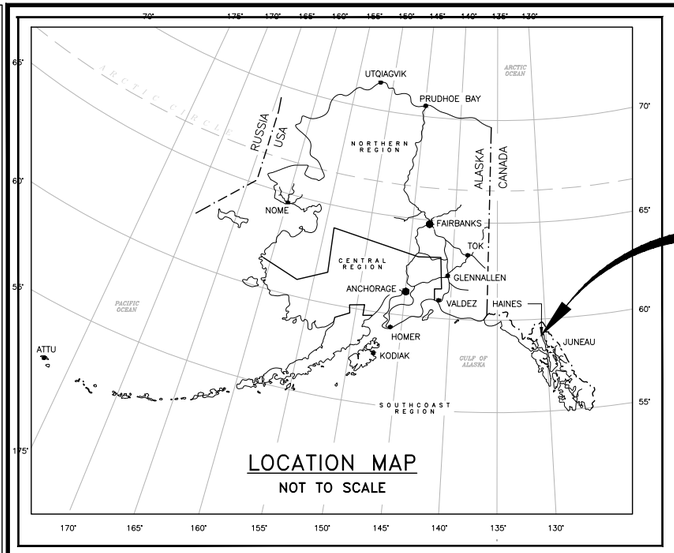
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0093007/SFHWY00446	2025	A1	35



LOCATION MAP
NOT TO SCALE

PROJECT LOCATION
M&O STATION: HAINES

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT

HAINES HWY / LUTAK ROAD – DEC 20 SE PR

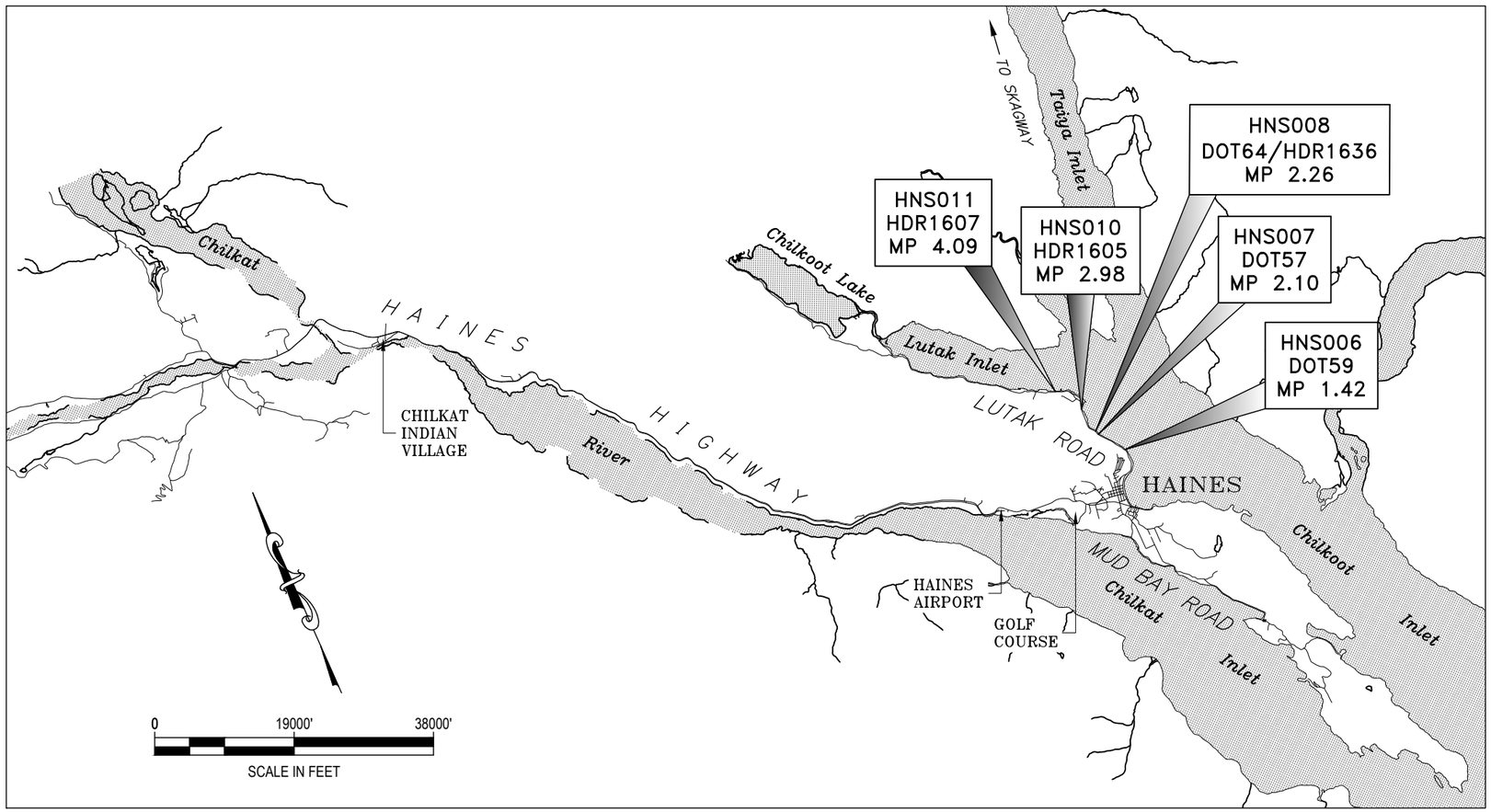
0093007/SFHWY00446

GRADING, DRAINAGE, GUARDRAIL, & ROCK FACING

DDIR #HNS006	DOT59	ROUTE ID: 2021017X000	MILEPOST: 1.42
		LATITUDE: 59.25034	LONGITUDE: –135.42950
DDIR #HNS007	DOT57	ROUTE ID: 2021017X000	MILEPOST: 2.10
		LATITUDE: 59.25820	LONGITUDE: –135.44077
DDIR #HNS008	DOT64/ HDR1636	ROUTE ID: 2021017X000	MILEPOST: 2.26
		LATITUDE: 59.26042	LONGITUDE: –135.44217
DDIR #HNS010	HDR1605	ROUTE ID: 2021017X000	MILEPOST: 2.98
		LATITUDE: 59.27010	LONGITUDE: –135.44486
DDIR #HNS011	HDR1642	ROUTE ID: 2021017X000	MILEPOST: 4.09
		LATITUDE: 59.28035	LONGITUDE: –135.45963

PROJECT SUMMARY

LOCATION	WIDTH	LENGTH	AREA OF DISTURBANCE
DDIR #HNS006 DOT59	36'	195'	1,284 SY
DDIR #HNS007 DOT57	36'	95'	6,074 SY
DDIR #HNS008 DOT64/HDR1636	36'	50'	158 SY
DDIR #HNS010 HDR1605	36'	33'	253 SY
DDIR #HNS011 HDR1642	36'	30'	7 SY



VICINITY MAP

DESIGN DESIGNATIONS

FUNCTIONAL CLASS	PRINCIPAL ARTERIAL
ADT (2022)	915
ADT (2035)	986
DHV (2022)	136
DHV (2035)	147
PERCENT TRUCKS (T)	10.26%
DIRECTIONAL SPLIT (D)	45–55%
DESIGN SPEED (V)	50 MPH

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

JOEL OSBURN, P.E., PROJECT MANAGER
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465–4409

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED BY:

_____ DATE _____

Kirk Miller, P.E.
Preconstruction Engineer, Southcoast Region

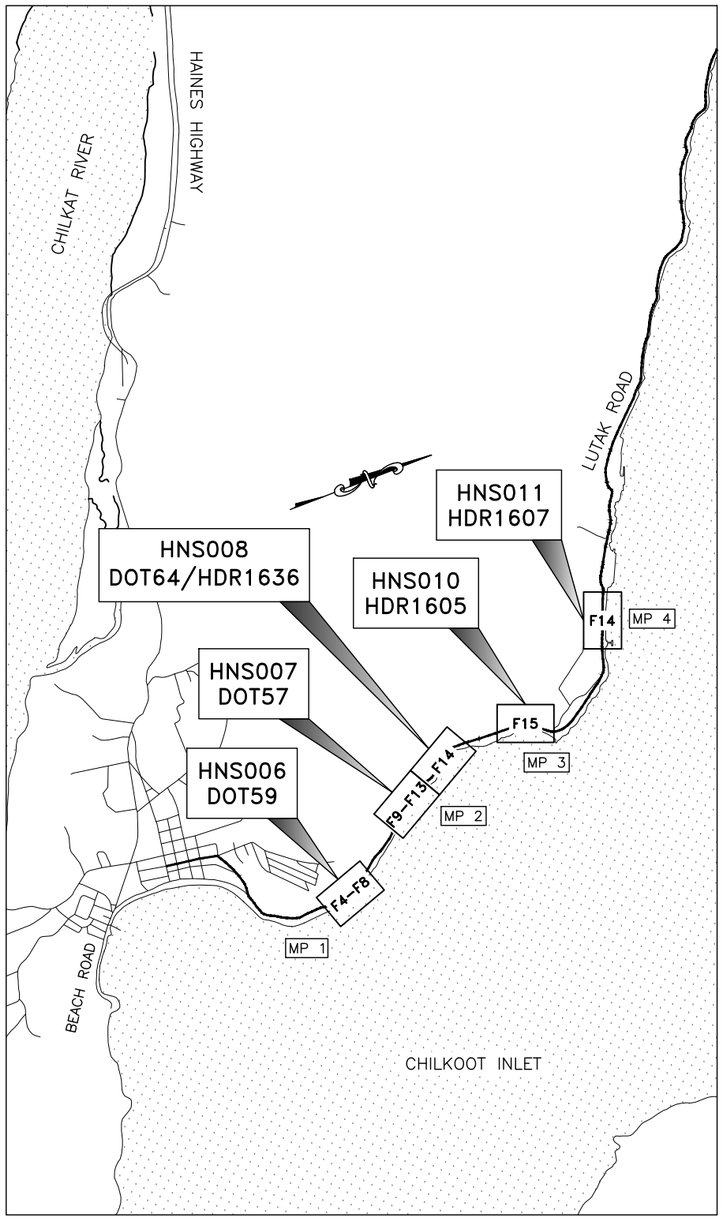
ACCEPTED FOR CONSTRUCTION:

_____ DATE _____

Christopher Goins, P.E., C.M.
Regional Director, Southcoast Region

FIRM	DOWL	PHONE	(907) 780-3533	DESIGNED	MAF	CHECKED	ARC/RDP
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801	CERT. OF AUTH. #	AECL848	LAYOUT	A1	DRAFTED	MAF
DATE	12/16/2025 9:12						
FILE	c:\dowl_pw\d0412238\00446-A1nA2-TTL.dwg						

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	A2	35



KEY MAP

0 5000' 10000'

SCALE IN FEET

GENERAL NOTES:

1. DRAWING SCALES ARE FOR FULL-SIZE SHEETS. IF NO SCALE SHOWN, USE DIMENSIONS.
2. RIGHT-OF-WAY LINES, PERMANENT, AND TEMPORARY CONSTRUCTION EASEMENTS WERE DETERMINED BASED ON SURVEY BY DOWL.
3. CONTAIN ALL CONSTRUCTION WITHIN RIGHT-OF-WAY, PERMANENT, AND TEMPORARY CONSTRUCTION EASEMENTS. DO NOT DISPOSE OF EXCESS MATERIAL WITHIN THESE AREAS, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS.
4. MAKE ALL PAVEMENT CUTS CLEAN, VERTICAL, AND TRUE TO REMOVAL LIMITS SHOWN ON PLANS.
5. USE BONDED FIBER MATRIX TO TEMPORARILY STABILIZE DISTURBED SOILS.

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2-A3	GENERAL NOTES, SHEET LAYOUT, LEGEND, & ABBREVIATIONS
A4-A5	SURVEY CONTROL
C1	ESTIMATE OF QUANTITIES
D1-D2	SUMMARY TABLES
E1-E4	DETAILS
F1-F15	SITE PLANS & PROFILES
Q1-Q5	EROSION AND SEDIMENT CONTROL PLANS
S1-S2	CONSTRUCTION PHASING
T1	TRAFFIC CONTROL PLAN

ALIGNMENT DESIGNATION

ALIGNMENT NAME	ABBREVIATION
HNS006 – LUTAK ROAD	"LR6"
HNS007 – LUTAK ROAD	"LR7"

THE FOLLOWING ALASKA STANDARD PLANS APPLY TO THIS PROJECT:

C-06.00, D-01.02, D-08.00, D-30.11, D-31.01, G-00.05, G-05.11S

ABBREVIATIONS:

APPROX	APPROXIMATELY
ASP	ALASKA STANDARD PLAN
ATB	ASPHALT TREATED BASE
℄	CENTERLINE
CAP	CORRUGATED ALUMINUM PIPE
CSP	CORRUGATED STEEL PIPE
CY	CUBIC YARD
DDIR	DETAILED DAMAGE INSPECTION REPORT
E	EAST, EASTING
ELEV	ELEVATION
FT '	FOOT, FEET
GP	GUY POLE
H	HORIZONTAL
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
HW/D	HEADWATER TO DIAMETER RATIO
IE	INVERT ELEVATION
IN "	INCH, INCHES
L	LENGTH OF CURVE
LCL	LEFT OF CENTERLINE
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
MAX	MAXIMUM
MIN	MINIMUM
MP	MILEPOST
N	NORTH, NORTHING
NO.	NUMBER
NOM.	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OHE	OVERHEAD ELECTRIC
PC	POINT OF CURVATURE
POT	POINT ON TANGENT
PST	PERFORATED STEEL TUBE
PT	POINT OF TANGENCY
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RCL	RIGHT OF CENTERLINE
ROW	RIGHT-OF-WAY
RT	RIGHT
S	SOUTH
SQFT	SQUARE FOOT
STA	STATION
T	TANGENT
TCE	TEMPORARY CONSTRUCTION EASEMENT
TCP	TEMPORARY CONSTRUCTION PERMIT, TRAFFIC CONTROL PLAN
TS	TUBE STEEL
TYP	TYPICAL
V	VERTICAL
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WEST
WWR	WELDED WIRE REINFORCEMENT
Ø	DIAMETER

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780-3533
CERT. OF AUTH. #
AECL848

STATE OF ALASKA
49TH
RICHARD D. PRIBYL, PE
CE 13149
09.29.25
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR

GENERAL NOTES AND
SHEET LAYOUT

FIRM DOWL | ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801 | PHONE (907) 780-3533 | CERT. OF AUTH. # AECL848
FILE c:\dowl_pw\d0412238\00446-A1nA2-TTL.dwg | DATE 12/16/2025 9:12 | LAYOUT A2 | DESIGNED MAF | CHECKED | ARC/RDP | DRAFTED MAF

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	A3	35

FIRM	DOWL	ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801	PHONE	(907) 780-3533	CERT. OF AUTH. #	AECL848	
FILE	c:\dowl_pw\d0412238\00446-A3-LGND.dwg	DATE	8/6/2025 15:22	DESIGNED	MAF	CHECKED	ARC/RDP	DRAFTED MAF
				LAYOUT	A3			

	RECOVERED	SET
BLM MONUMENT	✠	
GLO MONUMENT	✠	
USC&GS MONUMENT	▲	
PRIMARY MONUMENT	✠	✠
CENTERLINE MONUMENT IN CASING	⊕	⊕
PRIMARY R.O.W. MONUMENT	⊕	◕
BEARING OBJECT	✳	
MISCELLANEOUS MONUMENT	⊗	
LINE OF SIGHT MONUMENT		⊕
CONCRETE R.O.W. MONUMENT	■	
BENCHMARK		BM
REBAR AND CAP	⊙	✿
REBAR	⊕	●
IRON PIPE	✹	
PK NAIL		▽
SPIKE		✕
HUB AND TACK		◘
CONSTRUCTION CENTERLINE	5+00	
MISCELLANEOUS CENTERLINE	10+00	
STATION EQUATION	"L"48+97.23 POT BK= "O"48+97.23 PC AHD	
PROJECT RIGHT-OF-WAY LINE		
EXISTING RIGHT-OF-WAY LINE	ROW	
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE	C/A	
UTILITY EASEMENT LINE	PUE	
TEMPORARY CONSTRUCTION EASEMENT	TCE	
ACCESS OR SECTION LINE EASEMENT	ACCESS EASEMENT	
PROPOSED CUT SLOPE LIMIT		
PROPOSED FILL SLOPE LIMIT		
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
TOWNSHIP & RANGE LINE	T. 2 N. / T. 1 N. — T. 1 E. / T. 2 E.	

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)	SS	SS
FUEL LINE	O	O
GAS LINE	G	G
WATER LINE	W	W
METER, VALVE, FIRE HYDRANT	W	W
EXISTING STORM DRAIN (FLOW DIRECTION →)	SD	
PROPOSED STORM DRAIN		S-10, S-11, P-11, P-10, MH
FIBER OPTIC LINE		
DIRECT BURIAL TELEPHONE CABLE	T	T
DIRECT BURIAL ELECTRIC CABLE	E	E
ELECTRIC LINE (OVERHEAD)		
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
TELEPHONE DUCT	T	T
TELEPHONE PEDESTAL		
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE	MH	MH
SANITARY SEWER CLEAN OUT		
RIPRAP (CLASS AS INDICATED ON THE PLANS)		
HEADWALL, TYPE II		
ORIGINAL GROUND		
BORROW		

	EXISTING	PROPOSED
ROADWAY/PAVEMENT EDGE		
FENCE		
CURB AND GUTTER		
DETECTABLE WARNINGS		
GUARDRAIL		
CULVERT PIPE		
SIGN		
MAILBOX	MB	MB
RAILROAD TRACKS		
RAILROAD DEVICES	CROSS-BUCK, FLASHING LIGHT	CANTILEVER, SWITCH
TREE LINE		
WATER BOUNDARY		
ORDINARY HIGH WATER LINE		
FLOW CENTERLINE		
FLOW DIRECTION		
WETLANDS		
EXISTING BUILDINGS	H	H = HOUSE G = GARAGE M = MERCHANT/STORE B = BARN S = SHED P = PRIVY SS= SERVICE STATION W = WAREHOUSE
POST OR BOLLARD		
WELL OR MONITORING WELL	W, MW	
SEPTIC PIPE	S	
FUEL TANK FILL PIPE/VENT	P	
SATELLITE DISH	SAT. DISH	
TEST HOLE	TH	
CONIFER TREE		
DECIDUOUS TREE		
GRAVE		
THERMOSIPHON		
PARKING METER		
VEHICLE PLUG-IN		
DELINEATOR/GUIDE MARKER		

	EXISTING	PROPOSED
JUNCTION BOX, TYPE IA		5
JUNCTION BOX, TYPE II		6
JUNCTION BOX, TYPE III		3
SIGNAL FACE, VEHICULAR	42	42
SIGNAL FACE, BACKPLATE	42	42
SIGNAL FACE, LEFT TURN, BACKPLATE	43	43
SIGNAL FACE, PEDESTRIAN		
LOOP DETECTOR	33	73
VIDEO DETECTOR	2	2
RADAR DETECTOR	4	4A
OPTICOM DETECTOR	1	1
PEDESTRIAN PUSH BUTTON	1	1
SIGNAL POST W/O MAST ARM		1
SIGNAL POLE W/MAST ARM		4
SIGNAL CONTROLLER		
LOAD CENTER		
LUMINAIRE		12
RIGID METAL CONDUIT		

DETAIL CALLOUT — X / # — (DETAIL NAME) SCALE:

VIEW TITLE — X / ** — VIEW NAME

DRAWING TITLE/ SUBTITLE — VIEW NAME

SECTION OR ELEVATION VIEW

DETAIL CALLOUT

DETAIL TAG

ADDITIONAL SHEET CALLOUT

* SHEET NUMBER WHERE THE CALLOUT CUT IS MADE OR DASH MARK WHEN ON THE SAME SHEET
** SHEET NUMBER WHERE DETAIL IS LOCATED WHEN ON A DIFFERENT SHEET OR DASH MARK WHEN ON THE SAME SHEET
X DETAIL NO.
SHEET NO.

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
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HAINES HWY / LUTAK ROAD - DEC 20 SE PR

LEGEND AND ABBREVIATIONS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	A4	35

NH-095-6(18) ALIGNMENT TABLE

SEGMENT	STATION	NORTHING	EASTING	STATION	BEARING	DISTANCE	RADIUS	LENGTH	DELTA
L1	1+00.000	2725018.408	2349187.388	6+63.544	S58°29'03.17"E	563.544			
C1	6+63.544	2724723.825	2349667.808	9+09.785			557.722	244.245	S71°07'57.31"E
L2	9+09.785	2724644.841	2349898.930	10+02.034	S83°46'51.45"E	92.249			
C2	10+02.034	2724634.847	2349990.636	11+67.380			557.722	164.741	S75°17'16.10"E
L3	11+67.380	2724593.009	2350149.976	22+33.076	S66°47'40.74"E	1065.696			
C3	22+33.076	2724173.095	2351129.456	28+89.281			60053.948	656.201	S66°28'53.82"E
L4	28+89.281	2723911.243	2351731.148	31+12.166	S66°10'06.91"E	222.885			
C4	31+12.166	2723821.187	2351935.029	32+11.277			848.875	99.055	S69°30'48.24"E
L5	32+11.277	2723786.518	2352027.820	35+38.072	S72°51'29.57"E	326.795			
C5	35+38.072	2723690.200	2352340.098	41+18.227			848.876	568.929	S53°16'44.92"E
L6	41+18.227	2723350.027	2352796.127	57+91.670	S33°42'00.26"E	1673.444			
C6	57+91.670	2721957.800	2353724.630	67+58.515			688.950	889.437	S06°30'11.51"W
L7	67+58.515	2721074.087	2353623.894	70+88.915	S46°42'23.28"W	330.400			
C7	70+88.915	2720847.519	2353383.412	77+20.839			820.179	616.410	S24°38'02.76"W
L8	77+20.839	2720287.210	2353126.479	79+79.192	S02°33'42.24"W	258.353			
C8	79+79.192	2720029.116	2353114.932	86+57.773			11459.817	678.482	S04°15'29.12"W
L9	86+57.773	2719352.506	2353064.555	87+84.193	S05°57'16.00"W	126.419			
C9	87+84.193	2719226.769	2353051.440	96+20.853			41699.753	836.647	S05°22'46.76"W
L10	96+20.853	2718393.807	2352973.001	98+14.531	S04°48'17.52"W	193.678			
C10	98+14.531	2718200.810	2352956.778	105+33.805			848.876	697.949	S19°28'09.15"E
L11	105+33.805	2717542.770	2353189.404	108+99.546	S43°44'35.82"E	365.741			
C11	108+99.546	2717278.542	2353442.288	113+42.206			820.179	437.308	S28°16'54.02"E
L12	113+42.206	2716893.436	2353649.487	115+90.440	S12°49'12.22"E	248.234			
C12	115+90.440	2716651.390	2353704.568	121+08.842			1162.380	514.116	S25°35'47.48"E
L13	121+08.842	2716187.730	2353926.682	136+21.267	S38°22'22.73"E	1512.425			
C13	136+21.267	2715002.010	2354865.562	142+23.324			2736.102	600.843	S32°04'09.28"E
L14	142+23.324	2714492.851	2355184.576	143+85.317	S25°45'55.82"E	161.993			
C14	143+85.317	2714346.964	2355254.993	145+91.685			820.179	205.824	S32°58'25.30"E
L15	145+91.685	2714174.294	2355367.013	148+98.565	S40°10'54.78"E	306.881			
C15	148+98.565	2713939.837	2355565.018	150+51.438			852.987	152.668	S35°02'51.39"E
L16	150+51.438	2713814.851	2355652.688	153+97.203	S29°54'48.00"E	345.766			
C16	153+97.203	2713515.148	2355825.118	159+81.774			1968.426	582.425	S21°24'20.37"E
L17	159+81.774	2712972.899	2356037.685	163+01.877	S12°53'52.73"E	320.103			
C17	163+01.877	2712660.872	2356109.137	166+64.752			832.971	360.012	S00°25'04.26"E
L18	166+64.752	2712300.870	2356111.762	170+01.861	S12°03'44.21"W	337.110			
C18	170+01.861	2711971.204	2356041.315	172+16.980			918.602	214.327	S05°21'46.57"W
L19	172+16.980	2711757.815	2356021.283	177+27.773	S01°20'11.07"E	510.793			
C19	177+27.773	2711247.161	2356033.196	181+94.238			848.876	460.618	S14°24'21.09"W
L23	181+94.238	2710801.025	2355918.599	186+31.068	S30°08'53.26"W	436.830			
C22	186+31.068	2710423.286	2355699.207	190+22.534			727.369	386.759	S45°33'58.64"W
C23	190+22.534	2710152.522	2355423.038	195+65.910			1909.794	541.545	S69°08'07.32"W
L20	195+65.910	2709959.645	2354917.005	205+41.571	S77°17'10.62"W	975.661			
C20	205+41.571	2709744.922	2353965.266	208+46.550			1410.712	304.386	S71°05'34.59"W
L21	208+46.550	2709646.290	2353677.303	213+43.730	S64°53'58.56"W	497.180			
C21	213+43.730	2709435.384	2353227.073	216+79.683			358.120	323.769	S38°01'30.02"W
L22	216+79.683	2709180.337	2353027.630	230+74.381	S11°09'01.48"W	1394.698			

