



**YAKIMA COUNTY**  
Updated 7/24/2008

**LISTED**

Endangered

Gray wolf (*Canis lupus*)

Threatened

Bull trout (*Salvelinus confluentus*) – Columbia River distinct population segment

Grizzly bear (*Ursus arctos horribilis*)

Marbled murrelet (*Brachyramphus marmoratus*)

Northern spotted owl (*Strix occidentalis caurina*)

*Spiranthes diluvialis* (Ute ladies'-tresses), plant

Designated

Critical habitat for the northern spotted owl

Critical habitat for the Columbia River distinct population segment of the bull trout

**CANDIDATE**

Fisher (*Martes pennanti*) - West Coast distinct population segment

Greater sage grouse (*Centrocercus urophasianus*) – Columbia Basin distinct population segment

Mardon skipper (*Polites mardon*), butterfly

Yellow-billed cuckoo (*Coccyzus americanus*)

**SPECIES OF CONCERN**

Animals

Bald eagle (*Haliaeetus leucocephalus*) (delisted, monitor status)

Black swift (*Cypseloides niger*)

Burrowing owl (*Athene cunicularia*)

Ferruginous hawk (*Buteo regalis*)

Larch Mountain salamander (*Plethodon larselli*)

Loggerhead shrike (*Lanius ludovicianus*)

Long-eared myotis (*Myotis evotis*)

Northern goshawk (*Accipiter gentilis*)

Olive-sided flycatcher (*Contopus cooperi*)

Pacific lamprey (*Lampetra tridentata*)

Pallid Townsend's big-eared bat (*Corynorhinus townsendii pallescens*)

Peregrine falcon (*Falco peregrinus*) (Delisted, monitor status)

Redband trout (*Oncorhynchus mykiss*)

River lamprey (*Lampetra ayresi*)  
Sagebrush lizard (*Sceloporus graciosus*)  
Sharptail snake (*Contia tenuis*)  
Townsend's ground squirrel (*Spermophilis townsendii*)  
Western brook lamprey (*Lampetra richardsoni*)  
Western gray squirrel (*Sciurus griseus griseus*)  
Westslope cutthroat trout (*Oncorhynchus clarki lewisi*)  
Wolverine (*Gulo gulo*)

### Vascular Plants

*Astragalus columbianus* (Columbia milk-vetch)  
*Calochortus longebarbatus* var. *longebarbatus* (Long-bearded sego lily)  
*Castilleja cryptantha* (Obscure indian-paintbrush)  
*Cryptantha leucophaea* (Gray cryptantha)  
*Cypripedium fasciculatum* (Clustered lady's-slipper)  
*Erigeron basalticus* (Basalt daisy)  
*Lomatium tuberosum* (Hoover's desert-parsley)  
*Pinus albicaulis* (Whitebark pine)  
*Sisyrinchium sarmentosum* (Pale blue-eyed grass)  
*Tauschia hooveri* (Hoover's tauschia)



Mark Eberlein  
FEMA- Region X  
130 228<sup>th</sup> Street SW  
Bothell, WA 98021-9796

December 16, 2008

U.S. Fish and Wildlife Service  
Attn: Robert Newman  
Upper Columbia Fish and Wildlife Office  
11103 East Montgomery Drive  
Spokane, Washington 99206

And

National Marine Fisheries Service  
Attn: Steve Landino, State Director  
510 Desmond Drive SE, Suite 103  
Lacey, Washington 98503

**Re: South Naches River Road Re-Alignment Project, Yakima County, WA.  
USFWS Reference: 1-9-04-I-177 (File #807.4000).  
NMFS Tracking No.: 2004/00332**

Dear Mr. Newman and Mr. Landino:

In March of 2004, the Washington State Department of Transportation (WSDOT) submitted a Biological Assessment (BA) for informal consultation to the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) (collectively "the Services") for the South Naches River Road Re-Alignment Project in Yakima County, Washington (WSDOT Project #LA05467). Concurrence letters from the USFWS (dated April 8, 2004) and from the NMFS (dated July 7, 2004) were received by WSDOT. Since this time, the project has not been built and several changes to the project have occurred including a change in the action agency, a project design change, the designation of critical habitat for bull trout, and the delisting of the bald eagle. The effects analysis determinations however, have not changed.

On May 31, 2007 the Federal Emergency Management Agency (FEMA) received an application from Yakima County requesting funding through the Hazard Mitigation Grant Program to re-align a portion of Lewis Road. Attached to this application were the aforementioned Services consultation letters to WSDOT and the original BA prepared by WSDOT. FEMA requests that the USFWS and NMFS review the changes detailed

below and recommend an appropriate course of action for FEMA's compliance under the Endangered Species Act (ESA) and Magnuson-Stevens Act (MSA).

### **Action Agency**

The regulations (50 CFR 402.08) implementing Section 7 of the ESA of 1973, as amended, allow a Federal agency to designate a non-Federal representative to conduct informal consultations or prepare BAs by giving written notice to the Director for such designation. On May 10, 1999, Gene Fong, Division Administrator of the Federal Highways Administrations (FHWA) provided the Services with written notice so designating WSDOT as the FHWA non-Federal representative.

The original BA prepared by WSDOT for FHWA for the South Naches Road Alignment Project included the re-alignment of a portion of Lewis Road. The project has not been built. Under the Hazard Mitigation Grant Program, FEMA has been requested to provide funding to re-align the portion of Lewis Road which was part of the original, larger WSDOT project. FEMA would not fund the entire project discussed in the original BA, but only the Lewis Road re-alignment. Therefore, FHWA would remain responsible for the remainder of the project as described in the aforementioned BA and FEMA would require ESA and MSA compliance for the Lewis Road re-alignment only.

### **Project Description Changes**

The original project is described in paragraph one of the Executive Summary in the 2004 BA which states:

*Yakima County, in cooperation with the FHWA, plans to realign the existing roadway beginning at the junction of US 12 in the City of Naches and proceeding south on the South Naches Road. The project will include the addition of sidewalks along the first 1370 feet of road beginning at the junction of US 12 and S. Naches Road. A new roadway is proposed just beyond the existing Naches River Bridge and will continue southwest to connect with the Naches-Tieton Road approximately 2100 feet. Included with the improvement of South Naches Road, Lewis Road will be re-located out of the Naches River floodway.*

As previously stated, FEMA is considering funding the Lewis Road re-alignment only and the remainder of the project actions would remain the responsibility of the FHWA.

Design changes were identified after comparing the description of the Lewis Road re-alignment between the 2004 BA and the 2007 Hazard Mitigation Application. The changes are as follows:

- 1) ***Floodway vs. Floodplain.*** On page 2 of the original BA, the design included relocating Lewis Road 600 feet to the south, away from the Naches River and into the area that is not considered the floodway of the Naches River. Under recently changed floodway delineations (FEMA Firm Preliminary Map), the

proposed new location is no longer outside the floodway, but under the new guidelines it would remain within the floodway, but be located 600 feet further away from the river than at present.

- 2) **Road Removal.** The original design included removing the entire existing roadway and fill. The new design would remove a portion of Lewis Road (approximately 1700 feet) and the remaining roadway would not be maintained. The portion to be removed would be where Lewis Road approaches South Naches Road (see Appendix A, Figure 2).
- 3) **Stormwater treatment.** On page 2 of the original BA, it states that “*stormwater treatment for the new impervious surface will be through infiltration along side slopes adjacent to the roadway and through the use of bio-swales.*” However, on page 31 it states “*A stormwater site plan has not yet been developed but based on weather patterns and annual precipitation with the project action area, it is likely that infiltration, using vegetation on embankment slopes, in an appropriate method.*” The 2007 application states that the relocation of the 1700 feet of Lewis Road “*will utilize a design to mitigate stormwater runoff that was not in effect when the current road was designed.*” The stormwater treatment for the new road will be through infiltration along side slopes adjacent to the roadway.
- 4) **In-water work window.** Although there is no in-water work proposed for the Lewis Road relocation, the 2004 BA did have some in-water work near the South Naches channel. This work would remain as part of the FHWA project, but not as part of the FEMA segment. The 2004 BA proposed an in-water work window of June 1 to October 31. USFWS (Krupka 2008) commented that bull trout are most likely present in the Naches River between mid-September and mid-July. As discussed later under the species information, sub-adult and adult bull trout are present year-round in the Naches River, but an in-water work window of mid-July through mid-September may be more appropriate to coincide with the time of reduced numbers of bull trout in the project area (as the spawning adults would be in the headwaters and out of the project area). Construction activities would likely occur during the spring and summer, but at this time it does not appear necessary to impose an in-water work window for the FEMA segment. To minimize and reduce potential sedimentation impacts to Naches River and to support the “may affect, not likely to adversely affect” determinations, it would be prudent for construction methods to use Best Management Practices for minimizing dust, debris, and construction related pollutants to ensure to the extent practicable that no pollutants enter the Naches River and sedimentation is minimized.
- 5) **Culverts, Stream Crossings, roadside ditches.** There are no culverts, stream crossings, or roadside ditches along the segment of Lewis Road that is proposed to be removed. The road prism is slightly elevated above general ground surface grade, but no obvious channels conveying stormwater were noted during a site visit on November 25, 2008 by a URS biologist.

## **Environmental Baseline**

The existing Lewis Road is compact gravel and dirt and the new road would be paved.

The environmental baseline only describes the riparian area and channel of the South Naches River Channel (a historic side channel currently functioning as an irrigation canal), rather than the main channel of the Naches River which is the river channel potentially impacted by the Lewis Road project's actions.

The BA does not contain matrices of pathways and indicators for the mid-Columbia River steelhead DPS (NMFS Matrix) and bull trout (USFWS Matrix). It does, however, have a description of NMFS indicators for the South Naches River Channel in the text. In many cases the text does not indicate the status of the NMFS indicators or how the project will affect the indicators. The BA does not address the subpopulation size, growth and survival, life history diversity and isolation, and integration of species and habitat conditions indicators for bull trout.

The only time the environmental baseline text addresses the main channel of the Naches River and its riparian area is for the Large Woody Debris, Pool Frequency and Quality, and off-channel habitat indicators. For those indicators, the text states that the re-alignment of the Lewis Road and potential subsequent levee setback would re-connect the Naches River with a portion of its floodplain, providing a beneficial effect. This is incorrect for two reasons. First, page 2 of the BA states that a levee setback is not directly associated with the project, but that Yakima County has funds for a possible levee setback. Secondly, a levee between Lewis Road and the Naches River was not found to exist during a November 25, 2008 site visit by a URS biologist.

