helm@itd.idaho.gov		Phone Number (include area code): (509) 220-0045		E-mail: anderenv@q.com		
3. PROJECT NAME or TITLE: US-95 Thorncreek Road to Moscow				4. PROJECT STREET ADDRESS: Along US-95 south of the City of Moscow				
5. PROJECT COUNTY: Latah County		6. PROJECT CITY: Outside Moscow city limits		7. PROJECT ZIP CODE: 83843		8. NEAREST WATERWAY/WATERBODY: South Fork Palouse River		
9. TAX PARCEL ID#: ITD US-95 right of way		10. LATITUDE: See attached narrative LONGITUDE: See attached narrative		11a. 1/4:	11b. 1/4:	11c. SECTION: See narrative	11d. TOWNSHIP: 38N & 39N	11e. RANGE: 5W & 6W
12a. ESTIMATED START DATE: Fall 2017		12b. ESTIMATED END DATE: Fall 2018		13a. IS PROJECT LOCATED WITHIN ESTABLISHED TRIBAL RESERVATION BOUNDARIES? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Tribe:				
13b. IS PROJECT LOCATED IN LISTED ESA AREA? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				13c. IS PROJECT LOCATED ON/NEAR HISTORICAL SITE? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				
14. DIRECTIONS TO PROJECT SITE: Include vicinity map with legible crossroads, street numbers, names, landmarks. The project is located along US-95 south of the City of Moscow in Latah County, Idaho. The project begins at Thorncreek Road (MP 337.67) and continues north for 6.34 miles, ending at the South Fork Palouse River Bridge (MP 344.00). This section of US-95 travels primarily through the rolling hills and agricultural fields of the Palouse Region. See Figure 1 - Project Location Map.								
15. PURPOSE and NEED: <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Other Describe the reason or purpose of your project; include a brief description of the overall project. Continue to Block 16 to detail each work activity and overall project. The purpose of this project is to improve public safety and increase highway capacity on US-95 south of Moscow between Thorncreek Road and the South Fork Palouse River Bridge. The project need is based on several factors, including regional importance, public safety, and highway capacity.								

16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT. Specifically indicate portions that take place within waters of the United States, including wetlands: Include dimensions; equipment, construction, methods; erosion, sediment and turbidity controls; hydrological changes: general stream/surface water flows, estimated winter/summer flows; borrow sources, disposal locations etc.:

See attached narrative.

17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/ or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS: See Instruction Guide for specific details.

See attached narrative.

18. PROPOSED MITIGATION STATEMENT or PLAN: If you believe a mitigation plan is not needed, provide a statement and your reasoning why a mitigation plan is NOT required. Or, attach a copy of your proposed mitigation plan.

Effects to tributaries will be mitigated according to the Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (33 CFR 325 and 33 CFR 332, 40 CFR 230). Existing tributaries and drainages will be replaced in-kind on site by shifting them outside the new roadway footprint where possible. Affected stream channels and wetlands that are not mitigated on-site will be mitigated by using the credits from the Cow Creek Mitigation Area, which has already been constructed. If after detailed design, it is determined that additional mitigation is required, then the Valencia Mitigation Bank or other mitigation methods will be used to meet mitigation requirements. A letter from the USACE approving the use of the Cow Creek Wetland Mitigation Area for mitigation of wetland impacts can be found in Appendix A of the attached narrative.

19. TYPE and QUANTITY of MATERIAL(S) to be discharged below the ordinary high water mark and/or wetlands:

Dirt or Topsoil:	_____	cubic yards
Dredged Material:	_____	cubic yards
Clean Sand:	_____	cubic yards
Clay:	_____	cubic yards
Gravel, Rock, or Stone:	_____	cubic yards
Concrete:	_____	cubic yards
Other (describe): <u>Roadway Fill Material</u>	: <u>618.1</u>	cubic yards
Other (describe): _____	: _____	cubic yards
TOTAL:	618.1	cubic yards

20. TYPE and QUANTITY of impacts to waters of the United States, including wetlands:

Filling:	_____	acres	_____	sq ft.	<u>4,373</u>	cubic yards
Backfill & Bedding:	_____	acres	_____	sq ft.	_____	cubic yards
Land Clearing:	_____	acres	_____	sq ft.	_____	cubic yards
Dredging:	_____	acres	_____	sq ft.	_____	cubic yards
Flooding:	_____	acres	_____	sq ft.	_____	cubic yards
Excavation:	_____	acres	_____	sq ft.	<u>1,177</u>	cubic yards
Draining:	_____	acres	_____	sq ft.	_____	cubic yards
Other: <u>Impact Area</u>	: <u>3.428</u>	acres	_____	sq ft.	_____	cubic yards
TOTALS:	3.428	acres	_____	sq ft.	5,550	cubic yards

21. HAVE ANY WORK ACTIVITIES STARTED ON THIS PROJECT? NO YES If yes, describe ALL work that has occurred including dates.

22. LIST ALL PREVIOUSLY ISSUED PERMIT AUTHORIZATIONS:
 No permit authorizations have been issued yet. A ROD for the FEIS was issued in March 2016. Permits required for the project will include Section 404 permit from the USACE, a NPDES Construction General Permit from the EPA, a Notice of Demolition from the EPA, a 401 Water Quality Certification from IDEQ, and a Stream Channel Alteration Permit from the IDWR.

23. YES, Alteration(s) are located on Public Trust Lands, Administered by Idaho Department of Lands

24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED: see narrative Square Miles

25. IS PROJECT LOCATED IN A MAPPED FLOODWAY? NO YES If yes, contact the floodplain administrator in the local government jurisdiction in which the project is located. A Floodplain Development permit and a No-rise Certification may be required.

26a. WATER QUALITY CERTIFICATION: Pursuant to the Clean Water Act, anyone who wishes to discharge dredge or fill material into the waters of the United States, either on private or public property, must obtain a Section 401 Water Quality Certification (WQC) from the appropriate water quality certifying government entity.
See Instruction Guide for further clarification and all contact information.

The following information is requested by IDEQ and/or EPA concerning the proposed impacts to water quality and anti-degradation:
 NO YES Is applicant willing to assume that the affected waterbody is high quality?
 NO YES Does applicant have water quality data relevant to determining whether the affected waterbody is high quality or not?
 NO YES Is the applicant willing to collect the data needed to determine whether the affected waterbody is high quality or not?

26b. BEST MANAGEMENT PRACTICES (BMP's): List the Best Management Practices and describe these practices that you will use to minimize impacts on water quality and anti-degradation of water quality. All feasible alternatives should be considered - treatment or otherwise. Select an alternative which will minimize degrading water quality

Site specific best management practices (BMP's) to avoid and minimize impacts will be developed by the selected construction contractor prior to beginning construction. Representative project-specific environmental controls will include:
 - Ground disturbing activities will occur during the dry season when possible to minimize the potential for introducing sediment to drainages and to control erosion in the Project Area.
 - Silt fences or fiber wattles will also be installed between areas of disturbance and drainages, and will be cleaned regularly to maintain function.
 - To minimize the potential for introducing hazardous materials to drainages in the project area, precautionary measures will be taken to reduce the risk of spills. A spill prevention and contingency plan will be prepared by the construction contractor, approved by ITD prior to construction, and submitted to EPA prior to project implementation.
 - All staging, stockpiling, fueling, storage, wasting, and maintenance areas will be located away from drainages where possible and adequately buffered from drainage areas by at least 150 feet.
 - In case of emergency, a hazardous materials spill kit will be kept on site during construction that is appropriate for the solvents involved in operation and maintenance of vehicles and machinery used during the project.
 Also see response for Block 17.

Through the 401 Certification process, water quality certification will stipulate minimum management practices needed to prevent degradation.

27. LIST EACH IMPACT to stream, river, lake, reservoir, including shoreline: Attach site map with each impact location.

Activity	Name of Water Body	Intermittent Perennial	Description of Impact and Dimensions	Impact Length Linear Feet
See Attached Narrative				
TOTAL STREAM IMPACTS (Linear Feet):				

28. LIST EACH WETLAND IMPACT include mechanized clearing, fill, excavation, flood, drainage, etc. Attach site map with each impact location.

Activity	Wetland Type: Emergent, Forested, Scrub/Shrub	Distance to Water Body (linear ft)	Description of Impact Purpose: road crossing, compound, culvert, etc.	Impact Length (acres, square ft linear ft)
See Attached Narrative				
TOTAL WETLAND IMPACTS (Square Feet):				

**Attachment to
Joint Application for Permits
U.S. Army Corps of Engineers
Idaho Department of Water Resources
Idaho Department of Lands**

**US-95, Thorncreek Road to Moscow, Latah County
ITD Project No. DHP-NH-4110(156); Key No. 09294**

Supplemental Application Information Included:

- Block 10. LATITUDE and LONGITUDE
- Block 11c. SECTIONS
- Block 16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT
- Block 17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS.
- Block 24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED
- Block 27. LIST EACH IMPACT TO STREAM, RIVER, LAKE RESERVOIR, INCLUDING SHORELINE. ATTACH SITE MAP WITH EACH IMPACT LOCATION.
- Block 28. LIST EACH WETLAND IMPACT INCLUDE MECHANIZED CLEARING, FILL EXCAVATION, FLOOD, DRAINAGE, ETC.
- ADJACENT PROPERTY OWNERS NOTIFICATION REQUIREM: PROVIDE CONTACT INFORMATION OF ALL ADJACENT PROPERTY OWNERS

10. LATITUDE and LONGITUDE

Northern Termini Latitude: 46.713607

Northern Termini Longitude: -117.003932

Southern Termini Latitude: 46.627778

Southern Termini Longitude: -116.995382

11c. SECTIONS

T39N R05W Sections 19, 20, 29, 30, 31, and 32

T39N R06W Sections, 24, 25, and 36

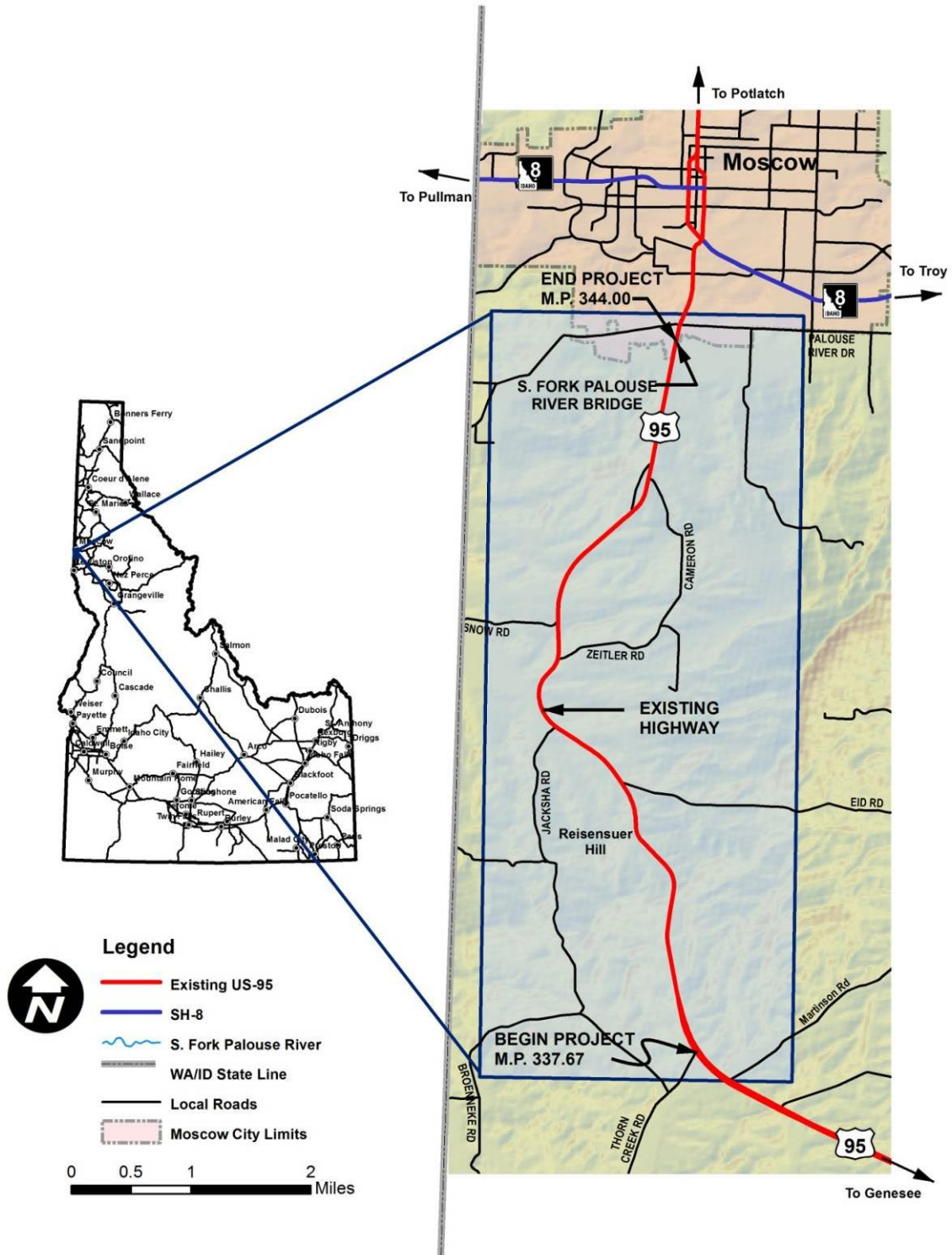
T38N R05W Sections 5, 6, 7, 8, 9, 17, 18, and 20

T38N R06W Sections 1, 12, and 13

16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT

The US-95 Thorncreek Road to Moscow project is linear in nature, and consists of realigning approximately 6.34 miles of US-95 just south of the City of Moscow. The new segment of US-95 will be east of existing US-95 alignment is approximately 5.86 miles in length. See Figure 1. Project Location. Material sources that are not from the cut sections from the project, will be from commercial sources that have already been permitted.

Figure 1. Project Location



Summary of Construction in Wetlands and Waters of US

Portions of this project take place within waters of the United States, including wetlands as described below:

- Approximately 3.43 acres of wetlands will be permanently impacted.
- Approximately 0.25 acres of wetland will be temporarily impacted.
- Approximately 620 cubic yards (cy) of fill will be placed below the ordinary high water mark (OHWM) in tributaries and drainages.
- Five existing tributaries identified in the US-95 Thorncreek to Moscow Wetland Delineation Report, will be impacted by the roadway construction. The impacts are necessary to construct the elements of the roadway as shown in Figure 2. Typical Section for 4-lane Divided Highway and Figure 3. Typical Section for 4-lane Highway with Center Turn Lane. The impacts will be due to fill for the road lanes, shoulders, clear zones, medians, ditches, culverts and approaches.
- 16 new culverts will be installed to convey drainages and their associated wetlands under the new US-95 alignment and approaches. Work in the tributaries and drainages will be done during periods of no flow or if water is present within the drainage at the time, it will be dewatered in order to minimize water quality impacts.

Figure 2. Typical Section for 4-lane Divided Highway

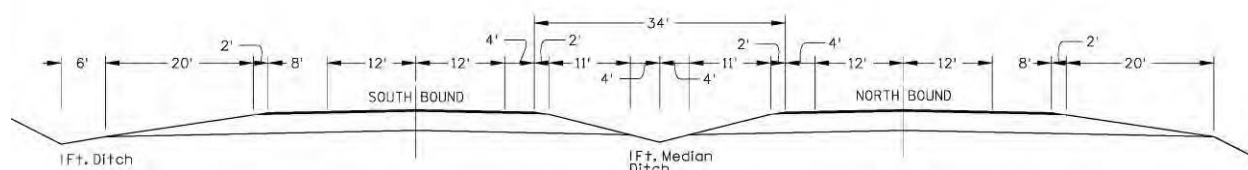
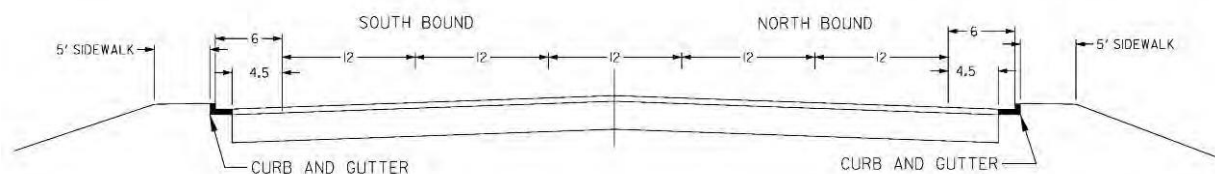


Figure 3. Typical Section for 4-lane Highway with Center Turn Lane



Clearing and Grading

High-visibility fence, silt fence, and/or other BMPs as indicated in the Stormwater Pollution Prevention Plan (SWPPP) will be placed along the work disturbance limits prior to clearing and grading which will help limit site disturbance and minimize erosion and sedimentation.

Clearing and grading will result in permanent impacts to Wetlands 13, 23, 29, 32, 35, 40, and 44. Project construction will permanently impact 3.43 acres of wetland and will temporarily impact 0.25 acres of wetland. See Table 4. Permanent Wetland Impacts and Table 5. Temporary Wetland Impacts.

Clearing and grubbing vegetation will be necessary where construction is indicated in the plan set. Plants will be salvaged for reuse as possible. When vegetation trimming or mowing is necessary but wetland fill or roots will not be removed, and wetlands will not be bladed or permanently filled, the impacts are considered temporary. This may be needed to temporarily access the construction areas but would be restored to preconstruction grade and revegetated after construction. Where vegetation is cleared, roots are removed, and fill is placed in the wetland, the impacts are considered permanent. Clearing, grubbing and grading for the project will be accomplished using equipment, including, but not limited to a front-end loader, a backhoe, a grader or similar equipment.

Approximately 4,290 linear feet (ft) of Tributaries P, U, and V will be impacted due to fill placement for the new road prism and approximately 4,030 ft of tributary will be replaced adjacent to the new roadway. Approximately 620 cy of fill will be placed below the OHWM of the different tributaries. See Table 3. Tributary Impact Calculations. See attached plans.

Culvert Installation

Sixteen culverts ranging between 24-inches (in) and 48-in diameter will be installed under the new roadway, which will permanently impact Tributaries P, U, V, W (Wetland 32), and X (Wetland 35). Each culvert will be installed on a minimum of 6-in of bedding material (crushed rock) at the approximate stream grades of the existing drainages. Equipment used during culvert installation will likely include a crane, track hoe, backhoe, front-end loader, or other similar equipment. This equipment will be staged and operated above the OHWM of the tributaries.

Some of the culvert installations are within wetlands and would result in permanent wetland impacts. Culvert installations will include:

- 872 ft of 24-in culvert pipe
- 402 ft of 36-in culvert pipe,
- 3,456 ft of 48-in culvert pipe

Due to the intermittent and seasonal tributary and drainage flows, the drainages may be dry during culvert installation. If water is present, the streamflow will be captured (most commonly with sandbags and visqueen) then temporarily diverted around the construction through a temporary pipe until installation of the culvert is completed. The temporary diversion will be installed per Idaho Fish and Game (IDFG) and Idaho Department of Water Resources (IDWR) guidelines and will be entirely removed after the new culvert and roadway are installed.

There will be other construction activities that would be outside of the wetlands and the drainages including road paving, striping, signage installation, reseeding slopes, construction of field and other approaches, utility relocation and other construction activities.

17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/ or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS

Avoidance

An Environmental Impact Statement (EIS) titled *US-95 Thorncreek to Moscow, Environmental Impact Statement*, was prepared and a Record of Decision (ROD) was issued on March 21, 2016. During the EIS process, conceptual level alternatives were developed and screened during two screening levels; Level One evaluated broad transportation concepts, which included the No Action Alternative, Transportation System Management (TSM), Transportation Demand Management (TDM) and Mass Transit. The TSM, TDM and Mass Transit alternatives were not forwarded for further consideration because of the rural nature and low population density of the project area and because they would not address the purpose and need which includes safety deficiencies of the existing roadway. The No Action and Action Alternatives were forwarded for further consideration.

The Level Two Alternatives resulted in the development and evaluation of the No Action Alternative and 10 Alignment Alternatives. These alignment alternatives were categorized into the western, central and eastern corridors as shown in Figure 4. Initial Alternatives. Of the alternatives forwarded for further evaluation, only the No Action Alternative would have avoided all wetland impacts; however it would not meet the project purpose and need to improve capacity and safety in the area. All other alternatives would have impacted wetlands due to the east/west orientation of the wetlands which would have resulted in all alternatives between Thorncreek Road to Moscow to would cross wetlands.

Of the 11 initial alternatives, seven were eliminated from further consideration during the Level Two screening process due to high adverse effects on the natural or built environment or because they provided less benefit compared to the other alternatives. In the eastern corridor, the E-1 and E-3 were eliminated from further consideration because they had greater wetland impacts and greater impacts to rare plant communities compared to E-2 alternative. See Table 1. Comparison of Alternatives' Wetland Impacts

The No Action and one alternative representing each corridor (west, central, and east) representing a range of reasonable alternatives, were forwarded for detailed evaluation in the DEIS. See Figure 5. FEIS Alternatives for the alternatives evaluated in detail in the EIS. Based on the DEIS and FEIS, C-3 would have the least wetland impact and E-2 would have the greatest wetland impact; however, practicability is influenced by safety as well as resource impacts. The impacts were analyzed taking into account the number of crashes predicted between 2017 and 2036. The E-2 Alternative would best meet the project purpose and need and would have 43 fewer projected total crashes and nine fewer fatal and injury crashes, which would have

significant benefit to the community and travelling public compared to the E-1 and E-3 alternatives respectively. In addition, the E-2 alternatives' lesser impacts to floodplains, businesses, and impacted less length of tributaries not in wetlands (two thirds fewer linear feet of tributary compared to the C-3 Alternative based on preliminary impact information) compared to other Action Alternatives.

Table 1. Comparison of Alternatives' Wetland Impacts

Alternative	Wetland Impact (acres) - Screening Level 2	Wetland Impacts (acres)-FEIS Alternatives
W-1	5.1	
W-2	5.2	
W-3	3.7	
W-4	6.5	1.85
C-1	4.6	
C-2	5.8	
C-3	1.7	0.99
E-1	4.4	
E-2	4.1	3.61
E-3	4.3	

The E-2 Alternative was selected for the following reasons:

- It will have the greatest safety improvement.
- It will have the fewest access points and at-grade county intersections.
- It will have the least effect to streams.
- It will avoid potential business impacts and floodplains.
- It will have the shortest five-lane typical section and overall shortest length.
- It meets the project purpose and need.

Compared to C-3, the E-2 Alternative will save 800 hours of travel time and is estimated to save \$19 million in the total cost of travel time, related vehicle depreciation, and vehicle operating costs for road users. This is explained in the US-95 Thorncreek Road to Moscow; Mobility and Road User Cost Study on Alternatives Carried Forward (ITD 2014).

Figure 4. Initial Alternatives

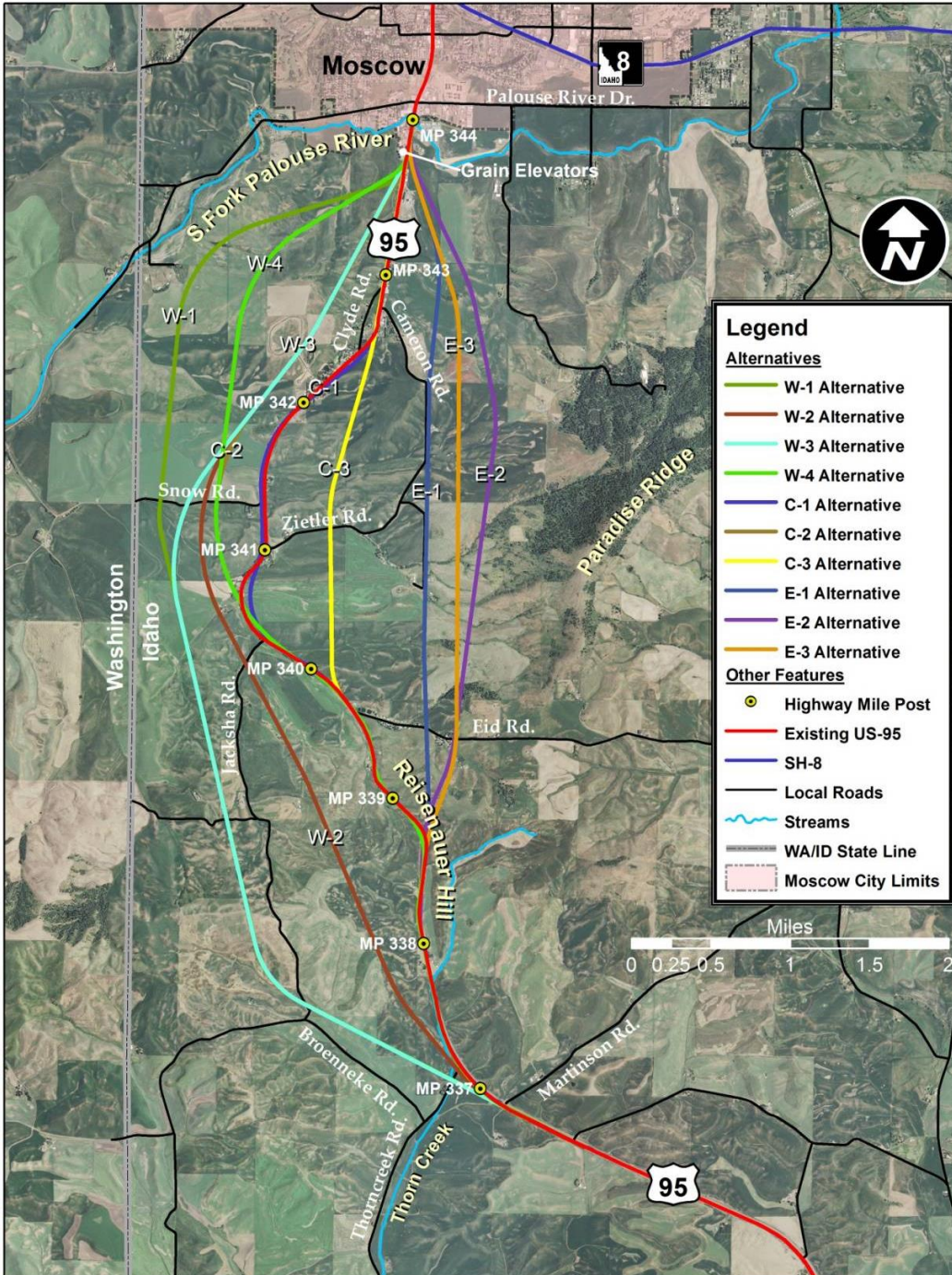
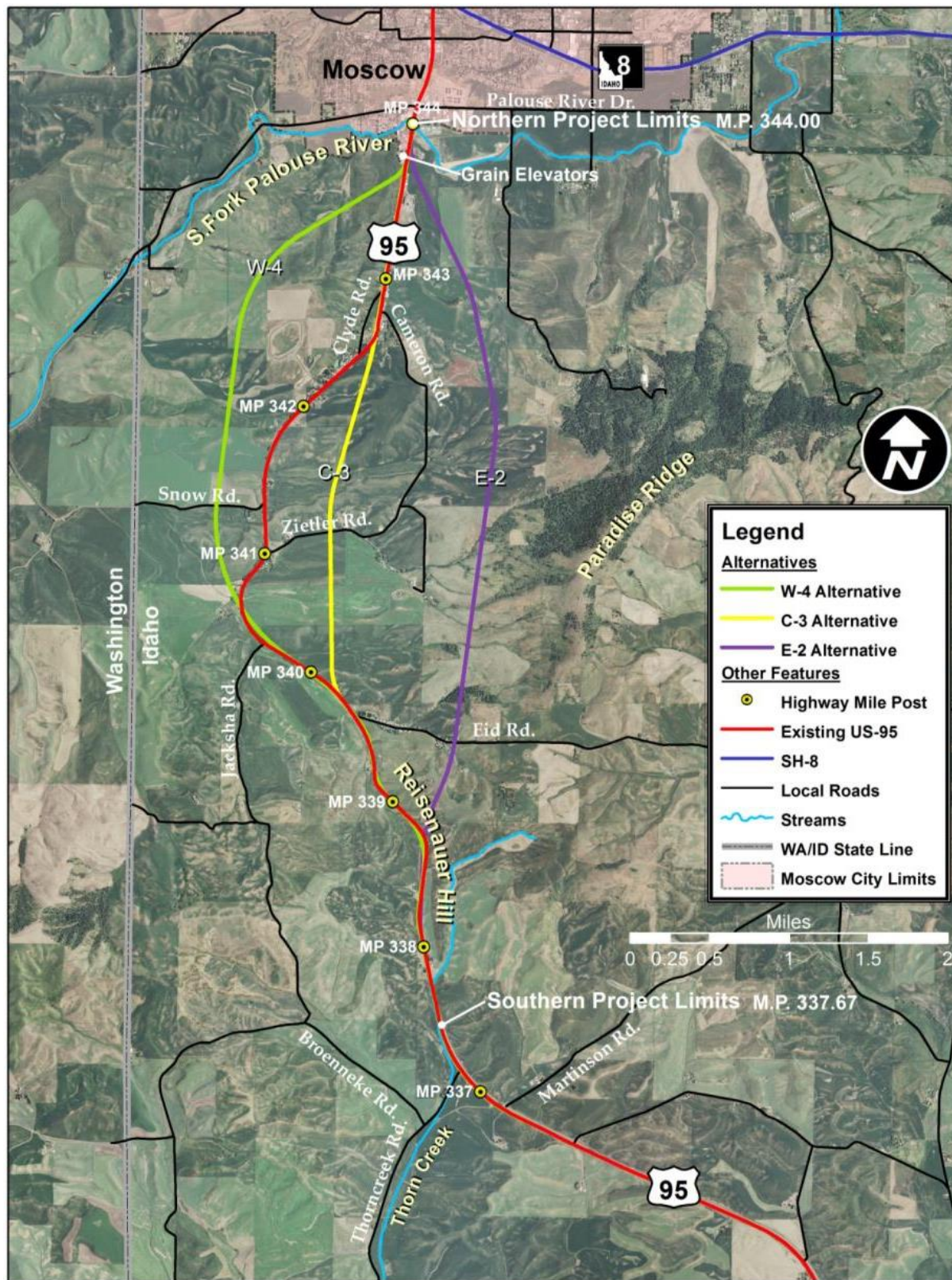


Figure 5. FEIS Alternatives



Minimization Measures

Additional minimization measures were applied to the E-2 Alternative (Action) after additional geotechnical information and survey data were available to develop the design.

