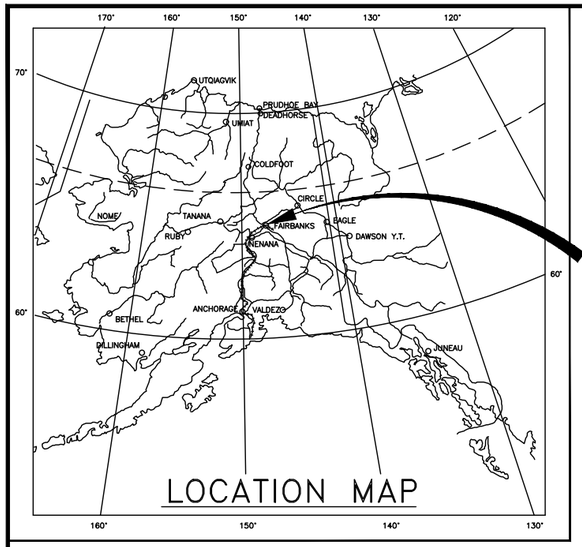


PROJECT LOCATION

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	A1	193

ROUTE ID:1240000I000	MILEPOINT:1.342 TO 2.779
ROUTE ID:1240000D000	MILEPOINT:5.274 TO 6.708
ROUTE ID:2581113I000	MILEPOINT:3.884 TO 4.186
ROUTE ID:2581113D000	MILEPOINT:0.000 TO 0.303

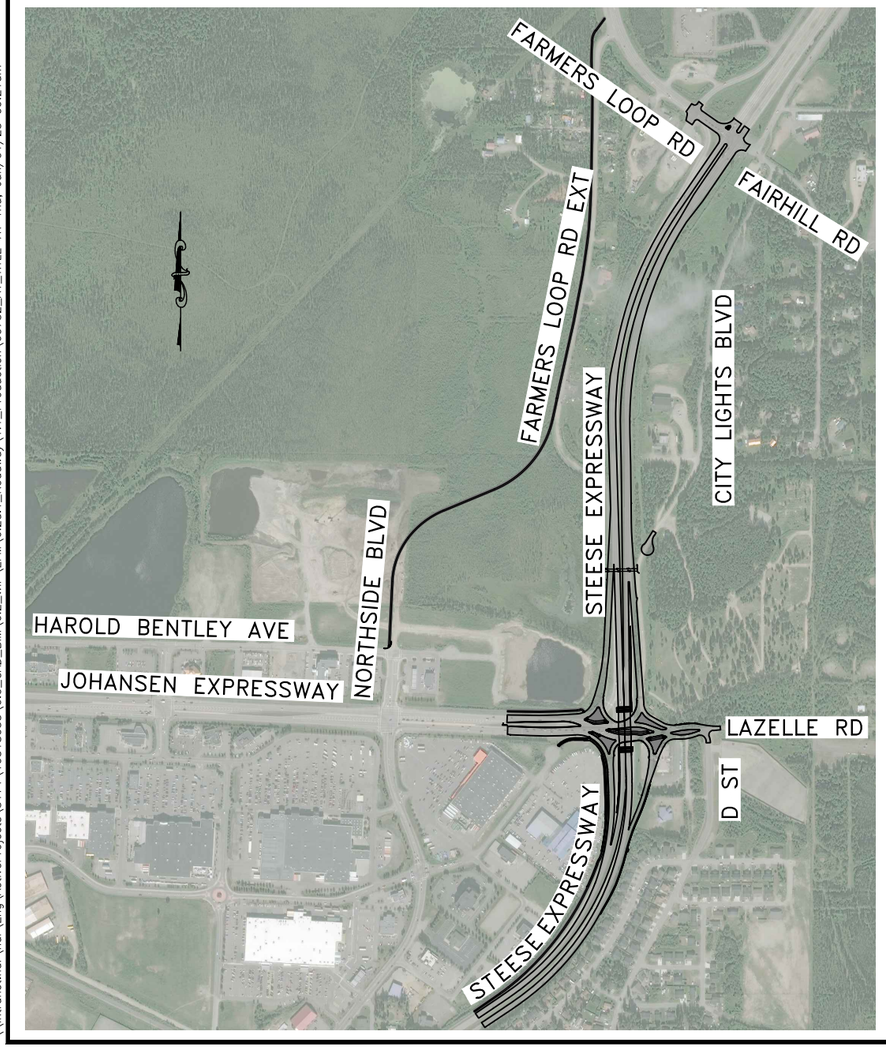
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT

0002337 / Z607320000

STEESE EXPRESSWAY / JOHANSEN EXPRESSWAY INTERCHANGE

GRADING, DRAINAGE, PAVING, BRIDGE, ILLUMINATION, SIGNALIZATION, SIGNING & STRIPING



Preliminary PS&E
June 30, 2023
Northern Region

INDEX OF SHEETS

THE FOLLOWING STANDARD PLANS APPLY TO THIS PROJECT,
C–04.12, C–05.20, D–01.02, D–04.22, D–06.10, D–20.05, D–22.01, D–23.01, D–24.00, D–26.04, D–30.11, D–31.01, F–01.04, G–00.05, G–05.11S, G–05.11W, G–10.21, G–14.01, G–20.12, G–27.00, G–29.01, G–32.03, G–47.00, I–20.20, I–21.12, I–22.11, I–81.00 L–03.11, L–23.03, L–25.01, L–30.11, M–24.01, S–00.12, S–01.02, S–05.02, S–23.00, S–30.05, S–31.02, S–32.02, T–20.04, T–21.04, T–22.04, T–23.01, T–25.10, T–30.12, T–31.01, T–52.22, T–54.11, T–55.11, T–56.12