Finally, recent changes of FEMA mapping of the Naches River Floodway have extended the extent of the floodway to encompass the proposed new alignment of the Lewis Road (see Appendix A, Figure 2).

## **Species Evaluation**

The status or critical habitat designations have changed from those listed in the South Naches Road Re-alignment BA for the following species. In the case of chum salmon and bull trout, errors in the BA are also addressed.

### **Bald Eagle (*Haliaeetus leucocephalus*):**

The bald eagle has been de-listed under the ESA by the U.S. Fish and Wildlife Service and is no longer a species considered in a Biological Assessment.

### **Bull Trout (*Salvelinus confluentus*):**

The BA makes the statement that surveys in 2001 found only two bull trout in the Naches basin. This is incorrect and the survey referenced was a Forest Service survey of a

limited area of the Naches basin. The Naches River fluvial bull trout stock spawns primarily in the American River, Rattlesnake Creek, and Crow Creek, with limited spawning occurring in other headwater tributaries of the Naches River (USFWS 2001). Spawning surveys of the three major spawning tributaries (1999-2007) indicate approximately 88 redds per year (USFWS 2001, Anderson 2008). Adult and sub-adult bull trout occur year-round throughout the Naches River mainstem, including the reach of the Naches River in the vicinity of the project (Anderson 2008). Mature bull trout do not spawn every year (but more like every other year), and therefore non-spawning but adult bull trout are present in the project area all year. The only change during the spawning season, is that a portion of the mature bull trout leave the project area to spawn in the headwaters in late summer and early fall. The 2004 BA appears to primarily concern itself with the likelihood of bull trout occurring in the South Naches River Channel.

Bull Trout critical habitat:

The BA references critical habitat for bull trout proposed for designation on November 29, 2002 (67 FR 71236-71438). The proposed critical habitat included the entire Naches River basin below naturally occurring impassable barriers, with a lateral extent defined as the bankfull width of the stream channel.

A final rule designating bull trout critical habitat was published on September 26, 2005, after the BA was written (70 FR 56212-56311). The final rule excluded portions of the Naches River basin from critical habitat designation, but the mainstem of the Naches River in the project vicinity remained designated as critical habitat for bull trout with the same lateral extent as defined in the proposed critical habitat designation.

Canada Lynx (*Lynx canadensis*) critical habitat:

Critical habitat for Canada Lynx was proposed on November 9, 2005, after the BA was written (70 FR 68294). Designated critical habitat for Canada lynx was finalized on September 9, 2006 (71 FR 66008-66059). The closest existing designated critical habitat for Canada lynx to the project action area is in Chelan County, with no critical habitat in the vicinity of the project area.

Marbled murrelet (*Brachyramphus marmoratus*):

The BA does not mention that critical habitat has been designated on May 24, 1996 for the marbled murrelet (61 FR 26256-26320). Critical habitat for marbled murrelet is not designated east of the Cascade Mountain crest, so it is not an issue for this BA.

Northern spotted owl (*Strix occidentalis*):

Critical habitat for northern spotted owl was revised on August 13, 2008 (73 FR 47326-47374). Designated critical habitat for northern spotted owl remains essentially the same as what was present in the original final rule, with the nearest critical habitat to the project area approximately fifteen miles west of the project.

#### Mid-Columbia River Steelhead (*Oncorhynchus mykiss*):

Although steelhead primarily spawn in tributaries (higher up in the watershed), there is no barrier to preclude them from spawning in the project area. The only studies of spawning steelhead in the Naches basin have been redd counts, which are highly questionable because steelhead primarily spawn in the spring (March-June) when the streams are high and turbid (particularly likely to be true in project area). As a result, steelhead redds have only been observed during years of reduced spring flows and usually only in tributaries (generally warmer tributaries).

#### Mid-Columbia River Steelhead DPS critical habitat:

Critical habitat for mid-Columbia River steelhead is mentioned in the main body of the text, but not in the summary table present in the executive summary. At the time that the BA was written, critical habitat was defined as including all portions of the riparian habitat that contribute to the functioning of the in-stream habitat. This would have included the entire project action area of the Lewis Road project. Critical habitat for the mid-Columbia River steelhead DPS was revised on September 2, 2005 (70 FR 52630). The Naches River channel in the vicinity of the project remains designated as critical habitat for middle Columbia River steelhead but the lateral extent of critical habitat is now defined as the bankfull width of the stream channel.

#### Chum salmon (*Oncorhynchus keta*) EFH:

Chum salmon habitat is incorrectly listed as Essential Fish Habitat under the Magnuson-Stevens Fishery Conservation and Management Act. EFH has not been designated for chum salmon in the Columbia River watershed. In addition, although historically present in the Naches River basin, chum salmon have been extirpated from the basin and the remaining chum salmon population in the Columbia River watershed is considered a single ESU (lower Columbia River chum salmon) that has been federally listed as threatened and is essentially restricted to the Columbia River watershed downstream from Bonneville Dam (with a few hundred fish passing over Bonneville Dam annually and none documented to occur in the Naches River watershed).

#### **Effects Analysis**

A final rule designating bull trout critical habitat was published on September 26, 2005, after the BA was written (70 FR 56212-56311). Therefore a supplemental effects analysis is provided below.

In the critical habitat final rule for bull trout, the USFWS defined the eight (8) primary constituent elements (PCEs) to be essential for the conservation of bull trout. All lands identified as essential and proposed as critical habitat contains one or more of the PCEs.

The eight PCEs are identified in bold italics, followed by the effects analysis to that PCE.

1. **Water temperatures that support bull trout use. Bull trout have been documented in streams with temperatures from 32 to 72° F (0- to 22 °C), but are found more frequently in temperatures ranging from 36 to 59°F (2 to 15°C):** The project would have no effect on water temperatures that support bull trout use.
2. **Complex stream channels with features such as woody debris, side channels, pools, and undercut banks to provide a variety of depths, velocities, and instream structures:** The existing conditions of the road does contribute fine sediment to the river during high flood events. There is minimal riparian vegetation in this area and the proposed project would include vegetation plantings that may improve the riparian area. Relocating the road will marginally improve floodplain function by allowing the river to flood naturally on this side of the river as it is confined on the opposite bank by a levee. However, benefits are somewhat reduced because the entire road is no longer being removed. Therefore, flood events will continue to scour and erode portions of the road that are not removed.
3. **Substrates of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival:** There is no spawning in this reach of the river.
4. **A natural hydrograph, including peak, high, low, and base flows within historic ranges:** The project will have no effect on peak or base flows.
5. **Springs, seeps, groundwater sources, and subsurface water to contribute to water quality and quantity as a cold water source:** The project activities would have no impact on this PCE.
6. **Migratory corridors with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and foraging habitats, including intermittent or seasonal barriers induced by high water temperatures or low flows:** The project will have limited benefit in reducing sedimentation impacts to the river because only a portion of the road is proposed to be removed. The existing road is compact dirt and gravel and is overtopped during high flood events. The remaining road will no longer be maintained and the impact of that to the river is uncertain.
7. **An abundant food base including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish:** The project will not reduce the quantity or quality of a food base for bull trout.
8. **Permanent water of sufficient quantity and quality such that normal reproduction, growth, and survival are not inhibited:** The project will have no impact on water supply.

## **Revised Effects Determinations**

Table 1. Species Effects Determinations

<b>Species</b>	<b>Listing Status-2004</b>	<b>Listing Status-2008</b>	<b>Determination of Effect-2004</b>	<b>Determination of Effect-2008</b>
Bald Eagle	T	Delisted	NE	Delisted
Bull Trout	T	T	NLAA	NLAA
Canada Lynx	T	T	NE	NE
Gray Wolf	T	T	NE	NE
Grizzly Bear	T	T	NE	NE
Marbled Murrelet	T	T	NE	NE
Mid-Columbia Steelhead	T	T	NLAA	NLAA
N. Spotted Owl	T	T	NE	NE
Ute Ladies tresses	T	T	NE	NE

Table 2. Revised Critical Habitat Effects Determinations

<b>Species</b>	<b>Critical Habitat Status-2004</b>	<b>Critical Habitat Status-2008</b>	<b>Determination of Effect-2004</b>	<b>Determination of Effect-2008</b>
Bald Eagle	Not designated	Species delisted, NA	NA	NA
Bull Trout	Proposed	Designated on 9/26/05	Not likely to adversely modify proposed critical habitat	May affect, not likely to adversely affect (NLAA)
Canada Lynx	Not designated	Designated on 9/9/06	NA	NE
Gray Wolf	Not designated in Washington State	Not designated in Washington State	NA	NA
Grizzly Bear	Not designated	Not designated	NA	NA
Marbled Murrelet	Designated on 5/24/96	Still designated	No effects call provided	NE
Mid Columbia Steelhead	Designated	Revised 9/2/05	NLAA	NLAA
N. Spotted Owl	Designated	Revised on 8/13/08	NE	NE
Ute Ladies tresses	Not designated	Not designated	NA	NA

Table 3. EFH Effects Determinations

<b>Essential Fish Habitat For:</b>	<b>2004 Determinations</b>	<b>2008 Determinations</b>
Chinook	NLAA*	No effect
Coho	NLAA*	No effect

\* Effects determinations for EFH are different than for ESA species. The appropriate effects determinations are either no effect or adverse affect (see EFH regulations).

### **References**

Anderson, Eric. 2008. Personal communication with Eric Anderson (Fisheries Biologist, WDFW), December 2, 2008. Washington Department of Fish and Wildlife, Region 3 Office, Yakima, Washington.

Krupka, J. 2008. Comments and questions via email in response to the scoping notice for Lewis Road Relocation. December 10, 2008.

USFWS (US Fish and Wildlife Service). 2001. Yakima basin case history for bull trout (*Salvelinus confluentus*). In U.S. Fish and Wildlife Service bull trout workshop. U.S. Fish and Wildlife Service, Columbia River Fisheries Program Office, Vancouver, Washington.