1. Drainages and tributaries will be replaced on-site and in-kind where possible and in most cases will be shifted just outside of the roadway fill and/or placed in oversized culvert crossings.
2. Stormwater will be collected and treated in the median and along the roadway or in ditch systems to minimize impacts to water quality, control runoff and attenuate flows into tributaries and drainages.
3. Engineering solutions that were applied to the design to minimize impacts included:
 - a. Where geotechnical conditions allowed, rock was used to steepen fill slopes from approximately 3:1 slopes to 2:1 slopes, which reduced the encroachment into wetlands.
 - b. Typically, the culverts required only 18-24 inch culverts based upon hydraulic analysis with two requiring 48-in culverts. Culverts were oversized to help ensure hydraulic connectivity for wetlands on both sides of the roadway and to accommodate wildlife movement where habitat was present adjacent to the roadway. Where larger culverts were not feasible due to low fill heights, such as near Thorn Creek Road, a squashed culvert will be used to allow the maximum width. Culvert sizing was determined in close collaboration with Idaho Department of Fish and Game (IDFG). After construction, wildlife use of specific culverts will be monitored in collaboration with IDFG.
 - c. Manholes with grates will be installed to allow light into the median in the longest culvert crossings. The light is intended to increase the amount of light which could encourage wildlife to use the culvert crossings. Wildlife use will be monitored for effectiveness after construction.
 - d. Culverts will be placed under the roadway even when there are no tributaries in order to allow hydraulic connectivity.
 - e. Other hydraulic measures, such as constructing a special vegetated swale near the Eid Road crossing, will continue to allow hydraulic flow and aquatic and terrestrial species connectivity under the freeway crossing.
4. Where possible, areas that would not require wetland or drainage fills are designated as temporary impact areas and will be restored to preconstruction grades and revegetated to replace existing vegetation or reseeded with native species.
5. Native plants will be salvaged before construction so they may be reused within the constructed project or made available for local conservation projects.
6. Where sight distance would not be affected, the vegetation outside of the clear zone and within the right-of-way will be maintained to preserve wildlife habitat.
7. Other measures to mitigate effects to wildlife will be implemented such as installing bat boxes, pygmy nuthatch nesting boxes and making them available to the public. Grasslands where nesting birds could occur would be surveyed before construction. These will be implemented in collaboration with IDFG.

8. A Vegetation Management Plan that will help control weeds within the highway will be prepared and implemented in collaboration with NRCS, Conservation Districts and IDFG.
9. A Spill Plan will be prepared which will include BMPs such as:
 - a. Secondary containment for chemicals used on the project.
 - b. All staging, stockpiling, fueling, storage, wasting, and maintenance areas will be located more than 150 ft away from streams, surface waters and wetlands.
 - c. Spill kits appropriate to control or clean up the hazardous materials used on-site, will be in vehicles and on site to ensure quick response and cleanup.
10. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared which will include BMPs such as:
 - a. Vegetation clearing limits will be indicated in the final design plan sheets and marked clearly in the field. High visibility fencing will be installed and maintained during construction around wetlands and waterways where they will be retained and protected.
 - b. Silt fences or fiber wattles will be placed appropriately and maintained to minimize erosion and sedimentation.
 - c. Exposed soils will be reseeded or otherwise revegetated for temporary and permanent stabilization and will also minimize weed establishment and spread.
 - d. An NPDES Permit will be required for the project and Stormwater will be monitored during construction to ensure that water quality is not affected. Turbidity testing will occur daily during in-water work.
 - e. Construction in drainages or wetlands would be during low rainfall periods and low flow periods or would use temporary water diversion BMPs.

Compensatory Mitigation

The resulting wetland impacts are unavoidable and are necessary to construct the roadway to meet AASHTO standards. The roadway including the roadway fill, pavement, culverts, shoulders, medians and other design elements are required to meet the purpose and need and would cause the permanent wetland impacts. See Figure 2. Typical Section for 4-lane Divided Highway and Figure 3. Typical Section for 4-lane Highway with Center Turn Lane. See the FEIS Chapter 2, Section 2.4 for additional detail.

Where possible, tributaries will be replaced on-site, in-kind by conveying them through culverts and shifting the channels outside of the proposed roadway fill; however, the replacement stream length is estimated to be approximately 262 ft less than the original stream length. Several tributaries are located within wetlands and impacts to these tributaries are calculated with the wetland impacts.

Unavoidable permanent impacts to wetlands that cannot be mitigated in-kind, on-site, will be mitigated according to the Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (33 CFR 325 and 33 CFR 332, 40 CFR 230), (Mitigation Rule). The Cow Creek Wetland Mitigation Area (mitigation area) located approximately one mile from US-95 near the Genesee wastewater ponds is within the same watershed as the US-95 Thorncreek Road to Moscow Project's wetland impacts and will provide compensatory mitigation for the project. The

mitigation area was constructed in 2005 with approximately 11.5 acres and at a cost of approximately \$1.8 million. The mitigation area was constructed to provide compensatory mitigation for wetland impacts to emergent, scrub shrub and forested wetlands resulting from four highway construction projects, including the US-95 Thorncreek Road to Moscow project.

When the mitigation area was constructed in 2005, the US-95 Thorncreek Road to Moscow project was expected to have approximately 4.1 acres of wetland impacts, which included 3.8 acres of palustrine scrub-shrub wetland impacts. After consideration of the wetland impacts from the four ITD projects, there was still an additional 2.67 acre credits of wetland mitigation available. Based on the current US-95 Thorncreek to Moscow project design, the project would have approximately 0.67 acres fewer wetland impacts than what was considered in 2005 when the Cow Creek Mitigation Bank was originally constructed and credits were determined. This leaves approximately 3.34 acres of acre-credits unused after the project impacts are considered.

The Cow Creek Wetland Mitigation Area is fully constructed, is successfully functioning, and was approved as successful by the USACE in 2010; therefore, there would be no temporal loss. The mitigation area included excavation, grading, irrigation, well drilling, placing brush piles, large woody debris, nest boxes, plantings for the mitigation area and other habitat features and adding sinuosity and enhancing the riparian areas of Cow Creek. Plantings consisted of 1,400 trees, 20,500 shrubs, 4,400 willow stakes, and 34,500 wetland species plugs. Unsuccessful plants were replaced and emergent vegetation was over-seeded with wetland mix as necessary. ITD is required to control noxious weeds on construction projects and right of way and is required to have a vegetative cover of 70 percent for seeded areas. The site was monitored and the mitigation was considered by the USACE to be successfully completed with 80 percent plant survival and site stabilization after three years with less than 20 percent non-native species.

If more mitigation is required than is available at the Cow Creek Wetland Mitigation Area, then any additional required credits would be purchased from the Valencia Mitigation Bank. The Valencia Wetland bank was assessed and was given credits based on functional units. With the USACE approval, Valencia can provide mitigation in a cost-effective manner and will ensure that all of the affected functions and values are successfully mitigated because the functions and values have already been successfully established. The Valencia Wetland Mitigation Bank is approved to provide the following mitigation:

- Listed/Proposed Threatened and Endangered Species
- Idaho Natural Heritage Species Habitat
- Wildlife Habitat
- General Fish/Aquatic Habitat
- Flood Attenuation
- Short and Long Term Surface Water Storage
- Sediment/Nutrient/Toxicant Removal
- Sediment/Shoreline Stabilization
- Production Export/Food Chain Support

- Groundwater Discharge/Recharge
- Uniqueness
- Recreational/Education Potential

24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED

The project is located in the Palouse River Subbasin (Hydrologic Unit Code (HUC) 17060108), which includes the South Fork Palouse River watershed and the Cow Creek watershed. The northern three-quarters of the project area is in the South Fork Palouse River watershed and the southern one-quarter of the project area is in the Cow Creek watershed. The South Fork Palouse River watershed drains an area of approximately 30 square miles while the Cow Creek watershed drains an area of approximately 35,760 acres.

There are two primary tributaries in the project area; the South Fork Palouse River and Thorn Creek. All other tributaries in the project area are unnamed and drain to one of these two primary tributaries. These other tributaries are either intermittent or ephemeral in nature and no flow capacity has been measured.

27. LIST EACH IMPACT to stream, river, lake reservoir, including shoreline.

Culverts that will be constructed to convey drainages under US-95 are shown in Table 2. Culvert Installations and Table 3. Tributary Impact Calculations. Tributaries P, U, and V will be impacted by the roadway fill and will be relocated adjacent to the new roadway. See Table 3. Tributary Impact Calculations for the amount of fill placed below OHWM.

Table 2. Culvert Installations

Pipe # and Stationing	Water Body	Intermittent or Perennial/depth (ft)	Description of Impact and Dimensions	Impact Length Linear Feet (ft)*
Pipe #1 Station 59+00	Wetland 28	Intermittent/ OHWM Depth – 0.98	49-in x 33-in arch pipe	218
Pipe #2 Station 66+22	Tributary P	Intermittent/ OHWM Depth – 1.17	36-in diameter pipe culvert	70
Pipe #3 Eid Rd.	Tributary U Wetland 29	Intermittent /OHWM Depth – 0.87	36-in diameter pipe culvert	66
Pipe #4 Station 139+30	Tributary U Wetland 29	Intermittent/ OHWM Depth – 0.79	48 in diameter pipe culvert	502
Pipe #5 Ziegler/Sulli	Tributary U Wetland 29	Intermittent/ OHWM Depth – 0.75	36-in diameter pipe culvert	48
Pipe #6 Station 159+50	Tributary U Wetland 29	Intermittent/ OHWM Depth – 0.58	48-in diameter pipe culvert	488
Pipe #7 Station 174+45	Tributary V	Intermittent/ OHWM Depth – 0.64	48 in diameter pipe culvert	324
Pipe #8 Station 180+60	Tributary W Wetland 32	Intermittent/ OHWM Depth – 0.62	48-in diameter pipe culvert	302
Pipe #9 Station 191+41	Tributary W Wetland 32	Intermittent/ OHWM Depth – 0.40	24-in diameter pipe culvert	186
Pipe #10 Station 198+00	Tributary W Wetland 32	Intermittent/ OHWM Depth – 0.27	48-in diameter pipe culvert	298
Pipe #11 Station 200+50	Tributary W Wetland 32	Intermittent/ OHWM Depth – 0.55	48-in diameter pipe culvert	298
Pipe #12 Station 211+15	Tributary W Wetland 13	Intermittent/ OHWM Depth – 1.04	48-in diameter pipe culvert	400
Pipe #13 Station 234+55	Tributary X Wetland 35	Intermittent/OHWM Depth – 0.49	48-in diameter pipe culvert	442
Pipe #14 Station 235+25	Tributary X Wetland 35	Intermittent/OHWM Depth – 0.49	48-in diameter pipe culvert	402
Pipe #15 Station 241+30	Tributary X Wetland 35	Intermittent/OHWM Depth – 0.44	24-in diameter pipe culvert	344
Pipe #16 Station 245+20	Tributary X Wetland 35	Intermittent/ OHWM Depth – 0.55	24-in diameter pipe culvert	342
Total Length Culverts				4730

* Culverts placed in wetlands that have no tributary are already considered with the wetland impact calculations.

Table 3. Tributary Impact Calculations

Location	Tributary Impact (ft)	Tributary Replacement (ft)	Fill below OHWM (cy)
Tributary P	833	835	210
Tributary P	1,067	1,123	220
Tributary P	902	897	79
<i>This segment of Tributary P includes the installation of Pipe #2 (Station 66+22), which is 36-in x 70 ft long, with an intermittent OHWM Depth of 1.17 ft.</i>			
Tributary P	713	355	77
Tributary U	406	488	22.7
<i>All of Tributary U consists of the installation of Pipe #6 (Station 159+50), which is 48-in by 488 ft long, with an intermittent OHWM Depth of 0.58 ft.</i>			
Tributary V	363	324	9.4
<i>This segment of Tributary V includes the installation of Pipe #7 (Station 174+45), which is 48-in by 324 ft long, with an intermittent OHWM Depth of 0.64 ft.</i>			
Total	4,284	4,022	618.1

28. LIST EACH WETLAND IMPACT include clearing, fill excavation, flood, drainage, etc. Wetlands will be permanently and temporarily impacted as shown in Table 4. Permanent Wetland Impacts and Table 5. Temporary Wetland Impacts.

Table 4. Permanent Wetland Impacts

Wetland ID #	Amount and Activity (cy)	Wetland Type	Associated Water Body	Description of Impact	Impact Size (acres)
13	390 cy fill	Palustrine Scrub-Shrub	Tributary W	Road construction and culvert installation	0.202
23	154 cy fill; 50 cy of excavation	Palustrine Emergent	Tributary P	Road construction and culvert installation	0.198
29	1,981 cy fill	Palustrine Emergent	Tributary U	Road construction and culvert installation	1.230
32	812 cy fill	Palustrine Emergent	Tributary W	Road construction and culvert installation	0.604
35	787 cy fill	Palustrine Emergent	Tributary X	Road construction and culvert installation	0.751
40	211 cy fill	Palustrine Emergent	Tributary AA	Road construction and culvert installation	0.306
44	38 cy fill; 1,127 cy excavation	Palustrine Emergent	Tributary W	Road construction and culvert installation	0.137
Total	4,373 cy fill; 1,177 cy excavation				3.428

Table 5. Temporary Wetland Impacts

Wetland ID #	Wetland Type	Associated Water Body	Description of Impact	Impact Size (acres)
13	Palustrine Scrub-Shrub	Tributary W	vegetation impacts, soil disturbance due to equipment staging/access	0.020
29	Palustrine Emergent	Tributary U	vegetation impacts, soil disturbance due to equipment staging/access	0.055
32	Palustrine Emergent	Tributary W	vegetation impacts, soil disturbance due to equipment staging/access	0.063
35	Palustrine Emergent	Tributary X	vegetation impacts, soil disturbance due to equipment staging/access	0.107
Total				0.245

29. ADJACENT PROPERTY OWNERS NOTIFICATION: Provide contact information of ALL adjacent property owners

Table 6. Adjacent Property Owners

Owner	Mailing Address	City	State	ZipCode	Phone Number
Alderman, George	1044 Martinson Rd	Moscow	ID	83843	208-882-3189
Attebury, Ramirose	3455 Highway 95/2805 Hwy 95	Moscow	ID	83843	509-607-1196
Cameron Farms Inc (Fran Chittenden)	4404 Utah Drive	El Sobrante	CA	94803	510-222-9939
CHS-Moscow Inc	PO Box 64089	St Paul	MN	55164	208-882-7581
Clyde Five LLC	3060 Highway 95 S	Moscow	ID	83843	208-882-5221
Clyde, Gay Lynn	1175 Zeitler Road	Moscow	ID	83843	208-882-5221
Clyde, Kenneth	1175 Zeitler Road	Moscow	ID	83843	208-882-5221
Clyde, Robert E	3060 Highway 95 S	Moscow	ID	83843	208-882-5221
Clyde, Steven E	2860 Highway 95	Genesee	ID	83832	509-336-3833
Davis, Karen D	PO Box 573	Pullman	WA	99163	208-301-1889
Deesten, Martin C Family Trust	1700 Little Bear Ridge Rd	Troy	ID	83871	
Dorigo, Sean & Emily	1081 Eid Rd	Moscow	ID	83843	208-301-4919
Dumroese, R Kasten	PO Box 3333	Moscow	ID	83843	208-301-2324
Flomer, Annajean	2205 S Main St	Moscow	ID	83843	208-882-2124
Germer, Larry D	1005 Zeitler Rd	Moscow	ID	83843	
Goesling, William H	1141 Paradise Ridge Rd	Moscow	ID	83843	208-596-2001
Hungerford, Del	1071 Eid Road, #3	Moscow	ID	83843	208-310-1344

Appendix A – Letter from USACE

**Attachment to
Joint Application for Permits
U.S. Army Corps of Engineers
Idaho Department of Water Resources
Idaho Department of Lands**

**US-95, Thorncreek Road to Moscow, Latah County
ITD Project No. DHP-NH-4110(156); Key No. 09294**

Supplemental Application Information Included:

- Block 10. LATITUDE and LONGITUDE
- Block 11c. SECTIONS
- Block 16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT
- Block 17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS.
- Block 24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED
- Block 27. LIST EACH IMPACT TO STREAM, RIVER, LAKE RESERVOIR, INCLUDING SHORELINE. ATTACH SITE MAP WITH EACH IMPACT LOCATION.
- Block 28. LIST EACH WETLAND IMPACT INCLUDE MECHANIZED CLEARING, FILL EXCAVATION, FLOOD, DRAINAGE, ETC.
- ADJACENT PROPERTY OWNERS NOTIFICATION REQUIREM: PROVIDE CONTACT INFORMATION OF ALL ADJACENT PROPERTY OWNERS

10. LATITUDE and LONGITUDE

Northern Termini Latitude: 46.713607

Northern Termini Longitude: -117.003932

Southern Termini Latitude: 46.627778

Southern Termini Longitude: -116.995382

11c. SECTIONS

T39N R05W Sections 19, 20, 29, 30, 31, and 32

T39N R06W Sections, 24, 25, and 36

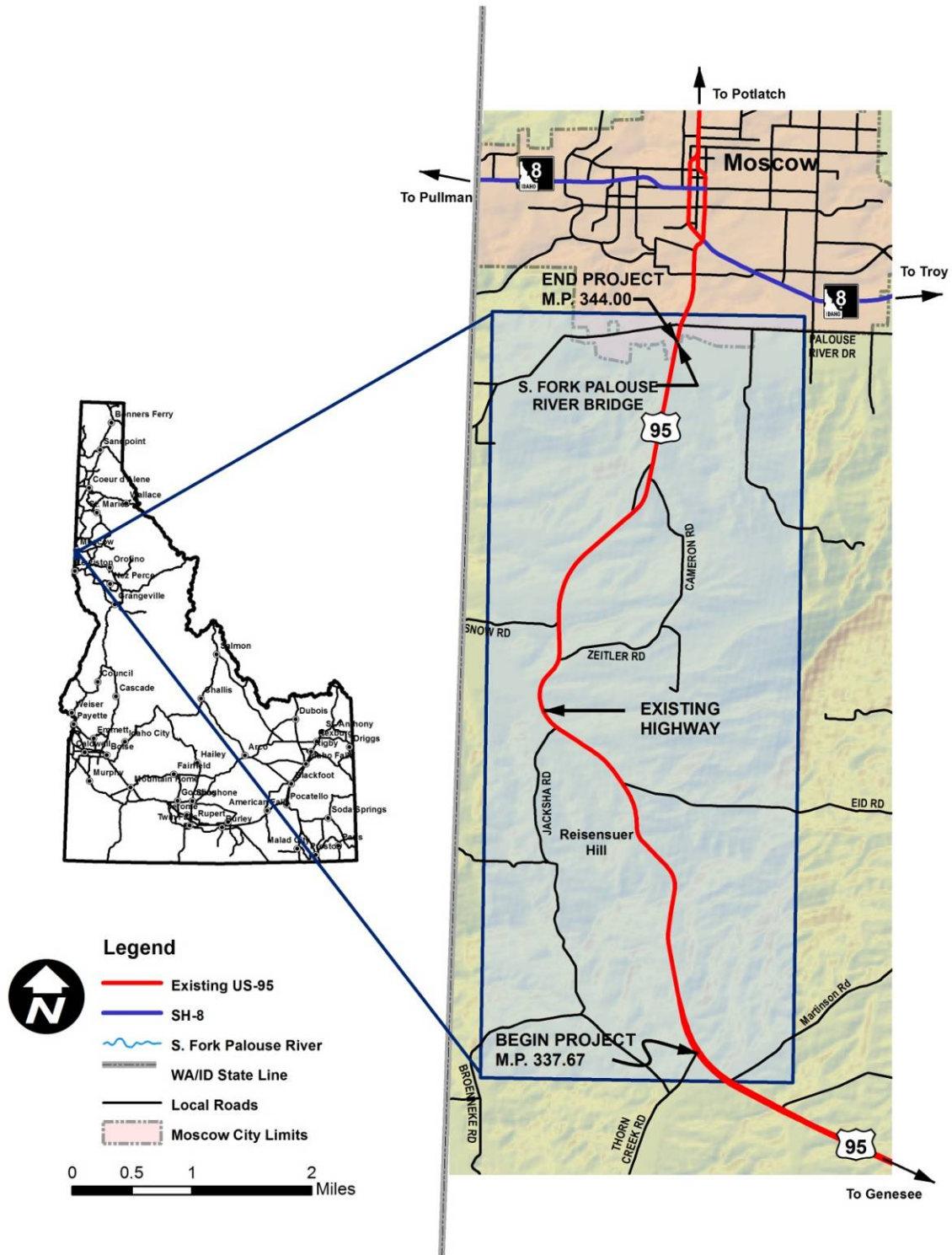
T38N R05W Sections 5, 6, 7, 8, 9, 17, 18, and 20

T38N R06W Sections 1, 12, and 13

16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT

The US-95 Thorncreek Road to Moscow project is linear in nature, and consists of realigning approximately 6.34 miles of US-95 just south of the City of Moscow. The new segment of US-95 will be east of existing US-95 alignment is approximately 5.86 miles in length. See Figure 1. Project Location. Material sources that are not from the cut sections from the project, will be from commercial sources that have already been permitted.

Figure 1. Project Location



Summary of Construction in Wetlands and Waters of US

Portions of this project take place within waters of the United States, including wetlands as described below:

- Approximately 3.43 acres of wetlands will be permanently impacted.
- Approximately 0.25 acres of wetland will be temporarily impacted.
- Approximately 620 cubic yards (cy) of fill will be placed below the ordinary high water mark (OHWM) in tributaries and drainages.
- Five existing tributaries identified in the US-95 Thorncreek to Moscow Wetland Delineation Report, will be impacted by the roadway construction. The impacts are necessary to construct the elements of the roadway as shown in Figure 2. Typical Section for 4-lane Divided Highway and Figure 3. Typical Section for 4-lane Highway with Center Turn Lane. The impacts will be due to fill for the road lanes, shoulders, clear zones, medians, ditches, culverts and approaches.
- 16 new culverts will be installed to convey drainages and their associated wetlands under the new US-95 alignment and approaches. Work in the tributaries and drainages will be done during periods of no flow or if water is present within the drainage at the time, it will be dewatered in order to minimize water quality impacts.

Figure 2. Typical Section for 4-lane Divided Highway

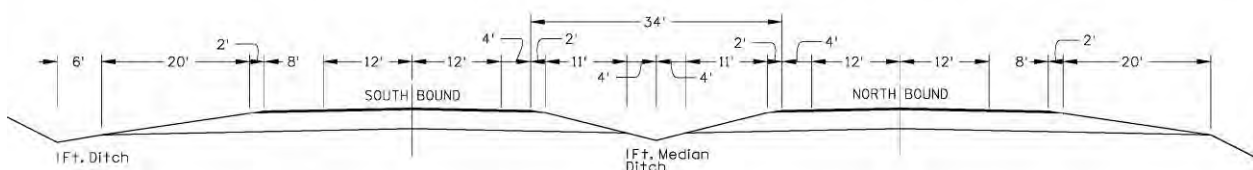
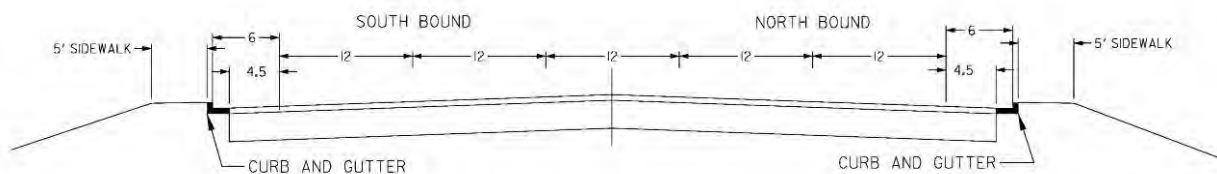


Figure 3. Typical Section for 4-lane Highway with Center Turn Lane



Clearing and Grading

High-visibility fence, silt fence, and/or other BMPs as indicated in the Stormwater Pollution Prevention Plan (SWPPP) will be placed along the work disturbance limits prior to clearing and grading which will help limit site disturbance and minimize erosion and sedimentation.

Clearing and grading will result in permanent impacts to Wetlands 13, 23, 29, 32, 35, 40, and 44. Project construction will permanently impact 3.43 acres of wetland and will temporarily impact 0.25 acres of wetland. See Table 4. Permanent Wetland Impacts and Table 5. Temporary Wetland Impacts.

Clearing and grubbing vegetation will be necessary where construction is indicated in the plan set. Plants will be salvaged for reuse as possible. When vegetation trimming or mowing is necessary but wetland fill or roots will not be removed, and wetlands will not be bladed or permanently filled, the impacts are considered temporary. This may be needed to temporarily access the construction areas but would be restored to preconstruction grade and revegetated after construction. Where vegetation is cleared, roots are removed, and fill is placed in the wetland, the impacts are considered permanent. Clearing, grubbing and grading for the project will be accomplished using equipment, including, but not limited to a front-end loader, a backhoe, a grader or similar equipment.

Approximately 4,290 linear feet (ft) of Tributaries P, U, and V will be impacted due to fill placement for the new road prism and approximately 4,030 ft of tributary will be replaced adjacent to the new roadway. Approximately 620 cy of fill will be placed below the OHWM of the different tributaries. See Table 3. Tributary Impact Calculations. See attached plans.