DESIGN DESIGNATIONS

	STEESE EXPRESSWAY NORTHBOUND / SOUTHBOUND	JOHANSEN EXPRESSWAY EASTBOUND / WESTBOUND	JOHANSEN EXPRESSWAY DIVERGING DIAMOND CORE
ADT (2022)	13,000/23,500	10,450/8,550	19,000
ADT (2045)	16,260/29,400	13,062/10,688	23,750
DHV	10.3%	10.3%	10.3
PERCENT TRUCKS (T)	5.8%	5.8%	5.8%
DIRECTIONAL SPLIT (D)	45–55	45–55	45–55
DESIGN SPEED (V)	55 MPH	55 MPH	25 MPH
DESIGN ESALS	5,068,440/2,803,795	4,097,992	4,097,992

PROJECT SUMMARY

WIDTH OF PAVEMENT	76'–112'
LENGTH OF PAVING	6,488'
LENGTH OF PROJECT	7,597'

JENNIFER WRIGHT, P.E., PROJECT MANAGER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED BY:

_____ DATE _____

Ben Kenobi, P.E.
Acting Preconstruction Engineer, Northern Region

ACCEPTED FOR CONSTRUCTION:

_____ DATE _____

Joseph P. Kemp, P.E.
Acting Regional Director, Northern Region

HWYS TITLE SHEET
\\intranet.hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_A1_TITLE-A1 Thu, Jun/01/23 09:21am

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	A2	A4

	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 — R/W

EXISTING RIGHT-OF-WAY LINE

EXISTING PROPERTY LINE

CONTROLLED ACCESS LINE — C/A

UTILITY EASEMENT LINE — PUE

TEMPORARY EASEMENT LINE (TCP OR TCE) — TCP

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	FO	
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		
RETAINING WALL		
NOISE BARRIER		
F-SHAPE BARRIER		

	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	
POST OR BOLLARD		
WELL OR MONITORING WELL	W	
SEPTIC PIPE	S, WW	
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		

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

	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		22
RIGID METAL CONDUIT		

ABBREVIATIONS:

APPROX	APPROXIMATLY
℄	CENTERLINE
CY	CUBIC YARD
E	EAST, EASTING
ELE, ELEV	ELEVATION
EXPY	EXPRESSWAY
FT. '	FOOT, FEET
H	HORIZONTAL
HW/D	HEADWATER TO DIAMETER RATIO
IE	INVERT ELEVATION
IN, "	INCH, INCHES
L	LENGTH OF CURVE
L.C.L	LEFT OF CENTERLINE
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH, NORTHING
NO.	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTER
PC	POINT OF CURVATURE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PST	PERFORATED STEEL TUBE
PT	POINT OF TANGENCY
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
R.C.L	RIGHT OF CENTERLINE
RT	RIGHT
S	SOUTH
SQ. FT.	SQUARE FOOT
STA	STATION
T	TANGENT
TCE	TEMPORARY CONSTRUCTION EASEMENT
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
TRM	TURF REINFORCEMENT MAT

STATE OF ALASKA 49TH — JARED TRAVIS CE 105189 REGISTERED PROFESSIONAL ENGINEER

LEGEND

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	A3	A4

GENERAL NOTES:

1. EXISTING ASPHALT PAVEMENT THICKNESS MAY VARY DUE TO DEFORMATION AND PREVIOUS ASPHALT PATCHING ACTIVITIES.
2. EXCEPT AS NOTED OTHERWISE, CLEARING LIMITS SHALL BE 10' BEYOND SLOPE STAKE CATCH POINT OR TO THE RIGHT-OF-WAY LINE. WHICHEVER IS LESS.
3. GRUBBING LIMITS SHALL BE TO THE SLOPE STAKE CATCH POINT.
4. ADJUST ALL MANHOLES TO BE 3/8 INCH BELOW FINAL FINISHED GRADE SURFACE PRIOR TO PAVING.
5. PRIOR TO BEGINNING ANY GROUND DISTURBING ACTIVITIES, LOCATE ALL EXISTING UTILITIES AND SERVICE CONNECTIONS WITHIN THE PROJECT AREA. PROTECT UTILITIES AND SERVICES FROM CONSTRUCTION DAMAGE FOR THE DURATION OF THE PROJECT. UTILITIES SHOWN IN THESE PLANS ARE FOR VISUAL PURPOSES ONLY. SOME EXISTING UTILITIES MAY NOT APPEAR IN THESE PLANS OR THEY MAY NOT BE PRECISELY WHERE SHOWN.
6. SEED ALL DISTURBED AREAS AS NOTED IN THE PLANS. SEEDED AREAS AND TYPE OF SEEDING ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. SEEDING MAY REQUIRE SEVERAL MOBILIZATIONS. ALL MOBILIZATIONS ARE SUBSIDIARY TO PAY ITEM 618.0002.000.

SUMMARY OF PROJECT ALIGNMENTS

NAME	DESCRIPTIVE NAME
NB	STEESE EXPRESSWAY NORTHBOUND
SB	STEESE EXPRESSWAY SOUTHBOUND
NBR	STEESE NORTHBOUND OFF-RAMP TO JOHANSEN WESTBOUND
NBRR	STEESE NORTHBOUND OFF-RAMP TO JOHANSEN EASTBOUND
EBL	STEESE NORTHBOUND ON-RAMP FROM JOHANSEN EASTBOUND
WBR	STEESE NORTHBOUND ON-RAMP FROM JOHANSEN WESTBOUND
SBR	STEESE SOUTHBOUND OFF-RAMP TO JOHANSEN WESTBOUND
SBRL	STEESE SOUTHBOUND OFF-RAMP TO JOHANSEN EASTBOUND
WBL	STEESE SOUTHBOUND ON-RAMP FROM JOHANSEN WESTBOUND
EBR	STEESE SOUTHBOUND ON-RAMP FROM JOHANSEN EASTBOUND
EB	JOHANSEN EXPRESSWAY EASTBOUND
WB	JOHANSEN EXPRESSWAY WESTBOUND
WB2	JOHANSEN EXPRESSWAY WESTBOUND 2
F	FARMERS LOOP CENTERLINE
SWP	STEESE SOUTHWEST PATHWAY
FLP	FARMERS LOOP EXTENSION PATHWAY