**Huibregtse, Lonman Associates, Inc.**  
CIVIL ENGINEERING • LAND SURVEYING • PLANNING

**TRANSMITTAL MEMO** *Mark B.*  
Public Services *(CP)*

JAN 09 2009

Phone: 509-966-7000 / FAX: 509-965-3800  
To: Gary Don Steve  
Deno

**Date:** January 9, 2009      **Project No.:** 06058  
**To:** Yakima County Public Services      **Attention:** Mark Brzoska  
**From:** Gene Soules  
**Re:** Lewis Road

**We are sending you attached the following items:**

One (1) set of stamped and signed plan sheets for the above referenced project.

**Mark:**

Here's the plans you asked for. As I had mentioned on the phone, I needed to adjust the profile grade on Lewis Road from Sta. 11+40 to EOP to provide cover over the irrigation culvert at Sta. 14+13. This changed the earthwork quantities from what I gave you last week.

They are now:

New Lewis Road: ( including old road approach at Sta. 13+13 Lt.)

Roadway Excavation	=	1140 CY
Roadway Embankment	=	1042 CY
CSTC	=	633 CY
CSBC	=	1609 CY

Existing Lewis Road:

Embankment Removal	=	2546 CY
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**Copy to:** \_\_\_\_\_ **Signed:** Gene Soules

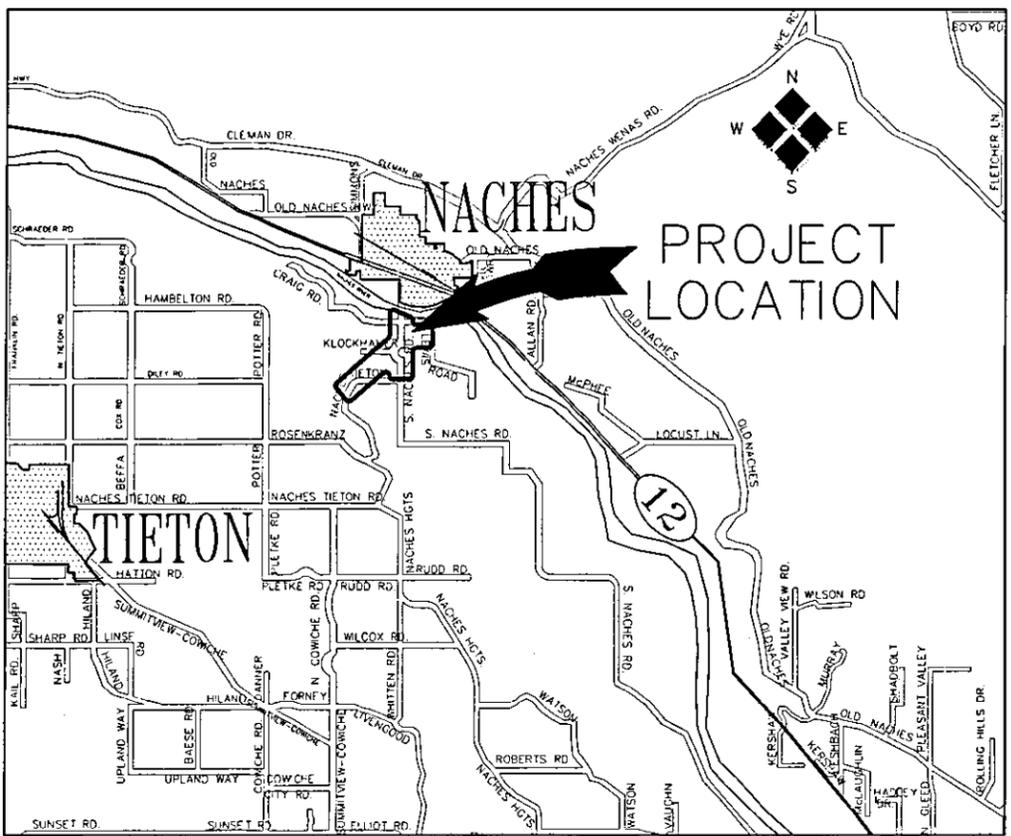


# SOUTH NACHES

## ROAD IMPROVEMENT PROJECTS

### NACHES-TIETON RD. M.P. 3.59 TO BRIDGE NO. 35

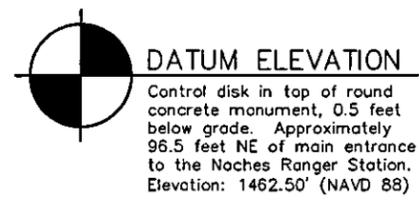
### LEWIS RD. M.P. 0.00 TO 0.32



**VICINITY MAP**  
NOT TO SCALE

### LEGEND

EXISTING FEATURES	NEW FEATURES
PROPERTY LINE	NEW RIGHT OF WAY LINE
FENCE (ALL TYPES)	HMA PAVEMENT
OVERHEAD POWER	NEW AND/OR RELOCATED FENCE
UNDERGROUND POWER	CATCHPOINT, CUT
OVERHEAD TELEPHONE	CATCHPOINT, FILL
UNDERGROUND TELEPHONE	SILT FENCE
UNDERGROUND GAS	MONUMENT
UNDERGROUND WATER	CHECK DAM
SANITARY SEWER	NEW GUARDRAIL
IRRIGATION LINE	
BURIED CABLE TV	
TELEPHONE POLES	CATCH BASIN
TELEPHONE PEDESTAL	PROPERTY CORNER
POWER POLES	FIRE HYDRANT
GUY WIRE ANCHOR	WATER VALVE
MAILBOX	WATER METER
TELEPHONE HAND HOLE	TV CABLE BOX
IRRIGATION VALVE	TREES
IRRIGATION BLOWOFF VALVE	HEDGE
SPRINKLER HEADS	SHRUBS
STANDPIPE	



### INDEX:

- SHEET 1 - COVER SHEET, LEGEND, INDEX AND VICINITY MAP
- SHEET 2 - ROADWAY SECTIONS AND NOTES
- SHEET 3 - SUMMARY OF QUANTITIES AND PROJECT DETAILS
- SHEET 4 - PLAN AND PROFILE, NACHES-TIETON RD. STA. 68+50 TO 72+00
- SHEET 5 - PLAN AND PROFILE, NACHES-TIETON RD. STA. 72+00 TO STA. 77+00
- SHEET 6 - PLAN AND PROFILE, NACHES-TIETON RD. STA. 77+00 TO STA. 82+00
- SHEET 7 - PLAN AND PROFILE, NACHES-TIETON RD. STA. 82+00 TO STA. 87+00
- SHEET 8 - PLAN AND PROFILE, NACHES-TIETON RD. STA. 87+00 TO STA. 91+00
- SHEET 9 - PLAN AND PROFILE, NACHES-TIETON RD. STA. 91+00 TO STA. 96+00
- SHEET 10 - PLAN AND PROFILE, NACHES-TIETON RD. STA. 96+00 TO STA. 100+00
- SHEET 11 - PLAN AND PROFILE, NACHES-TIETON RD. STA. 100+00 TO BRIDGE NO. 35
- SHEET 12 - PLAN AND PROFILE, LEWIS RD. STA. 0+00 TO STA. 4+00
- SHEET 13 - PLAN AND PROFILE, LEWIS RD. STA. 4+00 TO STA. 9+00
- SHEET 14 - PLAN AND PROFILE, LEWIS RD. STA. 9+00 TO STA. 14+25
- SHEET 15 - PLAN AND PROFILE, LEWIS RD. STA. 14+25 TO STA. 17+00
- SHEET 16 - (EXISTING) LEWIS ROAD REMOVAL LIMITS
- SHEET 17 - INTERSECTION PLAN AND PROFILE NACHES-TIETON RD. & (OLD) NACHES-TIETON RD.
- SHEET 18 - INTERSECTION PLAN AND PROFILE SO. NACHES RD. & KLOCKHAMER RD.
- SHEET 19 - INTERSECTION PLAN AND PROFILE SO. NACHES RD. & CRAIG RD.
- SHEET 20 - ROAD APPROACH PROFILES
- SHEET 21 - ROAD APPROACH PROFILES
- SHEET 22 - SOUTH NACHES CHANNEL BRIDGE PLAN
- SHEET 23 - SOUTH NACHES CHANNEL BRIDGE SECTION AND ELEVATION
- SHEET 24 - SOUTH NACHES CHANNEL BRIDGE TRAFFIC PLAN PHASES 1 AND 2

### NOTICE TO CONTRACTOR

THE CONTRACTOR IS ADVISED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES SHOWN HEREON IS BASED UPON UTILITY INFORMATION OF RECORD, INFORMATION PROVIDED TO YAKIMA COUNTY, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE CONTRACTOR MUST CALL THE LOCAL UTILITY COORDINATION COUNCIL AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION TO REQUEST FIELD LOCATIONS OF UTILITIES. 1-800-424-5555 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY PERTINENT LOCATIONS AND ELEVATIONS ESPECIALLY AT CONNECTION POINTS, UTILITY CROSSINGS AND AT POTENTIAL UTILITY CONFLICTS. FIELD VERIFY DEPTHS BY POTHOLING PRIOR TO BEGINNING ANY CONSTRUCTION WORK TO ALLOW FOR RELOCATION OR ADJUSTMENT OF GRADE OR ALIGNMENT OF PLANNED INSTALLATIONS. NOTIFY THE ENGINEER BEFORE POTHOLING AND IMMEDIATELY IF UTILITIES ARE OTHER THAN SHOWN. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR POTHOLING OR ADJUSTMENTS. ALL PRIVATE UTILITIES UTILITY POLES AND TELEPHONE PEDESTALS WILL BE RELOCATED BY OTHERS.

