

FILE c:\pwworking\west01\02364964\00408\_A1\_TITLE.dwg DATE 6/2/2022 8:32 LAYOUT A1 DESIGNED 6/2/2022 8:32 CHECKED 6/2/2022 8:32 DRAFTED 6/2/2022 8:32

# STATE OF ALASKA

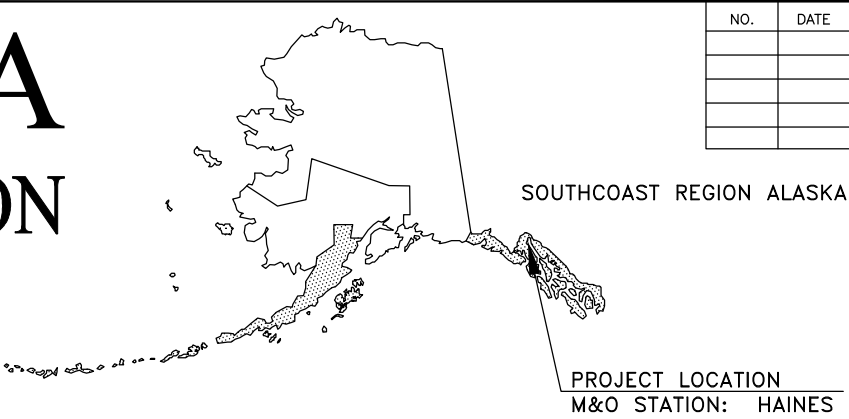
## DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

### PROPOSED HIGHWAY PROJECT

### HNS MOSQUITO LAKE ROAD 00044 - DEC 20 SE PR

### PROJECT NO. SDRER00408

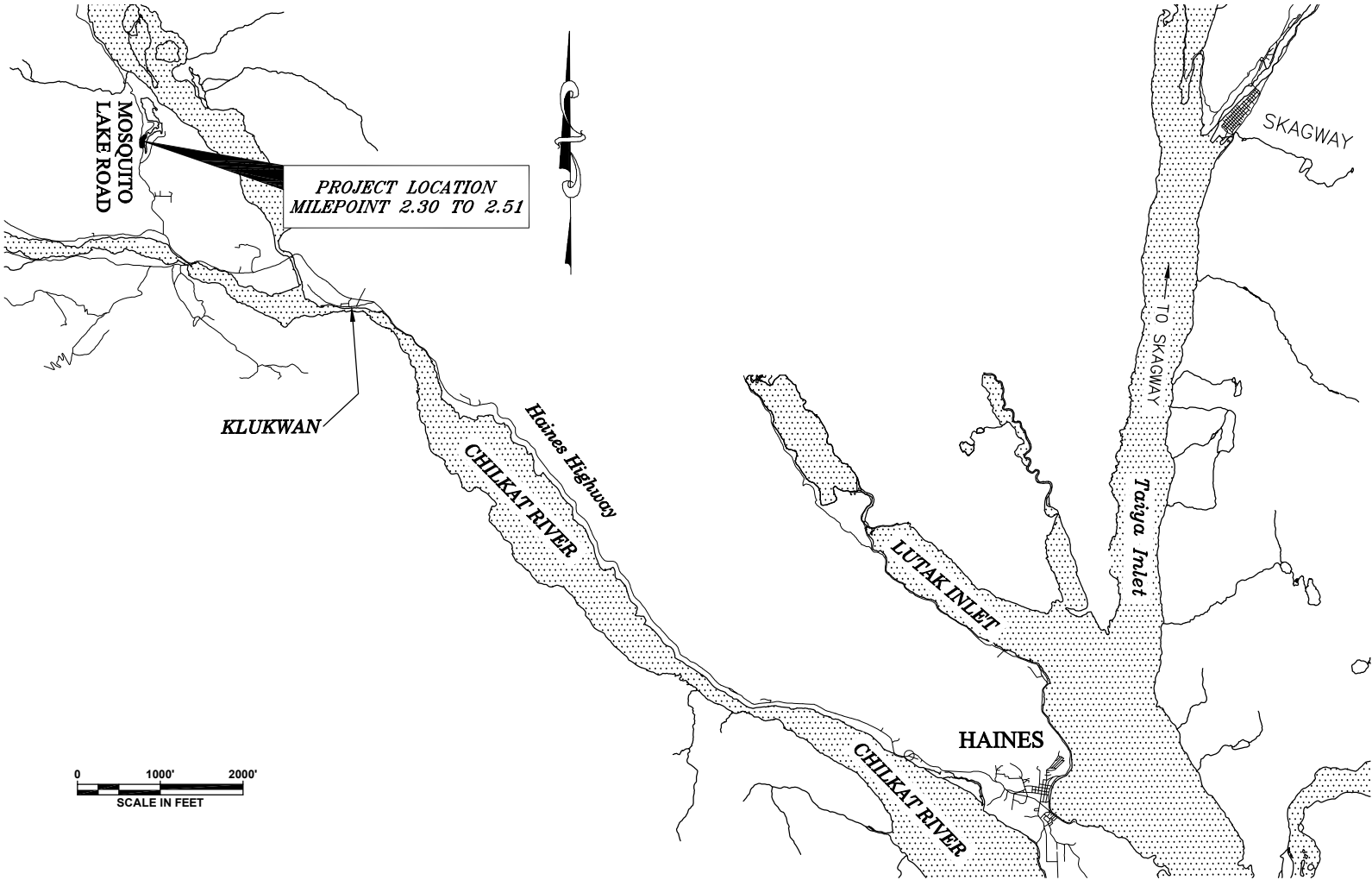
GRADING, DRAINAGE, PAVING, AND SIDE SLOPE STABILIZATION



NO.	DATE	REVISIONS	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	A1	17
			ROUTE ID: 2021006X000		MILEPOINT: 2.30-2.54		
			LATITUDE: 59.452029		LONGITUDE: -136.029157		
			LATITUDE: 59.454386		LONGITUDE: -136.028352		

PROJECT SUMMARY		
	MOSQUITO LAKE ROAD MPT 2.3 DI#461218	MOSQUITO LAKE ROAD MPT 2.5 DI#461643
WIDTH OF PAVEMENT	24'	22'
LENGTH OF PAVING	100'	30'
LENGTH OF PROJECT	100'	30'

DESIGN DESIGNATIONS	
FUNCTIONAL CLASS	MINOR COLLECTOR
PROJECT TYPE	RECONSTRUCTION
ADT (2020)	20
ADT (2045)	21
DHV (2020)	3
DHV (2045)	3
PERCENT TRUCKS (T)	4.47
DIRECTIONAL SPLIT (D)	52/48
DESIGN SPEED (V)	35
DESIGN EAL'S (20 YEARS)	N/A



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:

KIRK  
REGIC  
CON  
**PS&E REVIEW**  
**JUNE 2022**

D. LANCE MEARIG, P.E.  
DIRECTOR, SOUTHCOAST REGION

DATE

FILE c:\pwork\ing\west01\4236496A\42\_Legend.dwg DATE 6/7/2022 18:19 LAYOUT A2 CHECKED ## DESIGNED ## DRAFTED ###

	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		
REBAR AND CAP		
REBAR		
IRON PIPE		
PK NAIL		
SPIKE		
HUB AND TACK		
CONSTRUCTION CENTERLINE		
MISCELLANEOUS CENTERLINE		
STATION EQUATION	$\frac{L*48+97.23}{O*48+97.23} \frac{POT\ BK=}{PC\ AHD}$	
PROJECT RIGHT-OF-WAY LINE		
EXISTING RIGHT-OF-WAY LINE		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
UTILITY EASEMENT LINE		
TEMPORARY EASEMENT LINE (TCP OR TCE)		
ACCESS OR SECTION LINE EASEMENT		
PROPOSED CUT SLOPE LIMIT		
PROPOSED FILL SLOPE LIMIT		
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
TOWNSHIP & RANGE LINE	$\frac{T. 2 N.}{T. 1 N.}$	$\frac{T. 2 E.}{T. 1 E.}$

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)		
FUEL LINE		
GAS LINE		
WATER LINE		
METER, VALVE, FIRE HYDRANT		
EXISTING STORM DRAIN (FLOW DIRECTION →)		
PROPOSED STORM DRAIN		
FIBER OPTIC LINE		
DIRECT BURIAL TELEPHONE CABLE		
DIRECT BURIAL ELECTRIC CABLE		
ELECTRIC LINE (OVERHEAD)		
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
TELEPHONE DUCT		
TELEPHONE PEDESTAL		
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE		
SANITARY SEWER CLEAN OUT		
PRIVATE LUMINAIRE		
ELECTRIC BOX		
GEOCELL		
TURF REINFORCEMENT MAT		

	EXISTING	PROPOSED
ROADWAY/PAVEMENT EDGE		
FENCE		
CURB AND GUTTER		
DETECTABLE WARNINGS		
GUARDRAIL		
CULVERT PIPE		
SIGN		
MAILBOX		
RAILROAD TRACKS		
RAILROAD DEVICES		
TREE LINE		
WATER BOUNDARY		
ORDINARY HIGH WATER LINE		
FLOW CENTERLINE		
FLOW DIRECTION		
WETLANDS		
EXISTING BUILDINGS		
POST OR BOLLARD		
WELL OR MONITORING WELL		
SEPTIC PIPE		
FUEL TANK FILL PIPE/VENT		
SATELLITE DISH		
TEST HOLE		
CONIFER TREE		
DECIDUOUS TREE		
GRAVE		
THERMOSIPHON		
PARKING METER		
VEHICLE PLUG-IN		
DELINEATOR/GUIDE MARKER		

H = HOUSE  
G = GARAGE  
M = MERCHANT/STORE  
B = BARN  
S = SHED  
PS = PRIVY  
SS = SERVICE STATION  
W = WAREHOUSE

ABBREVIATIONS:

APPROX	APPROXIMATELY	PST	PERFORATED STEEL TUBE
CL	CENTERLINE	PT	POINT OF TANGENCY
CY	CUBIC YARD	PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS	R	RADIUS
R.C.L	RIGHT OF CENTERLINE	RT	RIGHT
S	SOUTH	S	SOUTH
SQ. FT.	SQUARE FOOT	STA	STATION
T	TANGENT	T	TANGENT
TCE	TEMPORARY CONSTRUCTION EASEMENT	TYP	TYPICAL
TS	TUBE STEEL	V	VERTICAL
V	VERTICAL	VPC	VERTICAL POINT OF CURVATURE
VPT	VERTICAL POINT OF INTERSECTION	VPT	VERTICAL POINT OF TANGENCY
W	WEST	W	WEST
WWR	WELDED WIRE REINFORCEMENT	Ø	DIAMETER