LAYOUT AND GENERAL NOTES

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_A3_Sheet Layout-A3 Thu, Jun/01/23 09:22AM

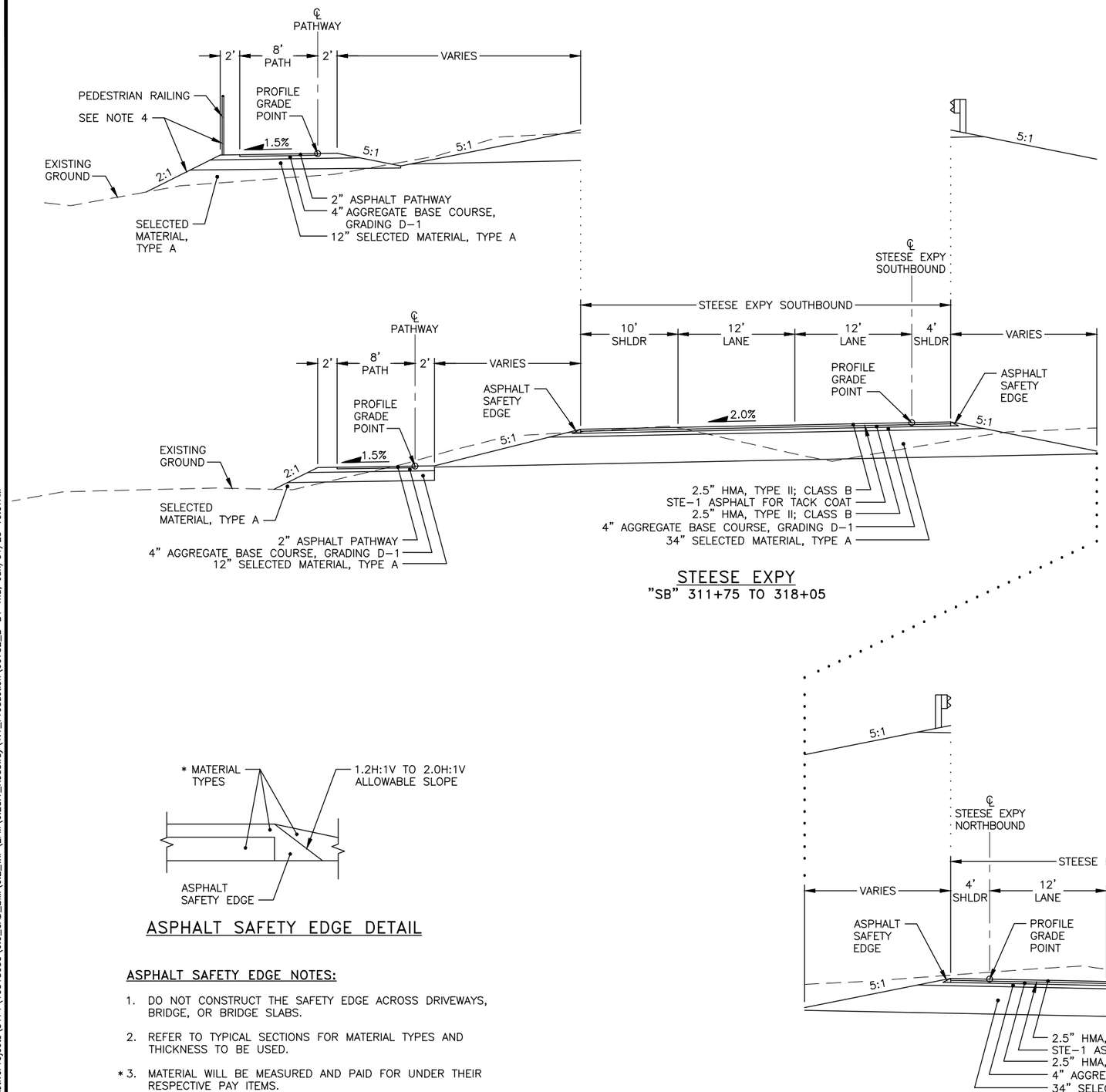
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	A4	A4

PLACEHOLDER SURVEY CONTROL SHEET

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\103180331\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_A_SCS-A4 Thu, Jun/01/23 09:22AM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	B1	B12



STEESE EXPY
"SB" 311+75 TO 318+05

NOTES:

1. SAWCUT LOCATION SHOWN ON PLANS IS FOR INITIAL SAWCUT.
2. SEED ALL DISTURBED AREAS AND AS DIRECTED BY THE ENGINEER.
3. SEE M SHEETS FOR RETAINING WALL LOCATIONS AND DETAILS.
4. PATHWAY FORESLOPE STEEPNESS VARIES BASED ON VERTICAL DROP FROM THE PATHWAY SHOULDER HINGE TO THE EXISTING GROUND.