**YAKIMA COUNTY PUBLIC SERVICES  
TRANSPORTATION SERVICES DIVISION**

GARY EKSTEDT, P.E.  
COUNTY ENGINEER

**APPROVED FOR CONSTRUCTION**

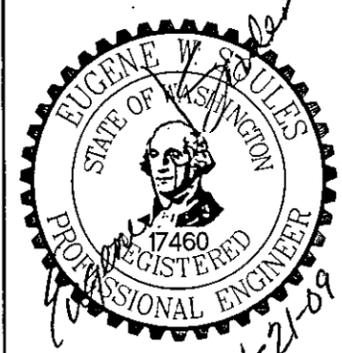
BY \_\_\_\_\_ DATE \_\_\_\_\_

C 3211  
SOUTH NACHES ROAD

FC 3122  
LEWIS ROAD

REGION NO.	STATE
10	WASH
FED. AID. PROV. NO. STPR Y 393(002)	

PREPARED UNDER  
THE DIRECTION OF:



**Hulbregtse, Louman  
Associates, Inc.**

801 North 39th Avenue • Yakima, WA 98902  
(509) 966-7000 • FAX (509) 965-3800

DRAWN: A.J.H.	CHECKED BY: G.W.S.
SCALE:	HORIZ. NONE VERT. NONE
REVISION:	
FILENAME: 06048 SH 1-3.dwg	

COVER SHEET,  
LEGEND, INDEX, AND  
VICINITY MAP

SHEET 1 OF 24



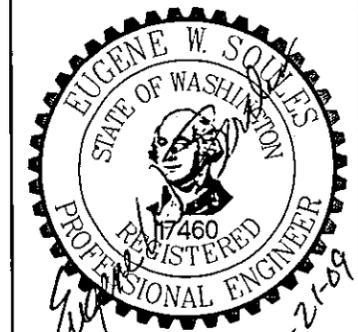
C 3211  
SOUTH NACHES ROAD

FC 3122  
LEWIS ROAD

REGION NO.	STATE
10	WASH

FED. AID. PROV. NO.  
STPR Y 393(002)

PREPARED UNDER  
THE DIRECTION OF:



**Hulbregtse, Louman  
Associates, Inc.**

801 North 39th Avenue • Yakima, WA 98902  
(509) 966-7000 • FAX (509) 965-3800

DRAWN: A.J.H.	CHECKED BY: G.W.S.
SCALE:	HORIZ. NONE VERT. NONE
REVISION:	
FILENAME: 06048 SH 1-3.dwg	

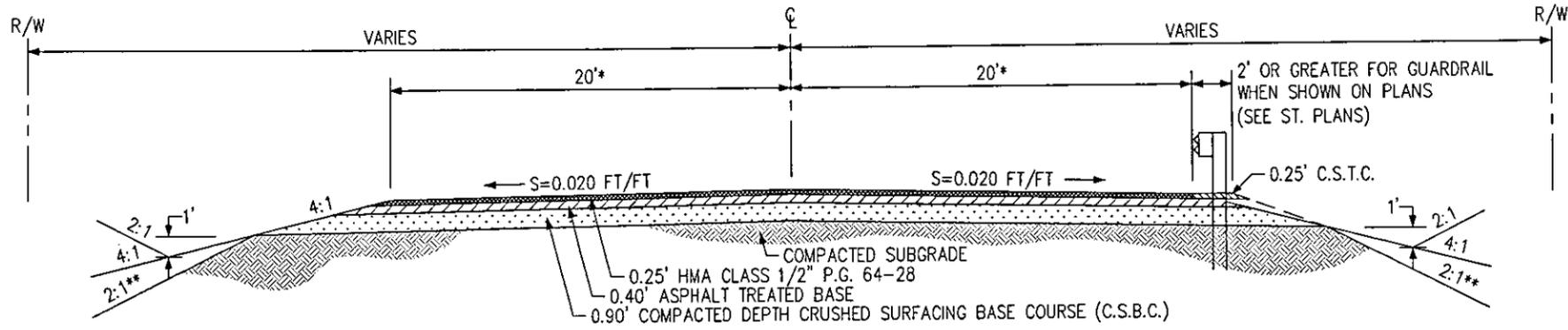
ROADWAY SECTIONS  
AND  
NOTES

SHEET 2 OF 24

PLOT DATE: 01-21-09

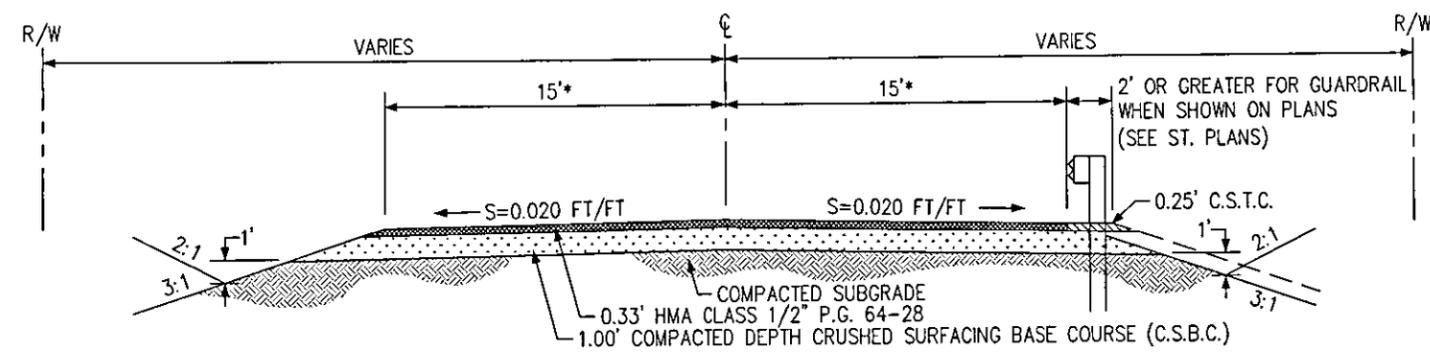
**GENERAL NOTES:**

1. THE CONTRACTOR IS ADVISED THAT HIS PROPOSED MEANS AND METHODS OF CONSTRUCTION ARE SUBJECT TO APPROVAL OF THE ENGINEER, AND MAY BE REJECTED IF THE ENGINEER DETERMINES THAT THE PROPOSED MEANS AND METHODS OF CONSTRUCTION CAUSE DAMAGE OR CONSTITUTE OR CREATE A HAZZARD TO THE WORK OR TO PERSONS OR PROPERTY, OR WILL NOT PRODUCE THE FINISHED WORK IN ACCORDANCE WITH THE TERMS OF THE CONTRACT. THE ENGINEER'S APPROVAL OF THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, OR HIS FAILURE TO EXERCISE HIS RIGHT TO REJECT SUCH MEANS AND METHODS OF CONSTRUCTION, SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION TO ACCOMPLISH THE RESULT INTENDED BY THE CONTRACT. THE EXERCISING OF SUCH RIGHT TO REJECT SHALL NOT CREATE A CAUSE FOR ACTION FOR DAMAGES.
2. EXISTING TRAFFIC SIGNS SHALL BE RELOCATED AND MAINTAINED UNTIL NEW PERMANENT SIGNING IS INSTALLED.
3. ROADWAY EXCAVATION AND EMBANKMENT QUANTITIES SHOWN ON THE PLAN AND PROFILE SHEETS ARE RAW QUANTITIES FOR INFORMATIONAL PURPOSES AND HAVE NOT BEEN ADJUSTED FOR SHRINK/SWELL.
4. ALL IRRIGATION, CROSS AND APPROACH CULVERTS SHALL HAVE BEVELED ENDS. THE MINIMUM COVER OVER ALL APPROACH CULVERTS SHALL BE ONE FOOT.
5. TRAFFIC ON SOUTH NACHES ROAD SHALL BE MAINTAINED DURING THE RECONSTRUCTION WORK.



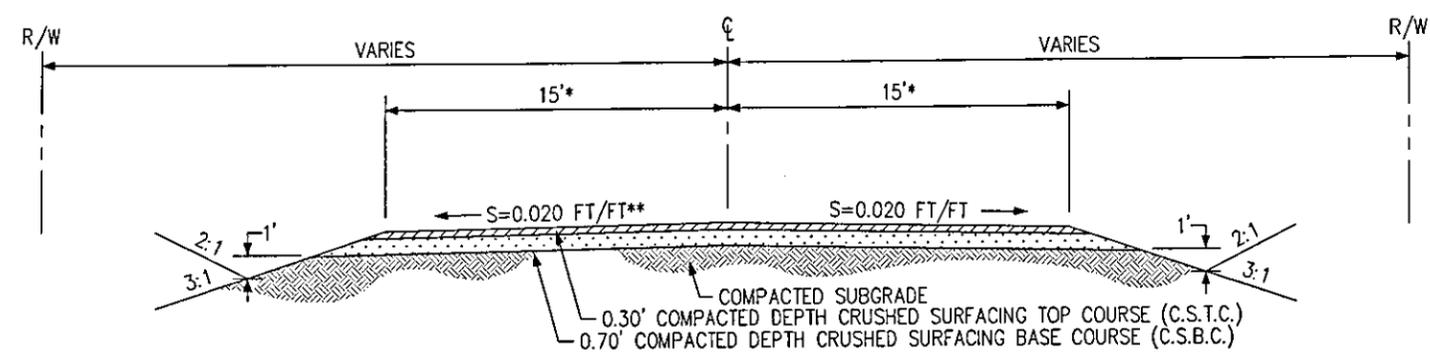
**TYPICAL ROADWAY SECTION "A"**

NACHES TIETON ROAD, STA 68+50 TO STA 88+93.83,  
SOUTH NACHES ROAD, STA 88+93.83 TO STA 103+84.6,  
\* VARIES: STA. 68+50 TO 70+00, STA. 102+35 TO 103+85, SEE PLANS  
\*\* STA. 86+00 TO 103+84.6, 2:1  
\*\* STA. 99+00 TO 101+30 LT, 1.5:1



**TYPICAL ROADWAY SECTION "B"**

(OLD) NACHES-TIETON ROAD, STA 0+00 TO STA 2+00 - 4:1 SLOPE  
KLOCKHAMER ROAD, STA 3+00 TO STA 5+00  
OLD SOUTH NACHES ROAD, STA 5+00 TO STA 7+00 \*20'  
CRAIG ROAD, STA 8+00 TO STA 10+00



**TYPICAL ROADWAY SECTION "C"**

LEWIS ROAD, STA 0+20 TO STA 17+00  
\* VARIES: STA. 16+00 TO 17+00, SEE PLANS  
\*\* VARIES: STA. 0+20 TO 0+80 IS PAVED WITH 0.30' HMA CLASS 1/2" PG 64-28 AND 0.70' C.S.B.C.