SURVEY CONTROL TABLE

POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION	STATION	OFFSET
					0+00.00	0.00
107	SH MON	2712947.73	2356061.70	75.69	160+11.67	17.79L
108	SH MON	2713703.03	2355738.26	70.88	151+91.04	18.41L
111	SH MON	2716344.70	2353805.13	31.25	119+11.87	14.71R
115	SH MON	2720360.19	2353148.57	24.95	76+45.43	15.41L
116	SH MON	2721206.57	2353750.74	27.24	65+77.11	14.81L
412	SPIKE	2716340.33	2353874.99	28.90	119+50.68	43.86L
415	SPIKE	2720586.11	2353174.24	25.77	74+21.06	21.22R
442	SPIKE	2720631.76	2353111.96	24.87	74+05.83	96.70R
445	MAGN	2713440.33	2355916.62	72.60	155+05.27	45.03L

NH-095-6(18) SHOULDER MONUMENTS

POINT	NORTHING	EASTING	STATION	OFFSET
124	2725005.48	2349179.64	1+00.16	15.07R
123	2724633.12	2349875.16	8+87.99	14.66R
122	2724561.93	2350260.44	12+81.15	14.96L
121	2723722.82	2352185.39	33+80.62	14.43R
120	2723593.59	2352576.03	37+91.22	15.36L
119	2722963.05	2353072.93	45+93.75	15.57L
118	2722170.86	2353601.17	55+45.91	15.51L
117	2721670.58	2353849.12	61+03.62	15.15L
116	2721206.57	2353750.74	65+77.11	14.81L
115	2720360.19	2353148.57	76+45.43	15.41L
114	2717990.05	2352950.17	100+23.55	14.98R
113	2717609.48	2353113.18	104+34.42	14.86R
112	2717105.28	2353586.04	111+22.88	14.82L
111	2716344.70	2353805.13	119+11.87	14.71R
110	2714604.80	2355148.74	141+07.69	18.85L
109	2714178.30	2355385.36	146+00.46	16.60L
108	2713703.03	2355738.26	151+91.04	18.41L
107	2712947.73	2356061.70	160+11.67	17.79L
106	2712293.44	2356128.45	166+68.53	17.87L
105	2711686.65	2356004.49	172+87.43	18.45R
104	2710992.90	2356016.88	179+80.35	15.85L

BASIS OF COORDINATES

COORDINATES ARE ALASKA STATE PLANE ZONE 1, NAD83(2011) IN U.S. FEET. THE BASIS OF COORDINATES IS POINT 551 HAINES AIRPORT PACS MONUMENT "HNS D" (PID AI4905), A BRASS DISK HAVING A PUBLISHED NGS VALUE OF NORTHING 2,713,021.97, EASTING 2,336,252.16, AND NAVD88 GEOID12B ORTHOMETRIC HEIGHT OF 36.03. COORDINATES WERE DERIVED FROM STATIC GPS OBSERVATIONS TAKEN DURING OCTOBER 2022.

SURVEY NOTES

1. IF ANY PAIR OF CONTROL POINTS DISAGREES FROM PUBLISHED VALUE BY MORE THAN 1:10,000 HORIZONTALLY OR VERTICALLY THEN A THIRD NETWORK POINT MUST BE TIED TO ASCERTAIN WHICH POINT IS IN ERROR OR HAS BEEN DISTURBED.

2. WHETHER LISTED OR NOT, ALL PROPERTY MONUMENTS, PROPERTY MARKERS, CORNERS OR ACCESSORIES WHICH WILL BE DISTURBED OR BURIED SHALL BE REFERENCED PRIOR TO BEING DISTURBED, AND RE-ESTABLISHED IN THEIR ORIGINAL HORIZONTAL POSITION AND A RECORD OF MONUMENT FORM IN ACCORDANCE WITH (A.S.34.65.040) AND (A.S. 19.10.260) SHALL BE SUBMITTED TO THE CONSTRUCTION ENGINEER FOR REVIEW PRIOR TO RECORDING. COORDINATE VALUES LISTED ARE FOR INFORMATIONAL PURPOSES AND SHOULD BE USED TO RESET MONUMENTS ONLY AS A LAST RESORT.

3. RIGHT OF WAY LOCATION IS SHOWN FOR GRAPHICAL ORIENTATION PURPOSES ONLY. REFER TO ALASKA DOT&PF RIGHT OF WAY MAPS FOR RIGHT OF WAY INFORMATION

4. HORIZONTAL AND VERTICAL CONTROL MUST BE FIELD VERIFIED BY THE CONTRACTOR. DISCREPANCIES WILL BE REPORTED TO DOT&PF CONSTRUCTION PROJECT ENGINEER.

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780-3533
CERT. OF AUTH. #
AECL848

STATE OF ALASKA
NATHAN CUNNINGHAM
LS 13161.3
08.06.25
REGISTERED PROFESSIONAL LAND SURVEYOR

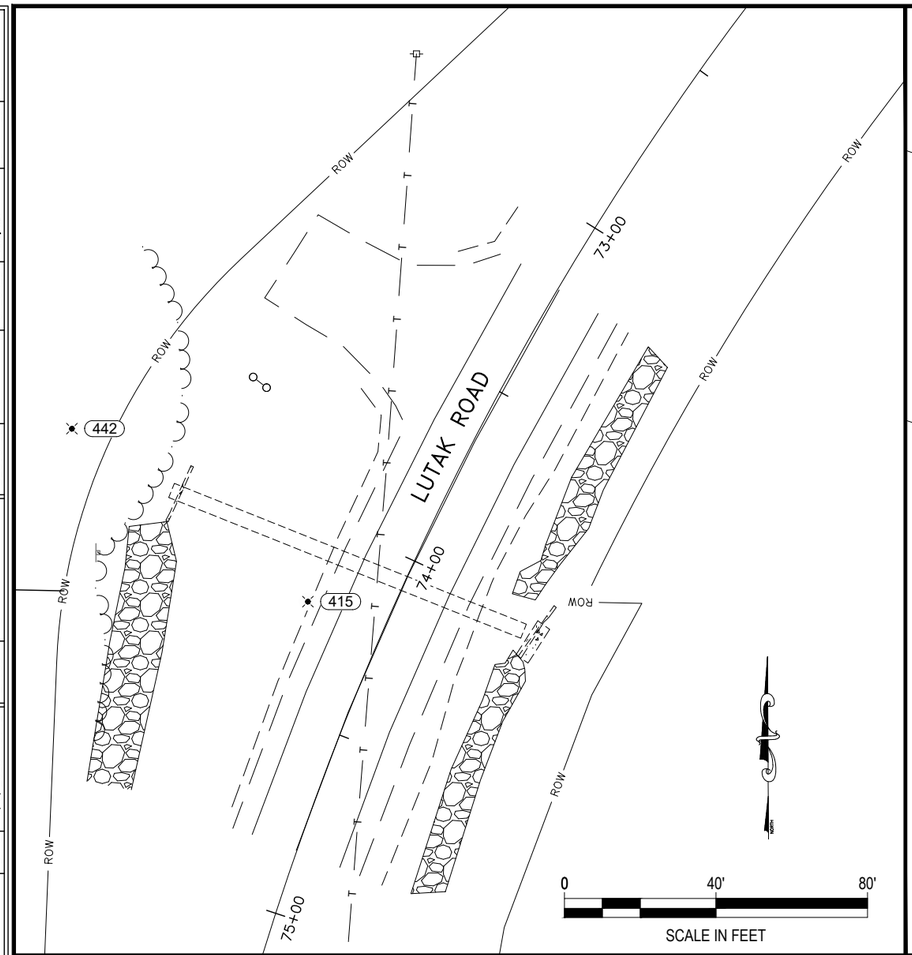
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

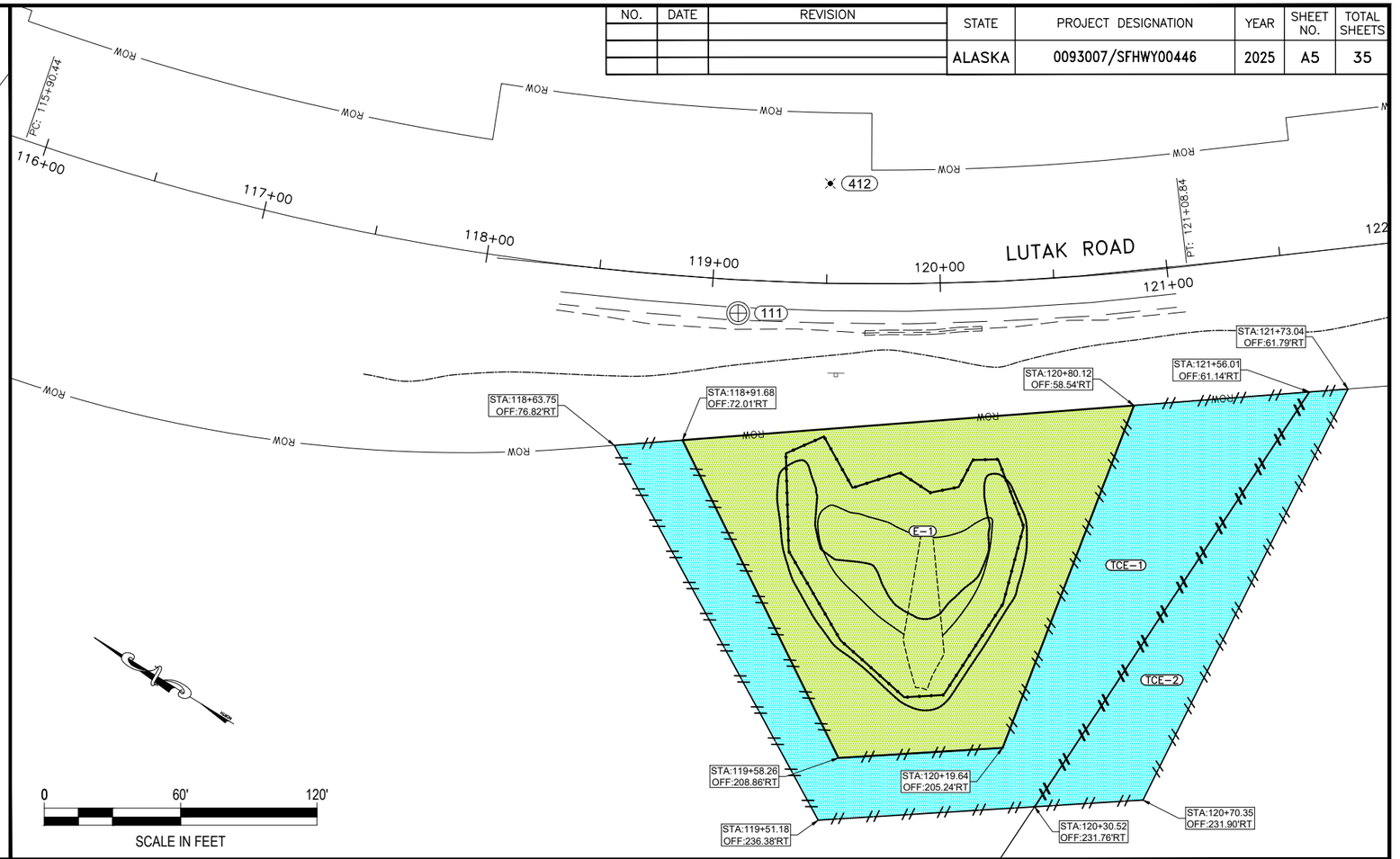
HAINES HWY / LUTAK ROAD
- DEC 20 SE PR

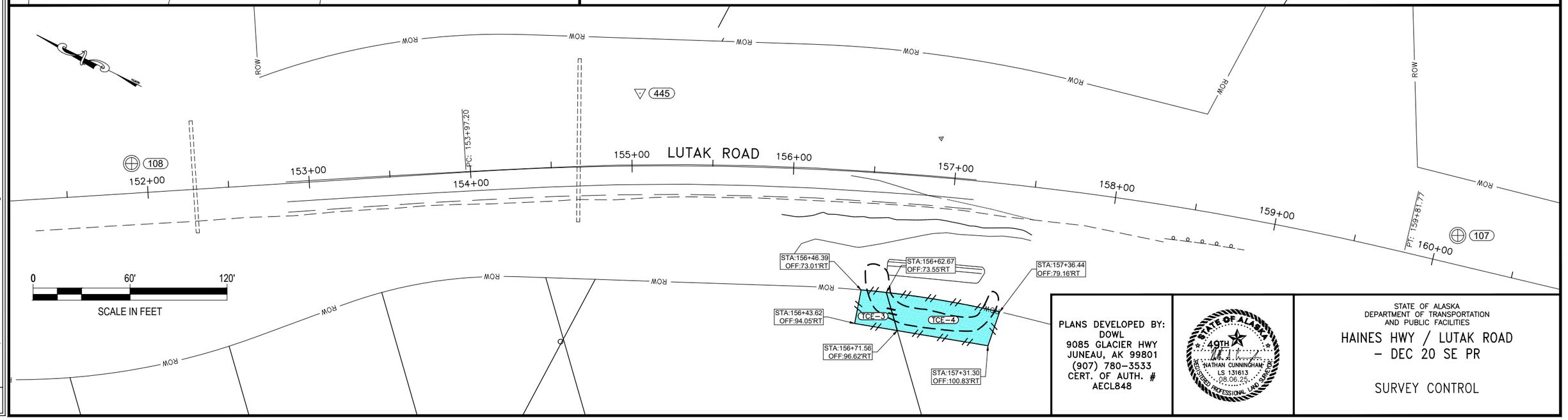
SURVEY CONTROL

FIRM DOWL | ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801 | PHONE (907) 780-3533 | CERT. OF AUTH. # AECL848
FILE c:\dowl_pw\d0412238\00446-A4nA5-SRVY.dwg | DATE 8/6/2025 15:12 | LAYOUT A4 | DESIGNED MAF | CHECKED ARC/RDP | DRAFTED MAF

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	A5	35







PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780-3533
CERT. OF AUTH. #
AECL848

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD – DEC 20 SE PR

SURVEY CONTROL

FIRM	DOWL
FILE	c:\dowl_pw\d0412238\00446-A4nA5-SRVY.dwg
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801
DATE	8/6/2025 15:12

DESIGNED	MAF	PHONE	(907) 780-3533	CERT. OF AUTH. #	AECL848		
LAYOUT	A5	CHECKED	ARC/RDP	DRAFTED	MAF		

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	C1	35

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	HNS006 DOT59	HNS007 DOT57	HNS008 DOT64/HDR1636	HNS010 HDR1605	HNS011 HDR1607	PAY ITEM QUANTITY
201.0004.0000	HAND CLEARING	ACRE	0.20	0.30	--	--	--	0.50
201.2001.0000	INVASIVE PLANT SPECIES CONTROL, REMOVAL, AND DISPOSAL	SY	38.0					38.00
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	--	--	--	ALL REQ'D	--	ALL REQ'D
202.0004.0000	REMOVAL OF CULVERT PIPE	LF	--	--	14.0	10.0	--	24.0
203.0003.0000	UNCLASSIFIED EXCAVATION	CY	550.0	250.0	10.8	45.5	--	856.3
203.0005.000A	BORROW, TYPE A	CY	--	--	--	4.6	--	4.6
203.2023.000B	ROCKFALL MITIGATION, WIRE MESH - PINNED	SY	--	1,250.0	--	--	--	1,250.0
203.2034.0000	STABILIZATION - ROCK DOWEL	LF	165.0	--	--	--	--	165.0
203.2050.0000	ROCKFALL MITIGATION, SLOPE SCALING	HR	50.0	30.0	--	--	--	80.0
501.0004.0000	CLASS A CONCRETE	CY	50.0	--	--	--	--	50.0
501.2007.0002	HEADWALL, TYPE II	EACH	--	--	--	1.0	--	1.0
603.0001.0048	CSP 48 INCH	LF	--	--	--	10.0	--	10.0
606.0005.0000	REMOVING AND RECONSTRUCTING GUARDRAIL	LF	--	--	--	--	25.0	25.0
611.0001.0001	RIPRAP, CLASS I	CY	650.0	140.0	--	27.5	--	817.5
611.0001.0003	RIPRAP, CLASS III	CY	--	--	--	79.1	--	79.1
630.0001.0003	GEOTEXTILE, SEPARATION, CLASS 3	SY	120.0	150.0	--	--	--	270.0
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
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
642.0001.0000	CONSTRUCTION SURVEYING	LS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
643.0002.0000	TRAFFIC MAINTENANCE	LS	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
658.0001.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL WITHOUT CGP COVERAGE	LS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
658.0002.0000	ESCP CHANGES BY DIRECTIVE	CS	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D	ALL REQ'D
671.2005.0000	STREAM DIVERSION AND DEWATERING	LS	--	--	ALL REQ'D	ALL REQ'D	--	ALL REQ'D

ESTIMATED LUMP SUM QUANTITIES

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	HNS010 HDR1605	TOTAL QUANTITY
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS			
	HEADWALL	EACH	1	1

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
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CERT. OF AUTH. #
AECC777

STATE OF ALASKA 49 TH
LOGAN C. ALLENDER
No. CE151393
08.06.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780-3533
CERT. OF AUTH. #
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STATE OF ALASKA 49TH
RICHARD D. PRIBYL
CE 13149
09.29.25
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
- DEC 20 SE PR

ESTIMATE OF QUANTITIES

FIRM DOWL | PHONE (907) 780-3533 | CERT. OF AUTH. # AECL848
ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801 | DESIGNED MAF | CHECKED ARC/RDP | DRAFTED MAF
DATE 12/17/2025 14:29 | LAYOUT C1
FILE c:\dowl_pw\d0412238\00446-C-EST.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	D1	35

201.0004.0000 – HAND CLEARING

SHEET	STATION FROM	STATION TO	OFFSET	HNS006 DOT59	HNS007 DOT57	REMARKS
F1, F4	"LR6" 9+80	"LR6" 10+75	LT	0.10		
F2, F8	"LR6" 11+50	"LR6" 12+50	LT	0.10		
F3, F9	"LR7" 10+40	"LR7" 11+50	LT		0.30	
			SUBTOTAL:	0.20	0.30	ACRE
			TOTAL:	0.50		ACRE
			PAY ITEM QUANTITY:	0.50		ACRE

202.0004.0000 – REMOVAL OF CULVERT PIPE

SHEET	STATION	OFFSET	HNS008 DOT64/HDR1636	HNS010 HDR1605	REMARKS
F14	--	--	14.0		
F15	74+05	23.9' LT		10.0	
		SUBTOTAL:	14.0	10.0	LF
		TOTAL:	24.0		LF
		PAY ITEM QUANTITY:	24.0		LF

203.0003.0000 – UNCLASSIFIED EXCAVATION

SHEET	STATION FROM	STATION TO	OFFSET	HNS006 DOT59	HNS007 DOT57	HNS008 DOT64/HDR1636	HNS010 HDR1605	REMARKS
F4–F6	"LR6" 9+80	"LR6" 10+75	LT	550.0				
F9–F13	"LR7" 10+40	"LR7" 11+50	LT		250.0			
F14	--	--	--			10.8		
F15	73+87	74+24	LT				45.5	
			SUBTOTAL:	550.0	250.0	10.8	45.5	CY
			TOTAL:	856.3				CY
			PAY ITEM QUANTITY:	856.3				CY

203.2023.000B – ROCKFALL MITIGATION, WIRE MESH – PINNED

SHEET	STATION FROM	STATION TO	OFFSET	HNS007 DOT57	REMARKS
F9–F13	"LR7" 10+40	"LR7" 11+50	LT	1,250.0	
			TOTAL:	1,250.0	SY
			PAY ITEM QUANTITY:	1,250.0	SY

203.0005.000A – BORROW, TYPE A

SHEET	STATION	OFFSET	HNS010 HDR1605	REMARKS
F15	74+05	23.9' LT	4.6	
		TOTAL:	4.6	CY
		PAY ITEM QUANTITY:	4.6	CY

203.2050.0000 – ROCKFALL MITIGATION, SLOPE SCALING

SHEET	STATION FROM	STATION TO	OFFSET	HNS006 DOT59	HNS007 DOT57	REMARKS
F2, F8	"LR6" 11+50	"LR6" 12+50	LT	50		
F3, F9	"LR7" 11+15	"LR7" 11+55	LT		30	
			SUBTOTAL:	50	30	HR
			TOTAL:	80		HR
			PAY ITEM QUANTITY:	80		HR

501.0004.0000 – CLASS A CONCRETE

SHEET	STATION FROM	STATION TO	OFFSET	HNS006 DOT59	REMARKS
F7	"LR6" 10+00	"LR6" 10+60	LT	50.0	
			TOTAL:	50.0	CY
			PAY ITEM QUANTITY:	50.0	CY

501.2007.0002 – HEADWALL TYPE II

SHEET	STATION	OFFSET	HNS010 HDR1605	REMARKS
F15	74+05	23.9' LT	1	
		TOTAL:	1	EACH
		PAY ITEM QUANTITY:	1	EACH

603.0001.0048 – CSP 48 INCH

SHEET	STATION	OFFSET	HNS010 HDR1605	REMARKS
F15	74+05	23.9' LT	10.0	
		TOTAL:	10.0	LF
		PAY ITEM QUANTITY:	10.0	LF

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452-1200
CERT. OF AUTH. #
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STATE OF ALASKA 49TH
LOGAN C. ALLENDER
No. CE151393
08.06.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

PLANS DEVELOPED BY:
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(907) 780-3533
CERT. OF AUTH. #
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STATE OF ALASKA 49TH
RICHARD D. PRIBYL
CE 13149
09.29.25
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR

SUMMARY TABLES

FIRM DOWL | ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801 | PHONE (907) 780-3533 | CERT. OF AUTH. # AECL848
DATE 12/17/2025 14:47 | FILE c:\dowl_pw\d0412238\00446-D-SUM.dwg | LAYOUT D1 | DESIGNED MAF | CHECKED ARC/RDP | DRAFTED MAF

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	D2	35

606.0005.0000 – REMOVING AND RECONSTRUCTING GUARDRAIL

SHEET	HNS011 HDR1607	REMARKS
F14	25.0	
TOTAL:	25.0	LF
PAY ITEM QUANTITY:	25.0	LF

611.0001.0001 – RIPRAP, CLASS I

SHEET	STATION FROM	STATION TO	OFFSET	HNS006 DOT59	HNS007 DOT57	HNS010 HDR1605	REMARKS
F4–F6	"LR6" 10+00	"LR6" 10+60	LT	650.0			
F9–F13	"LR7" 10+75	"LR7" 10+95	LT		140.0		
F15	73+87	74+24	LT			27.5	OUTLET RIPRAP APRON
			SUBTOTAL:	650.0	140.0	27.5	CY
			TOTAL:	817.5			CY
			PAY ITEM QUANTITY:	817.5			CY

611.0001.0003 – RIPRAP, CLASS III

SHEET	STATION FROM	STATION TO	OFFSET	HNS010 HDR1605	REMARKS
F15	73+87	74+24	LT	79.1	OUTLET RIPRAP APRON
			TOTAL:	79.1	CY
			PAY ITEM QUANTITY:	79.1	CY

630.0001.0003 – GEOTEXTILE, SEPARATION, CLASS 3

SHEET	STATION FROM	STATION TO	OFFSET	HNS006 DOT59	HNS007 DOT57	REMARKS
F4–F6	"LR6" 10+00	"LR6" 10+60	LT	120.0		
F9–F13	"LR7" 10+40	"LR7" 11+50	LT		150.0	
			SUBTOTAL:	120.0	150.0	SY
			TOTAL:	270.0		SY
			PAY ITEM QUANTITY:	270.0		SY