Culvert Installation

Sixteen culverts ranging between 24-inches (in) and 48-in diameter will be installed under the new roadway, which will permanently impact Tributaries P, U, V, W (Wetland 32), and X (Wetland 35). Each culvert will be installed on a minimum of 6-in of bedding material (crushed rock) at the approximate stream grades of the existing drainages. Equipment used during culvert installation will likely include a crane, track hoe, backhoe, front-end loader, or other similar equipment. This equipment will be staged and operated above the OHWM of the tributaries.

Some of the culvert installations are within wetlands and would result in permanent wetland impacts. Culvert installations will include:

- 872 ft of 24-in culvert pipe
- 402 ft of 36-in culvert pipe,
- 3,456 ft of 48-in culvert pipe

Due to the intermittent and seasonal tributary and drainage flows, the drainages may be dry during culvert installation. If water is present, the streamflow will be captured (most commonly with sandbags and visqueen) then temporarily diverted around the construction through a temporary pipe until installation of the culvert is completed. The temporary diversion will be installed per Idaho Fish and Game (IDFG) and Idaho Department of Water Resources (IDWR) guidelines and will be entirely removed after the new culvert and roadway are installed.

There will be other construction activities that would be outside of the wetlands and the drainages including road paving, striping, signage installation, reseeding slopes, construction of field and other approaches, utility relocation and other construction activities.

17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/ or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS

Avoidance

An Environmental Impact Statement (EIS) titled *US-95 Thorncreek to Moscow, Environmental Impact Statement*, was prepared and a Record of Decision (ROD) was issued on March 21, 2016. During the EIS process, conceptual level alternatives were developed and screened during two screening levels; Level One evaluated broad transportation concepts, which included the No Action Alternative, Transportation System Management (TSM), Transportation Demand Management (TDM) and Mass Transit. The TSM, TDM and Mass Transit alternatives were not forwarded for further consideration because of the rural nature and low population density of the project area and because they would not address the purpose and need which includes safety deficiencies of the existing roadway. The No Action and Action Alternatives were forwarded for further consideration.

The Level Two Alternatives resulted in the development and evaluation of the No Action Alternative and 10 Alignment Alternatives. These alignment alternatives were categorized into the western, central and eastern corridors as shown in Figure 4. Initial Alternatives. Of the alternatives forwarded for further evaluation, only the No Action Alternative would have avoided all wetland impacts; however it would not meet the project purpose and need to improve capacity and safety in the area. All other alternatives would have impacted wetlands due to the east/west orientation of the wetlands which would have resulted in all alternatives between Thorncreek Road to Moscow to would cross wetlands.

Of the 11 initial alternatives, seven were eliminated from further consideration during the Level Two screening process due to high adverse effects on the natural or built environment or because they provided less benefit compared to the other alternatives. In the eastern corridor, the E-1 and E-3 were eliminated from further consideration because they had greater wetland impacts and greater impacts to rare plant communities compared to E-2 alternative. See Table 1. Comparison of Alternatives' Wetland Impacts

The No Action and one alternative representing each corridor (west, central, and east) representing a range of reasonable alternatives, were forwarded for detailed evaluation in the DEIS. See Figure 5. FEIS Alternatives for the alternatives evaluated in detail in the EIS. Based on the DEIS and FEIS, C-3 would have the least wetland impact and E-2 would have the greatest wetland impact; however, practicability is influenced by safety as well as resource impacts. The impacts were analyzed taking into account the number of crashes predicted between 2017 and 2036. The E-2 Alternative would best meet the project purpose and need and would have 43 fewer projected total crashes and nine fewer fatal and injury crashes, which would have

significant benefit to the community and travelling public compared to the E-1 and E-3 alternatives respectively. In addition, the E-2 alternatives' lesser impacts to floodplains, businesses, and impacted less length of tributaries not in wetlands (two thirds fewer linear feet of tributary compared to the C-3 Alternative based on preliminary impact information) compared to other Action Alternatives.

Table 1. Comparison of Alternatives' Wetland Impacts

Alternative	Wetland Impact (acres) - Screening Level 2	Wetland Impacts (acres)-FEIS Alternatives
W-1	5.1	
W-2	5.2	
W-3	3.7	
W-4	6.5	1.85
C-1	4.6	
C-2	5.8	
C-3	1.7	0.99
E-1	4.4	
E-2	4.1	3.61
E-3	4.3	

The E-2 Alternative was selected for the following reasons:

- It will have the greatest safety improvement.
- It will have the fewest access points and at-grade county intersections.
- It will have the least effect to streams.
- It will avoid potential business impacts and floodplains.
- It will have the shortest five-lane typical section and overall shortest length.
- It meets the project purpose and need.

Compared to C-3, the E-2 Alternative will save 800 hours of travel time and is estimated to save \$19 million in the total cost of travel time, related vehicle depreciation, and vehicle operating costs for road users. This is explained in the US-95 Thorncreek Road to Moscow; Mobility and Road User Cost Study on Alternatives Carried Forward (ITD 2014).

Figure 4. Initial Alternatives

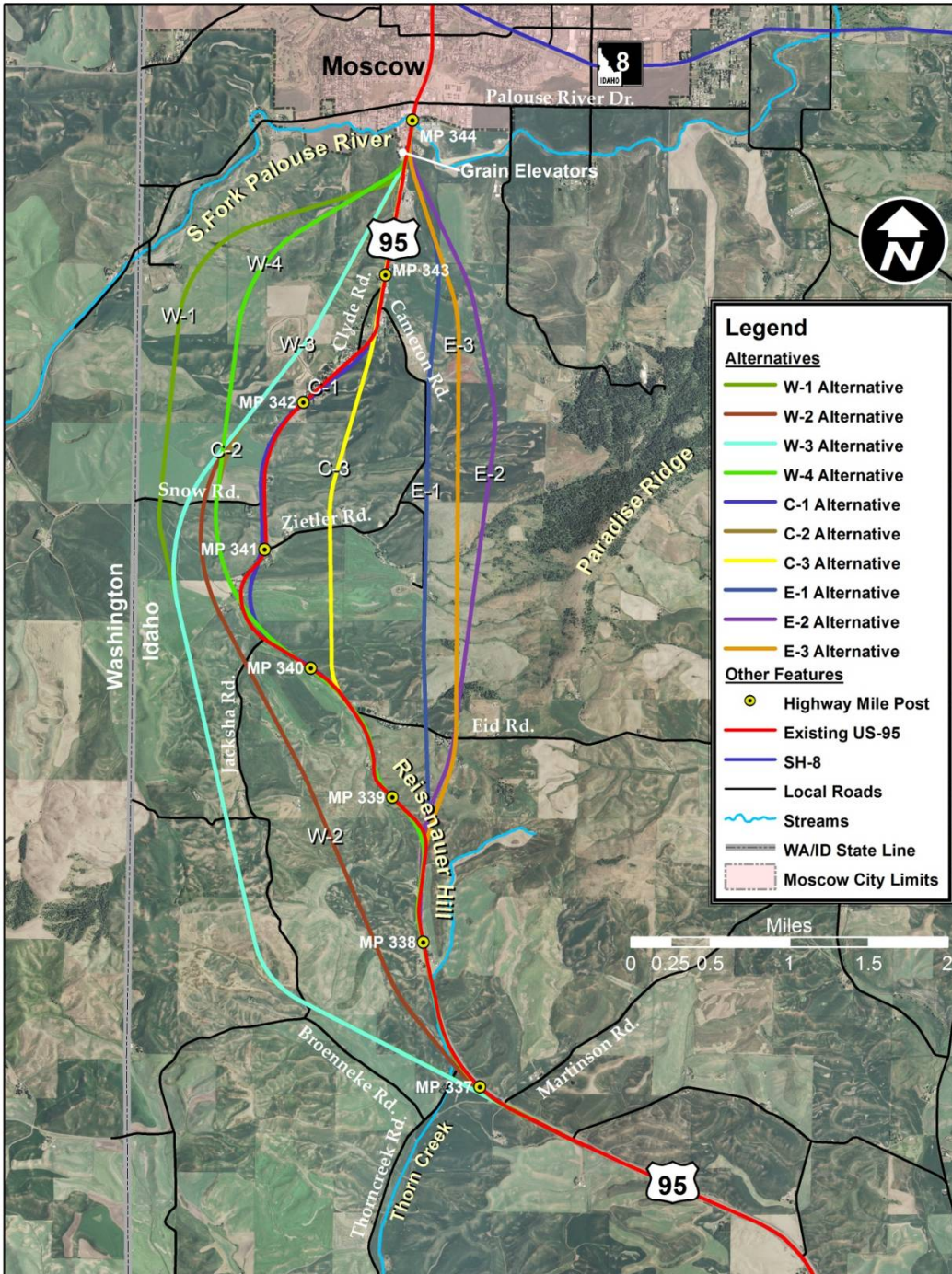
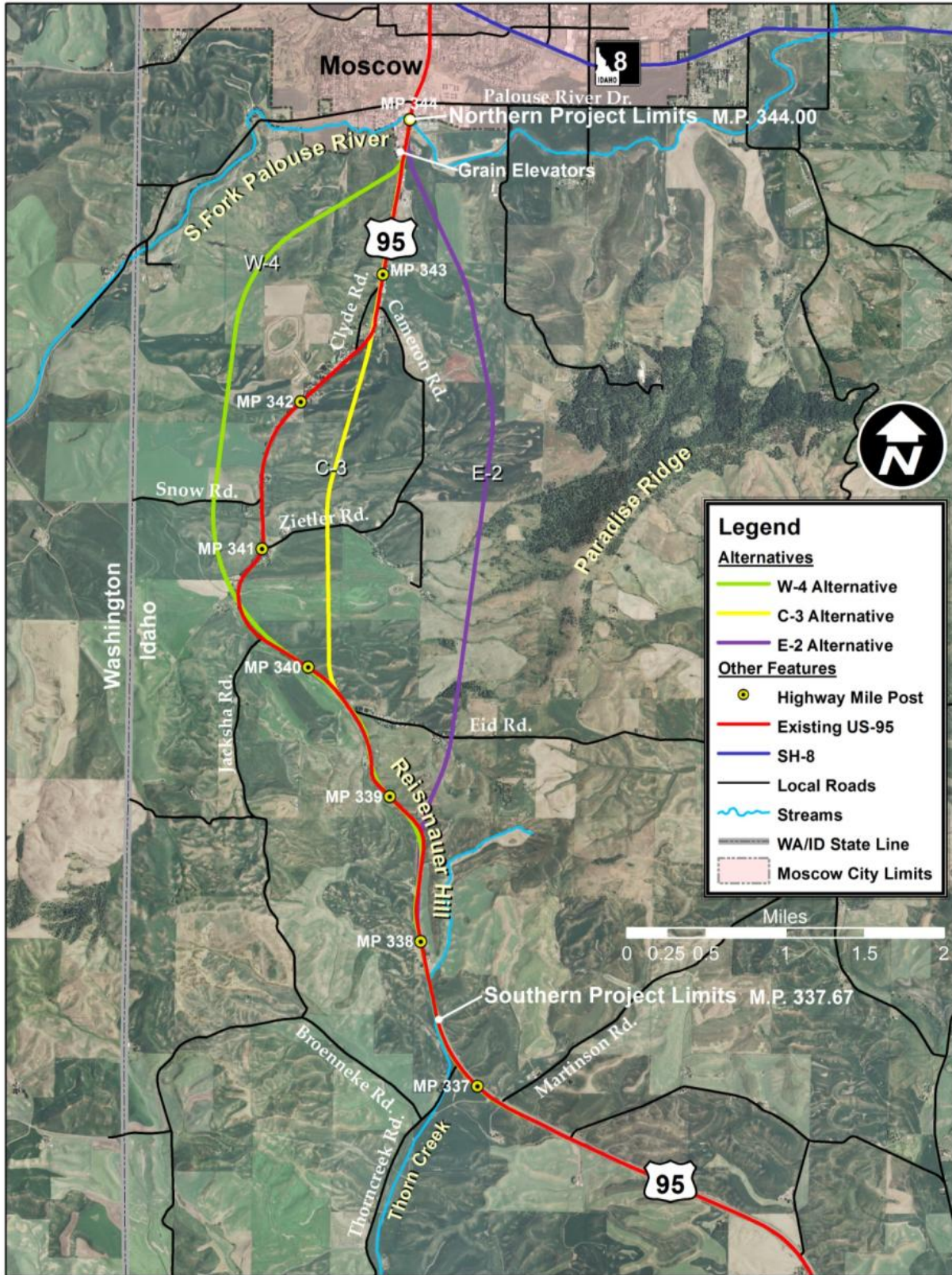


Figure 5. FEIS Alternatives



Minimization Measures

Additional minimization measures were applied to the E-2 Alternative (Action) after additional geotechnical information and survey data were available to develop the design.

1. Drainages and tributaries will be replaced on-site and in-kind where possible and in most cases will be shifted just outside of the roadway fill and/or placed in oversized culvert crossings.
2. Stormwater will be collected and treated in the median and along the roadway or in ditch systems to minimize impacts to water quality, control runoff and attenuate flows into tributaries and drainages.
3. Engineering solutions that were applied to the design to minimize impacts included:
 - a. Where geotechnical conditions allowed, rock was used to steepen fill slopes from approximately 3:1 slopes to 2:1 slopes, which reduced the encroachment into wetlands.
 - b. Typically, the culverts required only 18-24 inch culverts based upon hydraulic analysis with two requiring 48-in culverts. Culverts were oversized to help ensure hydraulic connectivity for wetlands on both sides of the roadway and to accommodate wildlife movement where habitat was present adjacent to the roadway. Where larger culverts were not feasible due to low fill heights, such as near Thorn Creek Road, a squashed culvert will be used to allow the maximum width. Culvert sizing was determined in close collaboration with Idaho Department of Fish and Game (IDFG). After construction, wildlife use of specific culverts will be monitored in collaboration with IDFG.
 - c. Manholes with grates will be installed to allow light into the median in the longest culvert crossings. The light is intended to increase the amount of light which could encourage wildlife to use the culvert crossings. Wildlife use will be monitored for effectiveness after construction.
 - d. Culverts will be placed under the roadway even when there are no tributaries in order to allow hydraulic connectivity.
 - e. Other hydraulic measures, such as constructing a special vegetated swale near the Eid Road crossing, will continue to allow hydraulic flow and aquatic and terrestrial species connectivity under the freeway crossing.
4. Where possible, areas that would not require wetland or drainage fills are designated as temporary impact areas and will be restored to preconstruction grades and revegetated to replace existing vegetation or reseeded with native species.
5. Native plants will be salvaged before construction so they may be reused within the constructed project or made available for local conservation projects.
6. Where sight distance would not be affected, the vegetation outside of the clear zone and within the right-of-way will be maintained to preserve wildlife habitat.
7. Other measures to mitigate effects to wildlife will be implemented such as installing bat boxes, pygmy nuthatch nesting boxes and making them available to the public. Grasslands where nesting birds could occur would be surveyed before construction. These will be implemented in collaboration with IDFG.

8. A Vegetation Management Plan that will help control weeds within the highway will be prepared and implemented in collaboration with NRCS, Conservation Districts and IDFG.
9. A Spill Plan will be prepared which will include BMPs such as:
 - a. Secondary containment for chemicals used on the project.
 - b. All staging, stockpiling, fueling, storage, wasting, and maintenance areas will be located more than 150 ft away from streams, surface waters and wetlands.
 - c. Spill kits appropriate to control or clean up the hazardous materials used on-site, will be in vehicles and on site to ensure quick response and cleanup.
10. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared which will include BMPs such as:
 - a. Vegetation clearing limits will be indicated in the final design plan sheets and marked clearly in the field. High visibility fencing will be installed and maintained during construction around wetlands and waterways where they will be retained and protected.
 - b. Silt fences or fiber wattles will be placed appropriately and maintained to minimize erosion and sedimentation.
 - c. Exposed soils will be reseeded or otherwise revegetated for temporary and permanent stabilization and will also minimize weed establishment and spread.
 - d. An NPDES Permit will be required for the project and Stormwater will be monitored during construction to ensure that water quality is not affected. Turbidity testing will occur daily during in-water work.
 - e. Construction in drainages or wetlands would be during low rainfall periods and low flow periods or would use temporary water diversion BMPs.

Compensatory Mitigation

The resulting wetland impacts are unavoidable and are necessary to construct the roadway to meet AASHTO standards. The roadway including the roadway fill, pavement, culverts, shoulders, medians and other design elements are required to meet the purpose and need and would cause the permanent wetland impacts. See Figure 2. Typical Section for 4-lane Divided Highway and Figure 3. Typical Section for 4-lane Highway with Center Turn Lane. See the FEIS Chapter 2, Section 2.4 for additional detail.

Where possible, tributaries will be replaced on-site, in-kind by conveying them through culverts and shifting the channels outside of the proposed roadway fill; however, the replacement stream length is estimated to be approximately 262 ft less than the original stream length. Several tributaries are located within wetlands and impacts to these tributaries are calculated with the wetland impacts.

Unavoidable permanent impacts to wetlands that cannot be mitigated in-kind, on-site, will be mitigated according to the Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (33 CFR 325 and 33 CFR 332, 40 CFR 230), (Mitigation Rule). The Cow Creek Wetland Mitigation Area (mitigation area) located approximately one mile from US-95 near the Genesee wastewater ponds is within the same watershed as the US-95 Thorncreek Road to Moscow Project's wetland impacts and will provide compensatory mitigation for the project. The

mitigation area was constructed in 2005 with approximately 11.5 acres and at a cost of approximately \$1.8 million. The mitigation area was constructed to provide compensatory mitigation for wetland impacts to emergent, scrub shrub and forested wetlands resulting from four highway construction projects, including the US-95 Thorncreek Road to Moscow project.

When the mitigation area was constructed in 2005, the US-95 Thorncreek Road to Moscow project was expected to have approximately 4.1 acres of wetland impacts, which included 3.8 acres of palustrine scrub-shrub wetland impacts. After consideration of the wetland impacts from the four ITD projects, there was still an additional 2.67 acre credits of wetland mitigation available. Based on the current US-95 Thorncreek to Moscow project design, the project would have approximately 0.67 acres fewer wetland impacts than what was considered in 2005 when the Cow Creek Mitigation Bank was originally constructed and credits were determined. This leaves approximately 3.34 acres of acre-credits unused after the project impacts are considered.

The Cow Creek Wetland Mitigation Area is fully constructed, is successfully functioning, and was approved as successful by the USACE in 2010; therefore, there would be no temporal loss. The mitigation area included excavation, grading, irrigation, well drilling, placing brush piles, large woody debris, nest boxes, plantings for the mitigation area and other habitat features and adding sinuosity and enhancing the riparian areas of Cow Creek. Plantings consisted of 1,400 trees, 20,500 shrubs, 4,400 willow stakes, and 34,500 wetland species plugs. Unsuccessful plants were replaced and emergent vegetation was over-seeded with wetland mix as necessary. ITD is required to control noxious weeds on construction projects and right of way and is required to have a vegetative cover of 70 percent for seeded areas. The site was monitored and the mitigation was considered by the USACE to be successfully completed with 80 percent plant survival and site stabilization after three years with less than 20 percent non-native species.

If more mitigation is required than is available at the Cow Creek Wetland Mitigation Area, then any additional required credits would be purchased from the Valencia Mitigation Bank. The Valencia Wetland bank was assessed and was given credits based on functional units. With the USACE approval, Valencia can provide mitigation in a cost-effective manner and will ensure that all of the affected functions and values are successfully mitigated because the functions and values have already been successfully established. The Valencia Wetland Mitigation Bank is approved to provide the following mitigation:

- Listed/Proposed Threatened and Endangered Species
- Idaho Natural Heritage Species Habitat
- Wildlife Habitat
- General Fish/Aquatic Habitat
- Flood Attenuation
- Short and Long Term Surface Water Storage
- Sediment/Nutrient/Toxicant Removal
- Sediment/Shoreline Stabilization
- Production Export/Food Chain Support

- Groundwater Discharge/Recharge
- Uniqueness
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Pipe #3 Eid Rd.	Tributary U Wetland 29	Intermittent /OHWM Depth – 0.87	36-in diameter pipe culvert	66
Pipe #4 Station 139+30	Tributary U Wetland 29	Intermittent/ OHWM Depth – 0.79	48 in diameter pipe culvert	502
Pipe #5 Ziegler/Sulli	Tributary U Wetland 29	Intermittent/ OHWM Depth – 0.75	36-in diameter pipe culvert	48
Pipe #6 Station 159+50	Tributary U Wetland 29	Intermittent/ OHWM Depth – 0.58	48-in diameter pipe culvert	488
Pipe #7 Station 174+45	Tributary V	Intermittent/ OHWM Depth – 0.64	48 in diameter pipe culvert	324
Pipe #8 Station 180+60	Tributary W Wetland 32	Intermittent/ OHWM Depth – 0.62	48-in diameter pipe culvert	302
Pipe #9 Station 191+41	Tributary W Wetland 32	Intermittent/ OHWM Depth – 0.40	24-in diameter pipe culvert	186
Pipe #10 Station 198+00	Tributary W Wetland 32	Intermittent/ OHWM Depth – 0.27	48-in diameter pipe culvert	298
Pipe #11 Station 200+50	Tributary W Wetland 32	Intermittent/ OHWM Depth – 0.55	48-in diameter pipe culvert	298
Pipe #12 Station 211+15	Tributary W Wetland 13	Intermittent/ OHWM Depth – 1.04	48-in diameter pipe culvert	400
Pipe #13 Station 234+55	Tributary X Wetland 35	Intermittent/OHWM Depth – 0.49	48-in diameter pipe culvert	442
Pipe #14 Station 235+25	Tributary X Wetland 35	Intermittent/OHWM Depth – 0.49	48-in diameter pipe culvert	402
Pipe #15 Station 241+30	Tributary X Wetland 35	Intermittent/OHWM Depth – 0.44	24-in diameter pipe culvert	344
Pipe #16 Station 245+20	Tributary X Wetland 35	Intermittent/ OHWM Depth – 0.55	24-in diameter pipe culvert	342
Total Length Culverts				4730

* Culverts placed in wetlands that have no tributary are already considered with the wetland impact calculations.

Table 3. Tributary Impact Calculations

Location	Tributary Impact (ft)	Tributary Replacement (ft)	Fill below OHWM (cy)
Tributary P	833	835	210
Tributary P	1,067	1,123	220
Tributary P	902	897	79
<i>This segment of Tributary P includes the installation of Pipe #2 (Station 66+22), which is 36-in x 70 ft long, with an intermittent OHWM Depth of 1.17 ft.</i>			
Tributary P	713	355	77
Tributary U	406	488	22.7
<i>All of Tributary U consists of the installation of Pipe #6 (Station 159+50), which is 48-in by 488 ft long, with an intermittent OHWM Depth of 0.58 ft.</i>			
Tributary V	363	324	9.4
<i>This segment of Tributary V includes the installation of Pipe #7 (Station 174+45), which is 48-in by 324 ft long, with an intermittent OHWM Depth of 0.64 ft.</i>			
Total	4,284	4,022	618.1

28. LIST EACH WETLAND IMPACT include clearing, fill excavation, flood, drainage, etc. Wetlands will be permanently and temporarily impacted as shown in Table 4. Permanent Wetland Impacts and Table 5. Temporary Wetland Impacts.

Table 4. Permanent Wetland Impacts

Wetland ID #	Amount and Activity (cy)	Wetland Type	Associated Water Body	Description of Impact	Impact Size (acres)
13	390 cy fill	Palustrine Scrub-Shrub	Tributary W	Road construction and culvert installation	0.202
23	154 cy fill; 50 cy of excavation	Palustrine Emergent	Tributary P	Road construction and culvert installation	0.198
29	1,981 cy fill	Palustrine Emergent	Tributary U	Road construction and culvert installation	1.230
32	812 cy fill	Palustrine Emergent	Tributary W	Road construction and culvert installation	0.604
35	787 cy fill	Palustrine Emergent	Tributary X	Road construction and culvert installation	0.751
40	211 cy fill	Palustrine Emergent	Tributary AA	Road construction and culvert installation	0.306
44	38 cy fill; 1,127 cy excavation	Palustrine Emergent	Tributary W	Road construction and culvert installation	0.137
Total	4,373 cy fill; 1,177 cy excavation				3.428

Table 5. Temporary Wetland Impacts

Wetland ID #	Wetland Type	Associated Water Body	Description of Impact	Impact Size (acres)
13	Palustrine Scrub-Shrub	Tributary W	vegetation impacts, soil disturbance due to equipment staging/access	0.020
29	Palustrine Emergent	Tributary U	vegetation impacts, soil disturbance due to equipment staging/access	0.055
32	Palustrine Emergent	Tributary W	vegetation impacts, soil disturbance due to equipment staging/access	0.063
35	Palustrine Emergent	Tributary X	vegetation impacts, soil disturbance due to equipment staging/access	0.107
Total				0.245

29. ADJACENT PROPERTY OWNERS NOTIFICATION: Provide contact information of ALL adjacent property owners

Table 6. Adjacent Property Owners

Owner	Mailing Address	City	State	ZipCode	Phone Number
Alderman, George	1044 Martinson Rd	Moscow	ID	83843	208-882-3189
Attebury, Ramirose	3455 Highway 95/2805 Hwy 95	Moscow	ID	83843	509-607-1196
Cameron Farms Inc (Fran Chittenden)	4404 Utah Drive	El Sobrante	CA	94803	510-222-9939
CHS-Moscow Inc	PO Box 64089	St Paul	MN	55164	208-882-7581
Clyde Five LLC	3060 Highway 95 S	Moscow	ID	83843	208-882-5221
Clyde, Gay Lynn	1175 Zeitler Road	Moscow	ID	83843	208-882-5221
Clyde, Kenneth	1175 Zeitler Road	Moscow	ID	83843	208-882-5221
Clyde, Robert E	3060 Highway 95 S	Moscow	ID	83843	208-882-5221
Clyde, Steven E	2860 Highway 95	Genesee	ID	83832	509-336-3833
Davis, Karen D	PO Box 573	Pullman	WA	99163	208-301-1889
Deesten, Martin C Family Trust	1700 Little Bear Ridge Rd	Troy	ID	83871	
Dorigo, Sean & Emily	1081 Eid Rd	Moscow	ID	83843	208-301-4919
Dumroese, R Kasten	PO Box 3333	Moscow	ID	83843	208-301-2324
Flomer, Annajean	2205 S Main St	Moscow	ID	83843	208-882-2124
Germer, Larry D	1005 Zeitler Rd	Moscow	ID	83843	
Goesling, William H	1141 Paradise Ridge Rd	Moscow	ID	83843	208-596-2001
Hungerford, Del	1071 Eid Road, #3	Moscow	ID	83843	208-310-1344

Appendix A – Letter from USACE

June 27, 2005

Mrs. Nicholle R. Rowell
U.S. Army Corps of Engineers
304 N. 8th Street, Room 140
Boise ID 83702-5820

RE: Thorn Creek Road to Moscow (Wetland Mitigation)
Project No: DHP-NH-4110(156); Key No. 9294

Dear Nicholle,

The Idaho Transportation Department (ITD) has been developing and constructing three large projects on U.S. 95 between Lewiston and Moscow, Idaho. Those projects are the Top of Lewiston Hill to Genesee (under construction), Genesee to Thorn Creek Road (under construction) and Thorn Creek Road to Moscow (under development). All appropriate resource agencies, including the Corps of Engineers (COE), have been involved in the development of these projects.

During the Environmental Assessment a single and comprehensive wetland mitigation plan along Cow Creek near Genesee, Idaho, was developed and approved. Afterward, when the logical termini for the projects were changed, reducing the project limits that would go to construction in spring 2005, ITD left the original mitigation plan intact. ITD informed the COE that we would ask for credit on the Thorn Creek Road to Moscow project.

