

FILE C:\Users\lspic\Documents\HDR\10382787_NTP_14_HNS_Rds_& Culverts_2024\Project Files\HDR\CAD\Production\DATE 11/4/2025 14:14 LAYOUT A1 CHECKED HARTMAN DESIGNED HARTMAN LOWE DRAFTED MLBS

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

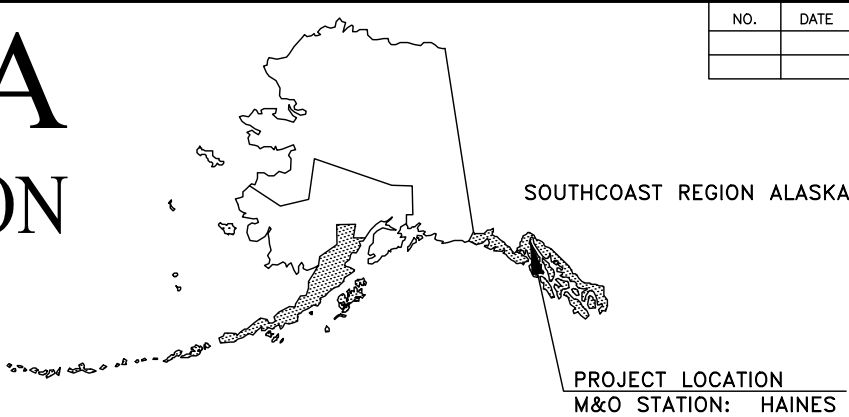
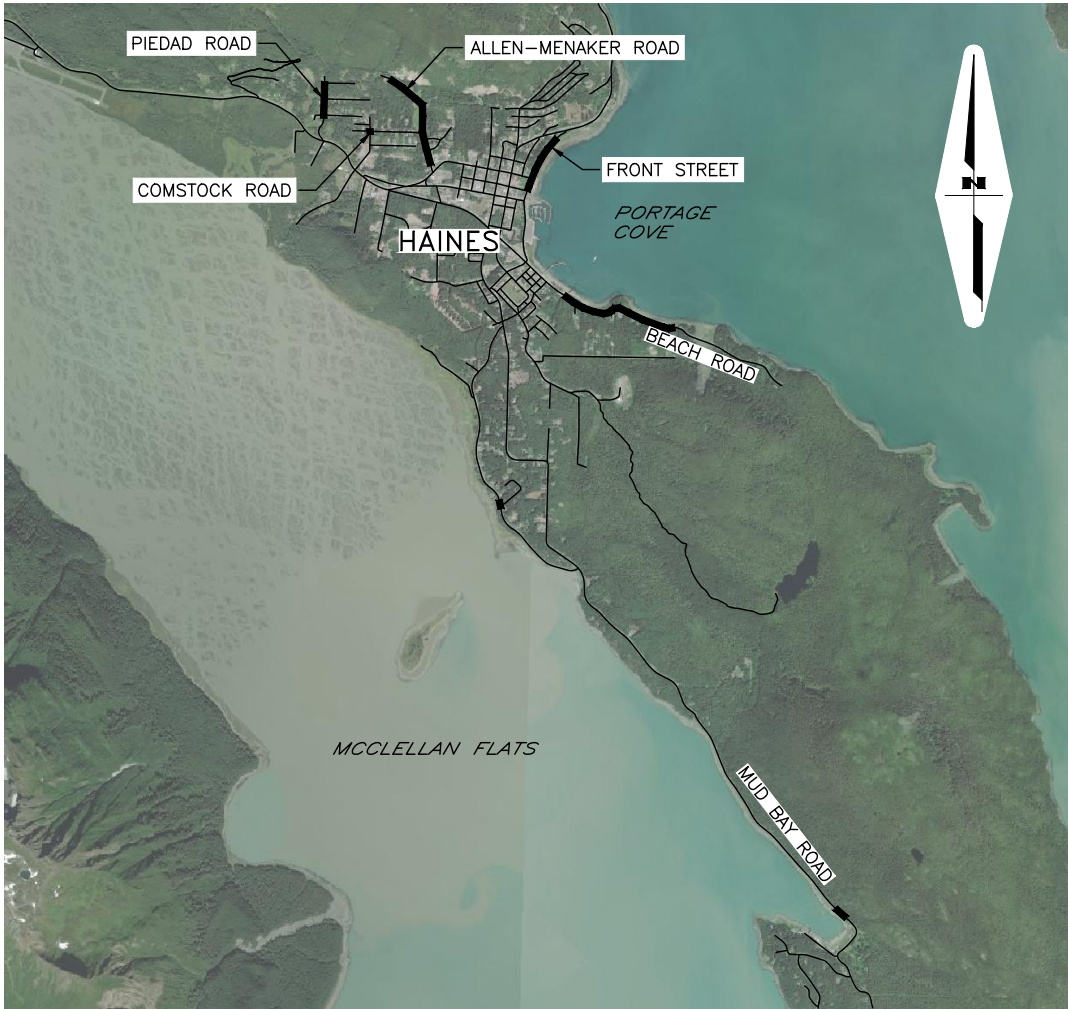
PROPOSED HIGHWAY PROJECT

HNS ROADWAY & CULVERTS 00053 -

DEC 20 SE PR

PROJECT NO. SDRER00445

GRADING, DRAINAGE, RESURFACING, STRIPING, PAVING,
AND SIDE SLOPE STABILIZATION



NO.	DATE	REVISIONS		STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS														
				ALASKA	SDRER00445	2025	A1	38														
REGION ALASKA									ROUTE ID: 2021010X000 ALLEN-MENAKER RD	DI NO. 461231	MILEPOINT: 0.41 – 0.58											
										LATITUDE: 59.24421		LONGITUDE: –135.46286										
										DI NO. 918887	MILEPOINT: 0.40											
										LATITUDE: 59.24279		LONGITUDE: –135.45961										
										DI NO. 461232	MILEPOINT: 0.41											
										LATITUDE: 59.24284		LONGITUDE: –135.45787										
										DI NO. 918888	MILEPOINT: 0.50											
										LATITUDE: 59.24359		LONGITUDE: –135.46188										
										DI NO. 461233	MILEPOINT: 0.51											
										LATITUDE: 59.24388		LONGITUDE: –135.46251										
CATION N: HAINES									ROUTE ID: 2021030X000 BEACH RD	DI NO. 918889	MILEPOINT: 0.55											
										LATITUDE: 59.24401		LONGITUDE: –135.46266										
										DI NO. 461234	MILEPOINT: 0.58											
										LATITUDE: 59.24426		LONGITUDE: –135.46356										
										ROUTE ID: 2021030X000 BEACH RD	DI NO. 461220	MILEPOINT: 1.29										
											LATITUDE: 59.22640		LONGITUDE: –135.43429									
											DI NO. 461235	MILEPOINT: 1.36										
											LATITUDE: 59.22640		LONGITUDE: –135.43429									
										ROUTE ID: 2021019X000 COMSTOCK RD	DI NO. 784622	MILEPOINT: 1.29–1.36										
LATITUDE: 59.22274		LONGITUDE: –135.40967																				
ROUTE ID: 2021019X000 COMSTOCK RD	DI NO. 461652	MILEPOINT: 0.30																				
	LATITUDE: 59.24037		LONGITUDE: –135.46798																			
	DI NO. 461236	MILEPOINT: 0.30																				
	LATITUDE: 59.24038		LONGITUDE: –135.46825																			
ROUTE ID: 2021029X000 FRONT ST									ROUTE ID: 2021029X000 FRONT ST	DI NO. 461221	MILEPOINT: 0.04 – 0.24											
										LATITUDE: 59.24003		LONGITUDE: –135.43769										
									ROUTE ID: 2021022X000 MUD BAY RD	DI NO. 461253	MILEPOINT: 1.80											
										LATITUDE: 59.20723		LONGITUDE: –135.44386										
										DI NO. 461255	MILEPOINT: 4.90											
										LATITUDE: 59.17521		LONGITUDE: –135.38758										
									ROUTE ID: 2021024X000 PIEDAD RD									ROUTE ID: 2021024X000 PIEDAD RD	DI NO. 461229	MILEPOINT: 0.12		
																			LATITUDE: 59.24087		LONGITUDE: –135.47606	
																			DI NO. 461257	MILEPOINT: 0.08		
LATITUDE: 59.24053		LONGITUDE: –135.47689																				
DI NO. 918890	MILEPOINT: 0.22																					
LATITUDE: 59.24380		LONGITUDE: –135.47630																				
DI NO. 461256	MILEPOINT: 0.00																					
LATITUDE: 59.23954		LONGITUDE: –135.47622																				

DESIGN DESIGNATIONS						
PROJECT LOCATION	PROJECT TYPE	FUNCTIONAL CLASS	ADT (2022)	DESIGN SPEED (V)	WIDTH (LF)	LENGTH (LF)
PIEDAD ROAD MPT 0.05-1.20	RECONSTRUCTION	MINOR COLLECTOR	130	35	20-24	1,850
COMSTOCK ROAD MPT 0.30	RECONSTRUCTION	MINOR COLLECTOR	100	35	20	55
ALLEN/MENAKER ROAD MPT 0.41-0.60	RECONSTRUCTION	LOCAL	40	25	20	1,250
FRONT STREET MPT 0.04-0.24	RECONSTRUCTION	MAJOR COLLECTOR	190	35	NA	NA
BEACH ROAD MPT 1.29-1.36	RECONSTRUCTION	MAJOR COLLECTOR, MINOR COLLECTOR & LOCAL	420	35	24	690
MUD BAY ROAD MPT 1.74 & 4.91	RECONSTRUCTION	MAJOR COLLECTOR & MINOR COLLECTOR	750	35	24	70

USE THESE PLANS IN CONJUNCTION WITH THE STATE OF ALASKA
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2020
EDITION AND THE PROJECT SPECIAL PROVISIONS.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

APPROVED:

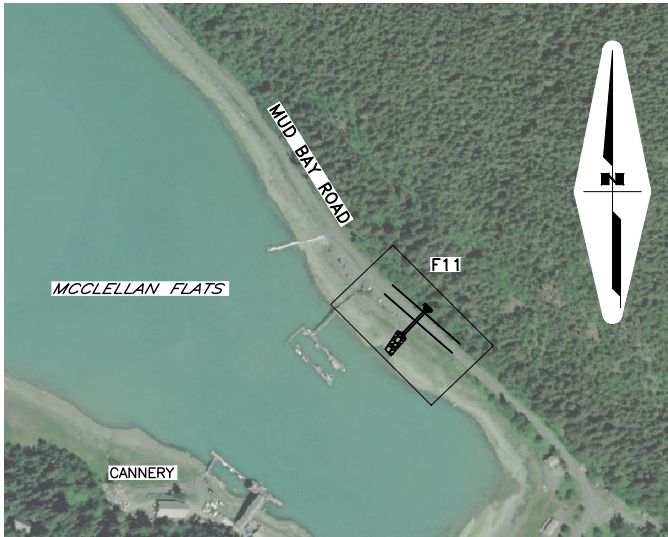
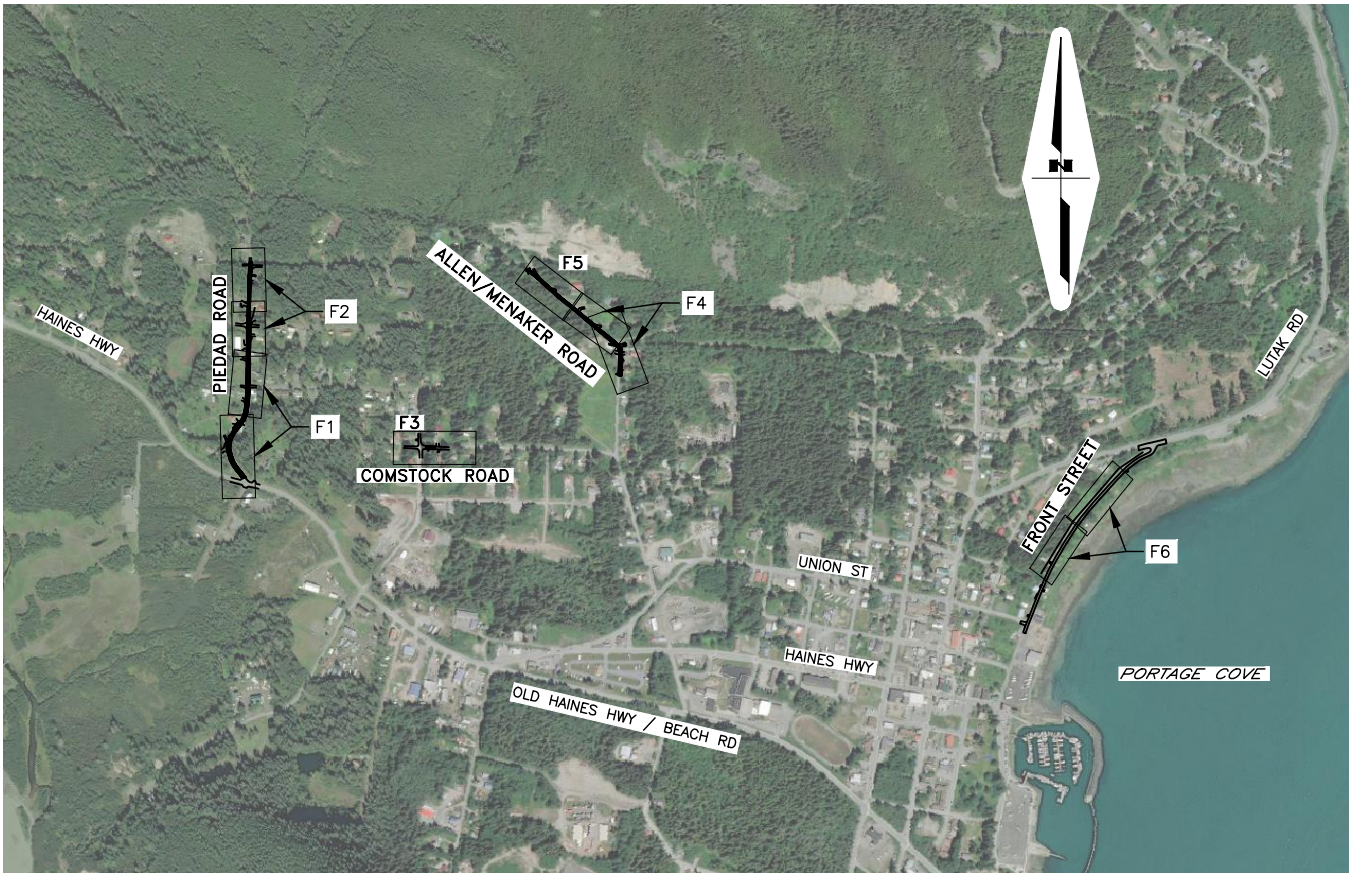
PS&E REVIEW
KIRK MILLER
REGIONAL PRE
NOV. 2025

DATE

CONCUR:

CHRISTOPHER GOINS, P.E., C.M.
DIRECTOR, SOUTHCOAST REGION

DATE



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	A2	38

DI NUMBER & DESCRIPTIONS		
ABBREVIATION	DI#	DI DESCRIPTION
ALMEN 01 #461231	461231	ALLEN MENAKER ROAD MP 0.41 TO 0.58
ALMEN 02 #918887	918887	ALLEN MENAKER ROAD MP 0.40 CULVERT
ALMEN 03 #461232	461232	ALLEN MENAKER ROAD MP 0.46 CULVERT
ALMEN 04 #918888	918888	ALLEN MENAKER ROAD MP 0.50 CULVERT
ALMEN 05 #461233	461233	ALLEN MENAKER ROAD MP 0.53 CULVERT
ALMEN 06 #918889	918889	ALLEN MENAKER ROAD MP 0.55 CULVERT
ALMEN 07 #461234	461234	ALLEN MENAKER ROAD MP 0.60 CULVERT
BEACH 01 #461220	461220	BEACH ROAD MP 1.29
BEACH 02 #461235	461235	BEACH ROAD MP 1.36 CULVERT
BEACH 03 #784622	784622	BEACH ROAD ROADWAY
COSTK 01 #461652	461652	COMSTOCK ROAD MP 0.3
COSTK 02 #461236	461236	COMSTOCK ROAD MP 0.30 CULVERT
FRONT 01 #461221	461221	FRONT STREET MP 0.04 TO 0.24
MUDBAY 01 #461253	461253	MUD BAY ROAD MP 1.74 CULVERT
MUDBAY 02 #461255	461255	MUD BAY ROAD MP 4.91 CULVERT
PIDAD 01 #461229	461229	PIEDAD MP 0.05 TO 0.35
PIDAD 02 #461257	461257	PIEDAD MP 0.08 CULVERT
PIDAD 03 #918890	918890	PIEDAD ROAD MP 0.22 CULVERT
PIDAD 04 #461256	461256	PIEDAD ROAD MP 1.2 CULVERT

GENERAL NOTES:

1. MAKE ALL PAVEMENT CUTS CLEAN, VERTICAL, AND TRUE TO REMOVAL LIMITS SHOWN ON PLANS.

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	LAYOUT AND SHEET INDEX
A3	LEGEND
A4	SURVEY CONTROL
B1-B2	TYPICAL SECTIONS
C1-C2	ESTIMATE OF QUANTITIES
D1-D4	SUMMARY TABLES
E1-E3	DETAILS
F1-F11	PLAN AND PROFILE
L1-L2	REVEGETATION PLAN
P1-P8	PIPE SHEETS
T1-T2	TRAFFIC CONTROL PLANS

THE FOLLOWING STANDARD PLANS APPLY:
C-06.00
D-01.02, D-04.22, D-08.00, D-09.00, D-20.05,
D-31.01, D-31.01
E-09.00
T-21.04

PLANS DEVELOPED BY:
HDR ENGINEERING, INC.
582 E 36TH AVE STE 500
ANCHORAGE, AK 99503-4169
(907) 644-2000
CERT. OF AUTH. AECC569

PS&E REVIEW
NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

LAYOUT AND
SHEET INDEX

FILE C:\USERS\TSPAL\CD\ACCD\DCS\HDR\10382787\NTP_14_HNS_RDS_& CULVERTS_2024\PROJECT FILES\HDR\CAD\PRODUCTION\00445_A3.Legend
DATE 10/21/2025 13:06 LAYOUT A3

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	A4	38

SURVEY CONTROL SHEET PLACEHOLDER

PLANS DEVELOPED BY:
HDR ENGINEERING, INC.
582 E 36TH AVE STE 500
ANCHORAGE, AK 99503-4169
(907) 644-2000
CERT. OF AUTH. AECC569

PS&E REVIEW

NOV. 2025

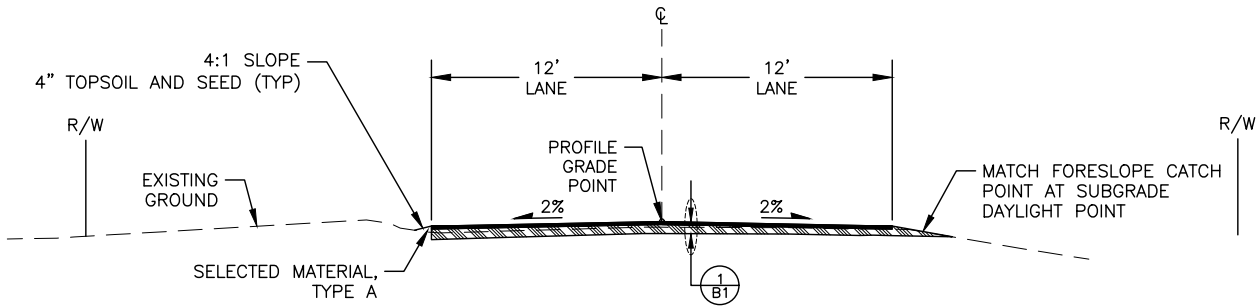
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 – DEC 20 SE PR

