



Territorial Highway – Gillespie Corners

Flood Mitigation and Reconstruction

Draft Environmental Assessment Appendices

February 2024

Subgrant No.: 4562-027

Subapplicant: Lane County Public Works Department



FEMA

LIST OF APPENDICES

The Federal Emergency Management Agency (FEMA) has worked to ensure that this Environmental Assessment (EA) is accessible to persons with disabilities, in compliance with Section 508 of the Rehabilitation Act of 1973. Regarding the appendices, this EA has reported what was done and how those results affect the decision that will be made based on the totality of the findings provided in the EA. In case any of these appendices poses a challenge to be read electronically by persons with disabilities, each appendix is briefly described and summarized below, rather than being simply listed.

Appendix A. 70-Percent Preliminary Design Drawings. This 20-page document is an excerpt of the 70-percent Design Drawings prepared by the Lane County Department of Public Works Engineering & Construction Services Division. This document provides roadway, channel, and culvert plans and cross sections as well as typical erosion control measures.

Appendix B. Agency and Tribal Coordination and Consultation. This appendix includes a 1-page letter dated January 11, 2024 from the Oregon State Historic Preservation Office (SHPO) regarding the no effect determinations made by FEMA for historic built resources and buried archeological resources. The Oregon SHPO concurred that there will be no historic properties affected for this undertaking. This appendix also includes a 2-page letter dated September 13, 2023, which was sent to the Confederate Tribes of Warm Springs. This letter notified the Tribe of the undertaking and FEMA's determination that the undertaking will result in no historic properties affected. A similar letter was sent to the Creek Band of Umpqua Tribe of Indians, Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, Confederated Tribes of the Grand Ronde Community of Oregon, and the Confederated Tribes of Siletz Indians. No further comments were received.

Appendix C. FEMA FIRM Floodplain Panels 41039C1600F and 41039C1625F. This appendix includes a 1-page graphic depicting the Special Flood Hazard Areas and Other Areas of Flood Hazard within the vicinity of the project area.

Appendix D. Floodplains and Wetlands Eight-Step Analysis. This appendix presents the 7-page 8-step floodplain analysis prepared by FEMA. This analysis addresses consistency with Executive Order 11988 (Floodplain Management).

Appendix A

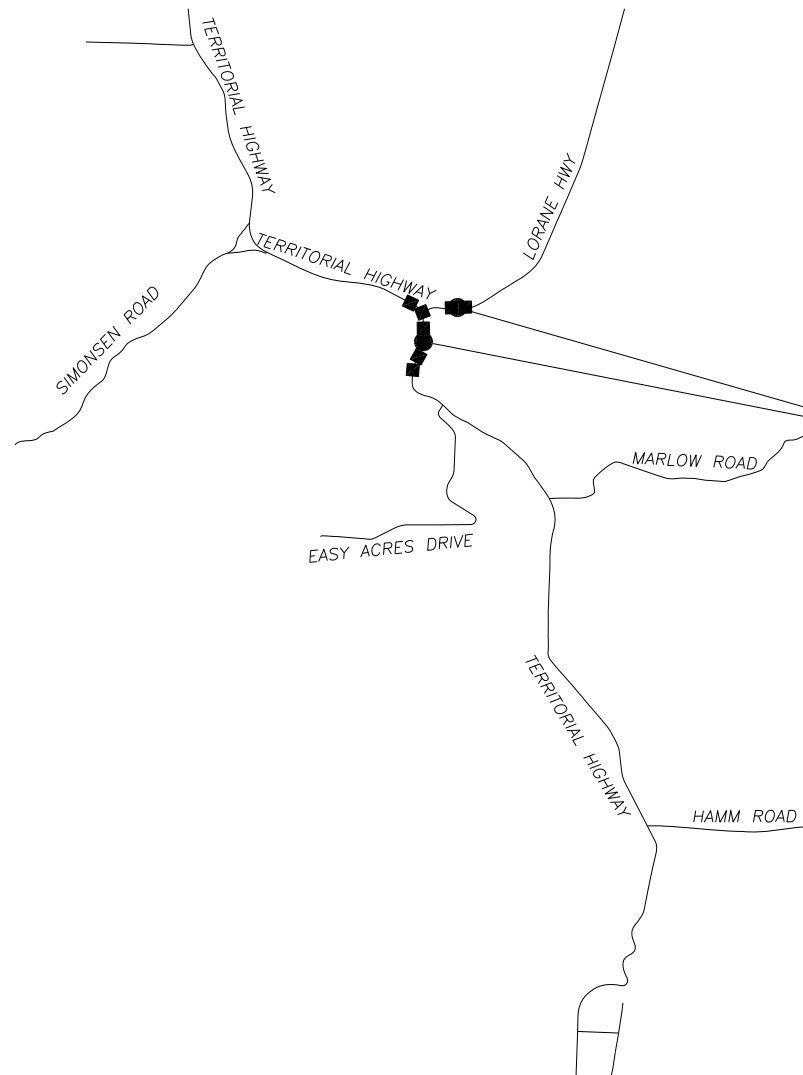
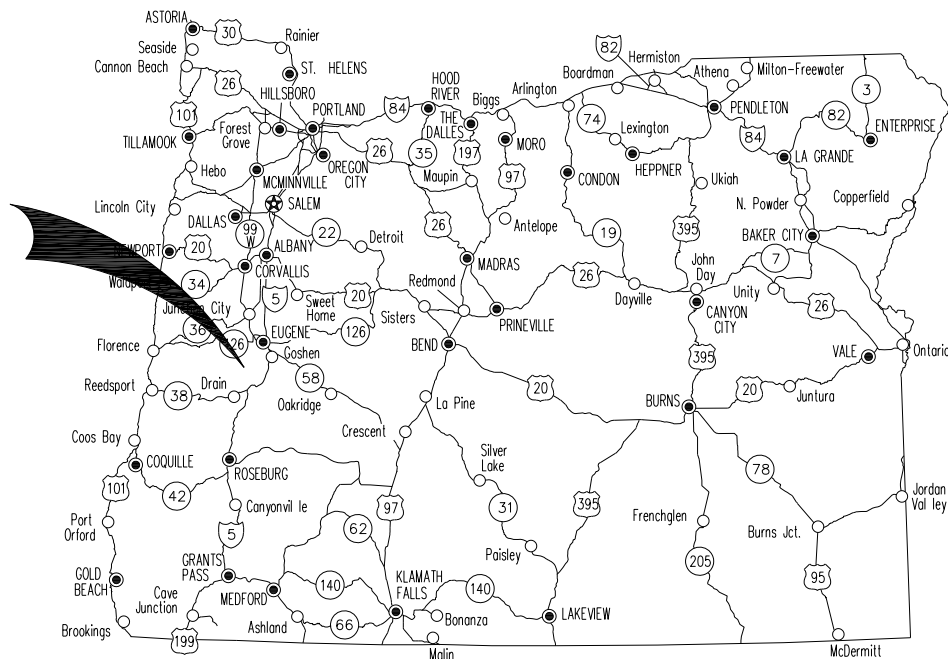
70-Percent Preliminary Design Drawings (November 1, 2021)

LANE COUNTY
 DEPARTMENT OF PUBLIC WORKS
 ENGINEERING & CONSTRUCTION SERVICES DIVISION
 PLANS FOR PROPOSED PROJECT
 GRADING, DRAINAGE, STRUCTURES, & PAVING

TERRITORIAL HWY GILLESPIE CORNERS RECONSTRUCTION

LANE COUNTY, OREGON
 MARCH 2021

*70%
 PRELIMINARY*
 9/14/20

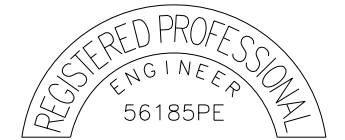


PROJECT LOCATION
 TERRITORIAL HWY
 MILEPOST 32.05-32.43
 LORANE HWY
 MILEPOST 13.90-13.97



ATTENTION
 OREGON LAW REQUIRES YOU TO FOLLOW RULES
 ADOPTED BY THE OREGON UTILITY NOTIFICATION
 CENTER. THOSE RULES ARE SET FORTH IN OAR
 952-001-0010 THROUGH OAR 952-001-0090. YOU
 MAY OBTAIN COPIES OF THE RULES FROM THE
 CENTER. THE TELEPHONE NUMBER FOR THE UTILITY
 NOTIFICATION CENTER IS 811 OR 1-800-332-2344

THESE PLANS WERE DEVELOPED USING AASHTO
 DESIGN STANDARDS. EXCEPTIONS TO THESE
 STANDARDS, IF ANY, HAVE BEEN SUBMITTED
 AND APPROVED BY THE COUNTY ENGINEER



Expiration Date 6/30/20

APPROVED FOR
 CONSTRUCTION: _____
 PEGGY A. KEPPLER, P.E., P.L.S.
 COUNTY ENGINEER
 DAN HURLEY, P.E.
 PUBLIC WORKS DIRECTOR

LANE COUNTY COMMISSIONERS

JAY BOZIEVICH
 PAT FARR
 PETER SORENSON
 JOE BERNEY
 HEATHER BUCH



PROJECT FILE NO: 367798902

SEC. 13, 14, & 23, T. 19 S., R. 5 W., W.M.

VICINITY MAP



LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
 DANIEL M. HURLEY, P.E. COUNTY ENGINEER
 PEGGY A. KEPPLER, PE, PLS. COUNTY ENGINEER

SHEET INDEX	
SHEET No.	SHEET TITLE
COV	COVER SHEET
LGN1	INDEX & LEGEND
TYPICAL SECTIONS	
TYP1	TYPICAL SECTIONS 1 OF 5
TYP2	TYPICAL SECTIONS 2 OF 5
TYP3	TYPICAL SECTIONS 3 OF 5
TYP4	TYPICAL SECTIONS 4 OF 5
TYP5	TYPICAL SECTIONS 5 OF 5
DETAILS	
D1	FILTER STRIP DETAILS
EROSION CONTROL	
EC1	STA 48+00 TO 41+84
EC2	STA 41+84 TO 36+30
EC3	STA 36+30 TO 30+40
EC4	STA 30+40 TO 26+80
EC5	LORANE HWY - STA 11+00 TO 15+00
ROADWAY PLAN & PROFILE	
PP1	STA 27+00 TO 31+00
PP2	STA 31+00 TO 35+00
PP3	STA 35+00 TO 39+00
PP4	STA 39+00 TO 43+00
PP5	STA 43+00 TO 47+00
PP6	LORANE HWY - STA 11+00 TO 15+00
CHANNEL PLAN & PROFILES	
CHANNEL INDEX	
CH1	NORTH CHANNEL - STA 0+25 TO 2+00
CH2	NORTH CHANNEL - STA 2+00 TO 4+00
CH3	NORTH OVERFLOW CHANNEL - STA 4+00 TO 5+50
CH4	NORTH OVERFLOW CHANNEL - STA 5+50 TO 7+17
CH5	NORTH CHANNEL - SECTION VIEWS - 1 OF 2
CH6	NORTH CHANNEL - SECTION VIEWS - 2 OF 2
CH7	COYOTE CREEK - STA 0+00 TO 2+00
CH8	COYOTE CREEK - SECTION VIEW
CH9	SOUTH OVERFLOW CHANNEL - STA 0+00 TO 2+00
CH10	SOUTH CHANNEL - STA 0+25 TO 2+00
CH11	SOUTH CHANNEL - STA 2+00 TO 3+50
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CH14	TEMPORARY WATER MANAGEMENT PLAN
CULVERT DETAILS	
CUL1	BRIDGE NO. XXXX PLAN
CUL2	BRIDGE NO. XXXX DETAILS
CUL3	BRIDGE NO. XXXX SECTIONS
CUL4	BRIDGE NO. XXXX PRECAST DETAILS

SHEET INDEX	
SHEET No.	SHEET TITLE
BRIDGE 4057A STRUCTURAL PLANS	
1	PLAN AND ELEVATION
2	GENERAL NOTES
3	STAGE CONSTRUCTION
4	FOOTING PLAN
5	DECK PLAN
6	TYPICAL DECK SECTION
7	BENT PLAN AND ELEVATION
8	BENT DETAILS
9	NEW WEST WINGWALL DETAILS
10	MODIFIED EAST WINGWALL DETAILS
11	PRECAST PRESTRESSED SCHEDULE
BRIDGE 4058A STRUCTURAL PLANS	
1	PLAN AND ELEVATION
2	GENERAL NOTES
3	STAGE CONSTRUCTION
4	FOOTING PLAN
5	DECK PLAN
6	TYPICAL DECK SECTION
7	BENT PLAN AND ELEVATION
8	BENT DETAILS
9	NEW WEST WINGWALL DETAILS
10	MODIFIED EAST WINGWALL DETAILS
11	PRECAST PRESTRESSED SCHEDULE
PLANTING PLAN	
PL1	OVERALL
PL2	NORTH ENLARGEMENT
PL3	SOUTH ENLARGEMENT
PL4	PLANT SCHEDULE AND DETAIL

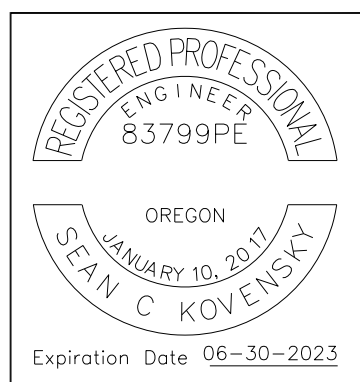
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LINETYPE		DESCRIPTION
EXISTING	PROPOSED	
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- SF - SF - SF -	- SF - SF - SF -	EROSION CONTROL SILT FENCE
- X - X - X -	- X - X - X -	FENCE LINE
— FIBER —	— FIBER —	FIBER OPTIC LINE
— GAS —	— GAS —	GAS LINE
— GATE — GATE —	— GATE — GATE —	GATE
— □ — □ —	— □ — □ —	GUARDRAIL
— OHE —	— OHE —	OVERHEAD ELECTRIC
— OHT —	— OHT —	OVERHEAD TELEPHONE
— S —	— S —	SANITARY SEWER LINE
— STM —	— STM —	CULVERT
— STM —	— STM —	STORM DRAINAGE
— T —	— T —	TELEPHONE LINE
— TV —	— TV —	TELEVISION LINE
— E —	— E —	UNDERGROUND ELECTRIC
— W —	— W —	WATER LINE
— WB —	— WB —	WETLAND BOUNDARY
— OHW —	— OHW —	ORDINARY HIGH WATER
.....	.....	FILL LIMITS
- c - c - c -	- c - c - c -	CUT LIMITS
.....	.....	DITCH CENTER LINE
.....	.....	SIDEWALK FRONT
.....	.....	SIDEWALK BACK
.....	.....	CENTER LINE
.....	.....	ROW LINE
.....	.....	PROPERTY LINE
.....	.....	TEMPORARY CONST. EASMENT
.....	.....	SAWCUT LINE
.....	.....	PERMANENT SLOPE EASEMENT
.....	EDGE OF PAVEMENT
.....	CURB LINE
.....	100YR FLOOD PLAIN

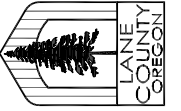
SYMBOLS		
SYMBOLS		DESCRIPTION
EXIST.	PROP.	
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		CONIFEROUS TREE
		SHRUB
		SIGN
		POWER POLE
		TRANSFORMER
		ELEC TOWER
		LIGHT
		GUY ANCHOR
		POWER POLE
		SIGNAL POLE
		JUNCTION BOX
		TELEPHONE MANHOLE
		TELEPHONE POLE
		TELEPHONE PEDESTAL
		TELEPHONE VAULT
		TELEVISION BOX
		GAS VALVE
		WELL
		FIRE HYDRANT
		WATER METER
		WATER VALVE
		SPRINKLER HEAD
		CURB INLET (CI)
		CATCH BASIN (CB)
		COMBINATION CURB INLET
		STORM MANHOLE (MH)
		SANITARY SEWER (MH)
		CLEAN OUT

APPROV	REVISION	DATE

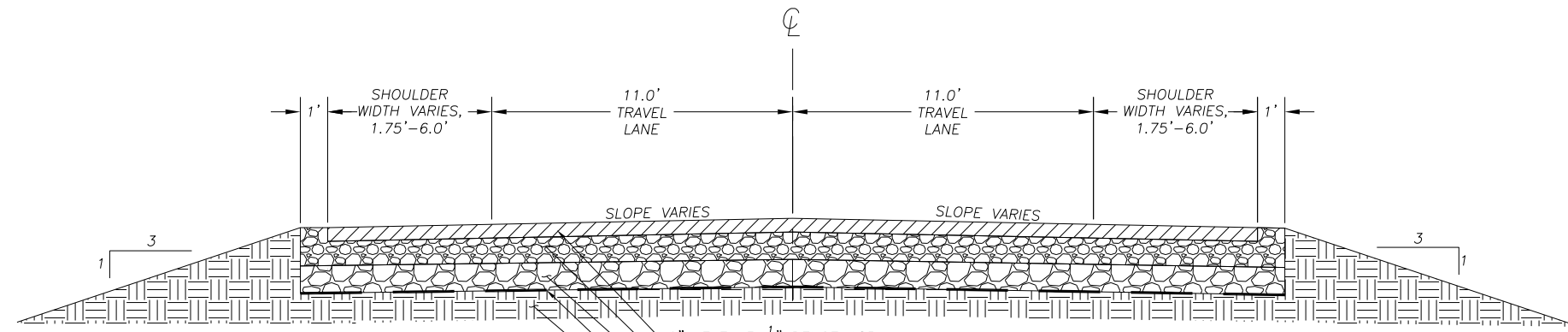
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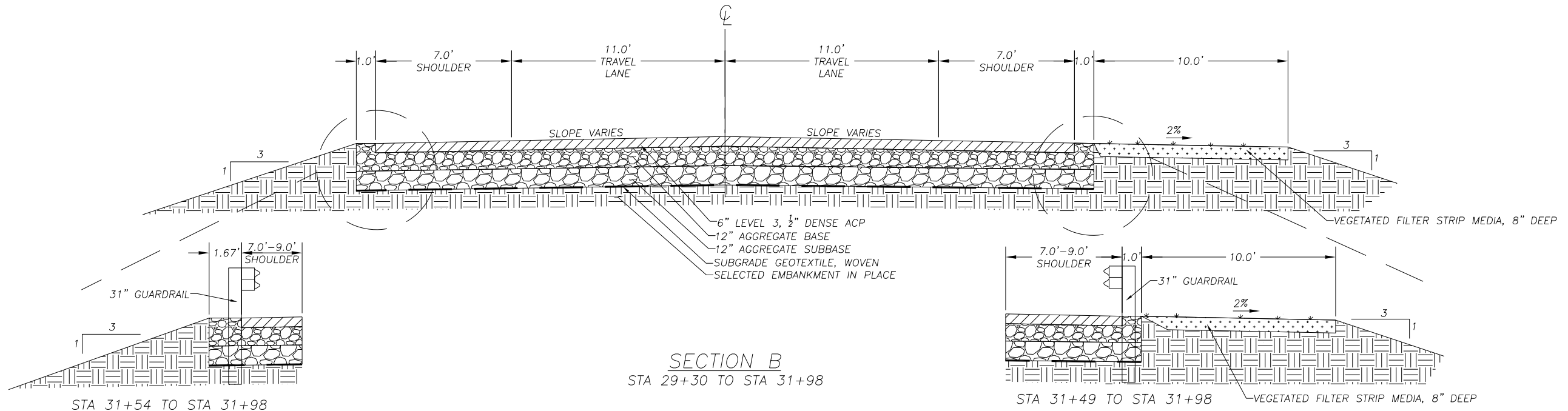