Total wetland impact for the projects that are currently under construction is 2.75 acres. Based on mitigation ratios (1:1 palustrine emergent, 2:1 palustrine scrub-shrub and 5:1 palustrine forested) described in the final wetland mitigation plan, the projects require 8.82 acres of wetland creation. Total wetland mitigation under construction is 11.49 acres. As planned, the Cow Creek mitigation site will contain 2.67 acres of wetland that was not required by the projects currently under construction. If the additional 2.67 acres of created wetland are established and functional when the Thorn Creek Road to Moscow project is ready to permit, then the ITD request that the COE consider that area against the new mitigation requirements.

If you have any questions or concerns regarding this information, please feel to call me at (208) 799-4250.

Sincerely,

Zachary A. Funkhouser
Senior Environmental Planner

Cc: DE
DPDE
EPS

Shawn Smith <Shawn.Smith@itd.idaho.gov>

To: Dave Ellis <Dave.Ellis@itd.idaho.gov>, Ken Helm <Ken.Helm@itd.idaho.gov>

Cc: Michelle Anderson <anderenv@q.com>

FW: US 95, Cow Creek Mit Site - TLH2M EIS and subsequent construction projects (UNCLASSIFIED)

May 15, 2014 12:45 PM



FYI.

-----Original Message-----

From: Braspennickx, Nicholle M NWW [mailto:Nicholle.M.Braspenn@usace.army.mil]

Sent: Thursday, May 15, 2014 12:40 PM

To: Shawn Smith; Victoria Jewell Guerra

Subject: US 95, Cow Creek Mit Site - TLH2M EIS and subsequent construction projects (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hello !

Many months ago - perhaps even a year ago? ITD D2 asked the Corps to confirm whether the Cow Creek Mitigation site (deemed successful as meeting its success criteria by the Corps Regulatory Division (RD) on August 19, 2010)... would suffice to also provide compensatory mitigation for the remaining ThCr2M Project(s).

The Corps RD scoured all our files... NWW No. 2004-0600013, KN 7769, and NWW No. 2004-0600046, KN 09294. We also scoured the pre-application information (original mitigation plans), the monitoring plans, and other information.

As far as the Corps RD can determine, the Cow Creek Mitigation Site is to serve as compensatory mitigation for all projects involved w/ US 95, Top of Lewiston Hill to Moscow, including the remaining US 95, Thorn Creek to Moscow, EIS portion of the project.

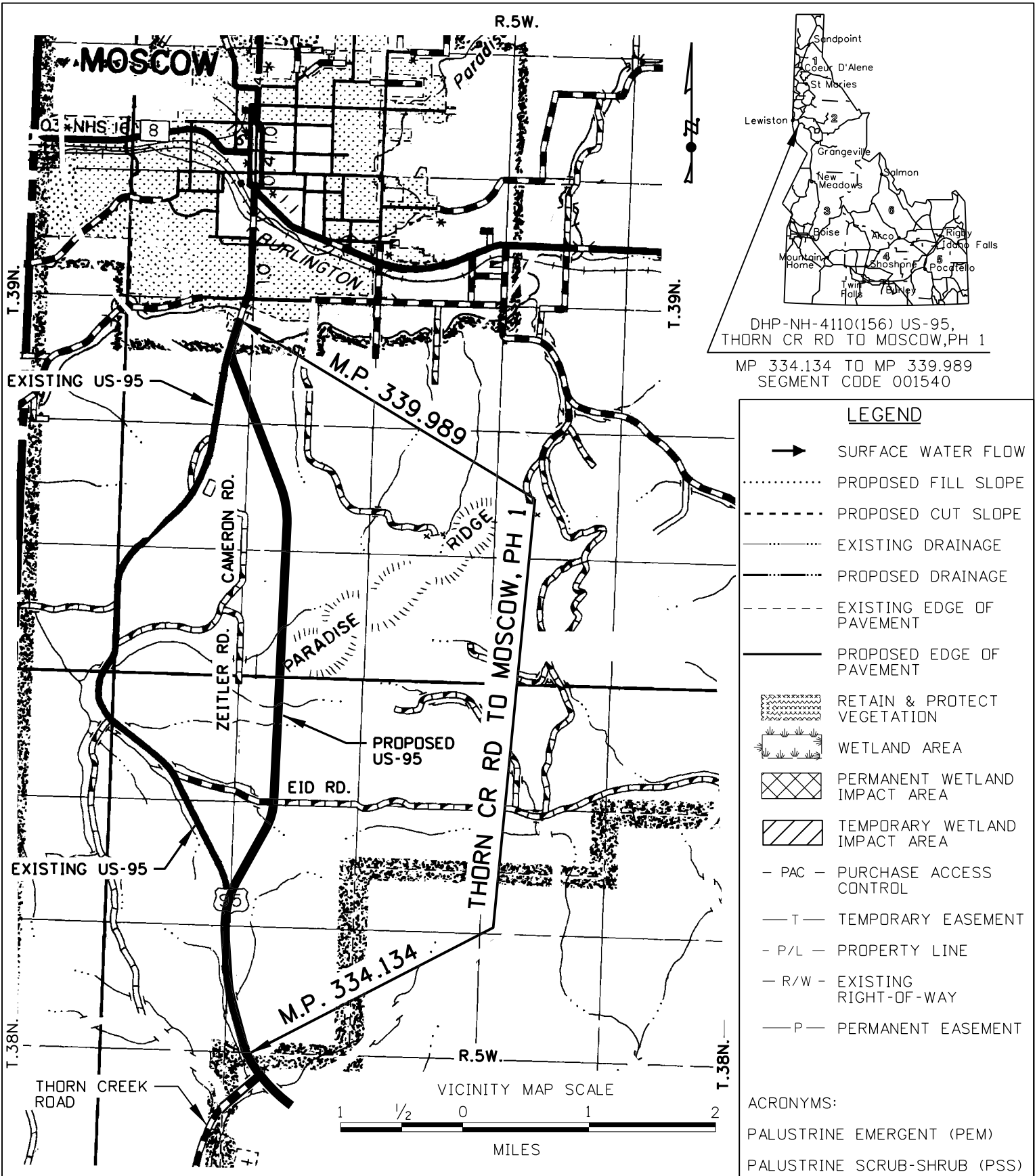
In conversations w/ Mr. Shawn Smith - we both agree that should the Corps determine a shortfall in compensatory mitigation at the time of permitting for the remaining project(s).... perhaps ITD could then avail itself of a local mitigation bank for the difference.

Yours Truly,

Nicholle Braspennickx
Regulatory Project Manager
208-345-2287

Classification: UNCLASSIFIED

Caveats: NONE



NWWW No.:

LOCATION: US-95

PROPOSED PROJECT:
 PROPOSED 4-LANE DIVIDED
 HIGHWAY FROM THORN CREEK
 ROAD TO MOSCOW

APPLICANT:

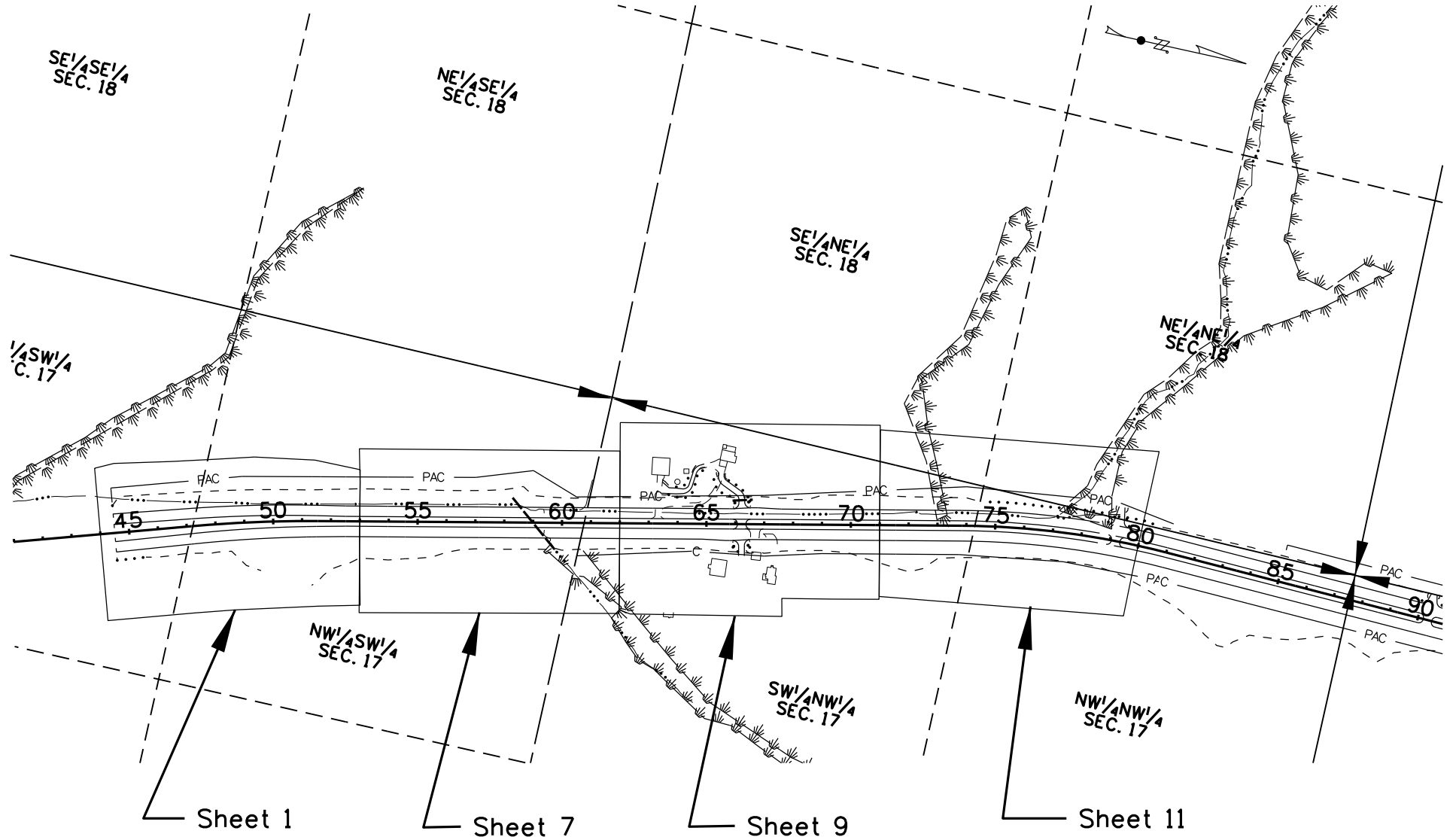
LAT/LONG: 46° 40'44"N/116° 59'45"W

IN: THORN CREEK
 NEAR/AT: MOSCOW
 COUNTY: LATAH
 STATE: IDAHO

ADJACENT PROPERTY OWNERS:
 (SHOWN ON THE SHEETS)

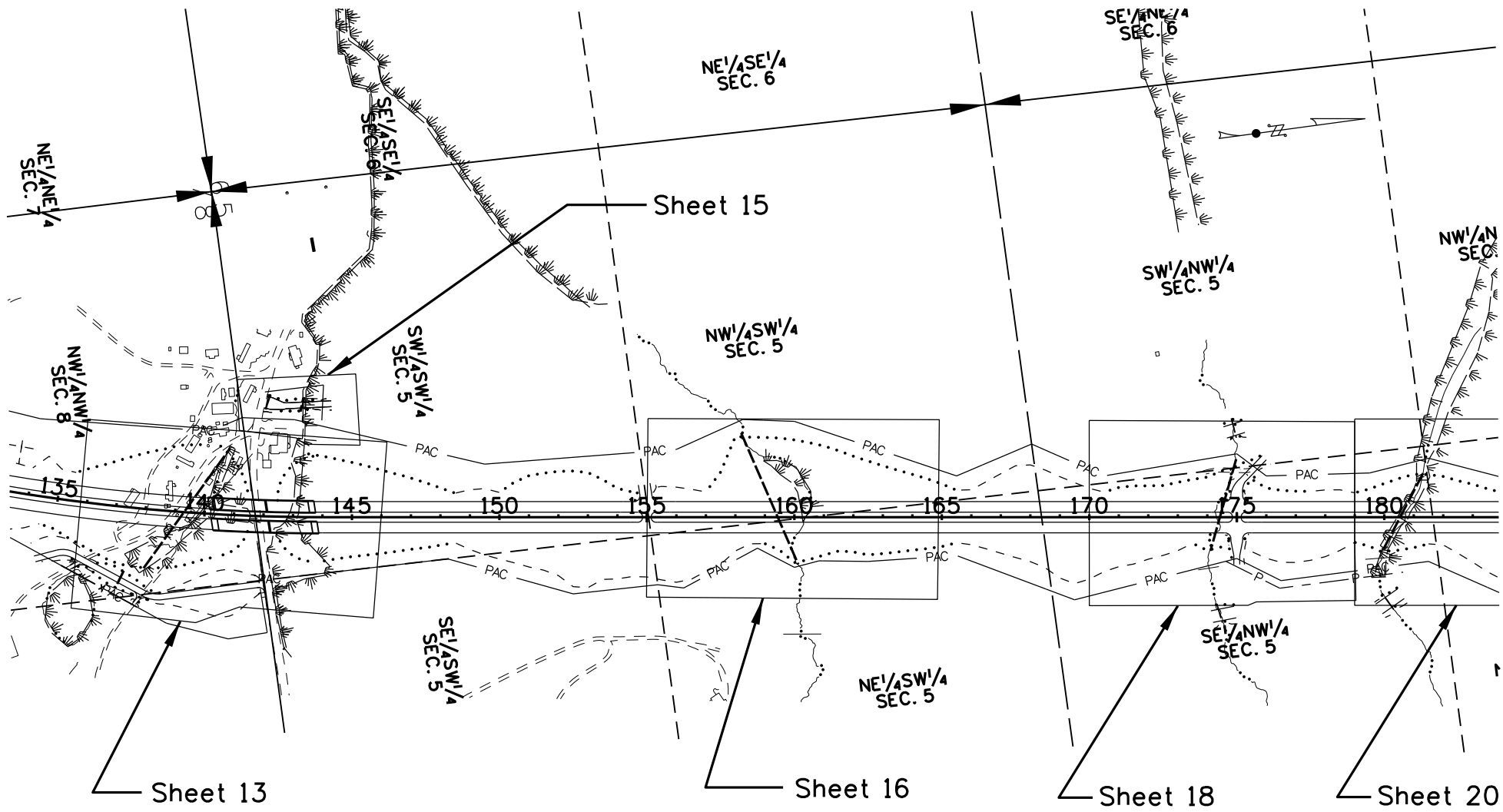
PAGE 1 OF 32
 09294_404_title.dgn

DATE: February
 2017



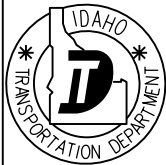
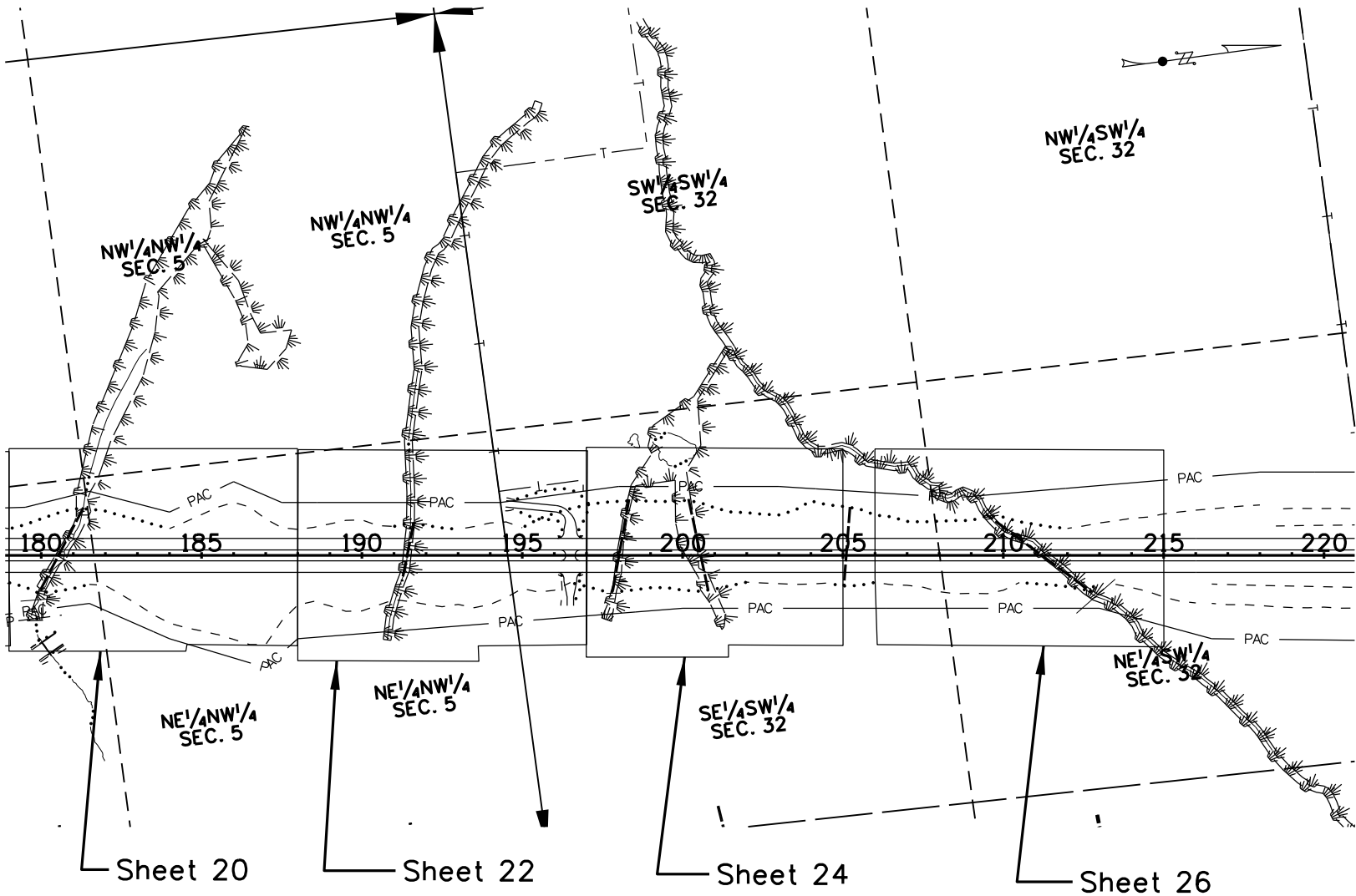
NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County
 Project Number: DHP-NH-4110(156)
 Location: US-95
 Sheet 2 of 32
 Date: February 2017
 09294_404 index_1.DGN

DISTRICT 2
 Lewiston, ID



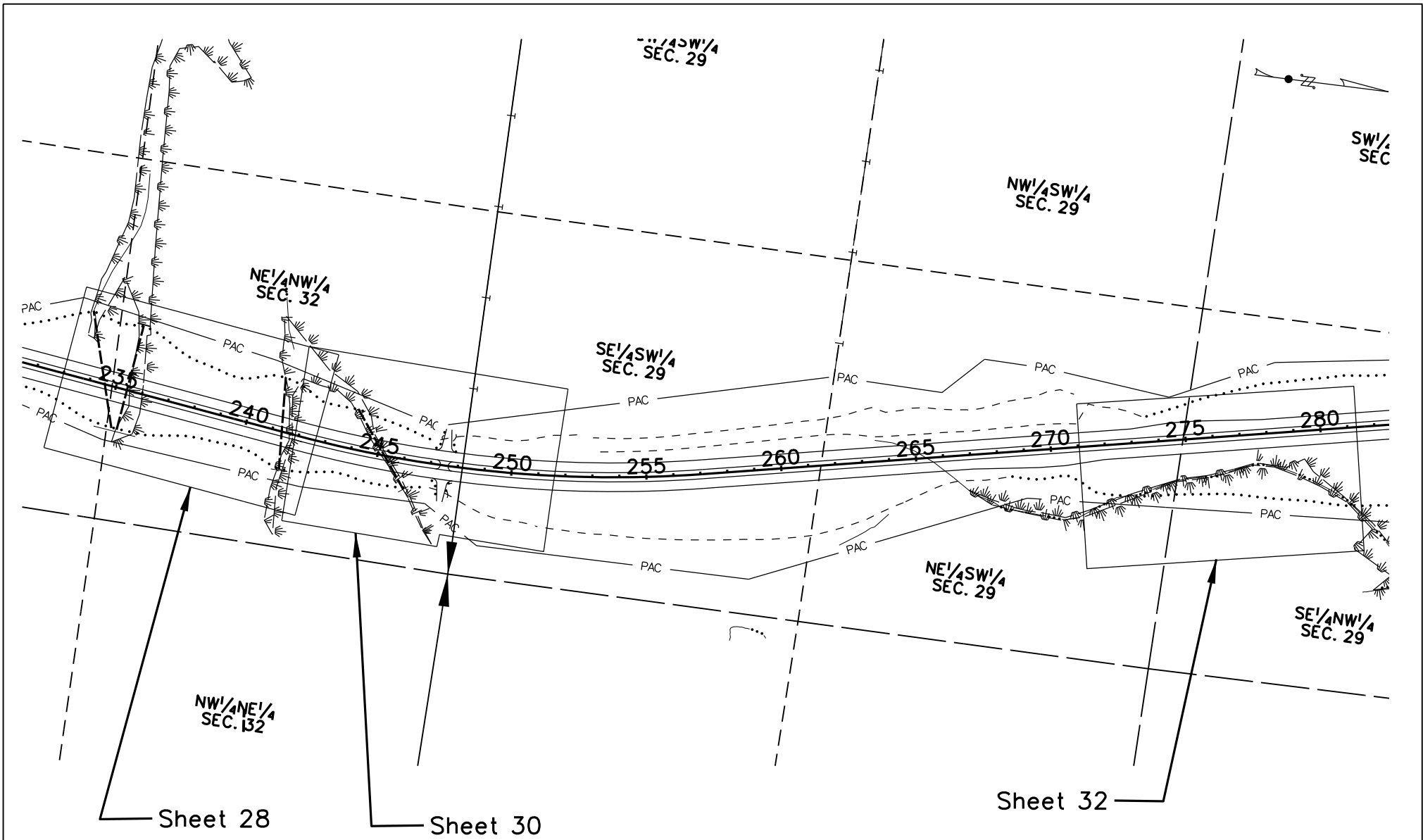
DISTRICT 2
Lewiston, ID

NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow,
 Ph. 1, Latah County
 Project Number: DHP-NH-4110(156)
 Location: US-95
 Sheet 3 of 32 Date: February 2017
 09294_404 index_2.DGN



DISTRICT 2
Lewiston, ID

NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow,
 Ph. 1, Latah County
 Project Number: DHP-NH-4110(156)
 Location: US-95
 Sheet 4 of 32 Date: February 2017
 09294_404 index_3.DGN



NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow,
 Ph. 1, Latah County

Project Number: DHP-NH-4110(156)
 Location: US-95
 Sheet 5 of 32 Date: February 2017
 09294_404 index_4.DGN

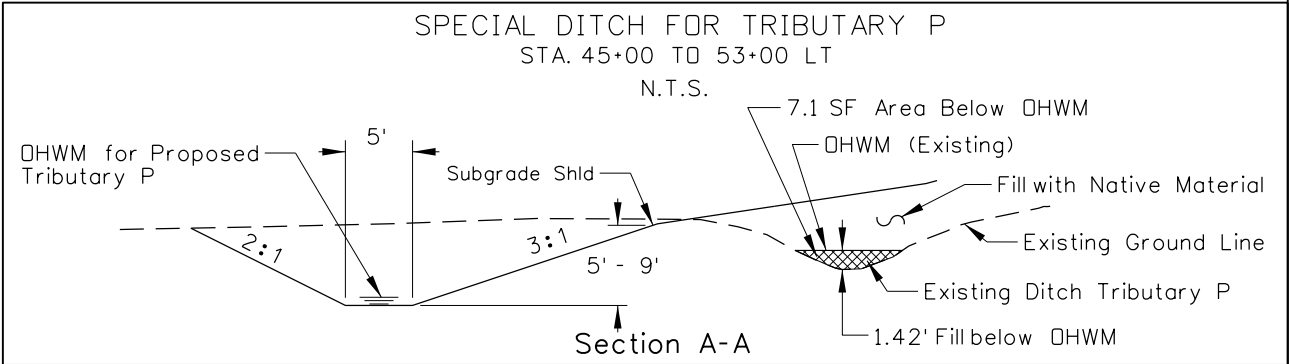
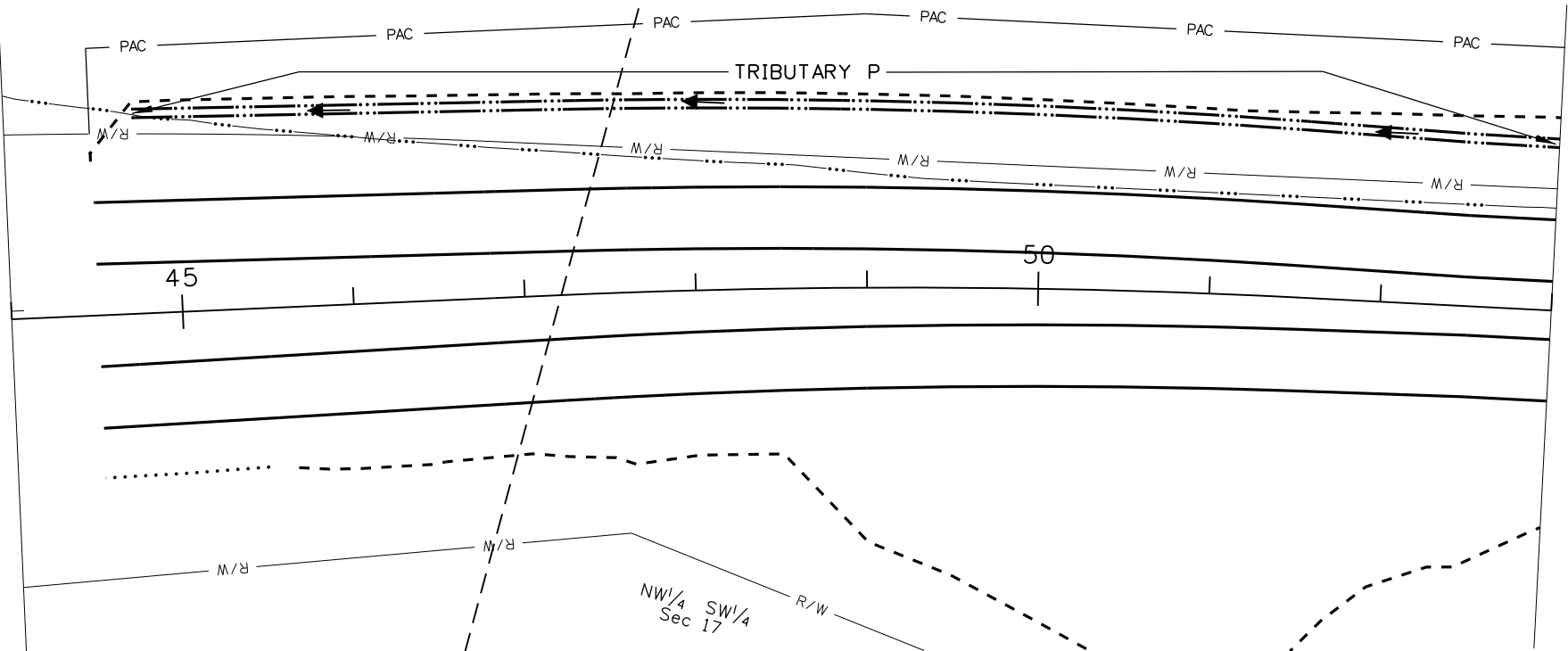
DISTRICT 2
 Lewiston, ID