MONUMENT SCHEDULE		
NACHES-TIETON ROAD	NORTHING	EASTING
PC STA. 70+12.08	504371.0815	1588671.6233
POC STA. 71+39.35	504495.3168	1588699.2504
INT STA. 71+60.94	504516.3405	1588704.1642
PT STA. 78+86.45	505100.8110	1589106.7387
PC STA. 83+90.56	505387.4851	1589521.4085
PT STA. 86+70.62	505576.7147	1589726.6167
POC STA. 88+93.83	505749.4513	1589867.9842
PC STA. 92+12.97	505996.4305	1590070.1117
POC STA. 96+98.66	506430.9289	1590276.2687
PT STA. 99+20.73	506651.6633	1590295.9970
POC STA. 101+75.62	506906.4912	1590290.4163

AS SHOWN ON PLANS DENOTES LOCATION OF INSTALLATION OF COUNTY FURNISHED MONUMENT CASE AND COVER.

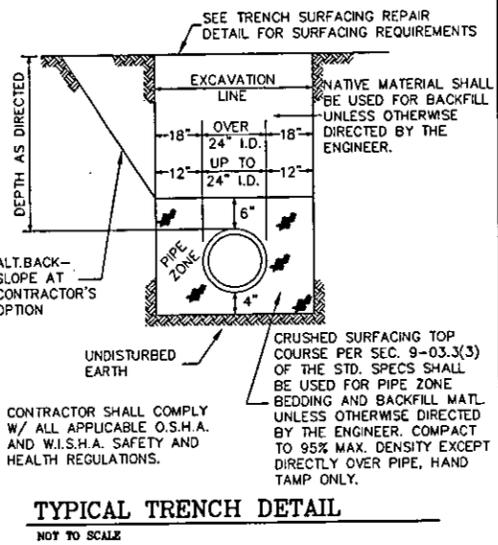
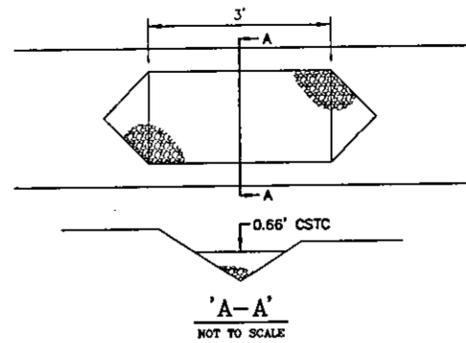
STATION	LT	RT	SUPPORT
NACHES-TIETON RD. 84+95	✓		TYPE 2
S. NACHES RD. 93+80		✓	TYPE 2
S. NACHES RD. 96+60		✓	TYPE 1

**MAILBOX SCHEDULE**

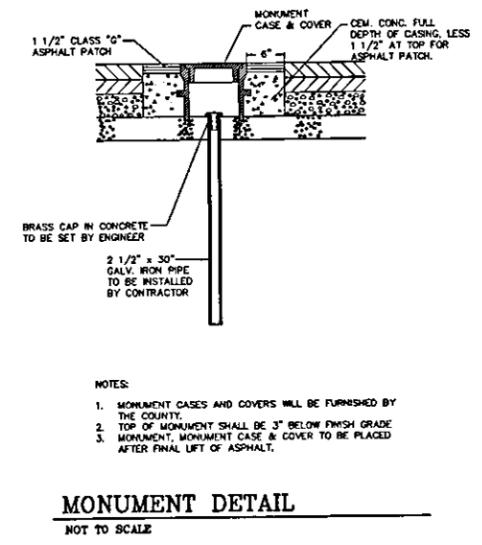
AS SHOWN ON PLANS, DENOTES MAILBOX LOCATION PER MAILBOX SCHEDULE SHOWN ON THIS SHEET. MAILBOX LOCATIONS WERE DETERMINED BY THE POSTMASTER. VERIFY FINAL SUPPORT TYPE AND LOCATION. INSTALL MAILBOX SUPPORTS PER WSDOT STANDARD PLAN H-12, 12A.

SUMMARY OF QUANTITIES					
ITEM NO.	TOTAL QUANTITIES	UNIT	ITEM DESCRIPTION	SCHEDULE A NACHES-TIETON RD./SO. NACHES RD.	SCHEDULE B LEWIS ROAD
<b>PREPARATION</b>					
1	1	LS	MOBILIZATION	1	1
2	1	LS	CLEARING AND GRUBBING	1	1
3	1	LS	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1	1
<b>EARTHWORK</b>					
4	18130	CY	ROADWAY EXCAVATION INCLUDING HAUL	14440	3690
5	8000	CY	COMMON BORROW INCLUDING HAUL	8000	
<b>DRAINAGE</b>					
6	250	CY	QUARRY SPALLS (TRUCK MEASURE)	250	
7	70	LF	SCHEDULE A CULVERT PIPE 12 IN. DIAM.	70	
8	60	LF	SCHEDULE A CULVERT PIPE 18 IN. DIAM.		60
<b>STRUCTURE</b>					
9	1	LS	PRECAST THREE SIDED BRIDGE STRUCTURE No. 3	1	
10	1	LS	REMOVE EXISTING BRIDGE NO. 34	1	
11	520	CY	STRUCTURE EXCAVATION CLASS A, INCL. HAUL	520	
12	1	LS	SHORING OR EXTRA EXCAVATION CLASS A	1	
13	470	CY	GRAVEL BACKFILL FOR WALLS	470	
14	1	LS	DEWATERING	1	
15	12	EA	ECOLOGY BLOCK IN PLACE	12	
<b>SURFACING</b>					
16	16000	TON	CRUSHED SURFACING BASE COURSE	13000	3000
17	1600	TON	CRUSHED SURFACING TOP COURSE	400	1200
18	4600	TON	ASPHALT TREATED BASE	4600	
<b>ASPHALT PAVEMENT</b>					
19	2900	TON	HMA CL. 1/2 IN PG-64 28	2900	
20	220	TON	HMA FOR APPROACH	170	50
<b>EROSION CONTROL AND PLANTING</b>					
21	20	DAY	ESC LEAD	20	
22	2200	LF	SILT FENCE	2000	200
23	9	EA	CHECK DAM	9	
24	1	ACRE	MULCHING WITH PAM	1	
25	2	ACRE	SEEDING, FERTILIZING, AND MULCHING	2	
<b>TRAFFIC</b>					
26	2380	LF	BEAM GUARDRAIL, TYPE 1	2380	
27	2	EA	BEAM GUARDRAIL TRANSITION SECTION, TYPE 2	2	
28	2	EA	BEAM GUARDRAIL TRANSITION SECTION, TYPE T10	2	
29	4	EA	BEAM GUARDRAIL ANCHOR TYPE 1	4	
30	4	EA	BEAM GUARDRAIL ANCHOR TYPE 5	4	
31	3	EA	BEAM GUARDRAIL ANCHOR TYPE 7	3	
32	5	EA	BEAM GUARDRAIL FLARED TERMINAL	5	
33	1	EA	BEAM GUARDRAIL NON-FLARED TERMINAL	1	
34	14	DAY	PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL	14	
35	1	LS	PERMANENT SIGNING	1	
36	10500	LF	PAINT LINE	10500	
37	200	LF	SINGLE SLOPE CONCRETE BARRIER	200	
38	1640	HR	FLAGGERS AND SPOTTERS	1500	140
39	1	LS	TRAFFIC CONTROL SUPERVISOR	1	
40	1	LS	OTHER TEMPORARY TRAFFIC CONTROL	1	
41	1	LS	CONSTRUCTION SIGNS CLASS A	1	
<b>OTHER ITEMS</b>					
42	560	SF	SHORING OR EXTRA EXCAVATION CLASS B	560	
43	1	LS	SPOC PLAN	1	
44	1	EA	MAILBOX SUPPORT TYPE 1	1	
45	2	EA	MAILBOX SUPPORT TYPE 2	2	
46	11	EA	MONUMENT CASE AND COVER (COUNTY FURNISH)	11	
47	EST.	FA	MINOR CHANGE	\$5,000	\$5,000

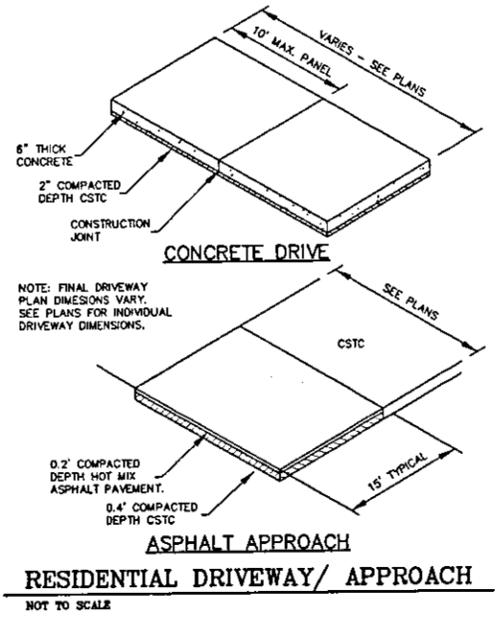
ROAD DITCH CHECK DAM SCHEDULE	
STATION	
77+00	LEFT AND RIGHT
78+50	LEFT AND RIGHT
80+00	LEFT AND RIGHT
84+50	LEFT AND RIGHT
86+25	RIGHT



**TYPICAL TRENCH DETAIL**  
NOT TO SCALE



**MONUMENT DETAIL**  
NOT TO SCALE



**RESIDENTIAL DRIVEWAY/ APPROACH**  
NOT TO SCALE



C 3211  
SOUTH NACHES ROAD  
  
FC 3122  
LEWIS ROAD

REGION NO.	STATE
10	WASH
FED. AID. PROV. NO. STPR Y 393(002)	

PREPARED UNDER  
THE DIRECTION OF:



**Hulbregtse, Louman  
Associates, Inc.**

801 North 39th Avenue • Yakima, WA 98902  
(509) 966-7000 • FAX (509) 965-3800

DRAWN: A.J.H.	CHECKED BY: G.W.S.
SCALE:	HORIZ. NONE VERT. NONE
REVISION:	
FILENAME: 06048 SH 1-3.dwg	

SUMMARY OF  
QUANTITIES AND  
PROJECT DETAILS

SHEET 3 OF 24

PLOT DATE: 01-21-09



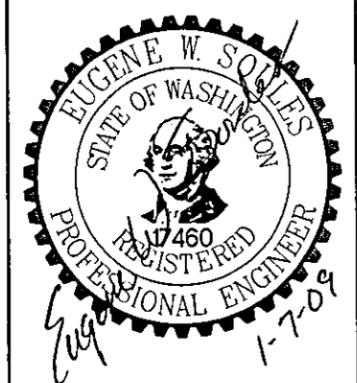


SOUTH NACHES ROAD IMPROVEMENT PROJECTS

LEWIS ROAD

FC 3122

PREPARED UNDER THE DIRECTION OF:



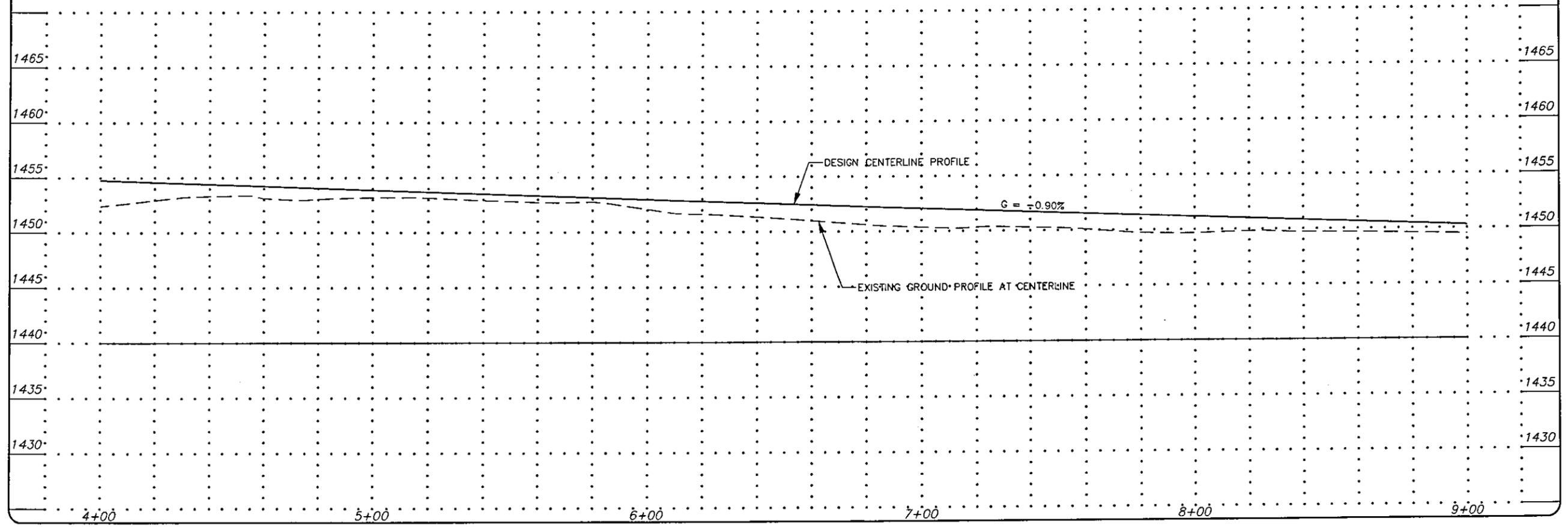
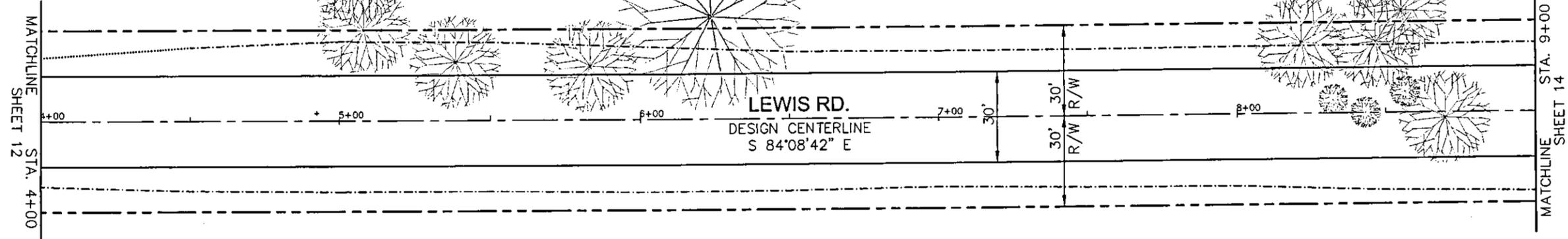
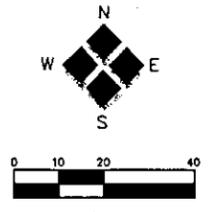
**Hulbregtse, Louman Associates, Inc.**

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REVISION:	
FILENAME: 06058 SH 12-15.dwg	

PLAN AND PROFILE  
LEWIS ROAD  
STA. 4+00 TO  
STA. 9+00

SHEET 13 OF 25  
PLOT DATE: 01-06-09

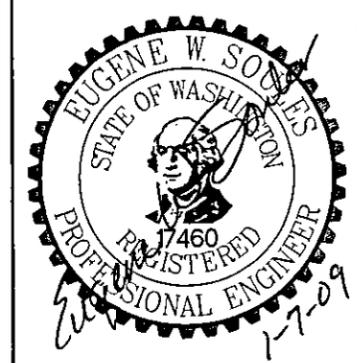




SOUTH NACHES ROAD IMPROVEMENT PROJECTS  
LEWIS ROAD

FC 3122

PREPARED UNDER THE DIRECTION OF:



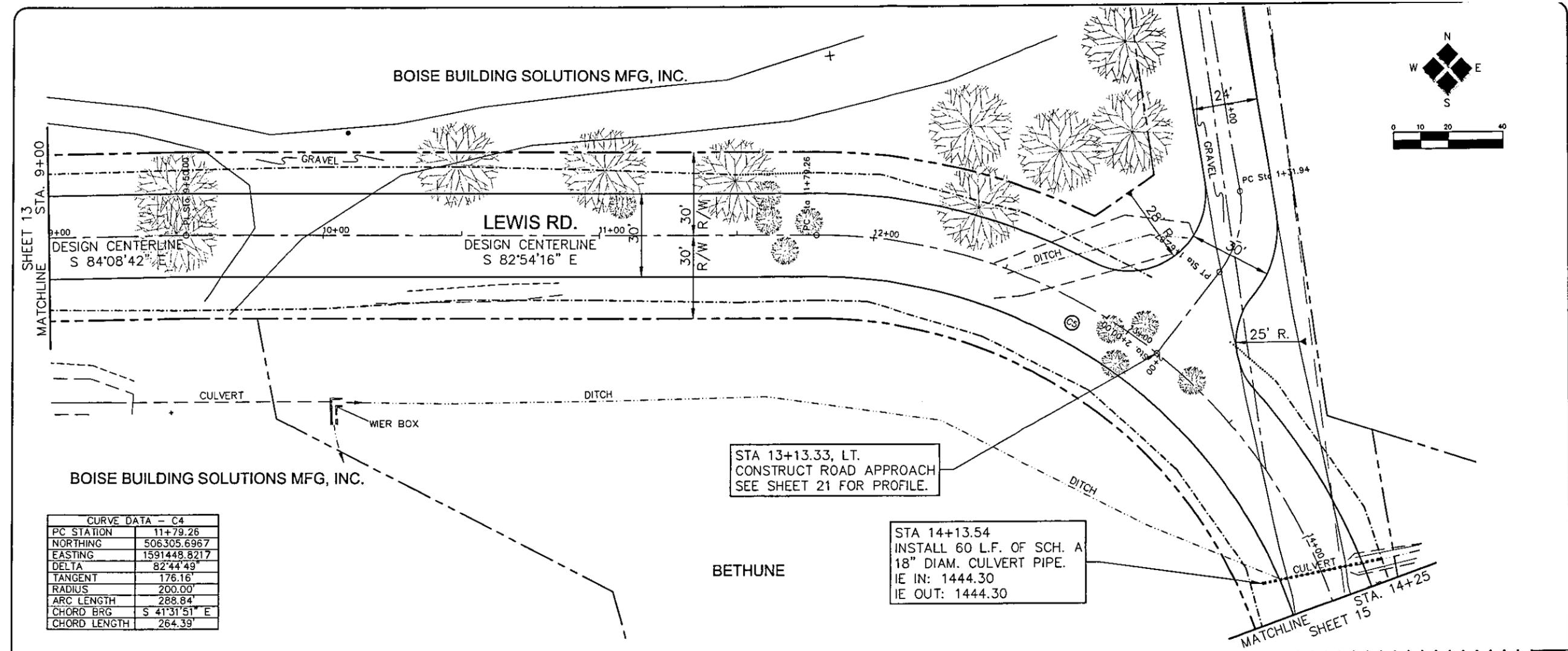
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DRAWN: A.J.H.	CHECKED BY: G.W.S.
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REVISION:	
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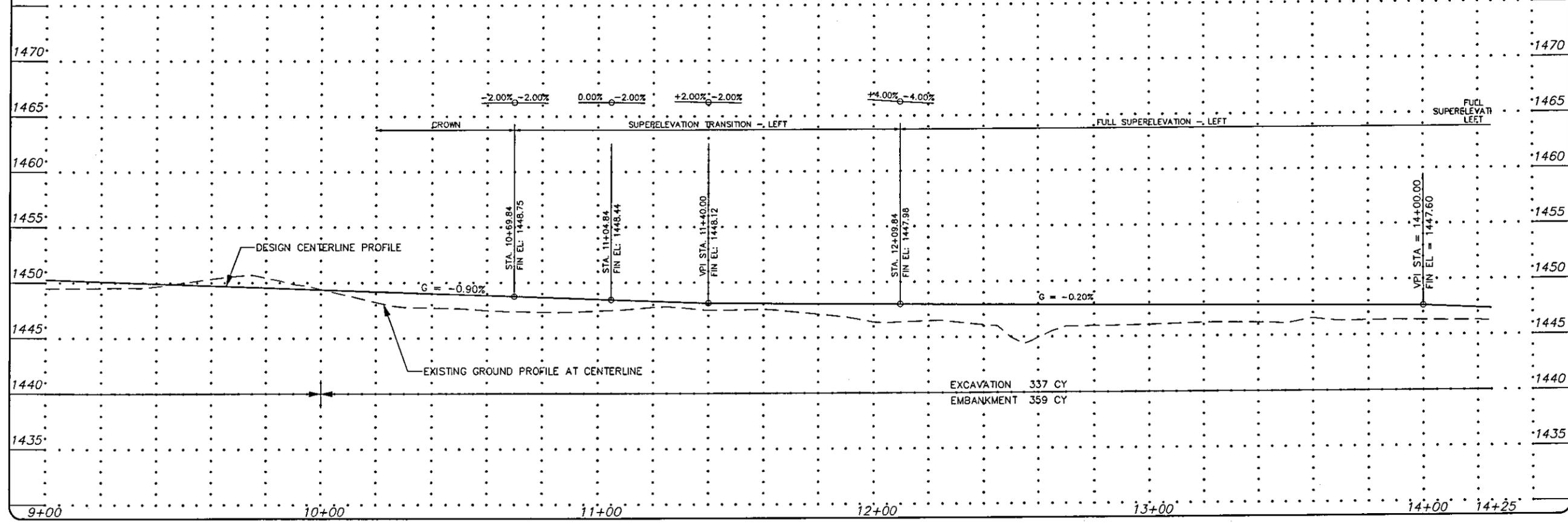
PLAN AND PROFILE  
LEWIS ROAD  
STA. 9+00 TO  
STA. 14+25