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 DANIEL M. HURLEY, P.E. PUBLIC WORKS DIRECTOR
 PEGGY A. KEPPLER, PE, PLS. COUNTY ENGINEER

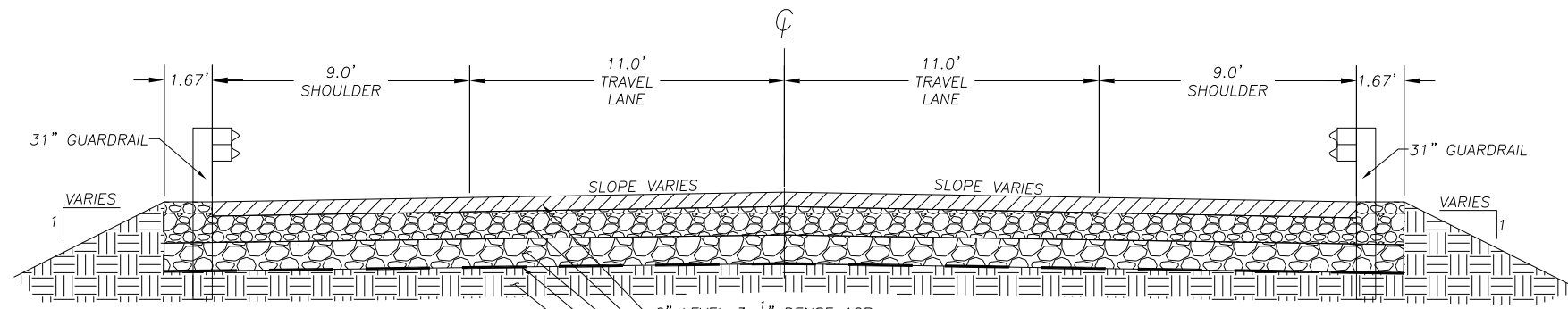


SECTION A
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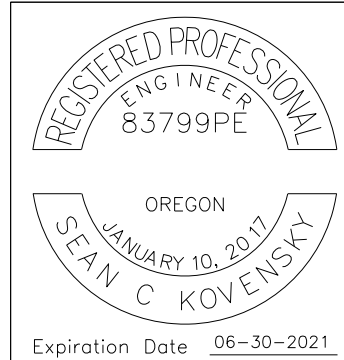
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 STA 29+30 TO STA 31+98

STA 31+54 TO STA 31+98



SECTION C
 STA 31+98 TO STA 32+18
 STA 32+60 TO STA 32+80
 STA 34+83 TO STA 35+03
 STA 35+65 TO STA 35+85

70%
 PRELIMINARY



APPROV	REVISION	DATE

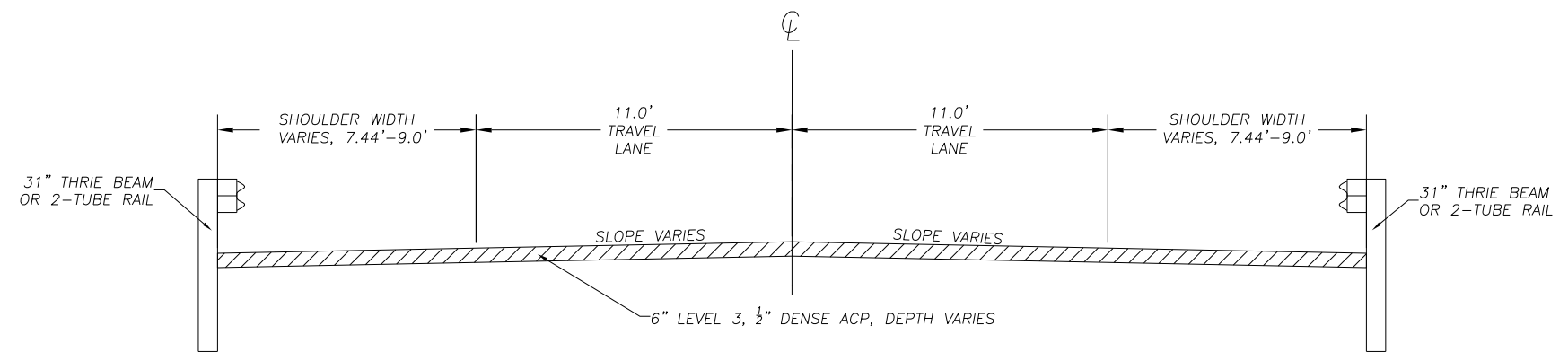
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TYPICAL SECTIONS
TYPICAL SECTIONS 1 OF 5

ROAD NO. 400100
 PROJECT NO. 367798902
 DATE 6/25/20

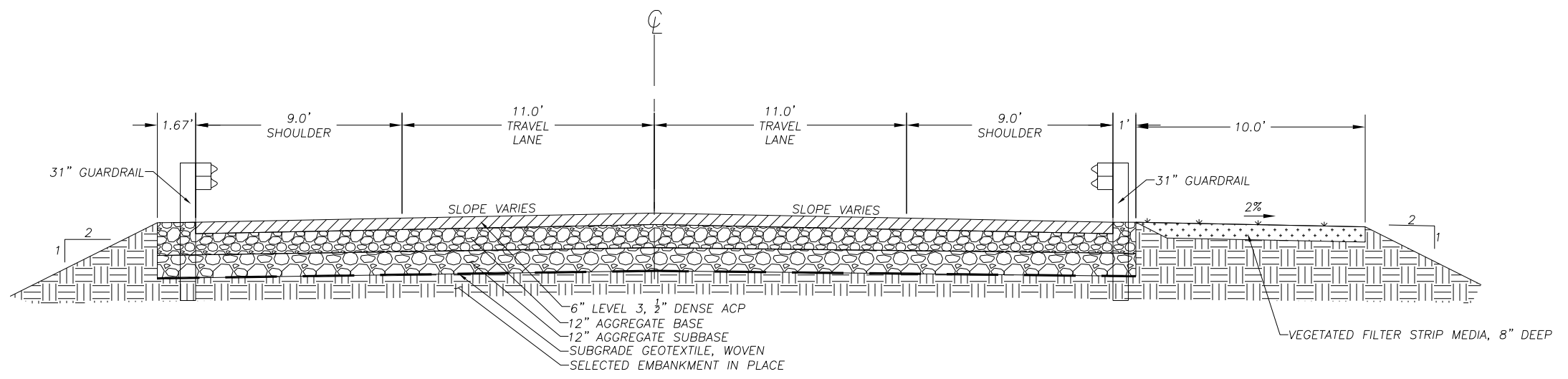
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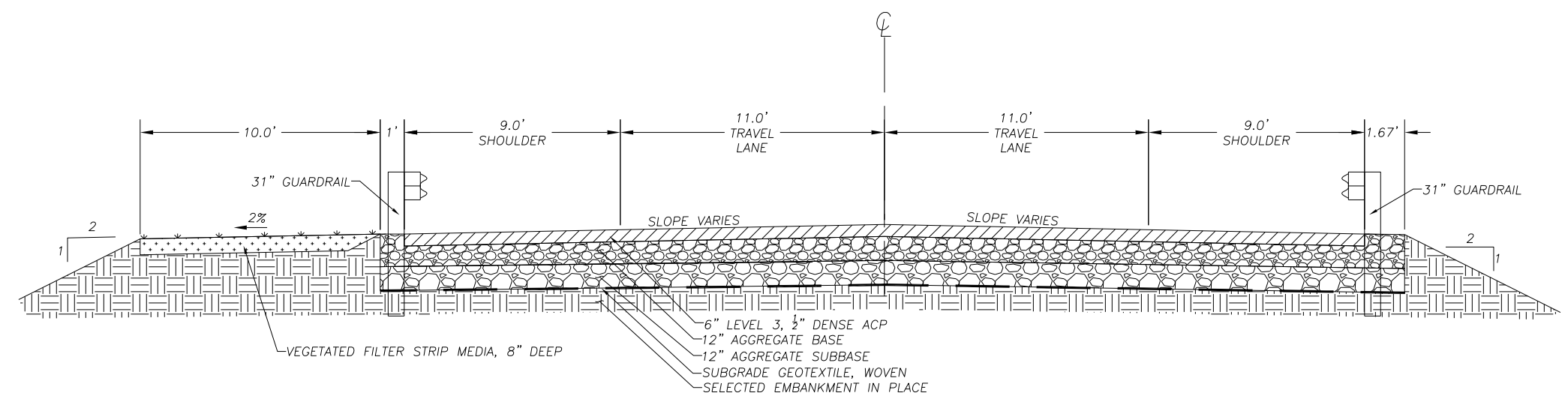
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 PEGGY A. KEPPLER, PE, PLS.
 COUNTY ENGINEER



SECTION D
 STA 32+18 TO STA 32+60, BRIDGE 4058A
 STA 35+03 TO STA 35+65, BRIDGE 4057A
 STA 38+36 TO STA 38+64, BRIDGE XXXX

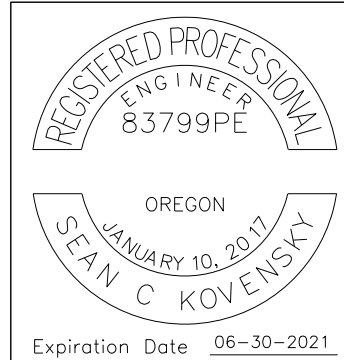


SECTION E
 STA 32+80 TO STA 33+12



SECTION F
 STA 33+12 TO STA 34+83

70%
 PRELIMINARY



APPROV	REVISION	DATE

TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
TYPICAL SECTIONS 2 OF 5

ROAD NO. 400100
 PROJECT NO. 367798902
 DATE 6/25/20

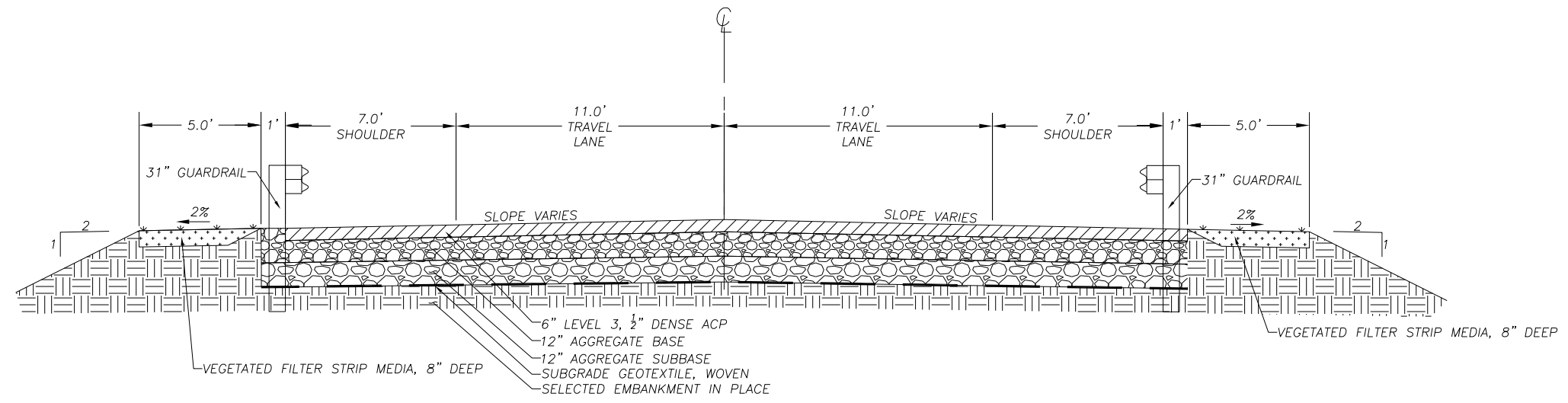
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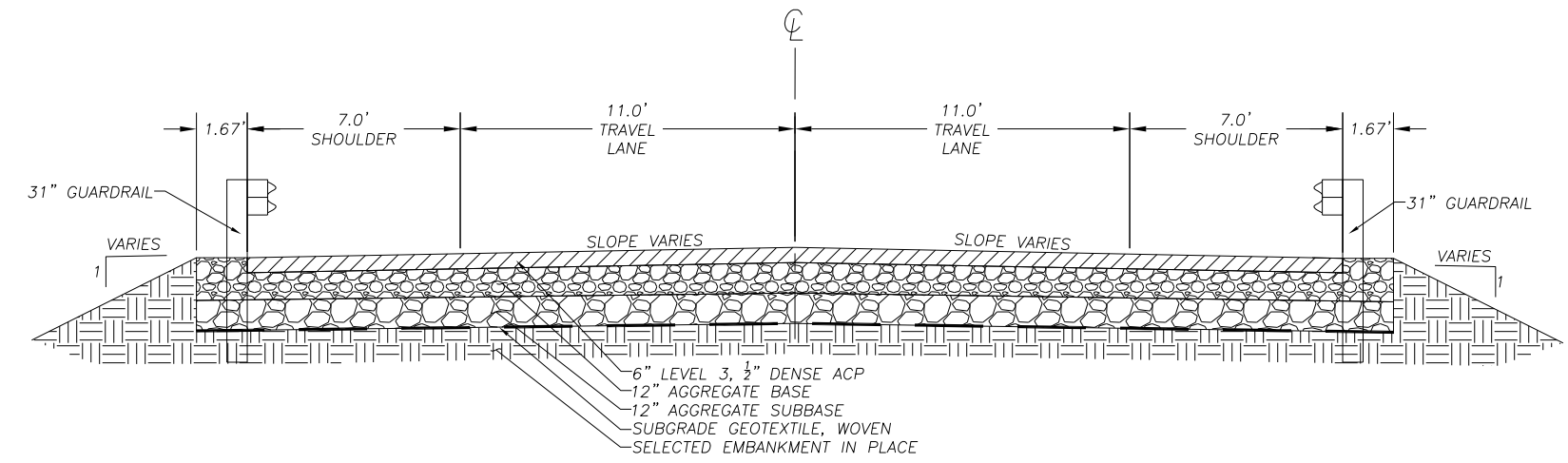
LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY, P.E.
 PUBLIC WORKS DIRECTOR

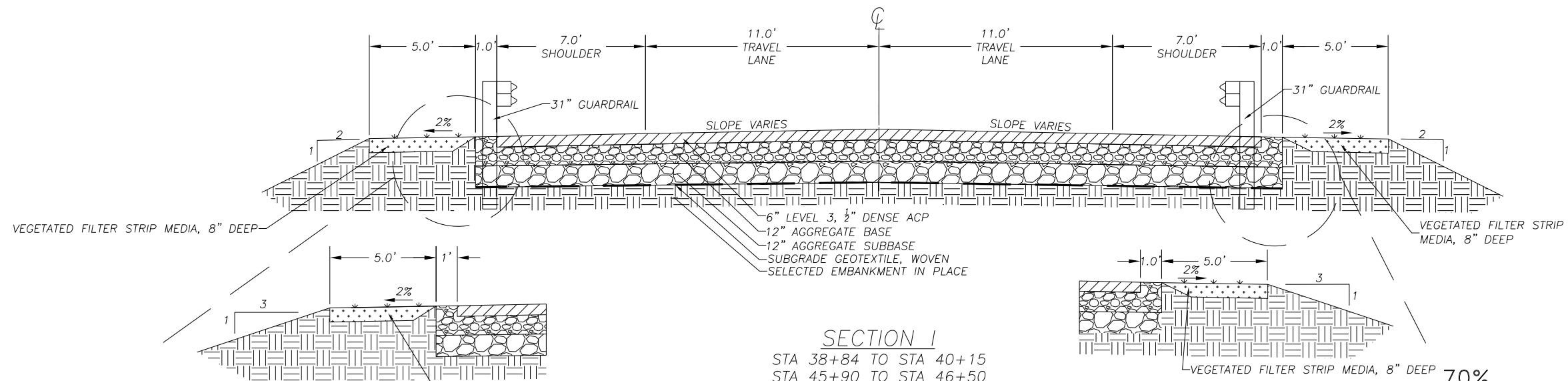
PEGGY A. KEPPLER, PE, PLS.
 COUNTY ENGINEER



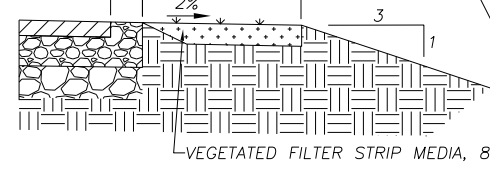
SECTION G
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SECTION H
 STA 38+16 TO STA 38+36
 STA 38+64 TO STA 38+84