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

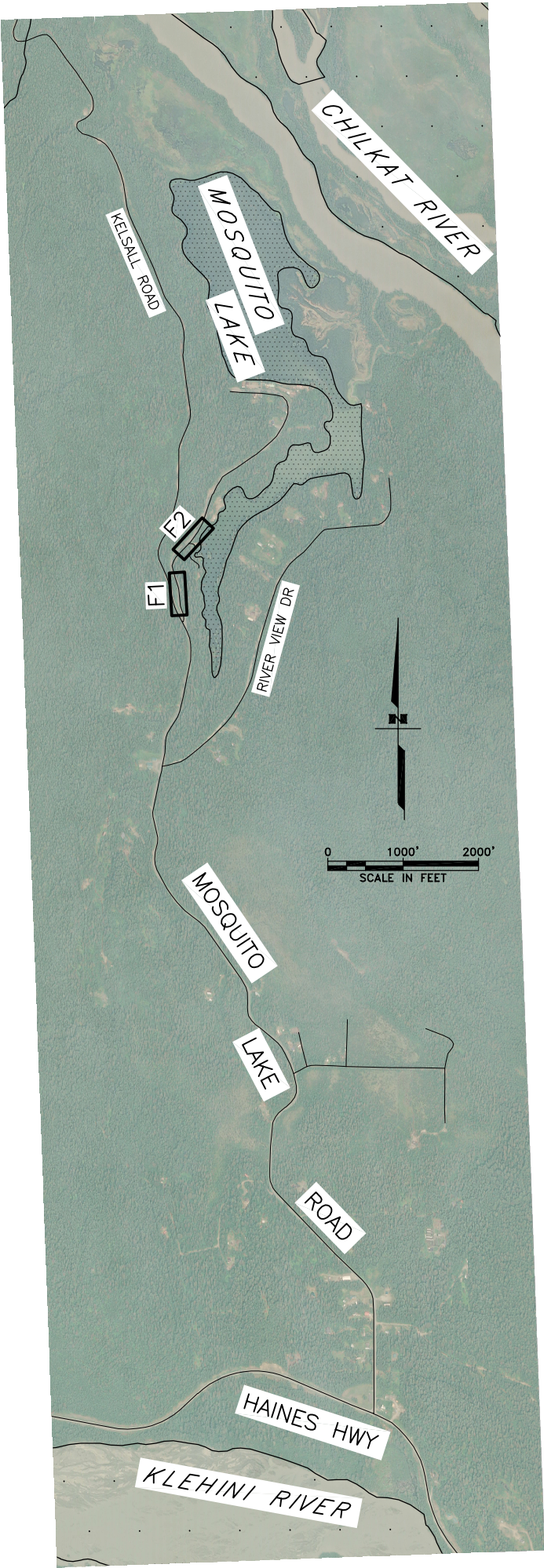


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HNS MOSQUITO LAKE ROAD  
#00044 - DEC 20 SE PR

LEGEND





NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	A3	17

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	LEGEND
A3	LAYOUT AND INDEX OF SHEETS
A4	SURVEY CONTROL
B1-B2	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES
D1	SUMMARY TABLES
E1-E2	DETAILS
F1-F2	PLAN AND PROFILE
Q1-Q2	EROSION SEDIMENT CONTROL PLAN
T1	TRAFFIC CONTROL PLAN
T2-T3	CONSTRUCTION TRAFFIC PHASING

THE FOLLOWING STANDARD PLANS APPLY:  
D-01.02, D-04.22, D-09.00, D-13.10, D-31.01  
E-09.00  
M-13.01

- GENERAL NOTES:
- MAKE ALL PAVEMENT CUTS CLEAN, VERTICAL, AND TRUE TO REMOVAL LIMITS SHOWN ON PLANS.
  - DO NOT MEASURE OFF THE PLANS.
  - ROW LINES WERE TAKEN FROM PLAT#67-172 HRD, OMINUBUS DEED, AND RS 2477. THE LINES WERE INSERTED INTO THE PLANS USING A COMMON COORDINATE SYSTEM. THE LOCATION OF THE ROW LINES HAVE NOT BEEN SURVEYED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF, AND STAY WITHIN THE RIGHT OF WAY.

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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
  
HNS MOSQUITO LAKE ROAD  
#00044 - DEC 20 SE PR  
  
LAYOUT AND INDEX OF SHEETS

FILE Q:\hns\SDRER00317\SV\SOURCE DWGS\BASEMAP\Mosquito Lake\_SCS\_020122.dwg DATE 6/12/2022 10:59 LAYOUT AZ DESIGNED J.PAPOI CHECKED E.PEDERSEN DRAFTED J.PAPOI

Horizontal Control

Horizontal control for this project is based on the DOT&PF 24 to Border Grid System. It relates to Alaska State Plane Coordinate System Zone 1 NAD 83(1992) through the following parameters:

Zone = NAD83 (1992) AKSPCS ZONE 1  
Grid Scale = 0.9999368053340  
Convergence = -2°05'52.52"

AKSPCS Northing = 2792110.03294 FT US  
AKSPCS Easting = 2184249.465700 FT US  
Local Northing = 700000.00 FT US  
Local Easting = 500000.00 FT US

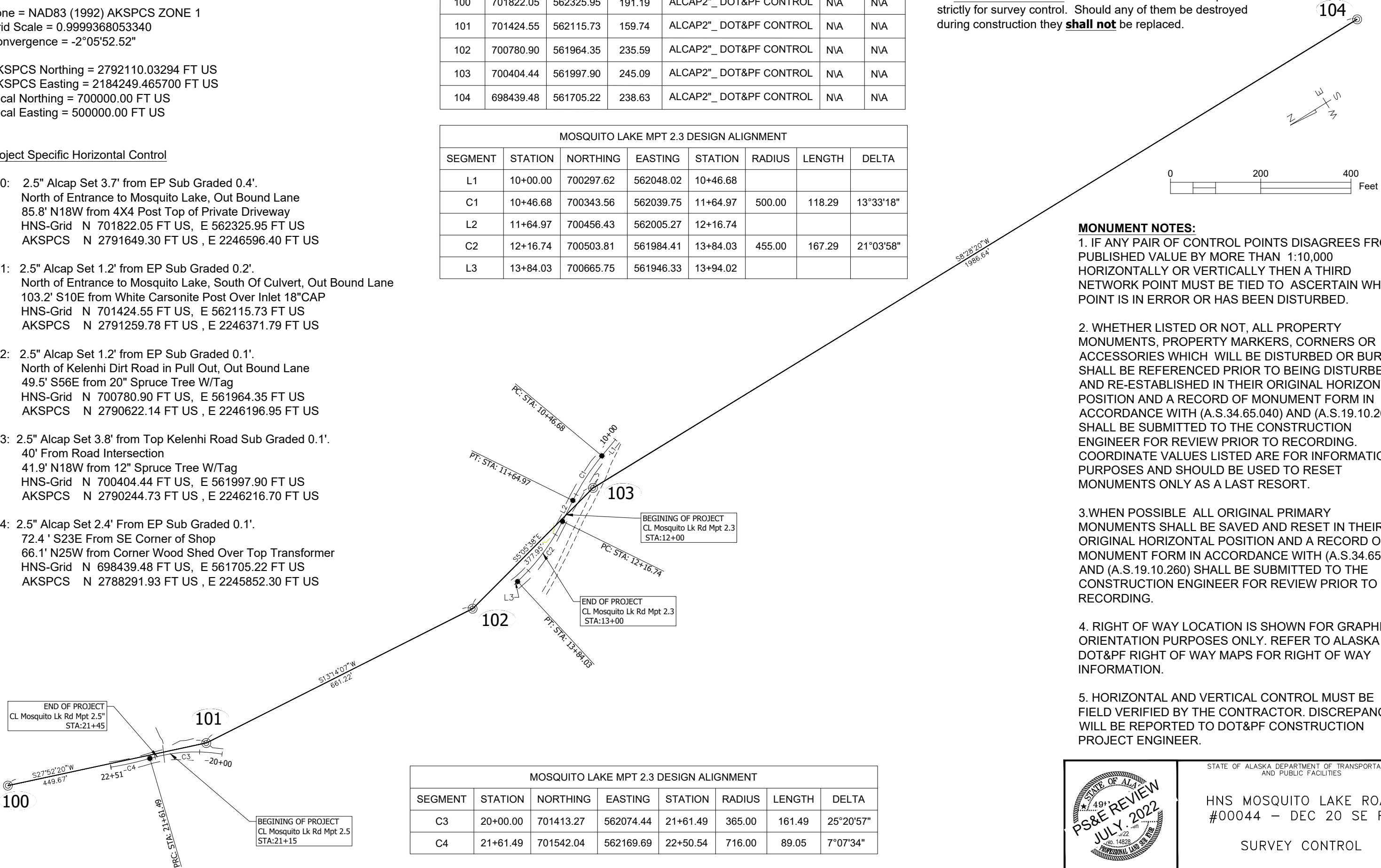
Project Specific Horizontal Control

- 100: 2.5" Alcap Set 3.7' from EP Sub Graded 0.4'.  
North of Entrance to Mosquito Lake, Out Bound Lane  
85.8' N18W from 4X4 Post Top of Private Driveway  
HNS-Grid N 701822.05 FT US, E 562325.95 FT US  
AKSPCS N 2791649.30 FT US , E 2246596.40 FT US
- 101: 2.5" Alcap Set 1.2' from EP Sub Graded 0.2'.  
North of Entrance to Mosquito Lake, South Of Culvert, Out Bound Lane  
103.2' S10E from White Carsonite Post Over Inlet 18"CAP  
HNS-Grid N 701424.55 FT US, E 562115.73 FT US  
AKSPCS N 2791259.78 FT US , E 2246371.79 FT US
- 102: 2.5" Alcap Set 1.2' from EP Sub Graded 0.1'.  
North of Kelenhi Dirt Road in Pull Out, Out Bound Lane  
49.5' S56E from 20" Spruce Tree W/Tag  
HNS-Grid N 700780.90 FT US, E 561964.35 FT US  
AKSPCS N 2790622.14 FT US , E 2246196.95 FT US
- 103: 2.5" Alcap Set 3.8' from Top Kelenhi Road Sub Graded 0.1'.  
40' From Road Intersection  
41.9' N18W from 12" Spruce Tree W/Tag  
HNS-Grid N 700404.44 FT US, E 561997.90 FT US  
AKSPCS N 2790244.73 FT US , E 2246216.70 FT US
- 104: 2.5" Alcap Set 2.4' From EP Sub Graded 0.1'.  
72.4 ' S23E From SE Corner of Shop  
66.1' N25W from Corner Wood Shed Over Top Transformer  
HNS-Grid N 698439.48 FT US, E 561705.22 FT US  
AKSPCS N 2788291.93 FT US , E 2245852.30 FT US

Survey Control Table						
Point #	Northing	Easting	Elevation	Description	Station	Offset
100	701822.05	562325.95	191.19	ALCAP2"_ DOT&PF CONTROL	N/A	N/A
101	701424.55	562115.73	159.74	ALCAP2"_ DOT&PF CONTROL	N/A	N/A
102	700780.90	561964.35	235.59	ALCAP2"_ DOT&PF CONTROL	N/A	N/A
103	700404.44	561997.90	245.09	ALCAP2"_ DOT&PF CONTROL	N/A	N/A
104	698439.48	561705.22	238.63	ALCAP2"_ DOT&PF CONTROL	N/A	N/A

MOSQUITO LAKE MPT 2.3 DESIGN ALIGNMENT							
SEGMENT	STATION	NORTHING	EASTING	STATION	RADIUS	LENGTH	DELTA
L1	10+00.00	700297.62	562048.02	10+46.68			
C1	10+46.68	700343.56	562039.75	11+64.97	500.00	118.29	13°33'18"
L2	11+64.97	700456.43	562005.27	12+16.74			
C2	12+16.74	700503.81	561984.41	13+84.03	455.00	167.29	21°03'58"
L3	13+84.03	700665.75	561946.33	13+94.02			

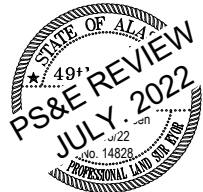
All **SURVEY CONTROL** monuments in this table are provided strictly for survey control. Should any of them be destroyed during construction they **shall not** be replaced.