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452–1200
CERT. OF AUTH. #
AECC777

EXPIRES: 12/31/2025

PLANS DEVELOPED BY:
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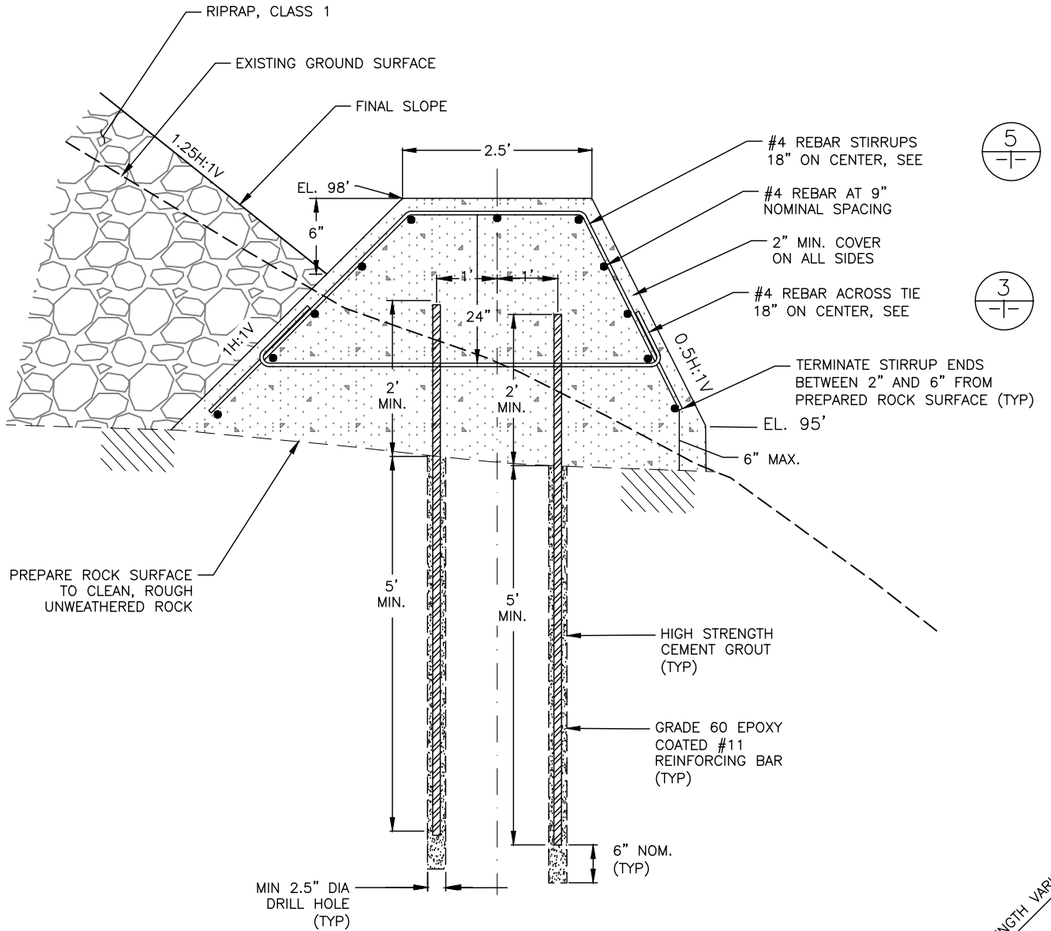
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR

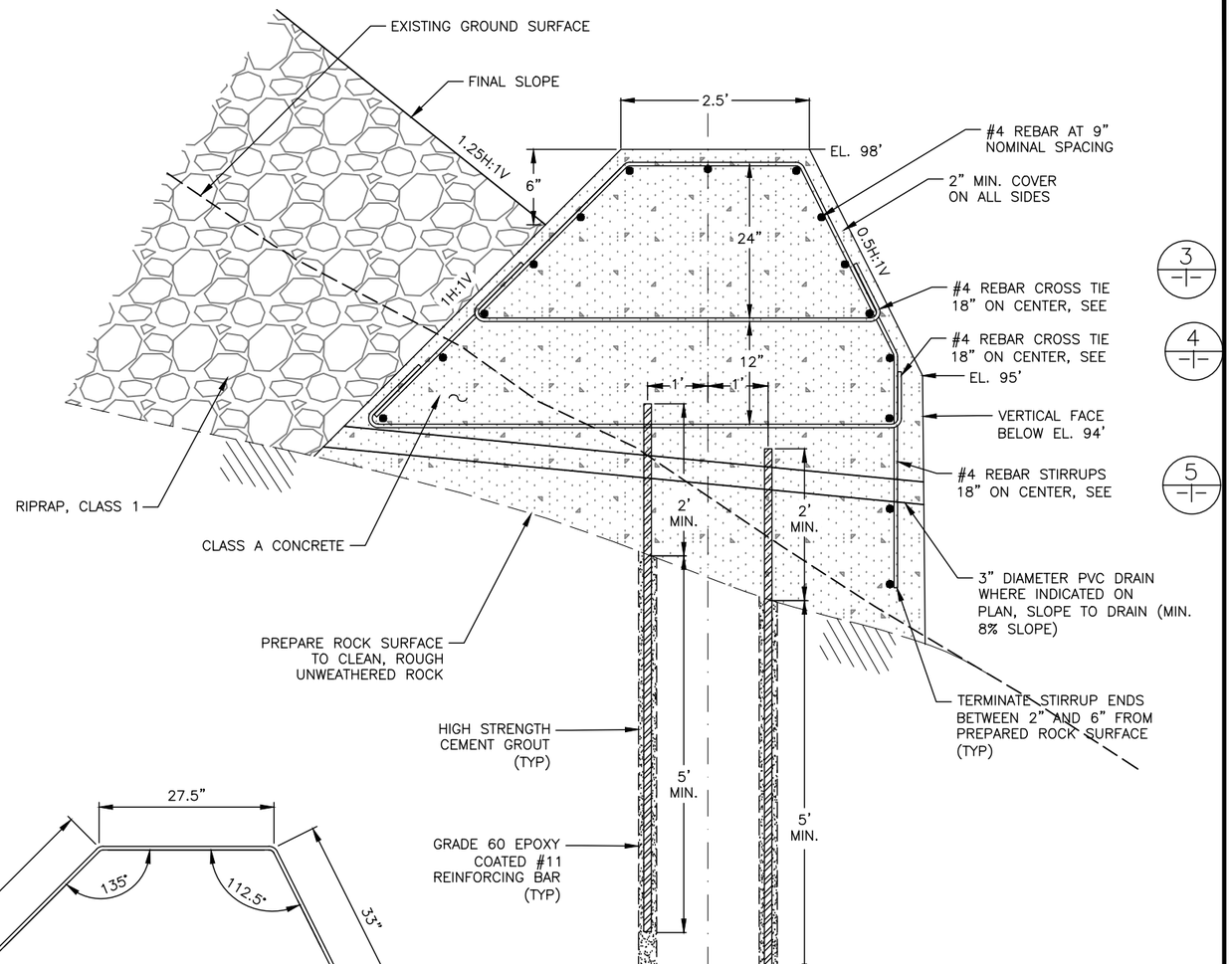
SUMMARY TABLES

FIRM DOWL | ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801 | PHONE (907) 780-3533 | CERT. OF AUTH. # AECL848
FILE c:\dowl_pw\d0412238\00446-D-SUM.dwg | DATE 12/17/2025 14:47 | LAYOUT D2 | DESIGNED MAF | CHECKED | ARC/RDP | DRAFTED MAF

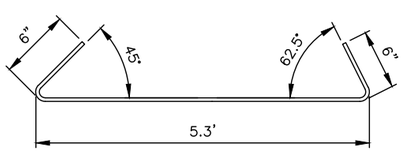
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	E1	35



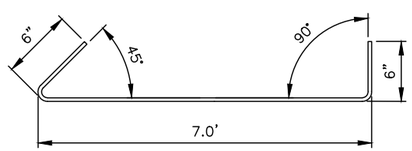
1 F5|– CONCRETE TOE BERM – TYPE 1
NOT TO SCALE
TYPICAL – WHERE TOE MEETS ORIGINAL GROUND



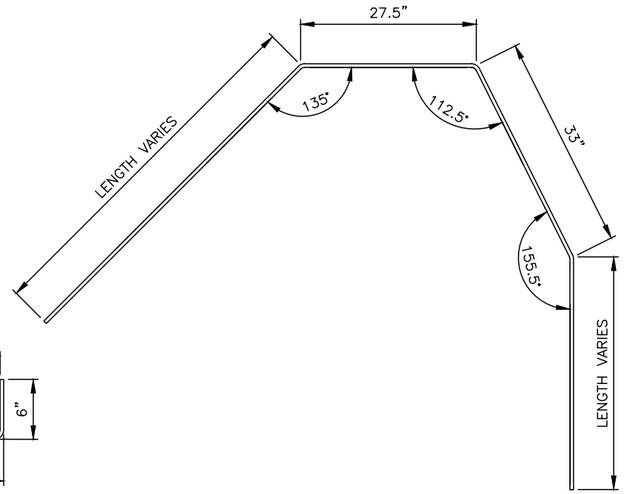
2 F6|– CONCRETE TOE BERM – TYPE 2
NOT TO SCALE
CONSTRUCT AS NEEDED AT DEEPENED TOE PROFILE (POST SURFACE CLEANING)



3 –|– #4 REBAR CROSS TIE
NOT TO SCALE



4 –|– #4 REBAR CROSS TIE
NOT TO SCALE



5 –|– #4 REBAR STIRRUPS
NOT TO SCALE

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
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(503) 452-1200
CERT. OF AUTH. #
AECC777

STATE OF ALASKA
49 TH
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

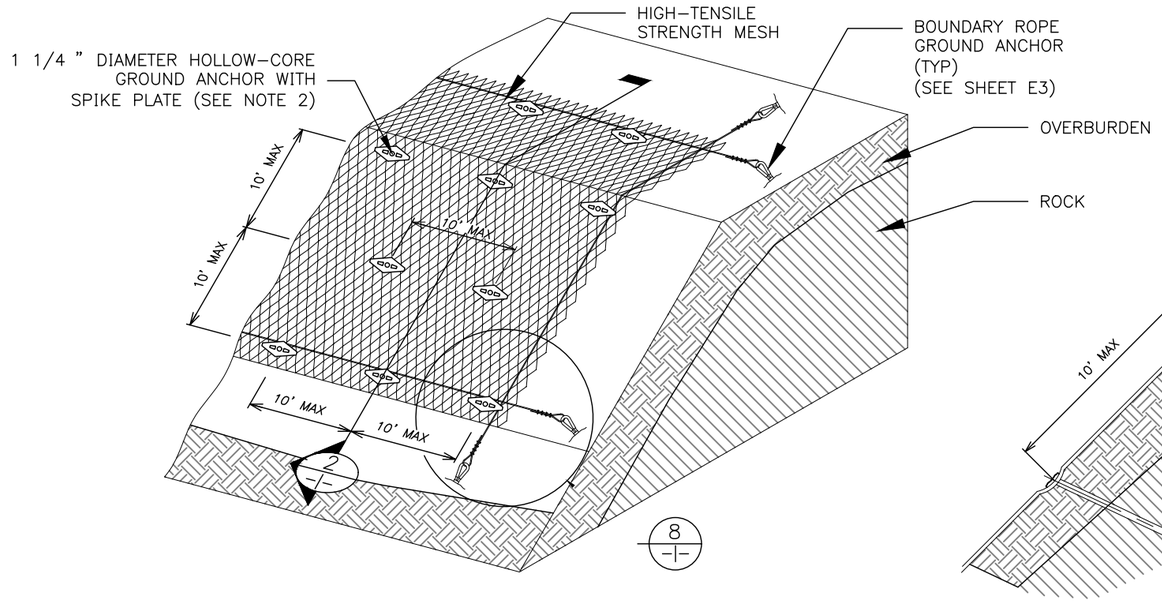
HAINES HWY / LUTAK ROAD – DEC 20 SE PR

DETAILS

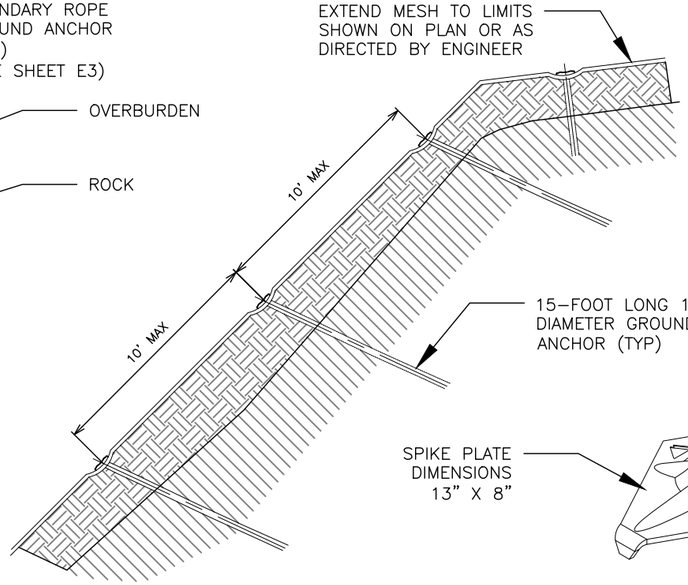
HNS HWY: HNS006
CONCRETE TOE BERM

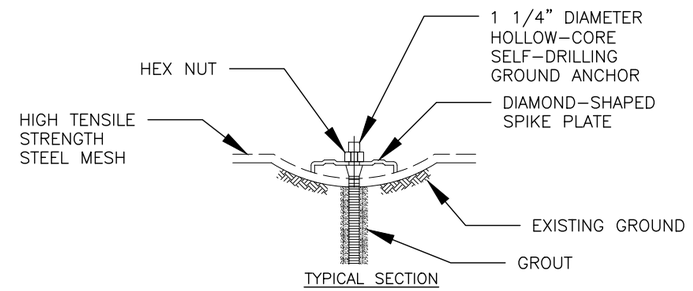
ADDRESS | 9085 GLACIER HWY, JUNEAU, AK 99801 | PHONE | (907) 780-3533 | CERT. OF AUTH. # | AECL848
DATE | 8/6/2025 15:22 | LAYOUT | E1 | DESIGNED | MAF | CHECKED | ARC/RDP | DRAFTED | MAF
FIRM | DOWL
FILE | c:\dowl_pw\d0412238\00446-E-DET.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	E2	35

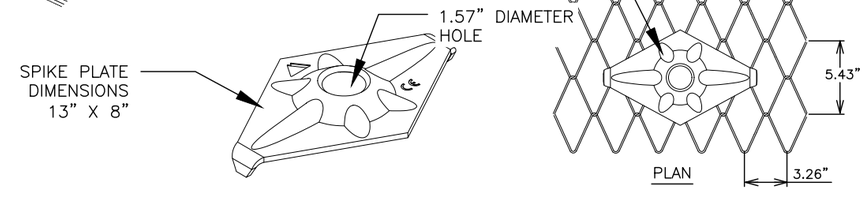


1 PINNED MESH DETAIL
F10 | – NTS

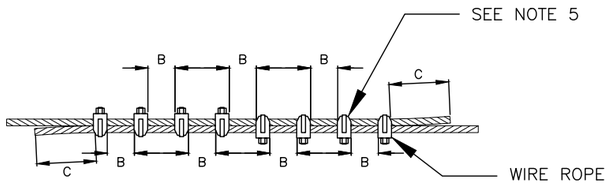




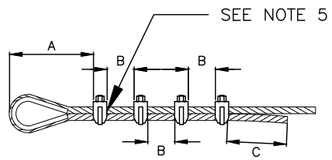
TYPICAL SECTION



PLAN

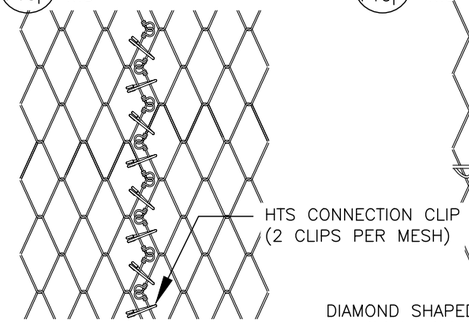


5 WIRE ROPE SPLICING DETAIL
– | – NTS

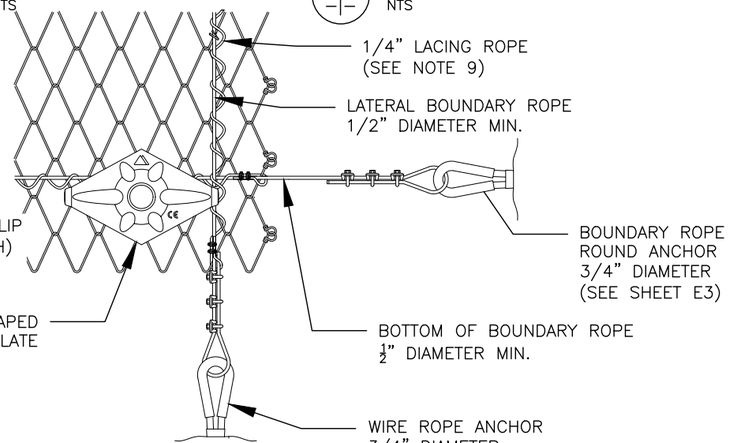


6 WIRE ROPE LOOP DETAIL
– | – NTS

2 PINNED MESH CROSS SECTION
F10 | – NTS



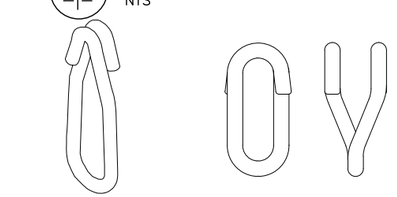
3 DIAMOND SHAPED SPIKE PLATE
F10 | – NTS



4 PINNED MESH GROUND ANCHOR
– | – NTS

8 SPIKE PLATE AND BOUNDARY ROPE
– | – NTS

7 OVERLAP AND CONNECTION
– | – NTS



HTS CONNECTION CLIP

PRESS CLAW
SEE NOTE 9

9 CONNECTION CLIP DETAILS
– | – NTS

NOTES:

1. PREPARE SLOPE ACCORDING TO THE PLANS, SPECIFICATIONS, AND AS DIRECTED BY ENGINEER, BY REMOVING OBSTRUCTIONS THAT WOULD INTERFERE WITH MESH PLACEMENT.
2. INSTALL HIGH–TENSILE STRENGTH (HTS) STEEL MESH WITH A MINIMUM WIRE DIAMETER OF 0.157". NOMINALLY TIGHTEN THE MESH AGAINST THE PREPARED SLOPE TO PRESERVE THE FINAL SLOPE CONDITIONS.
3. INSTALL 1 1/4–INCH DIAMETER HOLLOW–CORE GROUND ANCHORS USING SPIKE PLATES TO TIGHTEN MESH AGAINST THE GROUND SURFACE IN ACCORDANCE WITH SPECIAL PROVISIONS.
4. ANCHOR LOCATIONS TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
5. COMPLY WITH MANUFACTURER'S SPECIFICATIONS (AS BASED ON ROPE SIZE/DIAMETER) FOR THIMBLE SELECTION, NUMBER OF CLIPS, CLIP SIZE, DISTANCE A, B, C, AND REQUIRED TORQUE.
6. TEST AND LOCK OFF LOAD GROUND ANCHOR ACCORDING TO THE GROUND ANCHOR BAR SCHEDULE AND THE SPECIFICATIONS.
7. GALVANIZE ALL STEEL HARDWARE.
8. PINNED MESH SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS GUIDELINES.
9. ATTACH BOUNDARY ROPE TO MESH USING 1/4" LACING ROPE THROUGH EACH CELL OF THE MESH OR USE PRESS CLAW EVERY THIRD MESH CELL.
10. SEE SPECIFICATION SECTION 209–3.05 INSTALLATION REQUIREMENTS FOR GROUND ANCHOR TORQUE REQUIREMENTS.

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
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CERT. OF AUTH. # AECC777

STATE OF ALASKA
49 TH
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER

EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD – DEC 20 SE PR

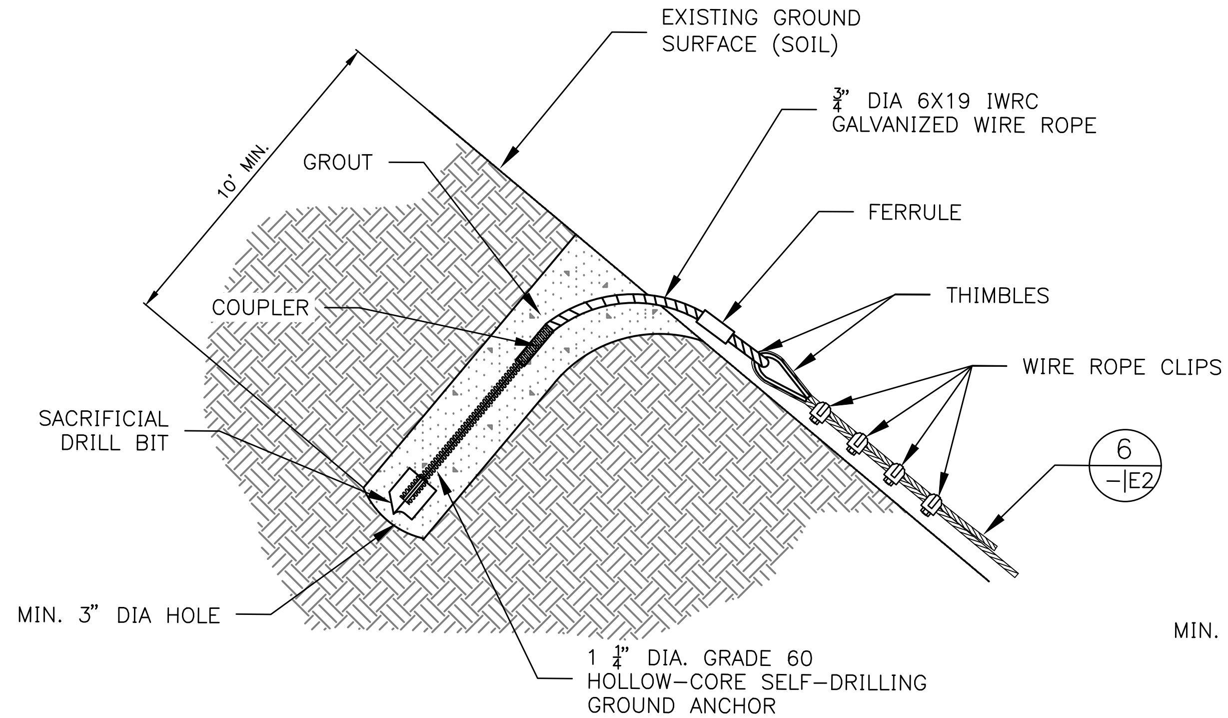
DETAILS

HNS HWY: HNS007

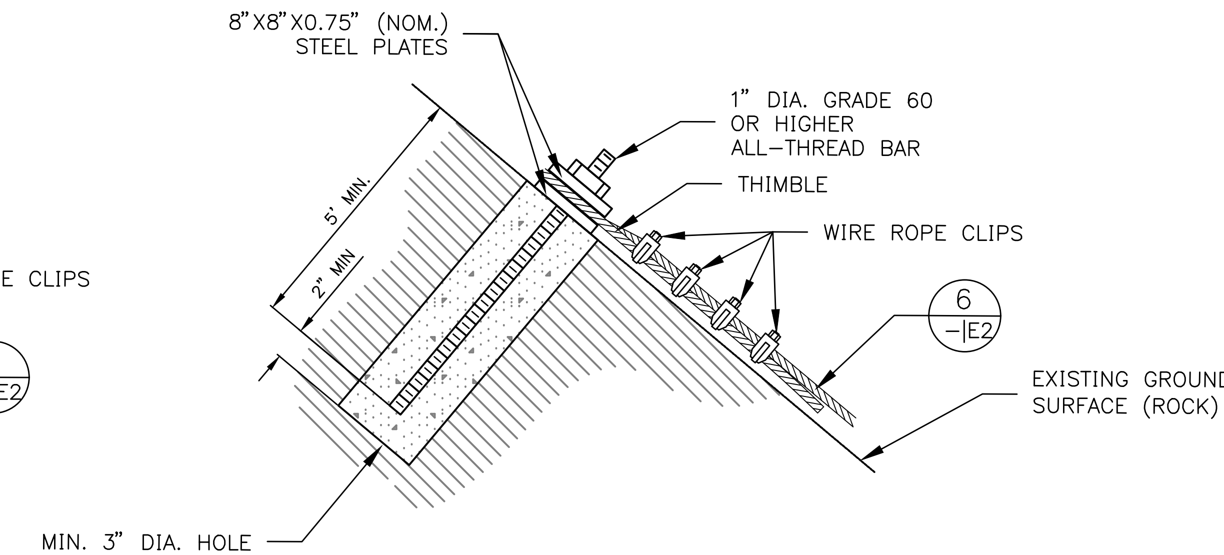
PINNED MESH

FIRM	DOWL
FILE	c:\dowl_pw\d0412238\00446-E-DET.dwg
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801
DATE	8/6/2025 15:22