SECTION I
 STA 38+84 TO STA 40+15
 STA 45+90 TO STA 46+50

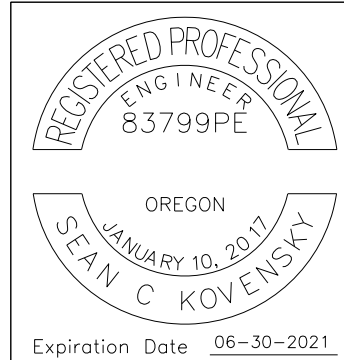


70% PRELIMINARY
 STA 45+90 TO STA 46+50

APPROD	REVISION	DATE

TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
TYPICAL SECTIONS 3 OF 5

ROAD NO. 400100
 PROJECT NO. 367798902
 DATE 6/25/20



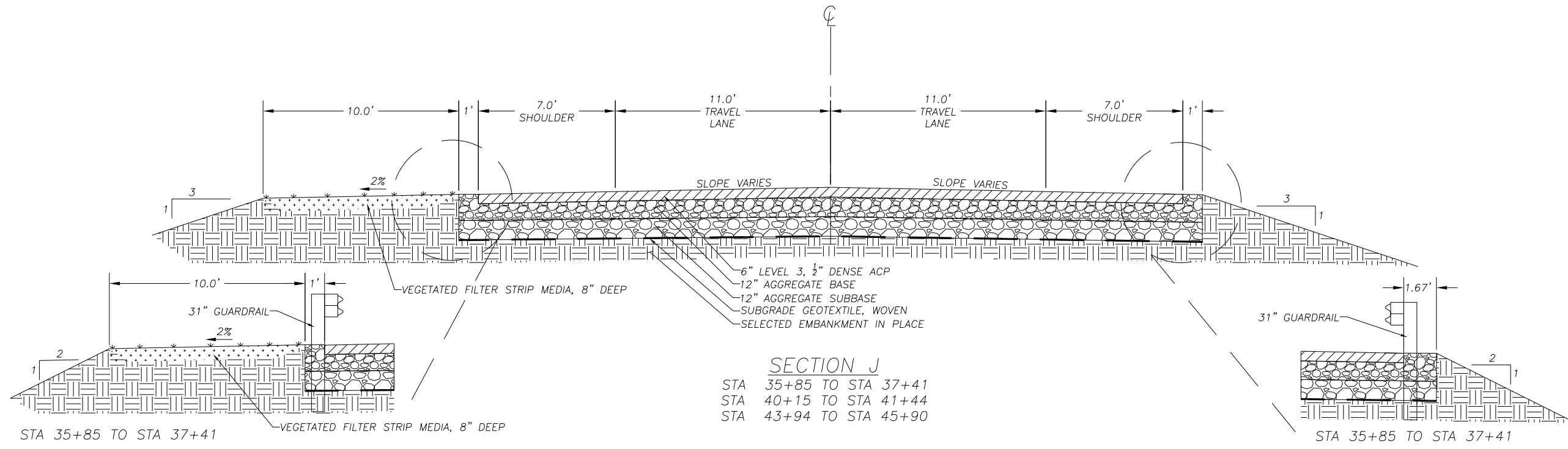
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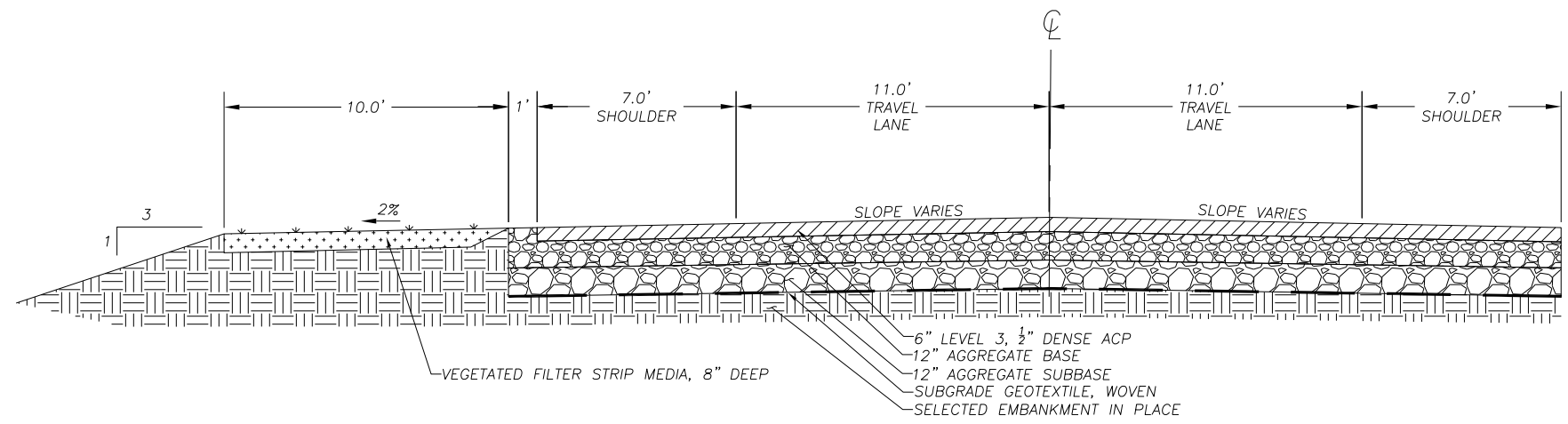
LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY, P.E.
 PUBLIC WORKS DIRECTOR

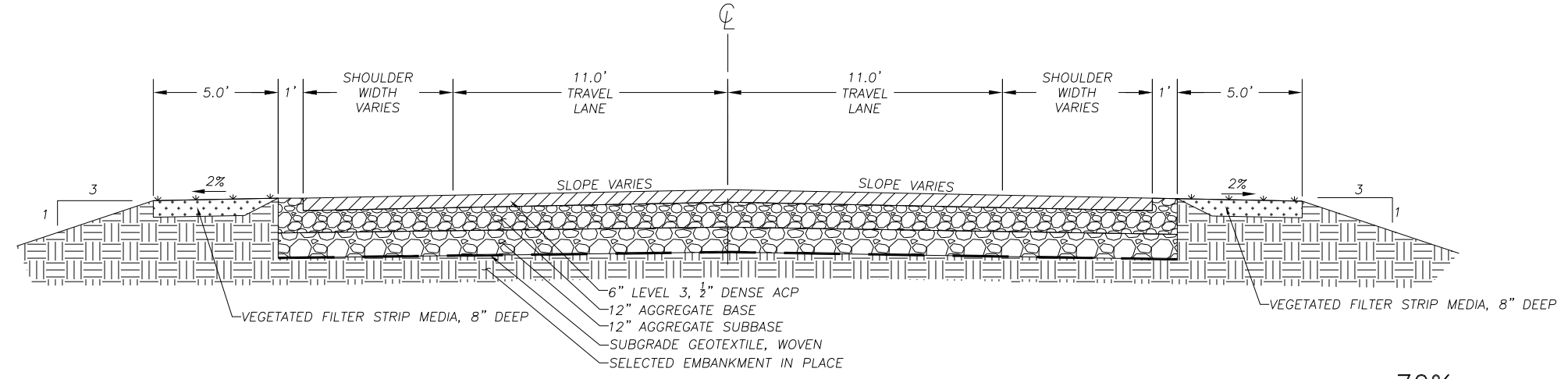
PEGGY A. KEPPLER, PE, PLS.
 COUNTY ENGINEER



SECTION J
 STA 35+85 TO STA 37+41
 STA 40+15 TO STA 41+44
 STA 43+94 TO STA 45+90



SECTION K
 STA 41+44 TO STA 43+94



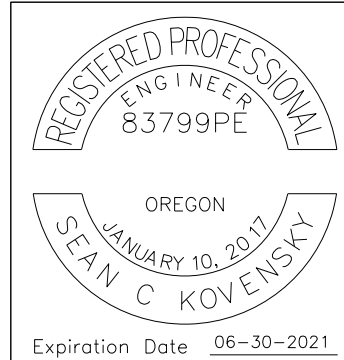
SECTION L
 STA 46+50 TO STA 47+00

**70%
 PRELIMINARY**

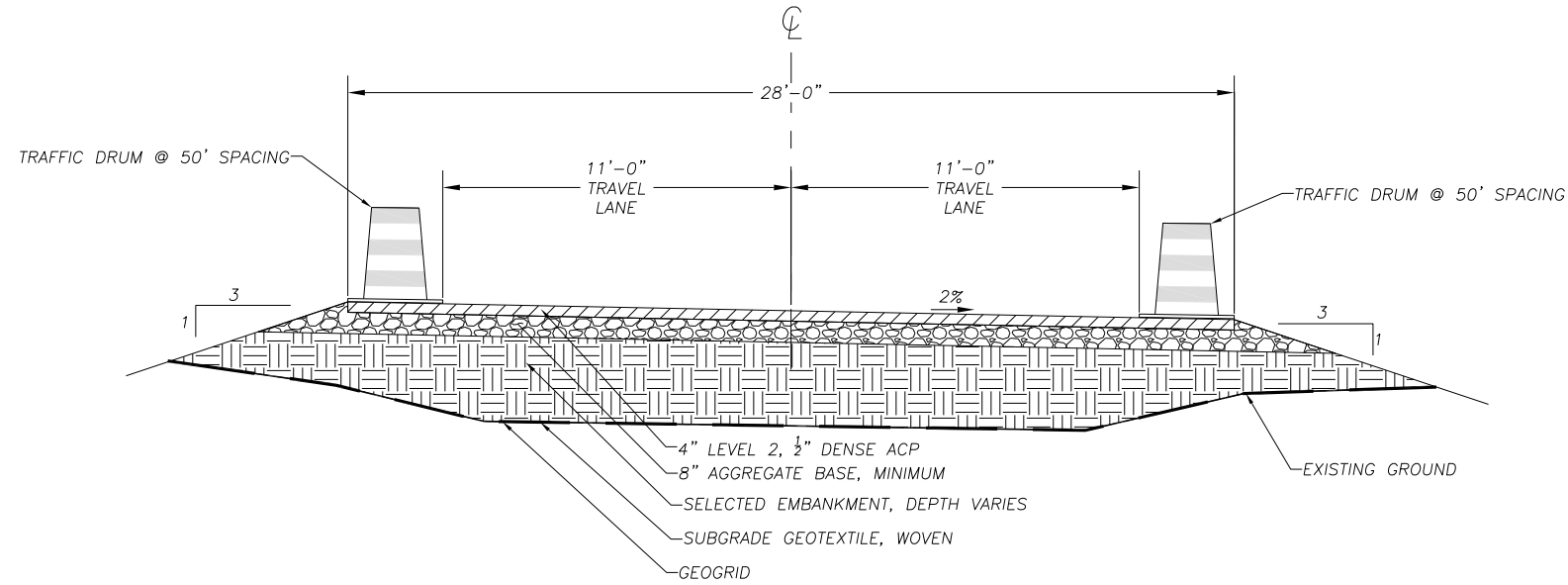
APPROV	REVISION	DATE

**TERRITORIAL HWY-GILLESPIE CORNERS
 RECONSTRUCTION
 TYPICAL SECTIONS 4 OF 5**

ROAD NO. 400100
 PROJECT NO. 367798902
 DATE 6/25/20



**SHEET NO.
 TYP4**



SECTION M - DETOUR ROAD
STA 27+00 TO STA 45+40

70%
PRELIMINARY



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PUBLIC WORKS DIRECTOR

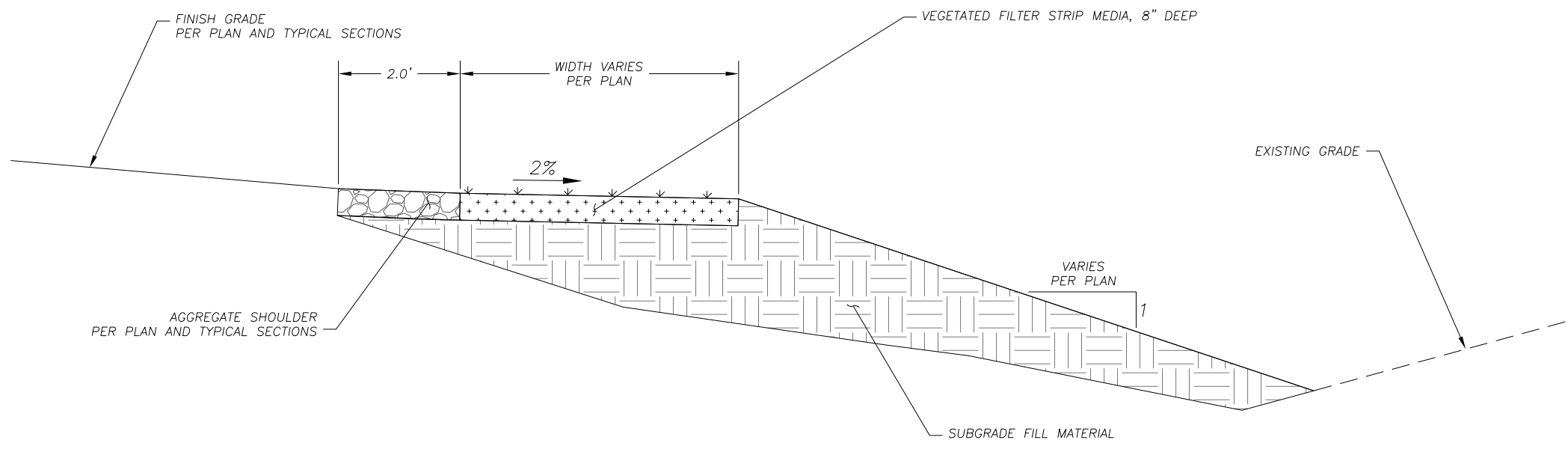
PEGGY A. KEPPLER, PE, PLS.
COUNTY ENGINEER

DATE	REVISION	APPROD

**TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
TYPICAL SECTIONS
TYPICAL SECTIONS 5 OF 5**

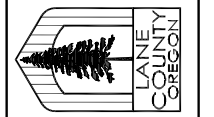
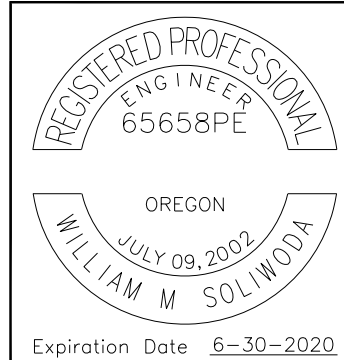
PROJECT NO. 367788902
ROAD NO. 400100
DATE 6/25/20

SHEET NO.
TYP5



FILTER STRIP DETAIL 1

70%
PRELIMINARY



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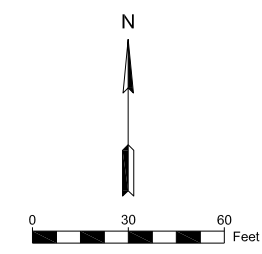
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TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
DETAILS
FILTER STRIP DETAILS
PROJECT NO. 367798902
ROAD NO. 400100
DATE 6/11/20

SHEET NO.
D1



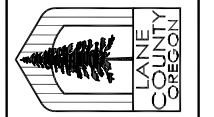
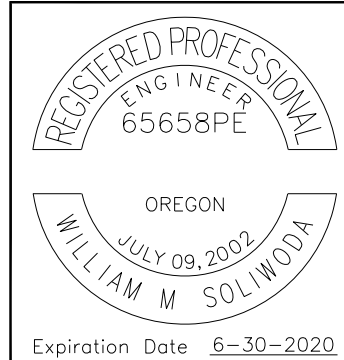
MATCHLINE STA 41+84
SEE SHT EC2



LEGEND

- SF — SF — SILT FENCE
- - - - - WORK LIMITS

70%
PRELIMINARY



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PEGGY A. KEPPLER, PE, PLS. COUNTY ENGINEER

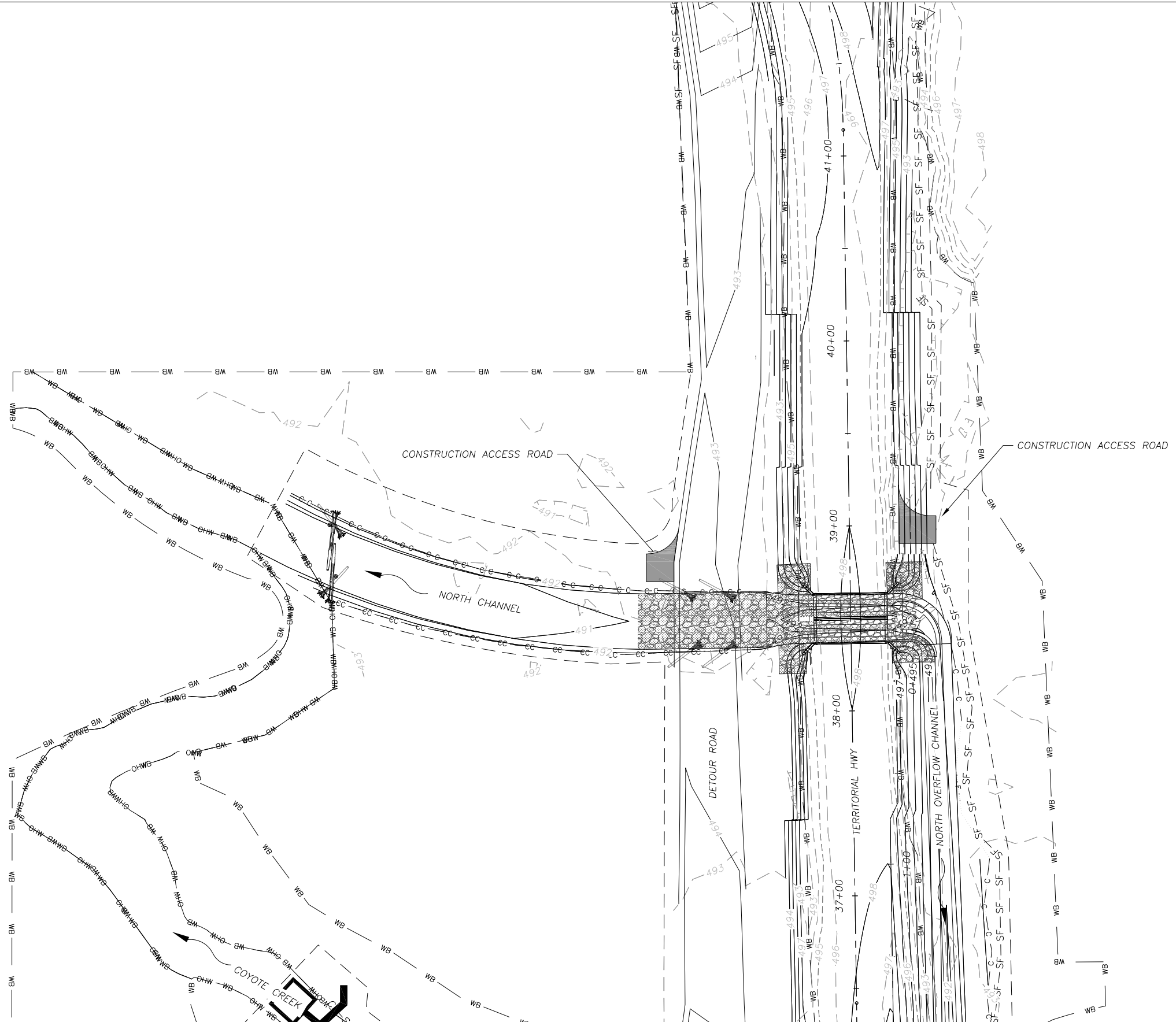
APPROV	REVISION	DATE

TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
EROSION CONTROL
STA 48+00 TO 41+84
PROJECT NO. 367788902
ROAD NO. 400100
DATE 6/22/20

SHEET NO. 61

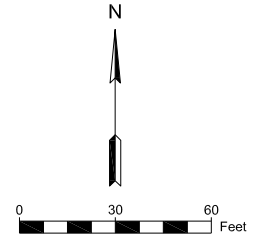
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SEE SHT EC1

MATCHLINE STA 36+30
SEE SHT EC3



LEGEND

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- - - - - WORK LIMITS
- (CD) — CHECK DAM