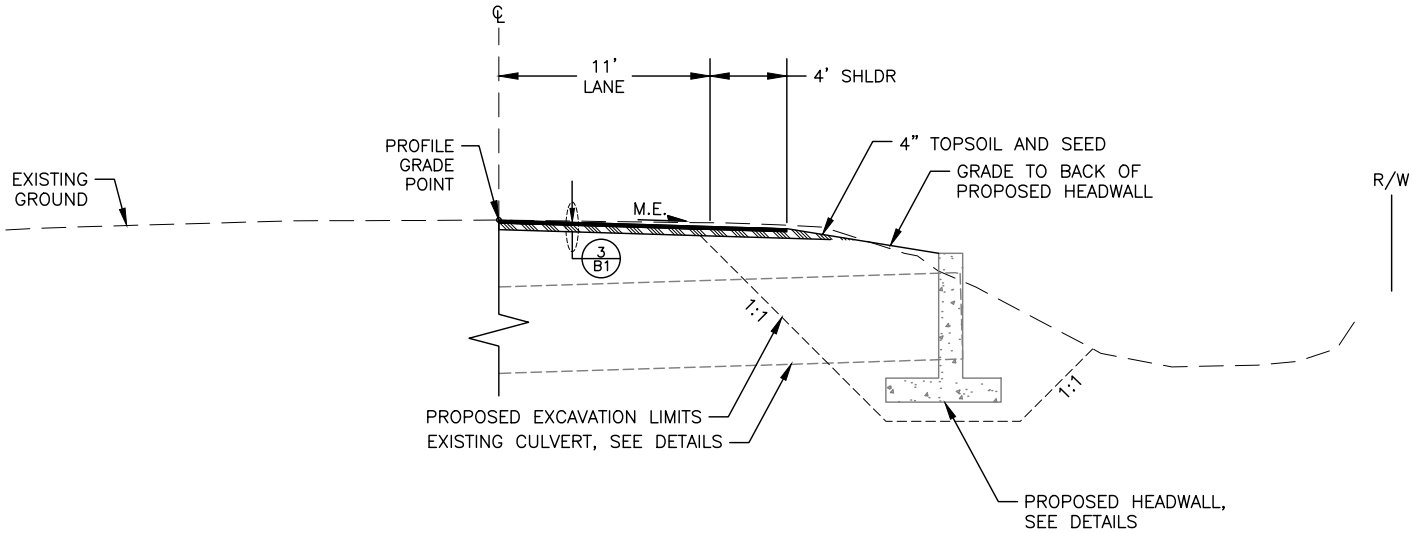
SURVEY CONTROL

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	B2	38



BEACH ROAD
"B" STA. 52+50 TO STA. 73+86



MUD BAY ROAD
"MB-2" STA. 2+75 TO STA. 3+25

PLANS DEVELOPED BY:
HDR ENGINEERING, INC.
582 E 36TH AVE STE 500
ANCHORAGE, AK 99503-4169
(907) 644-2000
CERT. OF AUTH. AECC569

PS&E REVIEW
NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

TYPICAL SECTIONS

FILE C:\USERS\TSPAL\CD\ACDDDCS\HDR\0382787\NTP_14_HNS_RDS_&_CULVERTS_2024\PROJECT FILES\HDR\CAD\PRODUCTION\00445_C1_ESTIMATE OF QUANTITIES LAYOUT C1

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	C1	38

ESTIMATE OF QUANTITIES									
ITEM NO.	PAY ITEM	PAY UNIT	PIEDAD ROAD TOTAL	COMSTOCK ROAD TOTAL	ALLEN MENAKER ROAD TOTAL	FRONT STREET TOTAL	BEACH ROAD TOTAL	MUD BAY ROAD TOTAL	PROJECT TOTAL
201.0003.0000	CLEARING AND GRUBBING	ACRE	0.182	0.191	0.176	0.221	0.074	0.057	0.90
201.2001.0000	INVASIVE PLANT SPECIES CONTROL, REMOVAL, AND DISPOSAL	SY	89	93	86	107	36	28	475
202.0002.0000	REMOVAL OF PAVEMENT	SY	135	115	460	—	—	85	795
202.0004.0000	REMOVAL OF CULVERT PIPE	LF	139	43	258	—	—	40	480
203.0003.0000	UNCLASSIFIED EXCAVATION	CY	185	1,072	1,175	—	—	210	2,642
203.0006.000A	BORROW, TYPE A	TON	260	280	1,825	—	—	315	2,680
205.0005.0000	CONTROLLED LOW-STRENGTH MATERIAL	CY	—	—	—	—	—	4	4
206.0002.0000	FILTER BLANKET	TON	—	115	—	—	—	—	115
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	146	24	92	—	52	22	432
301.0003.00E1	AGGREGATE SURFACE COURSE, GRADING E-1	TON	355	—	40	—	—	20	415
303.2003.0000	DITCH RECONDITIONING	LF	150	—	—	940	—	65	1,155
308.0001.0000	CRUSHED ASPHALT BASE COURSE	SY	3,460	—	2,310	—	1,710	—	7,480
401.0001.002B	HMA, TYPE II; CLASS B	TON	410	15	315	—	210	10	960
401.0004.5828	ASPHALT BINDER, GRADE 58-28E	TON	21.8	0.8	16.8	—	11.6	0.6	75
501.2007.0002	HEADWALL, TYPE II	EACH	—	—	—	—	—	1	1
602.2006.0700	ALUMINUM STRUCTURAL PLATE PIPE-ARCH 7'-0" SPAN, 3'-8" RISE, 0.175" THICK	LF	—	45	—	—	—	—	45
602.2013.0000	CULVERT END RESTRAINT SOIL ANCHOR ASSEMBLIES	EACH	—	2	—	—	—	—	2
603.0009.0024	CORRUGATED ALUMINUM PIPE 24 INCH	LF	150	—	—	—	—	58	208
603.0009.0036	CORRUGATED ALUMINUM PIPE 36 INCH	LF	—	—	244	—	—	—	244
611.0002.0001	RIPRAP, CLASS I	TON	—	21	59	—	—	16	96
611.0002.0002	RIPRAP, CLASS II	TON	—	—	—	—	268	171	439
618.0002.0000	SEEDING	LB	11.0	12.5	10.8	26.0	5.8	2.0	68
620.0001.0000	TOPSOIL	SY	1,006	1,146	980	2,416	428	168	6,144
621.0001.0000	TREE, PAPER BIRCH (BETULA PAPYRIFERA), SEEDLING	EACH	—	87	—	—	—	—	87
621.0001.0000	TREE, WHITE SPRUCE (PICEA GLAUCA), SEEDLING	EACH	—	44	—	—	—	—	44

PLANS DEVELOPED BY:
HDR ENGINEERING, INC.
582 E 36TH AVE STE 500
ANCHORAGE, AK 99503-4169
(907) 644-2000
CERT. OF AUTH. AECC569

PS&E REVIEW
NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

ESTIMATE OF QUANTITIES
PROJECT TOTALS

FILE C:\USERS\TSPAL\CD\ACDDDCS\HDR\10382787\NTP_14_HNS_RDS_&CULVERTS_2024\PROJECT FILES\HDR\CAD\PRODUCTION\00445_C1_ESTIMATE OF QUANTITIES LAYOUT C2 DATE 11/4/2025 15:59

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	C2	38

ESTIMATE OF QUANTITIES									
ITEM NO.	PAY ITEM	PAY UNIT	PIEDAD ROAD TOTAL	COMSTOCK ROAD TOTAL	ALLEN MENAKER ROAD TOTAL	FRONT STREET TOTAL	BEACH ROAD TOTAL	MUD BAY ROAD TOTAL	PROJECT TOTAL
621.0002.0000	SHRUB, DWARF DOGWOOD (CORNUS CANADENIS), SEEDLING	EACH	–	174	–	–	–	–	174
621.0002.0000	SHRUB, LABRADOR TEA (RHODODENDRON GROENLANDICUM), SEEDLING	EACH	–	174	–	–	–	–	174
621.0002.0000	SHRUB, RED OSIER DOGWOOD (CORNUS STOLONIFERA), SEEDLING	EACH	–	174	–	–	–	–	174
631.0002.0001	GEOTEXTILE, EROSION CONTROL, CLASS 1	SY	–	27	59	–	185	–	271
635.0002.0000	INSULATION BOARD 4” THICK	SF	–	96	–	–	–	–	96
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
640.0004.0000	WORKER MEALS AND LODGING, OR PER DIEM	LS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
641.0003.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
641.0005.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
641.0006.0000	WITHHOLDING	CS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
641.0007.0000	SWPPP MANAGER	LS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
641.0008.0000	SWPPPTRACK	CS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
642.0001.0000	CONSTRUCTION SURVEYING	LS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
642.0003.0000	THREE PERSON SURVEY PARTY	HR	4.5	7	6	–	3	3	23.5
643.0002.0000	TRAFFIC MAINTENANCE	LS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
643.0025.0000	TRAFFIC CONTROL	CS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
670.0001.0000	PAINTED TRAFFIC MARKINGS	LS	–	–	–	–	ALL REQ'D	ALL REQ'D	ALL REQ'D
671.2003.0000	STREAM SUBSTRATE	TON	–	765	–	–	–	–	765
671.2005.0000	STREAM DIVERSION AND DEWATERING	LS	–	ALL REQ'D	–	–	–	–	ALL REQ'D
690.2004.0000	WATERWAY RESTORATION – STREAM REALIGNMENT	LF	–	366	–	–	–	–	366

BASIS OF ESTIMATE		
ITEM NO.	PAY ITEM	ESTIMATING FACTOR
203.0006.000A	BORROW, TYPE A	144 LB/CF
206.0002.0000	FILTER BLANKET	110 LB/CF
301.0003.00D1	AGGREGATE BASE COURSE, GRADING D–1	144 LB/CF
301.0003.00E1	AGGREGATE SURFACE COURSE, GRADING E–1	144 LB/CF
401.0001.002B	HMA, TYPE II; CLASS B	151 LB/CF
401.0004.5828	ASPHALT BINDER, GRADE PG 58–28	5.3% OF 401.0001.002B
610.0001.0000	DITCH LINING	110 LB/CF
611.0002.0001	RIPRAP, CLASS I	108 LB/CF
611.0002.0002	RIPRAP, CLASS II	108 LB/CF
671.2003.0000	STREAM SUBSTRATE	148 LB/CF

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PS&E REVIEW
NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 – DEC 20 SE PR

ESTIMATE OF QUANTITIES
PROJECT TOTALS

FILE C:\USERS\TSPAL\CD\ACCD\DCS\HDR\10382787\NTP_14_HNS_RDS_&_CULVERTS_2024\PROJECT_FILES\HDR\CAD\PRODUCTION\00445.D1_SUMMARIES DATE 11/4/2025 16:13 LAYOUT D1

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	D1	38

[201.0003.0000] CLEARING AND GRUBBING							
SHEET	DI SITE	STATION		OFFSET	AREA (SF)	AREA (ACRE)	REMARKS
		FROM	TO				
F1-F2	PIDAD 01 #461229	10+18	28+64	LT & RT	4,410	0.10	
F1-F2	PIDAD 01 #461229	10+18	28+64	-	3,446	0.08	CULVERTS & DITCHING
P1-P2	COSTK 01 #461236	10+70	15+50	LT & RT	8,300	0.19	
F4-F5	ALMEN 01 #461231	42+15	55+55	LT & RT	4,963	0.11	
F4-F5	ALMEN 01 #461231	42+15	55+55	-	2,690	0.06	CULVERTS & DITCHING
F6	FRONT 01 #461221	85+86	95+48	LT	9,625	0.22	
F7	BEACH 01 #461220	11+17	11+55	RT	735	0.02	
F7	BEACH 01 #461220	11+07	15+18	LT	2,474	0.06	
F11	MUDBAY 01 #461253	2+75	3+25	RT	1,457	0.03	
F11	MUDBAY 02 #461255	2+75	3+25	RT	966	0.02	
SUBTOTAL:						0.90	
PAY ITEM QUANTITY:						0.90	

[202.0002.0000] REMOVAL OF PAVEMENT							
SHEET	DI SITE	STATION		AVE WIDTH (LF)	AREA (SF)	AREA (SY)	REMARKS
		FROM	TO				
F1	PIDAD 02 #461255	13+53	14+03	24	1,000	115	
F3	COSTK 01 #461652	12+10	12+60	20	1,000	115	
F4	ALMEN 02 #918887	43+04	43+54	20	1000	115	
F4	ALMEN 04 #461232	47+73	48+23	20	1000	115	
F5	ALMEN 05 #461233	51+77	52+27	20	1000	115	
F5	ALMEN 07 #461234	55+10	55+60	20	1000	115	
F11	MUDBAY 02 #461255	2+75	3+25	15	750	85	
SUBTOTAL:						795	
PAY ITEM QUANTITY:						795	

[202.0004.0000] REMOVAL OF CULVERT PIPE							
SHEET	DI SITE	STATION	OFFSET	DIAMETER (IN)	LENGTH (LF)	REMARKS	
F1	PIDAD 02 #461257	13+78	CL	18	33		
F1	PIDAD 03 #918890	14+93	19 LT	18	80		
F2	PIDAD 04 #461256	24+37	CL	24	26	"PN" STATIONING	
F3	COSTK 02 #461236	12+30	CL	12	43	CONFIRM EXISTING IS 12"	
F4	ALMEN 02 #918887	43+35	CL	30	61		
F4	ALMEN 03 #461232	48+05	CL	15	36		
F4	ALMEN 04 #918888	49+88	46 RT	18	31	DW CULVERT	
F5	ALMEN 05 #461233	52+02	CL	24	42		
F5	ALMEN 06 #918889	52+62	18 RT	24	41	DW CULVERT	
F5	ALMEN 07 #461234	55+26	CL	24	47		
F10	MUDBAY 01 #461253	7+25	28 RT	24	40		
SUBTOTAL:					480		
PAY ITEM QUANTITY:					480		

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PS&E REVIEW

NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

SUMMARY TABLES

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[308.0001.0000] CRUSHED ASPHALT BASE COURSE								
SHEET	DI SITE	START STATION	END STATION	LENGTH (LF)	WIDTH (LF)	AREA (SF)	AREA (SY)	REMARKS
F1	PIDAD 01 #461229	10+18	23+65	1,347	24	32,328	3,600	
F4	ALMEN 01 #461231	43+15	55+55	1,240	20	24,800	2,760	
F8	BEACH 03 #784622	53+17	54+50	133	24	3,192	360	
F8	BEACH 03 #784622	56+60	58+55	195	24	4,680	520	
F9	BEACH 03 #784622	66+08	68+50	242	24	5,808	650	
F9	BEACH 03 #784622	72+70	73+86	66	24	1584	180	
F8	BEACH 04 #NONPAR	0+00	0+00	0	0	0	0	
F8	BEACH 04 #NONPAR	0+00	0+00	0	0	0	0	
F8–F9	BEACH 04 #NONPAR	0+00	0+00	0	0	0	0	
F9	BEACH 04 #NONPAR	0+00	0+00	0	0	0	0	
SUBTOTAL:						7,480		
PAY ITEM QUANTITY:						7,480		

ADJUST EXISTING MANHOLE					
SHEET	DI SITE	STATION	OFFSET	QUANTITY	REMARKS
F4	ALMEN 01 #461231	45+07	LT	I	
TOTAL QUANTITY:				I	

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	D2	38

[611.0001.0002, 611.0001.0002] RIPRAP, CLASS I & RIPRAP, CLASS II						
SHEET	DI SITE	START STATION	OFFSET	CLASS I (TON)	CLASS II (TON)	REMARKS
F3	COSTK 02 #461236	12+29	RT	13		
F3	COSTK 02 #461236	12+39	LT	8		
F4	ALMEN 02 #918887	43+19	LT	8		
F4	ALMEN 03 #461232	47+94	LT	6		
F4	ALMEN 04 #918888	49+78	RT	7		
F5	ALMEN 05 #461233	52+00	LT	7		
F5	ALMEN 06 #918889	52+41	RT	10		
F5	ALMEN 07 #461234	55+35	LT	21		
F7	BEACH 01 #461220	11+28	LT		141	
F7	BEACH 01 #461220	11+36	RT		69	
F7	BEACH 02 #461235	15+03	LT		41	
F7	BEACH 02 #461235	15+61	RT		17	
F11	MUDBAY 02 #461255	3+00	RT	16		
F11	MUDBAY 02 #461255	2+98	LT		171	
SUBTOTAL:				96	439	
PAY ITEM QUANTITY:				96	439	

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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
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HNS ROADWAY & CULVERTS
#00053 – DEC 20 SE PR

SUMMARY TABLES

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	D3	38

[618.0002.0000] SEEDING						
SHEET	DI SITE	STATION		OFFSET	WEIGHT (LB)	REMARKS
		FROM	TO			
	PIDAD 01 #461229	10+18	28+64	LT & RT	6.25	
	PIDAD 01 #461229	10+18	28+64	—	4.75	CULVERTS & DITCHING
	COSTK 02 #461236	12+10	12+60	RT	0.50	RT EMBANKMENT
	COSTK 02 #461236	12+10	12+60	LT	0.50	LT EMBANKMENT
	COSTK 02 #461236	10+88	15+55	LT & RT	11.50	STREAM CHANNEL
	ALMEN 01 #461231	42+15	55+55	LT & RT	7.00	
	ALMEN 01 #461231	42+15	55+55	—	3.75	CULVERTS & DITCHING
	FRONT 01 #461221	85+98	95+34	LT	26.00	
	MUDBAY 01 #461253	7+61	8+24	RT	2	
	BEACH 03 #784622	53+17	54+50	LT&RT	1.5	
	BEACH 03 #784622	56+60	58+55	LT&RT	1.5	
	BEACH 03 #784622	66+08	68+50	LT&RT	1.75	
	BEACH 03 #784622	72+70	73+86	LT&RT	1.00	
SUBTOTAL:					68	
PAY ITEM QUANTITY:					68	

[620.0001.0000] TOPSOIL						
SHEET	DI SITE	STATION		OFFSET	AREA (SY)	REMARKS
		FROM	TO			
	PIDAD 01 #461229	10+18	28+64	LT & RT	564	
	PIDAD 01 #461229	10+18	28+64	—	442	CULVERTS & DITCHING
	COSTK 02 #461236	12+10	12+60	RT	46	
	COSTK 02 #461236	12+10	12+60	LT	34	
	COSTK 02 #461236	10+88	15+55	LT & RT	1,066	
	ALMEN 01 #461231	42+15	55+55	LT & RT	636	
	ALMEN 01 #461231	42+15	55+55	—	344	CULVERTS & DITCHING
	FRONT 01 #461221	85+98	95+34	LT	2,416	
	MUDBAY 01 #461253	7+61	8+24	RT	168	
	BEACH 03 #784622	53+17	54+50	LT&RT	116	
	BEACH 03 #784622	56+60	58+55	LT&RT	112	
	BEACH 03 #784622	66+08	68+50	LT&RT	128	
	BEACH 03 #784622	72+70	73+86	LT&RT	72	
SUBTOTAL:					6,144	
PAY ITEM QUANTITY:					6,144	

[671.2003.0000] STREAM SUBSTRATE									
SHEET	DI SITE	STATION		OFFSET	TYPE	LENGTH (LF)	VOLUME (CF)	WEIGHT (TON)	REMARKS
		FROM	TO						
	COSTK 02 #461236	10+25	10+70	CL	II	45	483.75	40	
	COSTK 02 #461236	10+70	15+15	CL	I	320	9760	725	
SUBTOTAL:								765	
PAY ITEM QUANTITY:								765	

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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
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HNS ROADWAY & CULVERTS
#00053 – DEC 20 SE PR

SUMMARY TABLES

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	D4	38

[631.0002.0001] GEOTEXTILE, EROSION CONTROL, CLASS I							
SHEET	DI SITE	BEGIN		END		AREA (SY)	REMARKS
		STATION	OFFSET	STATION	OFFSET		
F3	COSTK 02 #461236	12+30	LT	12+46	LT	17	
F3	COSTK 02 #461236	12+20	RT	12+39	RT	10	
F4	ALMEN 02 #918887	43+10	LT	43+22	LT	8	
F4	ALMEN 03 #461232	47+85	LT	47+96	LT	6	
F4	ALMEN 04 #918888	49+68	RT	49+80	RT	7	
F5	ALMEN 05 #461233	51+95	LT	52+04	LT	7	
F5	ALMEN 06 #918889	52+26	RT	52+41	RT	10	
F5	ALMEN 07 #461234	55+10	LT	55+38	LT	21	
F7	BEACH 01 #461220	11+13	LT	11+28	LT	97	
F7	BEACH 01 #461220	11+22	RT	11+50	RT	48	
F7	BEACH 01 #461235	14+88	LT	15+15	LT	28	
F7	BEACH 01 #461235	15+54	RT	15+68	RT	12	
TOTAL:						271	
ROUNDED TOTAL:						271	