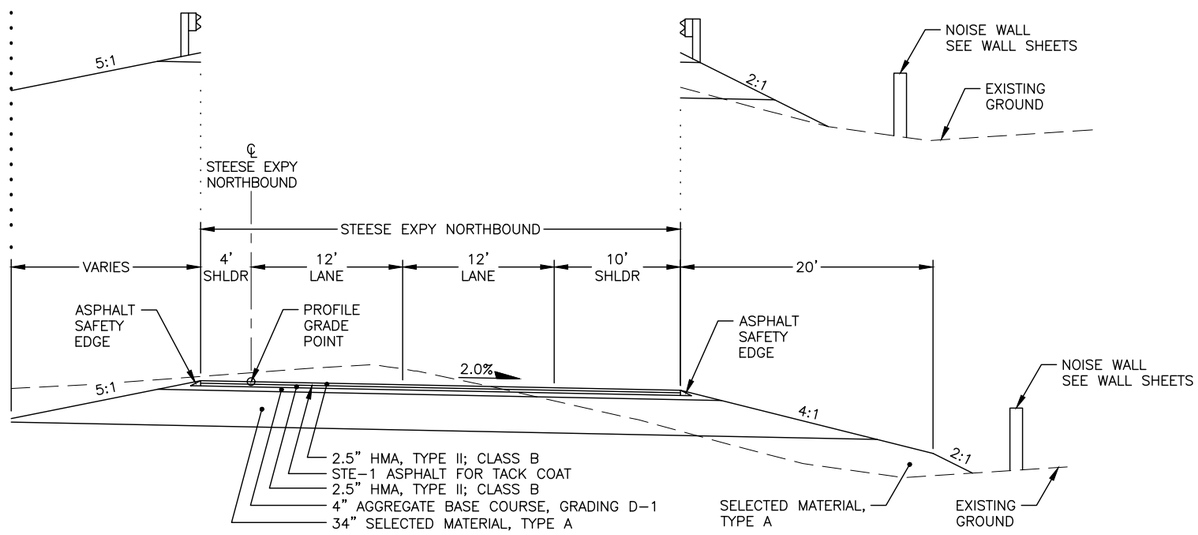
VERTICAL DROP	SLOPE
<4'	2:1
4'<6'	3:1
6'+	2:1 WITH PEDESTRIAN RAIL

5. SEE GRADING SHEETS FOR ALL "VARIES" DIMENSIONS.
6. SEE SUMMARY TABLE FOR GUARDRAIL LOCATIONS.

ASPHALT SAFETY EDGE DETAIL

ASPHALT SAFETY EDGE NOTES:

1. DO NOT CONSTRUCT THE SAFETY EDGE ACROSS DRIVEWAYS, BRIDGE, OR BRIDGE SLABS.
2. REFER TO TYPICAL SECTIONS FOR MATERIAL TYPES AND THICKNESS TO BE USED.
* 3. MATERIAL WILL BE MEASURED AND PAID FOR UNDER THEIR RESPECTIVE PAY ITEMS.
4. LABOR AND EQUIPMENT REQUIRED TO CONSTRUCT THE SAFETY EDGE IS SUBSIDIARY TO ITEM 401.0001.002B.