70%
PRELIMINARY



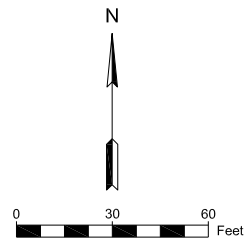
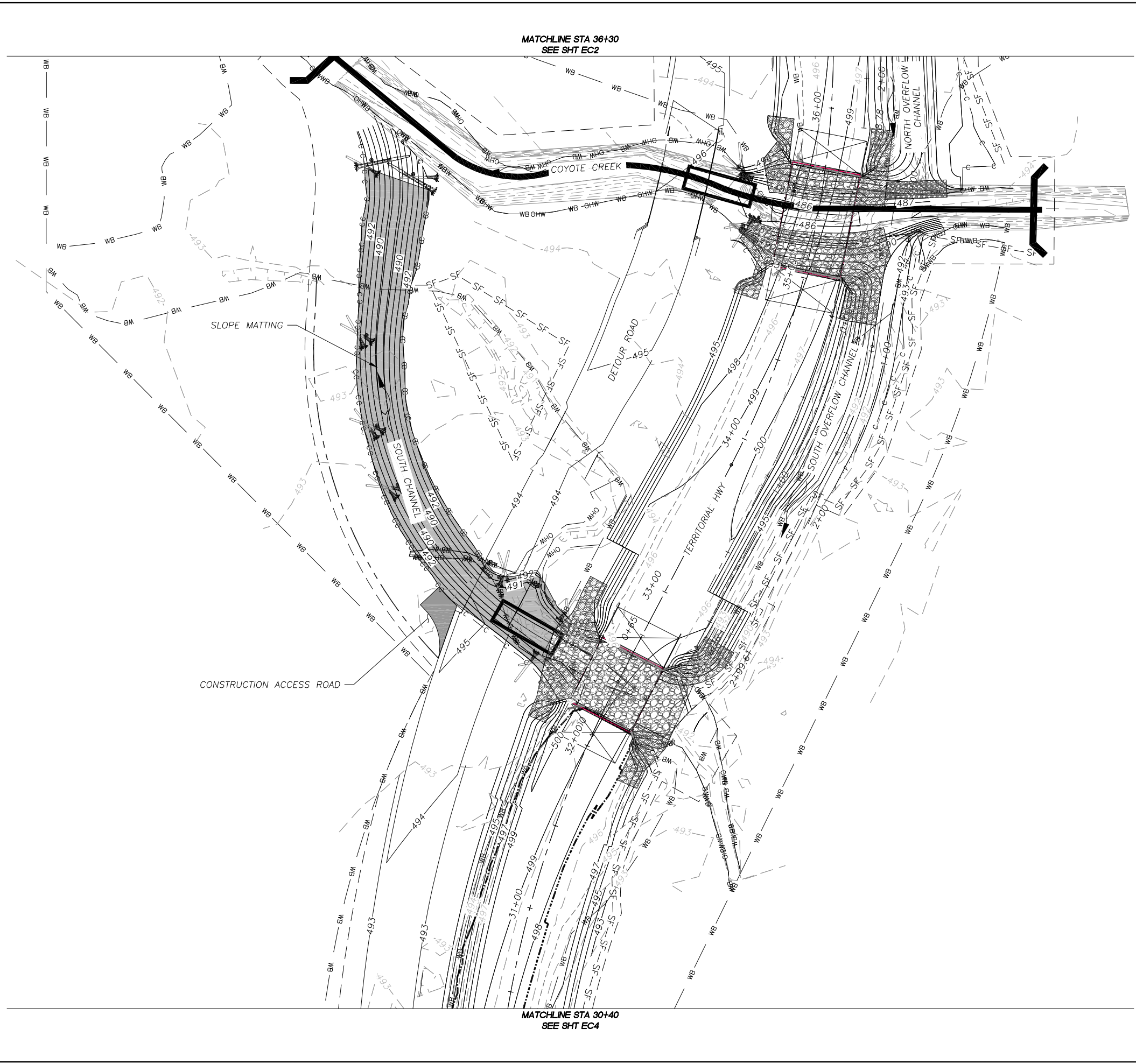
**TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
EROSION CONTROL
STA 41+84 TO 36+30**

**LANE COUNTY
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PEGGY A. KEPPLER, PE, PLS. COUNTY ENGINEER

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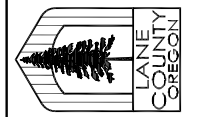
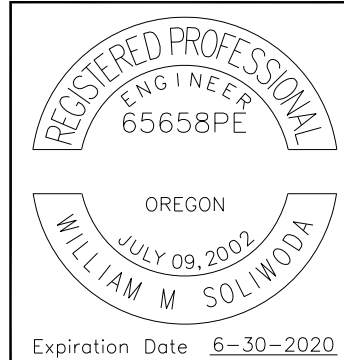
DATE	PROJECT NO.	ROAD NO.
6/22/20	367798902	400100

SHEET NO.
EC2



- LEGEND**
- SF — SF — SILT FENCE
 - - - - - WORK LIMITS
 - · · · · ORANGE PLASTIC MESH FENCING
 - ⊙ CD CHECK DAM
 - SLOPE MATTING & SEED

70%
PRELIMINARY



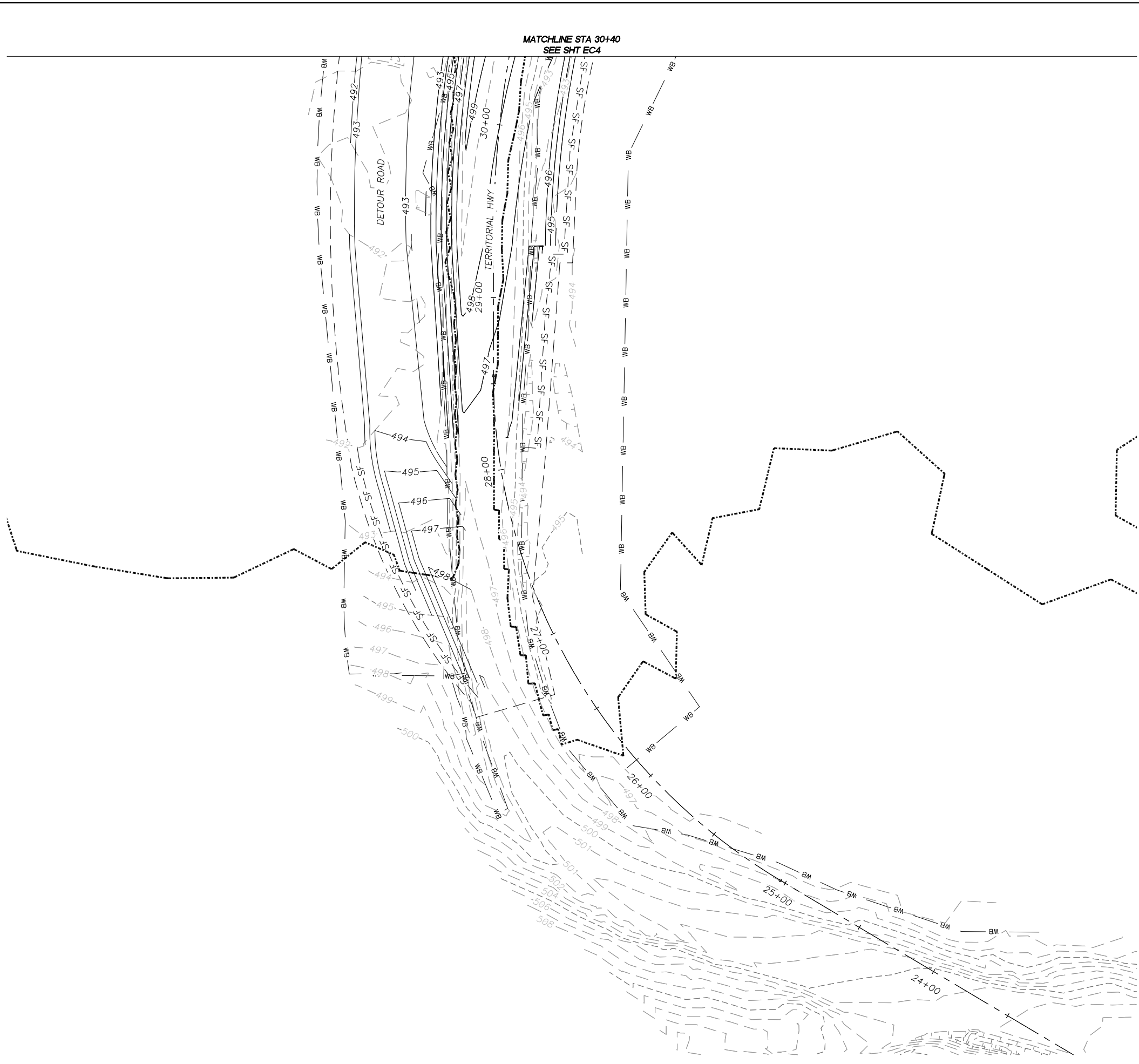
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PUBLIC WORKS DIRECTOR COUNTY ENGINEER

APPROV	REVISION	DATE

TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
EROSION CONTROL
STA 36+30 TO 30+40

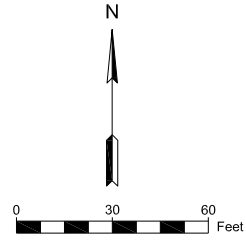
DATE 6/22/20 PROJECT NO. 367798902 ROAD NO. 400100

SHEET NO.
EC3

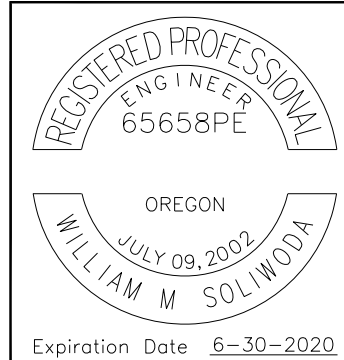


LEGEND

- SF — SF — SILT FENCE
- - - - - WORK LIMITS



70%
PRELIMINARY



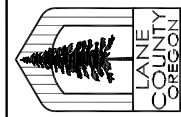
**TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
EROSION CONTROL
STA 30+40 TO 26+80**

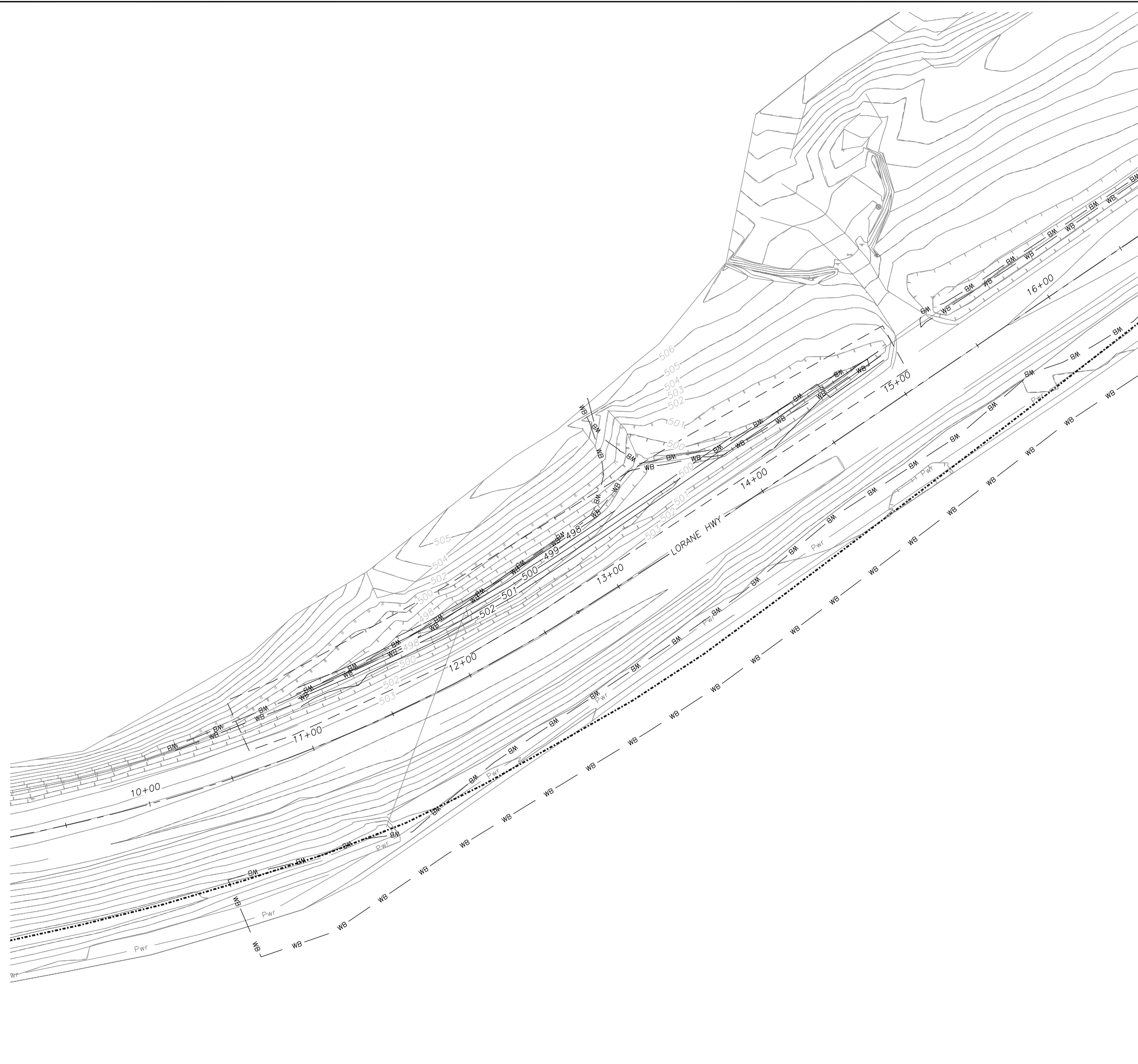
**SHEET NO.
EC4**

DATE	REVISION	APPROD

DATE 6/22/20 PROJECT NO. 367798902 ROAD NO. 400100

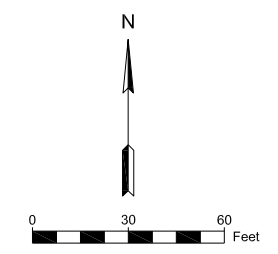
**LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION**
DANIEL M. HURLEY, P.E. PUBLIC WORKS DIRECTOR
PEGGY A. KEPPLER, PE, PLS. COUNTY ENGINEER



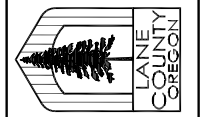
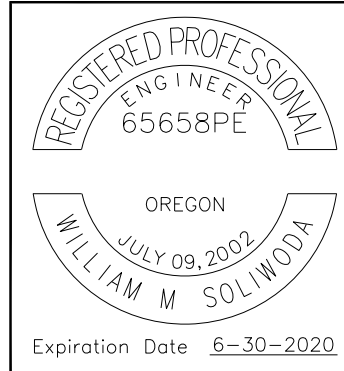


LEGEND

- WORK LIMITS
- (CD)— CHECK DAM



70%
PRELIMINARY



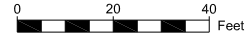
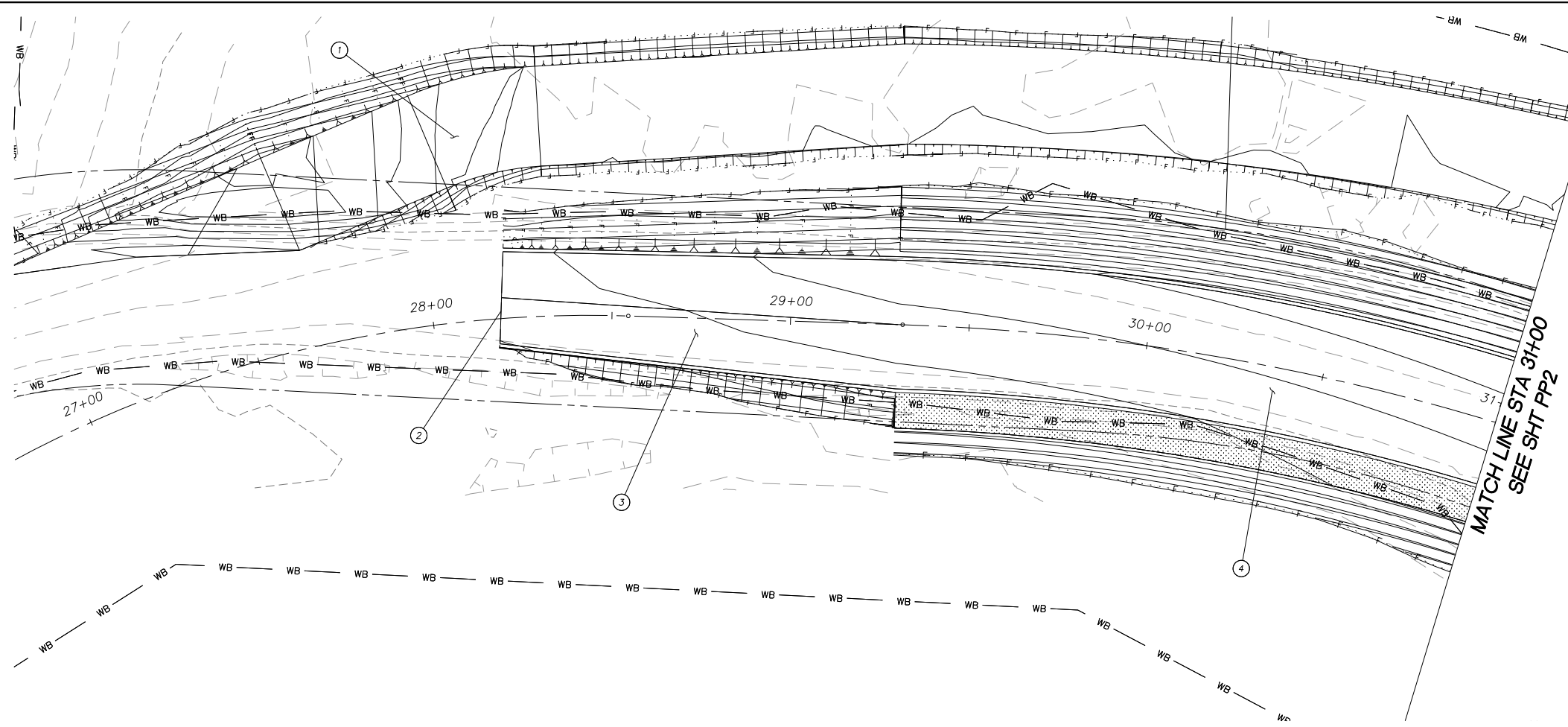
**LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION**
DANIEL M. HURLEY, P.E. PUBLIC WORKS DIRECTOR
PEGGY A. KEPPLER, PE, PLS. COUNTY ENGINEER