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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
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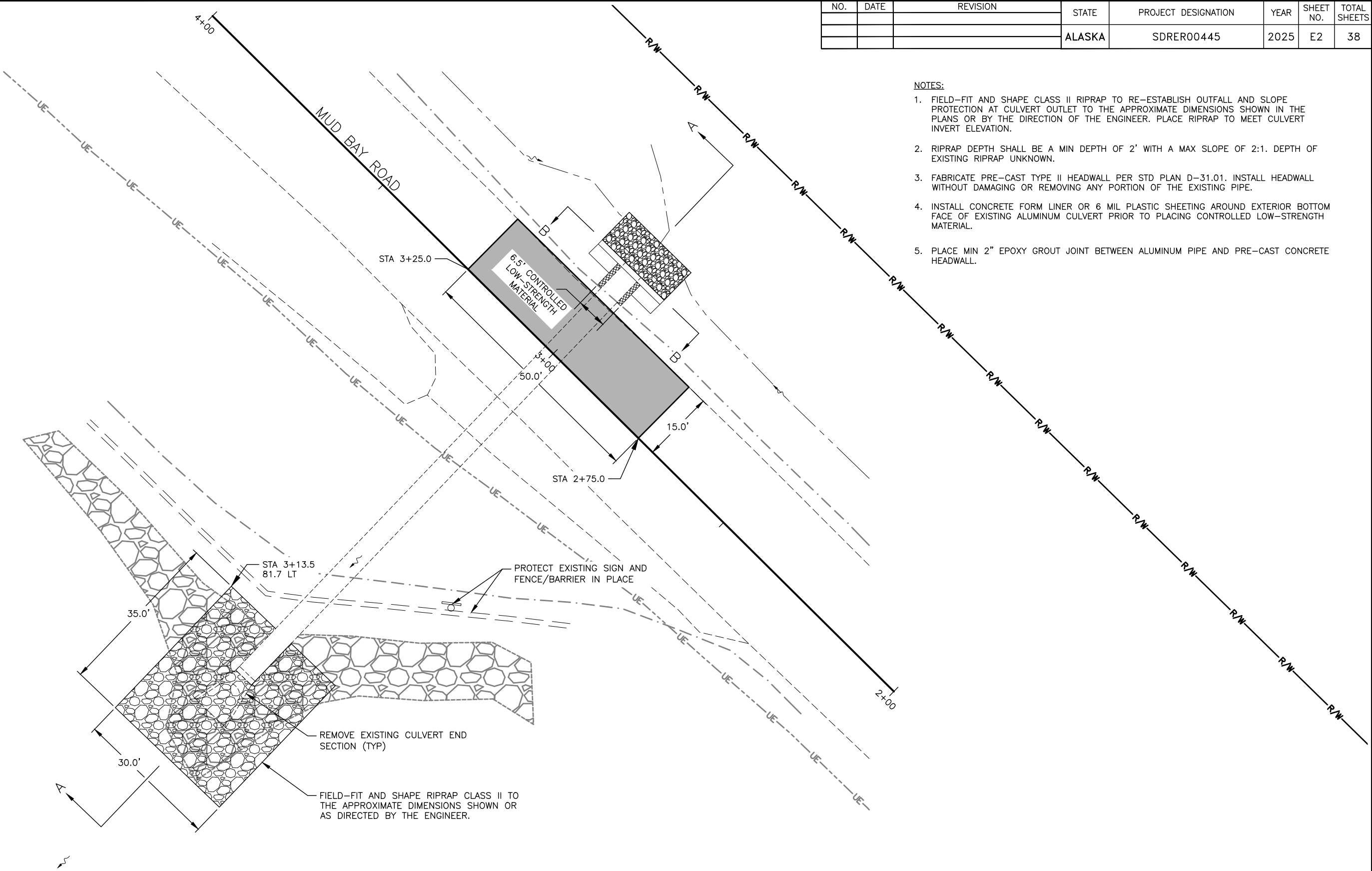
HNS ROADWAY & CULVERTS
#00053 – DEC 20 SE PR

SUMMARY TABLES

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	E2	38

- NOTES:
1. FIELD-FIT AND SHAPE CLASS II RIPRAP TO RE-ESTABLISH OUTFALL AND SLOPE PROTECTION AT CULVERT OUTLET TO THE APPROXIMATE DIMENSIONS SHOWN IN THE PLANS OR BY THE DIRECTION OF THE ENGINEER. PLACE RIPRAP TO MEET CULVERT INVERT ELEVATION.
 2. RIPRAP DEPTH SHALL BE A MIN DEPTH OF 2' WITH A MAX SLOPE OF 2:1. DEPTH OF EXISTING RIPRAP UNKNOWN.
 3. FABRICATE PRE-CAST TYPE II HEADWALL PER STD PLAN D-31.01. INSTALL HEADWALL WITHOUT DAMAGING OR REMOVING ANY PORTION OF THE EXISTING PIPE.
 4. INSTALL CONCRETE FORM LINER OR 6 MIL PLASTIC SHEETING AROUND EXTERIOR BOTTOM FACE OF EXISTING ALUMINUM CULVERT PRIOR TO PLACING CONTROLLED LOW-STRENGTH MATERIAL.
 5. PLACE MIN 2" EPOXY GROUT JOINT BETWEEN ALUMINUM PIPE AND PRE-CAST CONCRETE HEADWALL.



MUD BAY CULVERT - INLET HEADWALL
MUDBAY 02 DI#461255

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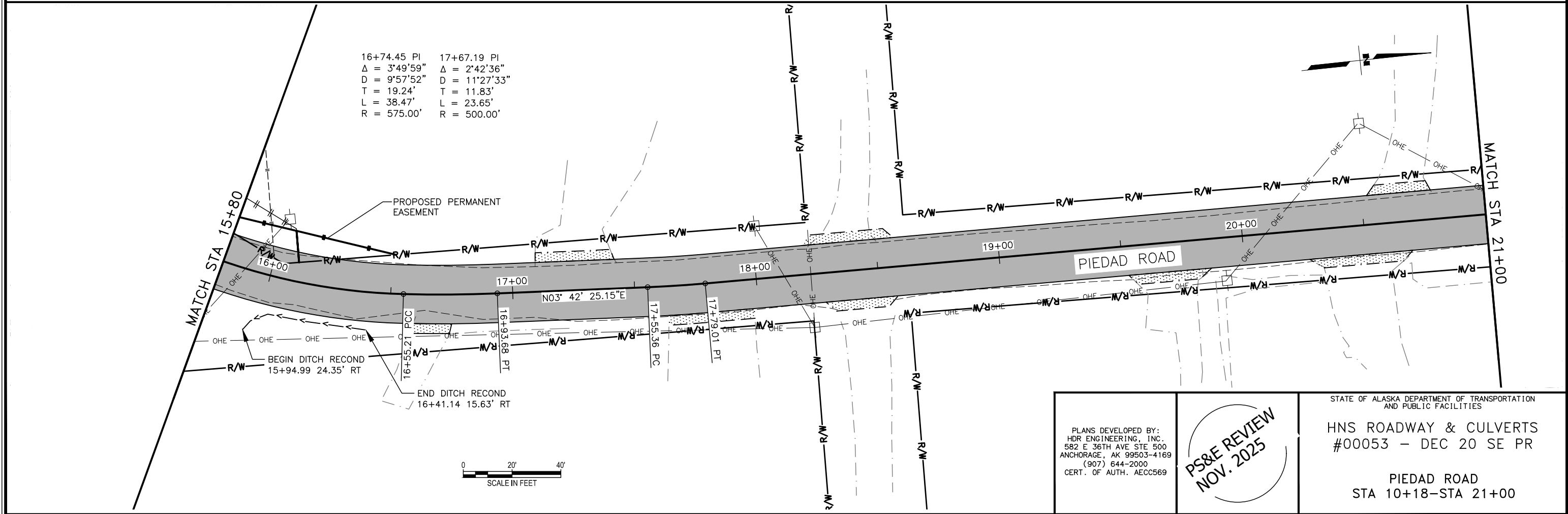
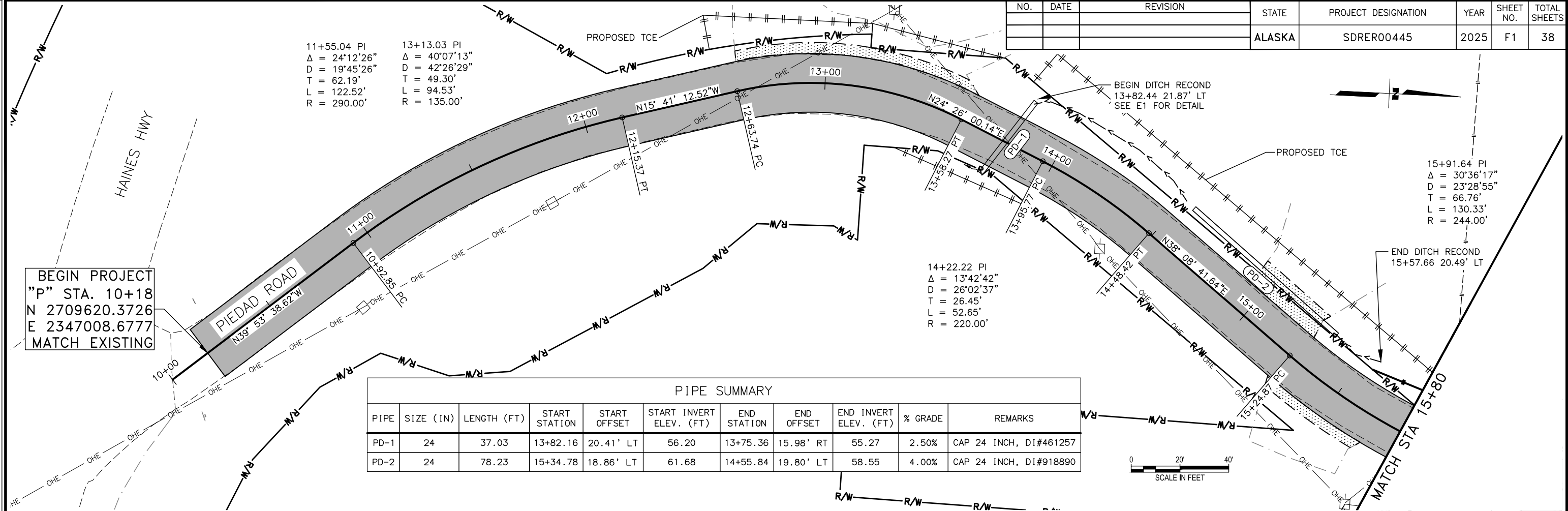
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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
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#00053 - DEC 20 SE PR
MUD BAY CULVERT DETAILS
MUDBAY 02 DI#461255

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	F1	38

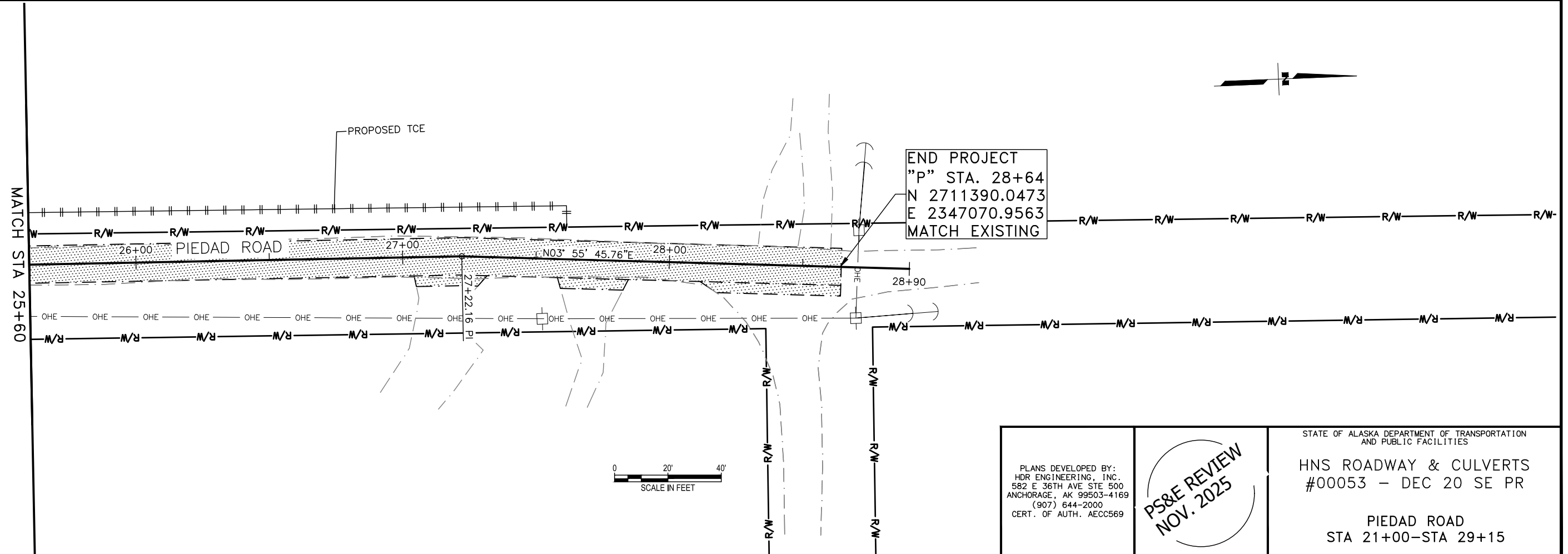
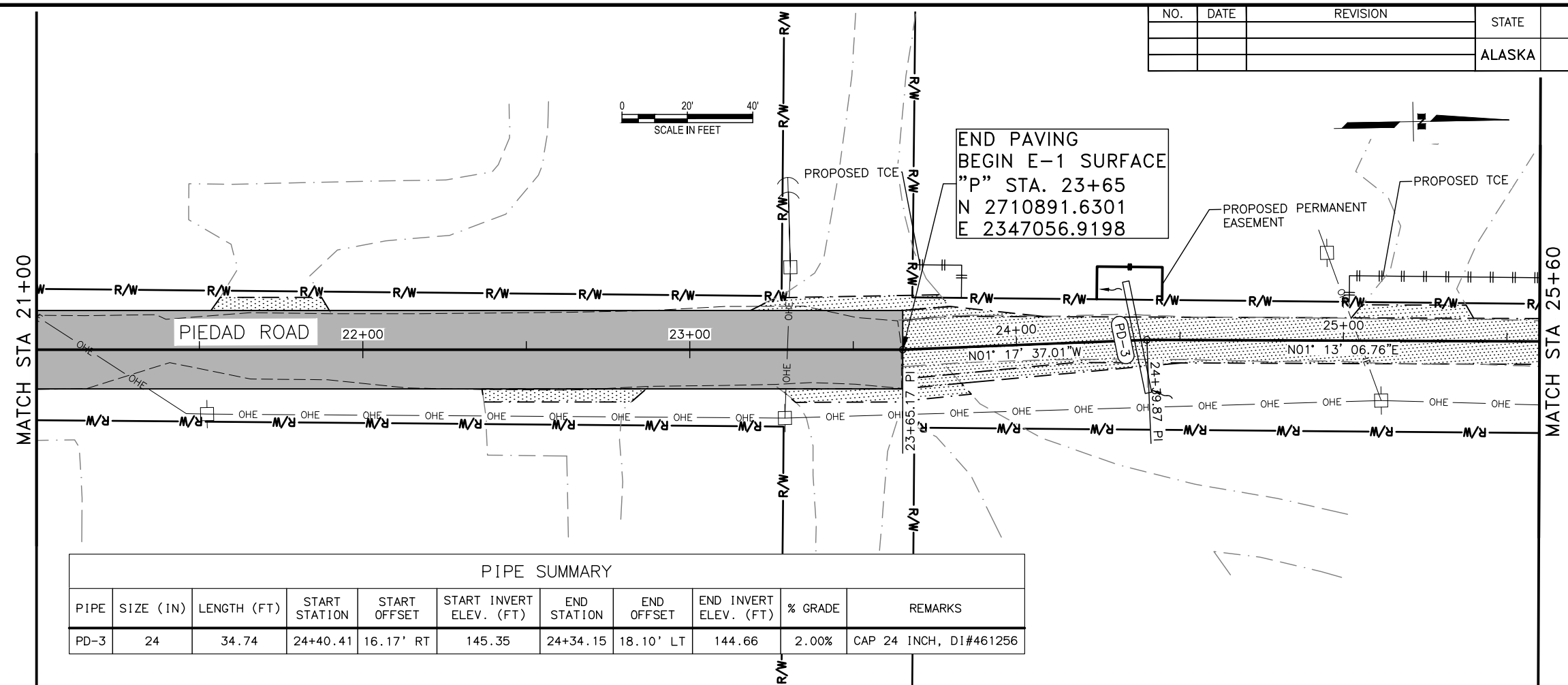


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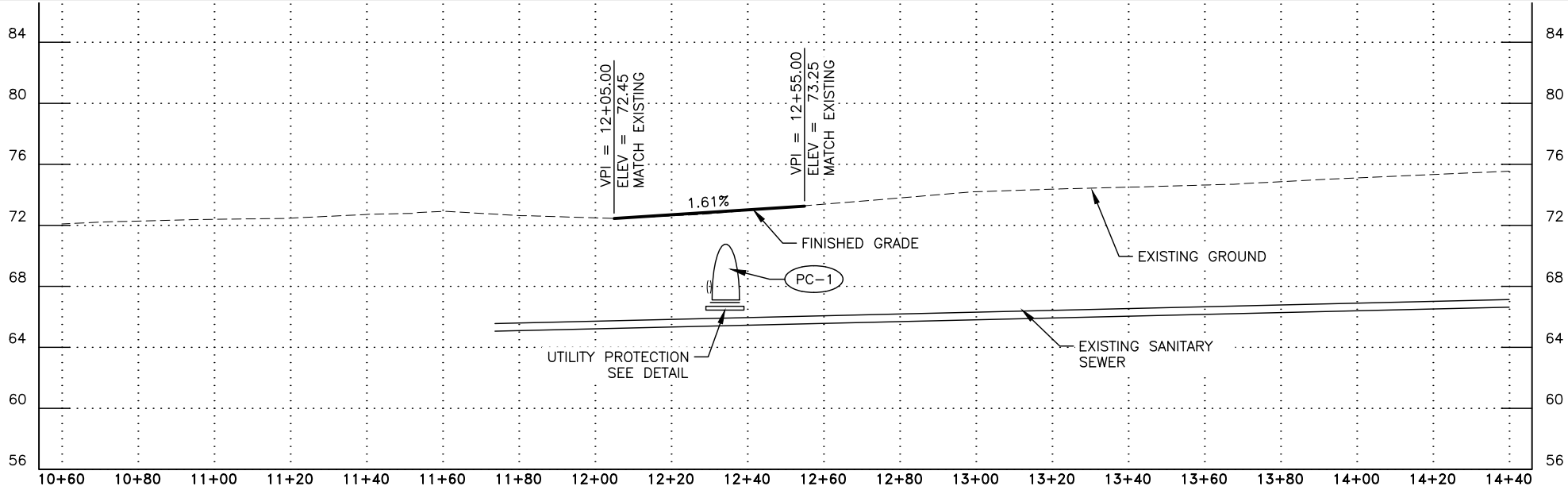
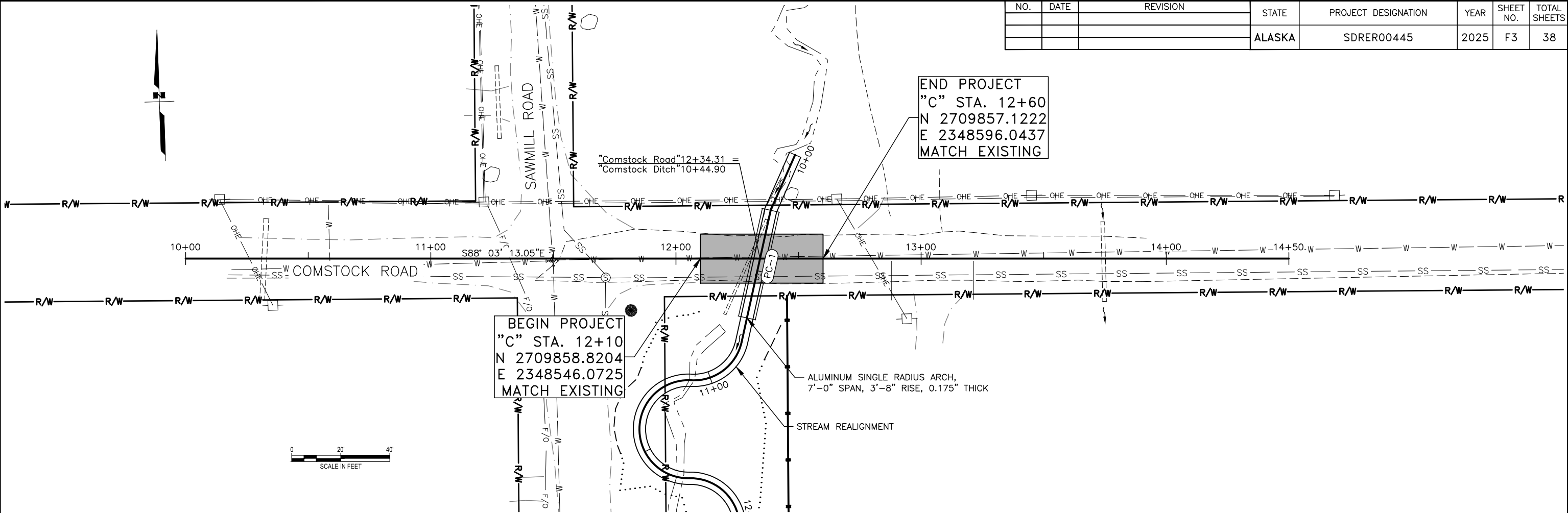
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR
PIEDAD ROAD
STA 10+18-STA 21+00