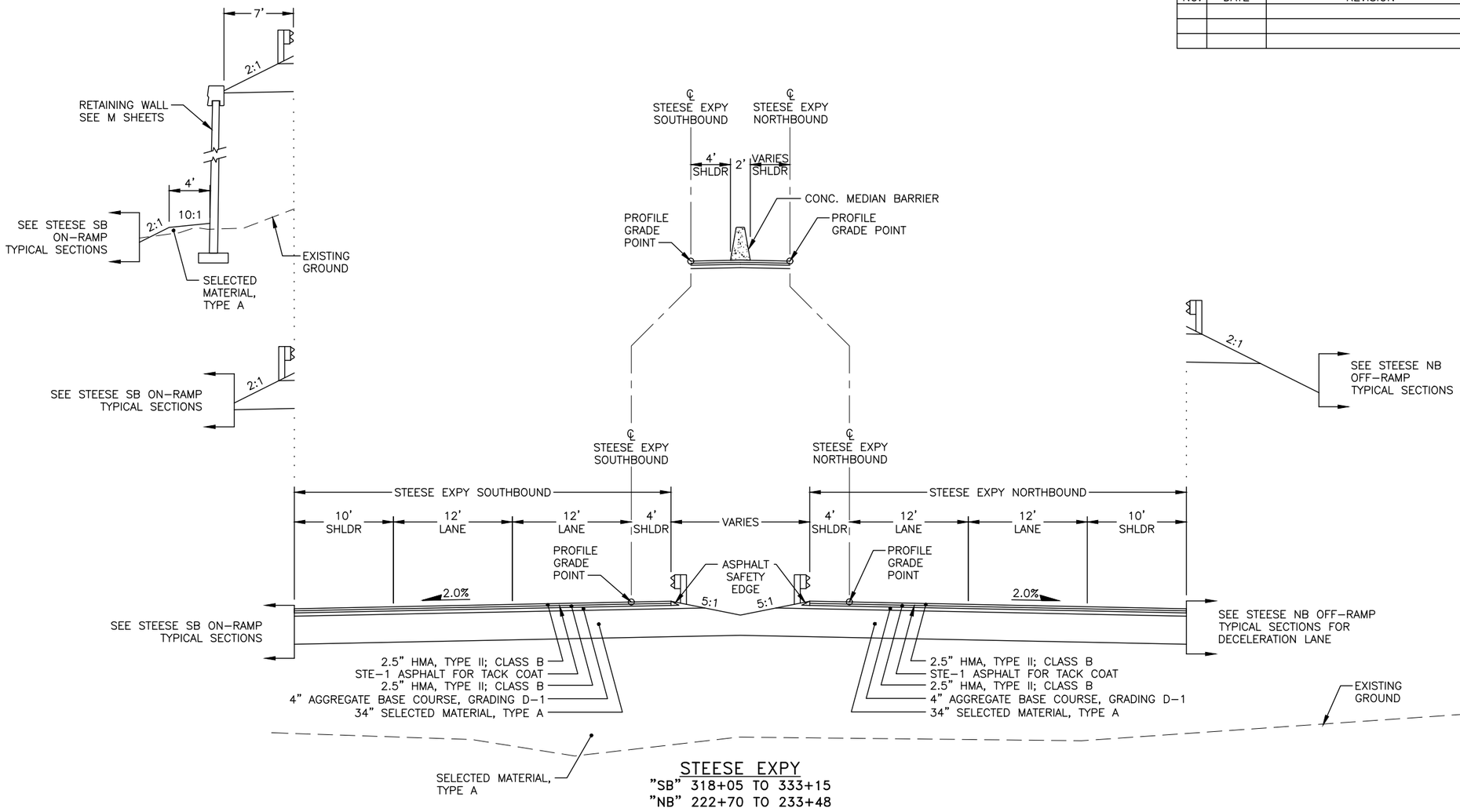


STEESE EXPY
"NB" 211+75 TO 222+70

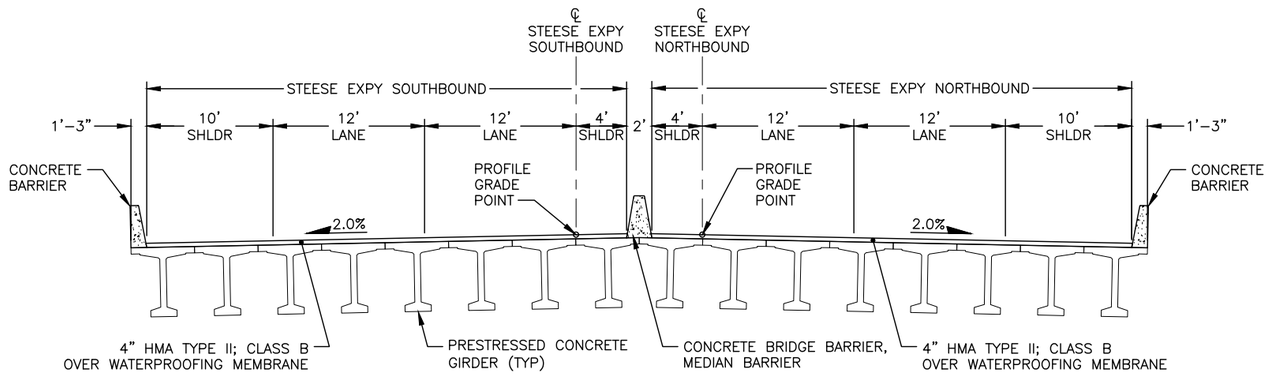
TYPICAL SECTIONS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	B2	B12



STEESE EXPY
"SB" 318+05 TO 333+15
"NB" 222+70 TO 233+48