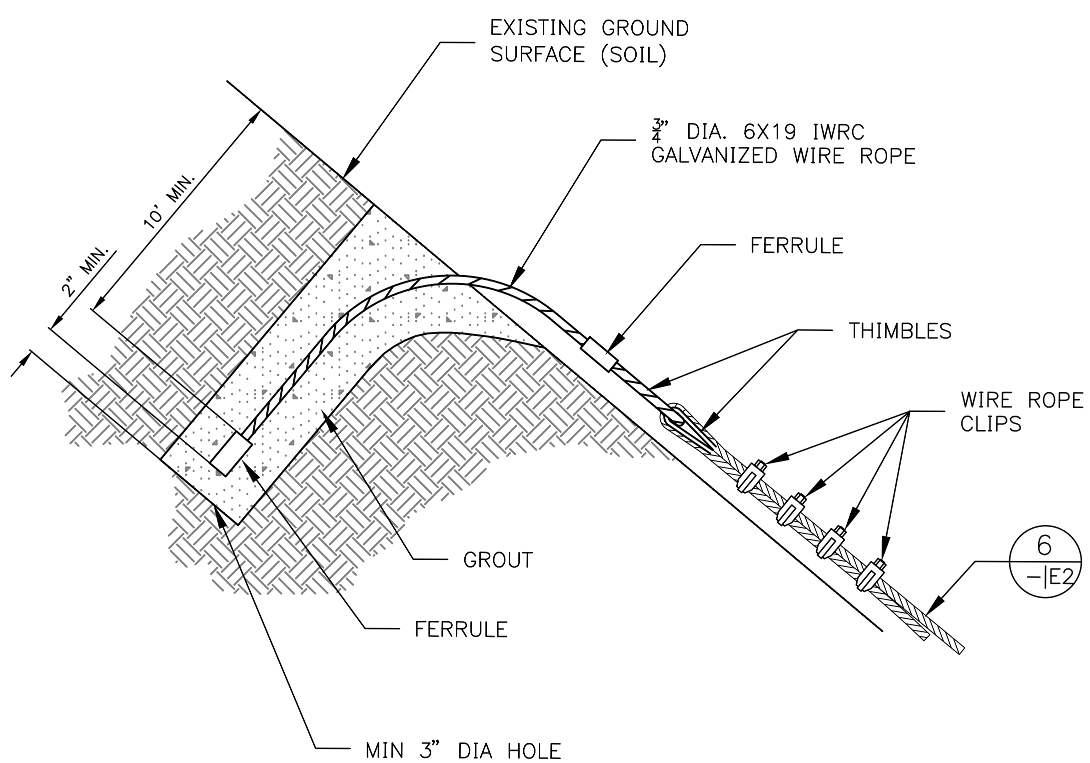
PHONE	(907) 780-3533	CERT. OF AUTH. #	AECL848
DESIGNED	MAF	CHECKED	ARC/RDP
LAYOUT	E2	DRAFTED	MAF



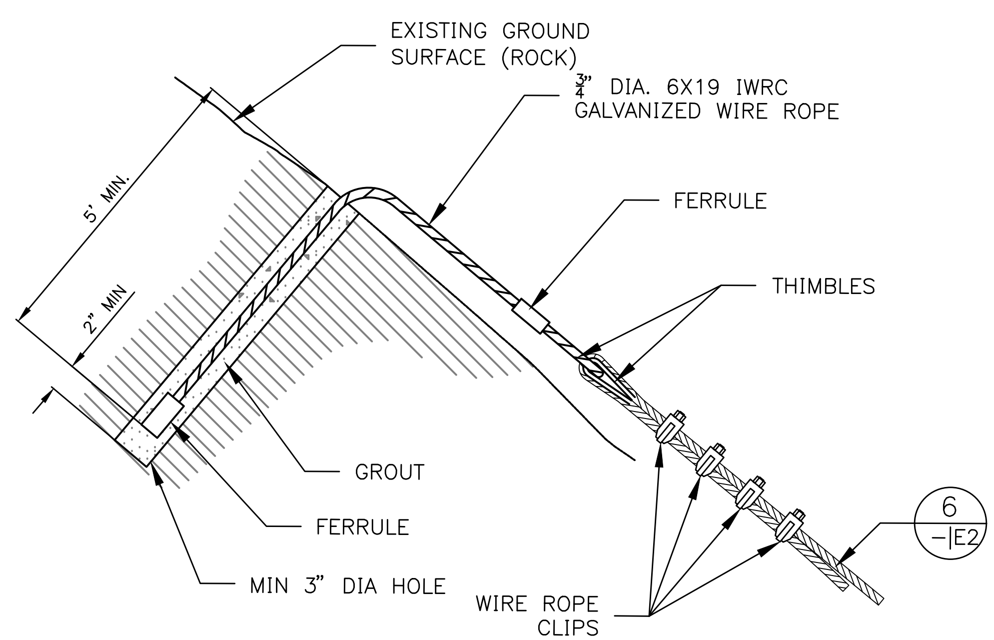
1 / E2|– BOUNDARY ROPE HOLLOW–CORE SELF–DRILLING GROUND ANCHOR FOR SOIL
NTS



2 / E2|– BOUNDARY ROPE ALL–THREAD GROUND ANCHOR FOR ROCK
NTS



3 / E2|– BOUNDARY ROPE WIRE ROPE GROUND ANCHOR FOR SOIL
NTS



4 / E2|– BOUNDARY ROPE WIRE ROPE GROUND ANCHOR FOR ROCK
NTS

NOTES:

1. HOLE ORIENTATION CAN BE ADJUSTED IN THE FIELD TO FACILITATE DRILLING AND ANCHOR INSTALLATION.
2. REFER TO SPECIFICATIONS SECTION 209–3.05 FOR BOUNDARY ROPE ANCHOR REQUIREMENTS.
3. COMPOUND SOIL AND ROCK SUBSURFACE CONDITIONS AT ANCHOR LOCATIONS MAY BE ENCOUNTERED. ACHIEVE MINIMUM ANCHOR DEPTH AS SHOWN IN RESPECTIVE BOUNDARY ROPE ANCHOR DETAILS 1 THROUGH 4.

PLANS DEVELOPED BY:
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STATE OF ALASKA 49 TH
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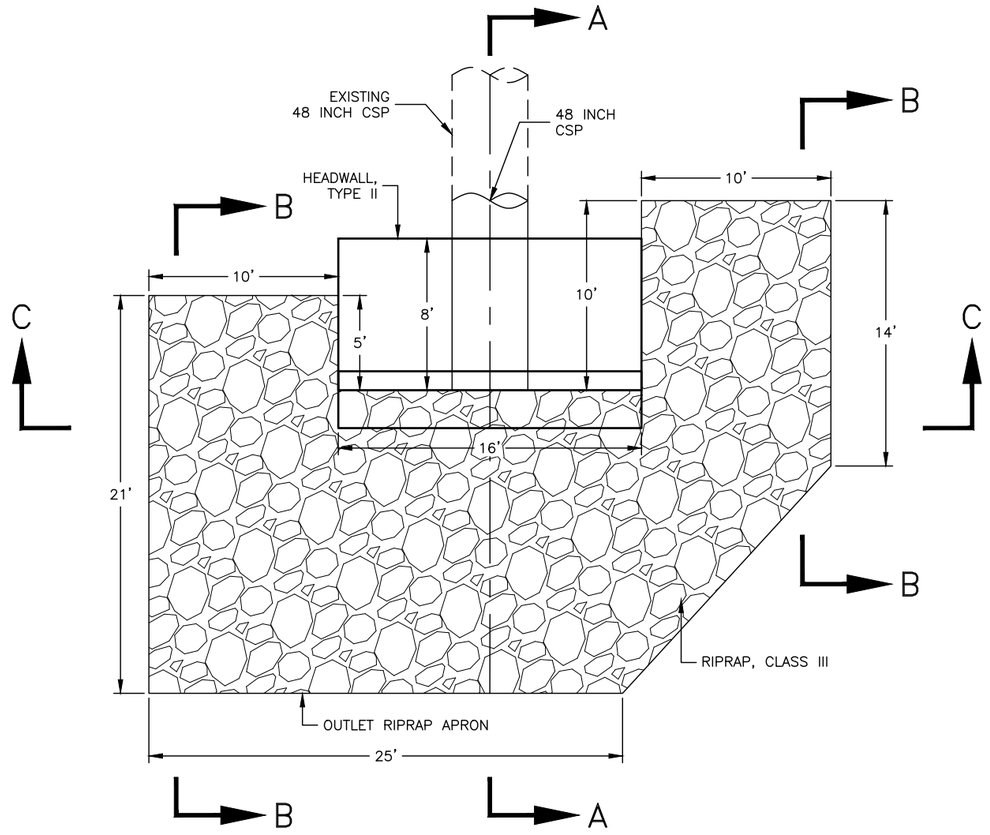
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
DETAILS
HNS HWY: HNS007
WIRE ROPE ANCHOR

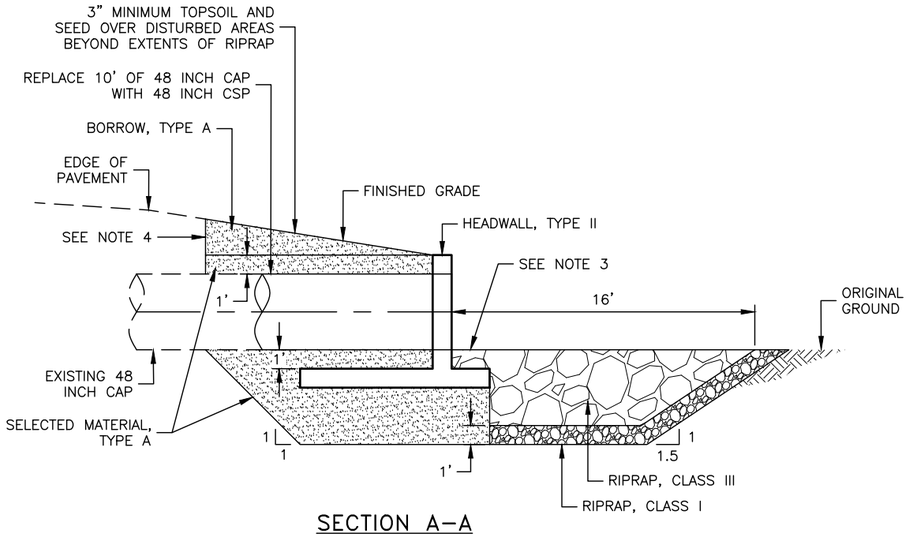
FIRM DOWL | ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801 | PHONE (907) 780–3533 | CERT. OF AUTH. # AECL848
FILE c:\dowl_pw\d0412238\00446-E-DET.dwg | DATE 8/6/2025 15:22 | LAYOUT E3 | DESIGNED MAF | CHECKED ARC/RDP | DRAFTED MAF

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	E4	35

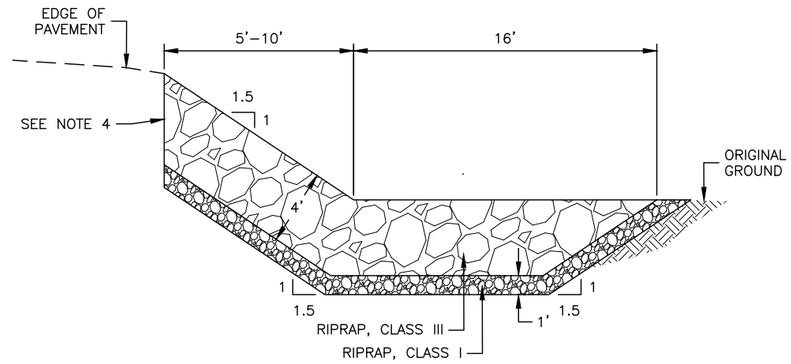


PLAN

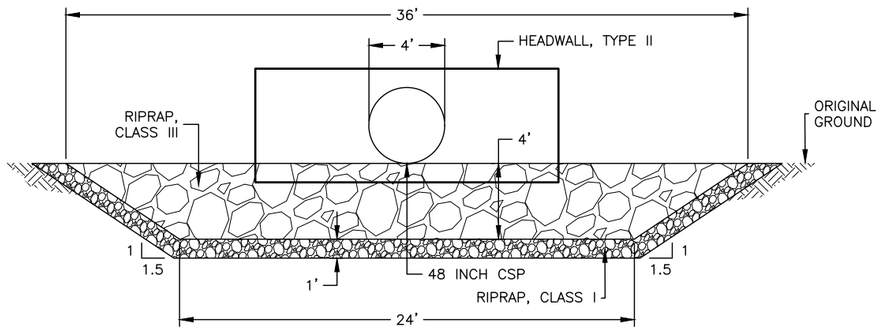
1 / E4 OUTLET RIPRAP APRON
SCALE: NOT TO SCALE
SEE SHEET F15



SECTION A–A



SECTION B–B



SECTION C–C

NOTES:

1. OUTLET RIPRAP APRON DETAIL APPLIES TO DDIR NO. HNS010. GRADE TO DRAIN AWAY FROM CULVERT.
2. GRADE TO SLOPES PRESENT TO ADJACENT HEADWALL AND TIE INTO EXISTING RIPRAP.
3. EXTEND RIPRAP OVER HEADWALL FOOTER AS PRACTICAL USING SMALLER STONE PIECES. KEEP TOP OF RIPRAP BELOW FLOW LINE OF CULVERT.
4. EXCAVATE AS VERTICALLY AS POSSIBLE TO MINIMIZE EXCAVATION LIMITS AND AVOID IMPACTING THE PAVED SHOULDER OF THE HIGHWAY. SHORE THE EXCAVATION AS NECESSARY TO PROTECT THE EXISTING EDGE OF PAVEMENT.

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780-3533
CERT. OF AUTH. #
AECL848

STATE OF ALASKA
RICHARD D. PRIBYL
CE 13149
09.29.25
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD – DEC 20 SE PR

DETAILS

HNS HWY: HNS010
RIPRAP APRON & SLOPE STABILIZATION

FIRM DOWL | ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801 | PHONE (907) 780-3533 | CERT. OF AUTH. # AECL848
FILE c:\dowl_pw\d0412238\00446-E-DET.dwg | DATE 8/6/2025 15:22 | LAYOUT E4 | DESIGNED MAF | CHECKED ARC/RDP | DRAFTED MAF

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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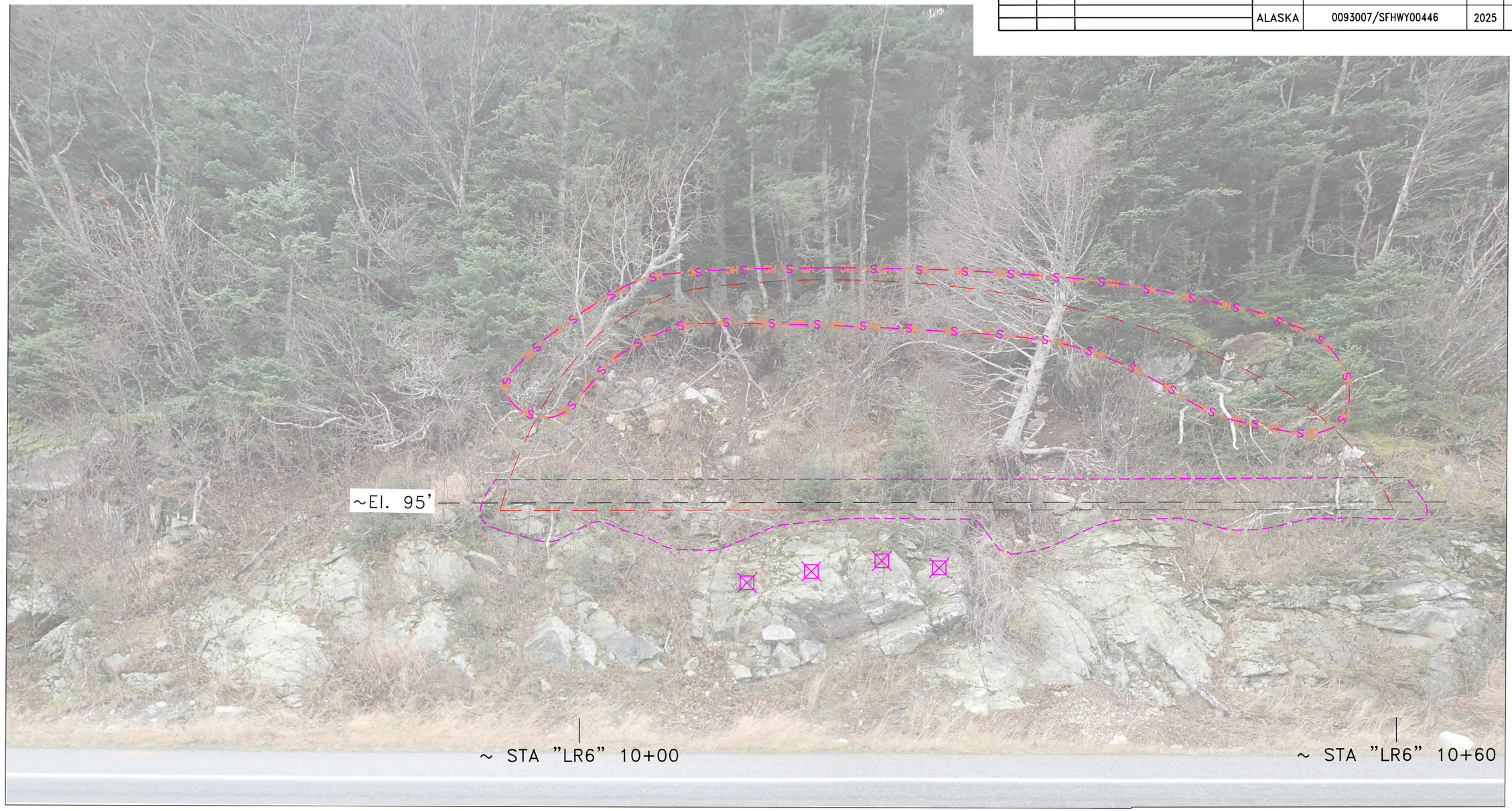

LEGEND

HAND CLEARING

ROCK SCALING

RIPRAP INLAY (CLASS I)

15' LONG ROCK DOWEL

CONCRETE TOE BERM

NOTES:

1. 15 FOOT LONG ROCK DOWEL LOCATIONS ARE APPROXIMATE. FINAL LOCATION TO BE APPROVED BY ENGINEER BEFORE DRILLING. THE SAME DRILL DIAMETER, BAR SIZE, AND GROUT REQUIREMENTS SHOWN ON SHEET E1 APPLY. CUT REINFORCING BAR SO THE FINAL TOP OF BAR IS APPROXIMATELY 6-INCHES BELOW THE ROCK SURFACE. GALVANIZE THE CUT METAL SURFACE PRIOR TO GROUTING. GROUT DRILL HOLE FLUSH WITH THE ROCK SURFACE. APPLIES TO ROCK DOWELS DOWNSLOPE OF THE CONCRETE TOE BERM ONLY.

PLANS DEVELOPED BY:
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CERT. OF AUTH. #
AECC777

STATE OF ALASKA
49 TH
LOGAN C. ALLENDER
No. CE151393
08.06.25
REGISTERED PROFESSIONAL ENGINEER

EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
EXISTING CONDITIONS
HNS HWY: HNS006 – MPt 1.42
(STA. "LR6" 9+80 TO "LR6" 10+75)

F1RM	DOWL	ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801	CERT. OF AUTH. #	AECL848
FILE	c:\dowl_pw\d0412238\00446-F-PnP (F1).dwg	PHONE	(907) 780-3533		
		DATE	8/6/2025 15:07		
		LAYOUT	F1	DESIGNED	LCA
				CHECKED	SWD
				DRAFTED	DWS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	F2	35

LEGEND

HAND CLEARING

ROCK SCALING AREA

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452-1200
CERT. OF AUTH. #
AECC777

STATE OF ALASKA
49 TH
LOGAN C. ALLENDER
No. CE151393
08.06.25
REGISTERED PROFESSIONAL ENGINEER

EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
EXISTING CONDITIONS
HNS HWY: HNS006 – MPt 1.42
(STA. "LR6" 12+50 TO "LR6" 13+50)

FIRM DOWL | ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801 | PHONE (907) 780-3533 | CERT. OF AUTH. # AECL848
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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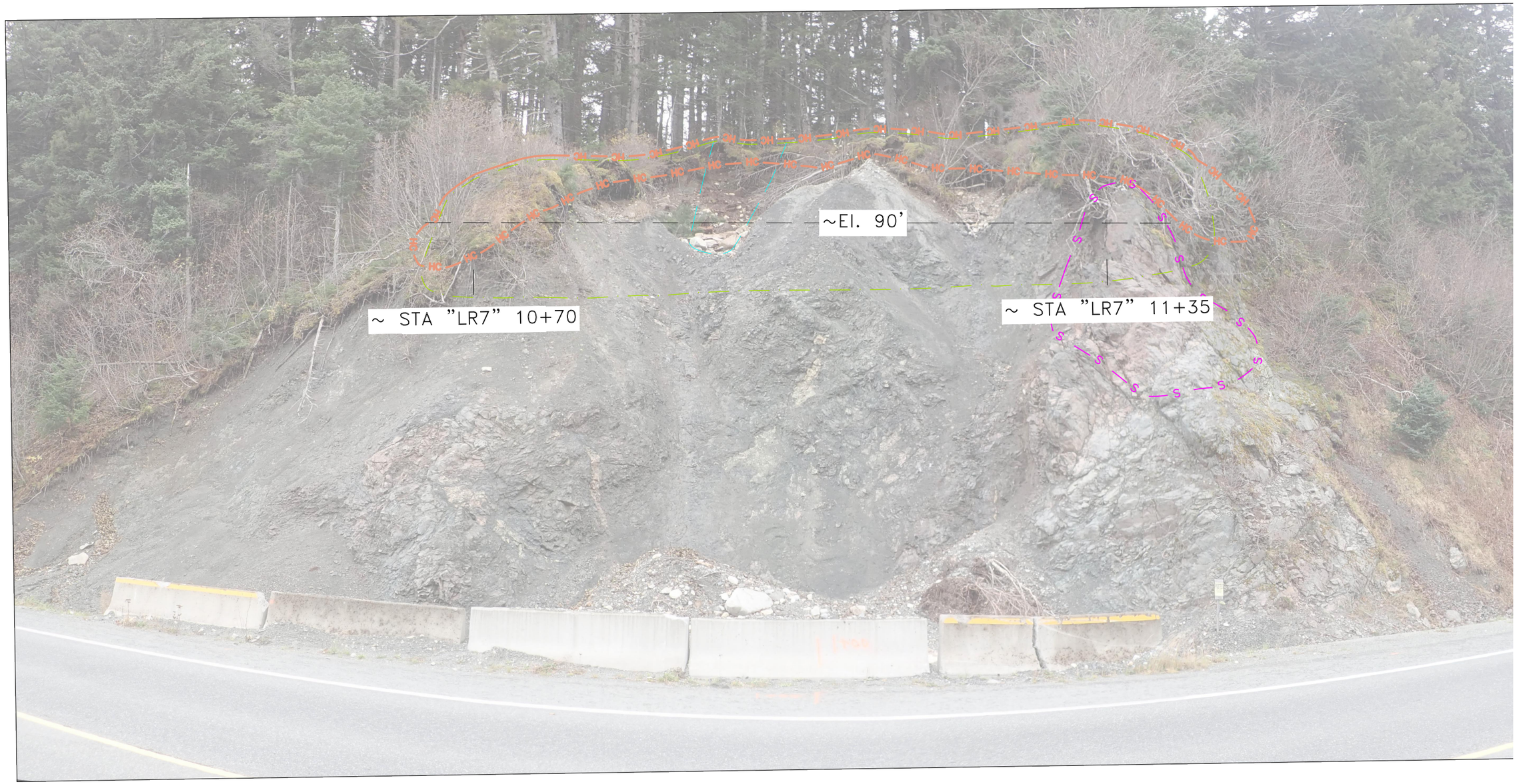

LEGEND

SCALING AREA

PINNED MESH LIMITS

HAND CLEARING

STREAM CHANNEL ARMORING

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
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(503) 452-1200
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AECC777

STATE OF ALASKA
49 TH
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08.06.25
REGISTERED PROFESSIONAL ENGINEER

EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD – DEC 20 SE PR

EXISTING CONDITIONS

HNS HWY: HNS007 – MPt 2.10
(STA. "LR7" 10+40 TO "LR7" 11+50)

FIRM DOWL
ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801 | PHONE (907) 780-3533 | CERT. OF AUTH. # AECL848
DATE 8/6/2025 15:07 | LAYOUT F3 | DESIGNED MAF | CHECKED ARC/RDP | DRAFTED MAF
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0093007/SFHWY00446	2025	F4	35

NOTES:

1. BASE MAP FROM ALASKA DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS (DGGS) ELEVATION PORTAL, 2020 SURVEY AND DOWL WHERE INDICATED.
2. SITE LOCATION: LUTAK ROAD MPt 1.42. (DOT 59)
3. ROW IS APPROXIMATELY 65 FEET WEST OF PAVEMENT EDGE.
4. REMOVE TREES AND BOULDERS WITHIN 10 FEET OF HEAD SCARP LIMITS, OR AS DIRECTED BY THE ENGINEER.
5. CONSTRUCT CONCRETE TOE BERM AND RIPRAP FILL TO THE LIMITS SHOWN, OR AS DIRECTED BY THE ENGINEER.