SHEET 14 OF 25  
PLOT DATE: 01-06-09



CURVE DATA - C4

PC STATION	11+79.26
NORTHING	506305.6967
EASTING	1591448.8217
DELTA	82°44'49"
TANGENT	176.16'
RADIUS	200.00'
ARC LENGTH	288.84'
CHORD BRG	S 41°31'51" E
CHORD LENGTH	264.39'

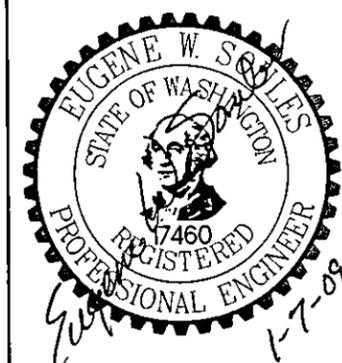




SOUTH NACHES ROAD IMPROVEMENT PROJECTS  
LEWIS ROAD

FC 3122

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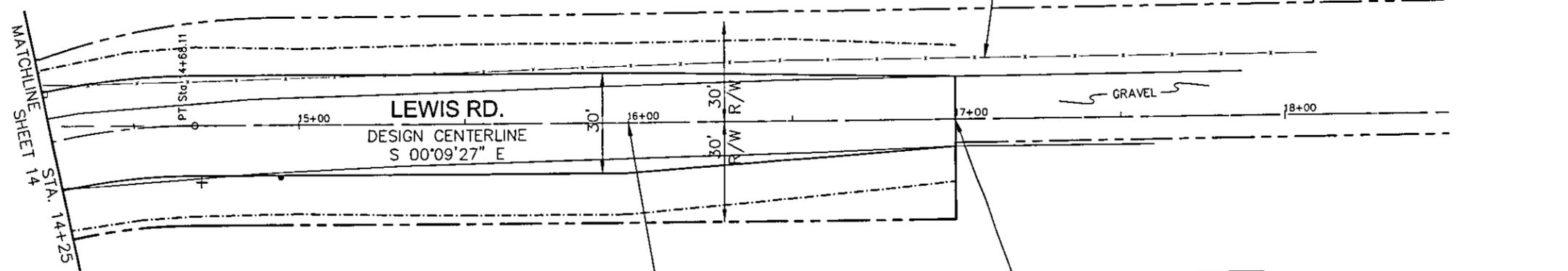
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SCALE:		HORIZ. AS SHOWN	
REVISION:		VERT. AS SHOWN	
FILENAME: 06058 SH 12-15.dwg			

PLAN AND PROFILE  
LEWIS ROAD  
STA. 14+25 TO  
STA. 17+00

SHEET 15 OF 25

PLOT DATE: 01-06-09

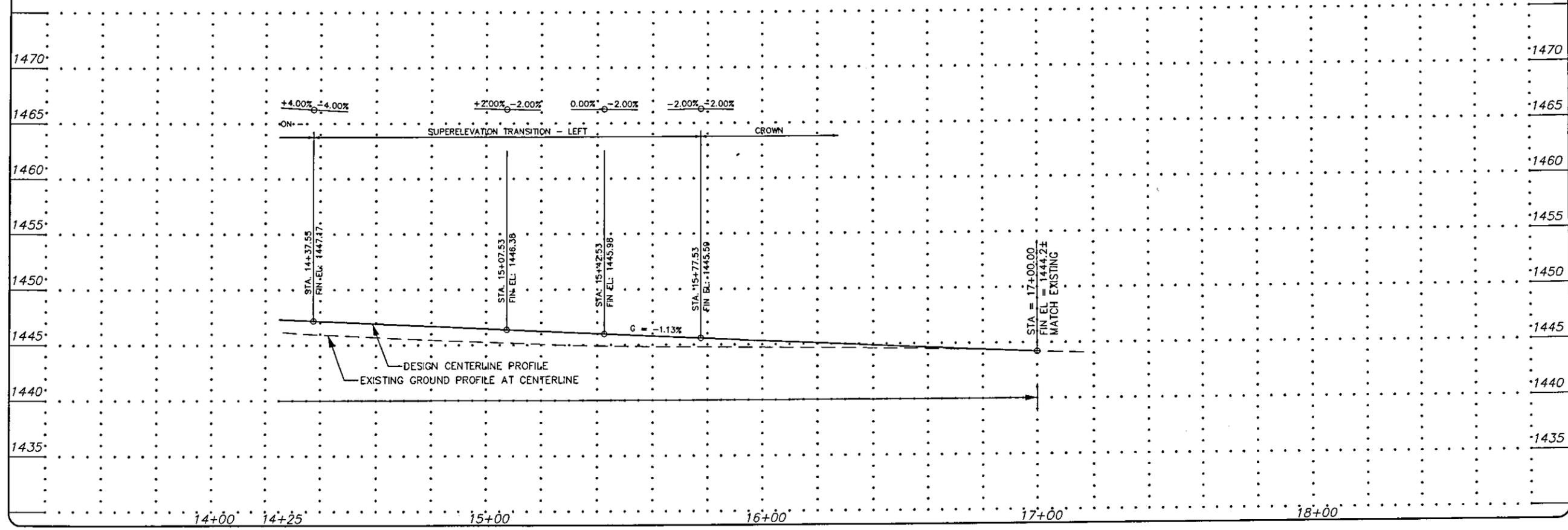
CURVE DATA - C4	
PC STATION	11+79.26
NORTHING	506305.6967
EASTING	1591448.8217
DELTA	82°44'49"
TANGENT	176.16'
RADIUS	200.00'
ARC LENGTH	288.84'
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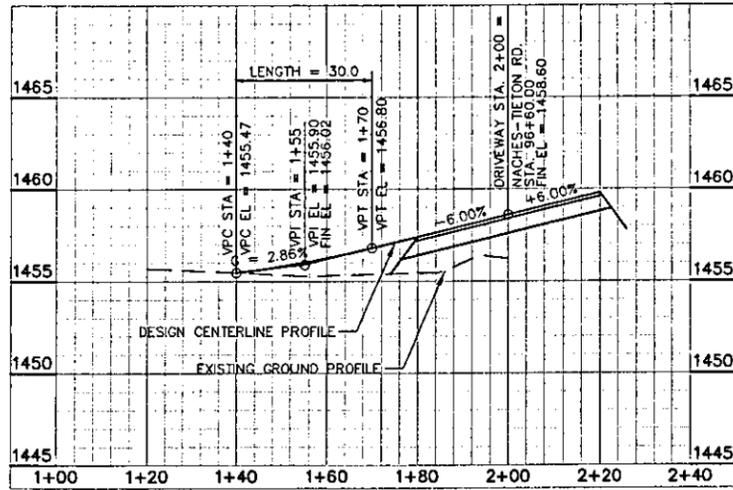
STA. 14+25 TO STA. 18+09 LT, REMOVE EXISTING FENCE. RESET EXISTING OR NEW IN KIND TO R/W. PROVIDE ADDITION CORNER POSTS AS NEEDED.

STA 16+00.00, END TYPICAL ROADWAY SECTION "C". BEGIN SHOULDER TAPER.

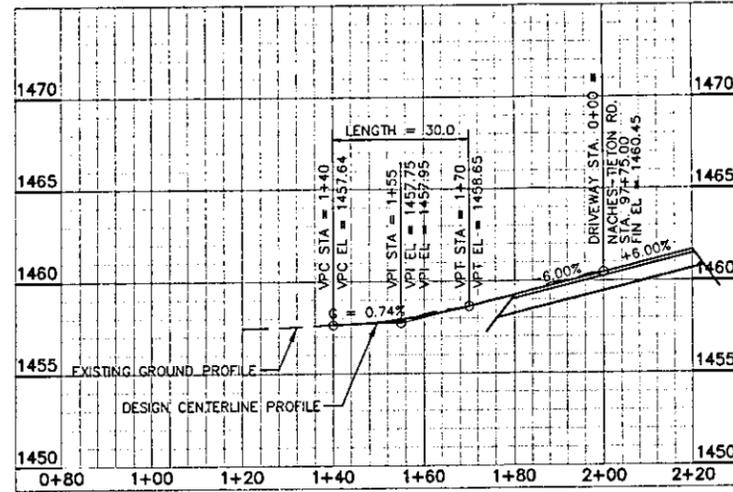
STA. 17+00.00, EOP. END NEW IMPROVEMENTS. MATCH EXISTING ROAD. END SHOULDER TAPER, LEFT AND RIGHT.