MONUMENT NOTES:

- 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.
- 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.
- WHEN POSSIBLE ALL ORIGINAL PRIMARY MONUMENTS SHALL BE SAVED AND RESET 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.
- 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.
- HORIZONTAL AND VERTICAL CONTROL MUST BE FIELD VERIFIED BY THE CONTRACTOR. DISCREPANCIES WILL BE REPORTED TO DOT&PF CONSTRUCTION PROJECT ENGINEER.

MOSQUITO LAKE MPT 2.3 DESIGN ALIGNMENT							
SEGMENT	STATION	NORTHING	EASTING	STATION	RADIUS	LENGTH	DELTA
C3	20+00.00	701413.27	562074.44	21+61.49	365.00	161.49	25°20'57"
C4	21+61.49	701542.04	562169.69	22+50.54	716.00	89.05	7°07'34"



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HNS MOSQUITO LAKE ROAD  
#00044 – DEC 20 SE PR

SURVEY CONTROL

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DRAFTED

CHECKED

DESIGNED

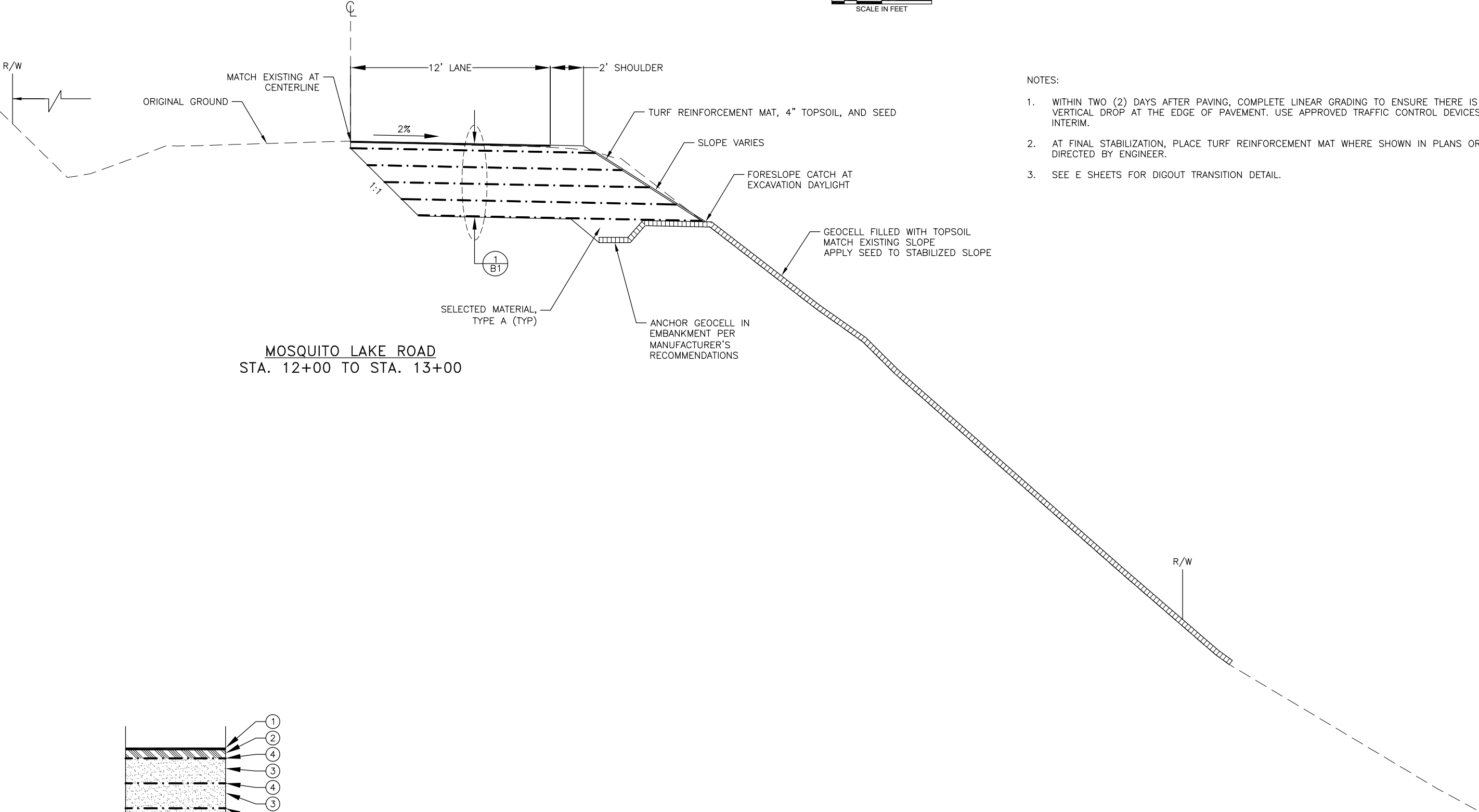
B1

LAYOUT

6/8/2022 8:10

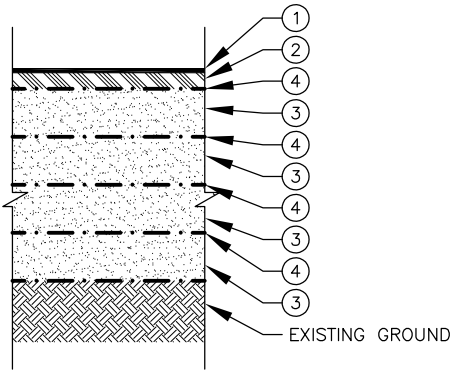
DATE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	B1	17



- NOTES:
1. WITHIN TWO (2) DAYS AFTER PAVING, COMPLETE LINEAR GRADING TO ENSURE THERE IS NO VERTICAL DROP AT THE EDGE OF PAVEMENT. USE APPROVED TRAFFIC CONTROL DEVICES IN THE INTERIM.
  2. AT FINAL STABILIZATION, PLACE TURF REINFORCEMENT MAT WHERE SHOWN IN PLANS OR AS DIRECTED BY ENGINEER.
  3. SEE E SHEETS FOR DIGOUT TRANSITION DETAIL.

MOSQUITO LAKE ROAD  
STA. 12+00 TO STA. 13+00



LEGEND	
①	DOUBLE B/E CHIP AST
②	4" AGGREGATE BASE COURSE, GRADING D-1
③	12" SELECTED MATERIAL, TYPE A
④	GEOGRID, STABILIZATION, CLASS 3

1  
B1 PAVEMENT STRUCTURAL SECTION NO. 1  
SCALE: 1:2

PLANS DEVELOPED BY:  
HDR ENGINEERING, INC.  
582 E 36TH AVE, SUITE  
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99503-4169  
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CERT. OF AUTH. AECC569

STATE OF ALASKA  
PS&E REVIEW  
JUNE 2022  
PROFESSIONAL ENGINEER

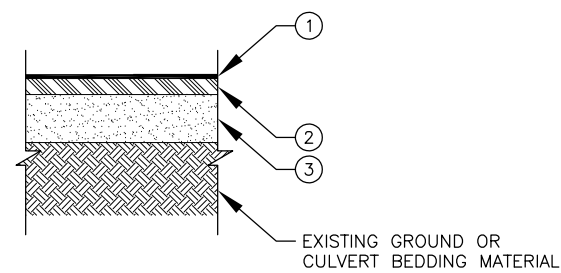
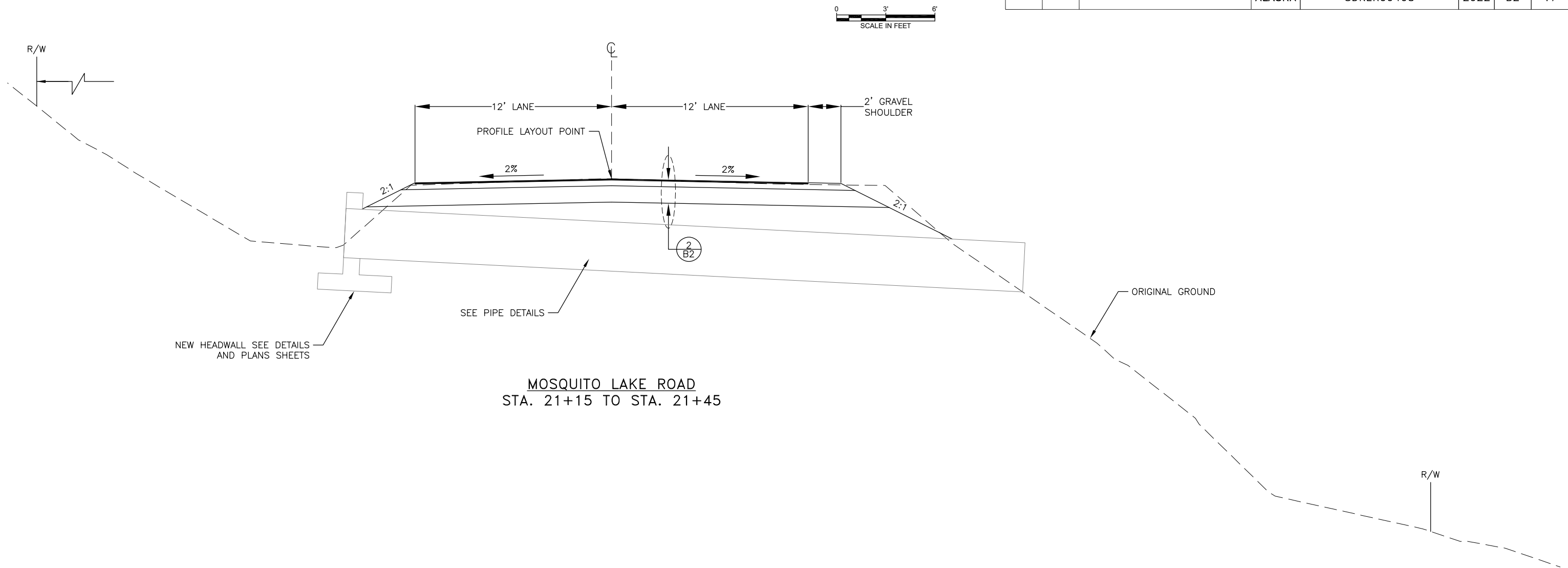
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HNS MOSQUITO LAKE ROAD  
#00044 - DEC 20 SE PR