REVISION	DATE	APPROV

**TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
EROSION CONTROL
LORANE HWY - STA 11+00 TO 15+00**

DATE 6/22/20 PROJECT NO. 367786902 ROAD NO. 400100

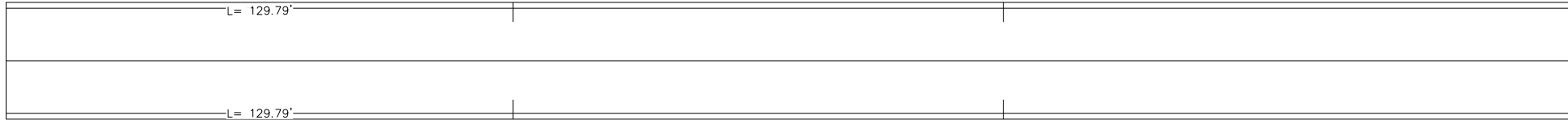
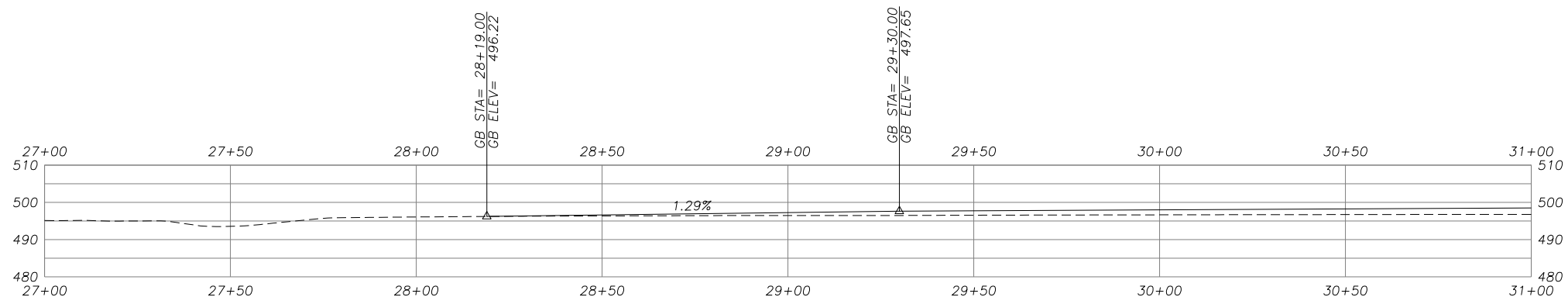
**SHEET NO.
E05**



CONSTRUCTION NOTES

- ① STA 27+30 TO STA 43+00
CONSTRUCT DETOUR ROAD SECTION M
SEE SHEET TYP5
- ② STA 28+19
SAWCUT EXISTING PAVEMENT
- ③ STA 28+19 TO STA 29+30
CONSTRUCT ROADWAY TRANSITION SECTION A
SEE SHEET TYP1
- ④ STA 29+30 TO STA 31+98
CONSTRUCT ROADWAY TYPICAL SECTION B
SEE SHEET TYP1

VEGETATED FILTER STRIP



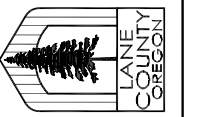
STA 28+30
FULL SUPER
LEFT LANE= 6.0%
RIGHT LANE= -6.0%

STA 29+55
FULL SUPER
LEFT LANE= 6.0%
RIGHT LANE= -6.0%

70%
PRELIMINARY



Expiration Date 06-30-2021



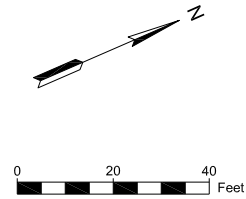
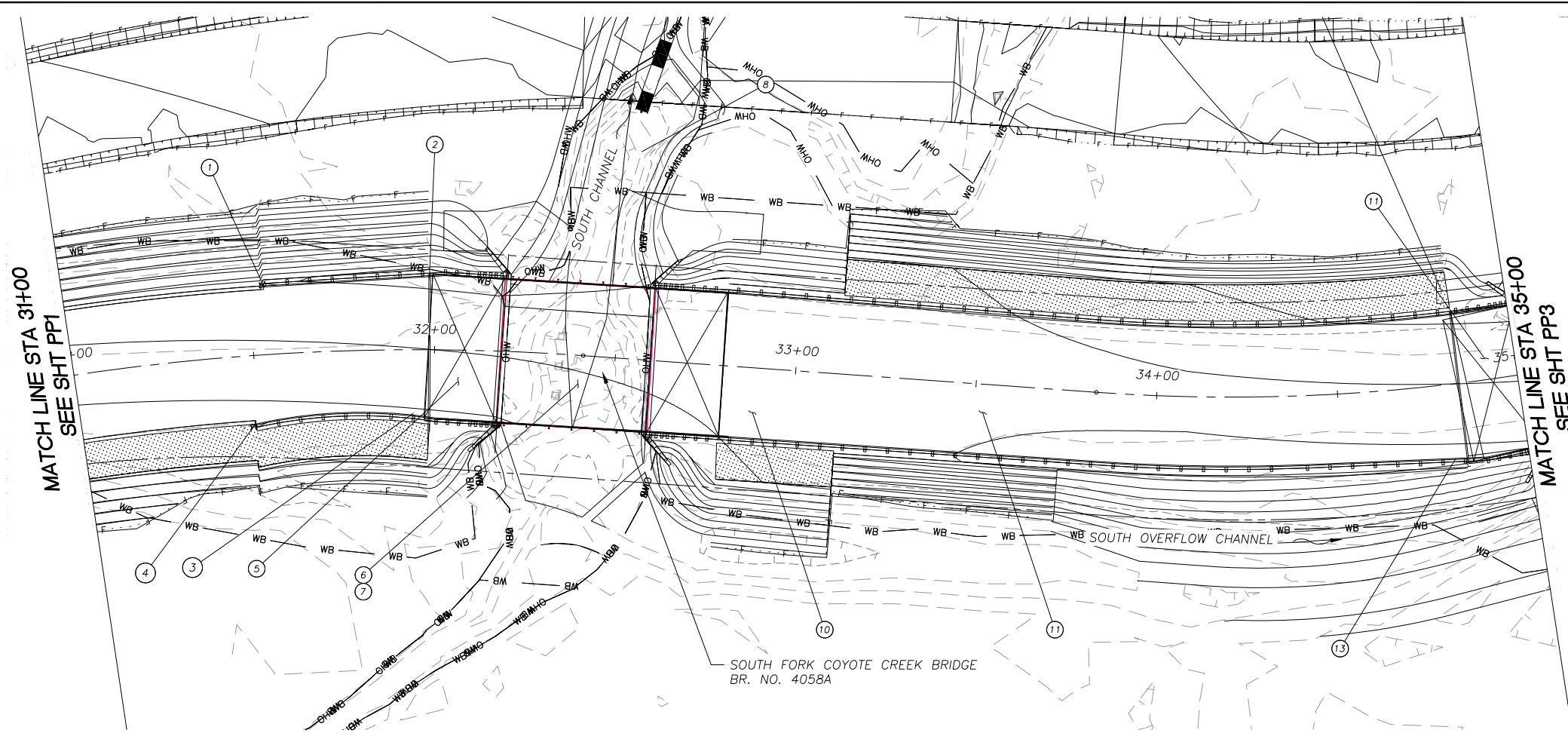
**LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION**
DANIEL M. HURLEY, P.E. PUBLIC WORKS DIRECTOR
PEGGY A. KEPPLER, PE, PLS. COUNTY ENGINEER

REVISION	DATE	APPROV

**TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
ROADWAY PLAN & PROFILE
STA 27+00 TO 31+00**

PROJECT NO. 367798902
ROAD NO. 400100
DATE 6/25/20

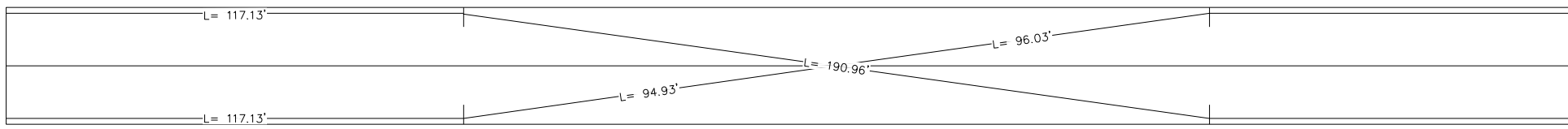
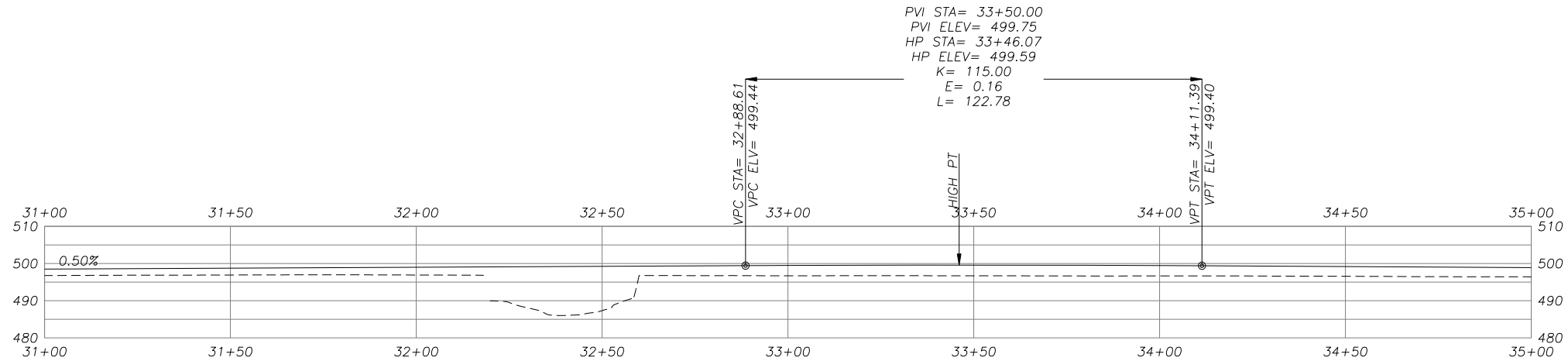
SHEET NO.
PP1



- CONSTRUCTION NOTES**
- ① STA 31+54, 17.3' L TO STA 35+03, 20.6' L
CONSTRUCT GUARDRAIL TERMINAL, TYPE MSKT
CONSTRUCT GUARDRAIL TRANSITION
CONSTRUCT 31" GUARDRAIL, TYPE THRIE BEAM BRIDGE RAIL, 37.5'
CONSTRUCT GUARDRAIL TRANSITION
CONSTRUCT 31" GUARDRAIL, TYPE 2A, 205'
CONSTRUCT GUARDRAIL TRANSITION
 - ② STA 31+54, 17.2' L TO STA 32+18, 21.0' L
CONSTRUCT ASPHALT APPROACH
 - ③ STA 31+62, 17.4' R TO STA 31+98, 20.0' R
CONSTRUCT ASPHALT APPROACH
 - ④ STA 31+49, 18.9' R TO STA 35+03, 21.4' R
CONSTRUCT GUARDRAIL TERMINAL, TYPE MSKT
CONSTRUCT GUARDRAIL TRANSITION
CONSTRUCT 31" GUARDRAIL, TYPE THRIE BEAM BRIDGE RAIL, 37.5'
CONSTRUCT GUARDRAIL TRANSITION
CONSTRUCT 31" GUARDRAIL, TYPE 2A, 216'
CONSTRUCT GUARDRAIL TRANSITION
 - ⑤ STA 31+98 TO STA 32+18
CONSTRUCT ROADWAY TYPICAL SECTION C
SEE SHEET TYP1
 - ⑥ STA 32+18 TO STA 32+60
CONSTRUCT ROADWAY TYPICAL SECTION D
SEE SHEET TYP2
 - ⑦ STA 32+18 TO STA 32+60
CONSTRUCT BRIDGE WIDENING AND RAISING
 - ⑧ STA 32+44
CONSTRUCT TEMPORARY 36" HDPE PIPE
 - ⑨ STA 32+60 TO STA 32+80
CONSTRUCT ROADWAY TYPICAL SECTION C
SEE SHEET TYP1
 - ⑩ STA 32+80 TO STA 33+12
CONSTRUCT ROADWAY TYPICAL SECTION E
SEE SHEET TYP2
 - ⑪ STA 33+12 TO STA 34+83
CONSTRUCT ROADWAY TYPICAL SECTION F
SEE SHEET TYP2
 - ⑫ STA 34+83 TO STA 35+03
CONSTRUCT ROADWAY TYPICAL SECTION C
SEE SHEET TYP1
 - ⑬ STA 34+20, 20.0' R TO STA 35+03, 21.9' R
CONSTRUCT ASPHALT APPROACH

VEGETATED FILTER STRIP

PVI STA= 33+50.00
PVI ELEV= 499.75
HP STA= 33+46.07
HP ELEV= 499.59
K= 115.00
E= 0.16
L= 122.78



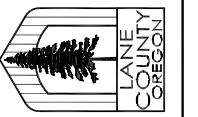
STA 32+17
FULL SUPER
LEFT LANE= 6.0%
RIGHT LANE= -6.0%

STA 34+08
FULL SUPER
LEFT LANE= -6.0%
RIGHT LANE= 6.0%

70%
PRELIMINARY



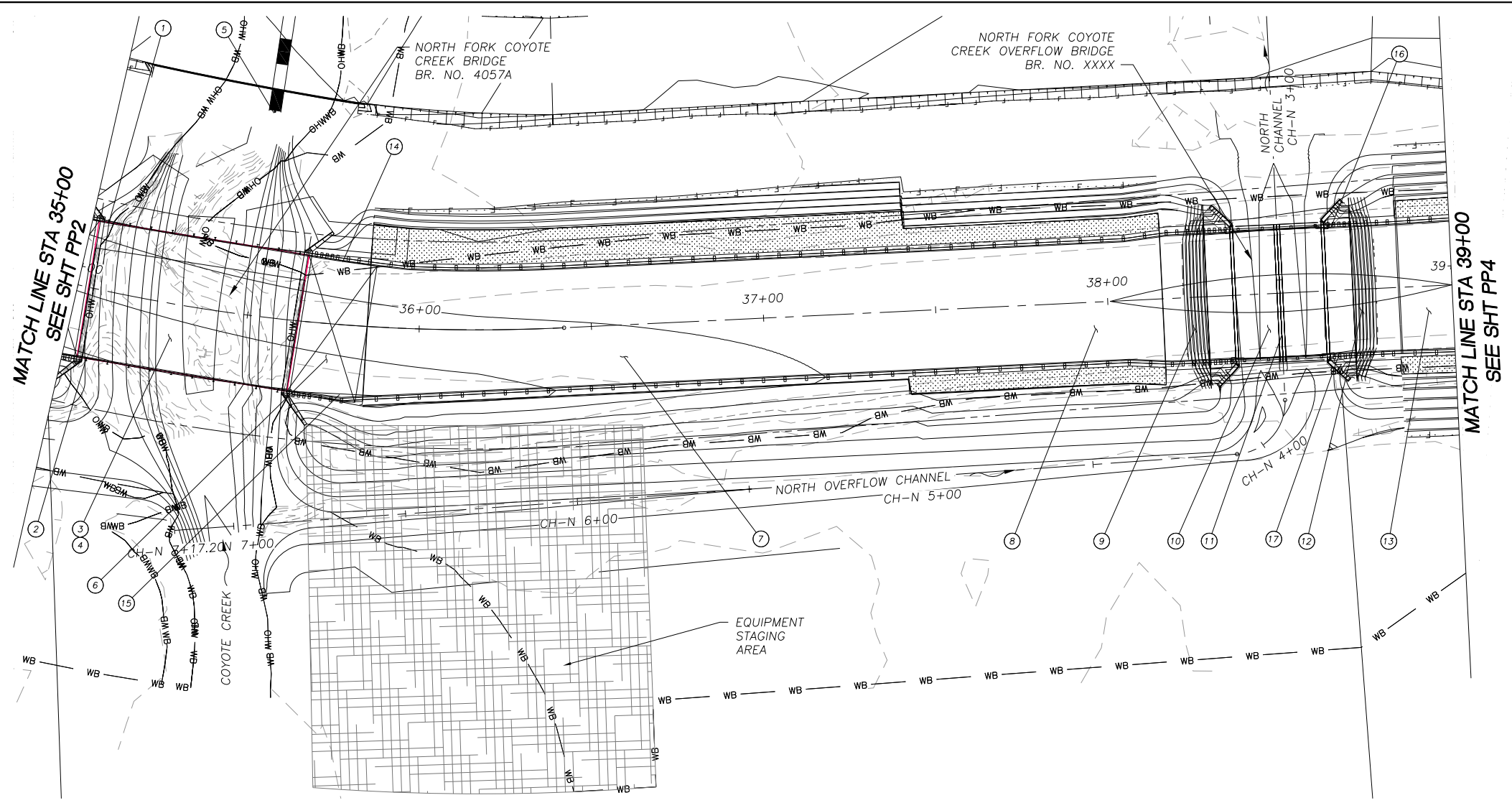
Expiration Date 06-30-2021



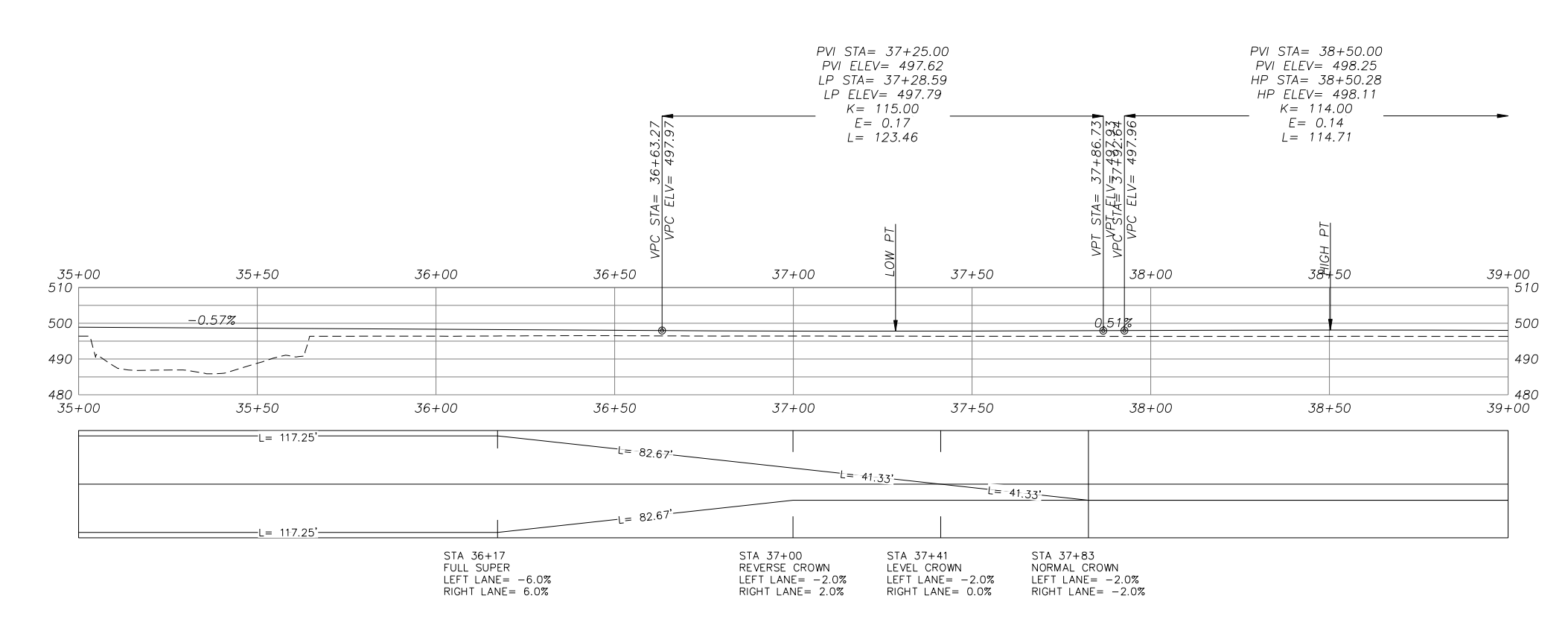
LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DANIEL M. HURLEY, P.E. PEGGY A. KEPPLER, PE, PLS.
PUBLIC WORKS DIRECTOR COUNTY ENGINEER