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	F2	38



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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	F3	38



PIPE SUMMARY										
PIPE	SIZE (IN)	LENGTH (FT)	START STATION	START OFFSET	START INVERT ELEV. (FT)	END STATION	END OFFSET	END INVERT ELEV. (FT)	% GRADE	REMARKS
PC-1	84	45.0	12+38.65	19.70' LT	67.73	12+28.96	24.24' RT	66.33	3.10%	SINGLE RADIUS ARCH, DI#461236

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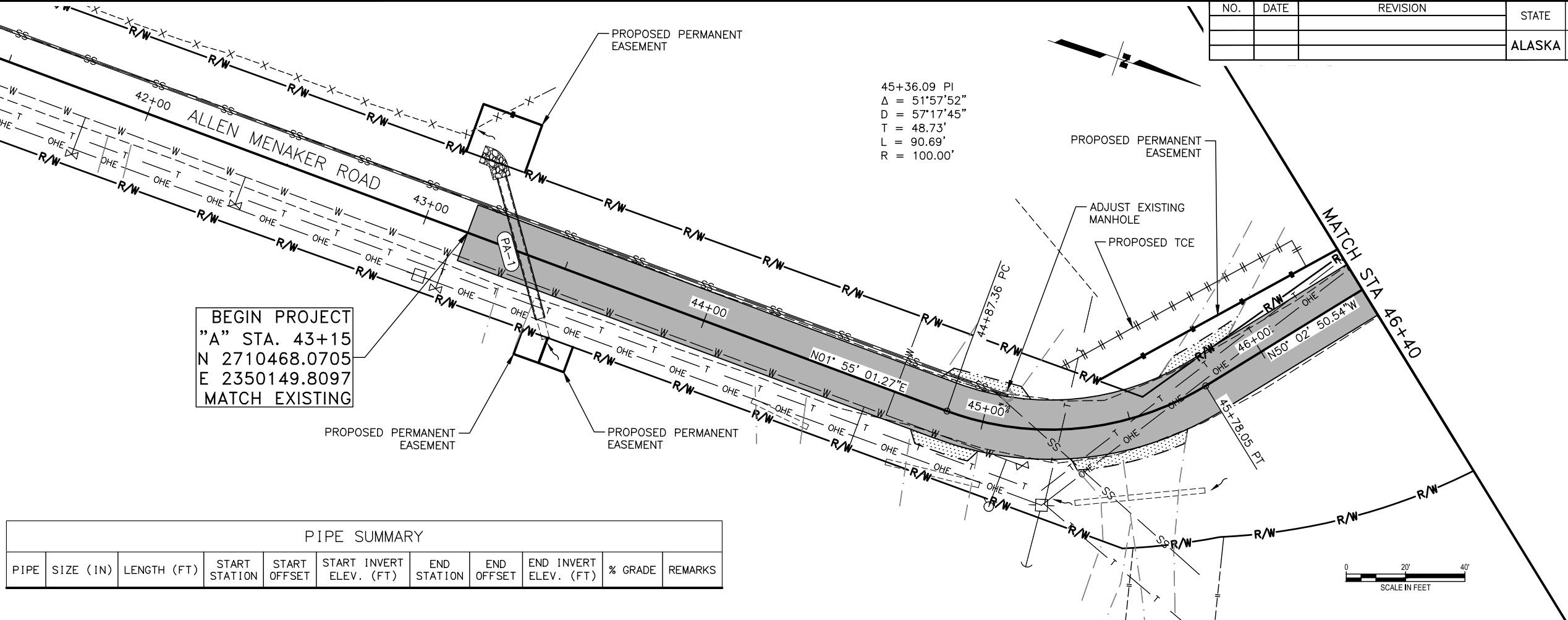
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AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

COMSTOCK ROAD
STA 10+00-STA 14+50

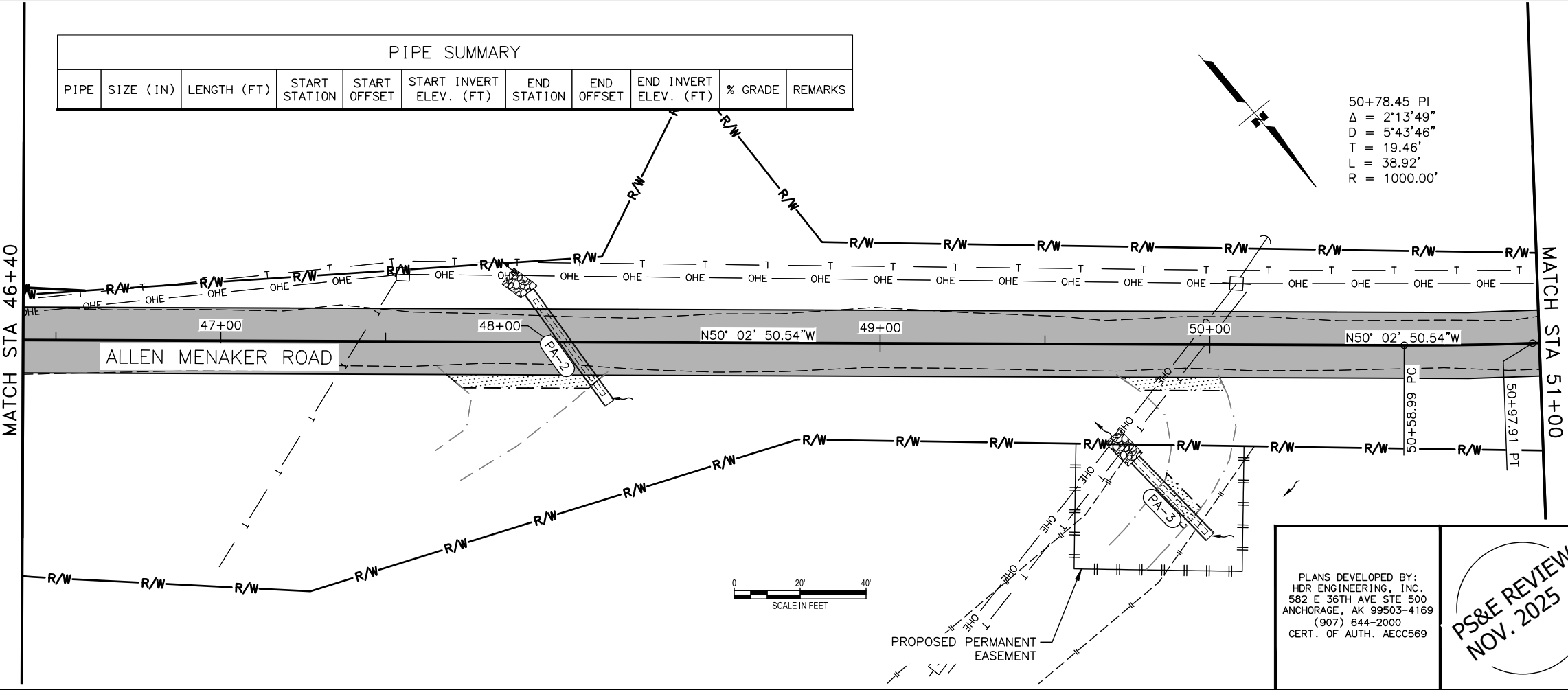
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	F4	38



PIPE SUMMARY										
PIPE	SIZE (IN)	LENGTH (FT)	START STATION	START OFFSET	START INVERT ELEV. (FT)	END STATION	END OFFSET	END INVERT ELEV. (FT)	% GRADE	REMARKS

PIPE SUMMARY										
PIPE	SIZE (IN)	LENGTH (FT)	START STATION	START OFFSET	START INVERT ELEV. (FT)	END STATION	END OFFSET	END INVERT ELEV. (FT)	% GRADE	REMARKS



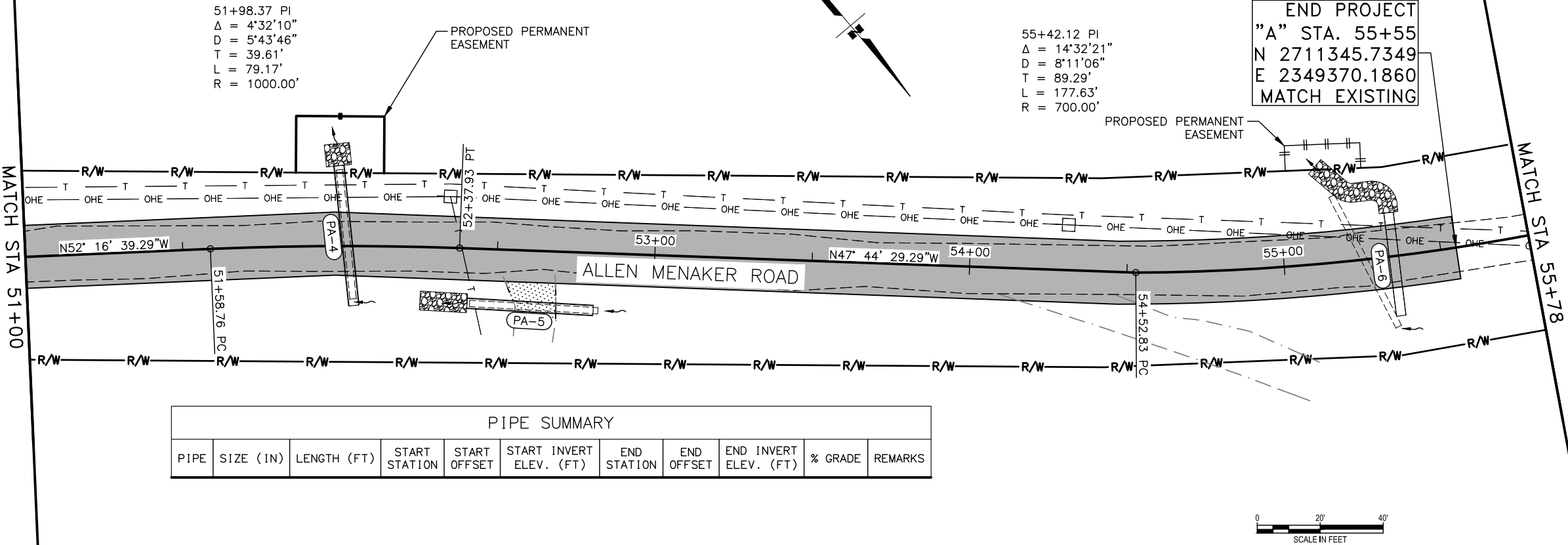
PLANS DEVELOPED BY:
HDR ENGINEERING, INC.
582 E 36TH AVE STE 500
ANCHORAGE, AK 99503-4169
(907) 644-2000
CERT. OF AUTH. AECC569

PS&E REVIEW
NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR
ALLEN MENAKER ROAD
STA 43+15-STA 51+00

FILE [C:\USERS\TSPAI\Documents\HRS\10382787\NTP_14_HNS_RDS_&_CULVERTS_2024\PROJECT_FILES\HRS\CAD\PRODUCTION\00445_F4-F5_ALLENMAKER DATE 11/4/2025 13:10 LAYOUT F5

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	F5	38



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PS&E REVIEW
NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
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HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

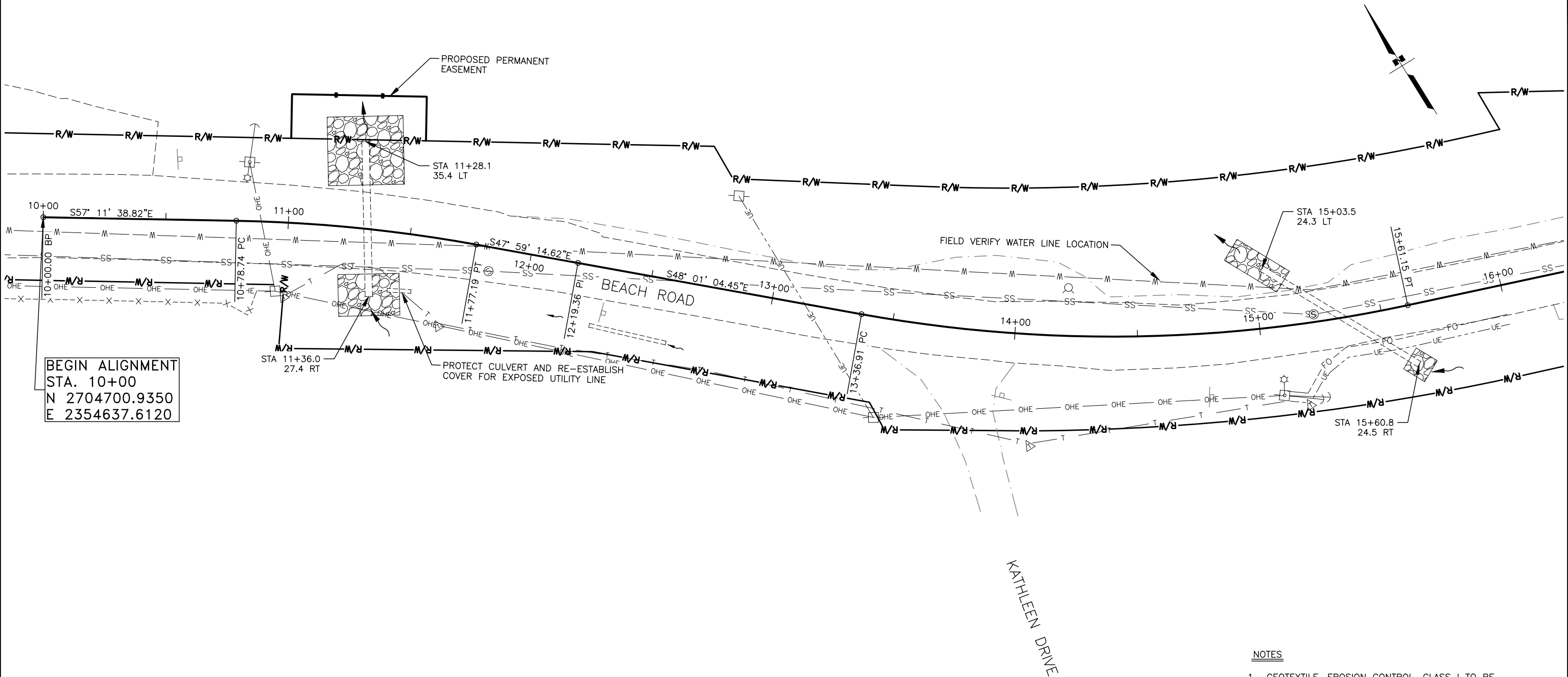
ALLEN MENAKER ROAD
STA 51+00-STA 55+55

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	F7	38

11+28.07 PI
Δ = 9°12'24"
D = 9°21'06"
T = 49.33'
L = 98.45'
R = 612.69'

14+50.47 PI
Δ = 22°20'37"
D = 9°57'52"
T = 113.56'
L = 224.23'
R = 575.00'



BEGIN ALIGNMENT
STA. 10+00
N 2704700.9350
E 2354637.6120

- NOTES
1. GEOTEXTILE, EROSION CONTROL, CLASS I TO BE PLACED BETWEEN PROPOSED RIPRAP AND EXISTING GROUND.