TYPICAL SECTION  
MOSQUITO LAKE ROAD MPT 2.3



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	B2	17

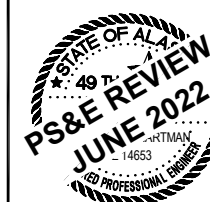


LEGEND

- ① DOUBLE B/E CHIP AST
- ② 4" AGGREGATE BASE COURSE, GRADING D-1
- ③ 12" SELECTED MATERIAL, TYPE A

2 PAVEMENT STRUCTURAL SECTION NO. 2  
B2 SCALE: 1:2

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



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HNS MOSQUITO LAKE ROAD  
#00044 - DEC 20 SE PR  
TYPICAL SECTION  
MOSQUITO LAKE ROAD MPT 2.5

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ESTIMATE OF QUANTITIES					
ITEM NO.	PAY ITEM	PAY UNIT	MOSQUITO LAKE ROAD MPT 2.3 DI#461218	MOSQUITO LAKE ROAD MPT 2.5 DI#461643	TOTAL QUANTITY
201.0003.0000	CLEARING AND GRUBBING	ACRE	0.1	--	0.1
201.2002.0000	INVASIVE PLANT SURVEY	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
201.2003.0000	INVASIVE PLANT SPECIES CONTROL, REMOVAL AND DISPOSAL	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
202.0002.0000	REMOVAL OF PAVEMENT	SQUARE YARD	134	80	214
202.0004.0000	REMOVAL OF CULVERT PIPE	LINEAR FOOT	--	43	43
203.0003.0000	UNCLASSIFIED EXCAVATION	CUBIC YARD	227	45	273
203.0006.000A	BORROW, TYPE A	TON	388	70	458
203.2038.0000	DITCH LINEAR GRADING	STATION	1.8	0.2	2
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D--1	TON	36	20	56
405.2001.0000	DOUBLE B/E CHIP AST	SQUARE YARD	132	84	217
501.2007.0002	HEADWALL, TYPE II	EACH	--	1	1
603.0001.0036	CSP 36 INCH	LINEAR FOOT	--	40	40
611.0001.0002	RIPRAP, CLASS II	CUBIC YARD	--	55	55
618.0002.0000	SEEDING	POUND	6.3	1.3	8
619.2002.0000	TURF REINFORCEMENT MAT	SQUARE YARD	116	--	116
620.0001.0000	TOPSOIL	SQUARE YARD	465	95	560
634.0001.0000	GEOGRID, STABILIZATION, CLASS 1	SQUARE YARD	740	--	740
634.2000.0000	GEOCELL	SQUARE YARD	311	--	311
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
641.0005.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
641.0006.0000	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
641.0007.0000	SWPPP MANAGER	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
642.0001.0000	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
642.0003.0000	THREE PERSON SURVEY PARTY	HOURL	4	4	8
643.0002.0000	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
643.0025.0000	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
643.0032.0000	FLAGGING	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
644.0001.0000	FIELD OFFICE	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
644.0006.0000	VEHICLE	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
644.2004.0000	ENGINEERING COMMUNICATIONS	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
646.0001.0000	CPM SCHEDULING	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
646.2000.0000	SCHEDULE PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
647.2000.0000	WIDE PAD DOZER, 65--HP MINIMUM	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
658.0001.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL WITHOUT CGP COVERAGE	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
658.0002.0000	ESCP CHANGES BY DIRECTIVE	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	C1	17

BASIS OF ESTIMATE		
ITEM NO.	PAYITEM	ESTIMATING FACTOR
203.0006.000A	BORROW, TYPE A	144 LB/FT <sup>3</sup>
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D--1	144 LB/FT <sup>3</sup>
405.2001.0000	CRS--2P ASPHALT FOR SURFACE TREATMENT	243 GAL/TON
	CRS--2P ASPHALT FOR B AGGREGATE LAYER	0.6 GAL/SYD
	CRS--2P ASPHALT FOR E AGGREGATE LAYER	0.55 GAL/SYD
	GRADE B AGGREGATE FOR SURFACE TREATMENT	55 LB/SYD
	GRADE E AGGREGATE FOR SURFACE TREATMENT	30 LB/SYD
618.0002.0000	SEEDING	SEE SPECIFICATIONS

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

HNS MOSQUITO LAKE ROAD  
#00044 -- DEC 20 SE PR  
ESTIMATE OF QUANTITIES

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	D1	17

[201.0003.0000] CLEARING AND GRUBBING				
SHEET	STATION		AREA (ACRES)	REMARKS
	FROM	TO		
F1	12+00	13+00	0.1	
SUBTOTAL:			0.1	
ROUNDED PAY ITEM QUANTITY:			0.1	

[202.0002.0000] REMOVAL OF PAVEMENT				
SHEET	STATION		REMOVAL OF PAVEMENT (SY)	REMARKS
	FROM	TO		
F1	12+00	13+00	133.3	
F2	21+15	21+45	80.0	
SUBTOTAL:			213.3	
ROUNDED PAY ITEM QUANTITY:			214	

[202.0004.0000] REMOVAL OF CULVERT PIPE				
SHEET	STATION	OFFSET	LENGTH (FT)	REMARKS
F2	21+30	CL	43	
SUBTOTAL:			43	
ROUNDED PAY ITEM QUANTITY:			43	

[634.0001.0001] GEOGRID, STABILIZATION, CLASS 1							
SHEET	STATION		LENGTH (FT)	WIDTH (FT)	AREA (FT²)	AREA (YD²)	REMARKS
	FROM	TO					
F1	12+00	13+00	100.0	14.7	1,468.0	163.1	TOP LAYER, BETWEEN D-1 AND SELECT A
	12+05	12+96	91.2	15.3	1,393.5	154.8	2ND LAYER, 1' BELOW 1ST
	12+09	12+92	83.4	15.9	1,325.2	147.3	3RD LAYER, 2' BELOW 1ST
	12+13	12+88	75.3	16.5	1,241.7	138	4TH LAYER, 3' BELOW 1ST
	12+17	12+84	67.3	17.1	1,150.8	127.9	5TH/BOTTOM LAYER, 4' BELOW 1ST
SUBTOTAL:						731.1	
ROUNDED PAY ITEM QUANTITY:						740	

[634.2000.0000] GEOCELL						
SHEET	STATION		LENGTH (FT)	AREA (FT²)	AREA (SY)	REMARKS
	FROM	TO				
F1	12+17	12+83	66	2794	310.4	
SUBTOTAL:					310..4	
ROUNDED PAY ITEM QUANTITY:					311	

[611.0001.0002] – RIPRAP, CLASS II							
SHEET	STATION	OFFSET	LENGTH (FT)	X-SECTION AREA (FT²)	VOLUME (FT³)	VOLUME (CY)	REMARKS
F2	21+30	RT	42.0	35.2	1,477.3	54.7	
SUBTOTAL:						54.7	
ROUNDED PAY ITEM QUANTITY:						55	

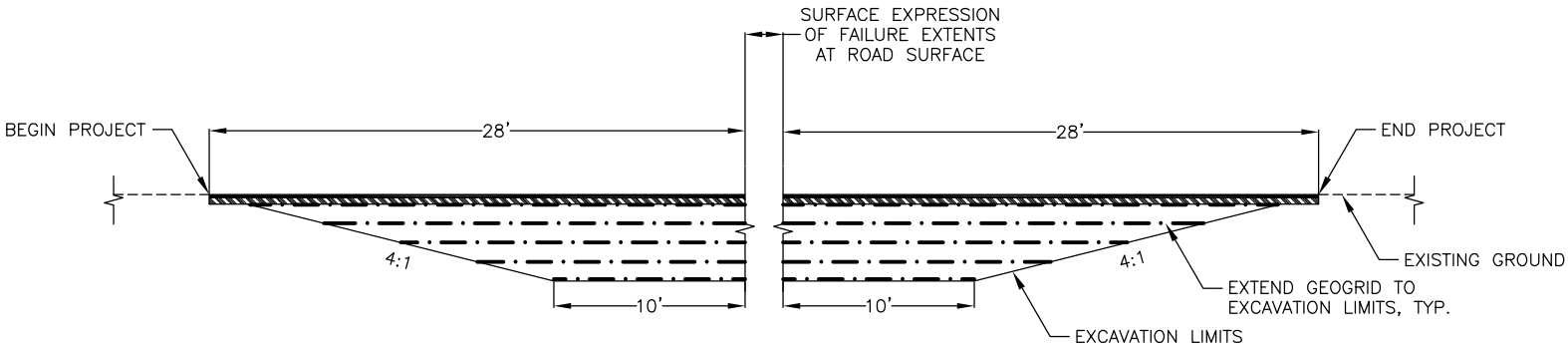
[618.0002.0000] SEEDING					
SHEET	STATION		OFFSET	WEIGHT (LB)	REMARKS
	FROM	TO			
F1	12+00	13+00	LT/RT	6.3	
F2	21+15	21+45	LT/RT	1.3	
SUBTOTAL:				7.6	
ROUNDED PAY ITEM QUANTITY:				8	

[620.0001.0000] TOPSOIL				
SHEET	STATION		AREA (SY)	REMARKS
	FROM	TO		
F1	12+00	13+00	465.3	
F2	21+15	21+45	94.5	
SUBTOTAL:			559.8	
ROUNDED PAY ITEM QUANTITY:			560	