LEGEND

- HEAD SCARP LIMITS OF RECENTLY ACTIVE AREA. AS OBSERVED IN NOVEMBER 2022
- HC — HC — LIMITS OF HAND CLEARING
- S — S — LIMITS OF SCALING
- LIMITS OF CONCRETE TOE BERM

TCE

ROW

STA="LR6"10+03.06 OFF=86.48'

STA="LR6"10+30.00 OFF=85.80'

STA="LR6"10+51.58 OFF=83.22'

TIE–IN RIPRAP CLASS I INTO EXISTING SLOPE

STA="LR6"9+97.77 OFF=72.93'

TIE IN RIPRAP, CLASS I INTO EXISTING SLOPE

STA="LR6"10+53.00 OFF=73.19'

APPROXIMATE LOCATIONS OF OXEYE DAISIES

APPROXIMATE LIMITS OF RIPRAP SLOPE

STA="LR6"10+51.76 OFF=60.48'

NOMINAL 3" DIAMETER PVC DRAIN HOLE THROUGH CONCRETE BERM, SEE 2 –|E1

UPSLOPE TOE OF CONCRETE TOE BERM (LOCATION VARIES DEPENDING ON ELEVATION WHERE BEDROCK IS ENCOUNTERED)

FINAL RIPRAP, CLASS 1 SLOPE GRADING

STA="LR6"10+01.42 OFF=60.36'

STA="LR6"10+02.06 OFF=56.73'

STA="LR6"10+53.96 OFF=56.92'

TIE–IN CONCRETE TOE BERM INTO EXISTING SLOPE, SEE SHEET E1 FOR DETAILS

TIE–IN CONCRETE TOE BERM INTO EXISTING SLOPE, SEE SHEET E1 FOR DETAILS

1H:1V

0H:0V

1 –|F7

STA="LR6"10+59.47 OFF=54.30'

STA="LR6"10+00.00 OFF=54.17'

STA="LR6"10+11.91 OFF=52.82'

0.5H:1V

STA="LR6"10+40.55 OFF=53.01'

TOP OF CONCRETE TOE BERM

DOWNSLOPE FACE/TOE OF CONCRETE TOE BERM

STA="LR6"10+32.63 OFF=49.38'

STA="LR6"10+15.21 OFF=52.85'

STA="LR6"10+18.52 OFF=52.88'

STA="LR6"10+18.88 OFF=49.25'

STA="LR6"10+28.24 OFF=49.34'

STA="LR6"10+23.16 OFF=49.30'

STA="LR6"10+47.17 OFF=52.96'

STA="LR6"10+43.87 OFF=52.98'

LIMITS OF DOWL SURVEY (SEE NOTE 1)

APPROXIMATE ROCK DOWEL LOCATIONS, SEE SHEET E1

ROADSIDE DITCH

PAVEMENT EDGE

1 –|F5

1 –|F6

"LR6" 9+80.00 = 157+42.85, 0.8' LT

"LR6" 9+80 "LR6" 10+00 "LR6" 10+20 "LR6" 10+40 "LR6" 10+60 "LR

0 10' 20'

SCALE IN FEET

PLANS DEVELOPED BY:
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(503) 452–1200
CERT. OF AUTH. # AECC777

STATE OF ALASKA 49 TH
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER

EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD – DEC 20 SE PR
SITE PLAN
HNS HWY: HNS006
(STA. "LR6" 9+80 TO "LR6" 11+20)

FIRM	DOWL
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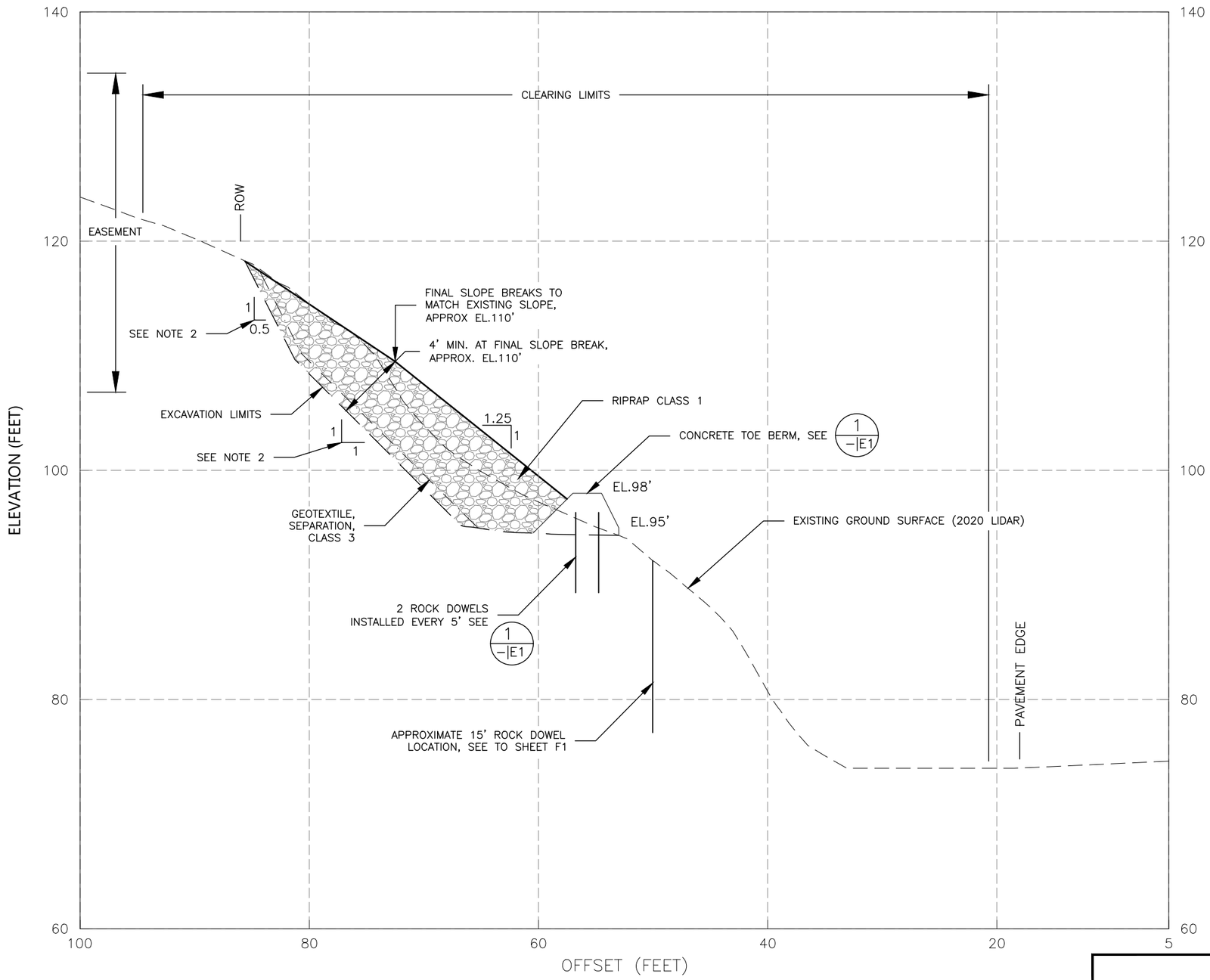
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801
DATE	12/19/2025 12:48
LAYOUT	F4
PHONE	(907) 780-3533
DESIGNED	LCA
DRAFTED	DWS
CHECKED	SWD
CERT. OF AUTH. #	AECL848

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	F5	35



1/F4 LUTAK ROAD STA "LR6" 10+25
SCALE: 1" = 10'

NOTES:

1. PLACE GEOTEXTILE, SEPARATION, CLASS 3 BETWEEN EXCAVATED SOIL SLOPE AND RIPRAP, CLASS I. DO NOT PLACE BETWEN EXPOSED BEDROCK AND RIPRAP, CLASS I.
2. EXCAVATION SLOPES ARE APPROXIMATE AND SHOWN FOR INFORMATIONAL PURPOSES ONLY. ACTUAL SLOPE ANGLES AND TRANSITIONS MAY VARY.

PLANS DEVELOPED BY:
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9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452-1200
CERT. OF AUTH. #
AECC777

STATE OF ALASKA
49 TH
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

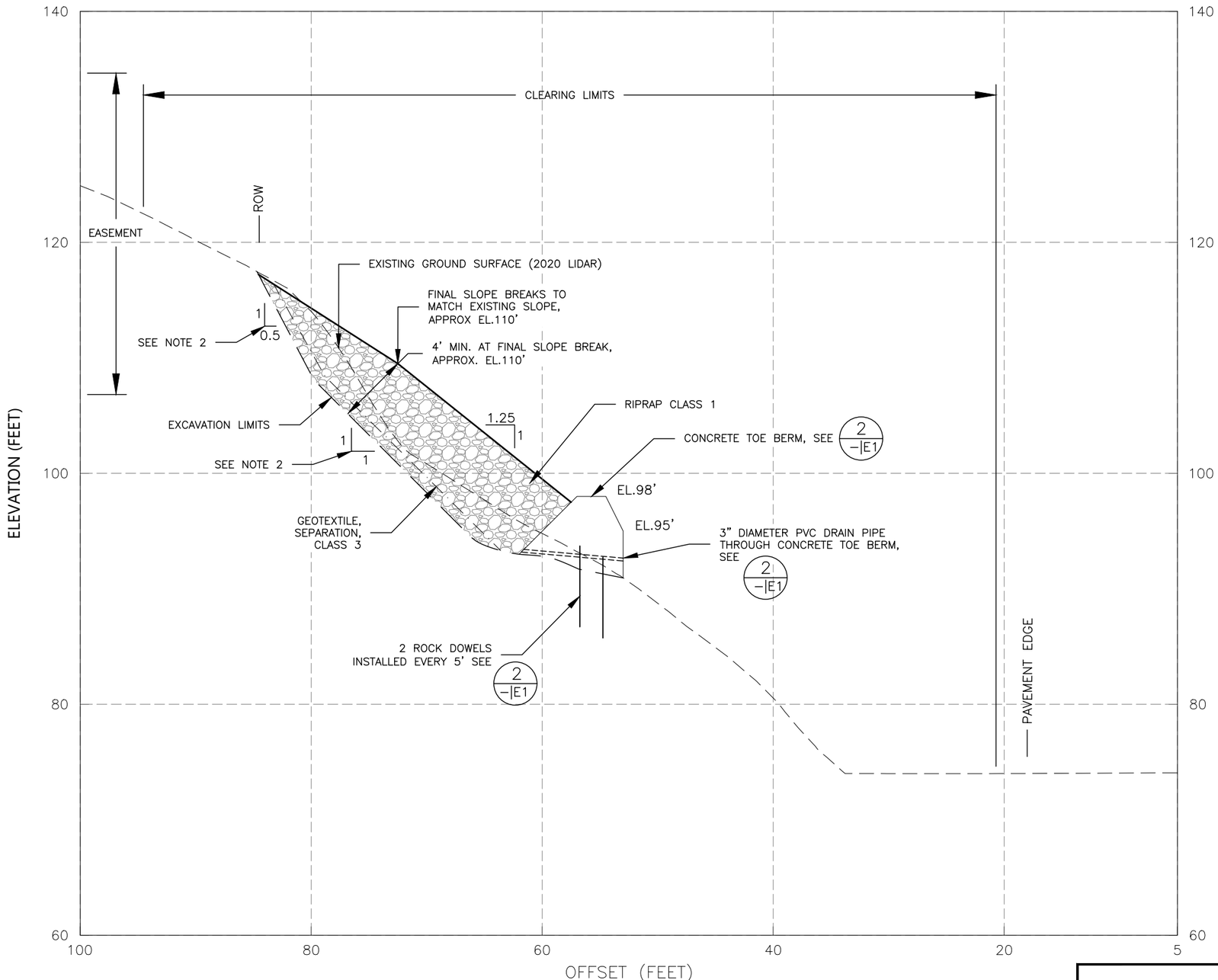
HAINES HWY / LUTAK ROAD - DEC 20 SE PR

TYPICAL SECTION
HNS HWY HNS006
STA "LR6" 10+25

FIRM	DOWL
FILE	c:\dow1_pw\d0412238\00446-F-PnP (F4-F13).dwg
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801
DATE	10/8/2025 8:40
PHONE	(907) 780-3533
CERT. OF AUTH. #	AECL848
DESIGNED	LCA
CHECKED	SWD
DRAFTED	DWS
LAYOUT	F5

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0093007/SFHWY00446	2025	F6	35



NOTES:

1. PLACE GEOTEXTILE, SEPARATION, CLASS 3 BETWEEN EXCAVATED SOIL SLOPE AND RIPRAP, CLASS I. DO NOT PLACE BETWEN EXPOSED BEDROCK AND RIPRAP, CLASS I.
2. EXCAVATION SLOPES ARE APPROXIMATE AND SHOWN FOR INFORMATIONAL PURPOSES ONLY. ACTUAL SLOPE ANGLES AND TRANSITIONS MAY VARY.

1/F4 LUTAK ROAD STA "LR6" 10+40
SCALE: 1" = 10'

PLANS DEVELOPED BY:
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9000 SW GEMINI DR
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CERT. OF AUTH. #
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STATE OF ALASKA
49 TH
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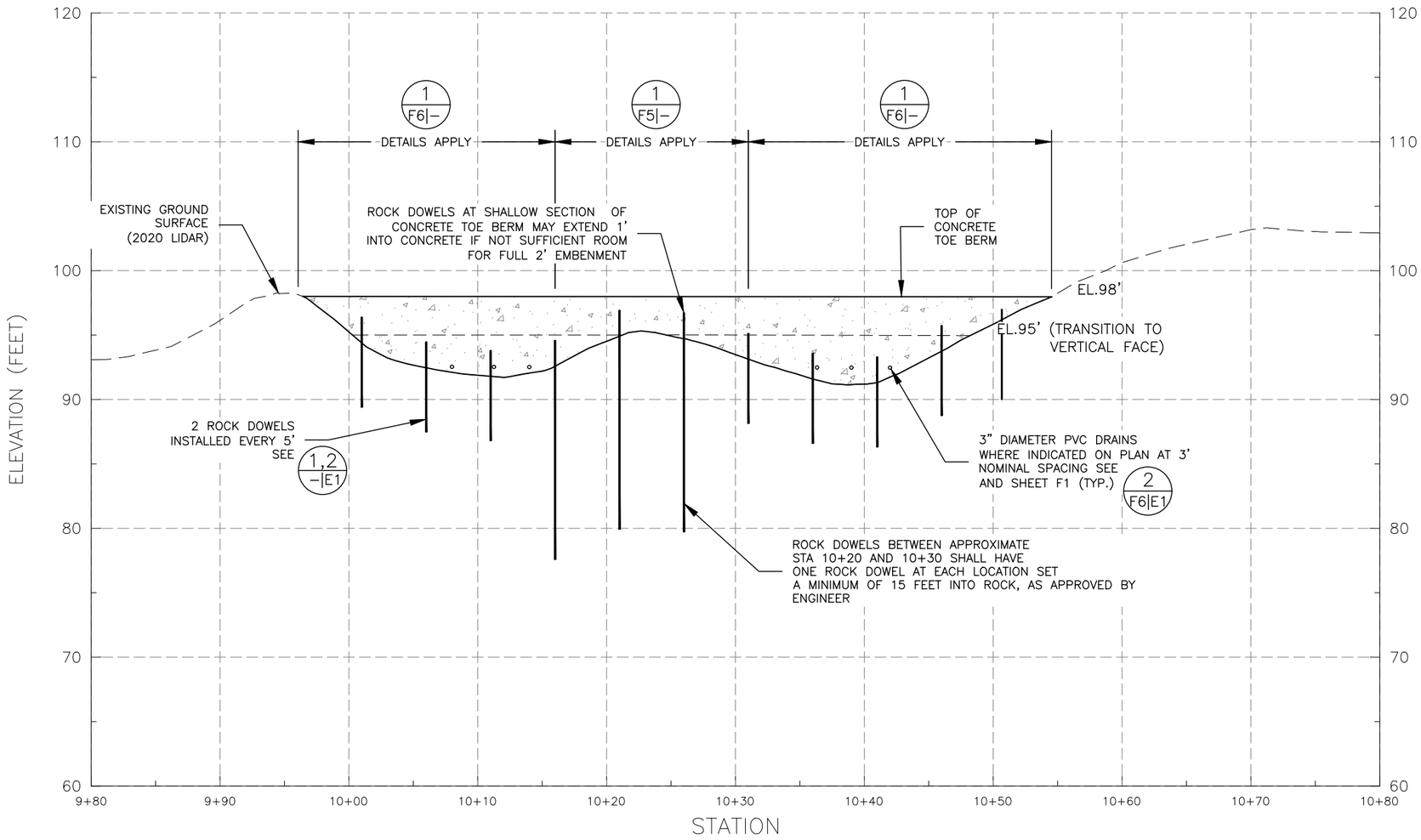
EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
TYPICAL SECTION
HNS HWY: HNS006
STA "LR6" 10+40

FIRM	DOWL
FILE	c:\dowl_pw\d0412238\00446-F-PnP (F4-F13).dwg
DATE	10/8/2025 8:40
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801
PHONE	(907) 780-3533
CERT. OF AUTH. #	AECL848
DESIGNED	LCA
CHECKED	SWD
DRAFTED	DWS
LAYOUT	F6

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	F7	35



1 F4|– CONCRETE TOE BERM PROFILE
SCALE: 1"=10'

NOTES:

1. BOTTOM ELEVATION OF CONCRETE TOE BERM VARIES. CAST CONCRETE ON CLEAN, ROUGH UNWEATHERED ROCK SURFACE.
2. APPLY CONCRETE TOE BERM DETAILS ON SHEET F4 AS SHOWN OR AS DIRECTED BY THE ENGINEER.

PLANS DEVELOPED BY:
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STATE OF ALASKA
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No. CE151393
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REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
PROFILE
HNS HWY: HNS006
CONCRETE TOE BERM

FIRM	DOWL
FILE	c:\dowl_pw\d0412238\00446-F-PnP (F4-F13).dwg
DATE	10/8/2025 8:40
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801
LAYOUT	F7
PHONE	(907) 780-3533
DESIGNED	LCA
CHECKED	SWD
CERT. OF AUTH. #	AECL848
DRAFTED	DWS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	F8	35

NOTES:

1. BASE MAP FROM ALASKA DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS (DGGS) ELEVATION PORTAL, 2020 SURVEY AND DOWL WHERE INDICATED.
2. SITE LOCATION: LUTAK ROAD MPt 1.42 (DOT 59).
3. ROW IS APPROXIMATELY 62 FEET WEST OF PAVEMENT EDGE.
4. REMOVE TREES AND BOULDERS WITHIN 10 FEET OF HEAD SCARP LIMITS, OR AS DIRECTED BY THE ENGINEER.

LEGEND

- HEAD SCARP LIMITS OF RECENTLY ACTIVE AREA AS OBSERVED IN NOVEMBER 2022
- HC — HC — LIMITS OF HAND CLEARING
- S — S — LIMITS OF ROCK SCALING

APPROXIMATE LOCATION OF OXEYE DAISIES

APPROXIMATE LOCATIONS OF OXEYE DAISIES

ROW

STA="LR6"11+98.80
OFF=70.79'

STA="LR6"11+65.75
OFF=68.23'

STA="LR6"11+49.83
OFF=58.01'

STA="LR6"12+45.97
OFF=58.49'

STA="LR6"12+44.03
OFF=52.80'

STA="LR6"11+61.59
OFF=43.56'

STA="LR6"11+86.07
OFF=44.42'

120
110
100
90
80
70

ROADSIDE DITCH

EXISTING 20 INCH CMP

PAVEMENT EDGE

0 10' 20'
SCALE IN FEET

"LR6" 11+40.00 = 155+82.90, 0.7' LT

"LR6" 11+40 "LR6" 11+60 "LR6" 11+80 "LR6" 12+00 "LR6" 12+20 "I

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452-1200
CERT. OF AUTH. #
AECC777

STATE OF ALASKA
49 TH
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER

EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
SITE PLAN
HNS HWY HNS006
STA "LR6" 11+50 TO "LR6" 12+50

FIRM	DOWL	ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801	PHONE	(907) 780-3533	CERT. OF AUTH. #	AECL848
FILE	C:\dowl_pw\d0412238\00446-F-PnP (F4-F13).dwg	DATE	12/19/2025 12:55	LAYOUT	F8	DESIGNED	LCA	CHECKED	SWD	DRAFTED	DWS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	F9	35

TCE

TCE 2 – LANDOWNER B

TCE 1 – LANDOWNER A

LIMITS OF DOWL SURVEY, SEE NOTE 1

PERMANENT CONSTRUCTION EASEMENT 1 – LANDOWNER A

ROW

STA="LR7"10+85.86 OFF=176.16'

STA="LR7"10+81.16 OFF=181.29'

STA="LR7"10+83.00 OFF=170.08'

STA="LR7"10+84.04 OFF=163.63'

STA="LR7"10+79.93 OFF=151.68'

STA="LR7"10+53.88 OFF=141.95'

STA="LR7"10+47.95 OFF=108.33'

STA="LR7"10+83.13 OFF=93.89'

STA="LR7"10+84.13 OFF=79.76'

STA="LR7"10+54.19 OFF=78.33'

STA="LR7"10+55.28 OFF=68.85'

STA="LR7"10+65.80 OFF=68.25'

STA="LR7"10+90.41 OFF=74.07'

STA="LR7"10+92.39 OFF=181.99'

STA="LR7"10+90.52 OFF=174.44'

STA="LR7"10+91.42 OFF=168.26'

STA="LR7"10+90.89 OFF=164.55'

STA="LR7"11+20.72 OFF=157.06'

STA="LR7"10+92.07 OFF=145.39'

STA="LR7"10+90.30 OFF=94.17'

STA="LR7"10+88.25 OFF=92.48'

STA="LR7"11+39.20 OFF=118.44'

STA="LR7"11+13.82 OFF=75.33'

STA="LR7"11+42.28 OFF=75.45'

STA="LR7"11+33.78 OFF=59.91'

STA="LR7"11+21.76 OFF=57.76'

STA="LR7"11+06.38 OFF=73.48'

1 –|F12

1 –|F13

1 –|F10

2 –|F11

EXISTING CONCRETE BARRIER

ROADSIDE DITCH

PAVEMENT EDGE

"LR7" 9+00

"LR7" 9+50

"LR7" 10+00

"LR7" 10+50

"LR7" 11+00

"LR7" 11+50

"LR7" 12+00

"LR7" 12+50

"LR7" 13+00

"LR7" 10+00.00 = 120+77.50, 0.5' LT

0 30' 60'

SCALE IN FEET

NOTES:

1. BASE MAP FROM ALASKA DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS (DGGS) ELEVATION PORTAL, 2020 SURVEY AND DOWL OCTOBER 2022 SURVEY WHERE INDICATED.
2. SITE LOCATION: LUTAK ROAD MPt 2.1(DOT 57).
3. ROW IS APPROXIMATELY 45 FEET WEST OF PAVEMENT EDGE.
4. REMOVE TREES WITHIN THE LIMITS SHOWN AS NEEDED TO FACILITATE THE WORK. CUT ALL TREES AND SHRUBS LEVEL WITH THE GROUND SURFACE. ANY TREES REMOVED WITHIN THE WORK AREA & TCE–1 SHALL BE PROCESSED (CUT TO ROUNDS 12–INCHES LONG & SPLIT), HAULED TO THE DRIVEWAY AT 1015 LUTAK ROAD & STACKED IN A NEAT PILE IN THE WOODS.
5. REMOVE EXISTING CONCRETE BARRIER AFTER PINNED MESH INSTALLATION IS COMPLETE.
6. SLOPE REGRADING BOUNDARY IS APPROXIMATE AND SHOWN FOR INFORMATIONAL PURPOSES ONLY. EXCAVATE/FILL WITH ON–SITE SOILS AS NEEDED TO CREATE A SURFACE FREE OF OBSTRUCTIONS FOR MESH PLACEMENT.