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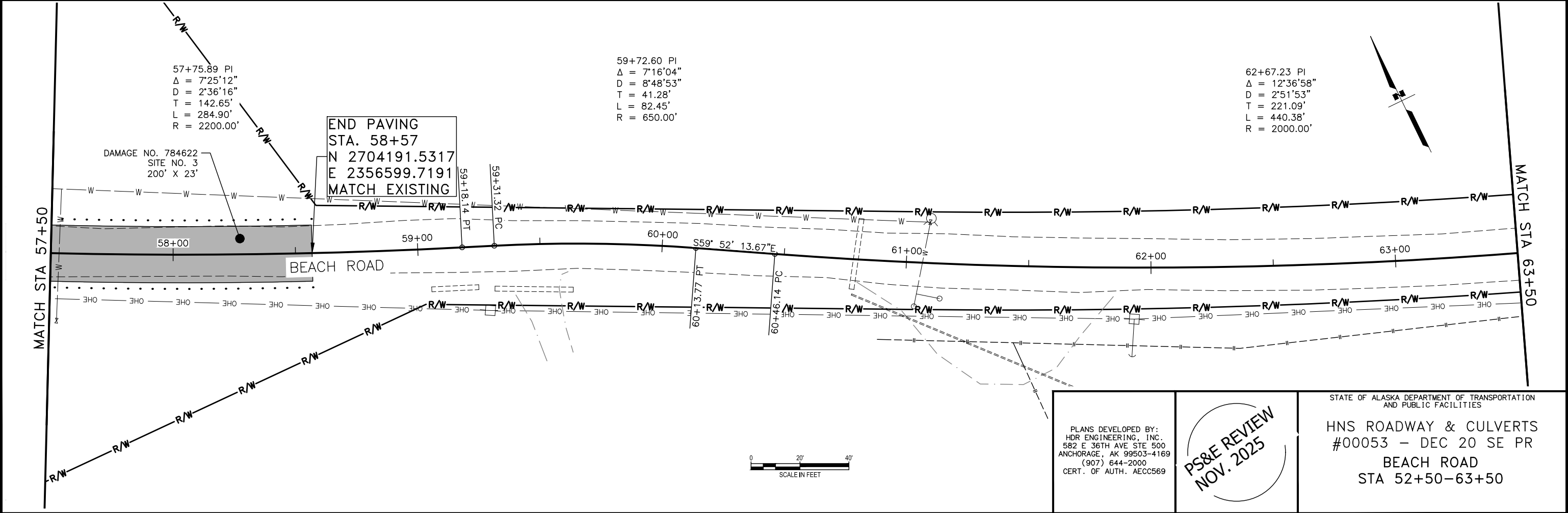
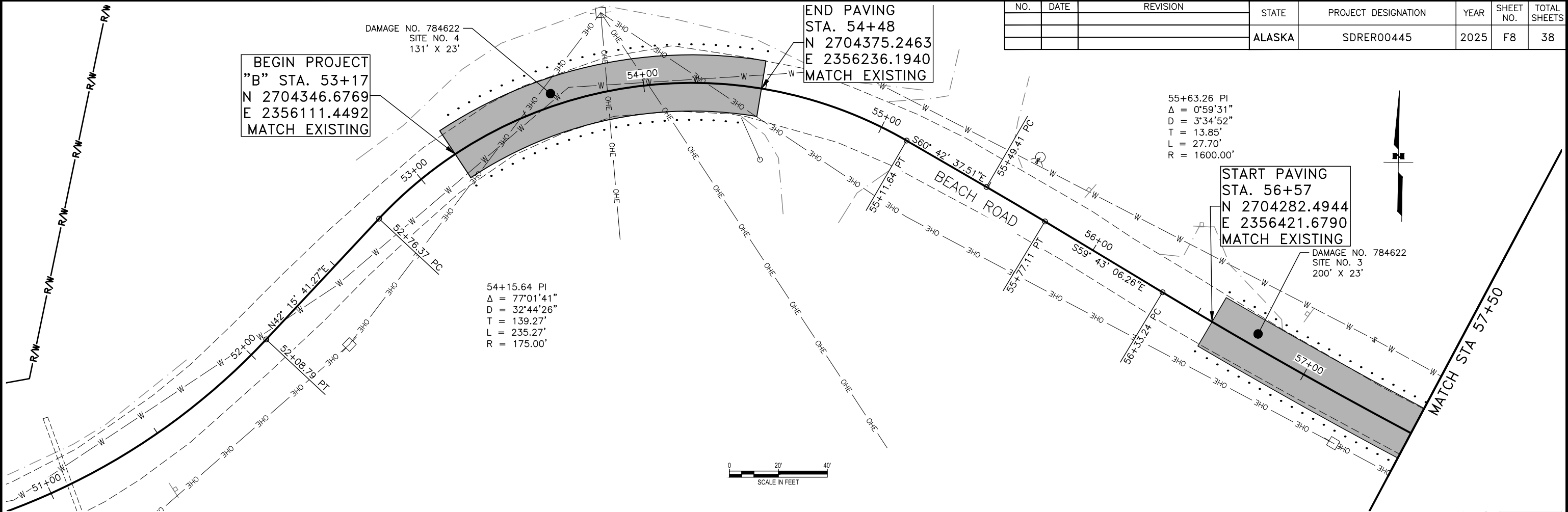
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NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

BEACH ROAD

FILE C:\USERS\TSPAL\CD\ACDDDCS\HNR\10382787\NTP_14_HNS_RDS_&CULVERTS_2024\PROJECT FILES\HNR\CAD\PRODUCTION\00445\F7-F9_BEACH ROAD DATE 11/4/2025 14:02 LAYOUT F8



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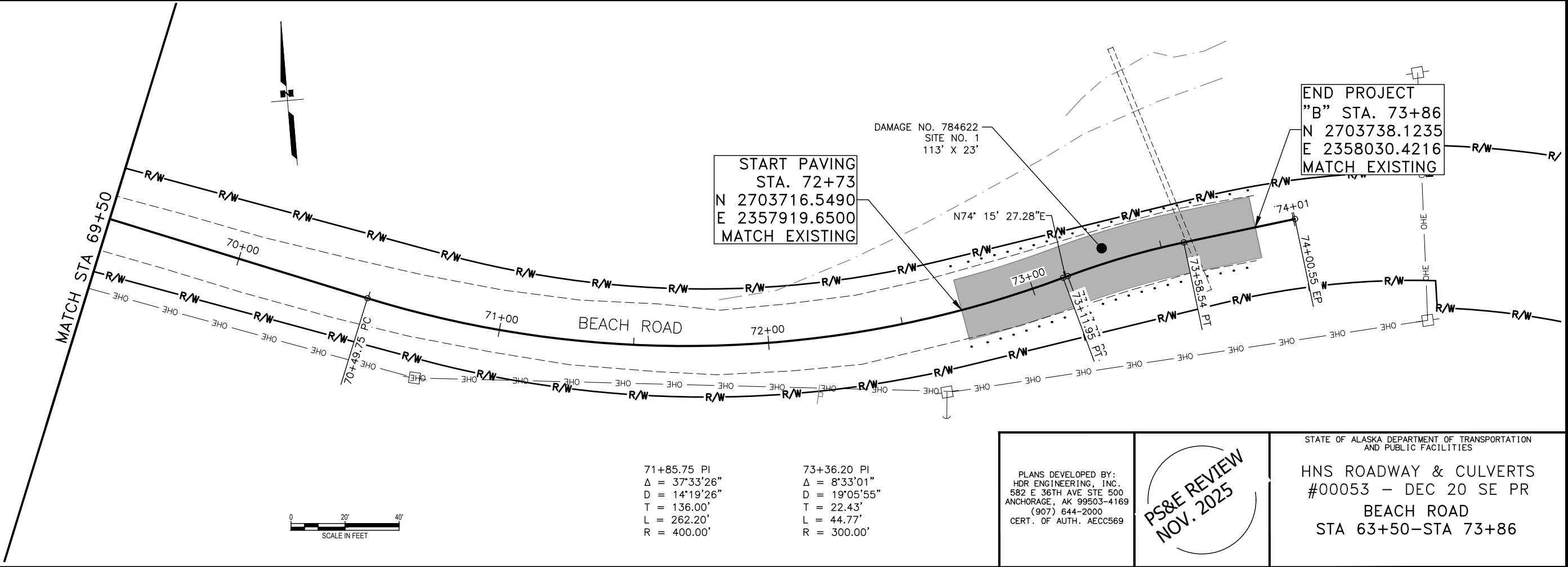
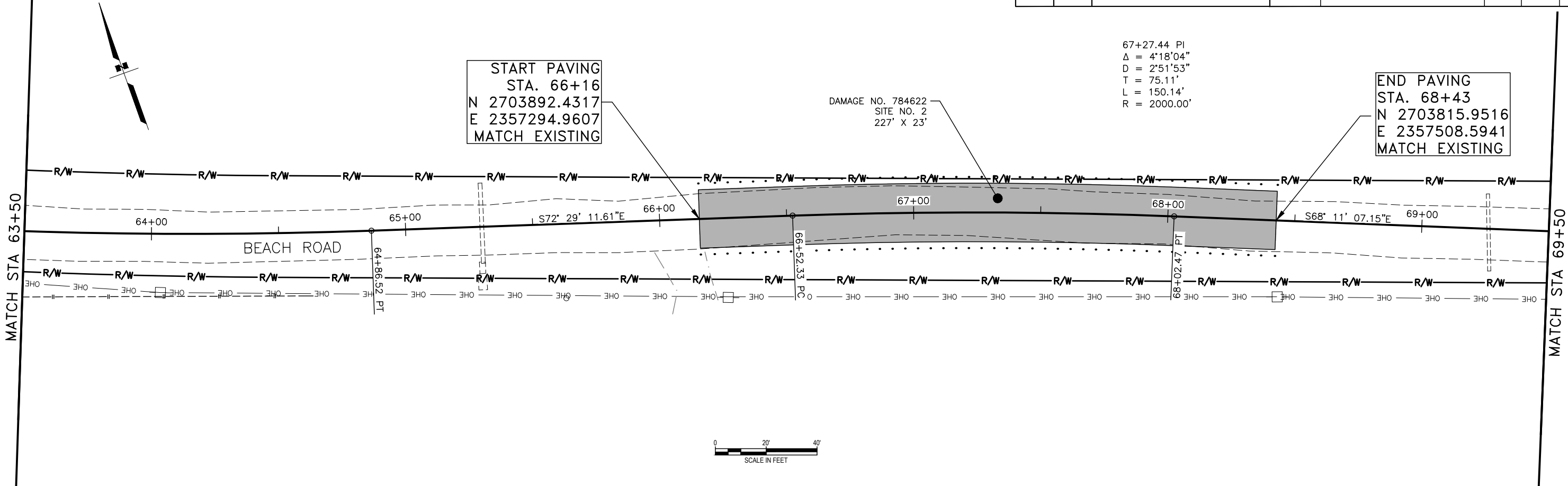
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NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR
BEACH ROAD
STA 52+50-63+50

FILE C:\USERS\TSPAL\CD\ACCD\DCS\H0R\10382787\NTP_14_HNS_RDS_&CULVERTS_2024\PROJECT FILES\H0R\CAD\PRODUCTION\00445.F7-F9.BEACH ROAD DATE 11/4/2025 14:02 LAYOUT F9

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	F9	38



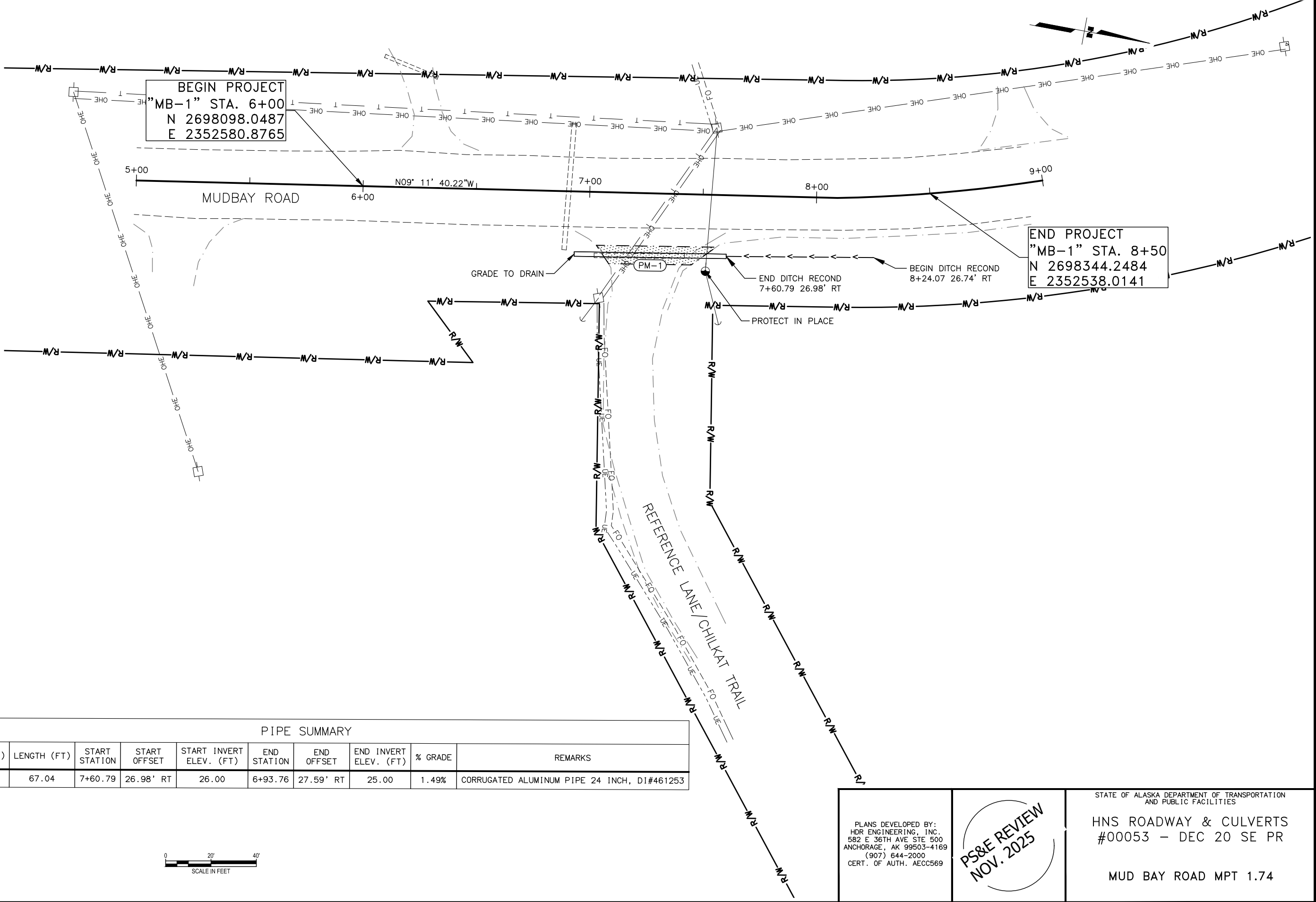
PLANS DEVELOPED BY:
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582 E 36TH AVE STE 500
ANCHORAGE, AK 99503-4169
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NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR
BEACH ROAD
STA 63+50-STA 73+86

FILE C:\USERS\TSPAL\CD\ACCD\DCS\HDR\10382787\NTP_14_HNS_RDS_& CULVERTS_2024\PROJECT FILES\HDR\CAD\PRODUCTION\00445_F10_MUDBAY MPT 1.36 DATE 11/4/2025 13:12 LAYOUT F10

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	F10	38



PIPE SUMMARY										
PIPE	SIZE (IN)	LENGTH (FT)	START STATION	START OFFSET	START INVERT ELEV. (FT)	END STATION	END OFFSET	END INVERT ELEV. (FT)	% GRADE	REMARKS
PM-1	24	67.04	7+60.79	26.98' RT	26.00	6+93.76	27.59' RT	25.00	1.49%	CORRUGATED ALUMINUM PIPE 24 INCH, DI#461253



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NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

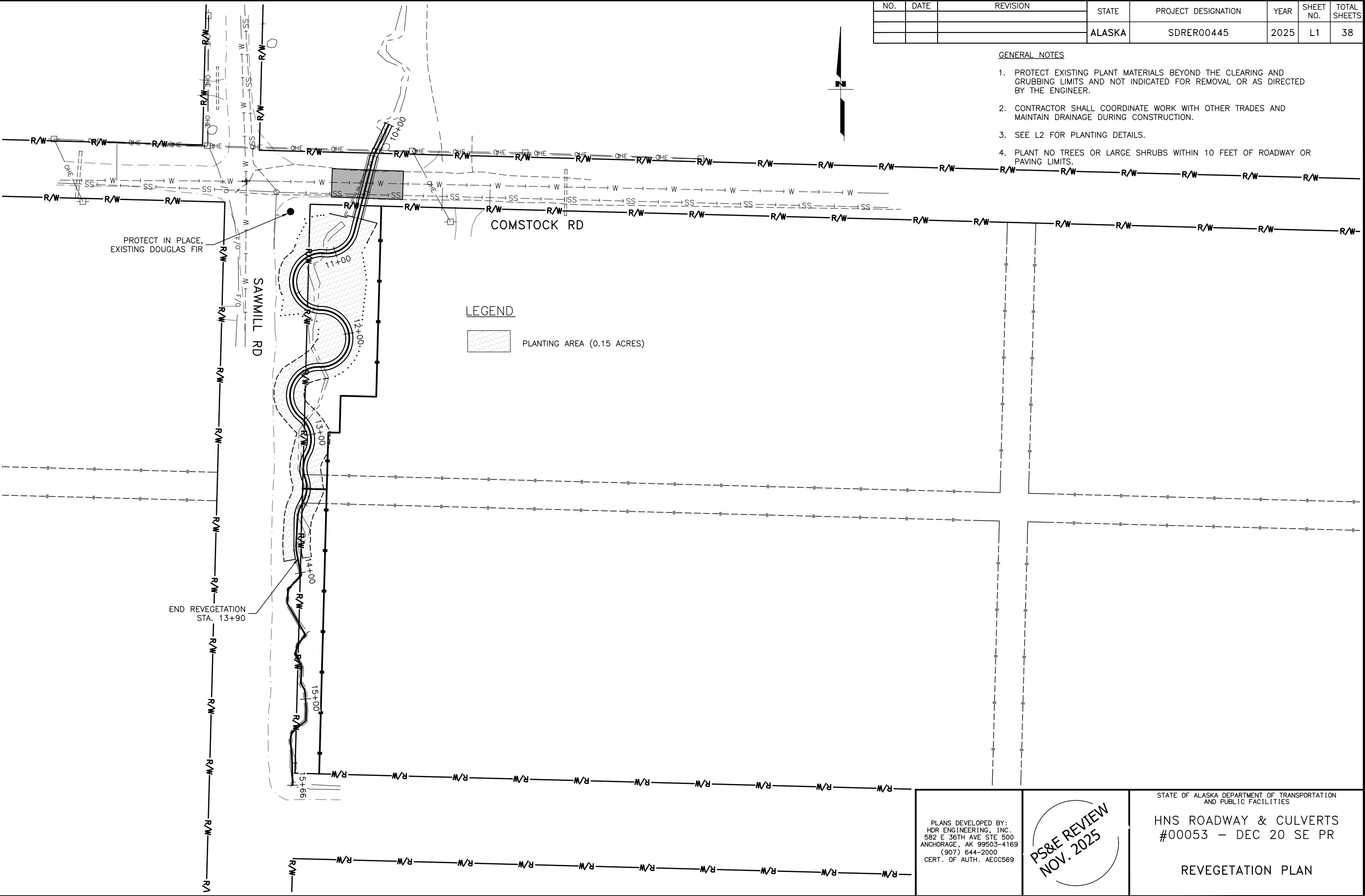
MUD BAY ROAD MPT 1.74

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	L1	38

GENERAL NOTES

1. PROTECT EXISTING PLANT MATERIALS BEYOND THE CLEARING AND GRUBBING LIMITS AND NOT INDICATED FOR REMOVAL OR AS DIRECTED BY THE ENGINEER.
2. CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES AND MAINTAIN DRAINAGE DURING CONSTRUCTION.
3. SEE L2 FOR PLANTING DETAILS.
4. PLANT NO TREES OR LARGE SHRUBS WITHIN 10 FEET OF ROADWAY OR PAVING LIMITS.



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PS&E REVIEW
NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

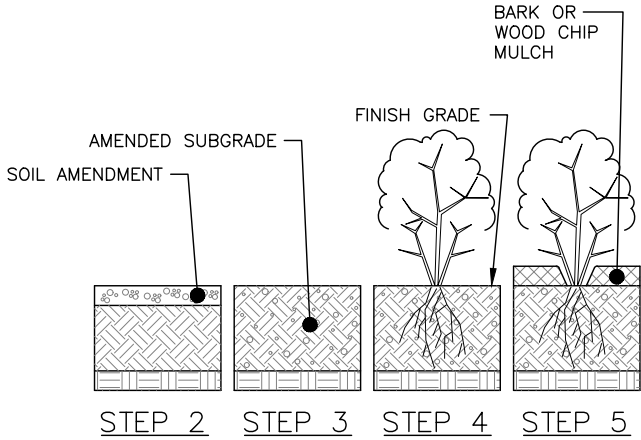
HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

REVEGETATION PLAN

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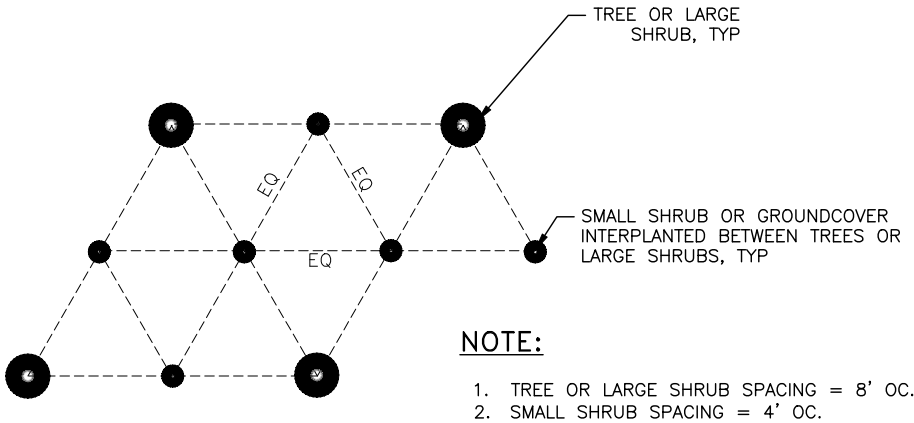
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	L2	38

NOTE:
1. DETAIL APPLICABLE TO RIPARIAN MIX.