3

PRICE REVOCABLE LIVING TRUST

T. 38N., R. 5W., B.M.

SW 1/4 Sec 17



IMPACT TABLE - SHEET TOTAL

Permanent Wetland Impact	N/A
Temporary Wetland Impact	N/A
Wetland Fill Impact	N/A
Wetland Excavation Impact	N/A
Tributary Imp. Length	833 FT
Tributary Replacement Length	835 FT
Tributary Fill Below DHWM	210 CY



DISTRICT 2
Lewiston, ID

NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow,
 Ph. 1, Latah County

Project Number: DHP-NH-4110(156)
 Location: US-95
 Sheet 6 of 32
 Date: February 2017
 09294_envi_1.DGN

PLAN SCALE



NW 1/4 SW 1/4
Sec 17

T. 38N., R. 5W., B.M.

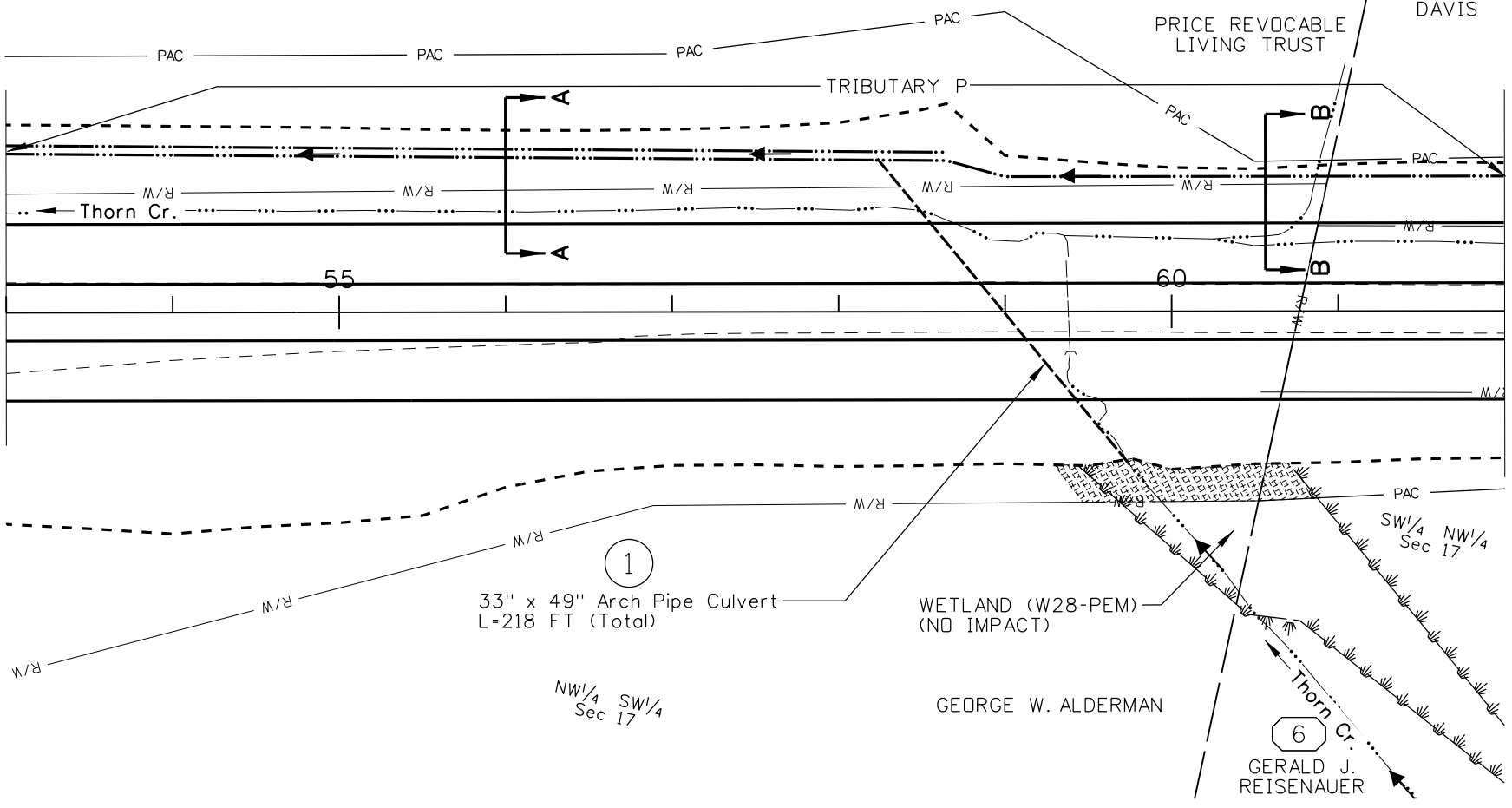
3

PRICE REVOCABLE
LIVING TRUST

5

KAREN D.
DAVIS

PRICE REVOCABLE
LIVING TRUST



1

33" x 49" Arch Pipe Culvert
L=218 FT (Total)

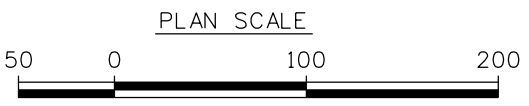
WETLAND (W28-PEM)
(NO IMPACT)

GEORGE W. ALDERMAN

6

GERALD J.
REISENAUER

SEE NEXT SHEET FOR CULVERT 1
AND SECTIONS A-A & B-B DETAILS



IMPACT TABLE - SHEET TOTAL	
Permanent Wetland Impact	N/A
Temporary Wetland Impact	N/A
Wetland Fill Impact	N/A
Wetland Excavation Impact	N/A
Tributary Imp. Length	1067 FT
Tributary Replacement Length	1123 FT
Tributary Fill Below DHWM	220 CY



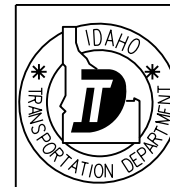
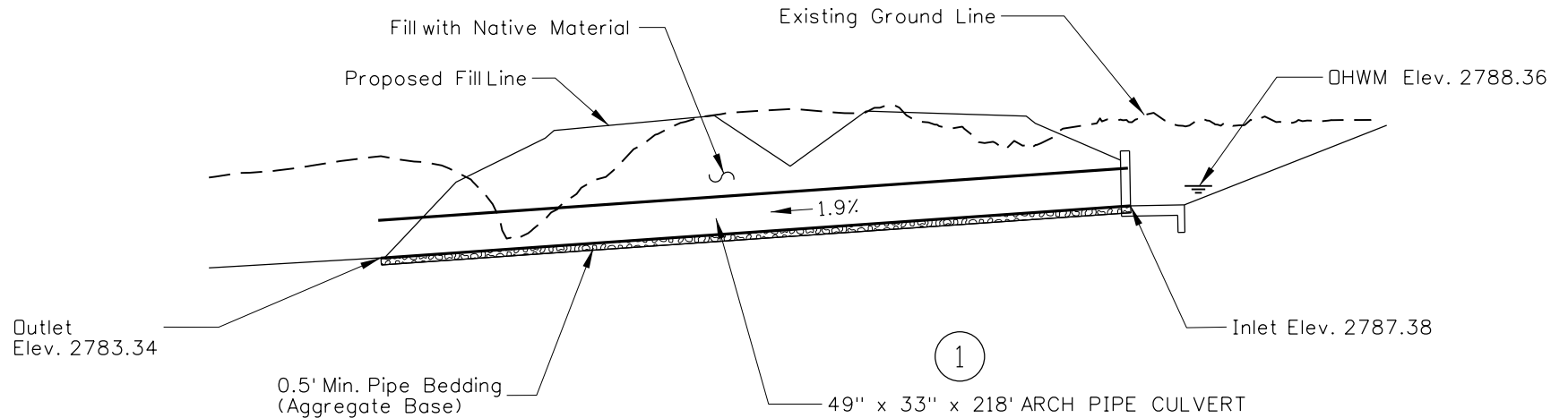
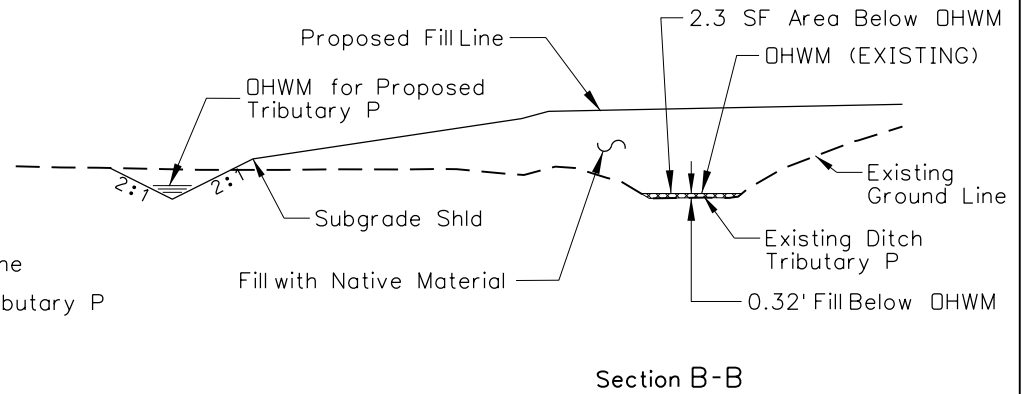
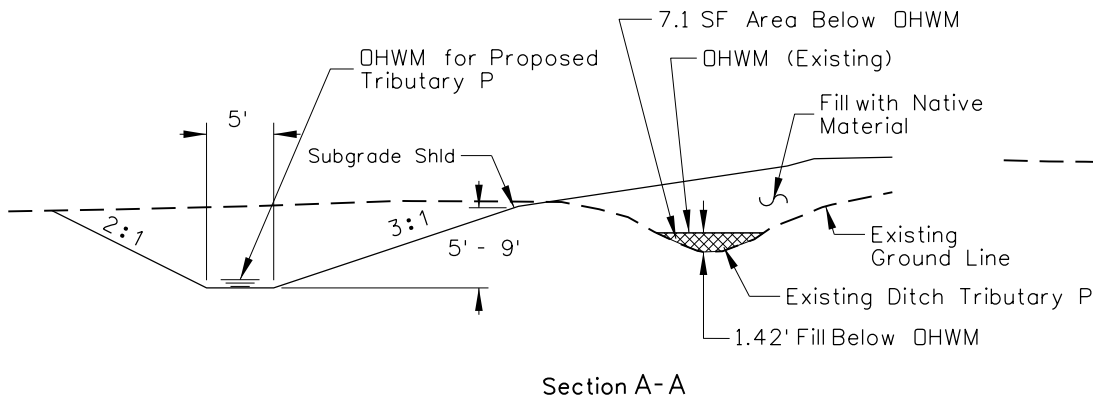
DISTRICT 2
Lewiston, ID

NWWW No.:
Applicant Name:
Proposed Project: Thorn Cr Rd to Moscow,
Ph. 1, Latah County
Project Number: DHP-NH-4110(156)
Location: US-95
Sheet 7 of 32
Date: February 2017
09294_envi_2.DGN

SPECIAL DITCH FOR TRIBUTARY P

STA. 53+00 TO 58+50 LT
TRANS. STA. 58+50 TO 59+00 LT
N.T.S.

STA. 59+00 TO 62+00 LT
N.T.S.

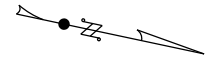


DISTRICT 2
Lewiston, ID

NWWW No.:
Applicant Name:
Proposed Project: Thorn Cr Rd to Moscow,
Ph. 1, Latah County
Project Number: DHP-NH-4110(156)
Location: US-95
Sheet 8 of 32 Date: February 2017
09294_envi_2A.DGN

T. 38N., R. 5W., B.M.

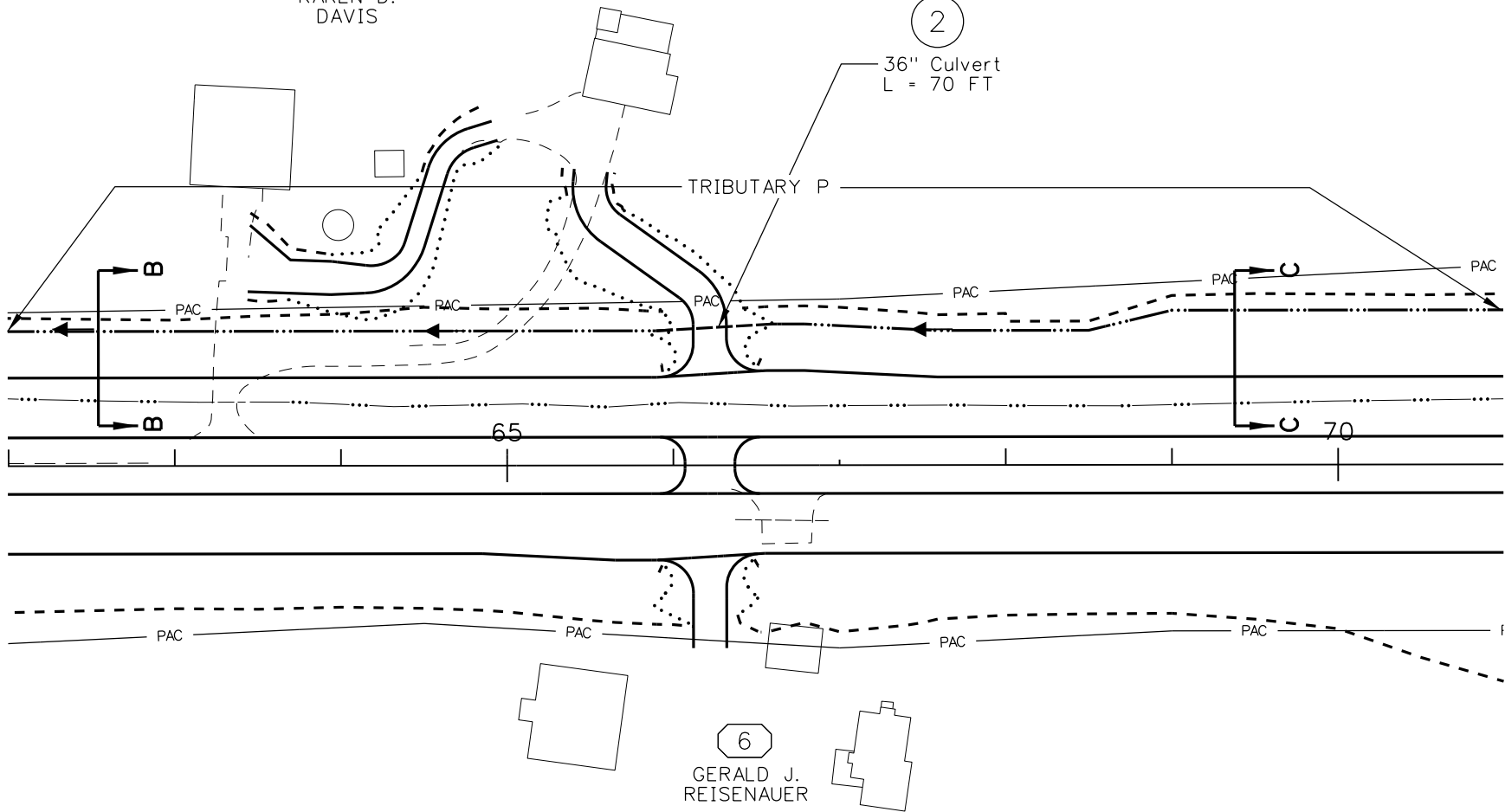
SW 1/4 NW 1/4
Sec 17



5
KAREN D.
DAVIS

2

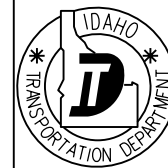
36" Culvert
L = 70 FT



SEE NEXT SHEET FOR CULVERT 2
AND SECTIONS B-B & C-C DETAILS

IMPACT TABLE - SHEET TOTAL

Permanent Wetland Impact	N/A
Temporary Wetland Impact	N/A
Wetland Fill Impact	N/A
Wetland Excavation Impact	N/A
Tributary Imp. Length	902 FT
Tributary Replacement Length	897 FT
Tributary Fill Below DHWM	79 CY



DISTRICT 2
Lewiston, ID

NWWW No.:

Applicant Name:

Proposed Project: Thorn Cr Rd to Moscow,
Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

Sheet 9 of 32

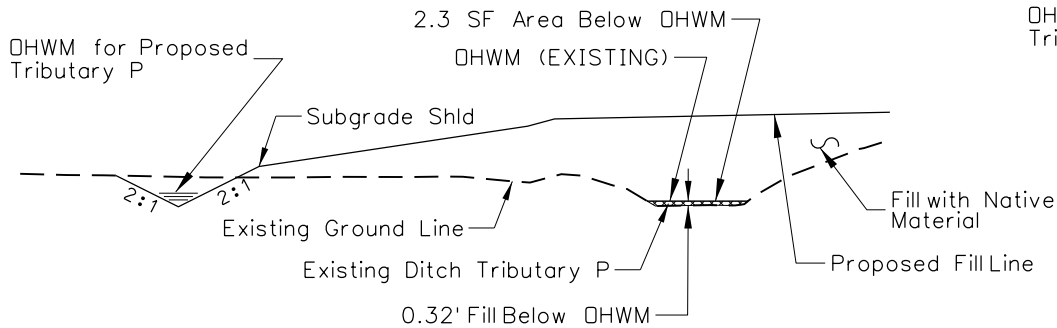
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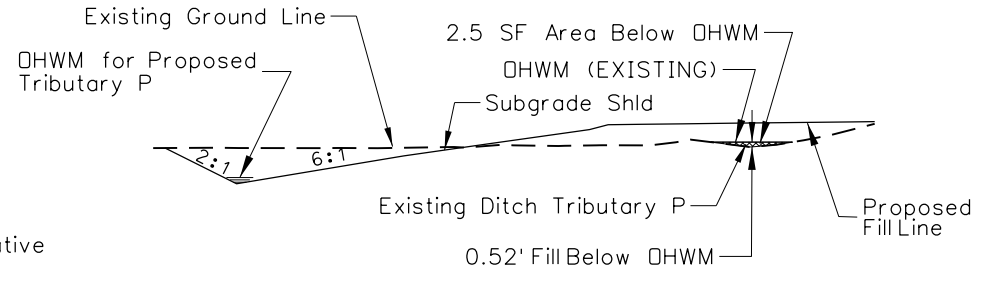
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 TRANS. STA. 68+00 TO 69+00 LT
 N.T.S.

SPECIAL DITCH FOR TRIBUTARY P

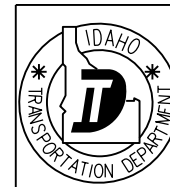
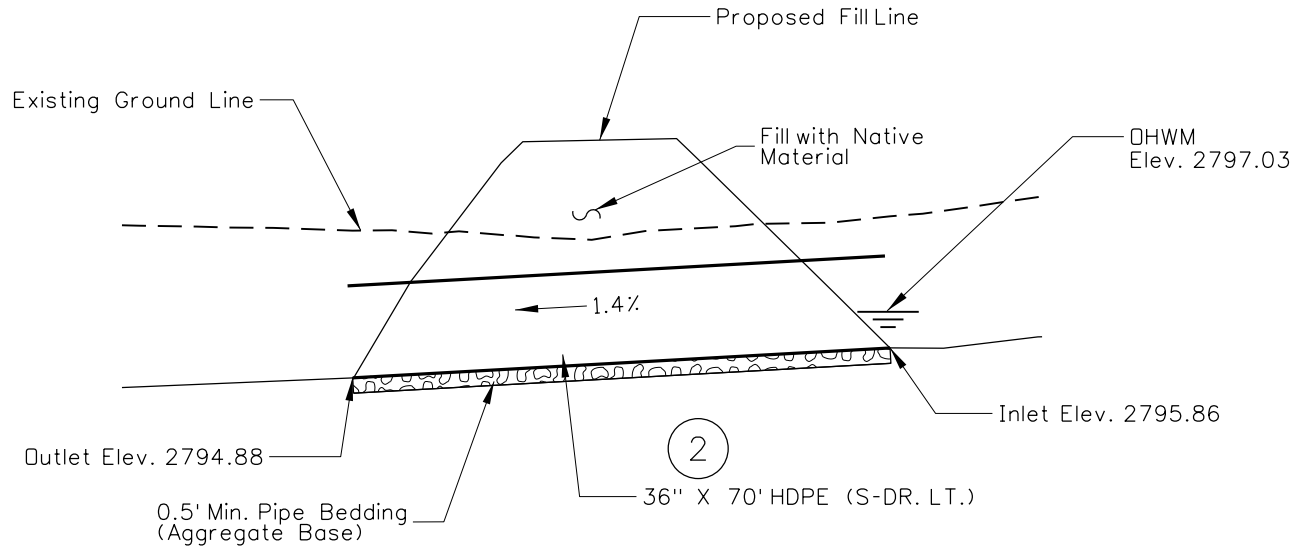
STA. 69+00 TO 71+00 LT
 N.T.S.



Section B-B



Section C-C



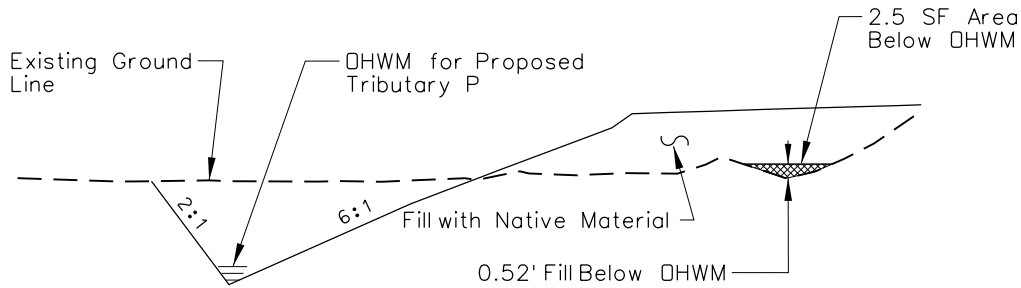
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 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow,
 Ph. 1, Latah County
 Project Number: DHP-NH-4110(156)
 Location: US-95
 Sheet 10 of 32 Date: February 2017
 09294_envi_3A.DGN

DISTRICT 2
 Lewiston, ID

SPECIAL DITCH FOR TRIBUTARY P

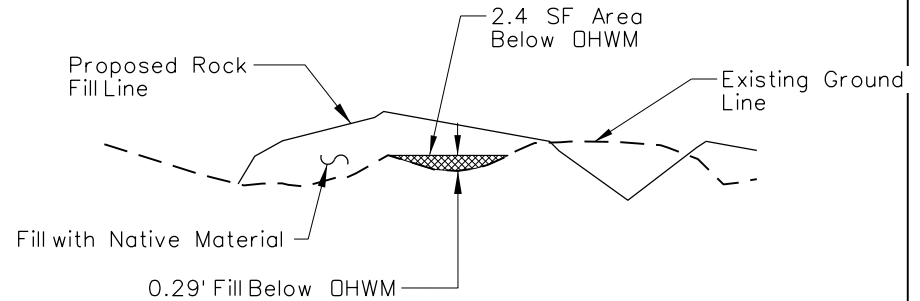
N.T.S.

STA. 71+00 TO 72+90 LT
 STA. 73+30 TO 74+00 LT
 TRANS. STA. 74+00 TO 74+50 LT



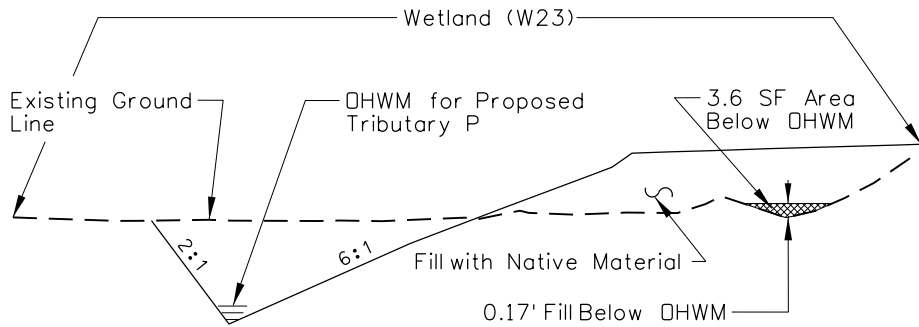
Section C-C

STA. 74+50 TO 77+15 LT



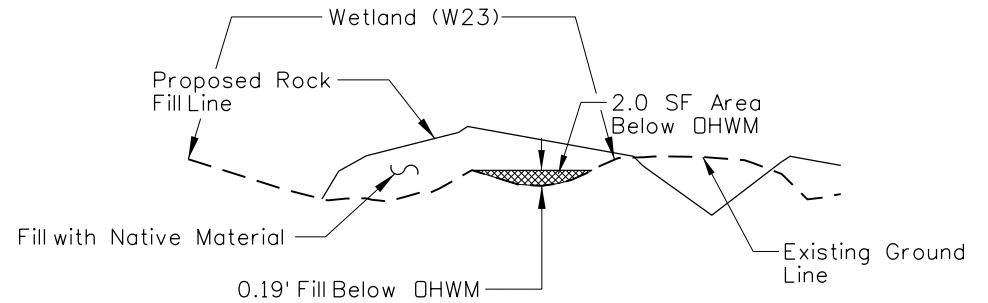
Section D-D

STA. 72+90 TO 73+30 LT

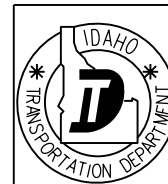


Section C1-C1

STA. 77+15 TO 79+00 LT



Section D1-D1



NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow,
 Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