STEESE EXPY BRIDGE NO. 2339
"SB" 333+15 TO 335+65
"NB" 233+48 TO 235+98
SEE BRIDGE SHEETS

TYPICAL SECTIONS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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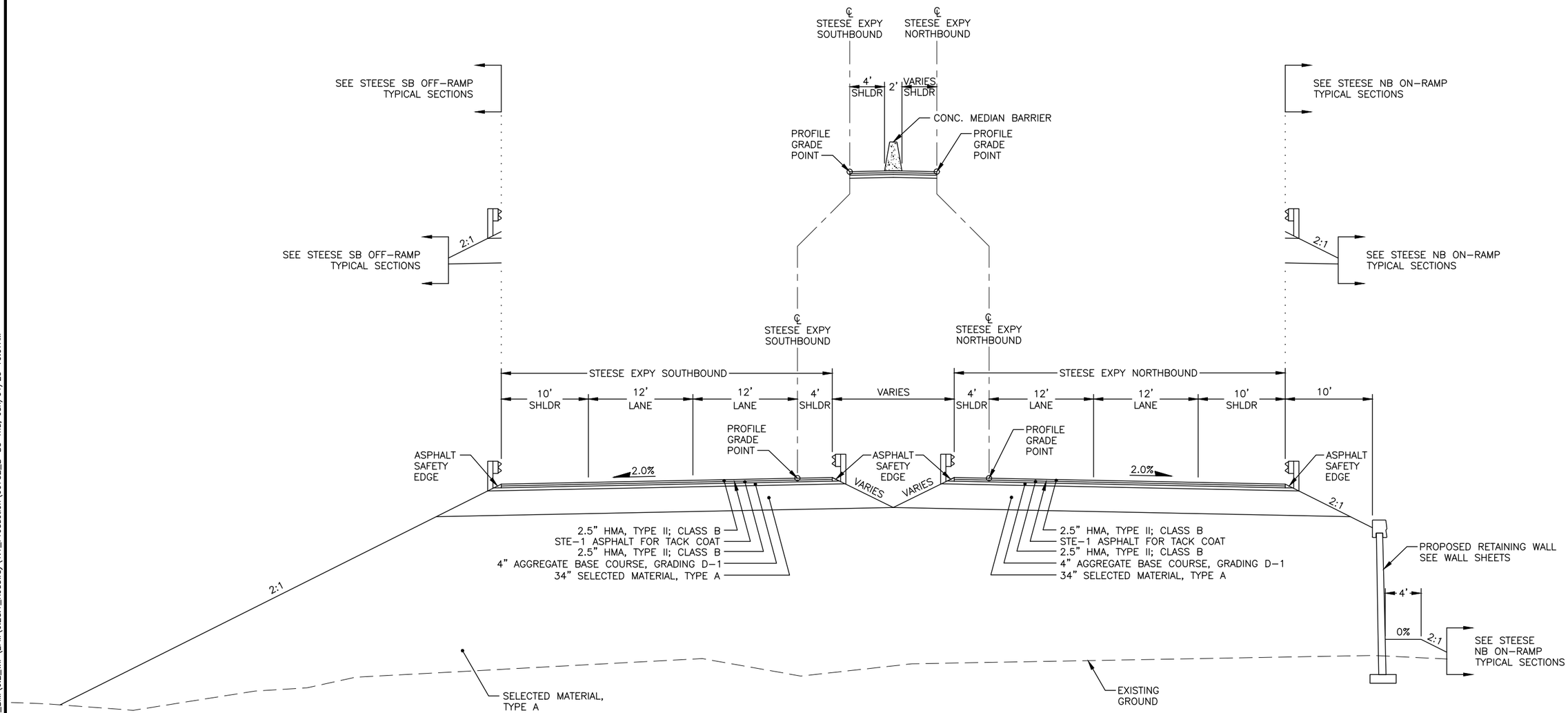