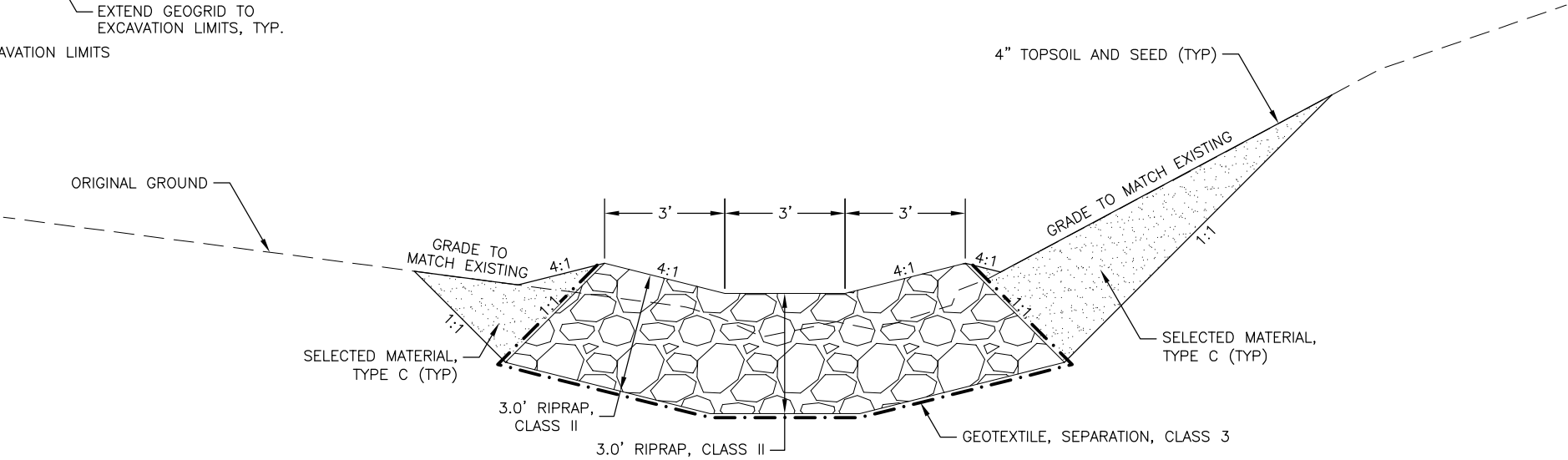
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DATE 6/8/2022 9:49 LAYOUT E1 DESIGNED # CHECKED # DRAFTED #

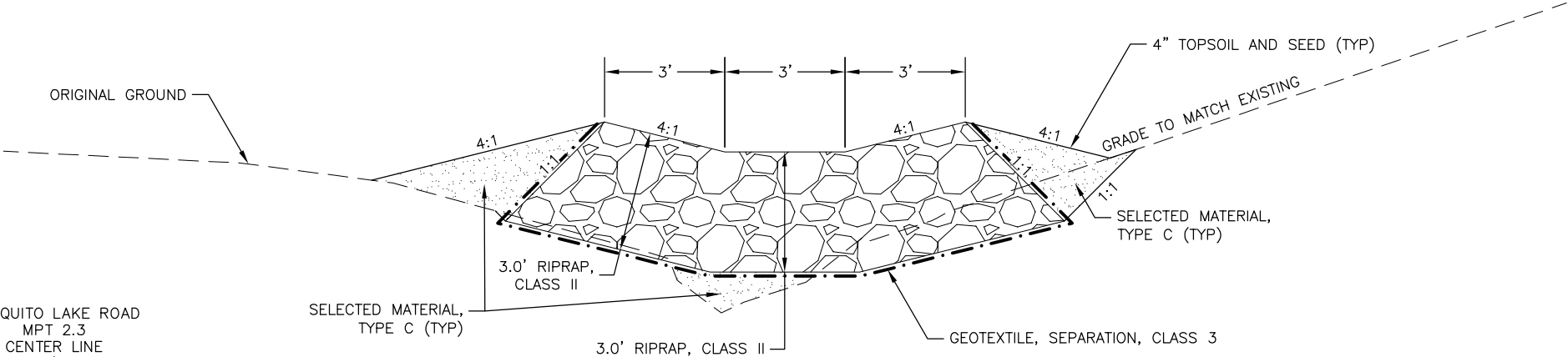
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	E1	17



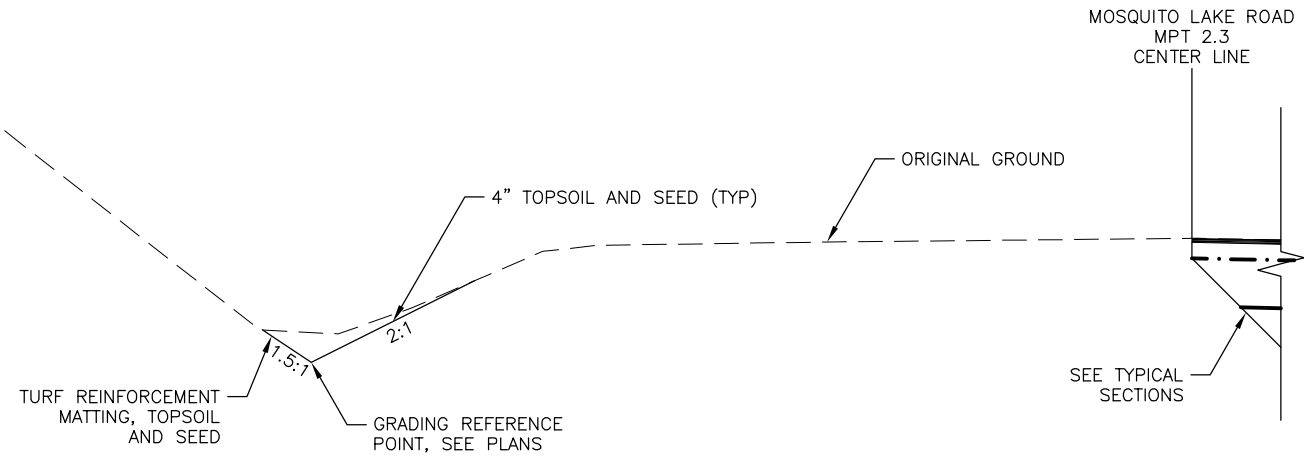
DEEP PATCH TRANSITION DETAIL



RIPRAP DOWNFLUME - CUT SECTION



RIPRAP DOWNFLUME - FILL SECTION



DITCH LINEAR GRADING

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



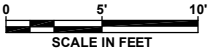
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HNS MOSQUITO LAKE ROAD  
#00044 - DEC 20 SE PR  
DETAILS

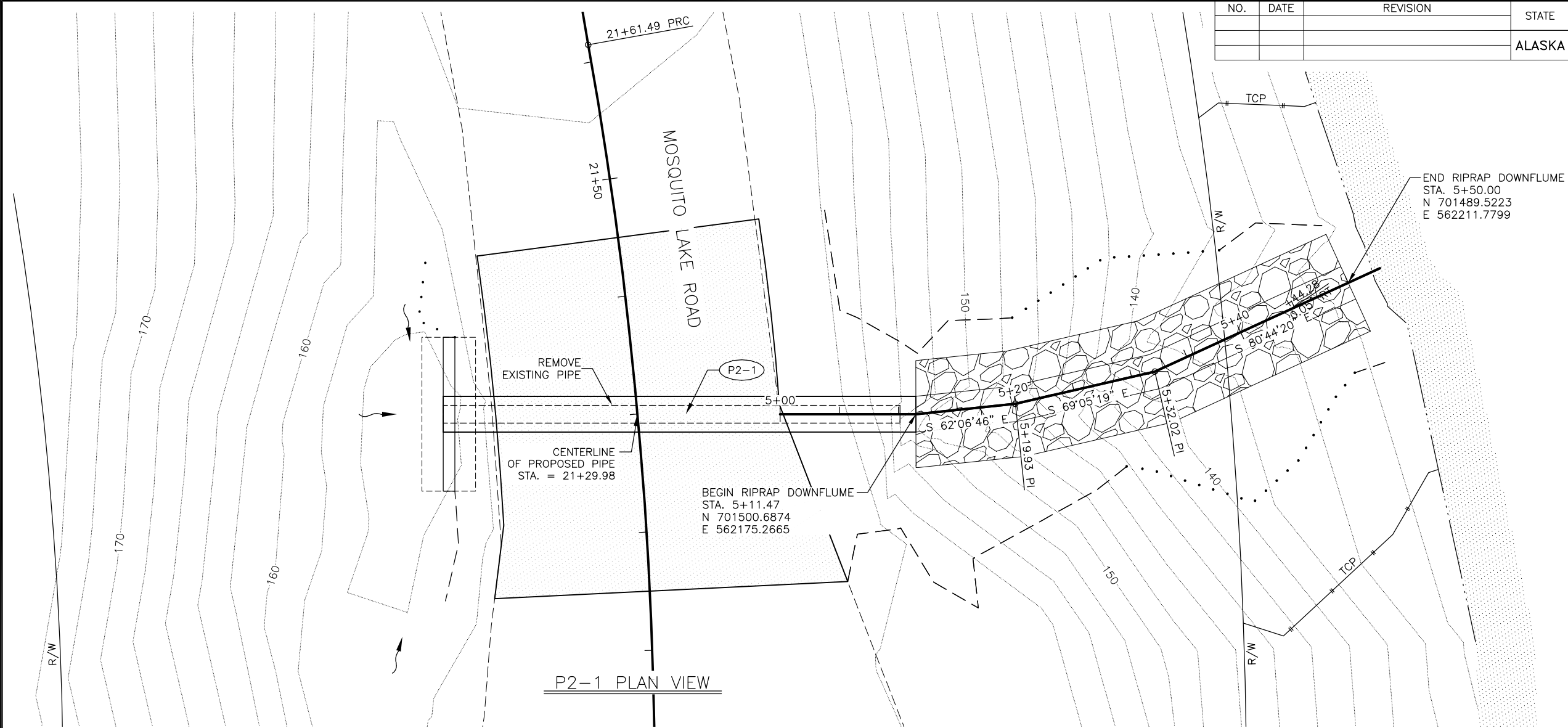
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DATE 6/8/2022 9:49 LAYOUT E2 DESIGNED ## CHECKED ## DRAFTED ##