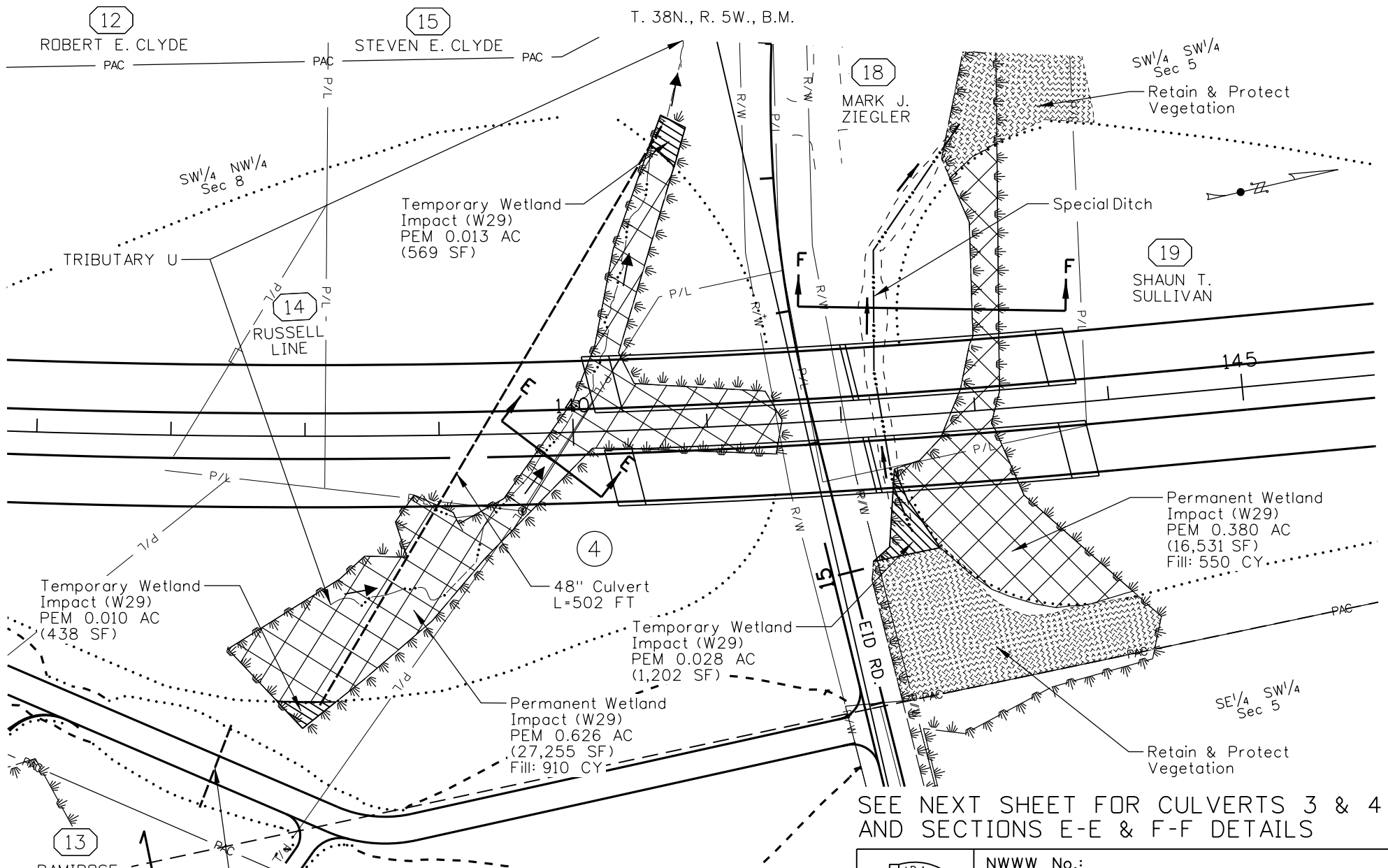
Sheet 12 of 32

Date: February 2017

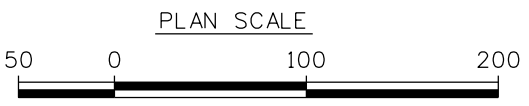
DISTRICT 2
 Lewiston, ID

09294_envi_4A.DGN

T. 38N., R. 5W., B.M.



SEE NEXT SHEET FOR CULVERTS 3 & 4 AND SECTIONS E-E & F-F DETAILS



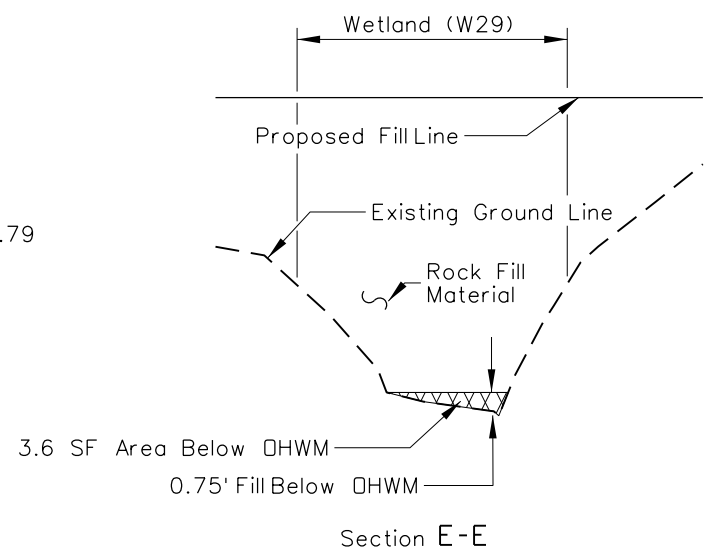
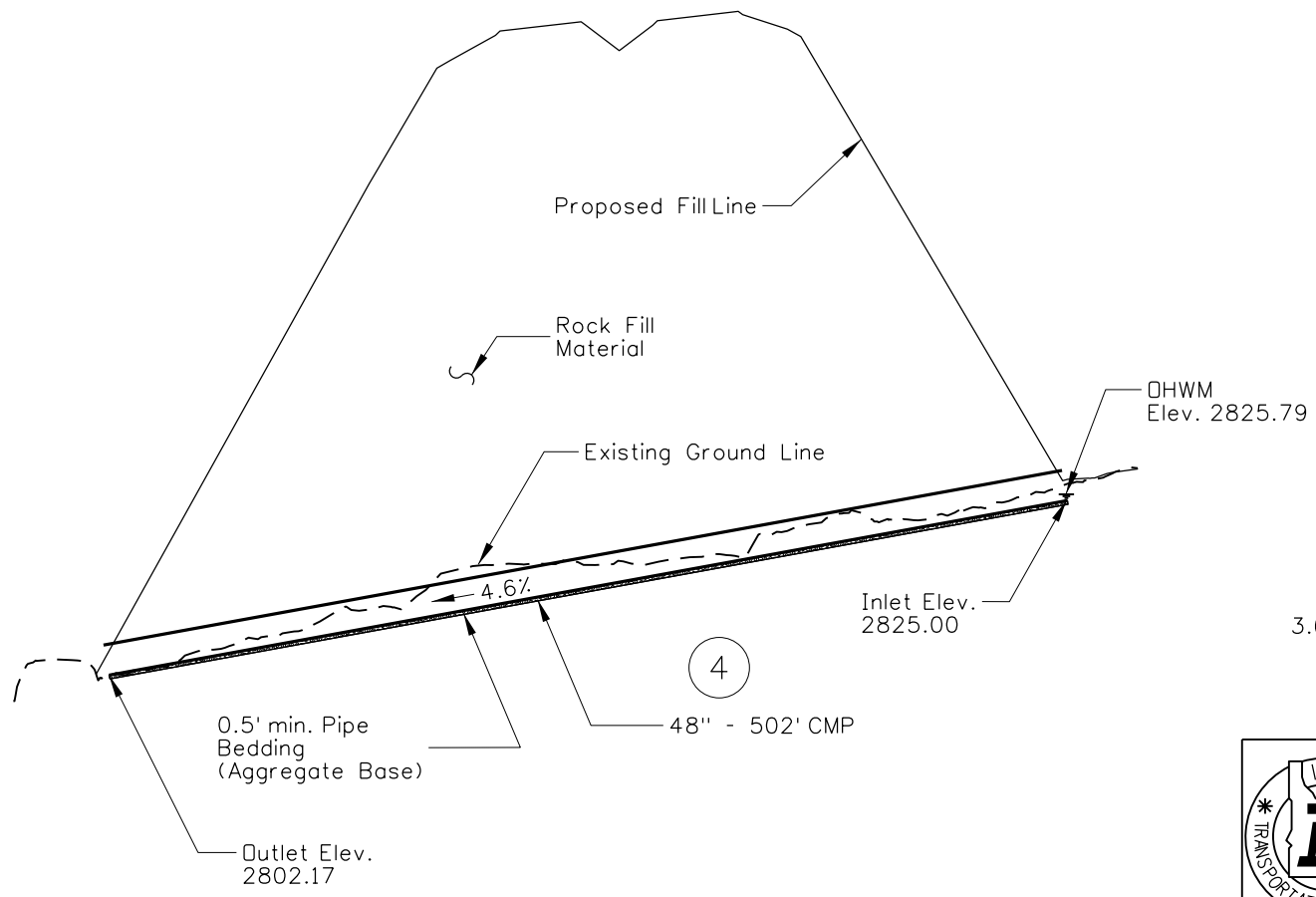
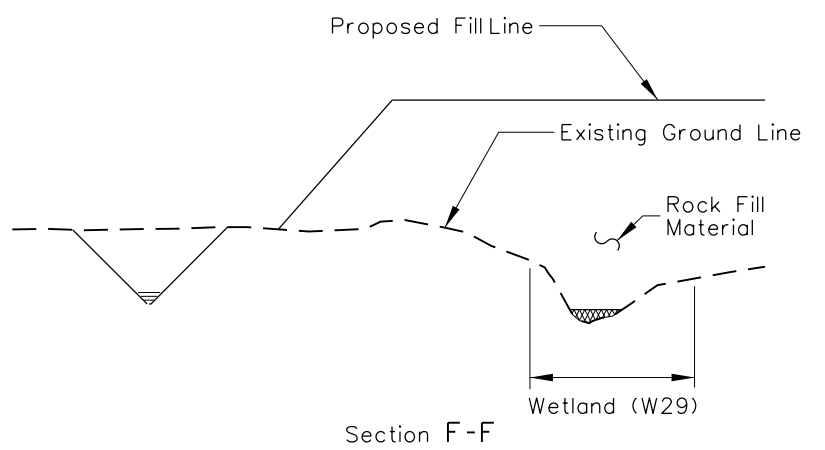
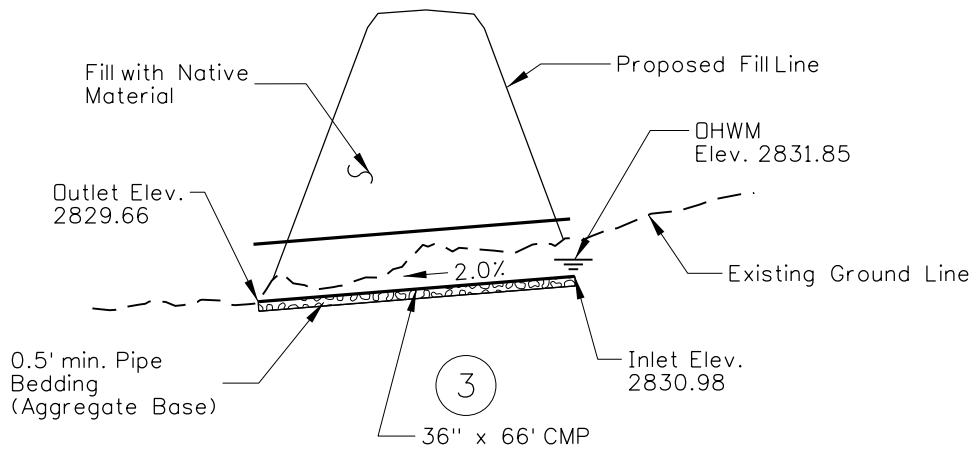
IMPACT TABLE - SHEET TOTAL	
Permanent Wetland Impact	1.006 AC (43,786 SF)
Temporary Wetland Impact	0.051 AC (2,209 SF)
Wetland Fill Impact	1460 CY
Wetland Excavation Impact	N/A
Tributary Imp. Length	N/A
Tributary Replacement Length	N/A
Tributary Fill Below DHWM	N/A




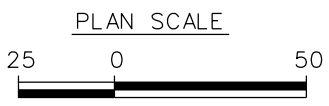
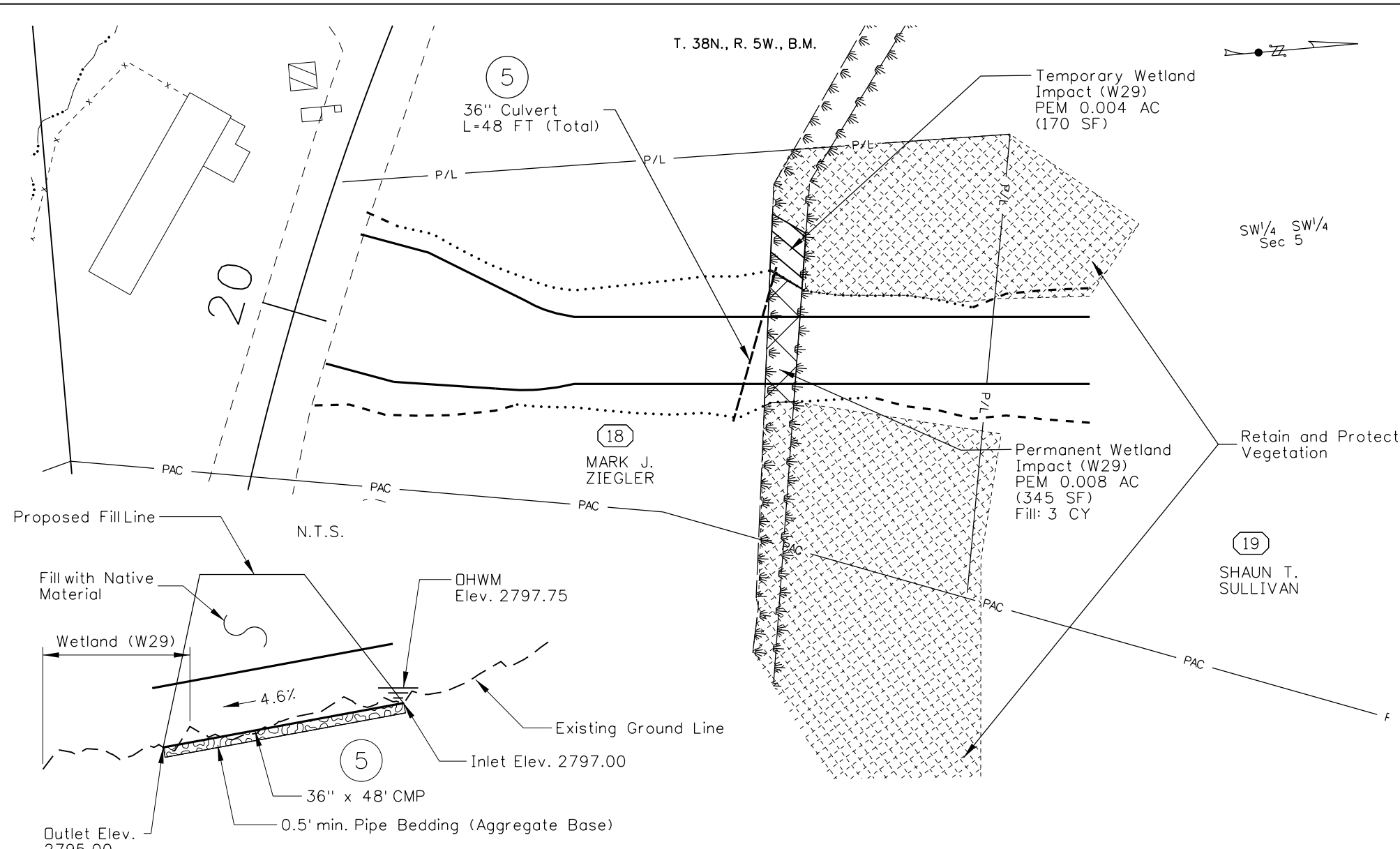
NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County
 Project Number: DHP-NH-4110(156)
 Location: US-95
 Sheet 13 of 32
 Date: February 2017
 09294_envi_11.DGN

DISTRICT 2
 Lewiston, ID


N.T.S.



	NWWW No.:
	Applicant Name:
DISTRICT 2 Lewiston, ID	Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County
	Project Number: DHP-NH-4110(156)
	Location: US-95
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IMPACT TABLE - SHEET TOTAL	
Permanent Wetland Impact	0.008 AC (345 SF)
Temporary Wetland Impact	0.004 AC (170 SF)
Wetland Fill Impact	3 CY
Wetland Excavation Impact	N/A
Tributary Imp. Length	N/A
Tributary Replacement Length	N/A
Tributary Fill Below DHWM	N/A



DISTRICT 2
Lewiston, ID

NWWW No.:

Applicant Name:

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

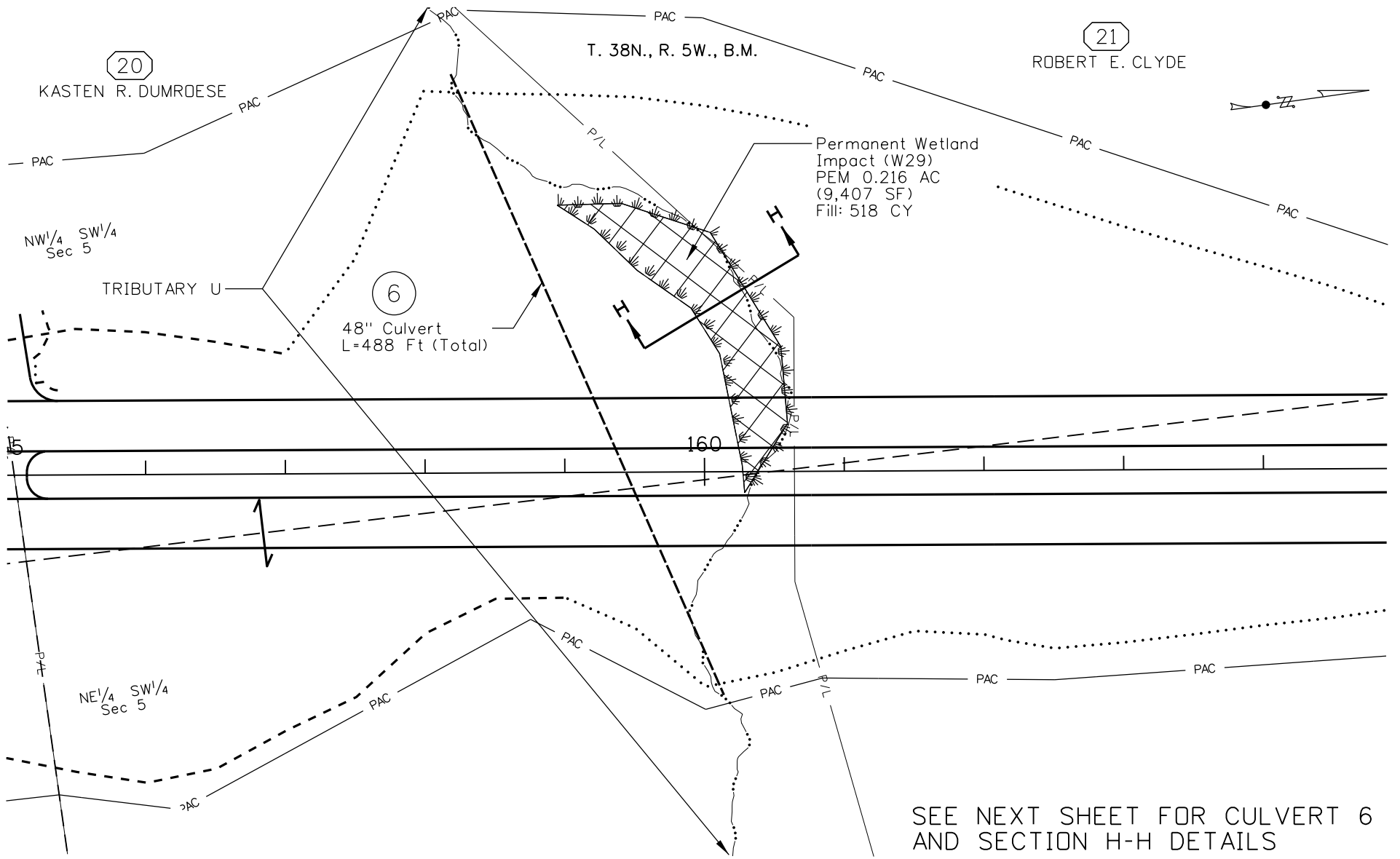
Project Number: DHP-NH-4110(156)

Location: US-95

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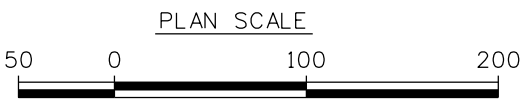
Date: February 2017

09294_envi_36.DGN



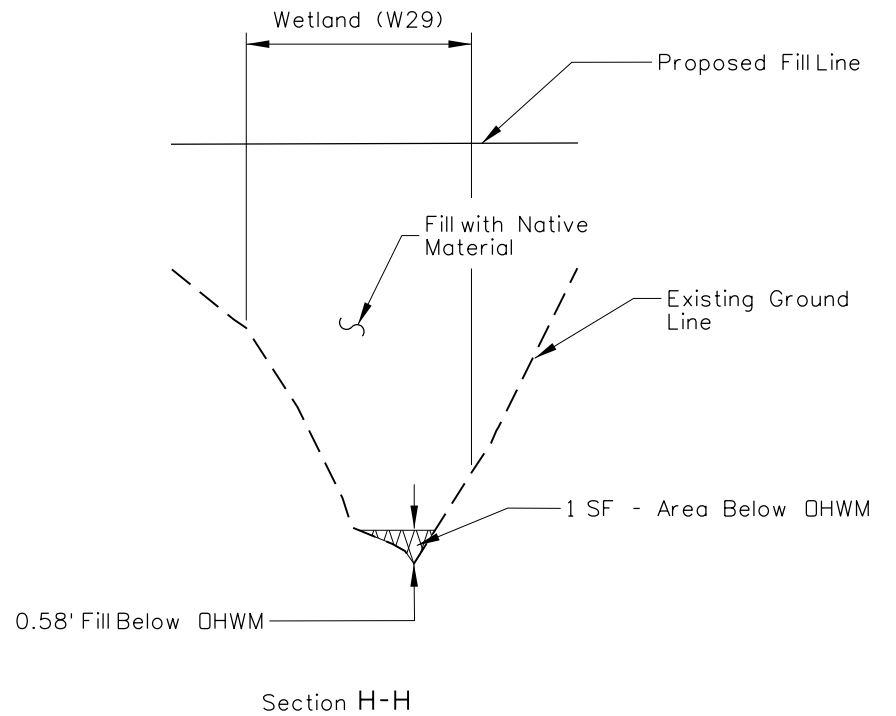
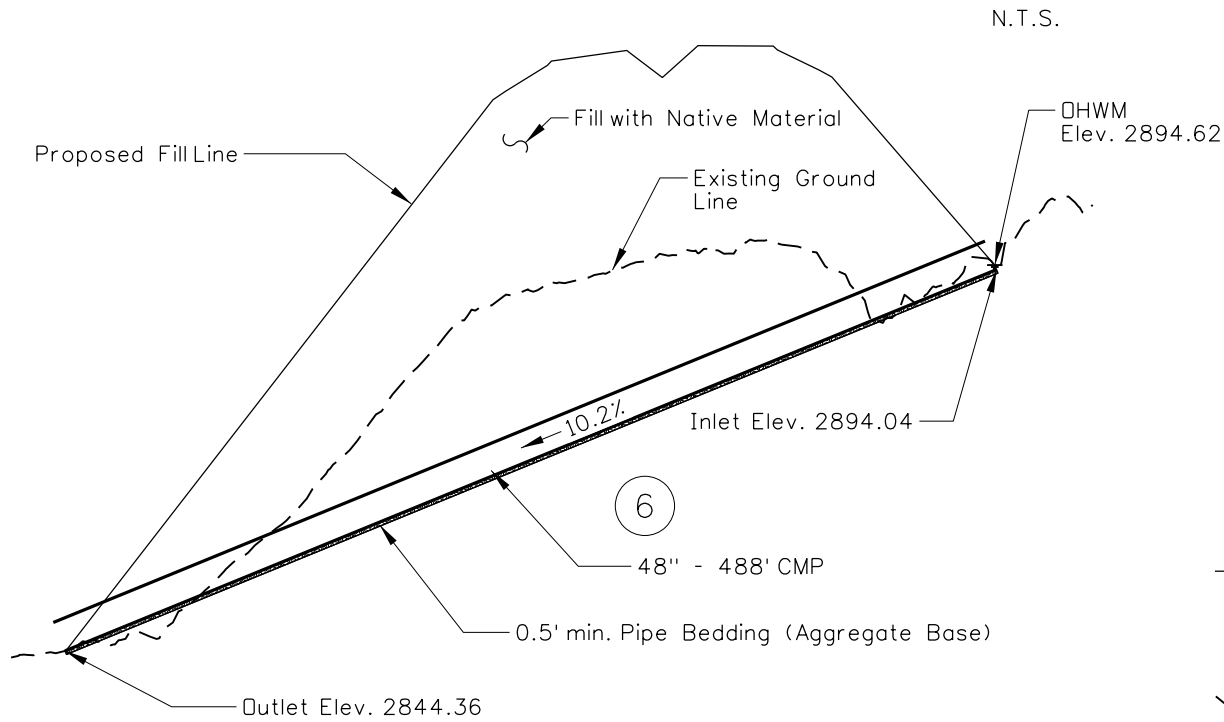
SEE NEXT SHEET FOR CULVERT 6 AND SECTION H-H DETAILS

IMPACT TABLE - SHEET TOTAL	
Permanent Wetland Impact	0.216 AC (9,407 SF)
Temporary Wetland Impact	N/A
Wetland Fill Impact	518 CY
Wetland Excavation Impact	N/A
Tributary Imp. Length	406 FT
Tributary Replacement Length	488 FT
Tributary Fill Below DHWM	22.7 CY



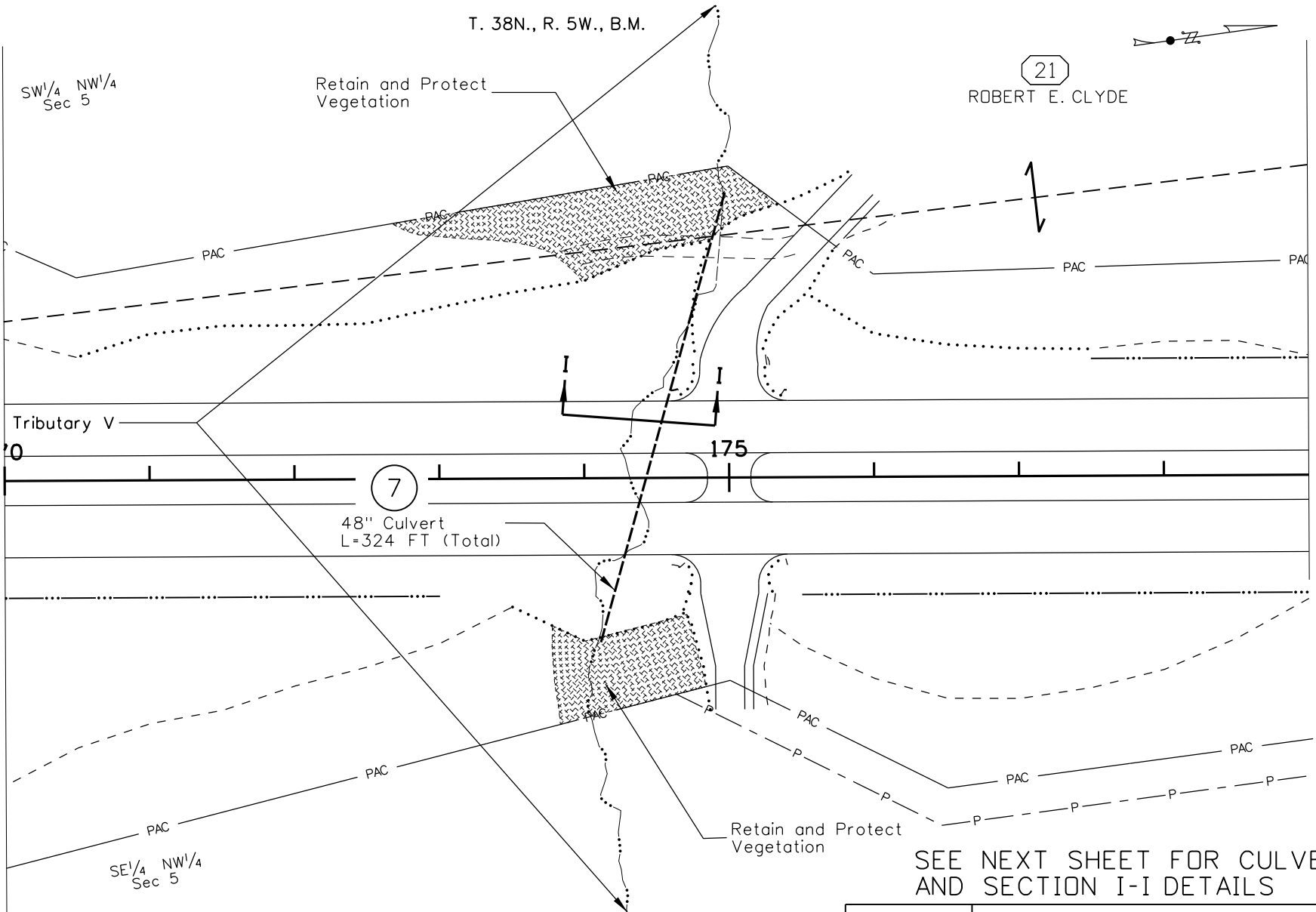
DISTRICT 2
Lewiston, ID

NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County
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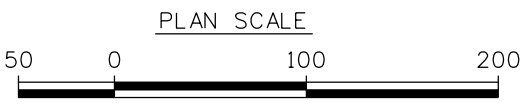


NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow,
 Ph. 1, Latah County
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DISTRICT 2
 Lewiston, ID