LEGEND

- HEAD SCARP LIMITS OF RECENTLY ACTIVE AREA AS OBSERVED IN NOVEMBER 2022
- STREAM CHANNEL LOCATION
- S — S — LIMITS OF SCALING AREA
- PINNED MESH LIMITS
- STREAM CHANNEL ARMORING
- LIMITS OF 1.25H:1V SLOPE REGRADING
- HC — HC — LIMITS OF HAND CLEARING

LIMITS OF DOWL SURVEY, SEE NOTE 1

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452–1200
CERT. OF AUTH. # AECC777

STATE OF ALASKA 49TH
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

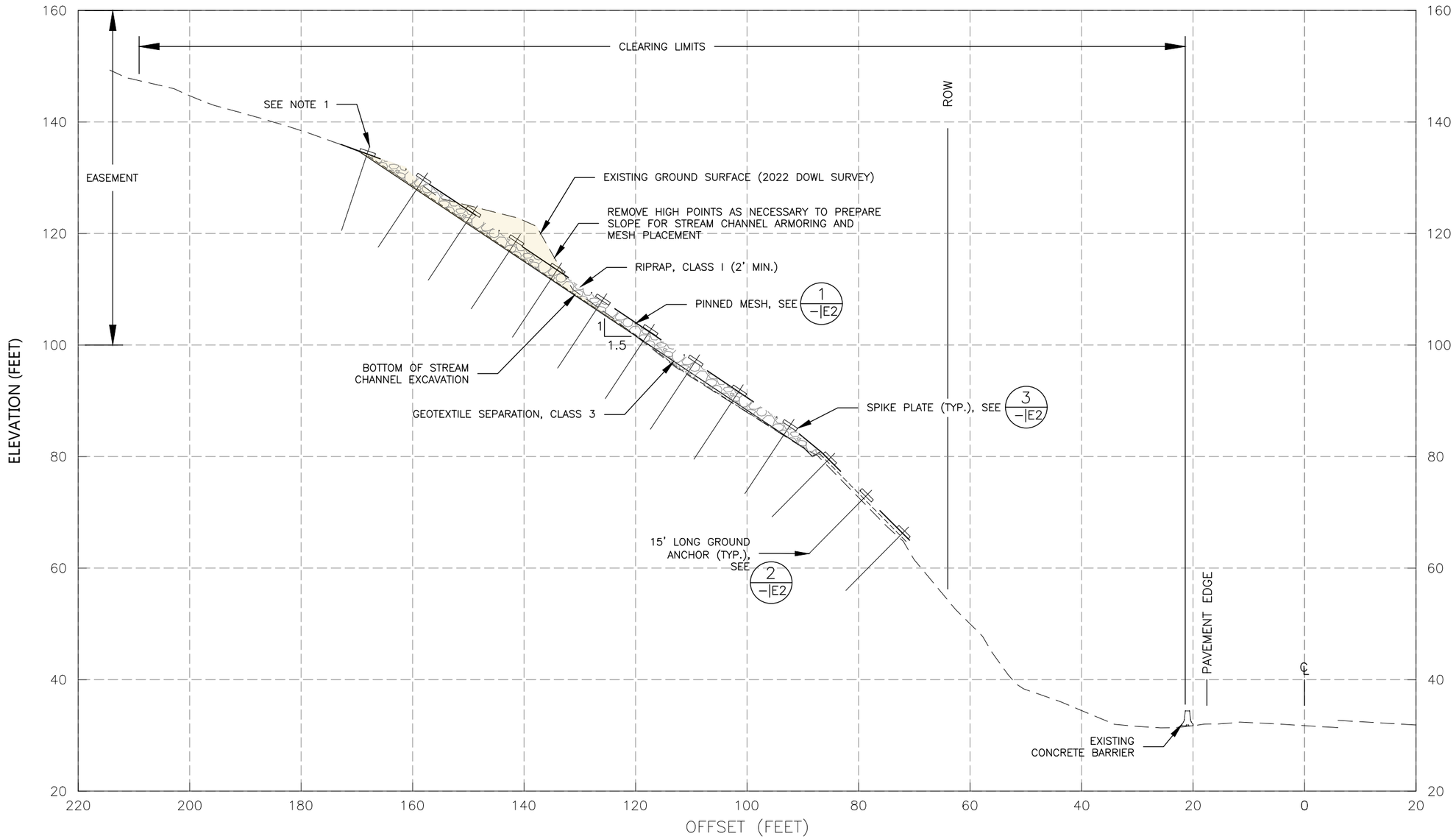
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
SITE PLAN
HNS HWY: HSN007
PINNED MESH REINFORCEMENT

FIRM	DOWL						
FILE	c:\dowl_pw\d0412238\00446-F-PnP (F4-F13).dwg						
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801	PHONE	(907) 780-3533	CERT. OF AUTH. #	AECL848		
DATE	10/8/2025 8:40	LAYOUT	F9	DESIGNED	LCA	CHECKED	SWD	DRAFTED	DWS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0093007/SFHWY00446	2025	F10	35



1 / F9 — LUTAK ROAD STA "LR7" 10+90
SCALE: 1"=20'

NOTES:

1. LOCATE GROUND ANCHOR AT MESH BOUNDARY 6" TO 12" FROM EDGE OF MESH. EDGE OF MESH LOCATED AS SHOWN ON SHEET F9 OR AS DIRECTED BY ENGINEER.
2. EXCAVATE/FILL AS NEEDED TO CONSTRUCT STREAM CHANNEL AND PLACE RIPRAP, CLASS 1 TO LIMITS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452-1200
CERT. OF AUTH. #
AECC777

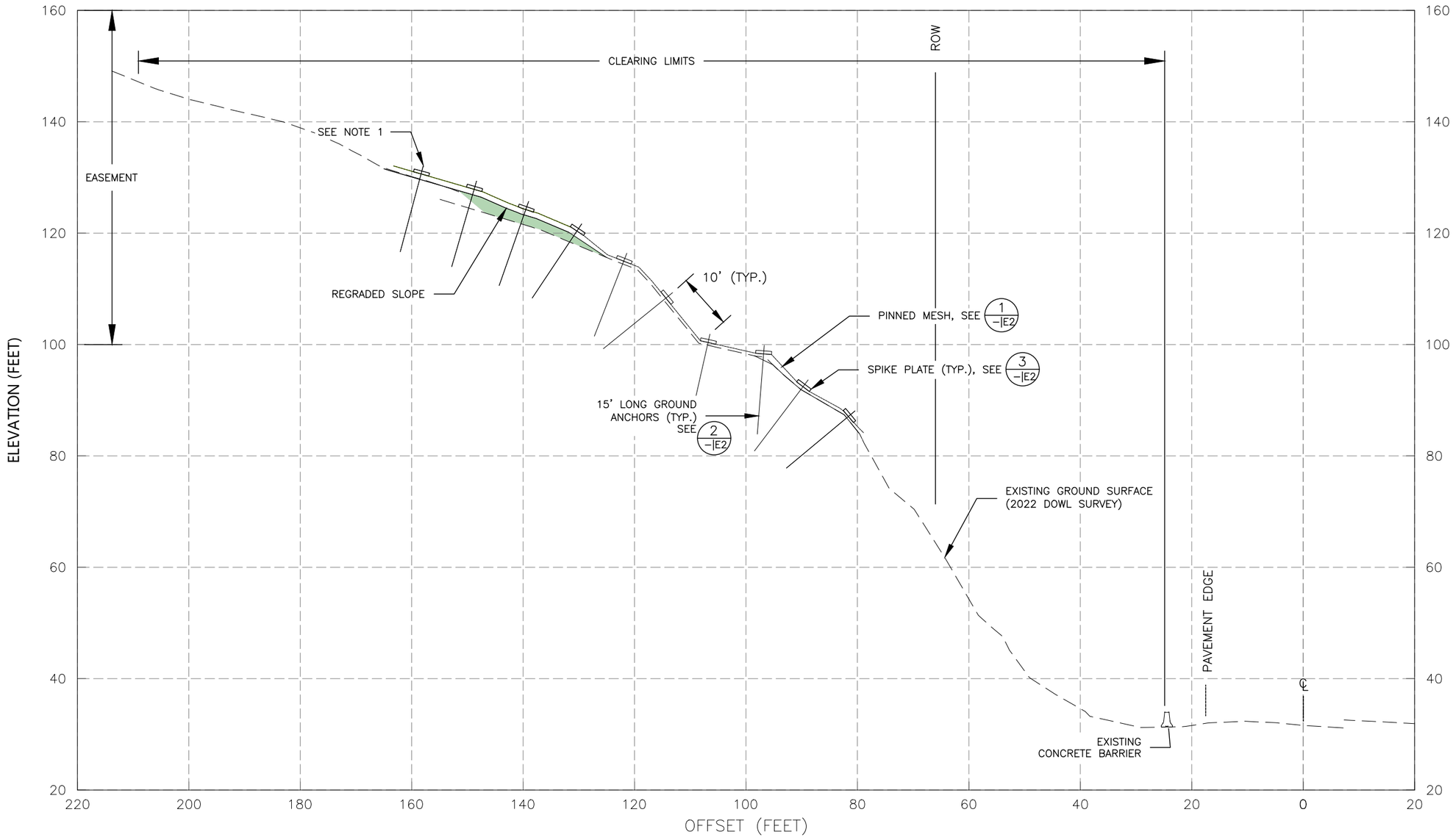
STATE OF ALASKA
49 TH
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
TYPICAL SECTION
HNS HWY: HNS007
STA "LR7" 10+90

FIRM	DOWL
FILE	c:\dowl_pw\d0412238\00446-F-PnP (F4-F13).dwg
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801
DATE	10/8/2025 8:40
LAYOUT	F10
PHONE	(907) 780-3533
DESIGNED	LCA
CHECKED	SWD
CERT. OF AUTH. #	AECL848
DRAFTED	DWS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	F11	35



1 / F9 — LUTAK ROAD STA "LR7" 11+10
SCALE: 1"=20'

NOTES:

1. LOCATE GROUND ANCHOR AT MESH BOUNDARY 6" TO 12" FROM EDGE OF MESH. EDGE OF MESH LOCATED AS SHOWN ON SHEET F9 OR AS DIRECTED BY ENGINEER.
2. EXCAVATE/FILL WITH ON-SITE SOILS AS NEEDED TO CREATE A SURFACE FREE OF OBSTRUCTIONS FOR MESH PLACEMENT.

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452-1200
CERT. OF AUTH. #
AECC777

STATE OF ALASKA
49 TH
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD - DEC 20 SE PR

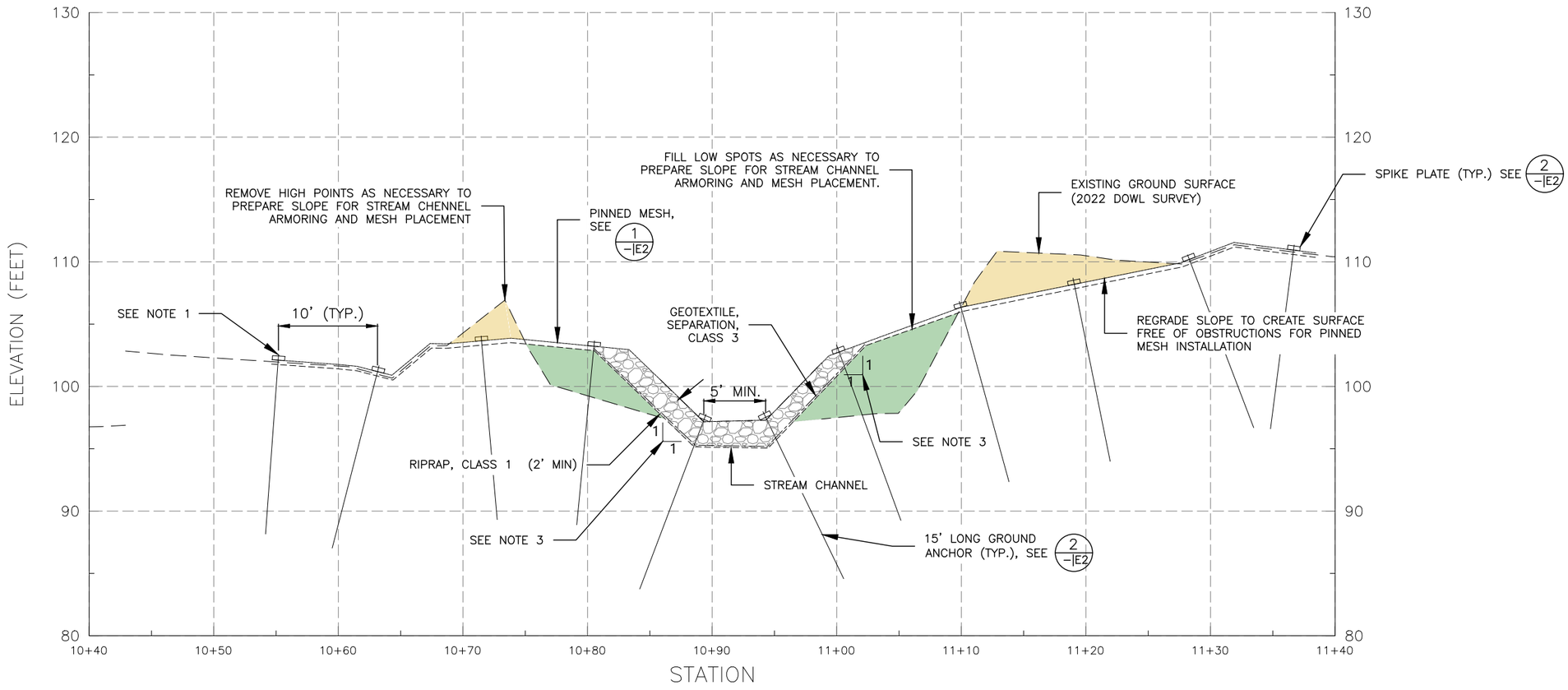
TYPICAL SECTION

HNS HWY: HNS007
STA "LR7" 11+10

FIRM	DOWL
FILE	c:\dowl_pw\d0412238\00446-F-PnP (F4-F13).dwg
DATE	10/8/2025 8:40
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801
	PHONE (907) 780-3533
	CERT. OF AUTH. # AECL848
LAYOUT	F11
DESIGNED	LCA
CHECKED	SWD
DRAFTED	DWS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0093007/SFHWY00446	2025	F12	35



NOTES:

1. LOCATE GROUND ANCHOR AT MESH BOUNDARY 6" TO 12" FROM EDGE OF MESH. EDGE OF MESH LOCATED AS SHOWN ON SHEET F9 OR AS DIRECTED BY ENGINEER.
2. EXCAVATE/FILL WITH ON-SITE SOILS AS NEEDED TO CONSTRUCT STREAM CHANNEL AND PLACE RIPRAP, CLASS 1 TO LIMITS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
3. EXCAVATION SLOPES ARE APPROXIMATE AND SHOWN FOR INFORMATIONAL PURPOSES ONLY. ACTUAL SLOPE ANGLES MAY VARY.

1 / F9 — PINNED MESH PROFILE
SCALE: 1"=10'

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452-1200
CERT. OF AUTH. #
AECC777

STATE OF ALASKA
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
PROFILE
HNS HWY: HNS007
STA "LR7" 10+40 TO "LR7" 11+40

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DATE 10/8/2025 8:40
PHONE (907) 780-3533
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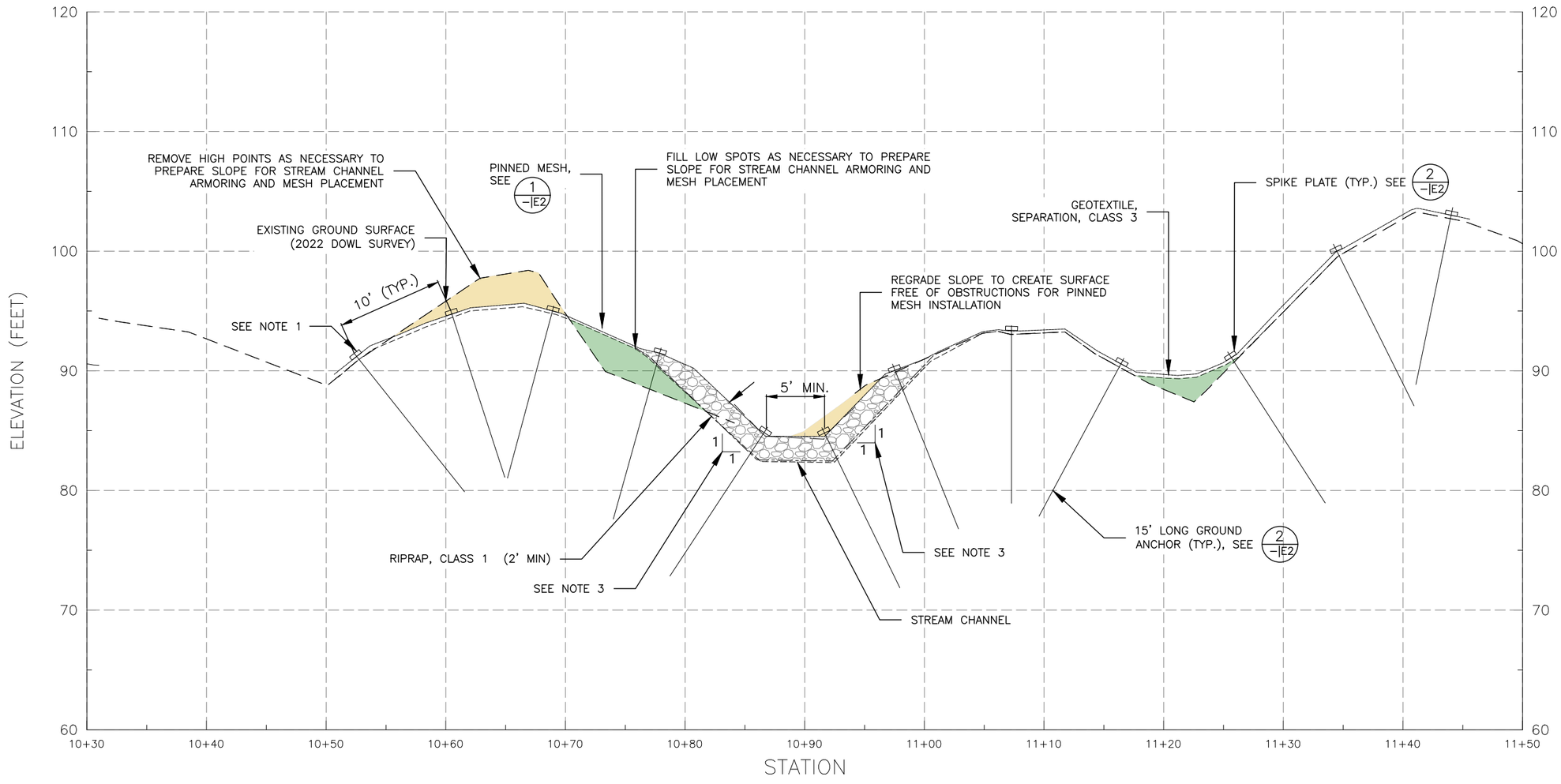
DESIGNED LCA
CHECKED SWD
CERT. OF AUTH. # AECL848
DRAFTED DWS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	F13	35



NOTES:

1. LOCATE GROUND ANCHOR AT MESH BOUNDARY 6" TO 12" FROM EDGE OF MESH. EDGE OF MESH LOCATED AS SHOWN ON SHEET F9 OR AS DIRECTED BY ENGINEER.
2. EXCAVATE/FILL WITH ON-SITE SOILS AS NEEDED TO CONSTRUCT STREAM CHANNEL AND PLACE RIPRAP, CLASS 1 TO LIMITS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
3. EXCAVATION SLOPES ARE APPROXIMATE AND SHOWN FOR INFORMATIONAL PURPOSES ONLY. ACTUAL SLOPE ANGLES MAY VARY.

1 / F9|- PINNED MESH PROFILE
SCALE: 1"=10'

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452-1200
CERT. OF AUTH. #
AECC777

STATE OF ALASKA 49TH
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
- DEC 20 SE PR
PROFILE
HNS HWY: HNS007
STA "LR7" 10+30 TO "LR7" 11+50

FIRM DOWL
ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801
DATE 10/8/2025 8:40
FILE c:\dowl_pw\d0412238\00446-F-PnP (F4-F13).dwg
LAYOUT F13
PHONE (907) 780-3533
DESIGNED LCA
CHECKED SWD
DRAFTED DWS
CERT. OF AUTH. # AECL848

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	F14	35

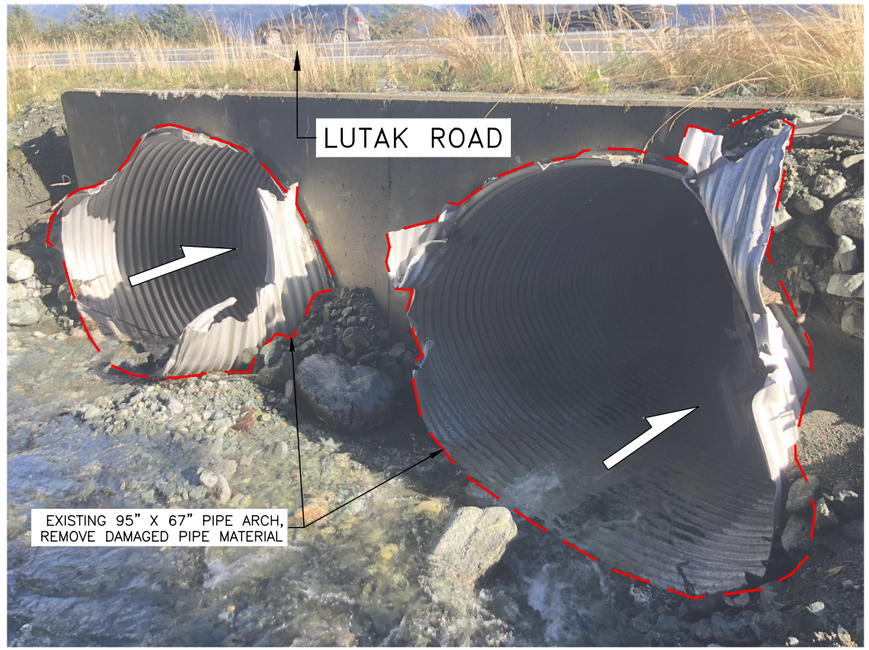
NOTES:

1. LOCATION OF CULVERT IS AT MILEPOST 2.26.

   LATITUDE AND LONGITUDE:
   59°15'37.54" N, 135°26'31.82" W

2. CUT EXISTING CULVERT INLET ENDS FLUSH WITH EXISTING CONCRETE HEADWALL. REMOVAL OF CULVERT LENGTH SHALL BE LONGEST DIMENSION MEASURED IN THE FIELD.