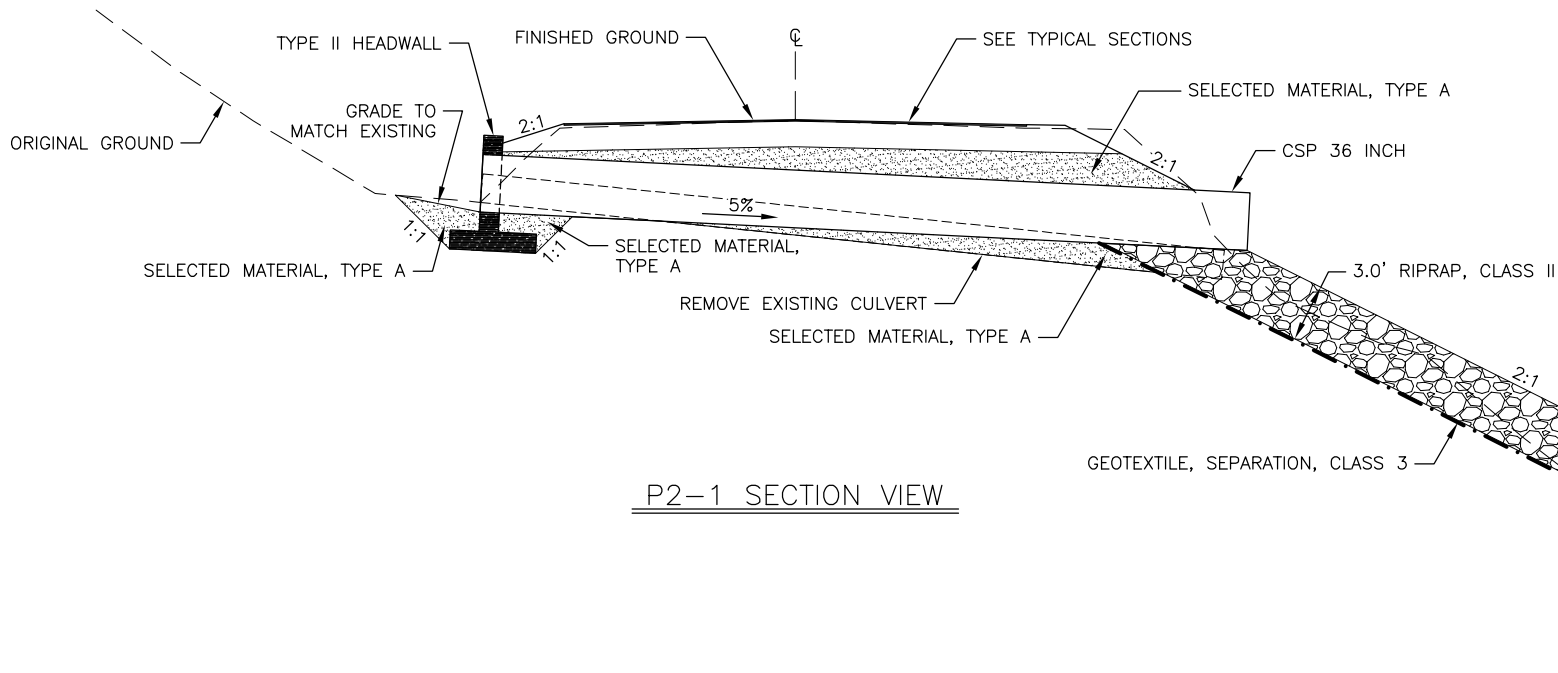
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	E2	17



MOSQUITO LAKE



P2-1 PLAN VIEW



P2-1 SECTION VIEW

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
P2-1	36	40.00	21+31.52	16.36' L	154.24	21+28.00	23.43' R	152.24	5.00%	CSP

PLANS DEVELOPED BY:  
HDR ENGINEERING, INC.  
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CERT. OF AUTH. AECC569



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HNS MOSQUITO LAKE ROAD  
#00044 - DEC 20 SE PR  
DETAILS  
PIPE PLAN AND SECTION VIEW



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DRAFTED ###

CHECKED ##

DESIGNED #

LAYOUT F1

DATE 6/8/2022 8:37

PI = STA. 13+01.34  
Δ = 21°03'58"  
D = 12°35'33"  
T = 84.60'  
L = 167.29'  
R = 455.00'  
NO SUPERELEVATION

BEGIN DITCH LINEAR GRADING  
12+29.54  
16.86' LT  
ELEV: 238.31'

12+57.73  
16.64' LT  
ELEV: 238.16'

12+84.38  
18.02' LT  
ELEV: 238.02'

12+97.51  
18.39' LT  
ELEV: 237.95'

13+10.62  
19.04' LT  
ELEV: 237.89'

13+36.62  
19.25' LT  
ELEV: 237.75'

END DITCH LINEAR GRADING  
13+65.03  
19.82' LT  
ELEV: 237.60'

0 6' 12'  
SCALE IN FEET

BEGINNING OF PROJECT  
STA. 12+00  
MATCH EXISTING

MOSQUITO LAKE ROAD

END OF PROJECT  
"CL MOSQUITO LK RD MPT 2.3"13+00

TURF REINFORCEMENT MAT, INSTALL PER  
MANUFACTURER'S RECOMMENDATIONS

STA. 12+83  
33.39' RT

STA. 12+77  
40.03' RT

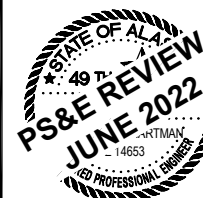
STA. 12+66  
54.79' RT

GEOCELL, INSTALL PER  
MANUFACTURER'S RECOMMENDATIONS

STA. 12+43  
69.72' RT

STA. 12+17  
70.76' RT

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99503-4169  
907-644-2000  
CERT. OF AUTH. AECC569



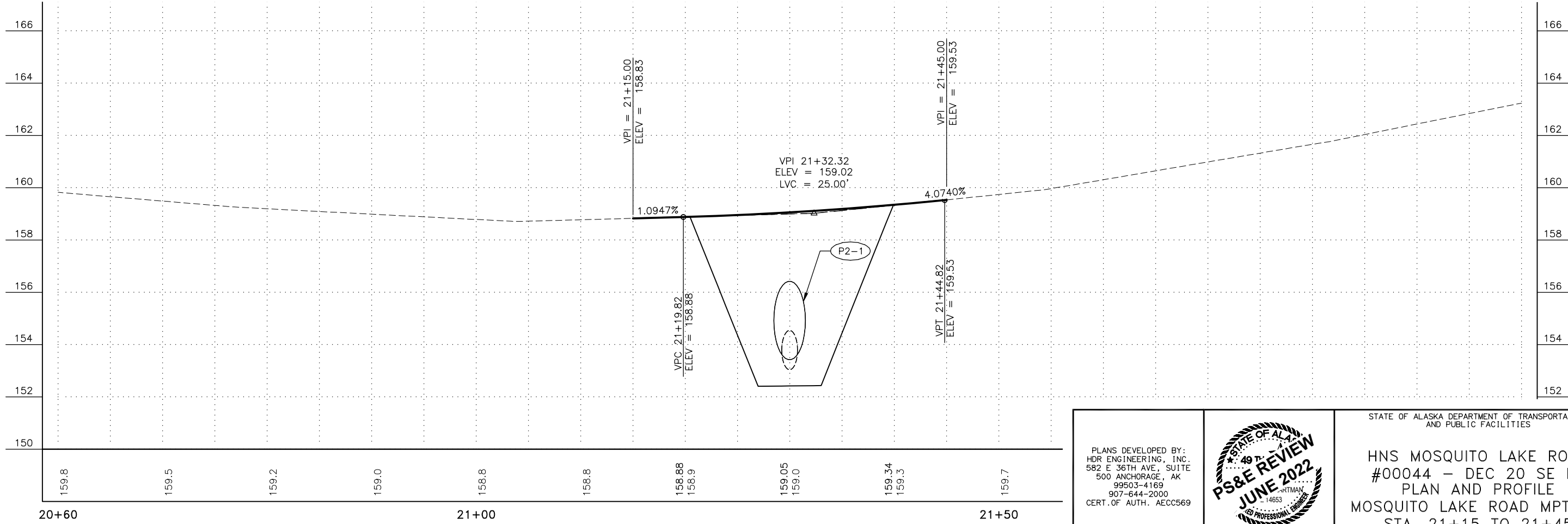
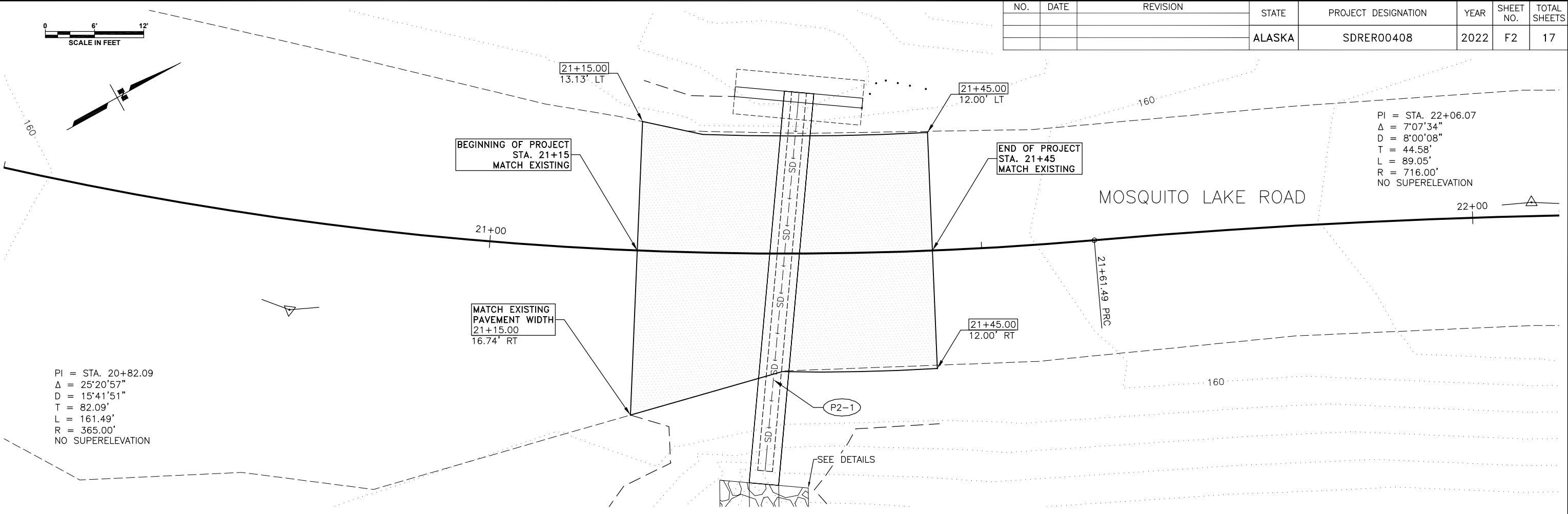
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HNS MOSQUITO LAKE ROAD  
#00044 - DEC 20 SE PR  
PLAN  
MOSQUITO LAKE ROAD MPT 2.3  
STA. 12+00 TO 13+00

FILE c:\pwork\ing\west01\0236496A\00408 F1\_PNP.dwg DATE 6/8/2022 8:37 LAYOUT F2 DESIGNED ## CHECKED ## DRAFTED #####