APPROV	REVISION	DATE

TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
ROADWAY PLAN & PROFILE
STA 31+00 TO 35+00
PROJECT NO. 367798902 ROAD NO. 400100
DATE 6/25/20
SHEET NO. PP2



- CONSTRUCTION NOTES**
- STA 35+03, 20.6' L TO STA 39+32, 19.0' L
CONSTRUCT THRIE BEAM GUARDRAIL, 56'. SEE ODOT STD. DWG. NO. RD409
CONSTRUCT THRIE BEAM RAIL AND TRANSITION. SEE ODOT STD. DWG. NO. BR233
CONSTRUCT 31" GUARDRAIL, TYPE 2A, 232'
CONSTRUCT 2-TUBE CURB MOUNT RAIL TRANSITION. SEE ODOT STD. DWG. NO. BR207
CONSTRUCT 2-TUBE CURB MOUNT RAIL, 26.4'. SEE ODOT STD. DWG. NO. BR206
CONSTRUCT 2-TUBE CURB MOUNT RAIL TRANSITION. SEE ODOT STD. DWG. NO. BR207
CONSTRUCT GUARDRAIL TERMINAL, TYPE MSKT. SEE ODOT STD. DWG. NO. RD420
 - STA 35+03, 21.5' R TO STA 39+32, 19.0' R
CONSTRUCT THRIE BEAM GUARDRAIL, 56'. SEE ODOT STD. DWG. NO. RD409
CONSTRUCT THRIE BEAM RAIL AND TRANSITION. SEE ODOT STD. DWG. NO. BR233
CONSTRUCT 31" GUARDRAIL, TYPE 2A, 241'
CONSTRUCT 2-TUBE CURB MOUNT RAIL TRANSITION. SEE ODOT STD. DWG. NO. BR207
CONSTRUCT 2-TUBE CURB MOUNT RAIL, 26.4'. SEE ODOT STD. DWG. NO. BR206
CONSTRUCT 2-TUBE CURB MOUNT RAIL TRANSITION. SEE ODOT STD. DWG. NO. BR207
CONSTRUCT GUARDRAIL TERMINAL, TYPE MSKT. SEE ODOT STD. DWG. NO. RD420
 - STA 35+03 TO STA 35+65
CONSTRUCT ROADWAY TYPICAL SECTION D
SEE SHEET TYP2
 - STA 35+03 TO STA 35+65
CONSTRUCT BRIDGE WIDENING AND RAISING
 - STA 35+23
CONSTRUCT TEMPORARY 36" HDPE PIPE
 - STA 35+65 TO STA 35+85
CONSTRUCT ROADWAY TYPICAL SECTION C
SEE SHEET TYP1
 - STA 35+85 TO STA 37+41
CONSTRUCT ROADWAY TYPICAL SECTION J
SEE SHEET TYP4
 - STA 37+41 TO STA 38+16
CONSTRUCT ROADWAY TYPICAL SECTION G
SEE SHEET TYP3
 - STA 38+16 TO STA 38+36
CONSTRUCT ROADWAY TYPICAL SECTION H
SEE SHEET TYP3
 - STA 38+36 TO STA 38+64
CONSTRUCT ROADWAY TYPICAL SECTION D
SEE SHEET TYP2
 - STA 38+50
CONSTRUCT 2, 12' X 6' CONCRETE BOX CULVERTS, 40'
 - STA 38+64 TO STA 38+84
CONSTRUCT ROADWAY TYPICAL SECTION H
SEE SHEET TYP3
 - STA 38+84 TO STA 40+15
CONSTRUCT ROADWAY TYPICAL SECTION I
SEE SHEET TYP3
 - STA 35+65, 20' L TO STA 35+96, 18' L
CONSTRUCT ASPHALT APPROACH
 - STA 35+63, 20' R TO STA 36+37, 18' R
CONSTRUCT ASPHALT APPROACH
 - STA 38+82, 19' L TO STA 39+32, 20' L
CONSTRUCT ASPHALT APPROACH
 - STA 38+82, 19' R TO STA 39+32, 20' R
CONSTRUCT ASPHALT APPROACH

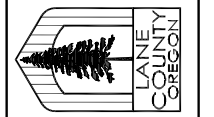


VEGETATED FILTER STRIP
 EQUIPMENT STAGING AREA

REGISTERED PROFESSIONAL ENGINEER
 83799PE
 OREGON
 JANUARY 10, 2017
 SEAN C KOVENSKY

70%
 PRELIMINARY

Expiration Date 06-30-2021



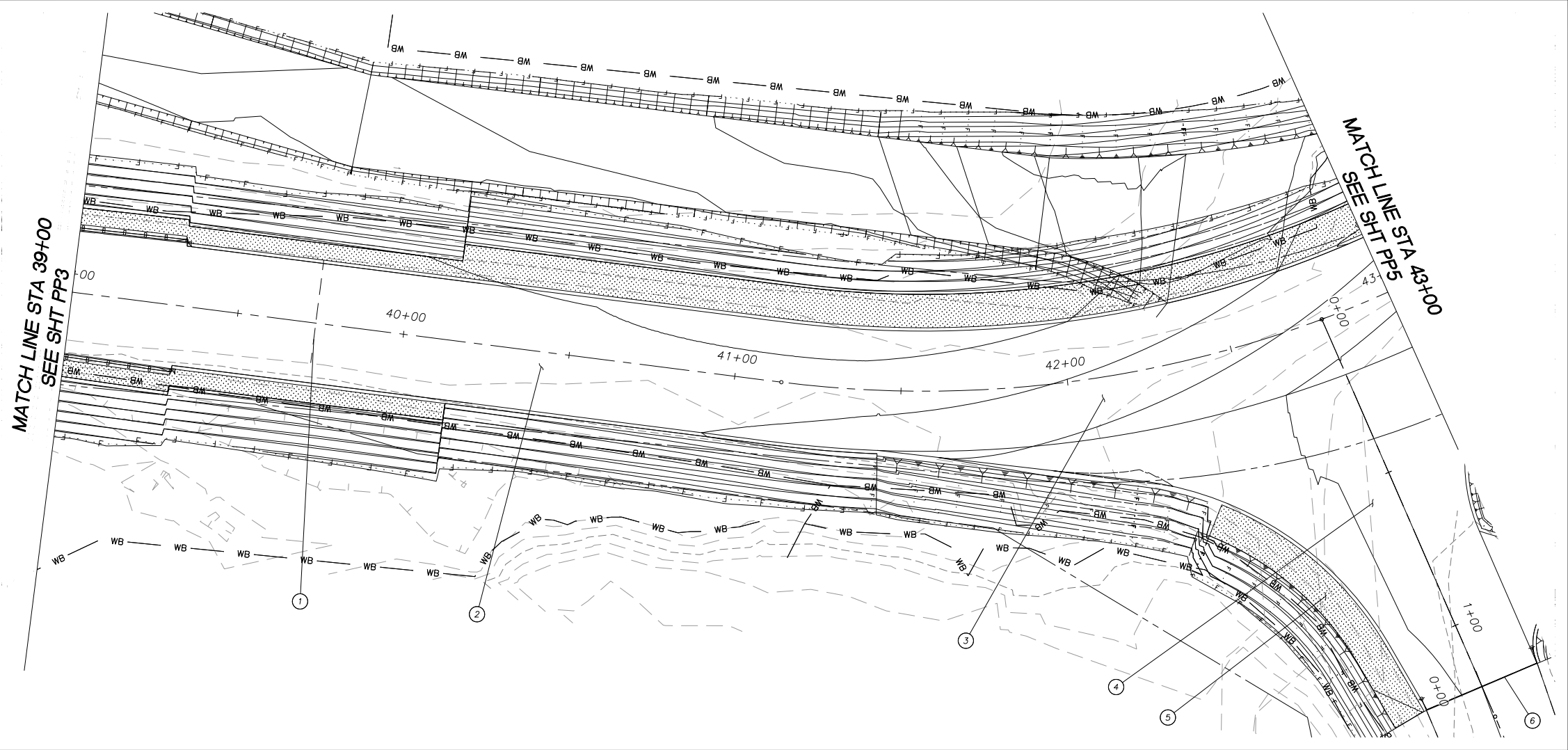
LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
 DANIEL M. HURLEY, P.E.
 PUBLIC WORKS DIRECTOR
 PEGGY A. KEPPLER, PE, PLS.
 COUNTY ENGINEER


APPROV	REVISION	DATE

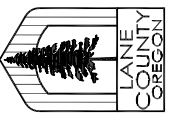
TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
ROADWAY PLAN & PROFILE
STA 35+00 TO 39+00

PROJECT NO. 367798902
 ROAD NO. 400100
 DATE 6/25/20

SHEET NO.
PP3



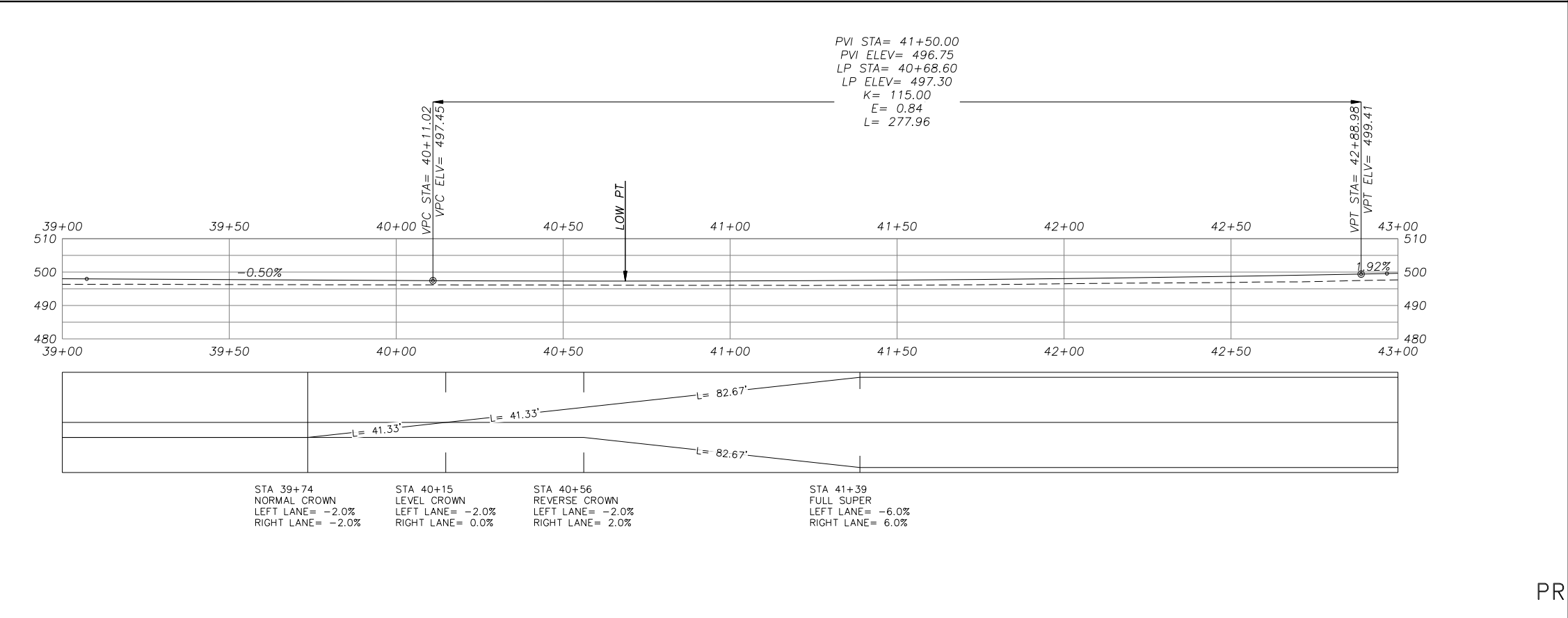
- CONSTRUCTION NOTES**
- ① STA 39+74
SAWCUT EXISTING PAVEMENT
 - ② STA 40+15 TO STA 41+44
CONSTRUCT ROADWAY TYPICAL SECTION J
SEE SHEET TYP4
 - ③ STA 41+44 TO STA 43+94
CONSTRUCT ROADWAY TYPICAL SECTION K
SEE SHEET TYP4
 - ④ STA 41+14.06 R TO STA 44+13.26 R
CONSTRUCT ASPHALT APPROACH
CONSTRUCT 12" AGGREGATE BASE
CONSTRUCT 1/2" ACP MIXTURE, 6" DEEP
 - ⑤ STA 42+50 R
CONSTRUCT 10' WIDE FILTER STRIP
SEE SHEET D1
 - ⑥ STA 42+75, 119' R
SAWCUT EXISTING PAVEMENT
-  VEGETATED FILTER STRIP




LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY, P.E.
PUBLIC WORKS DIRECTOR

PEGGY A. KEPPLER, PE, PLS.
COUNTY ENGINEER



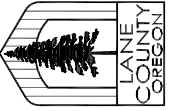
70%
PRELIMINARY



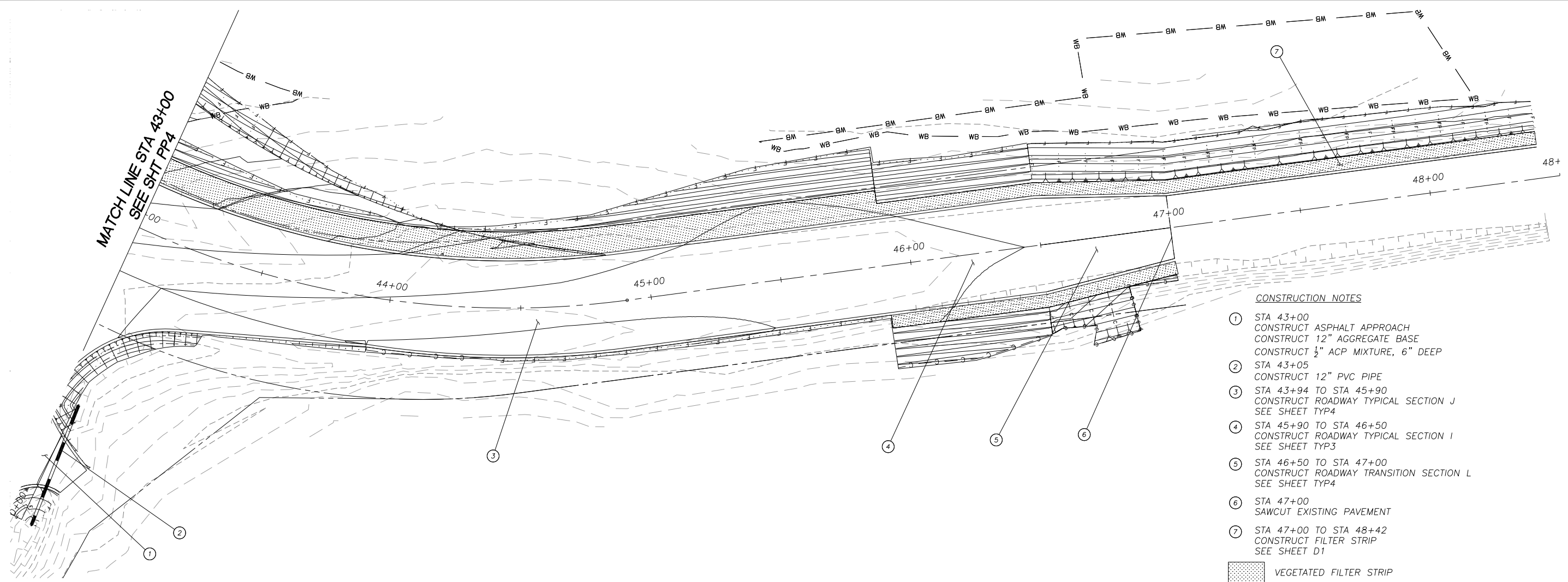
TERRITORIAL HWY-GILLESPIE CORNERS
 RECONSTRUCTION
 ROADWAY PLAN & PROFILE
 STA 39+00 TO 43+00

SHEET NO.
PP4

APPROV	REVISION	DATE	PROJECT NO.	ROAD NO.
			367798902	400100
			DATE	6/25/20

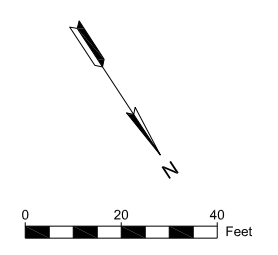
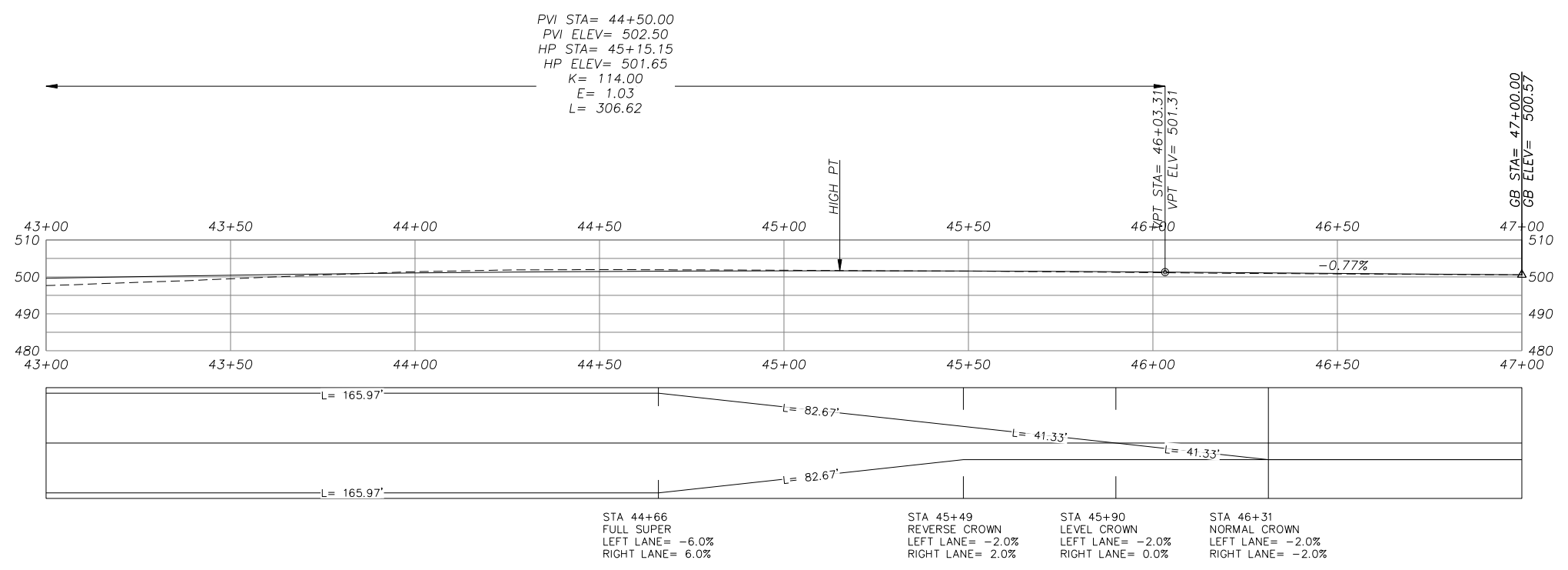


LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
 DANIEL M. HURLEY, P.E. PEGGY A. KEPPLER, PE, PLS.
 PUBLIC WORKS DIRECTOR COUNTY ENGINEER

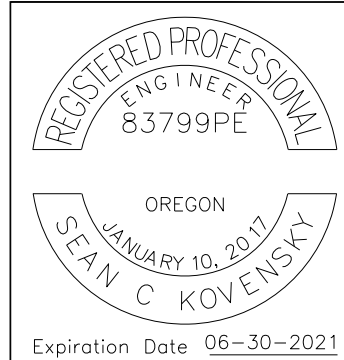


- CONSTRUCTION NOTES**
- ① STA 43+00
CONSTRUCT ASPHALT APPROACH
CONSTRUCT 12" AGGREGATE BASE
CONSTRUCT 1/2" ACP MIXTURE, 6" DEEP
 - ② STA 43+05
CONSTRUCT 12" PVC PIPE
 - ③ STA 43+94 TO STA 45+90
CONSTRUCT ROADWAY TYPICAL SECTION J
SEE SHEET TYP4
 - ④ STA 45+90 TO STA 46+50
CONSTRUCT ROADWAY TYPICAL SECTION I
SEE SHEET TYP3
 - ⑤ STA 46+50 TO STA 47+00
CONSTRUCT ROADWAY TRANSITION SECTION L
SEE SHEET TYP4
 - ⑥ STA 47+00
SAWCUT EXISTING PAVEMENT
 - ⑦ STA 47+00 TO STA 48+42
CONSTRUCT FILTER STRIP
SEE SHEET D1
- VEGETATED FILTER STRIP

APPROV	REVISION	DATE



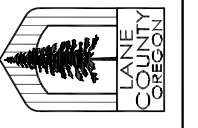
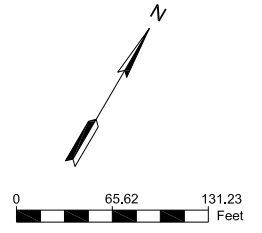
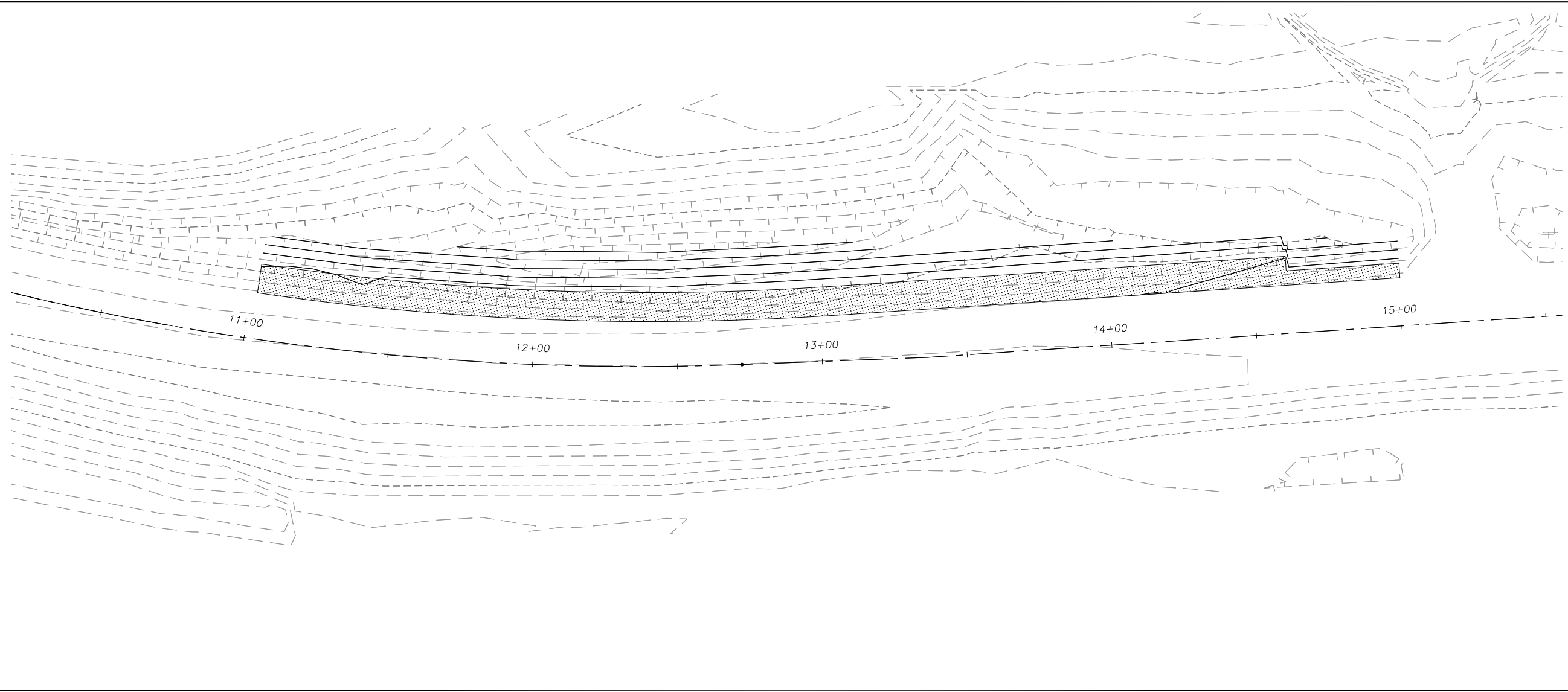
70%
 PRELIMINARY



TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
ROADWAY PLAN & PROFILE
STA 43+00 TO 47+00

PROJECT NO. 367798902 ROAD NO. 400100
 DATE 6/25/20

SHEET NO.
PP5



LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DANIEL M. HURLEY, P.E. PUBLIC WORKS DIRECTOR
PEGGY A. KEPPLER, PE, PLS. COUNTY ENGINEER

REVISION	DATE	APPROV

 VEGETATED FILTER STRIP

TERRITORIAL HWY-GILLESPIE CORNERS
RECONSTRUCTION
ROADWAY PLAN & PROFILE
LORANE HWY - STA 11+00 TO 15+00
 PROJECT NO. 367798902
 ROAD NO. 400100
 DATE 6/5/20



70%
 PRELIMINARY

Expiration Date 6-30-2020

SHEET NO.
PP6

Appendix B

Agency and Tribal Coordination and Consultation



Oregon

Tina Kotek, Governor

Parks and Recreation Department

Oregon Heritage/
State Historic Preservation Office
725 Summer St. NE, Suite C
Salem, OR 97301-1266
(503) 986-0690
Fax (503) 986-0793
oregonheritage.org



130 228th Street SW
Bothell, WA 98021-9796

RE: SHPO Case No. 23-1727

FEMA HMGP4562-27, Gillespie Corners - Lane County, Oregon
Road raising and widening project
19S 5W 14, 23, Lane County

Dear Philip Fisher:

Thank you for submitting information for the undertaking referenced above. We concur that there will be no historic properties affected for this undertaking.

This concludes consultation with our office under Section 106 of the National Historic Preservation Act (per 36 CFR Part 800) and/or Oregon Revised State (ORS) 358.905-961, ORS 358.653, and ORS 97.740-760 for archaeological resources. If you have not already done so, be sure to consult with all appropriate Native American tribes and interested parties regarding the proposed undertaking.

If the undertaking design or effect changes or if additional historic properties are identified, further consultation with our office will be necessary before proceeding with the proposed undertaking. Additional consultation regarding this case must be sent through Go Digital. In order to help us track the undertaking accurately, reference the SHPO case number above in all correspondence.

Our office has assigned the report SHPO biblio number 34329. Details will be available in the bibliographic database.

Please contact our office if you have any questions, comments or need additional assistance.

Sincerely,

Jamie French, M.A.

Assistant State Archaeologist

(503) 979-7580

Jamie.French@oprds.oregon.gov



FEMA

September 13, 2023

Jonathan W., Smith, Sr., Chairman
Confederated Tribes of Warm Springs
1233 Veterans Street
P.O. Box C
Warm Springs, Oregon 97761
Sent via email

RE: FEMA Hazard Mitigation Grant Program 4562-27, Gillespie Corners, Lane
County Public Works Department

Dear Chairman Smith:

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to fund the Lane County Public Works Department (Applicant), through the Oregon Department of Emergency Management (OEM), for road raising and widening project (Undertaking). This funding is available from FEMA's Hazard Mitigation Grant Program (HMGP). The proposed Undertaking is being reviewed pursuant to Section 106 of the National Historic Preservation Act (NHPA), as amended. The Lane County Public Works Department contracted with Heritage Research Associates, Inc. (HRA) in 2020, prior to this becoming a FEMA Undertaking, to complete a cultural resources assessment and their draft report is enclosed.

Proposed Undertaking

The proposed Undertaking will correct vertical and horizontal alignment deficiencies as well as increase sight distances in this section of the Territorial Highway. The project is located approximately 4.5 miles north of Loraine in Lane County (centered around Latitude 43.90738, Longitude -123.25095) (T19S, R5W, Sections 14 and 23), as shown on Figure 1 of the enclosed report. The project will widen and reconstruct pavement along 2,000 feet of roadway to a width of 34 feet, including two 11-foot vehicle travel lanes, and six-foot wide shoulders as well as raise the road surface by two to three feet. The project will also raise and widen the two bridges at Coyote Creek. In addition, a temporary detour road will be constructed along the west side of the road. Vegetative filter strips will be placed along the Right-of-Way (ROW) on both the Territorial Highway and the Lorane Highway adjacent to impervious surfaces to reduce impacts of sheet flow and the velocity of stormwater. Finally, temporary staging will occur within the existing ROW and closed off portions of existing improved surfaces.

Area of Potential Effects

FEMA has determined that the Area of Potential Effects (APE) for the Undertaking, as shown on Figure A and Figure B is approximately 5.7 acres and includes the road and ROW to be widened and raised as well as the temporary detour route that will be placed on the surface to the west and

removed after completion as well as the placement of vegetative filter strips for stormwater conveyance treatment along the road shoulders. The small rectangular section of the APE in the northeast corner will only have vegetative filter strips placed within the existing ROW that was previously disturbed and built-up during construction of the Loraine Highway.

Historic Property Identification and Evaluation

The Lane County Public Works Department's contractor, HRA, conducted a pedestrian survey, including ten (10) shovel probes (SPs) of the approximately 5.7 acres for the Undertaking as show in in Figure 2 of the enclosed report. No precontact or historic cultural resources were identified on the surface or below ground. We have also provided a copy of HRA's report to the Oregon SHPO for review.

Determination of Effects

Barring additional information from the Tribe and based on the assessment results, FEMA has determined the Undertaking will result in No Historic Properties Affected. We respectfully request your review of HRA's report and, if appropriate, your concurrence with FEMA's findings or additional comment. Should you have any questions, please contact Philip Fisher at (425) 471-9018 or philip.fisher@fema.dhs.gov. Thank you in advance.

Sincerely,
PHILIP R
FISHER
For Science Kilner
Regional Environmental Officer

Digitally signed by
PHILIP R FISHER
Date: 2023.09.15
15:07:37 -07'00'

cc. Robert Brunoe, Tribal Historic Preservation Officer (via email)

Enclosures:
HRA Cultural Resources Report

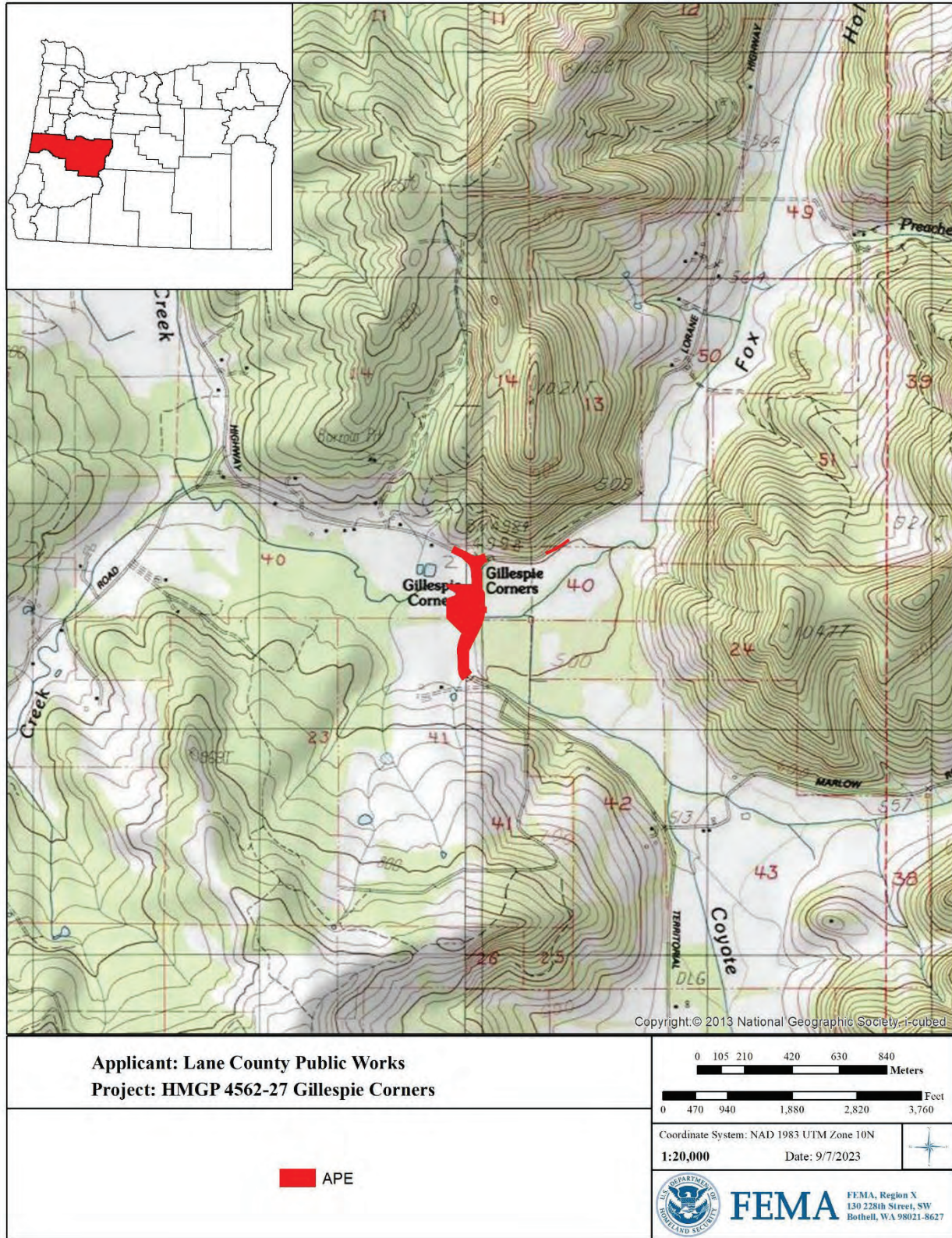


Figure A. Gillespie Corners APE shown on a 1:24,000 USGS topographic map.

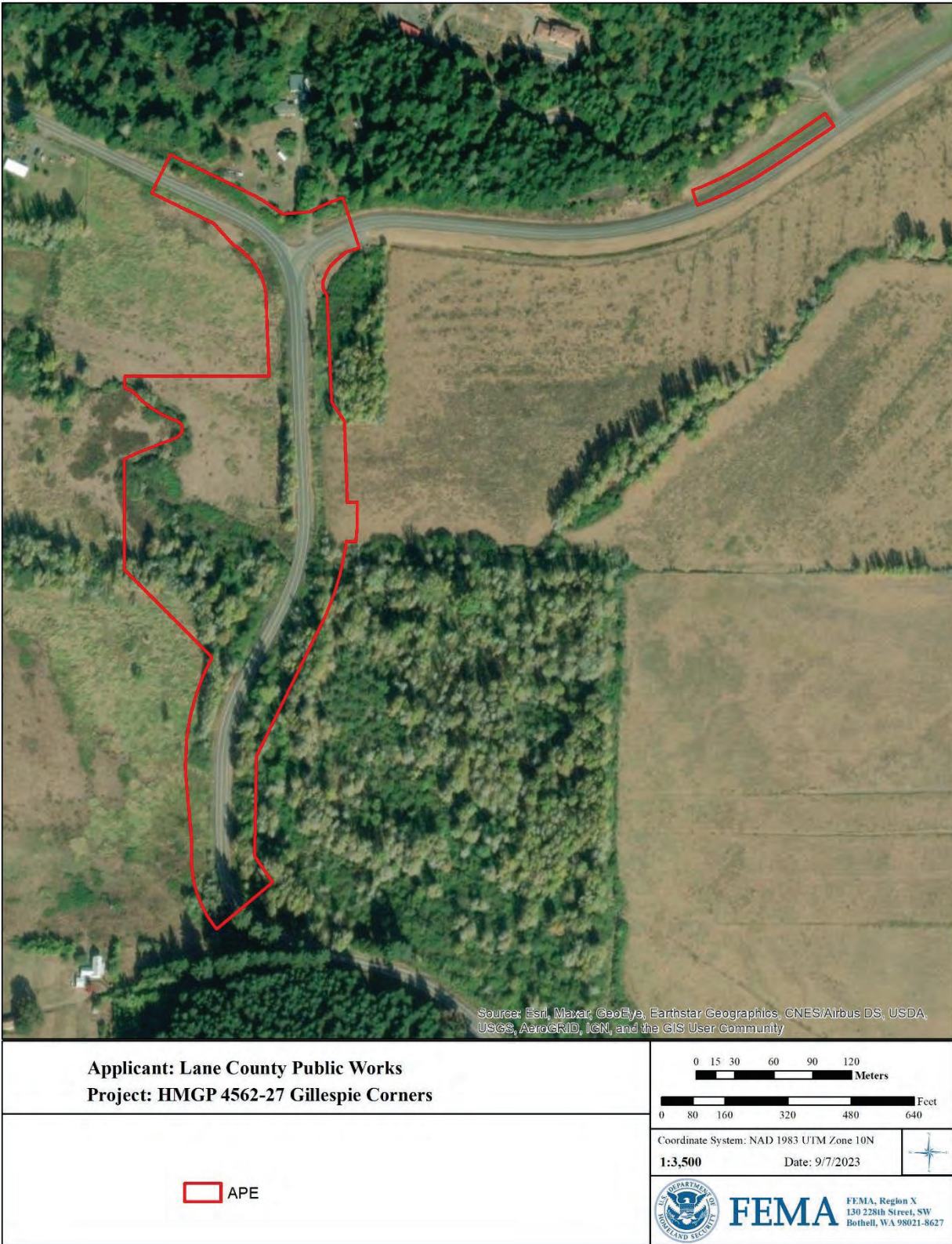


Figure B. Gillespie Corners APE shown on a recent aerial image.