CONSTRUCTION SEQUENCE:

- STEP 1
PLACE 3" DEPTH SOIL AMENDMENT OVER EXISTING SUBGRADE.
- STEP 2
TILL MEDIUM COMPOST INTO EXISTING SUBGRADE TO A DEPTH OF 6". COMPACT TO 85% MAXIMUM DRY DENSITY.
- STEP 3
INSTALL PLANT.
- STEP 4
1. INSTALL 3" DEPTH OF BARK OF WOOD CHIP MULCH. ENSURE MULCH DOES NOT CONTACT STEM OR TRUNK AFTER INSTALLATION IS COMPLETE

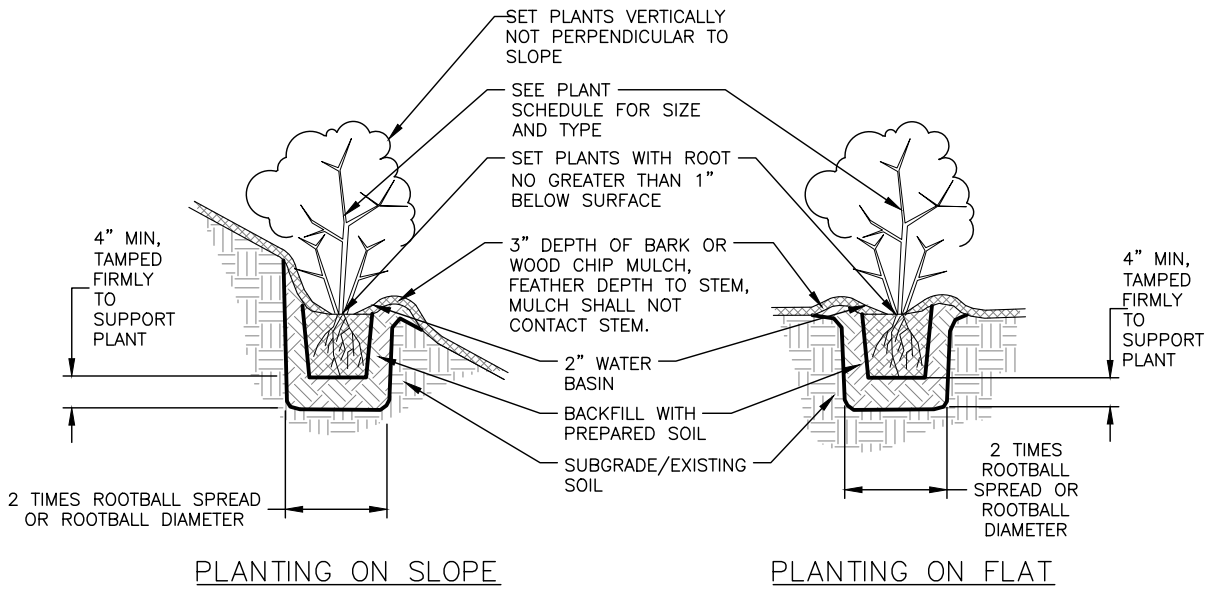


DETAIL 1 – SOIL PREPARATION

NOT TO SCALE

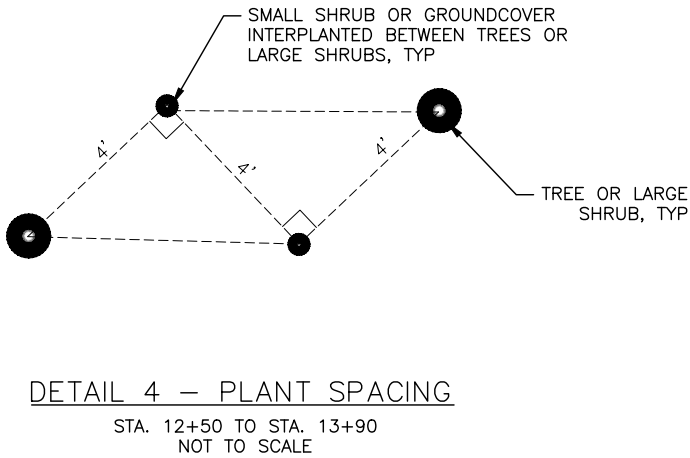
DETAIL 2 – PLANT SPACING

STA. 10+70 TO STA. 12+50
NOT TO SCALE



DETAIL 3 – TREE / SHRUB PLANTING

NOT TO SCALE



PLANT SCHEDULE

TREES	SHRUBS
PAPER BIRCH (BETULA PAPYRIFERA), SEEDLING	DWARF DOGWOOD (CORNUS CANADENSIS), SEEDLING
WHITE SPRUCE (PICEA GLAUCA), SEEDLING	LABRADOR TEA (RHODODENDRON GROENLANDICUM), SEEDLING
	RED OSIER DOGWOOD (CORNUS STOLONIFERA), SEEDLING

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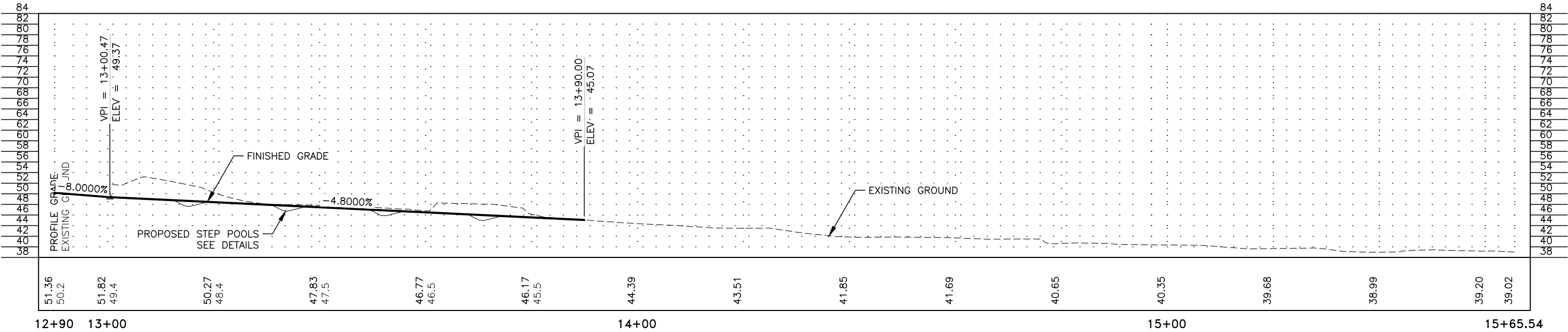
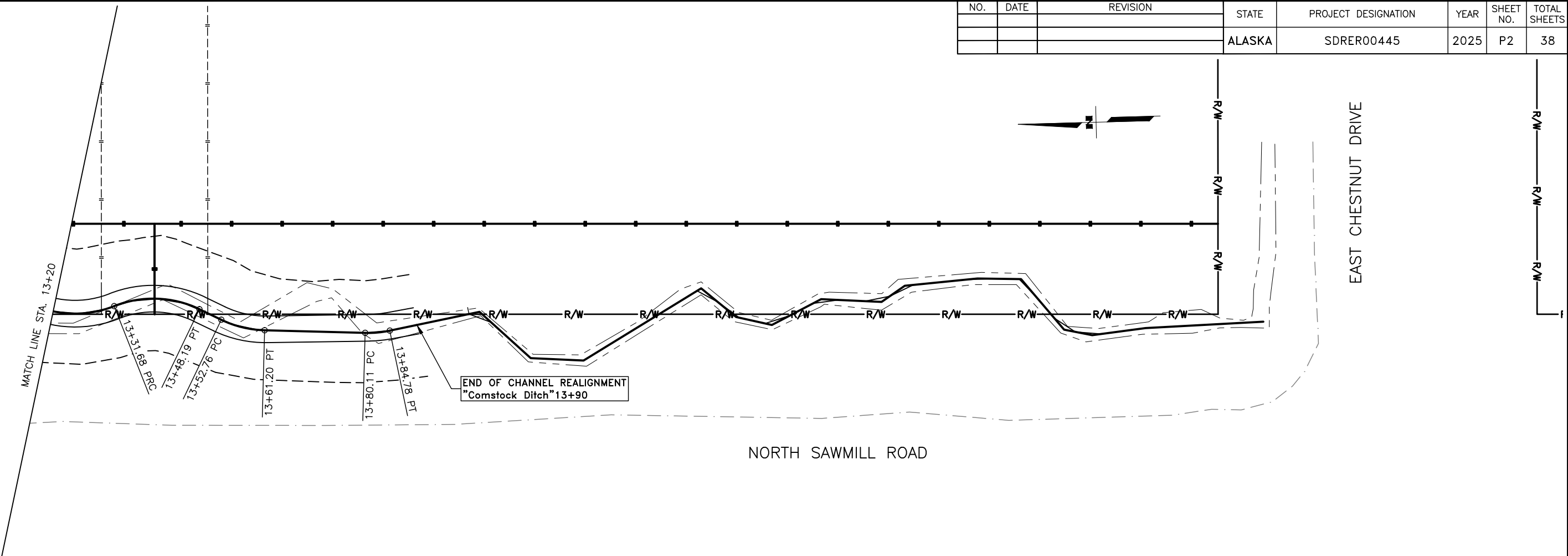
PS&E REVIEW
NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 – DEC 20 SE PR

REVEGETATION PLAN

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	P2	38



PLANS DEVELOPED BY:
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NOV. 2025

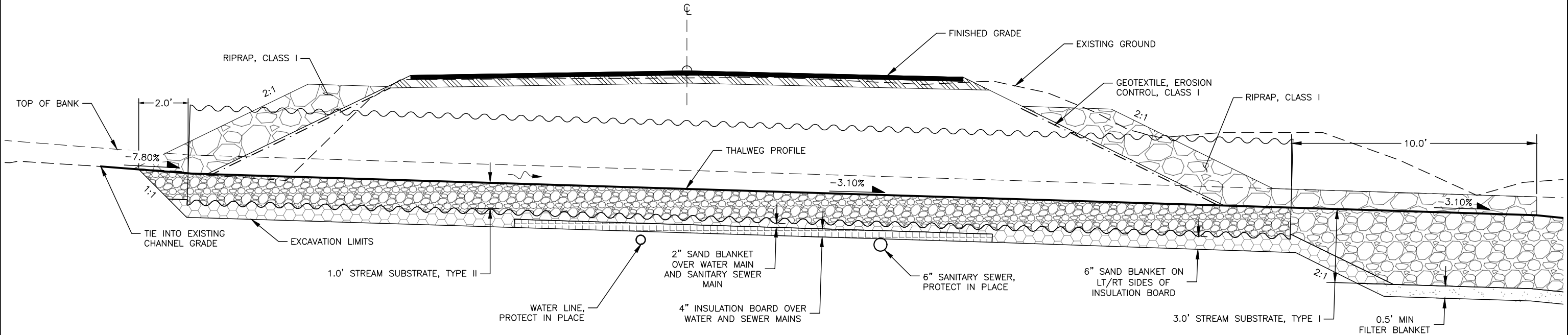
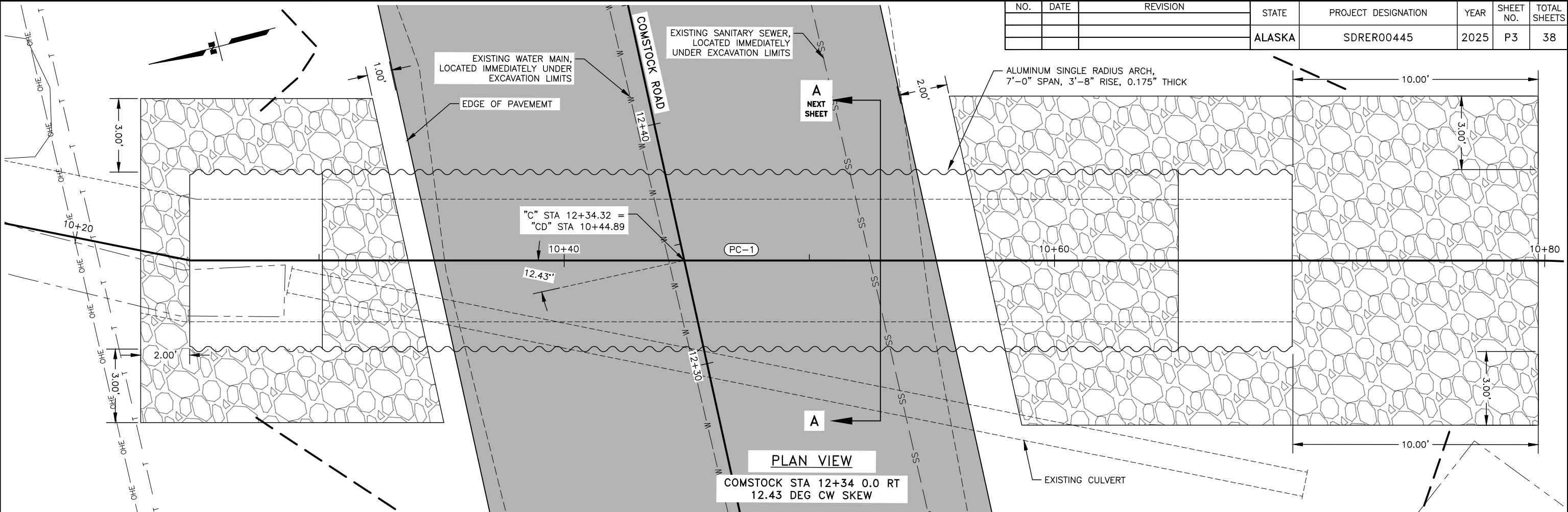
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

COMSTOCK ROAD
STREAM REALIGNMENT

FILE C:\USERS\TSPAL\CD\ACCD\DCS\HNR\CAD\PROJECT FILES\HNR\CAD\PRODUCTION\004445_P3-P4-COMSTOCK_CULVERT DATE 11/4/2025 14:47 LAYOUT P3

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	P3	38



HYDROLOGIC AND HYDRAULIC SUMMARY - COMSTOCK RD CHANNEL WATERSHED			
DRAINAGE AREA = 0.06 SQUARE MILES			
EXCEEDANCE PROBABILITY	2%	1%	REGULATORY DISCHARGE
RETURN PERIOD	50 YEAR (Q_{50})	100 YEAR (Q_{100})	N/A
DESIGN DISCHARGE	18 CFS	23 CFS	N/A
DESIGN HIGH WATER ELEVATION	69.8 FEET	70.0 FEET	N/A
ANTICIPATED ADDITIONAL BACKWATER AT (Q_{100}) = 0.0 FEET			

PROFILE VIEW
COMSTOCK STA 12+34 0.00 RT
12.43 DEG CW SKEW

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PS&E REVIEW
NOV. 2025

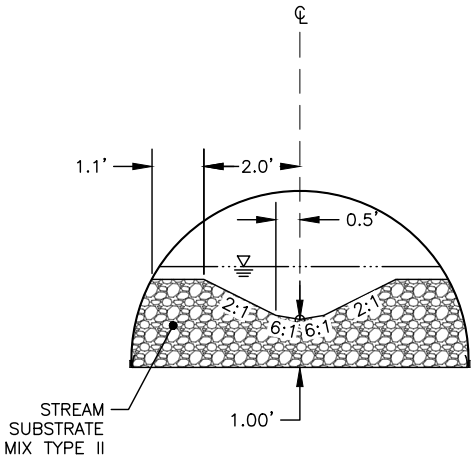
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

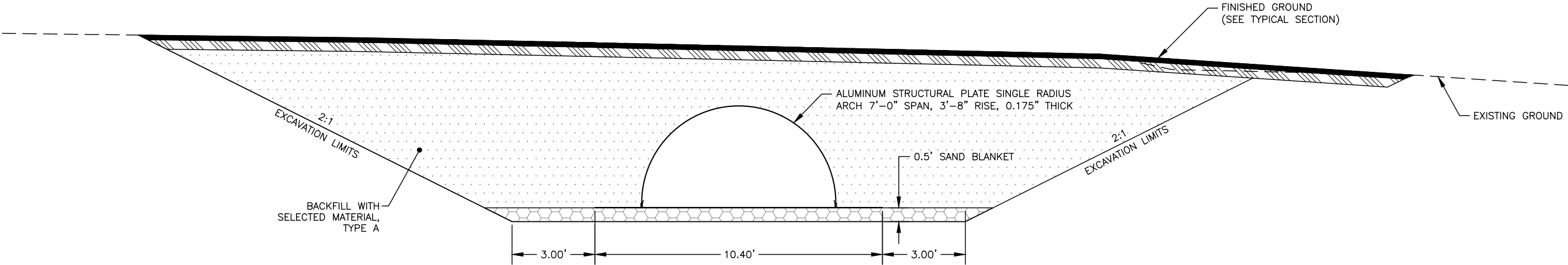
COMSTOCK FISH CULVERT
PLAN & PROFILE

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	P4	38



SECTION A-A
COMSTOCK CULVERT SECTION DETAIL



SECTION A-A
COMSTOCK CULVERT BEDDING AND BACKFILL DETAIL

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NOV. 2025

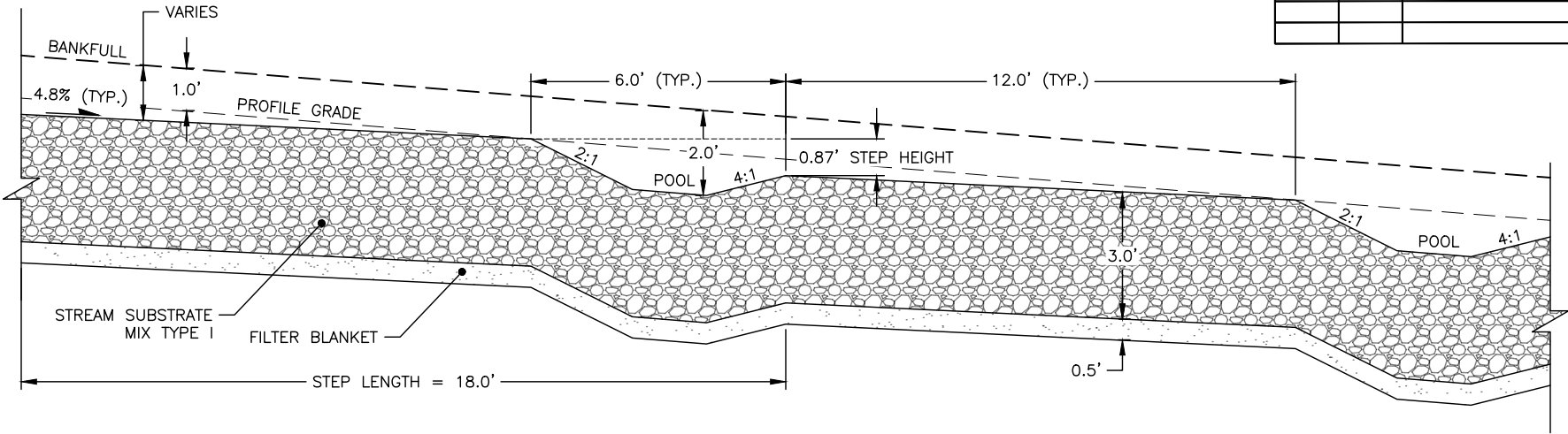
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