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	F2	17



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



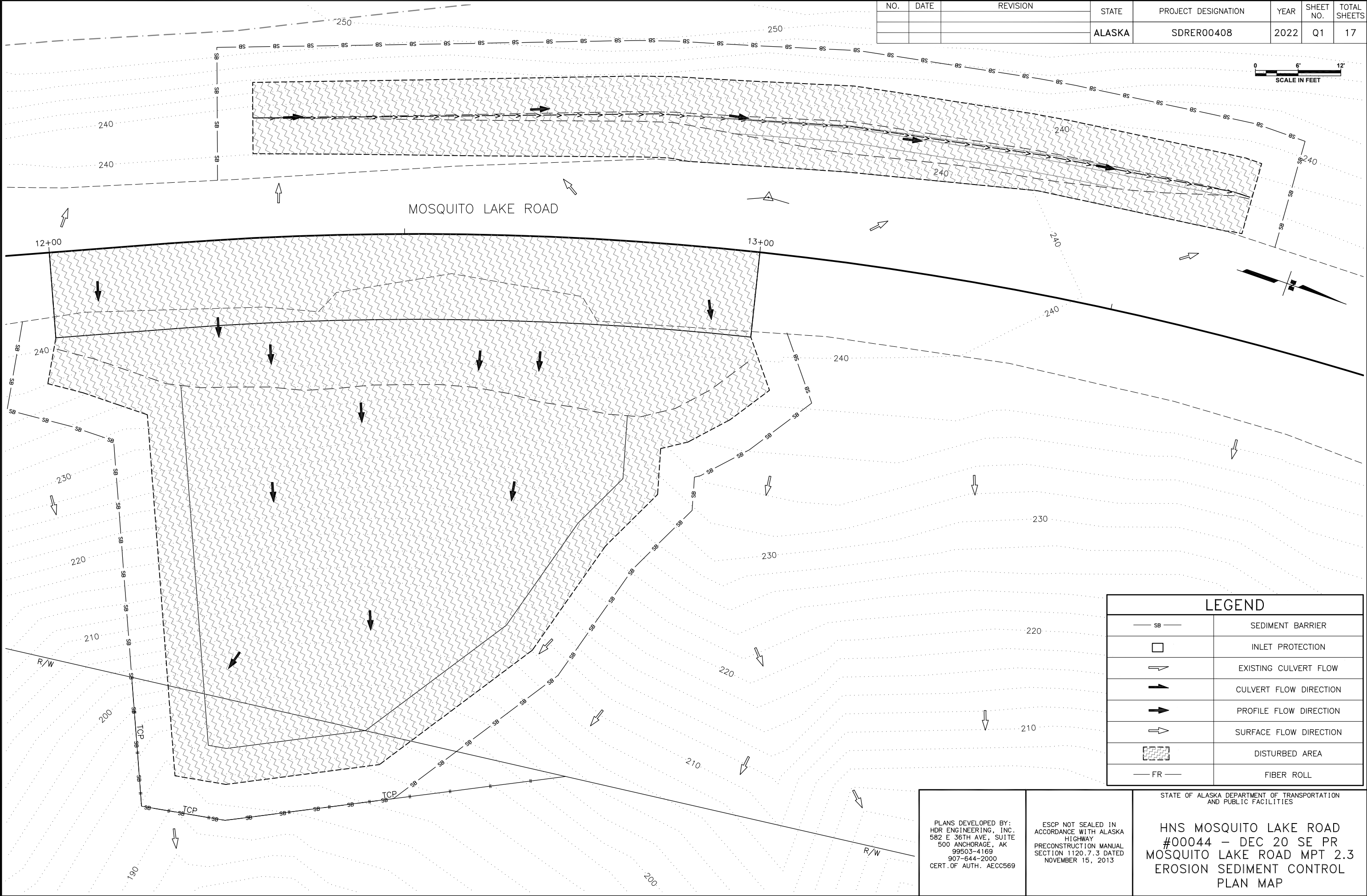
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HNS MOSQUITO LAKE ROAD  
#00044 - DEC 20 SE PR  
PLAN AND PROFILE  
MOSQUITO LAKE ROAD MPT 2.5  
STA. 21+15 TO 21+45

FILE c:\pwork\ing\west01\0236496A\00408 ESCP Sheets.dwg

DATE 6/7/2022 18:59 LAYOUT Q1 DESIGNED ## CHECKED ## DRAFTED #####

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	Q1	17



LEGEND	
— SB —	SEDIMENT BARRIER
□	INLET PROTECTION
⇨	EXISTING CULVERT FLOW
➡	CULVERT FLOW DIRECTION
➡	PROFILE FLOW DIRECTION
⇨	SURFACE FLOW DIRECTION
▨	DISTURBED AREA
— FR —	FIBER ROLL

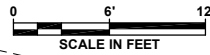
PLANS DEVELOPED BY:  
HDR ENGINEERING, INC.  
582 E 36TH AVE, SUITE  
500 ANCHORAGE, AK  
99503-4169  
907-644-2000  
CERT. OF AUTH. AECC569

ESCP NOT SEALED IN  
ACCORDANCE WITH ALASKA  
HIGHWAY  
PRECONSTRUCTION MANUAL  
SECTION 1120.7.3 DATED  
NOVEMBER 15, 2013

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
  
HNS MOSQUITO LAKE ROAD  
#00044 – DEC 20 SE PR  
MOSQUITO LAKE ROAD MPT 2.3  
EROSION SEDIMENT CONTROL  
PLAN MAP

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DATE 6/7/2022 18:59 LAYOUT Q2 DESIGNED ## CHECKED ## DRAFTED #####



SCALE IN FEET

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	Q2	17



LEGEND	
— SB —	SEDIMENT BARRIER
□	INLET PROTECTION
⇨	EXISTING CULVERT FLOW
➡	CULVERT FLOW DIRECTION
➡	PROFILE FLOW DIRECTION
➡	SURFACE FLOW DIRECTION
▨	DISTURBED AREA
— FR —	FIBER ROLL

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

ESCP NOT SEALED IN  
ACCORDANCE WITH ALASKA  
HIGHWAY  
PRECONSTRUCTION MANUAL  
SECTION 1120.7.3 DATED  
NOVEMBER 15, 2013

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HNS MOSQUITO LAKE ROAD  
#00044 - DEC 20 SE PR  
MOSQUITO LAKE ROAD MPT 2.5  
EROSION SEDIMENT CONTROL  
PLAN MAP



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DATE 6/8/2022 9:53

LAYOUT T1

DESIGNED ##

CHECKED ##

DRAFTED ###

LANE CLOSURE ON TWO-LANE ROAD WITH LOW TRAFFIC VOLUMES

TCP SETUP TABLE					
SPEED 25 (MPH) OR BELOW	MIN NUMBER OF DEVICES WIDTH OF OFFSET (W) IN FT.			MAX DEVICE SPACING ALONG TANGENT	BUFFER SPACE
	10'	11'	12'	(FT)	(FT)
	6 DEVICES EVENLY SPACED			50	155

TRAFFIC CONTROL NOTES:

- SUBMIT ALL TCPs TO THE ENGINEER FOR APPROVAL.
- TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0" WITH A MAXIMUM SPEED LIMIT OF 25 MPH.
- PLACE CONSTRUCTION SIGNS SUCH THAT THEY DO NOT OBSCURE EXISTING TRAFFIC SIGNS.
- SUGGESTED CONSTRUCTION PHASING:

MP 2.3

- REMOVE PAVEMENT FROM BEGINNING TO END OF PROJECT. USE A SINGLE LANE CLOSURE DURING PAVEMENT REMOVAL.
- EXCAVATE THE NORTHBOUND LANE EMBANKMENT TO THE DATUM OF PAVEMENT STRUCTURAL SECTION. USE A SINGLE LANE CLOSURE TO REACH DESIRED DEPTH. UTILIZE MUTCD TYPICAL APPLICATION 10 FOR TRAFFIC CONTROL SETUP.
- CONSTRUCT EMBANKMENT AND PAVE ROAD AS SHOWN IN TYPICAL SECTION. MAINTAIN SINGLE LANE CLOSURE DURING PAVEMENT OPERATIONS.

MP 2.5

- REMOVE PAVEMENT FROM BEGINNING TO END OF PROJECT. USE SINGLE LANE CLOSURES AND SWAP TRAFFIC BACK AND FORTH DURING PAVEMENT REMOVAL.
- EXCAVATE THE NORTHBOUND LANE TO THE EXTENT NEEDED TO ENABLE THE REMOVAL AND REPLACEMENT OF THE FIRST HALF OF THE CULVERT. MAINTAIN A SINGLE LANE OF TRAFFIC ON THE SOUTHBOUND LANE. UTILIZE MUTCD TYPICAL APPLICATION 10 FOR TRAFFIC CONTROL SETUP.
- CUT AND REMOVE THE FIRST PORTION OF EXISTING CULVERT AND REPLACE WITH THE FIRST HALF OF THE PROPOSED CORRUGATED STEEL PIPE.
- PLACE PIPE BEDDING AND CONSTRUCT EMBANKMENT ON THE NORTHBOUND LANE AS SHOWN IN TYPICAL SECTION UNTIL THE GRADE IS BROUGHT UP TO THE EXTENT NECESSARY TO PROTECT THE PIPE AND CREATE A TEMPORARY TRAFFIC LANE.
- TRENCH THE SOUTHBOUND LANE TO THE EXISTING CULVERT. REMOVE REMAINDER OF EXISTING CULVERT AND REPLACE WITH REMAINDER OF THE PROPOSED CORRUGATED STEEL PIPE. USE SINGLE LANE CLOSURES AND SWAP TRAFFIC BACK AND FORTH AS NEEDED TO PERFORM PIPE WORK AND BRING THE GRADE UP EVEN WITH THE TEMPORARY TRAFFIC LANE ELEVATION.