Appendix C

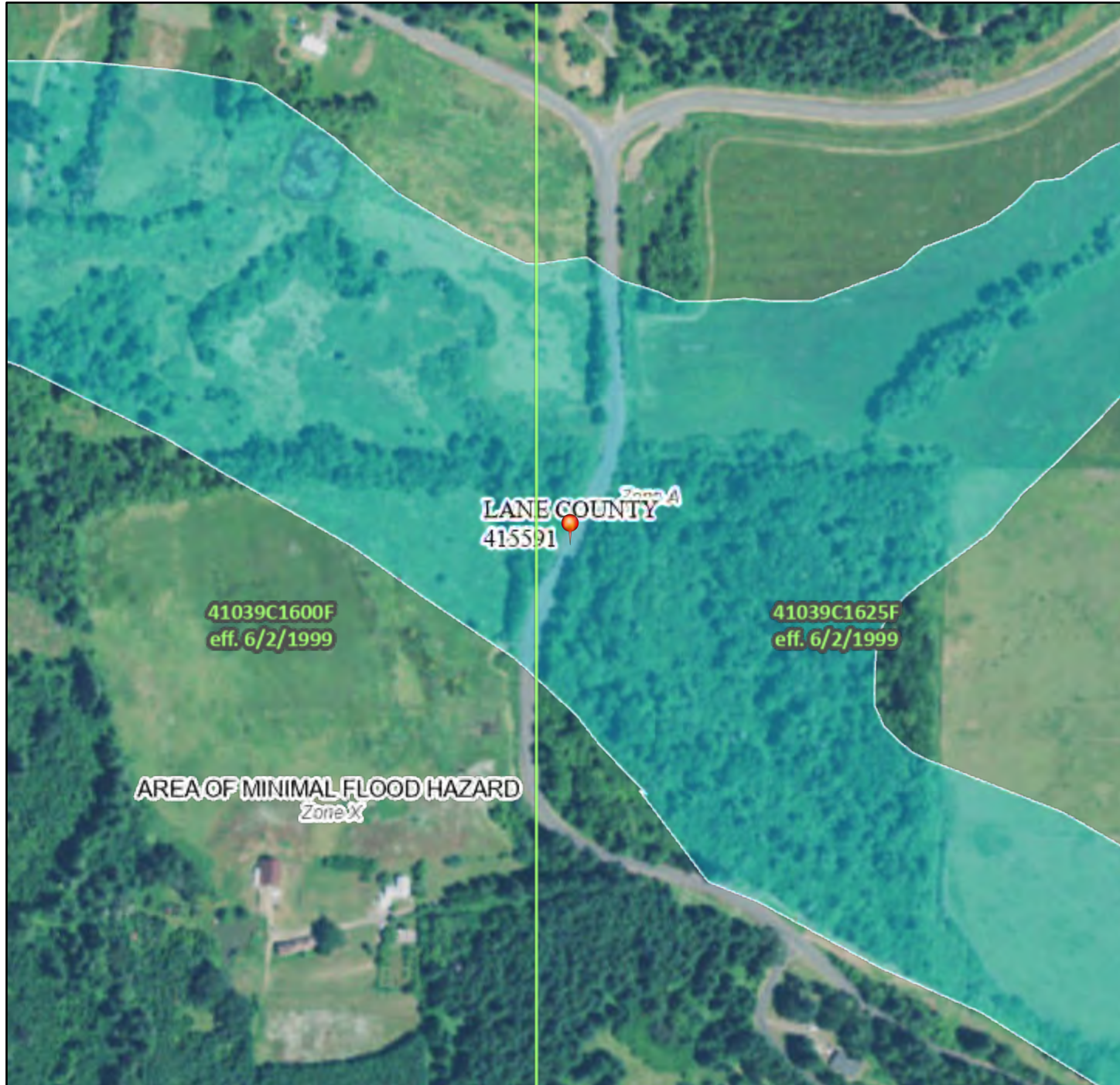
FEMA FIRM Floodplain Panels

41039C1600F and 41039C1625F

National Flood Hazard Layer FIRMMette


























123°15'22"W 43°54'40"N





0 250 500 1,000 1,500 2,000 Feet 1:6,000
 Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	 Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>  With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>  Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>  Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>  Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>  Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS	 NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>  Effective LOMRs  Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES	 Channel, Culvert, or Storm Sewer  Levee, Dike, or Floodwall
OTHER FEATURES	 20.2 Cross Sections with 1% Annual Chance Water Surface Elevation  17.5 Coastal Transect  Base Flood Elevation Line (BFE)  Limit of Study  Jurisdiction Boundary  Coastal Transect Baseline  Profile Baseline  Hydrographic Feature
MAP PANELS	 Digital Data Available  No Digital Data Available  Unmapped



 The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **5/10/2021 at 3:58 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix D

Floodplains and Wetlands Eight- Step Analysis

Executive Order 11988 Floodplain Management Checklist (44 CFR Part 9)

Project Information

Project Title: **Territorial Highway – Gillespie Corners Flood Mitigation and Reconstruction**

Location: **Territorial Highway at its intersection with Lorane Highway, an area commonly referred to as Gillespie Corners.**

Description of Proposed Action: **Lane County Public Works Department proposes to mitigate flood risk to a section of roadway, including two bridges, on Territorial Highway. The roadway and two bridges will be raised above the base flood elevation. In addition, overflow channels will be constructed, and existing channels widened to increase hydraulic capacity.**

Applicability

Actions which have the potential to affect floodplains or their occupants, or which are subject to potential harm by location in floodplains.

Will the proposed action potentially adversely affect the floodplain or support floodplain development? **No.**

Will the proposed action potentially be adversely affected by the floodplain? **No. The proposed action, as designed, is intended to increase the hydraulic capacity of the bridges and avoid flooding and temporary roadway closures.**

Critical Action

Determine whether the proposed action is an action for which even a slight chance of flooding is too great. Critical actions must be reviewed against the 500-year floodplain.

Is the action a critical action? **No.**

Step 1: Determine Proposed Action Location

Determine whether the proposed action is located in the 100-year floodplain (500-year floodplain for critical actions); and whether it has the potential to affect or be affected by floodplain or wetland (44 CFR Section 9.7).

Floodplain Determination

Flood Hazard Data

Is the project located in a 100-year floodplain as mapped by FEMA FIRM? **Yes. The portion of Territorial Highway where the proposed action would occur traverses the 1,500-foot-wide floodplain associated with Coyote Creek. The project area is divided between FEMA Flood**

Insurance Rate Map (FIRM) panels 41039C1600F and 41039C1625F, effective June 2, 1999. The proposed north bridge improvements, south bridge improvements, and north channel culvert improvements, as well as Territorial Highway roadway widening, are in areas identified on the FIRM as FEMA Zone A, 100-year floodplain.

Is the project located in a 500-year floodplain as mapped by a FEMA FIRM? **No.**

Floodway/Coastal High Hazard Area

Is the project located in a floodway or coastal high hazard area? **No.**

Wetland Determination

Is the project in a wetland as mapped by the National Wetlands Inventory? **Yes. According to the USFWS National Wetlands Inventory Mapper, there are a total of 12 wetland and non-wetland water resources identified in the proposed project area. In the 2021 wetland delineation prepared by David Evans and Associates, Inc. (2021), identified two streams, seven wetlands, and three potentially jurisdictional ditches that meet wetland criteria. See EA Section 4.4.2.**

Scope

All 8 Steps required.

Step 2: Early Public Notice

Notify the public at the earliest possible time of the intent to carry out an action in a floodplain and involve the affected and interested public in the decision-making process. (44 CFR Section 9.8).

Was notice provided as part of a disaster cumulative notice?

Not applicable for Pre-Disaster Mitigation (PDM) Grant Program.

Was a project specific notice provided?

Yes. A project specific noticed was published in The Register-Guard newspaper, which is in general circulation and published in Lane County, Oregon. Additional notices will be provided as part of the NEPA public comment process.

Step 3: Analysis of Practicable Alternatives

Identify and evaluate practicable alternatives to locating the proposed action in a floodplain (including alternate sites, actions, and the “no action” option). If a practicable alternative exists

outside the floodplain, FEMA must locate the proposed action at the alternative site (44 CFR Section 9.9).

See Section 3 of the Draft EA, which describes the no action alternative, the proposed action, and three action alternatives that were considered and dismissed from further analysis.

Alternative Options

Is there a practicable alternative site location outside the 100-year floodplain (or 500-year floodplain for critical actions?) **No.**

Is there an alternative action which has less potential to affect or be affected by the floodplain? **No. There are three alternative actions that were considered and dismissed due to the potential to create new, adverse flood hazards downstream of the project area, or otherwise due to the fact that they did not meet the purpose and need for the proposed action**

The first action alternative, similar to the proposed action, is to raise and widen the two existing bridges; however, this alternative would also construct an approximately 150-foot-long viaduct bridge (i.e., a bridge that consists of a series of arches, piers, or columns) between the two existing bridges. The ground below the viaduct bridge would be excavated to a greater depth to increase the hydraulic capacity of Coyote Creek during flood events. During the evaluation of this alternative, Lane County determined that increasing the hydraulic capacity of Coyote Creek would have the potential to increase the downstream elevation and, by extent, flood hazard risks to downstream properties. Because this alternative would create potential for new adverse flood hazards, it does not meet the purpose and need of the project. See Section 3.3.1 of the Draft EA.

The second action alternative would involve the demolition of the two existing bridges, the construction of a new single viaduct bridge approximately 400-feet in length and raising of the adjacent roadways. The ground below the viaduct bridge would be excavated to a greater depth to increase hydraulic capacity of coyote Creek during flood events. The increased hydraulic capacity, due to deeper excavation of the channel, under this alternative would be great enough that the adjacent roadways could be raised to a lower elevation than under the proposed action (i.e., less than 3 feet). However, Lane County determined that increasing the hydraulic capacity beneath Coyote Creek creates the potential to increase downstream flood elevation and, by extent, flood hazard risk to downstream properties. Because this alternative would create potential for new, adverse flood hazards, it does not meet the purpose and need of the project. See Section 3.3.2 of the Draft EA.

Under the third action alternative the length of the roadway would be abandoned and closed to vehicle traffic. Impacts to emergency services and transport of goods and resulting in lengthy detours for travelers reliant on the regional road network would continue.

Maintenance and repair costs would cease; however, costs associated with roadway closure and detour would continue along with costs associated with roadway decommissioning. Because this alternative would not resolve safety or economic concerns associated with lengthy detours, it does not meet the purpose and need of the project and is therefore not carried forward for analysis in this EA. This alternative would not resolve the lack of hydraulic connectivity within existing channels which in turn results in limits overall health and function of wetlands, floodplains, and water quality. See Section 3.3.3 of the Draft EA.

Is the “no action” alternative the most practicable alternative? **No. Periodic flooding and overtopping of the roadway would continue, and would result in regular roadway closures, impacting provision of emergency services and transport of goods, and resulting in lengthy detours for travelers reliant on the regional road network. The fastest detour route adds approximately 36 miles and 54 minutes, presenting a dangerous situation regarding the provision of emergency services and increased costs for commercial freight. See Section 3.1 of the Draft EA.**

Step 4: Identify Impacts

Identify the potential direct and indirect impacts associated with the occupancy or modification of the floodplains and the potential direct and indirect support of floodplain development that could result from the proposed action (44 CFR Section 9.10).

Is the proposed action based on incomplete information? **No.**

Is the proposed action in compliance with the NFIP? **Yes. Lane County participates in FEMA’s National Flood Insurance Program (NFIP) and will be responsible for the issuance of the permits required when working in the Special Flood Hazard Area (SFHA). However, Lane County does not plan to submit a Letter of Map Revision (LOMR) as the floodplain is Zone A. The hydraulic analysis prepared for the project by Otak, Inc. indicates that it would not raise the base flood elevation. See Section 4.3 of the Draft EA.**

Does the proposed action increase the risk of flood loss? **No. Over the long-term, the reduced flood hazards from the proposed action would benefit nearby residents, businesses, and public and private infrastructure. See Section 4.4.3 of the Draft EA.**

Will the proposed action result in an increased base discharge or increase the flood hazard potential to other properties or structures? **No. The proposed action would result in a general reduction in upstream water-surface elevations between 0.0 feet and 0.1 feet and small local increases of generally less than 0.1 feet downstream of the bridge. The downstream increases are due to changes in the flow distribution, in particular the increase in flow through the North Bridge. This very small local increase will not increase the flood hazard potential to other properties or structures, as there is no other development in this reach.**

Does the proposed action minimize the impact of floods on human health, safety, or welfare? **Yes. The project area has historically experienced recurring flooding that results in unsafe roadway conditions and substantial detours for motorists and emergency service providers. The installation of scour countermeasures and other stormwater features to reduce the likelihood of safety-related issues and public infrastructure damage from flooding.**

Will the proposed action induce future growth and development, which will potentially adversely affect the floodplain? **No. The purpose of the proposed action is to maximize safe and year-round transportation connectivity in this corridor and restore some floodplain values.**

Does the proposed action involve dredging and/or filling of a floodplain? **Yes. The proposed action includes elevating with fill an approximately 2,000-foot roadway segment, new construction of an additional 270-foot-long floodplain overflow channel, improvements to the approximately 325-foot-long overflow channel downstream of the south bridge, construction of two side channels between the proposed north overflow channel and the existing south overflow channel, re-grading and widening the channel under the north bridge, the construction of a temporary 0.5-mile-long detour road, and implementation of scour countermeasures (i.e., riprap revetment) at the bridges. See Section 3.2.4 of the Draft EA.**

Will the proposed action result in the discharge of pollutants into the floodplain? **Yes. Lane County Public Works Department will be required to obtain an Oregon Department of Environmental Quality (ODEQ) National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which authorizes the discharge of stormwater from construction sites that disturb 1 or more acres of land. With a Stormwater Pollution Prevention Plan (SWPPP), a requirement for the NPDES Construction General Permit, as well as compliance with permit conditions imposed by the U.S. Army Corps of Engineers (USACE), Oregon Department of Environmental Quality (ODEQ), and Oregon Department of State Lands (DSL), temporary, adverse impacts related to erosion during construction activities would be moderate. See Section 4.4.1 of the Draft EA.**

Does the proposed action avoid the long- and short-term impacts associated with the occupancy and modification of floodplains? **No. The proposed action does not change the previous occupancy and modification of the floodplain. The hydraulic analysis prepared for the project by Otak, Inc. indicates that it would not raise the base flood elevation. See Section 4.3 of the Draft EA.**

Will the proposed action forego an opportunity to restore the natural and beneficial values served by floodplains? **No. Under existing conditions, there is no clear flow path for water**

exiting the downstream opening of the south bridge (04058A). This lack of hydraulic connectivity prevents overflows from rejoining the floodplain and limits overall health and function of downstream floodplain. The proposed project would increase the hydraulic capacity of the bridges where Territorial Highway crosses Coyote Creek and mitigate roadway overtopping up to the 100-year flood event. See Section 4.3.3 of the Draft EA.

Will the proposed action result in an increase to the useful life of a structure or facility? **Yes.** The proposed action has been based on a project useful life of 50 years. Long-term maintenance is also required for the roadway, shoulder, bridges, and altered watercourse.

Will the action encroach on the Floodway in a manner that causes any increase of flood levels within the community during the occurrence of the base flood discharge? **No. There is not a floodway in the project area per FEMA FIRM panels 41039C1600F and 41039C1625F, effective June 2, 1999.**

Step 5: Minimize Impacts

Minimize the potential adverse impacts and support to or within floodplains as identified under Step 4; restore and preserve the natural and beneficial values served by floodplains (44 CFR Section 9.11).

Minimization Measures

Were flood hazard reduction techniques (see NFIP technical bulletins) applied to the proposed action to minimize flood impacts? Note: New construction or substantial improvement of a structure (i.e., walled, or roofed building) requires elevation or flood proofing (non-residential), except for listed Historic Structures. **N/A.**

Identify any flood hazard reduction techniques required as a condition of the grant: **N/A**

Were avoidance and minimization measures applied to the proposed action to minimize the short-term and long-term impacts on the floodplain? **Yes. To address the potential construction-related impacts associated with the temporary detour road and the permanent improvements, the County would be required to obtain an ODEQ NPDES Construction General Permit, which authorizes the discharge of stormwater from construction sites that disturb 1 or more acre of land. As described in Section 6.2 of the Draft EA, construction measures would including the temporary installation of silt fencing and other stormwater best management practices (BMPs). Over the long-term the proposed project would increase the hydraulic capacity of the bridges where Territorial Highway crosses Coyote Creek and mitigate roadway overtopping up to the 100-year flood event. See Section 4.3.3 of the Draft EA. A full list of project conditions and mitigation measures can be found in Section 6.2 of the Draft EA. These measures include the construction of vegetated filter strips, stabilization of**

new or improved overflow and site channels with biodegrading matting, re-seeding of all affected areas, etc.

Were measures implemented to restore and preserve the natural and beneficial values of the floodplain? **Yes. The County has proposed a series of channel modifications to provide additional hydraulic connectivity, improve flood flows, and increase capacity during storm events. Over the long-term, the reduced flood hazards from the proposed improvements would benefit nearby residents, businesses, and public and private infrastructure.**

Step 6: Reevaluate Practicable Alternatives

Reevaluate the proposed action to first determine if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards to others, and its potential to disrupt floodplain values. Second, evaluate if alternatives preliminarily rejected at Step 3 are practicable in light of the information gained in Steps 4 and 5. FEMA shall not act in a floodplain unless it is the only practicable location (44 CFR Section 9.9).

Is the action still practicable at the floodplain site in light of the exposure to flood risk and ensuing disruption of natural values? **Yes.**

Is the floodplain site the only practicable alternative? **Yes. Territorial Highway serves as a primary access route for emergency services in Lane County.**

Is there any potential to limit the scope or size of the action to increase the practicability of previously rejected non-floodplain sites or alternative actions? **No. None of the other three action alternatives meet the purpose and need for the proposed action.**

Can minimization of harm to or within the floodplain be achieved using all practicable means? **Yes.**

Does the need for action in a floodplain clearly outweigh the requirements of Executive Order? **Yes.**

Step 7: Final Public Notice

Prepare and provide the public with a finding and public explanation of any final decision that the floodplain is the only practicable alternative (44 CFR Section 9.12).

Was notice provided as part of a disaster cumulative notice? **N/A.**

Was a project specific notice provided? **Yes.**

If yes, select the type of notice: **Public notice of the availability of the Environmental Assessment and accompanying 8-step analysis will serve as final notice.**

After providing the final notice, FEMA shall, without good cause shown, wait at least 15 days before carrying out the proposed action.

Step 8: Implementation

Review the implementation and post-implementation phases of the proposed action to ensure that the requirements stated in 44 CFR Section 9.11 are fully implemented. Oversight responsibility shall be integrated into existing processes.

Was grant conditioned on review of implementation and post-implementation phases to ensure compliance of Executive Order 11988? **No.**

The following conditions are not reflected in the Scope of Work and are required: **N/A**