SEE NEXT SHEET FOR CULVERT 7 AND SECTION I-I DETAILS



IMPACT TABLE - SHEET TOTAL	
Permanent Wetland Impact	N/A
Temporary Wetland Impact	N/A
Wetland Fill Impact	N/A
Wetland Excavation Impact	N/A
Tributary Imp. Length	363 FT
Tributary Replacement Length	324 FT
Tributary Fill Below DHWM	9.4 CY



NWWW No.:

Applicant Name:

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

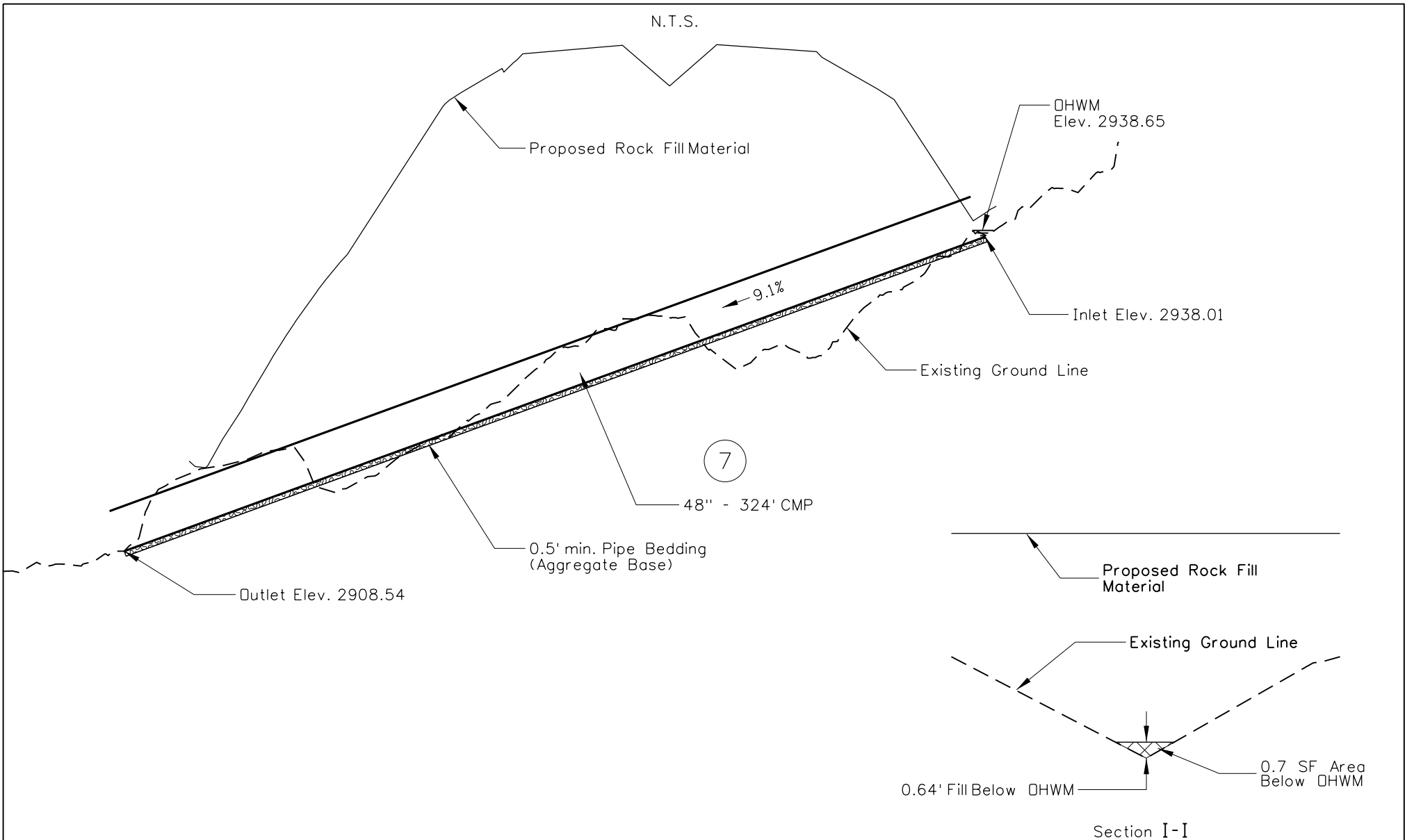
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Lewiston, ID



NWWW No.:

Applicant Name:

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DISTRICT 2
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T. 38N., R. 5W., B.M.

21

ROBERT E. CLYDE

Retain and Protect Vegetation

Temporary Wetland Impact (W32)
PSS 0.014 AC
(623 SF)

8

48" Culvert
L=302 FT (Total)

180

185

Permanent Wetland Impact (W32)
PSS 0.208 AC
(9,051 SF)
Fill: 214 CY

Temporary Wetland Impact (W32)
PSS 0.008 AC
(330 SF)

NE¹/₄ NW¹/₄
Sec 5

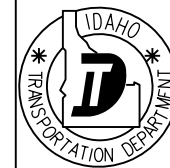
SEE NEXT SHEET FOR CULVERT 8
DETAILS

SE¹/₄ NW¹/₄
Sec 5

Retain and Protect Vegetation

IMPACT TABLE - SHEET TOTAL

Permanent Wetland Impact	0.208 AC (9,051 SF)
Temporary Wetland Impact	0.022 AC (953 SF)
Wetland Fill Impact	214 CY
Wetland Excavation Impact	N/A
Tributary Imp. Length	N/A
Tributary Replacement Length	N/A
Tributary Fill Below DHWM	N/A



NWWW No.:

Applicant Name:

Proposed Project: Thorn Cr Rd to Moscow,
Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

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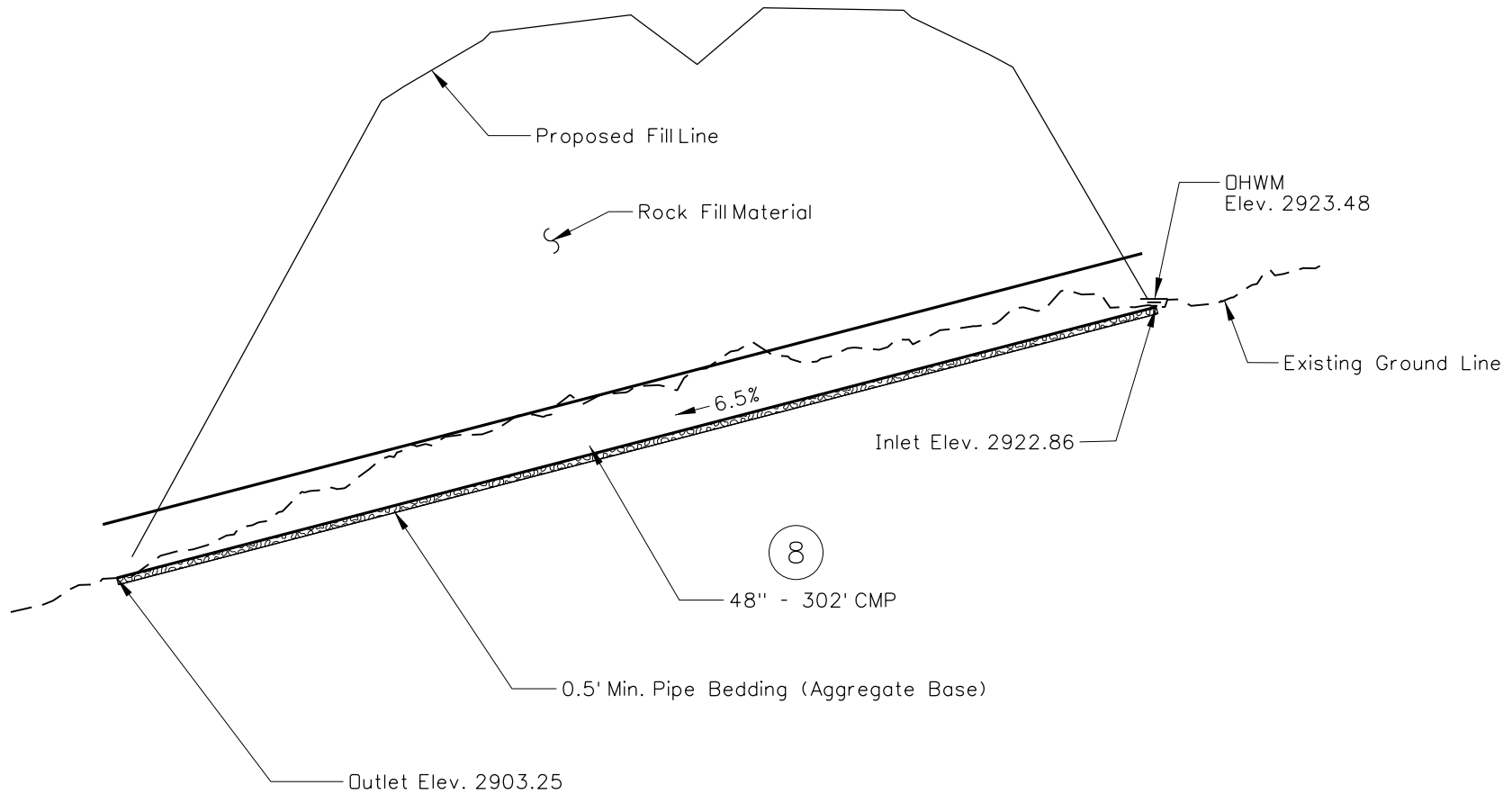
09294_envi_16.DGN

DISTRICT 2
Lewiston, ID

PLAN SCALE



N.T.S.



NWWW No.:

Applicant Name:

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

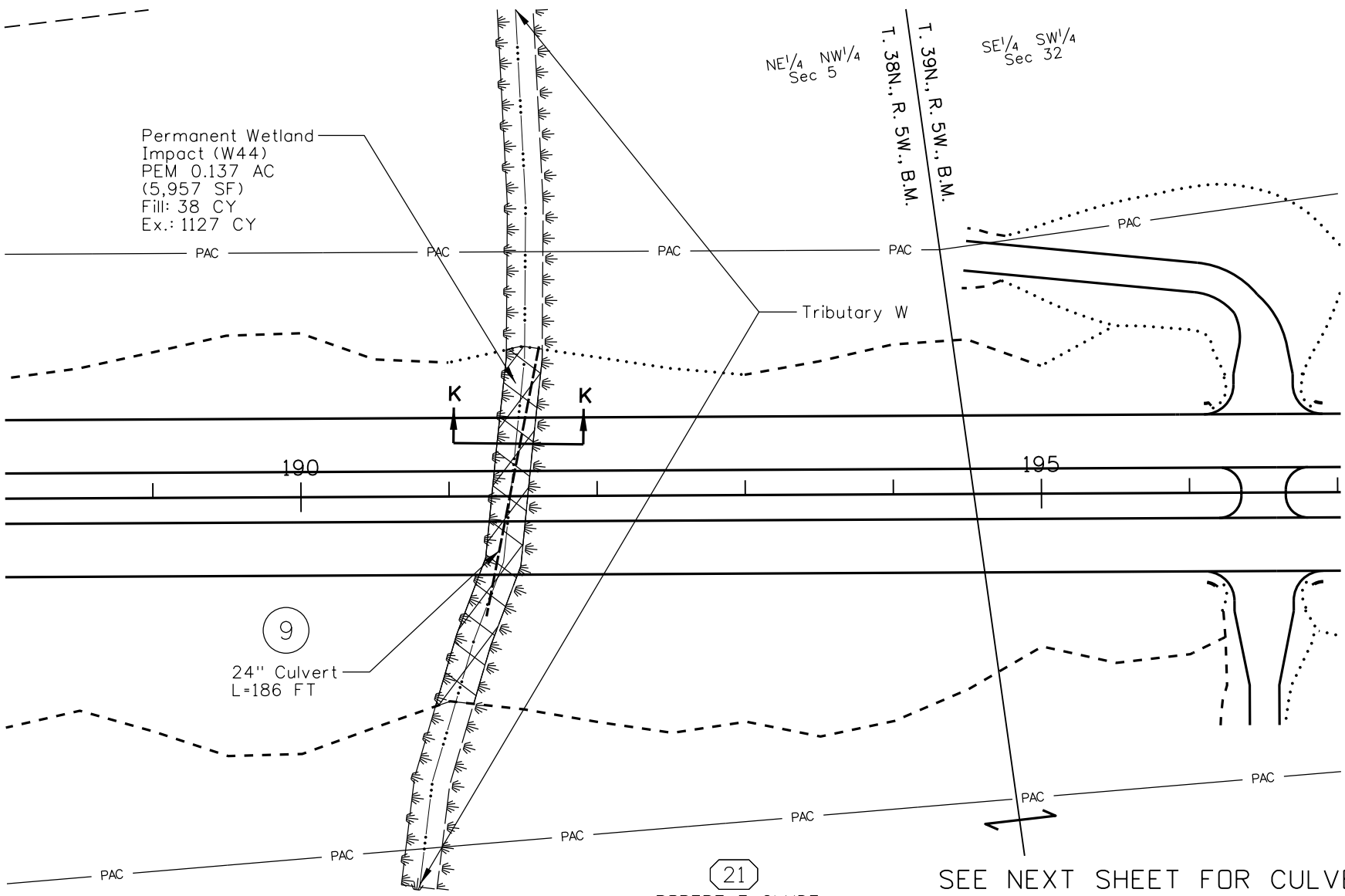
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Lewiston, ID



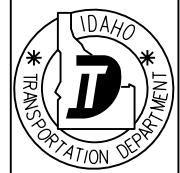
Permanent Wetland
Impact (W44)
PEM 0.137 AC
(5,957 SF)
Fill: 38 CY
Ex.: 1127 CY

9
24" Culvert
L=186 FT

SEE NEXT SHEET FOR CULVERT 9
AND SECTION K-K DETAILS



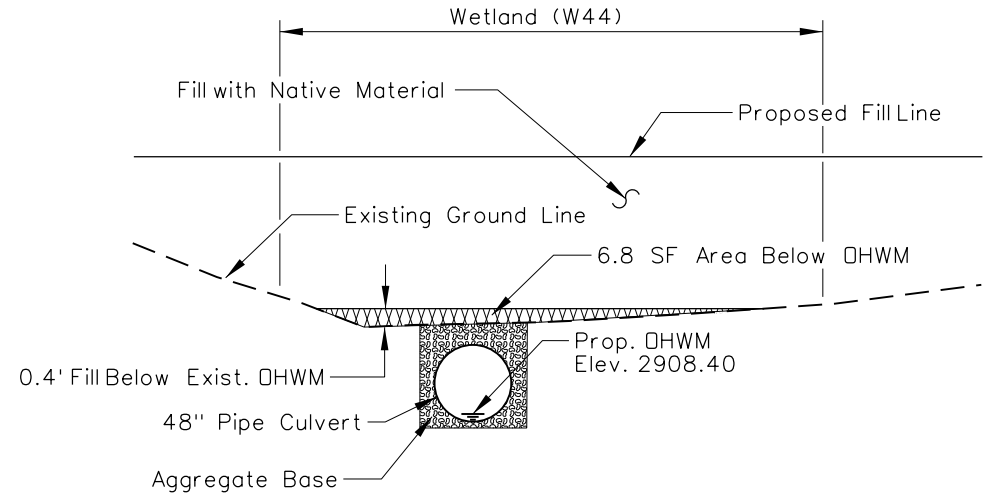
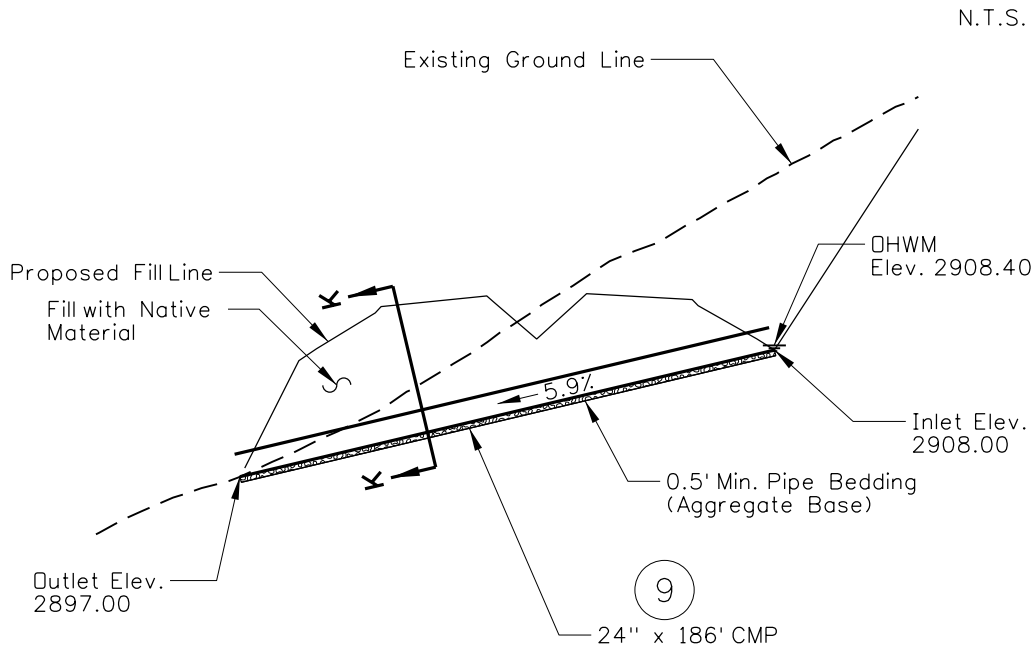
IMPACT TABLE - SHEET TOTAL	
Permanent Wetland Impact	0.137 AC (5,957 SF)
Temporary Wetland Impact	N/A
Wetland Fill Impact	38 CY
Wetland Excavation Impact	1127 CY
Tributary Imp. Length	N/A
Tributary Replacement Length	N/A
Tributary Fill Below DHWM	N/A



DISTRICT 2
Lewiston, ID

NWWW No.:
Applicant Name:
Proposed Project: Thorn Cr Rd to Moscow,
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21
ROBERT E. CLYDE



Section K-K



NWWW No.:

Applicant Name:

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

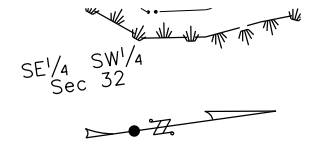
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DISTRICT 2
Lewiston, ID

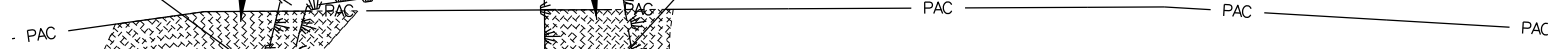
T. 39N., R. 5W., B.M.



Temporary Wetland Impact (W32)
PSS 0.005 AC
(209 SF)

Retain and Protect Vegetation

Temporary Wetland Impact (W32)
PSS 0.016 AC
(713 SF)



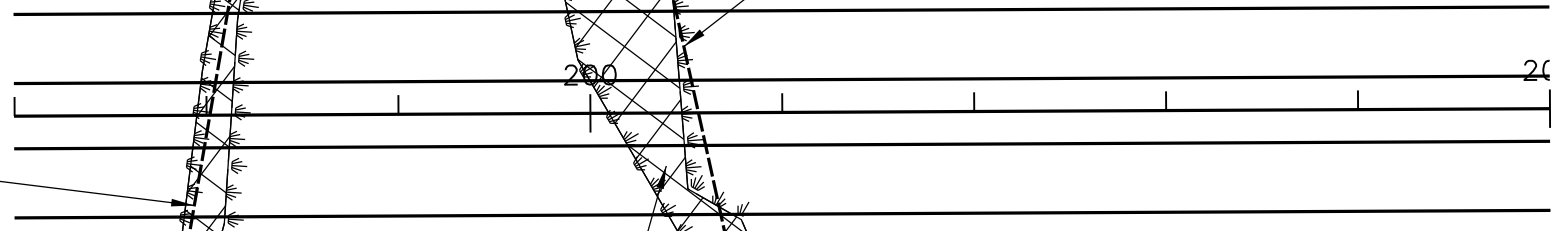
Permanent Wetland Impact (W32)
PSS 0.104 AC
(4,548 SF)
Fill: 137 CY

11

48" Culvert
L=298 FT (Total)

10

48" Culvert
L=298 FT (Total)



Temporary Wetland Impact (W32)
PSS 0.006 AC
(263 SF)

Permanent Wetland Impact (W32)
PSS 0.292 AC
(12,700 SF)
Fill: 461 CY

Retain and Protect Vegetation

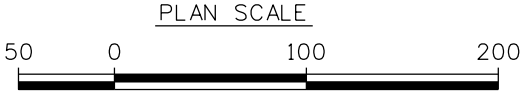
21

ROBERT E. CLYDE

Retain and Protect Vegetation

Temporary Wetland Impact (W32)
PSS 0.014 AC
(599 SF)

SEE NEXT SHEET FOR CULVERTS 10 & 11 DETAILS



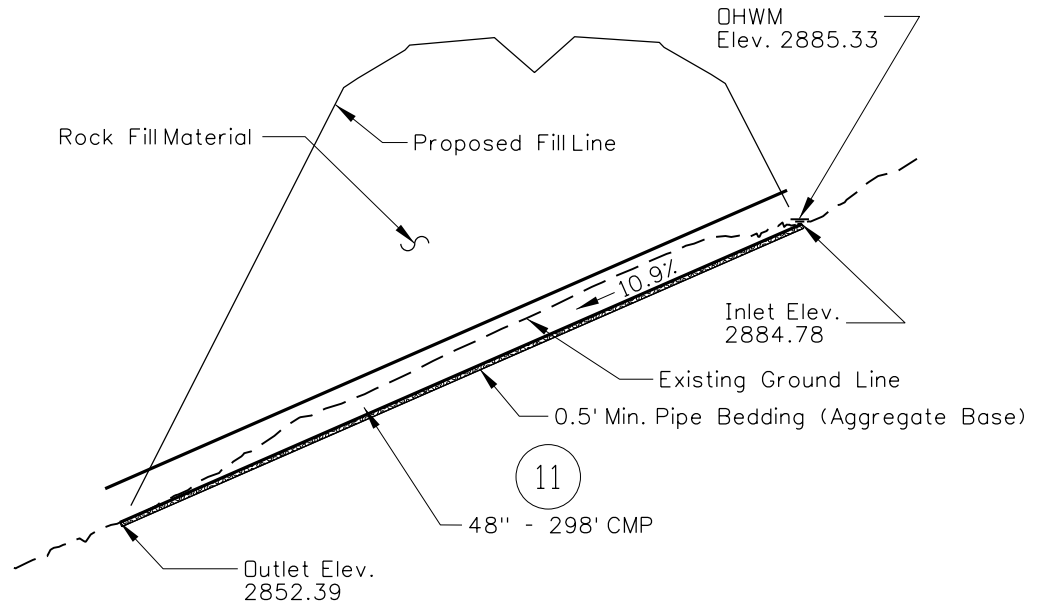
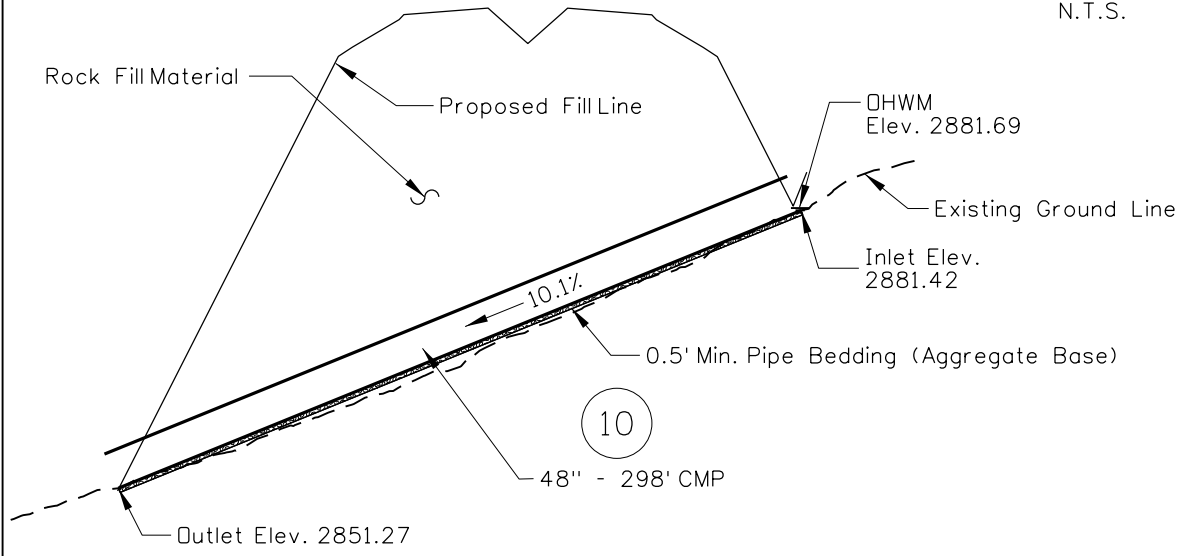
IMPACT TABLE - SHEET TOTAL	
Permanent Wetland Impact	0.396 AC (17,248 SF)
Temporary Wetland Impact	0.041 AC (1,784 SF)
Wetland Fill Impact	598 CY
Wetland Excavation Impact	N/A
Tributary Imp. Length	N/A
Tributary Replacement Length	N/A
Tributary Fill Below DHWM	N/A



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Lewiston, ID

N.T.S.