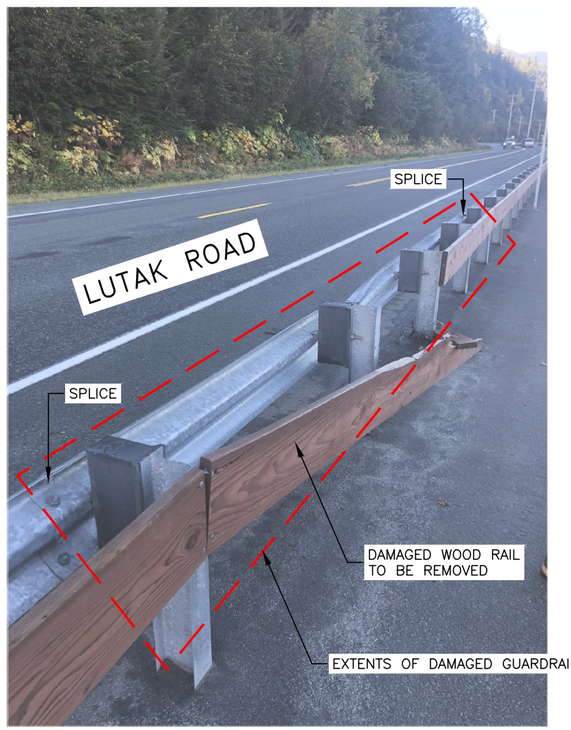
3. ROW IS APPROXIMATELY 50' WEST AND 68' EAST OF EDGE OF PAVEMENT.

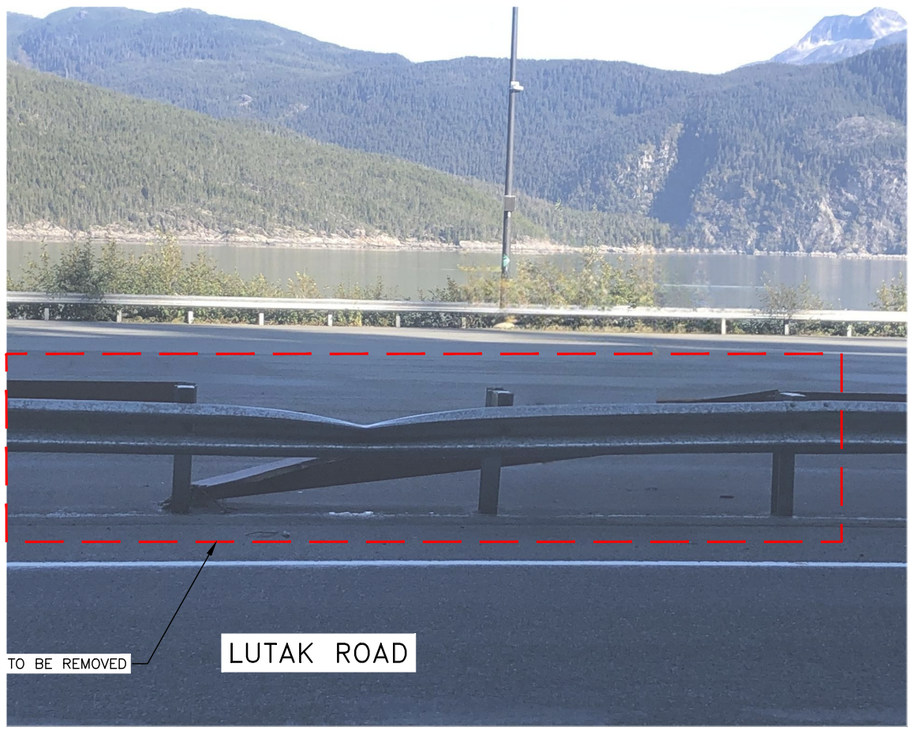


HNS HWY: HNS008
DOT64/HDR1636 SITE PLAN
REMOVAL OF CULVERT INLETS

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780-3533
CERT. OF AUTH. #
AECL848

STATE OF ALASKA
49TH
RICHARD D. PRIBYL, JR.
CE 13149
08.06.25
REGISTERED PROFESSIONAL ENGINEER





NOTES:

1. LOCATION OF GUARDRAIL IS MP 4.1.

   LATITUDE AND LONGITUDE:
   59°16'49.26" N, 135°27'34.67" W

2. REMOVE AND REPLACE 25' SECTION OF DAMAGED GUARDRAIL. SPLICE GUARDRAIL AND REPLACE WOOD RAIL WITH IN-KIND MATERIAL TO MATCH EXISTING

3. ROW IS APPROXIMATELY 20' SOUTH AND 5' NORTH OF EDGE OF PAVEMENT.

HNS HWY: HNS011
HDR1607 SITE PLAN
GUARDRAIL REPAIR

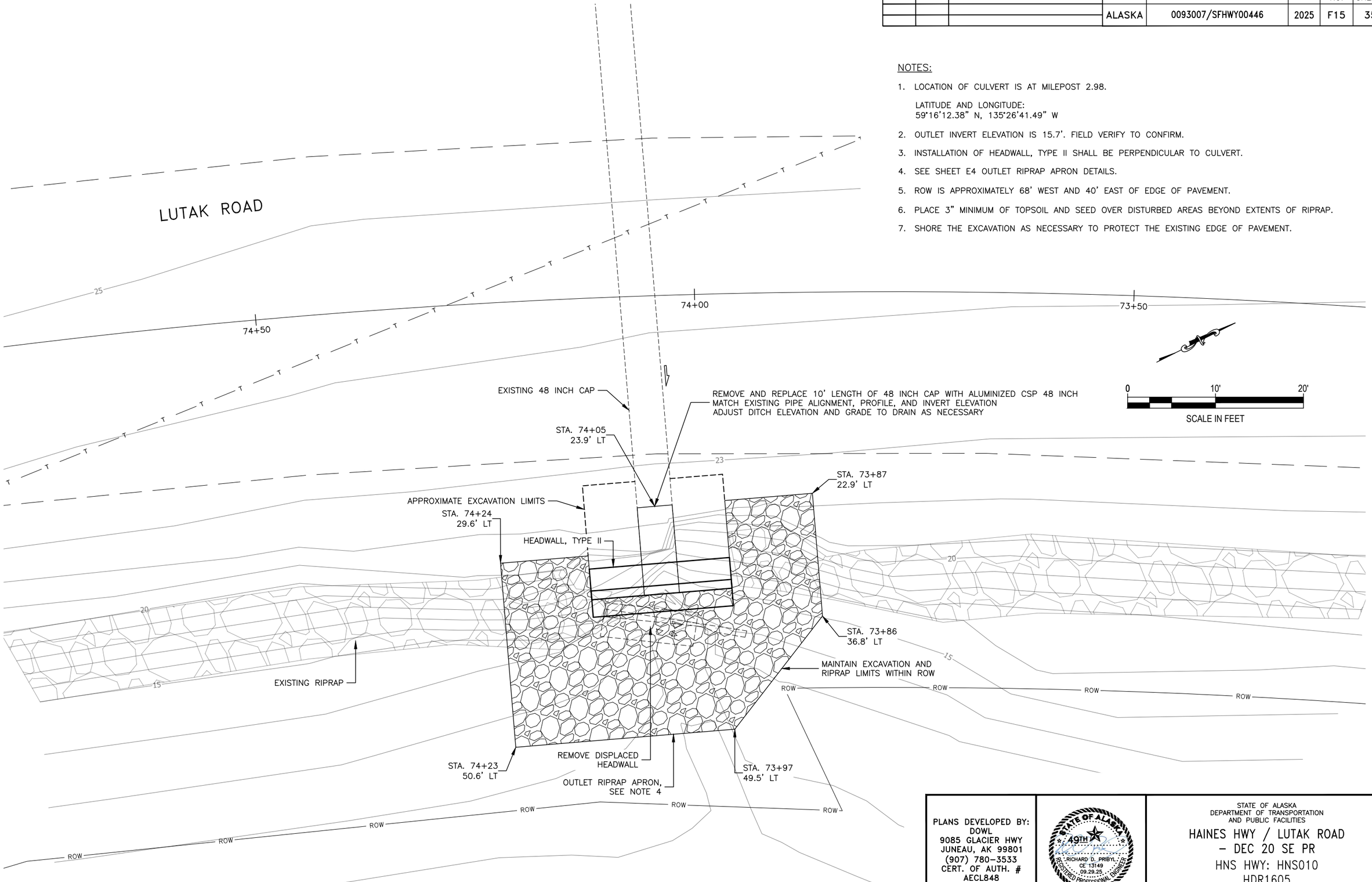
FIRM DOWL | ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801 | PHONE (907) 780-3533 | CERT. OF AUTH. # AECL848
FILE c:\dowl_pw\a0412238\00446-F-PnP (F14-F15).dwg | DATE 8/6/2025 15:18 | LAYOUT F14 | DESIGNED MAF | CHECKED ARC/RDP | DRAFTED MAF

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	F15	35

NOTES:

1. LOCATION OF CULVERT IS AT MILEPOST 2.98.

   LATITUDE AND LONGITUDE:
   59°16'12.38" N, 135°26'41.49" W
2. OUTLET INVERT ELEVATION IS 15.7'. FIELD VERIFY TO CONFIRM.
3. INSTALLATION OF HEADWALL, TYPE II SHALL BE PERPENDICULAR TO CULVERT.
4. SEE SHEET E4 OUTLET RIPRAP APRON DETAILS.
5. ROW IS APPROXIMATELY 68' WEST AND 40' EAST OF EDGE OF PAVEMENT.
6. PLACE 3" MINIMUM OF TOPSOIL AND SEED OVER DISTURBED AREAS BEYOND EXTENTS OF RIPRAP.
7. SHORE THE EXCAVATION AS NECESSARY TO PROTECT THE EXISTING EDGE OF PAVEMENT.



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DATE	8/6/2025 15:18
PHONE	(907) 780-3533
CERT. OF AUTH. #	AECL848
DESIGNED	MAF
LAYOUT	F15
CHECKED	
ARC/RDP	
DRAFTED	MAF

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780-3533
CERT. OF AUTH. #
AECL848

STATE OF ALASKA
RICHARD D. PRIBYL
CE 13149
09.29.25
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD – DEC 20 SE PR

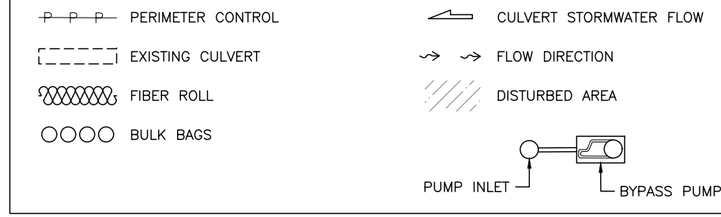
HNS HWY: HNS010
HDR1605
CULVERT & HEADWALL REPLACEMENT

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	Q1	35

ESCP GENERAL NOTES:

1. THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHOWN ARE PART OF THE ESCP. ANY CHANGES TO THE ESCP REQUIRE APPROVAL OF THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL AND MAINTAIN BMPs AS SHOWN, OR AS CONTAINED IN ANY ESCP REVISIONS.
2. INSTALL EROSION SEDIMENT CONTROL MEASURES PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITY.
3. CONSTRUCTION ENTRANCE/EXIT MUST BE ESTABLISHED TO MINIMIZE OFF-SITE IMPACTS.
4. INSTALL PERIMETER CONTROL BMP WHEN WORKING WITHIN 25 FEET OF SURFACE WATERS AND ALONG WETLANDS WHERE A 25 FOOT VEGETATIVE BUFFER IS NOT RETAINED.
5. EXCAVATION DE-WATERING WITHIN 1,500 FEET OF AN ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) IDENTIFIED CONTAMINATED SITE IS NOT ANTICIPATED FOR THE PROJECT. CONFIRM BY REFERRING TO THE ALASKA DEC CONTAMINATED SITES WEBSITE.
6. ALL IN-WATER WORK MUST BE ISOLATED FROM WATERS OF THE U.S. USING APPROPRIATE BMPS.
7. ONCE CONSTRUCTION IS COMPLETE, ALL DISTURBED AREAS SHALL BE REVEGETATED OR STABILIZED.
8. THE CONTRACTOR SHALL DETERMINE THE DISCHARGE POINTS FOR EACH SITE IN THE FIELD.

ESCP LEGEND



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ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801	DESIGNED	MAF	CHECKED		ARC/RDP	DRAFTED	MAF
DATE	8/6/2025 15:40	LAYOUT	Q1					
FILE	c:\dowl_pw\d0412238\00446-ESCP.dwg							

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780-3533
CERT. OF AUTH. #
AECL848

ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.8.3 DATED JANUARY 1, 2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD - DEC 20 SE PR
EROSION AND SEDIMENT CONTROL PLAN
NOTES AND LEGEND

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0093007/SFHWY00446	2025	Q2	35

NOTES:

1. PLACE TEMPORARY CHECK DAMS PERPENDICULAR TO FLOW OF ROADSIDE DITCH.
2. INVASIVE SPECIES SHOWN ON THE PLANS ARE APPROXIMATE. FIELD VERIFY PRIOR TO REMOVAL.

TIE–IN RIPRAP CLASS I INTO EXISTING SLOPE

APPROX. LOCATIONS OF OXEYE DAISIES

TIE IN RIPRAP, CLASS I INTO EXISTING SLOPE

APPROXIMATE LIMITS OF RIPRAP SLOPE

FINAL RIPRAP, CLASS 1 SLOPE GRADING

NOMINAL 3" DIAMETER PVC DRAIN HOLE THROUGH CONCRETE BERM, SEE

TIE–IN CONCRETE TOE BERM INTO EXISTING SLOPE, SEE SHEET E1 FOR DETAILS

1H:1V

0H:0V

0.5H:1V

TOP OF CONCRETE TOE BERM

DOWNSLOPE FACE/TOE OF CONCRETE TOE BERM

STA="LR6"10+32.63 OFF=49.38'

STA="LR6"10+28.24 OFF=49.34'

STA="LR6"10+23.16 OFF=49.30'

STA="LR6"10+18.88 OFF=49.25'

APPROXIMATE ROCK DOWEL LOCATIONS, SEE SHEET E1

ROADSIDE DITCH

PAVEMENT EDGE

TCE

ROW

120

110

100

90

80

"LR6" 9+80

"LR6" 10+00

"LR6" 10+20

"LR6" 10+40

"LR6" 10+60

0 10' 20'

SCALE IN FEET

FIRM	DOWL	ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801	CERT. OF AUTH. #	AECL848
FILE	C:\dowl_pw\d0412238\00446-ESCP-LT.dwg	DATE	12/19/2025 13:32	LAYOUT	Q2
			PHONE (907) 780-3533	DESIGNED	LCA
				CHECKED	SWD
				DRAFTED	DWS

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780–3533
CERT. OF AUTH. #
AECL848

ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.8.3 DATED JANUARY 1, 2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
HNS HWY: HNS006
DOT59
ESCP

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	Q3	35

APPROX. LOCATIONS OF OXEYE DAISIES

APPROX. LOCATION OF OXEYE DAISIES

ROW

ROW

ROW

NOTES:

1. PLACE TEMPORARY CHECK DAMS PERPENDICULAR TO FLOW OF ROADSIDE DITCH.
2. INVASIVE SPECIES SHOWN ON THE PLANS ARE APPROXIMATE. FIELD VERIFY PRIOR TO REMOVAL.

110

100

90

80

70

ROADSIDE DITCH

EXISTING 20 INCH CMP

PAVEMENT EDGE

0 10' 20'

SCALE IN FEET

"LR6" 11+60

"LR6" 11+80

"LR6" 12+00

"LR6" 12+20

"LR6" 12+40

"LR6" 12+60

"LR6" 12+80

"LR6

FIRM	DOWL	ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801	PHONE	(907) 780-3533	CERT. OF AUTH. #	AECL848	DRAFTED	DWS
FILE	C:\dowl_pw\d0412238\00446-ESCP-LT.dwg	DATE	12/19/2025 13:38	DESIGNED	LCA	CHECKED	SWD	LAYOUT	Q3

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780-3533
CERT. OF AUTH. #
AECL848

ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.8.3 DATED JANUARY 1, 2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
HNS HWY: HNS006
DOT59
ESCP

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	Q4	35

NOTES:

1. PLACE TEMPORARY CHECK DAMS PERPENDICULAR TO FLOW OF ROADSIDE DITCH.

TCE 2 – LANDOWNER B

TCE 1 – LANDOWNER A

LIMITS OF DOWL SURVEY, SEE NOTE 1

PERMANENT CONSTRUCTION EASEMENT 1 – LANDOWNER A

EXISTING CONCRETE BARRIER

ROADSIDE DITCH

PAVEMENT EDGE

TCE

ROW

"LR7" 9+00

"LR7" 9+50

"LR7" 10+00

"LR7" 10+50

"LR7" 11+00

"LR7" 11+50

"LR7" 12+00

"LR7" 12+50

LUTAK ROAD

0 30' 60'

SCALE IN FEET

FIRM	DOWL		PHONE	(907) 780-3533	CERT. OF AUTH. #	AECL848	
ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801		DESIGNED	LCA	CHECKED	SWD	DRAFTED	DWS
DATE	12/18/2025 13:50	LAYOUT	Q4				
FILE	c:\dowl_pw\d0412238\00446-ESCP-LT.dwg						

PLANS DEVELOPED BY:
DOWL
9085 GLACIER HWY
JUNEAU, AK 99801
(907) 780-3533
CERT. OF AUTH. #
AECL848

ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.8.3 DATED JANUARY 1, 2025

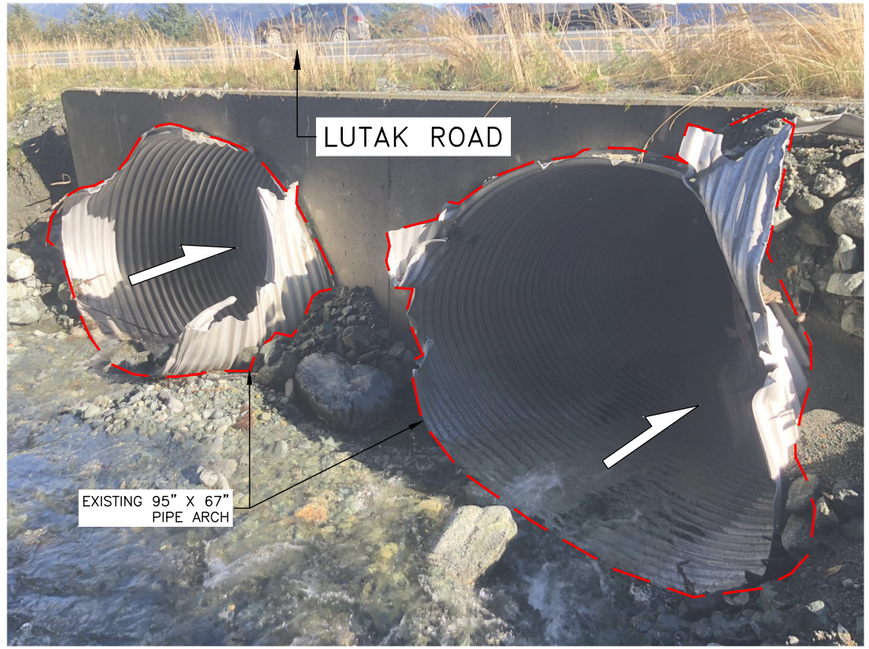
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

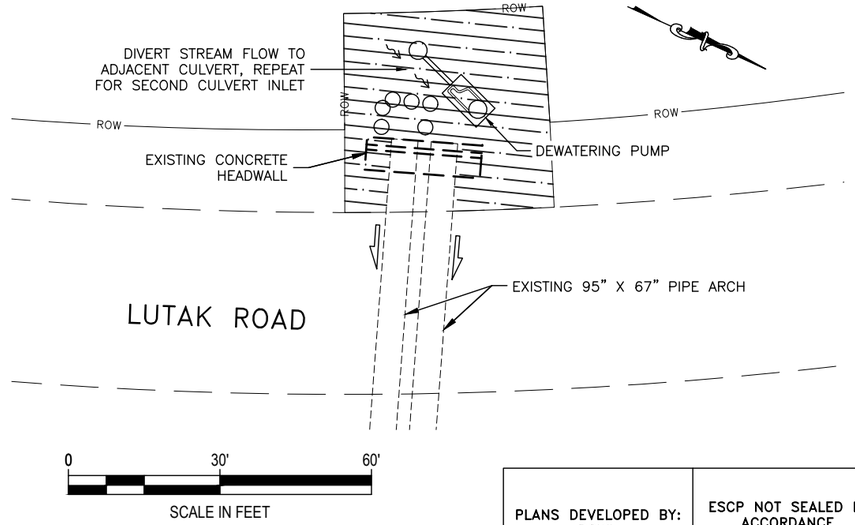
HAINES HWY / LUTAK ROAD
– DEC 20 SE PR
HNS HWY: HSN007
DOT57
ESCP

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	Q5	35

NOTES:

1. ALLOWING STREAM FLOW THROUGH THE WORK AREA IS PROHIBITED.
2. DIVERT STREAM FLOW AND DEWATER WORK AREA IN ACCORDANCE WITH PERMITS.
3. DIVERT STREAM FLOW AWAY FROM WORK AREA:
   - 3.1. ISOLATE WORK AREA AROUND ONE CULVERT INLET WITH BULK BAGS, SANDBAGS, OR SIMILAR.
   - 3.2. DIVERT STREAM FLOW TO ADJACENT PIPE WHILE CUTTING OFF DAMAGED CULVERT INLET.
   - 3.3. REPEAT STEPS 1 AND 2 FOR THE SECOND CULVERT INLET.
4. DEWATER WORK AREA WITH A DEWATERING PUMP AND HOSE IF REQUIRED.
   - 4.1. ALL DISCHARGE POINTS REQUIRE TEMPORARY VELOCITY CONTROLS. DISPERSE FLOW TO PREVENT EROSION.
   - 4.2. RUN HOSE THROUGH PIPE ADJACENT TO CULVERT BEING WORKED ON AND DISCHARGE IN STREAM CHANNEL DOWNSTREAM OF ROAD.
   - 4.3. PROVIDE INFILTRATION BASIN, SEDIMENT BAG, OR SIMILAR TO ADDRESS TURBIDITY AS NEEDED AT DISCHARGE POINT.