STEESE EXPY

"SB" 335+65 TO 348+99

"NB" 235+98 TO 248+37

TYPICAL SECTIONS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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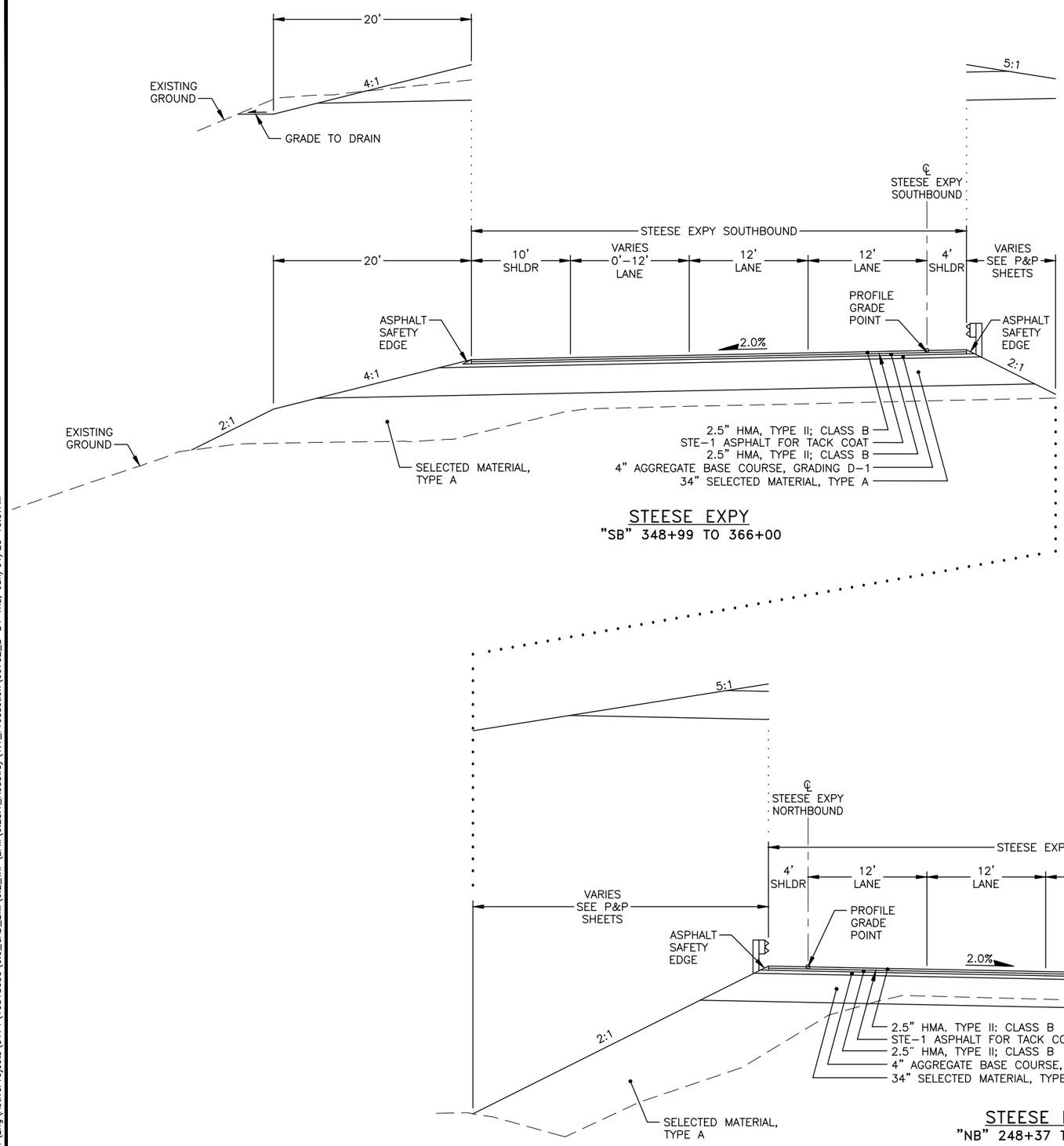
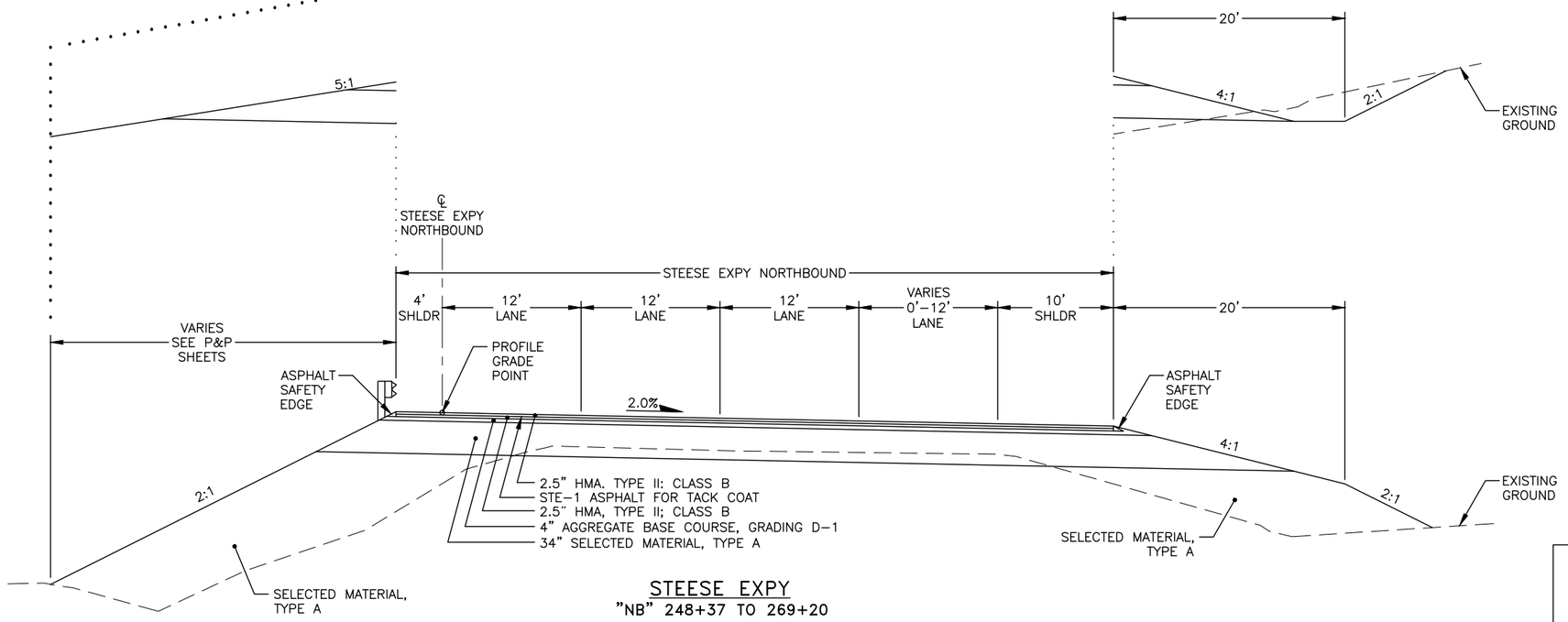