NWWW No.:

Applicant Name:

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

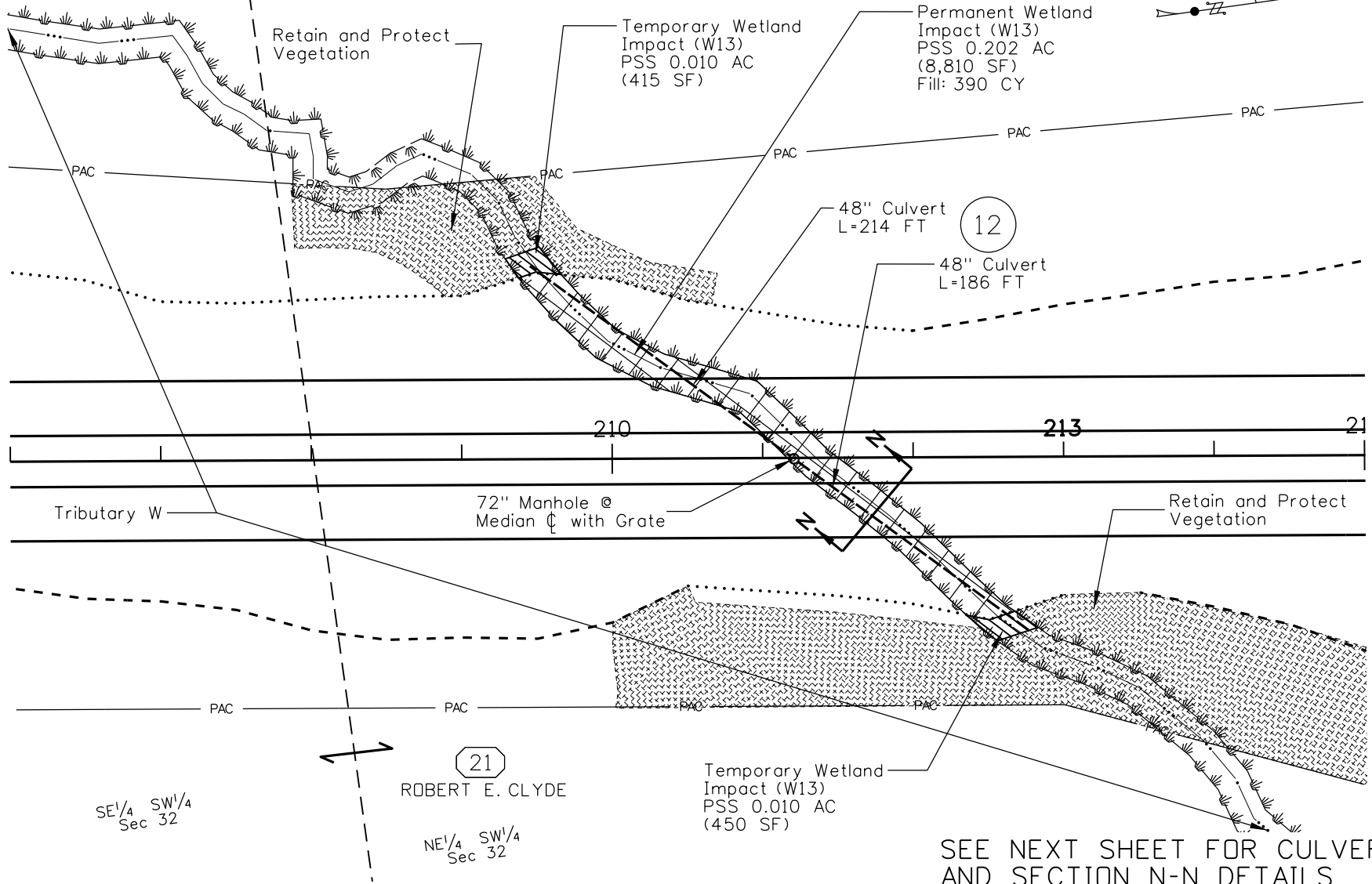
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09294_envi_18A.DGN

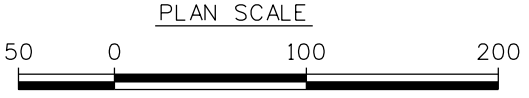
DISTRICT 2
Lewiston, ID

T. 39N., R. 5W., B.M.



SEE NEXT SHEET FOR CULVERT 12 AND SECTION N-N DETAILS

IMPACT TABLE - SHEET TOTAL	
Permanent Wetland Impact	0.202 AC (8,810 SF)
Temporary Wetland Impact	0.020 AC (865 SF)
Wetland Fill Impact	390 CY
Wetland Excavation Impact	N/A
Tributary Imp. Length	N/A
Tributary Replacement Length	N/A
Tributary Fill Below DHWM	N/A



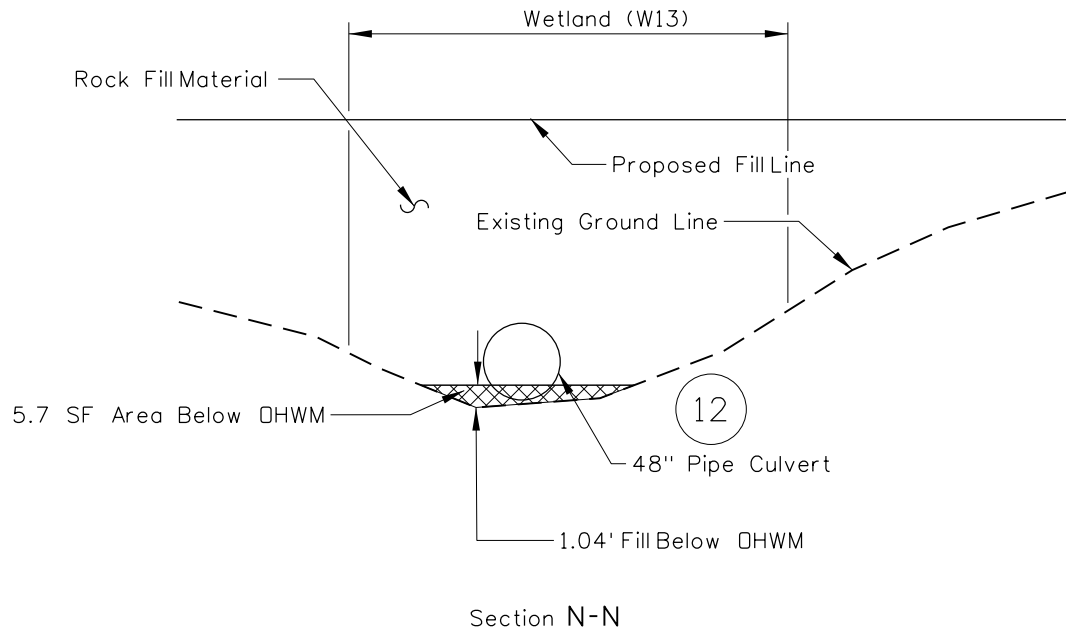
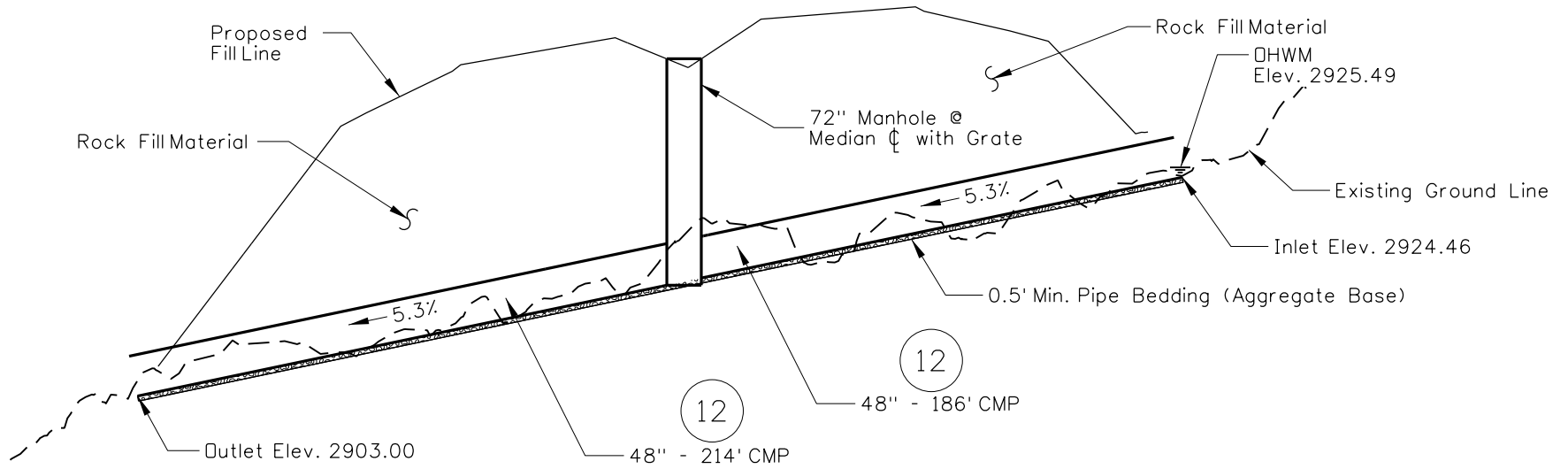
NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County
 Project Number: DHP-NH-4110(156)
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SE 1/4 SW 1/4
 Sec 32

21
 ROBERT E. CLYDE
 NE 1/4 SW 1/4
 Sec 32

N.T.S.



NWWW No.:

Applicant Name:

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

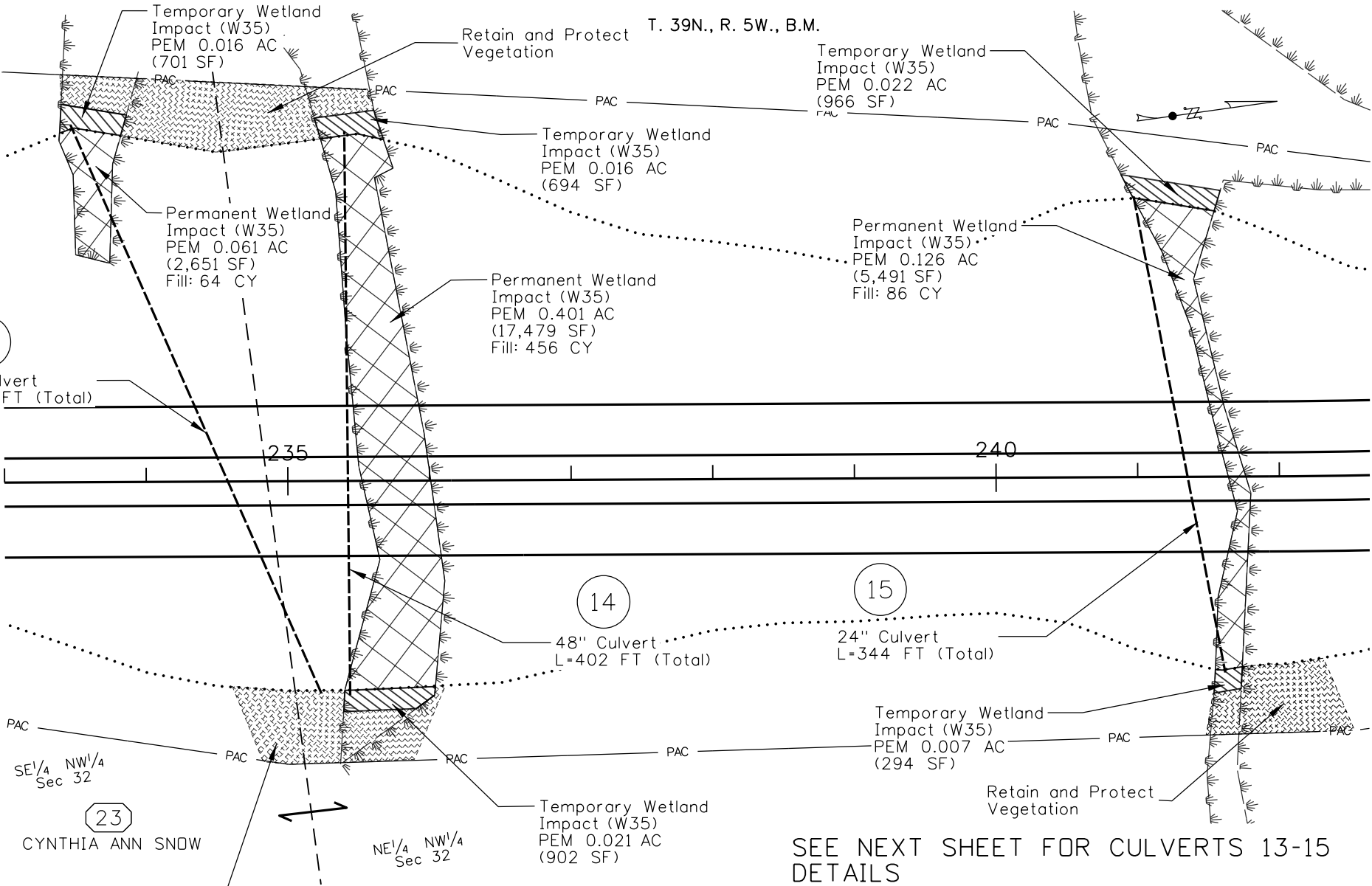
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Lewiston, ID

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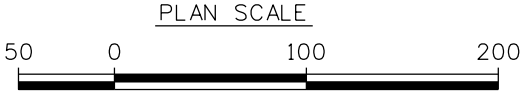


SEE NEXT SHEET FOR CULVERTS 13-15 DETAILS

IMPACT TABLE - SHEET TOTAL	
Permanent Wetland Impact	0.588 AC (25,621 SF)
Temporary Wetland Impact	0.082 AC (3,557 SF)
Wetland Fill Impact	606 CY
Wetland Excavation Impact	N/A
Tributary Imp. Length	N/A
Tributary Replacement Length	N/A
Tributary Fill Below DHWM	N/A



NWWW No.:
 Applicant Name:
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Retain and Protect Vegetation

Retain and Protect Vegetation

SE¹/₄ NW¹/₄ Sec 32
 CYNTHIA ANN SNOW

NE¹/₄ NW¹/₄ Sec 32

13
 48" Culvert
 L=442 FT (Total)

14
 48" Culvert
 L=402 FT (Total)

15
 24" Culvert
 L=344 FT (Total)

Temporary Wetland Impact (W35)
 PEM 0.016 AC (701 SF)

Retain and Protect Vegetation

Temporary Wetland Impact (W35)
 PEM 0.022 AC (966 SF)

Temporary Wetland Impact (W35)
 PEM 0.016 AC (694 SF)

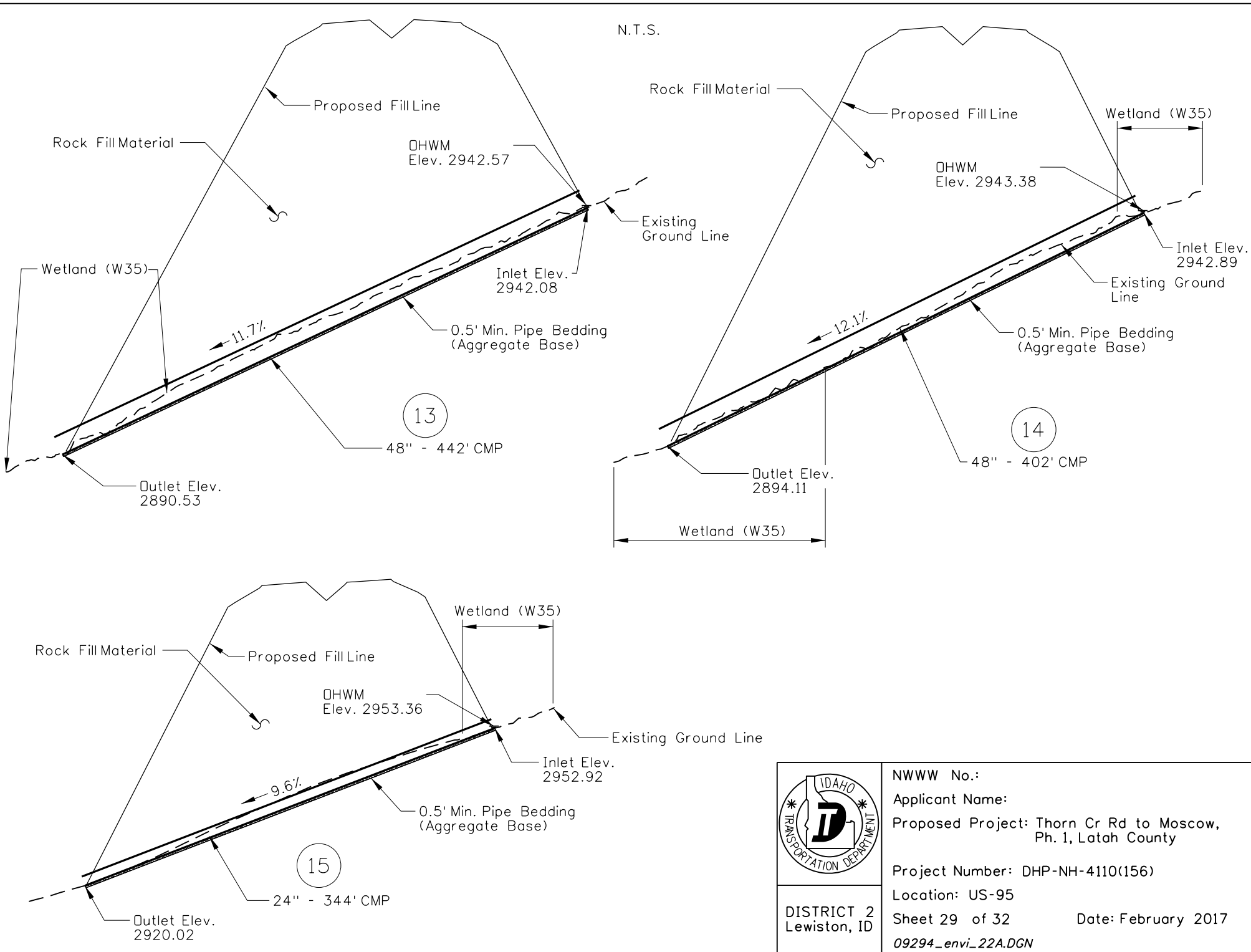
Permanent Wetland Impact (W35)
 PEM 0.061 AC (2,651 SF)
 Fill: 64 CY

Permanent Wetland Impact (W35)
 PEM 0.401 AC (17,479 SF)
 Fill: 456 CY

Permanent Wetland Impact (W35)
 PEM 0.126 AC (5,491 SF)
 Fill: 86 CY

Temporary Wetland Impact (W35)
 PEM 0.007 AC (294 SF)

Temporary Wetland Impact (W35)
 PEM 0.021 AC (902 SF)



NWWW No.:

Applicant Name:

Proposed Project: Thorn Cr Rd to Moscow, Ph. 1, Latah County

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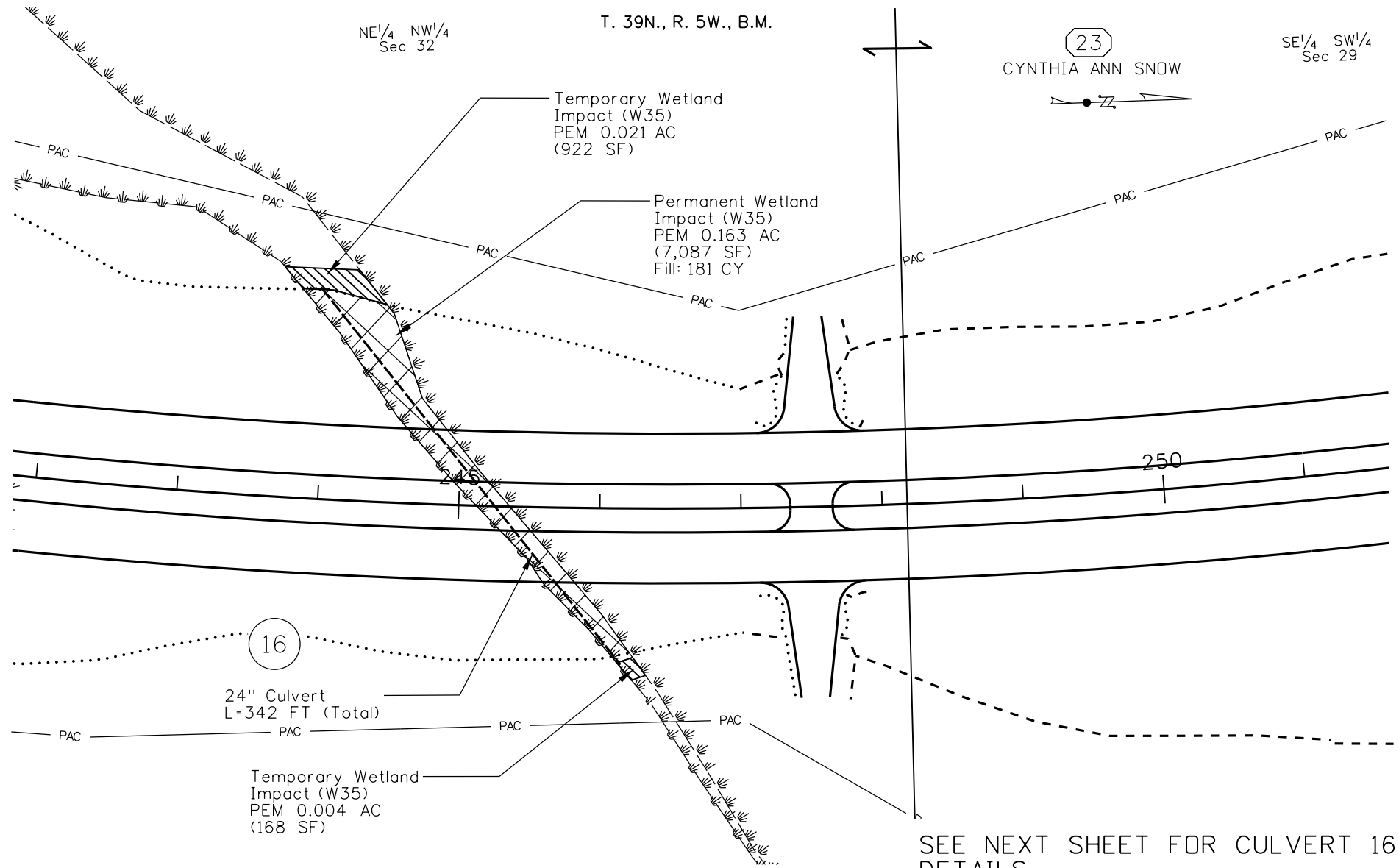
DISTRICT 2
Lewiston, ID

NE 1/4 NW 1/4
Sec 32

T. 39N., R. 5W., B.M.

23
CYNTHIA ANN SNOW

SE 1/4 SW 1/4
Sec 29

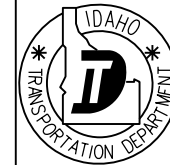


SEE NEXT SHEET FOR CULVERT 16
DETAILS



IMPACT TABLE - SHEET TOTAL

Permanent Wetland Impact	0.163 AC (7,087 SF)
Temporary Wetland Impact	0.025 AC (1,090 SF)
Wetland Fill Impact	181 CY
Wetland Excavation Impact	N/A
Tributary Imp. Length	N/A
Tributary Replacement Length	N/A
Tributary Fill Below DHWM	N/A



NWWW No.:

Applicant Name:

Proposed Project: Thorn Cr Rd to Moscow,
Ph. 1, Latah County

Project Number: DHP-NH-4110(156)

Location: US-95

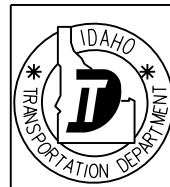
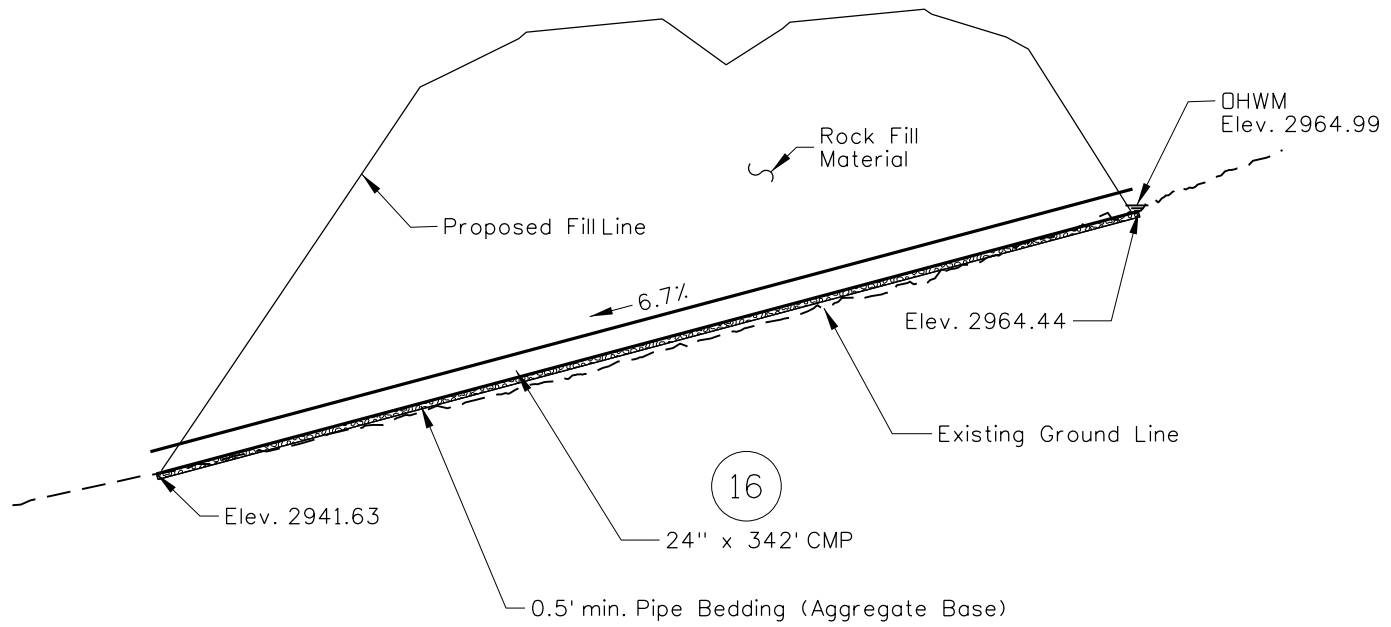
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N.T.S.



NWWW No.:
Applicant Name:
Proposed Project: Thorn Cr Rd to Moscow,
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DISTRICT 2
Lewiston, ID

NE 1/4 SW 1/4
Sec 29

T. 39N., R. 5W., B.M.

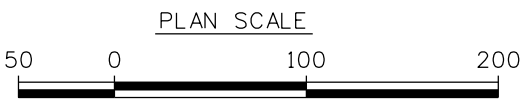
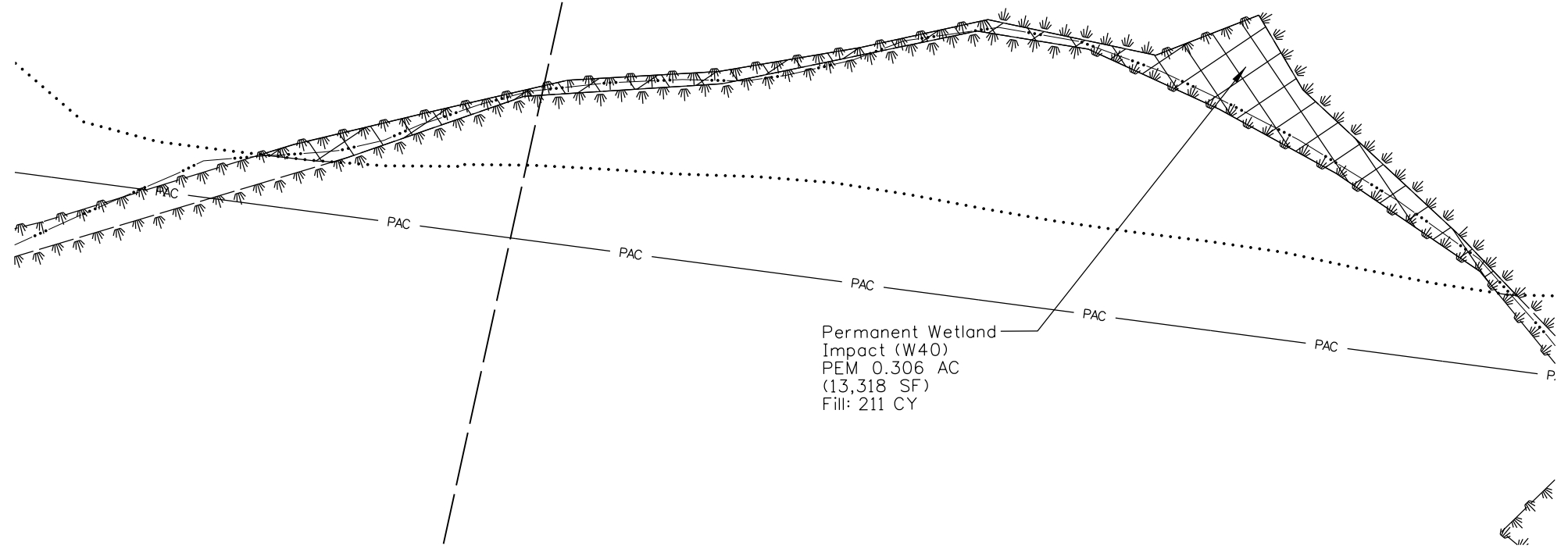
25
CAMERON FARMS INC.

SE 1/4 NW 1/4
Sec 29

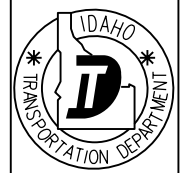
N11° 21' 31" W

275

280



IMPACT TABLE - SHEET TOTAL	
Permanent Wetland Impact	0.306 AC (13,318 SF)
Temporary Wetland Impact	211 CY
Wetland Fill Impact	N/A
Wetland Excavation Impact	N/A
Tributary Imp. Length	N/A
Tributary Replacement Length	N/A
Tributary Fill Below DHWM	N/A



DISTRICT 2
Lewiston, ID

NWWW No.:
 Applicant Name:
 Proposed Project: Thorn Cr Rd to Moscow,
 Ph. 1, Latah County
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