TRAFFIC CONTROL LEGEND

FLAGGER

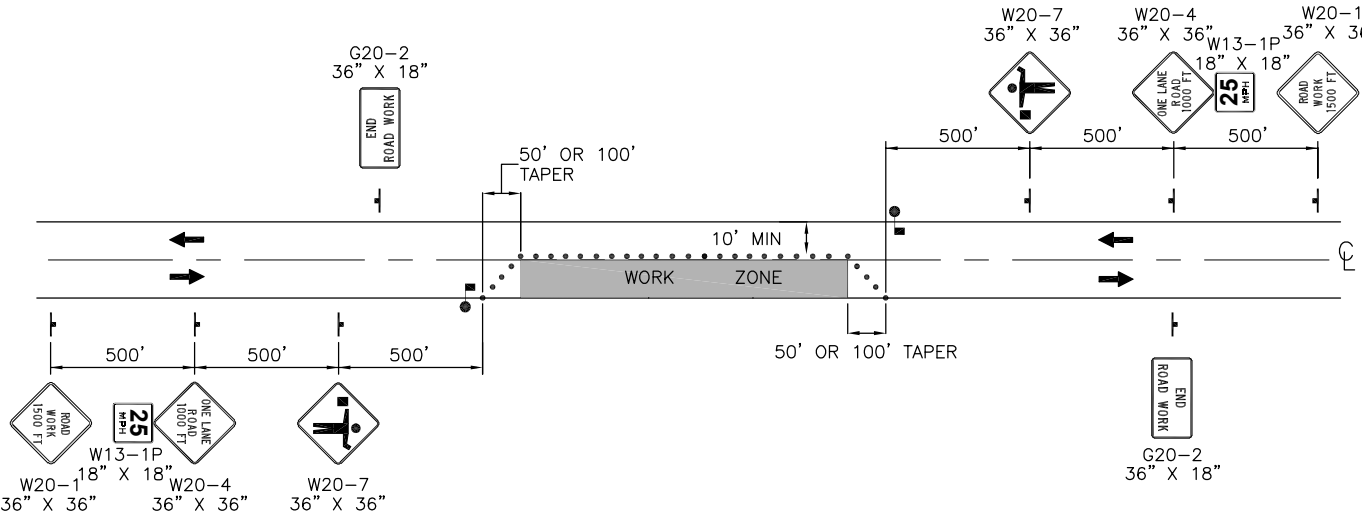
CONSTRUCTION SIGN

DRUM

CONE

WARNING LIGHT

TRAFFIC FOLLOW



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	T1	17



PLANS DEVELOPED BY:  
HDR ENGINEERING, INC.  
582 E 36TH AVE, SUITE  
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99503-4169  
907-644-2000  
CERT.OF AUTH. AECC569

TCP NOT SEALED IN  
ACCORDANCE WITH ALASKA  
HIGHWAY  
PRECONSTRUCTION MANUAL  
SECTION 1400.3.5  
DATED JANUARY 30, 2012

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HNS MOSQUITO LAKE ROAD  
#00044 - DEC 20 SE PR

TRAFFIC CONTROL PLAN



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DRAFTED ###

CHECKED ##

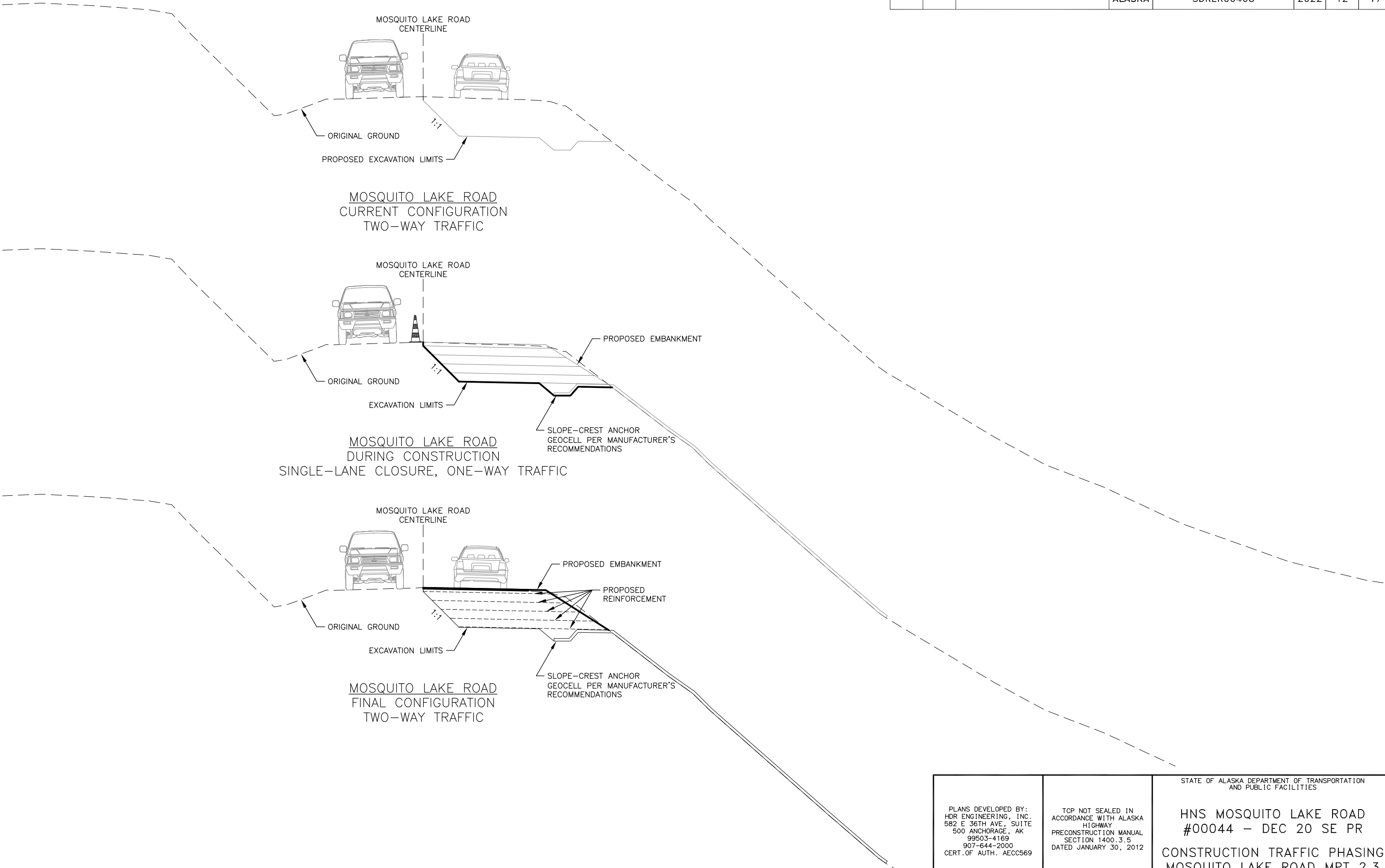
DESIGNED ##

T2

DATE 6/8/2022 9:53

LAYOUT

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	T2	17

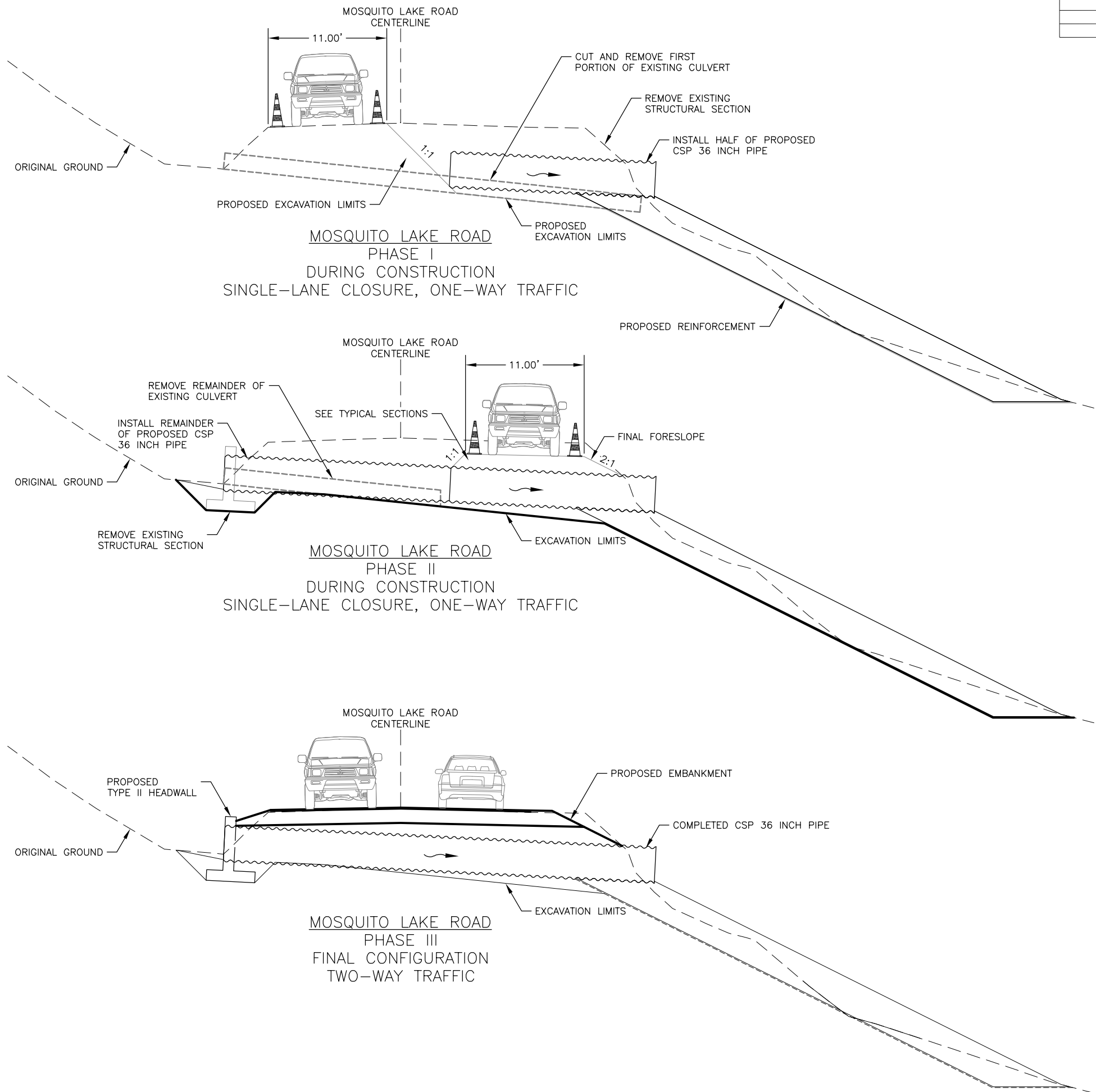


PLANS DEVELOPED BY: HDR ENGINEERING, INC. 582 E 36TH AVE, SUITE 500 ANCHORAGE, AK 99503-4169 907-644-2000 CERT. OF AUTH. AECC569	TCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1400.3.5 DATED JANUARY 30, 2012	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  HNS MOSQUITO LAKE ROAD #00044 - DEC 20 SE PR  CONSTRUCTION TRAFFIC PHASING MOSQUITO LAKE ROAD MPT 2.3
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DATE 6/8/2022 9:53 LAYOUT T3 DESIGNED ## CHECKED ## DRAFTED #####

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SDRER00408	2022	T3	17



- NOTES:
1. THESE TRAFFIC CONTROL DETAILS APPLY TO THE CSP 36 INCH PIPE AT MOSQUITO LAKE ROAD MPT 2.5. THESE DETAILS ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND ARE NOT A CONTRACT DOCUMENT.
  2. DE-WATER WORK AREA PRIOR TO BEGINNING EXCAVATION.

PLANS DEVELOPED BY: HDR ENGINEERING, INC. 582 E 36TH AVE, SUITE 500 ANCHORAGE, AK 99503-4169 907-644-2000 CERT. OF AUTH. AECC569	TCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1400.3.5 DATED JANUARY 30, 2012	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  HNS MOSQUITO LAKE ROAD #00044 - DEC 20 SE PR CONSTRUCTION TRAFFIC PHASING MOSQUITO LAKE ROAD MPT 2.5
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