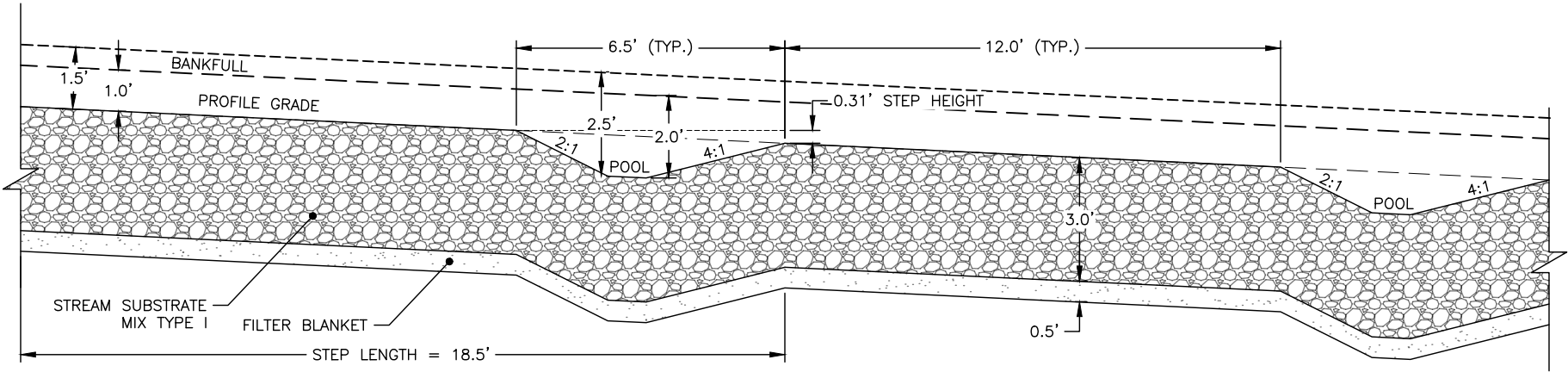
COMSTOCK FISH CULVERT
DETAIL

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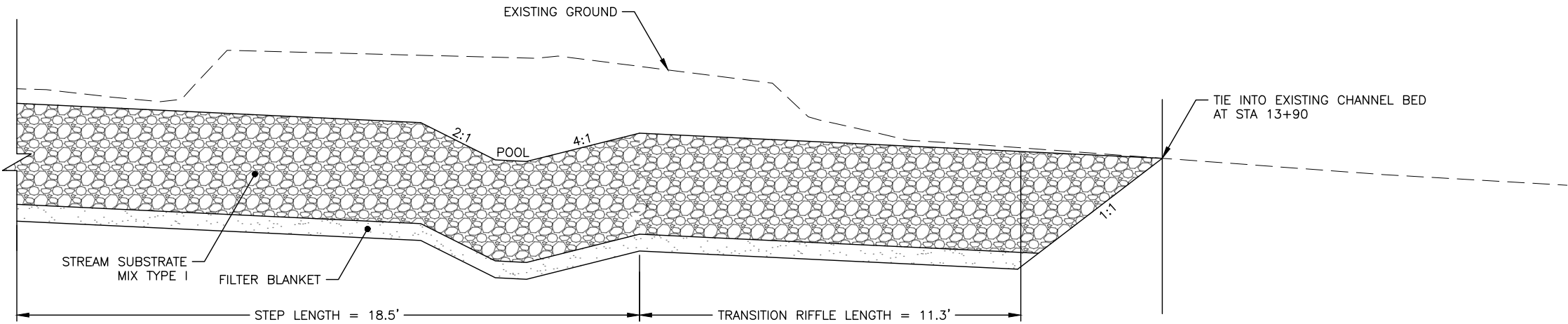
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	P5	38



UPPER CHANNEL STEP POOL DETAIL
STA 10+79.76 TO 13+00.47



LOWER CHANNEL STEP POOL DETAIL
STA 13+00.47 TO 13+90



STEP POOL TO EXISTING CHANNEL TRANSITION
STA 13+90

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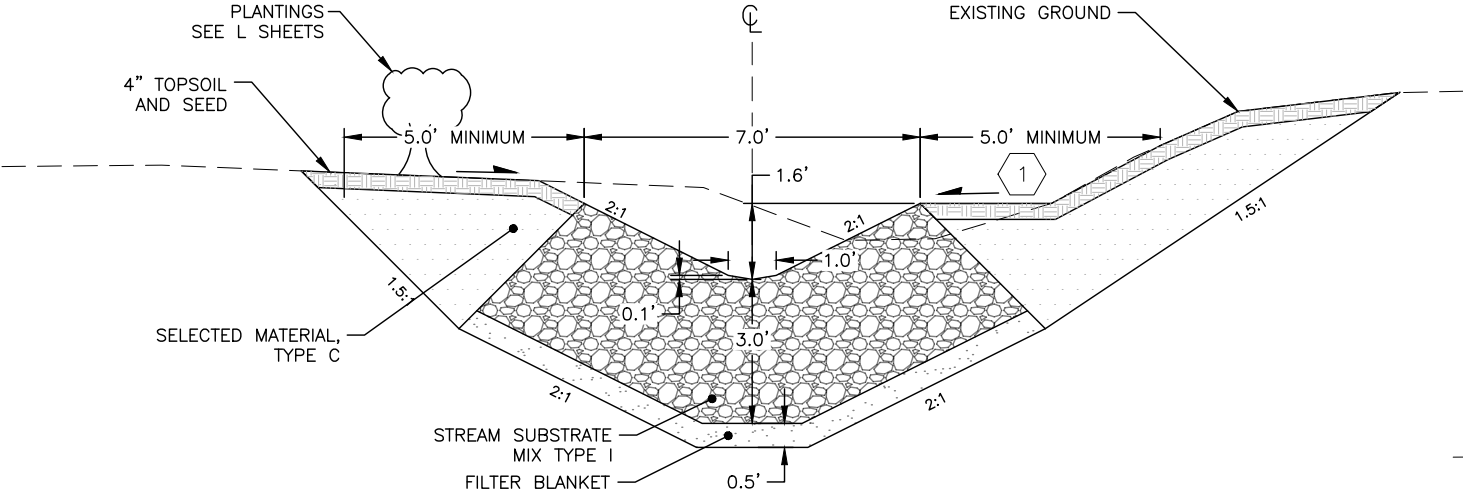
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

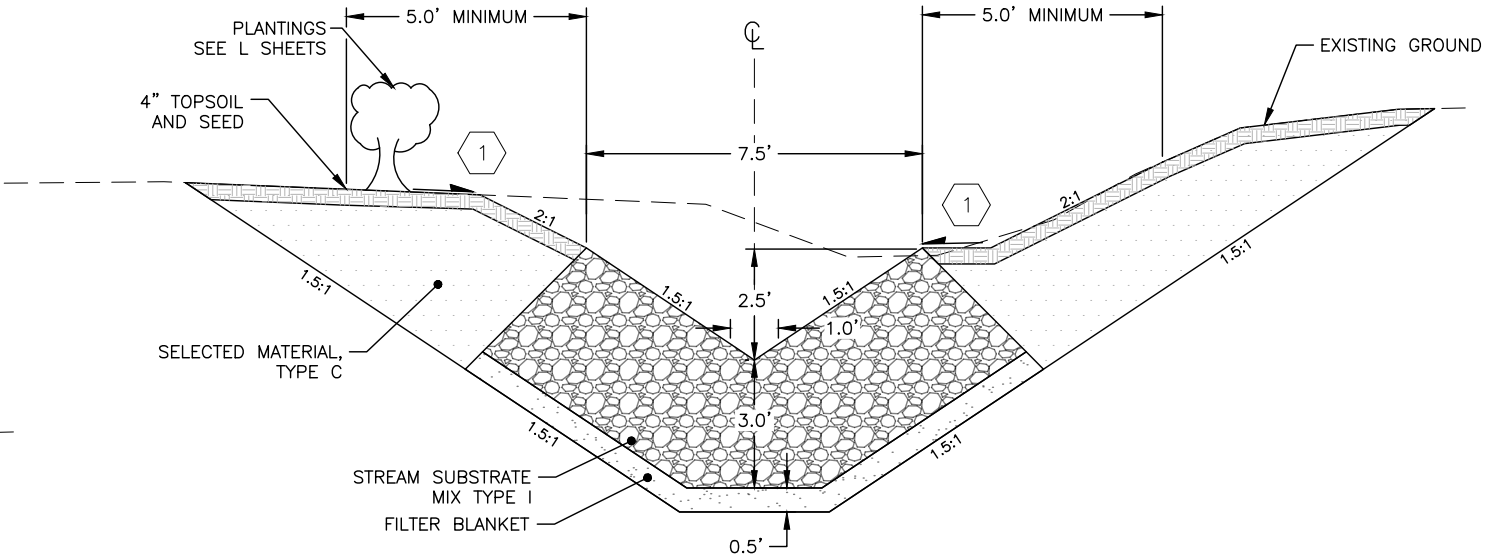
COMSTOCK ROAD
STREAM STEP POOL DETAILS

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	P6	38



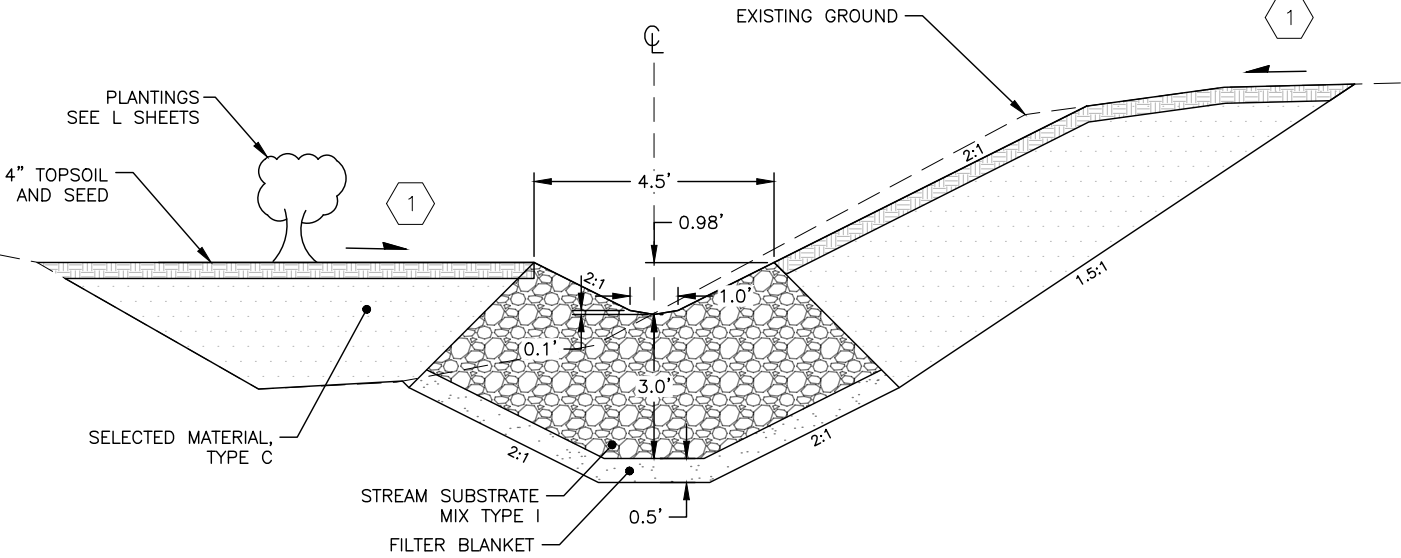
LOWER CHANNEL RIFFLE SECTION
STA 13+00.47 TO 13+90



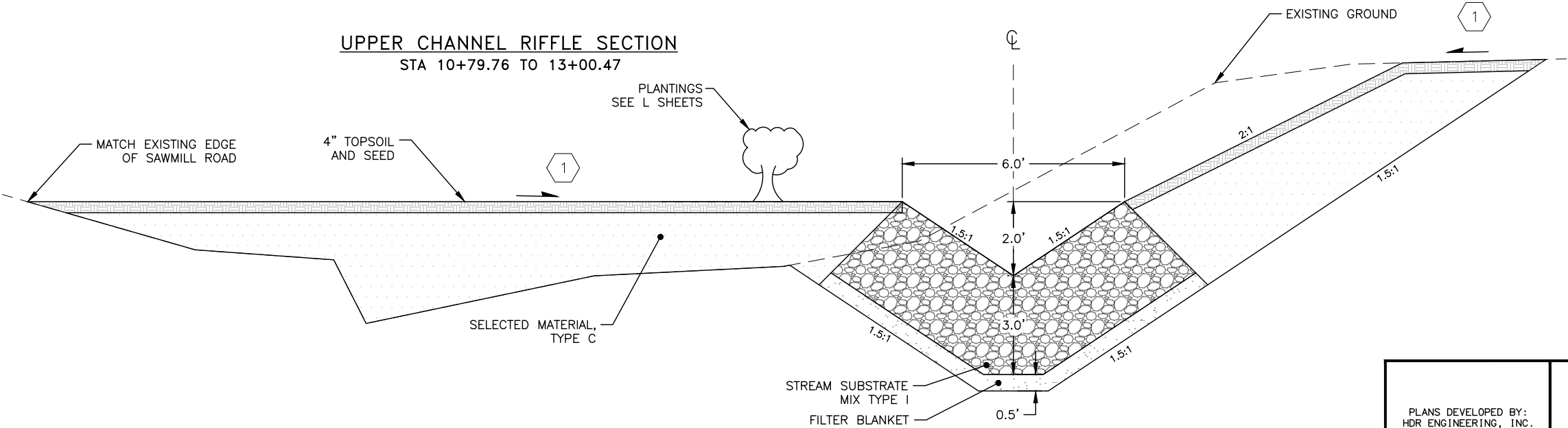
LOWER CHANNEL POOL SECTION
STA 13+00.47 TO 13+90

NOTES:

1 GRADE TO DRAIN



UPPER CHANNEL RIFFLE SECTION
STA 10+79.76 TO 13+00.47



UPPER CHANNEL POOL SECTION
STA 10+79.76 TO 13+00.47

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NOV. 2025

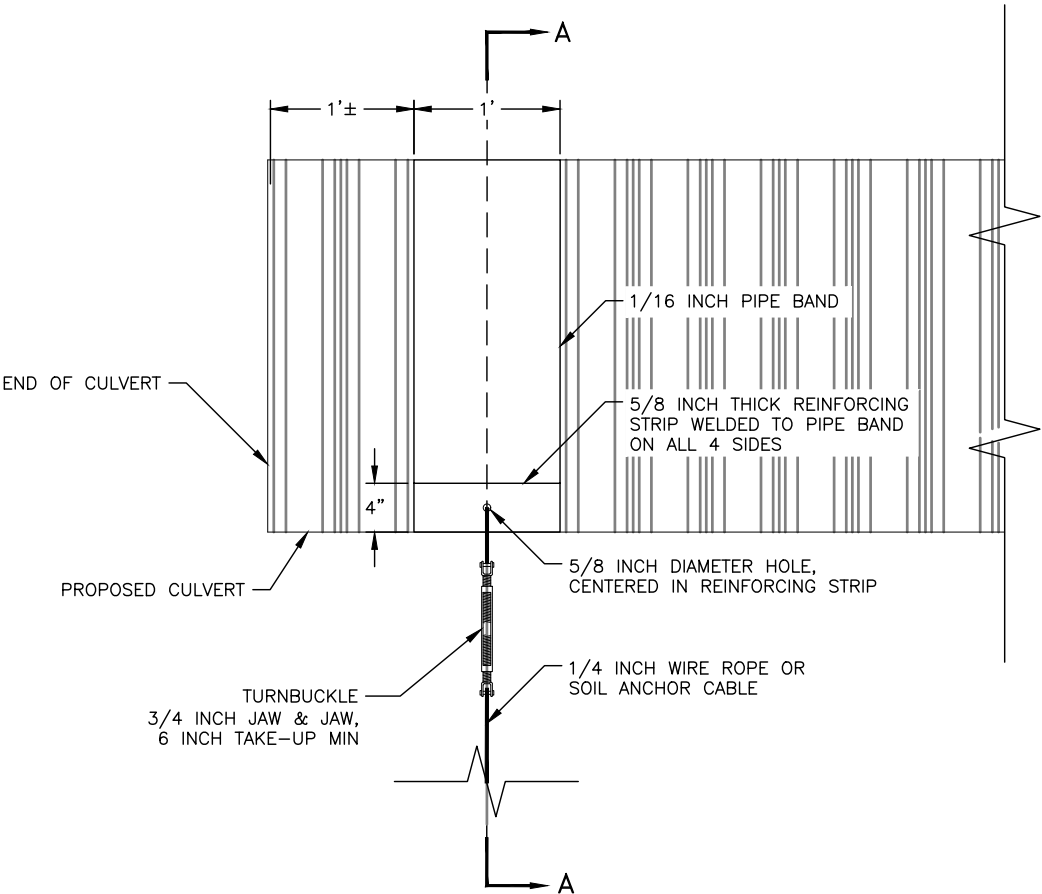
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