HNS HWY: HNS008
DOT64/HDR1636
ESCP

PLANS DEVELOPED BY:
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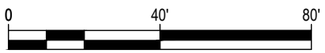
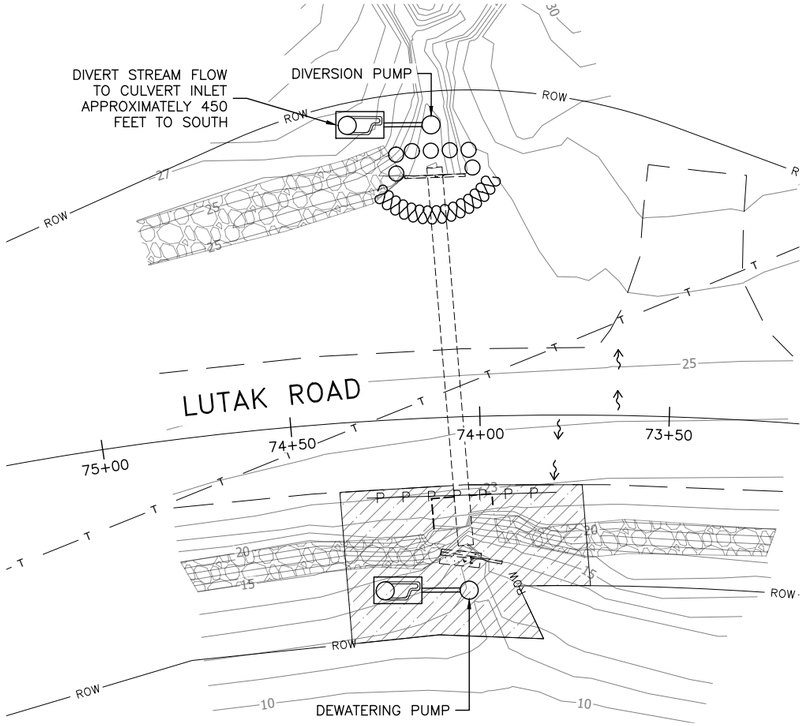
CERT. OF AUTH. #
AECL848

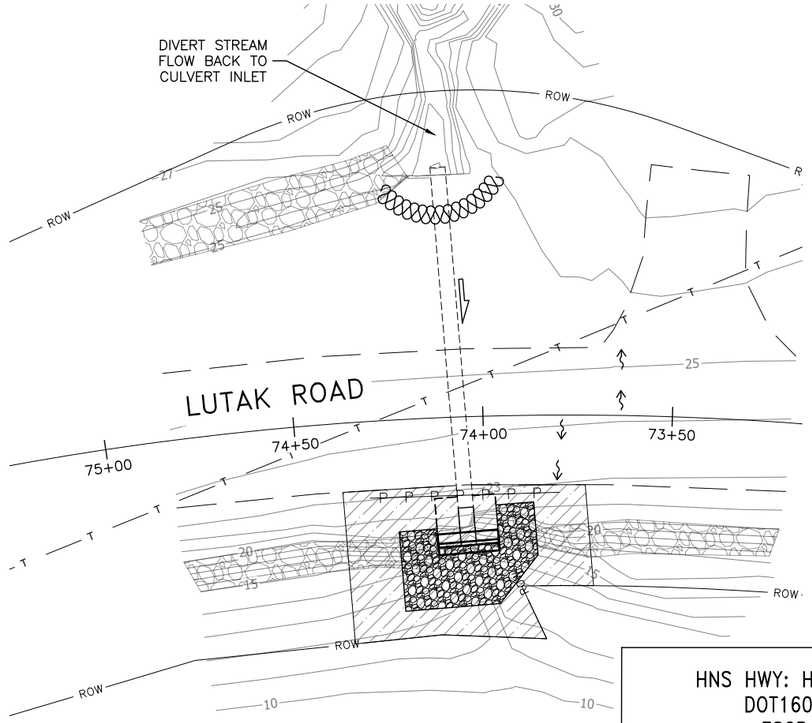
ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.8.3 DATED JANUARY 1, 2025

NOTES:

1. ALLOWING STREAM FLOW THROUGH THE WORK AREA IS PROHIBITED.
2. DIVERT STREAM FLOW AND DEWATER WORK AREA IN ACCORDANCE WITH PERMITS.
3. DIVERT STREAM FLOW AWAY FROM WORK AREA:
   - 3.1. PLACE BULK BAGS, SANDBAGS, OR SIMILAR AROUND CULVERT INLET TO PREVENT STREAM FLOW THROUGH PIPE.
   - 3.2. USE PUMP TO DIVERT STREAM FLOW AWAY FROM CULVERT.
   - 3.3. RUN HOSE FROM DIVERSION PIPE TO THE SOUTH APPROXIMATELY 450 FEET TO INLET OF 24-INCH CULVERT CROSSING LUTAK ROAD. USE MULTIPLE HOSES AS NEEDED.
   - 3.4. KEEP DIVERSION PUMP AND HOSES WITHIN LUTAK ROAD ROW.
   - 3.5. INFILTRATION OF DISCHARGED WATER IS ALLOWED IF STREAM FLOW IS SMALL ENOUGH TO INFILTRATE WITHIN ROW. CONSTRUCT A TEMPORARY INFILTRATION BASIN TO SOUTH OF CULVERT INLET WITHIN ROW.
   - 3.6. ALL DISCHARGE POINTS REQUIRE TEMPORARY VELOCITY CONTROLS. DISPERSE FLOW TO PREVENT EROSION.
4. DEWATER WORK AREA WITH A DEWATERING PUMP AND HOSE IF REQUIRED.
   - 4.1. ALL DISCHARGE POINTS REQUIRE TEMPORARY VELOCITY CONTROLS. DISPERSE FLOW TO PREVENT EROSION.
   - 4.2. PROVIDE INFILTRATION BASIN, SEDIMENT BAG, OR SIMILAR TO ADDRESS TURBIDITY AS NEEDED AT DISCHARGE.
   - 4.3. DISCHARGE WATER WHERE IT CAN INFILTRATE INTO BEACH GRAVEL AS FAR FROM TIDEWATER AS PRACTICAL. DO NOT DISCHARGE DIRECTLY TO TIDEWATER.







HNS HWY: HNS010
DOT1605
ESCP

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				LAYOUT	05				

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	S1	35

NOTES:

1. THIS PLAN IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION PHASING PLAN, DETAILING THE SEQUENCE OF WORK, FOR REVIEW AND APPROVAL PER SECTION 643.

LEGEND

- HEAD SCARP LIMITS OF RECENTLY ACTIVE AREA. AS OBSERVED IN NOVEMBER 2022
- HC — HC — LIMITS OF HAND CLEARING
- S — S — LIMITS OF SCALING
- LIMITS OF CONCRETE TOE BERM

TCE
ROW
120
110
100
90
80
TIE–IN RIPRAP CLASS I INTO EXISTING SLOPE
TIE IN RIPRAP, CLASS I INTO EXISTING SLOPE
APPROXIMATE LIMITS OF RIPRAP SLOPE
NOMINAL 3" DIAMETER PVC DRAIN HOLE THROUGH CONCRETE BERM, SEE
FINAL RIPRAP, CLASS 1 SLOPE GRADING
UPSLOPE TOE OF CONCRETE TOE BERM (LOCATION VARIES DEPENDING ON ELEVATION WHERE BEDROCK IS ENCOUNTERED)
TIE–IN CONCRETE TOE BERM INTO EXISTING SLOPE, SEE SHEET E1 FOR DETAILS
TIE–IN CONCRETE TOE BERM INTO EXISTING SLOPE, SEE SHEET E1 FOR DETAILS
1H:1V
0H:0V
0.5H:1V
TOP OF CONCRETE TOE BERM
DOWNSLOPE FACE/TOE OF CONCRETE TOE BERM
STA="LR6"10+32.63 OFF=49.38'
STA="LR6"10+28.24 OFF=49.34'
STA="LR6"10+23.16 OFF=49.30'
STA="LR6"10+18.88 OFF=49.25'
APPROXIMATE ROCK DOWEL LOCATIONS, SEE SHEET E1
ROADSIDE DITCH
PAVEMENT EDGE
"LR6" 9+80
"LR6" 10+00
"LR6" 10+20
"LR6" 10+40
"LR6" 10+60
"LR

0 10' 20'
SCALE IN FEET

CONSTRUCTION PHASING NOTES:

1. PERFORM HAND CLEARING AND SCALING/BOULDER REMOVAL PRIOR TO CONDUCTING WORK ON THE CONCRETE TOE BERM. A LONG REACH EXCAVATOR MAY BE NECESSARY FOR REMOVING LARGE BOULDERS AT TOP OF WORK AREA.
2. REMOVE TREES AND UNSTABLE MATERIAL WITHIN THE RIPRAP, CLASS I SLOPE GRADING AREA PRIOR TO STARTING THE CONCRETE TOE BERM.
3. PREPARE ROCK SURFACE FOR CONCRETE TOE BERM BY REMOVING VEGETATION, SOIL, AND LOOSE ROCK WITHIN THE CONCRETE TOE BERM FOOTPRINT.
4. INSTALL ROCK DOWELS FOR CONCRETE TOE BERM AND AT LOCATIONS DOWNSLOPE OF CONCRETE TOE BERM PRIOR TO CONSTRUCTING CONCRETE TOE BERM.
5. CONSTRUCT FORMWORK, PLACE REINFORCING STEEL AND CLASS A CONCRETE FOR THE CONCRETE TOE BERM PRIOR TO PLACING RIPRAP, CLASS I.
6. EXCAVATE SOIL WITHIN THE LIMITS OF THE FINAL RIPRAP, CLASS I SLOPE GRADING AREA TO PREPARE FOR PLACEMENT TO MINIMUM DIMENSIONS SHOWN ON THE PLANS. EXCAVATION MAY REQUIRE THE USE OF A LONG REACH EXCAVATOR TO REACH TOP OF WORK AREA. IN PLACE ROCK EXCAVATION IS NOT PLANNED TO PREPARE THE SLOPE FOR PLACEMENT OF RIPRAP, CLASS I.
7. PLACE RIPRAP, CLASS I TO THE FINAL GRADES SHOWN ON THE PLANS.
8. RE–ESTABLISH THE ROADSIDE DITCH AFTER COMPLETION OF THE RIPRAP SLOPE.

PLANS DEVELOPED BY:
LANDSLIDE TECHNOLOGY
9000 SW GEMINI DR
BEAVERTON, OR 97008
(503) 452–1200
CERT. OF AUTH. #
AECC777

STATE OF ALASKA
49 TH
LOGAN C. ALLENDER
No. CE151393
12.29.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

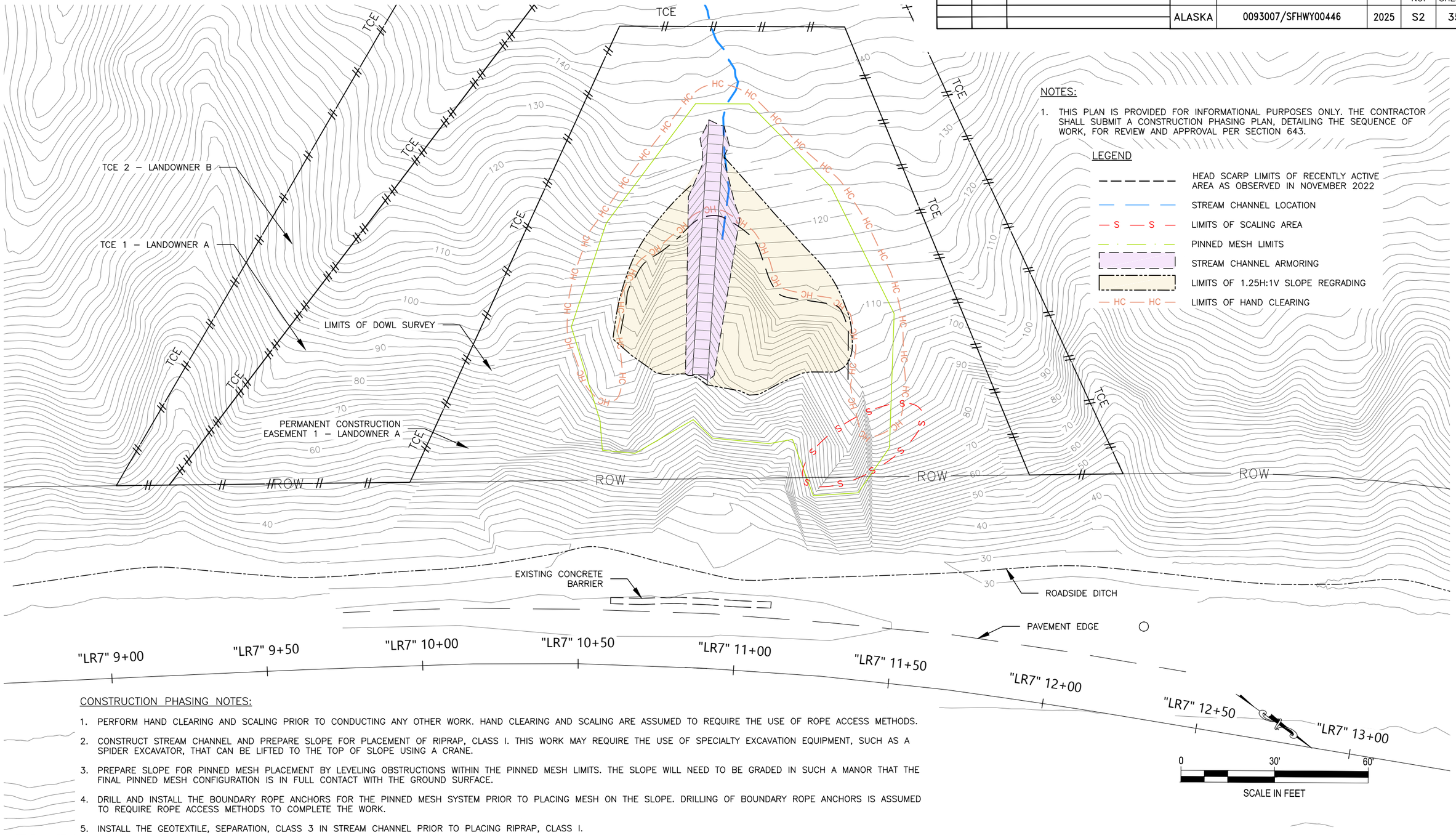
HAINES HWY / LUTAK ROAD – DEC 20 SE PR

CONSTRUCTION SEQUENCING PLAN

(STA. "LR6" 9+80 TO "LR6" 11+20)

FIRM	DOWL	ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801	PHONE	(907) 780-3533	CERT. OF AUTH. #	AECL848
FILE	c:\dowl_pw\d0412238\00446-S-CONST.dwg	DATE	12/17/2025 14:43	DESIGNED	LCA	CHECKED	SWD	DRAFTED	DWS
				LAYOUT	S1				

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	S2	35



NOTES:

1. THIS PLAN IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION PHASING PLAN, DETAILING THE SEQUENCE OF WORK, FOR REVIEW AND APPROVAL PER SECTION 643.

LEGEND

- HEAD SCARP LIMITS OF RECENTLY ACTIVE AREA AS OBSERVED IN NOVEMBER 2022
- STREAM CHANNEL LOCATION
- LIMITS OF SCALING AREA
- PINNED MESH LIMITS
- STREAM CHANNEL ARMORING
- LIMITS OF 1.25H:1V SLOPE REGRADING
- LIMITS OF HAND CLEARING

CONSTRUCTION PHASING NOTES:

1. PERFORM HAND CLEARING AND SCALING PRIOR TO CONDUCTING ANY OTHER WORK. HAND CLEARING AND SCALING ARE ASSUMED TO REQUIRE THE USE OF ROPE ACCESS METHODS.
2. CONSTRUCT STREAM CHANNEL AND PREPARE SLOPE FOR PLACEMENT OF RIPRAP, CLASS I. THIS WORK MAY REQUIRE THE USE OF SPECIALTY EXCAVATION EQUIPMENT, SUCH AS A SPIDER EXCAVATOR, THAT CAN BE LIFTED TO THE TOP OF SLOPE USING A CRANE.
3. PREPARE SLOPE FOR PINNED MESH PLACEMENT BY LEVELING OBSTRUCTIONS WITHIN THE PINNED MESH LIMITS. THE SLOPE WILL NEED TO BE GRADED IN SUCH A MANOR THAT THE FINAL PINNED MESH CONFIGURATION IS IN FULL CONTACT WITH THE GROUND SURFACE.
4. DRILL AND INSTALL THE BOUNDARY ROPE ANCHORS FOR THE PINNED MESH SYSTEM PRIOR TO PLACING MESH ON THE SLOPE. DRILLING OF BOUNDARY ROPE ANCHORS IS ASSUMED TO REQUIRE ROPE ACCESS METHODS TO COMPLETE THE WORK.
5. INSTALL THE GEOTEXTILE, SEPARATION, CLASS 3 IN STREAM CHANNEL PRIOR TO PLACING RIPRAP, CLASS I.
6. INSTALL THE RIPRAP, CLASS I WITH A MINIMUM THICKNESS OF 2 FEET TO FORM THE STREAM CHANNEL PRIOR TO PLACING PINNED MESH.
7. INSTALL BOUNDARY ROPES AND MESH IN A TOP–DOWN MANNER ACCORDING TO MANUFACTURERS RECOMMENDATIONS. PLACEMENT OF MESH IS ASSUMED TO REQUIRE ROPE ACCESS METHODS TO COMPLETE THE WORK.
8. DRILL AND INSTALL PINNED MESH GROUND ANCHORS FROM HIGHEST TO LOWEST ELEVATION. GROUND ANCHORS SHOULD BE DRILLED IN LOCATIONS THAT OPTIMIZE MESH PLACEMENT WITH AS MUCH CONTACT WITH GROUND AS POSSIBLE. IF HOLLOWS ARE PRESENT, LOCATE GROUND ANCHOR TO CREATE A RIGHT ANGLE TO MESH SURFACE.
9. CONNECT MESH PANELS TOGETHER.
10. RE–ESTABLISH THE ROADSIDE DITCH AFTER COMPLETION OF ALL ON–SLOPE WORK AND REMOVE EXISTING CONCRETE BARRIER.

PLANS DEVELOPED BY:
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STATE OF ALASKA
49 TH
LOGAN C. ALLENDER
No. CE151393
09.29.25
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12/31/2025

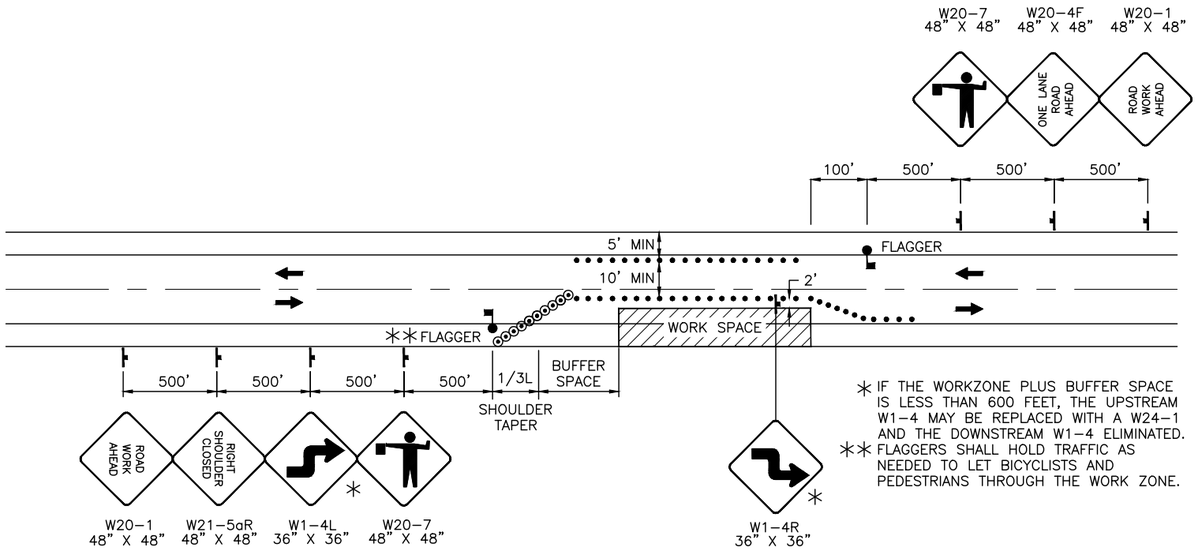
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD – DEC 20 SE PR

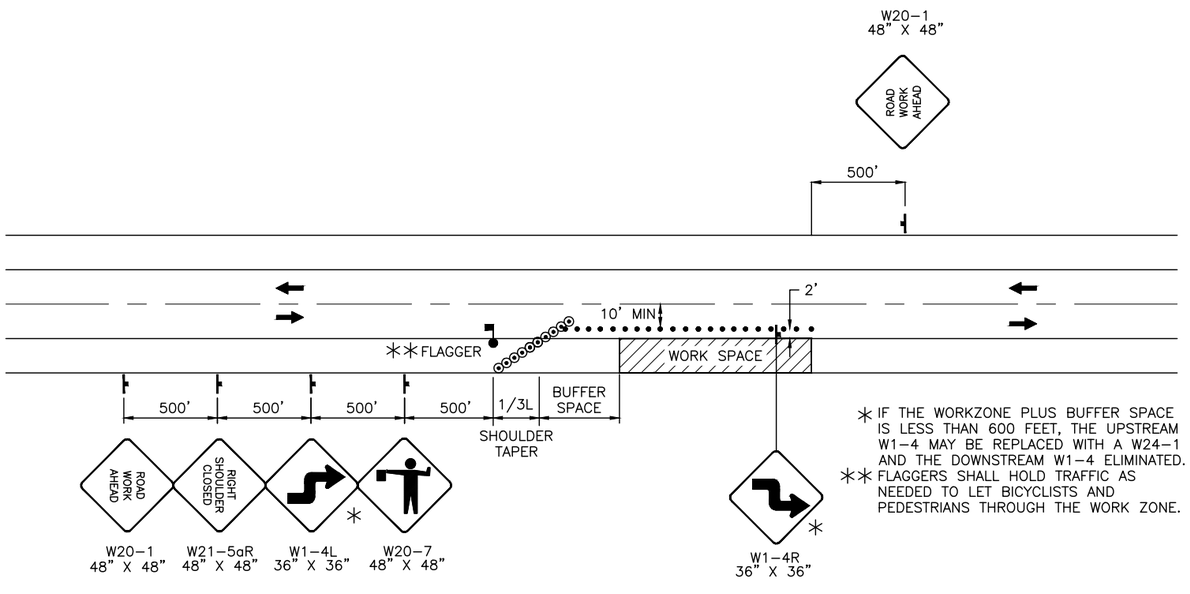
CONSTRUCTION SEQUENCING PLAN PINNED MESH REINFORCEMENT

ADDRESS	9085 GLACIER HWY, JUNEAU, AK 99801	PHONE	(907) 780-3533	CERT. OF AUTH. #	AECL848		
DATE	12/17/2025 14:43	DESIGNED	LCA	CHECKED	SWD	DRAFTED	DWS
FILE	c:\dowl_pw\d0412236\00446-S-CONST.dwg	LAYOUT	S2				
F1RM	DOWL						

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0093007/SFHWY00446	2025	T1	35



TWO LANE ROADWAY–SINGLE LANE CLOSURE



SHOULDER CLOSURE

TRAFFIC CONTROL LEGEND

- CONE
- CONSTRUCTION SIGN
- DRUMS
- FLAGGER
- TRAFFIC DIRECTION
- WORK SPACE

TCP SETUP TABLE

SPEED (MPH)	MIN MERGING TAPER LENGTH (L) IN FEET WIDTH OF OFFSET (W) IN FEET			MIN NUMBER OF DEVICES WIDTH OF OFFSET (W) IN FEET			MAX DEVICE SPACING IN FEET		BUFFER SPACE IN FEET
	10'	11'	12'	10'	11'	12'	ALONG TAPER	ALONG TANGENT	
50	500	550	600	11	12	13	50	100	425

TRAFFIC CONTROL NOTES:

1. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME, NOT ALL, OF THE TRAFFIC CONTROL SETUPS WHICH WILL BE REQUIRED ON THIS PROJECT.
2. ALL TRAFFIC CONTROL PLANS SUBMITTED BY THE CONTRACTOR SHALL BE NUMBERED. ALL TRAFFIC CONTROL PLANS THAT USE A TYPICAL APPLICATION AS DESCRIBED IN THE MUTCD SHALL REFERENCE THE TYPICAL APPLICATION. EXAMPLE: TCP 3, MUTCD TA–10.
3. FOR SINGLE LANE CLOSURE, CONTRACTOR SHALL MAINTAIN A TEMPORARY COMBINED PEDESTRIAN–BICYCLE PATH ON THE OPPOSITE SIDE OF THE HIGHWAY FROM THE WORK ZONE WITH A MINIMUM WIDTH OF 5'–0". CHANNELIZATION DEVICES SHALL BE USED BETWEEN THE TRAFFIC LANE AND TEMPORARY PATH.
4. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'–0".
5. MAINTAIN A MINIMUM OF ONE LANE TO BE OPEN FOR TRAFFIC AT ALL TIMES.
6. CONSTRUCTION SIGNS SHALL BE PLACED SUCH THAT THEY DO NOT OBSCURE EXISTING TRAFFIC SIGNS.
7. VERTICAL EDGES GREATER THAN 2" ARE NOT ALLOWED DURING NON–WORKING HOURS. LIMIT SHOULDER EXCAVATION TO AN AREA THAT CAN BE COMPLETELY BACKFILLED BY END OF WORK SHIFT.
8. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
9. CONSTRUCTION CLEAR ZONE: MAINTAIN A MINIMUM WIDTH OF 2'–0" BETWEEN THE EDGE OF TRAFFIC LANE AND WORK SPACE AREA TO INSTALL CHANNELIZATION DEVICES AS DESCRIBED IN NOTE 2 OF TABLE 2 NOTES FROM ASP C–06.00.
10. TRAFFIC RESTRICTIONS SHALL ONLY OCCUR DURING DAYTIME HOURS.
11. FLAGGER(S) SHALL BE PRESENT AT ALL TIMES WHEN CHANNELIZATION DEVICES ARE IN PLACE.

PLANS DEVELOPED BY:
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AECL848

TCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY RECONSTRUCTION MANUAL SECTION 1400.3.5 DATED SEPTEMBER 2, 2022

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HAINES HWY / LUTAK ROAD
– DEC 20 SE PR

TRAFFIC CONTROL PLAN

FIRM DOWL
ADDRESS 9085 GLACIER HWY, JUNEAU, AK 99801
PHONE (907) 780–3533
CERT. OF AUTH. # AECL848
DESIGNED MAF
CHECKED ARC/RDP
DRAFTED MAF
LAYOUT T1
DATE 8/5/2025 17:51
FILE c:\dowl_pw\d0412238\00446-TCP.dwg