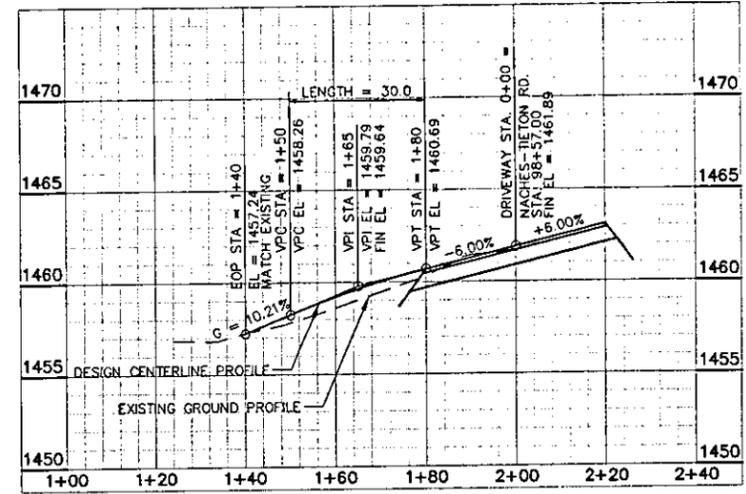
SO. NACHES RD. 96+60.0, LT.



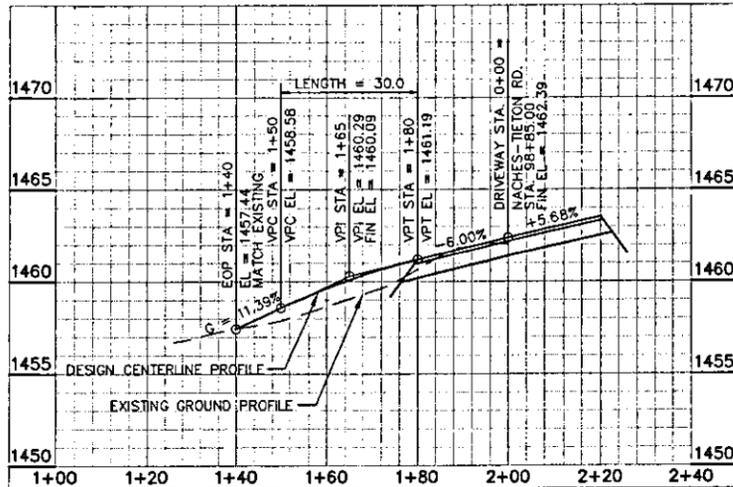
NACHES-TIETON RD. 97+75.0, LT.



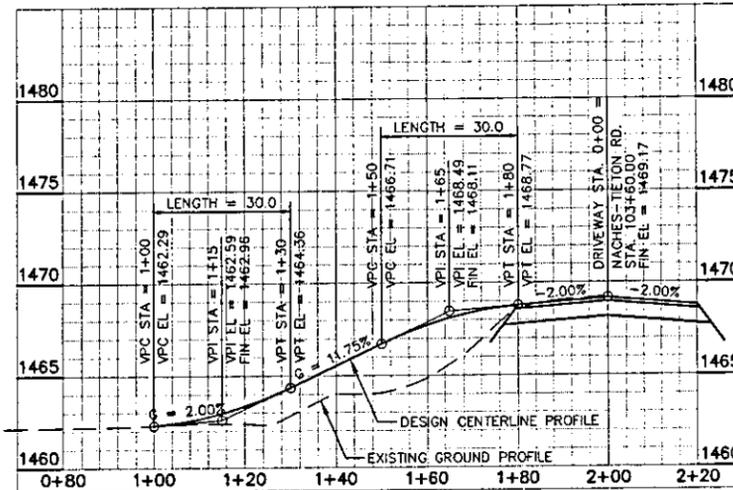
NACHES-TIETON RD. 98+57.0, LT.



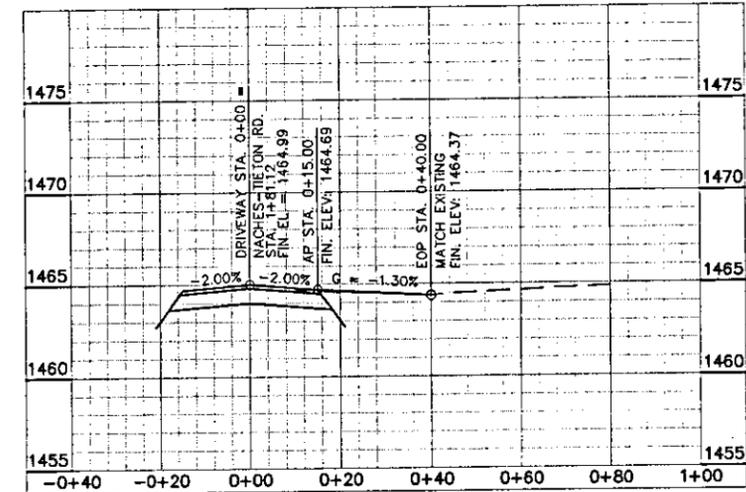
NACHES-TIETON RD. 98+85.0, LT.



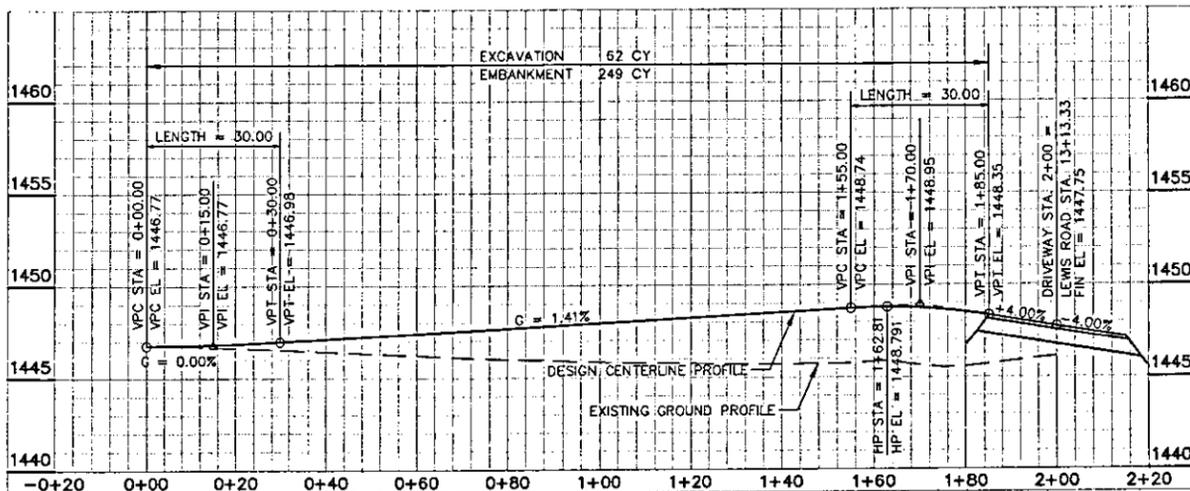
SO. NACHES RD. 103+60.0, LT



KLOCKHAMER RD. 1+81.12, RT.



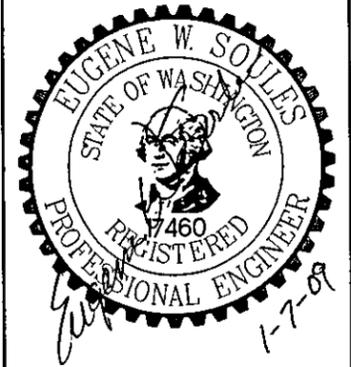
LEWIS RD. 13+25.0, LT.



SOUTH NACHES ROAD IMPROVEMENT PROJECTS  
LEWIS ROAD

C 3211

PREPARED UNDER THE DIRECTION OF:



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SCALE:	HORIZ. NONE VERT. NONE
REVISION:	
FILENAME: 0604B SH 20-21.dwg	

APPROACH PROFILES

SHEET 21 OF 24

PLOT DATE: 01-06-09

The following conditions and measures shall be followed:

- The applicants shall obtain all required local, state, and federal permits and approvals prior to implementing the Proposed Action Alternative and comply with any and all conditions imposed.
  - The applicant is responsible for selecting, implementing, monitoring, and maintaining best management practices to control erosion and sediment, reduce spills and pollution, and provide habitat protection.
  - Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other laws and Executive Orders.
  - In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity should be discontinued, the area secured, and the State and FEMA notified.
  - Construction shall occur during non-flood seasons. However, should construction be required during the flood season, as determined by the local floodplain administrator, all construction equipment shall be staged in an area not susceptible to flood events or be readily transportable out of the floodplain to avoid any flood damages.
-

**PUBLIC NOTICE****Federal Emergency Management Agency  
Draft Environmental Assessment  
Lewis Road Relocation and Reconstruction  
Yakima County, WA**

The US Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to provide funding to Yakima County for a road relocation and construction project in central Washington.

FEMA prepared a draft environmental assessment (EA) for the proposed project pursuant to the National Environmental Policy Act (NEPA) of 1969 and FEMA's implementing regulations found in 44 Code of Federal Regulations (CFR) Part 10. The EA evaluates alternatives for compliance with applicable environmental laws, including Executive Orders #11990 (Protection of Wetlands), #11988 (Floodplain Management), and #12898 (Environmental Justice). Many alternatives were evaluated during the development of the Naches River Comprehensive Flood Hazard Management Plan (CFHMP) and the Upper Yakima River CFHMP. The alternatives evaluated in the EA are the (1) no action; and (2) reducing flood damage and providing improved ingress and egress for residents along Lewis Road by relocating and reconstructing Lewis Road. No practicable alternatives outside the floodplain were identified.

The proposed action, while remaining in the floodplain, would offer some reduction in potential road damage and loss of lives from residences traversing it when the road is inundated during flood events. However, the road would still be subject to future damages by virtue of its location in the floodplain and floodway. Further analysis is available in the EA.

The EA is available for review online at the FEMA environmental website at: <http://www.fema.gov/plan/ehp/envdocuments> under Region X. If no significant issues are identified during the comment period, FEMA will finalize the EA, issue a Finding of No Significant Impact (FONSI) and fund the project. Unless substantive comments are received, FEMA will not publish another notice for this project. However, should a FONSI be issued, it will be available for public viewing at <http://www.fema.gov/plan/ehp/envdocuments> under Region X.

The draft EA is also available for review on February 6, 2009 at the Yakima County Public Services Department at 128 N. 2nd Street, Yakima, Washington.

Written comments on the draft EA should be directed no later than 5 pm on March 6, 2009 to Steven Randolph, Program Manager, FEMA Region 10, 130 228th Street SW, Bothell Washington 98021-9796 or by e-mail at [steven.randolph@dhs.gov](mailto:steven.randolph@dhs.gov). Comments can also be faxed to 425-487-4613.

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