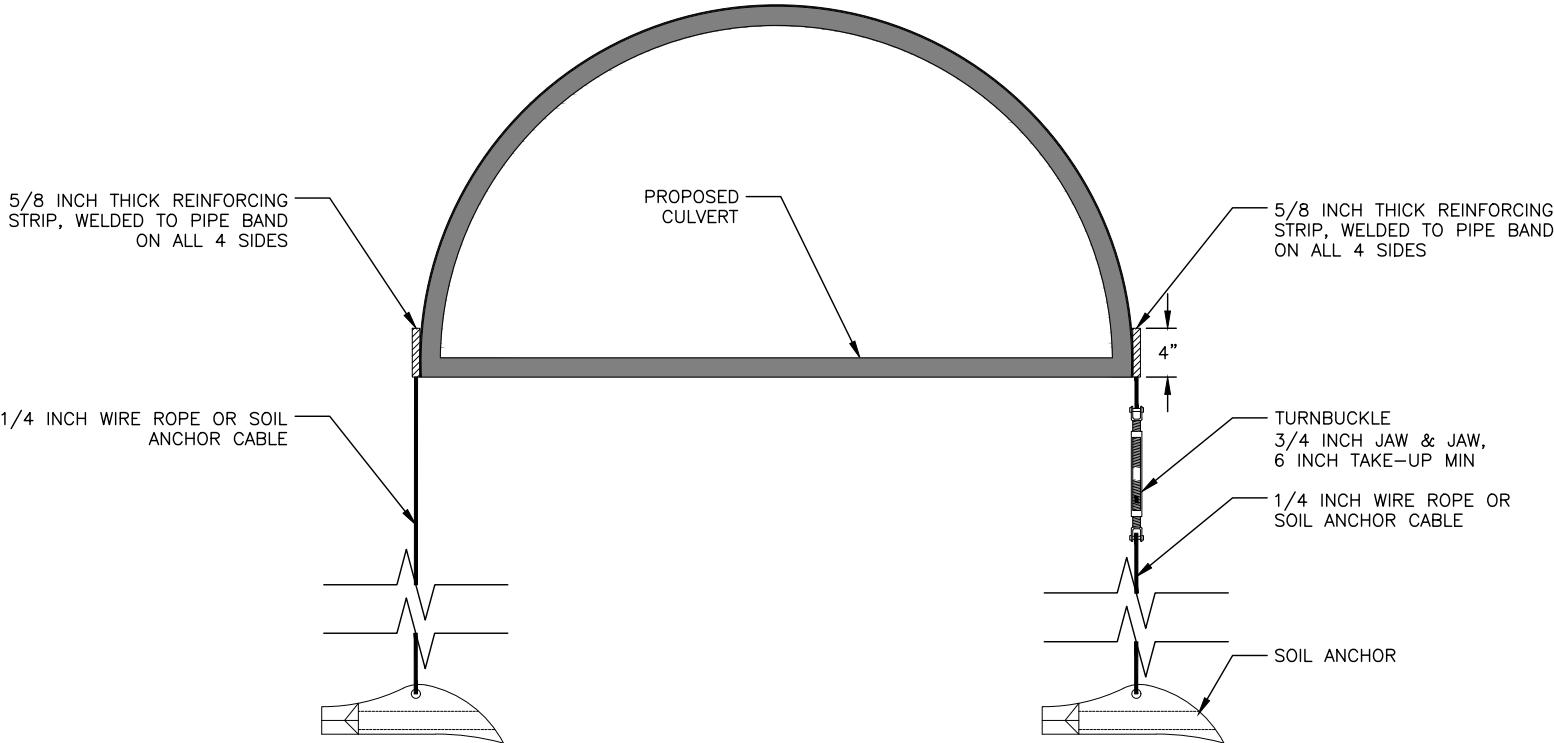
COMSTOCK ROAD
STREAM CROSS SECTIONS

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	P7	38



CULVERT END RESTRAINT – ELEVATION VIEW



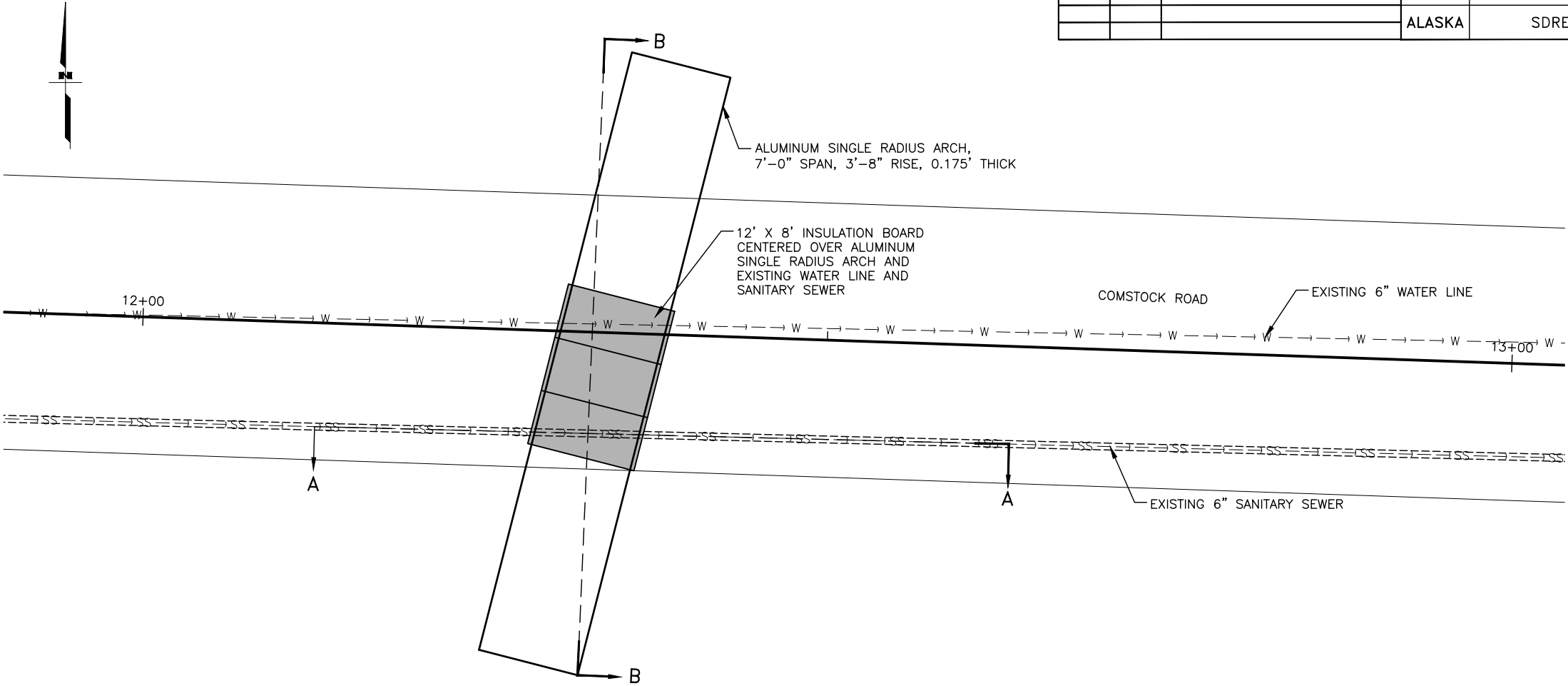
CULVERT END RESTRAINT – SECTION VIEW

- NOTES:
1. DRIVE EACH SOIL ANCHOR TO THE DEPTH REQUIRED TO ACHIEVE A MINIMUM PULLOUT CAPACITY OF 4,000 LBS. REFER TO THE MANUFACTURER'S RECOMMENDATIONS AND THE GEOTECHNICAL MEMO TO DETERMINE APPROPRIATE ANCHOR SIZE AND EMBEDMENT DEPTH TO ACHIEVE THE MINIMUM PULLOUT CAPACITY. FIELD TEST EACH SOIL ANCHOR TO THE MINIMUM PULLOUT CAPACITY.
 2. THE LENGTH OF THE PIPE BAND IS EQUAL TO THE ARC LENGTH OF THE SINGLE RADIUS ARCH CULVERT.
 3. INSTALL ANCHOR ASSEMBLIES WHERE SPECIFIED IN THE PIPE SUMMARY TABLE.

PLANS DEVELOPED BY: HDR ENGINEERING, INC. 582 E 36TH AVE STE 500 ANCHORAGE, AK 99503-4169 (907) 644-2000 CERT. OF AUTH. AECC569	PS&E REVIEW NOV. 2025	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES HNS ROADWAY & CULVERTS #00053 – DEC 20 SE PR COMSTOCK ANCHOR DETAILS
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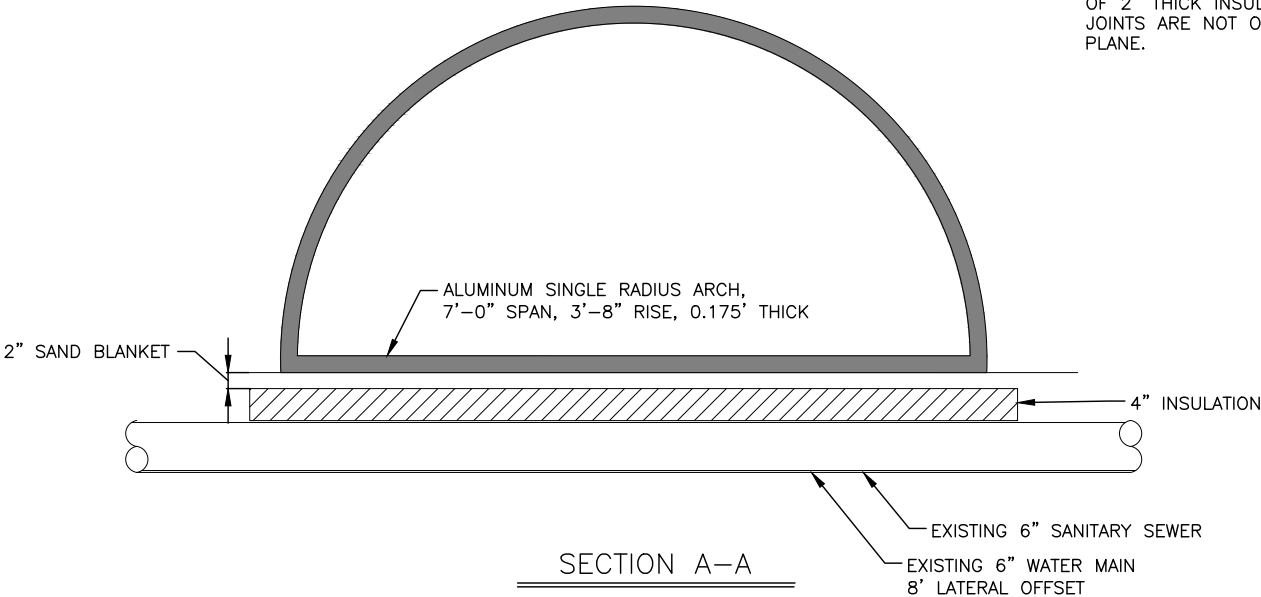
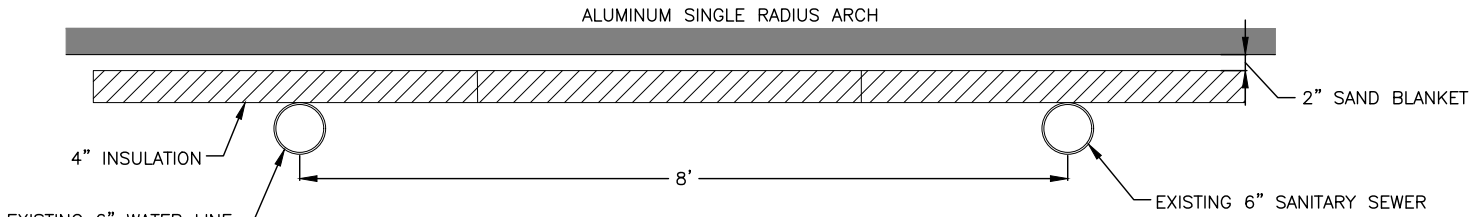
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	P8	38



NOTES

1. PROVIDE 4" THICK INSULATION, MIN 60 PSI AND MIN R=5 PER INCH FOR A TOTAL MIN R=20. STAGGER TWO LAYERS OF 2" THICK INSULATION SO THAT THE JOINTS ARE NOT ON THE SAME VERTICAL PLANE.



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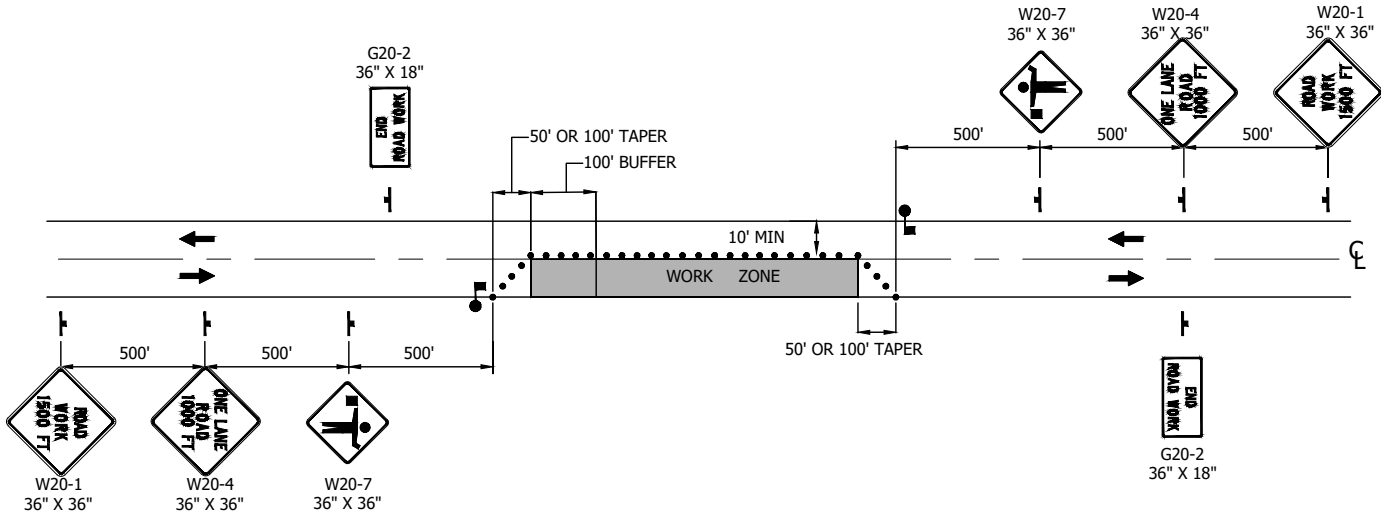
PS&E REVIEW
NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HNS ROADWAY & CULVERTS
#00053 - DEC 20 SE PR

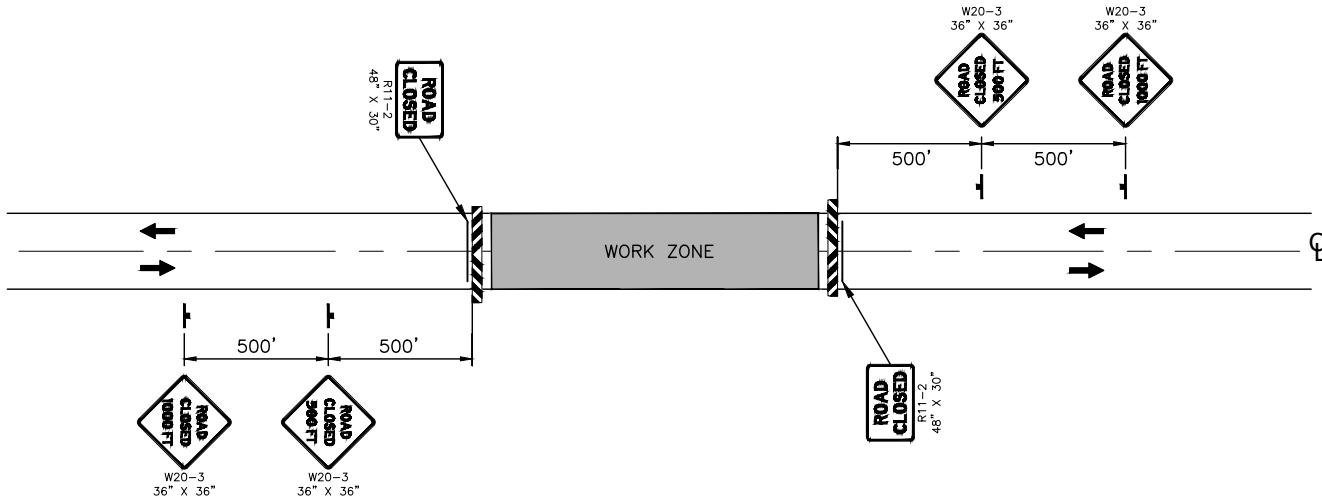
COMSTOCK UTILITY
PROTECTION DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00445	2025	T1	38



LANE CLOSURE WITH FLAGGERS

PIEDAD ROAD
ALLEN-MENAKER ROAD
BEACH ROAD
MUD BAY ROAD



NIGHT ROAD CLOSURE

PIEDAD ROAD
COMSTOCK ROAD

TRAFFIC CONTROL LEGEND

FLAGGER

CONSTRUCTION SIGN

DRUM

CONE

WARNING LIGHT

TRAFFIC FOLLOW

TYPE III BARRICADE

NOTES:

- SUBMIT ALL TRAFFIC CONTROL PLANS TO THE ENGINEER FOR APPROVAL.
- SEE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SECTION 6H, TYPICAL APPLICATION 10.
- REPEAT SIGN AND CHANNELIZATION DEVICE LAYOUT FOR ROADWAYS LISTED.
- MAINTAIN TRAFFIC OPERATIONS WITH FLAGGERS AND/OR TEMPORARY TRAFFIC CONTROL SIGNALS.
- UTILIZE THE ROAD CLOSURE TYPICAL SETUP IN CONJUNCTION WITH A DETOUR ROUTE TRAFFIC CONTROL PLAN.
- PLACE CONSTRUCTION SIGNS SUCH THAT THEY DO NOT OBSCURE EXISTING TRAFFIC SIGNS.
- SUGGESTED GENERAL CONSTRUCTION PHASING:
 - PERFORM ACTIVE CONSTRUCTION ONE SITE AT A TIME. SETUP A SINGLE LANE CLOSURE TO CONSTRUCT REPAIRS, SWAPPING TRAFFIC BACK AND FORTH AS NEEDED IF THE WORK IMPACTS BOTH LANES. REESTABLISH TWO LANES OF TRAFFIC BEFORE MOVING TEMPORARY TRAFFIC CONTROL SETUP TO THE NEXT SITE.
 - WHERE CULVERT REPLACEMENTS ARE SHOWN IN THE PLANS, MAINTAIN A SINGLE LANE OF TRAFFIC AND INSTALL THE CULVERT ONE-HALF AT A TIME. SWAP TRAFFIC AS NEEDED TO COMPLETE THE CULVERT INSTALLATION.
- COORDINATE WORKZONE TRAFFIC CONTROL SUCH THAT TRAFFIC DELAYS DO NOT EXCEED THE DURATIONS SPECIFIED IN SECTION 643 OF THE SPECIAL PROVISIONS.

PLANS DEVELOPED BY:
HDR ENGINEERING, INC.
582 E 36TH AVE STE 500
ANCHORAGE, AK 99503-4169
(907) 644-2000
CERT. OF AUTH. AECC569

PS&E REVIEW
NOV. 2025

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

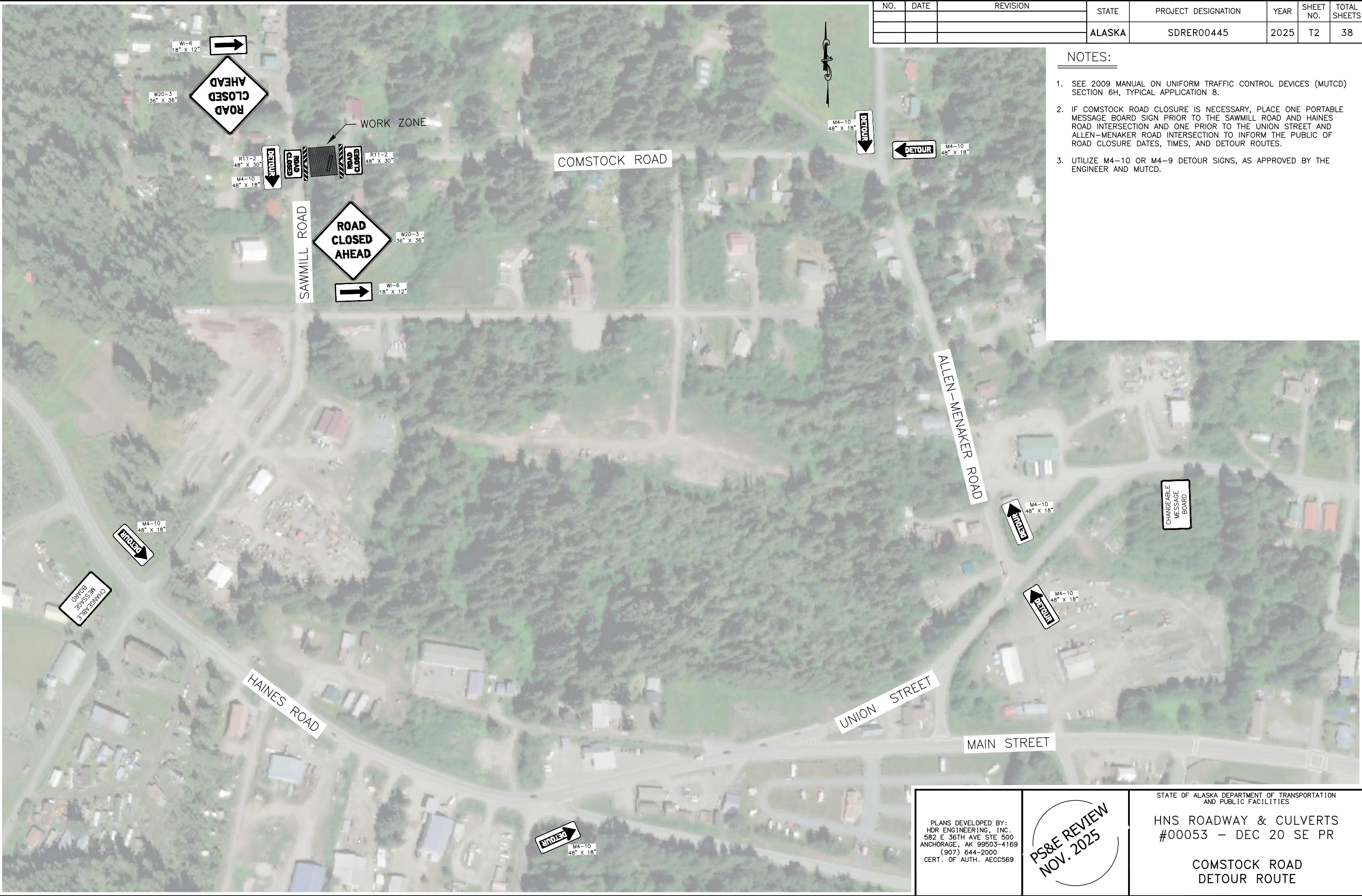
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TRAFFIC CONTROL PLANS

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NOTES:

- SEE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SECTION 6H, TYPICAL APPLICATION 8.
- IF COMSTOCK ROAD CLOSURE IS NECESSARY, PLACE ONE PORTABLE MESSAGE BOARD SIGN PRIOR TO THE SAWMILL ROAD AND HAINES ROAD INTERSECTION AND ONE PRIOR TO THE UNION STREET AND ALLEN-MENAKER ROAD INTERSECTION TO INFORM THE PUBLIC OF ROAD CLOSURE DATES, TIMES, AND DETOUR ROUTES.
- UTILIZE M4-10 OR M4-9 DETOUR SIGNS, AS APPROVED BY THE ENGINEER AND MUTCD.



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COMSTOCK ROAD
DETOUR ROUTE