STEESE EXPY
"SB" 348+99 TO 366+00

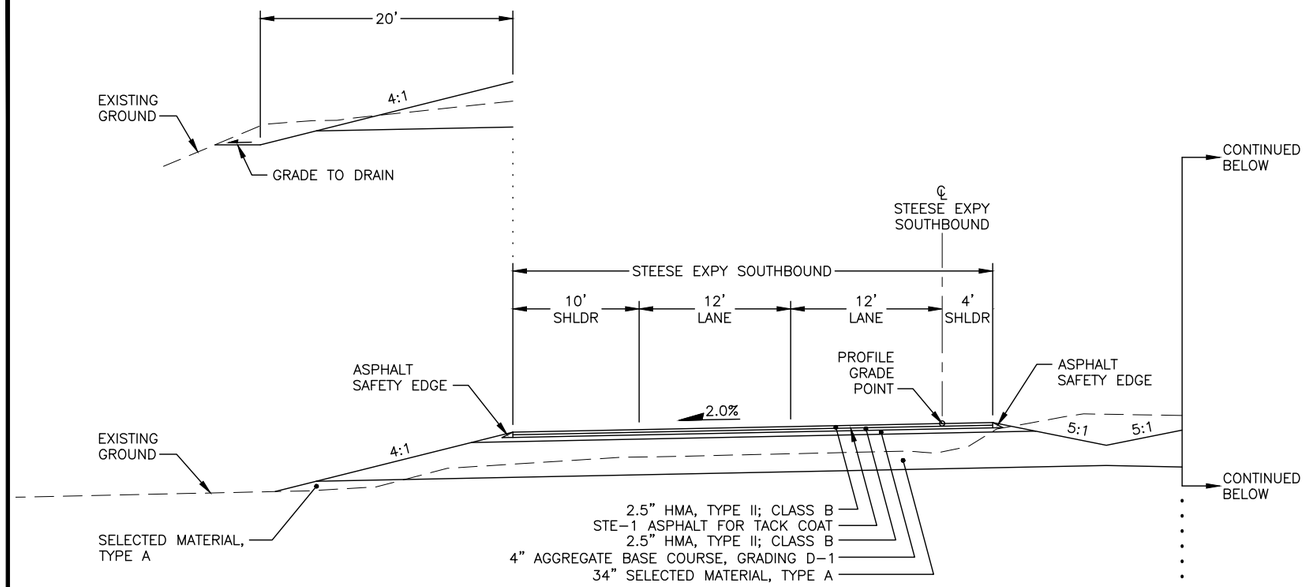


STEESE EXPY
"NB" 248+37 TO 269+20

TYPICAL SECTIONS

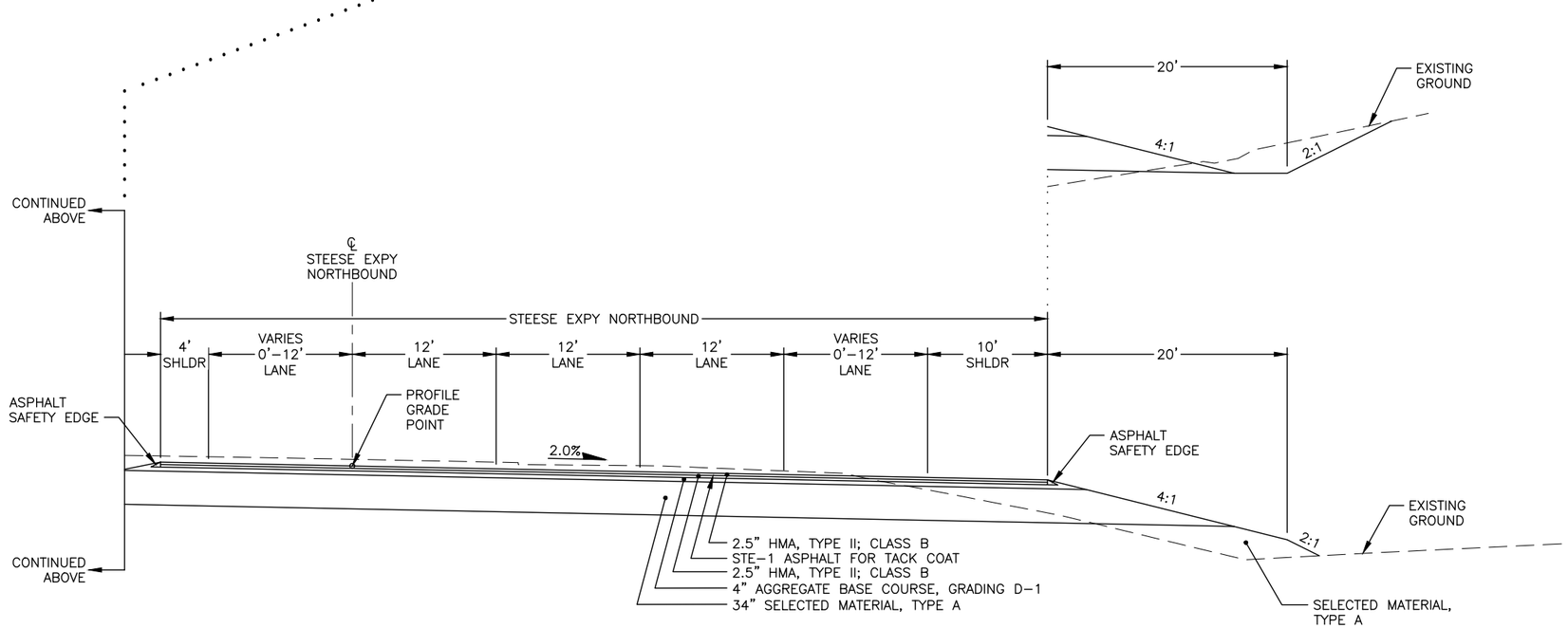
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	B5	B12



STEESE EXPY

"SB" 366+00 TO 376+57



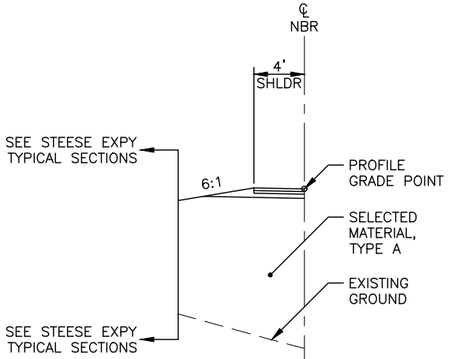
STEESE EXPY

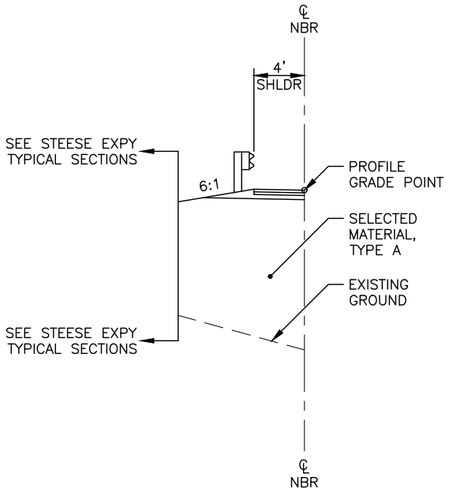
"NB" 269+20 TO 276+63

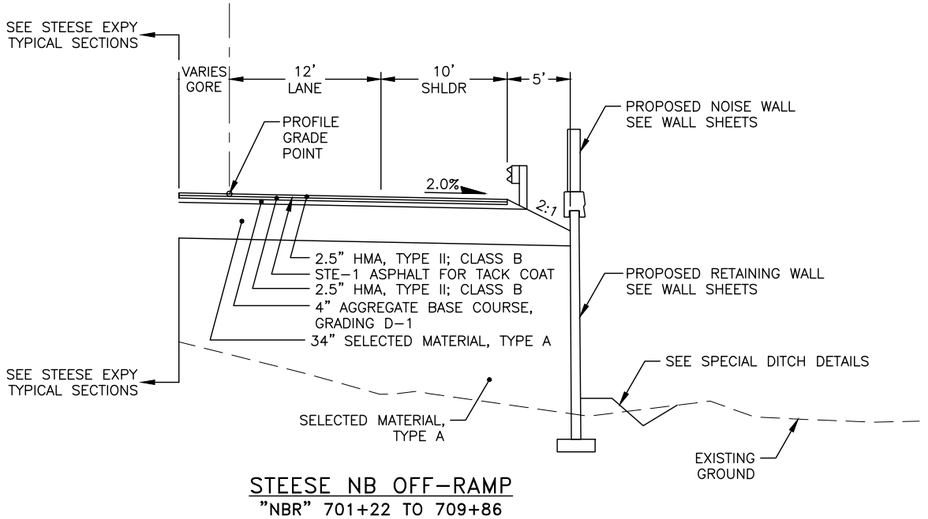
TYPICAL SECTIONS

NO.	DATE	REVISION

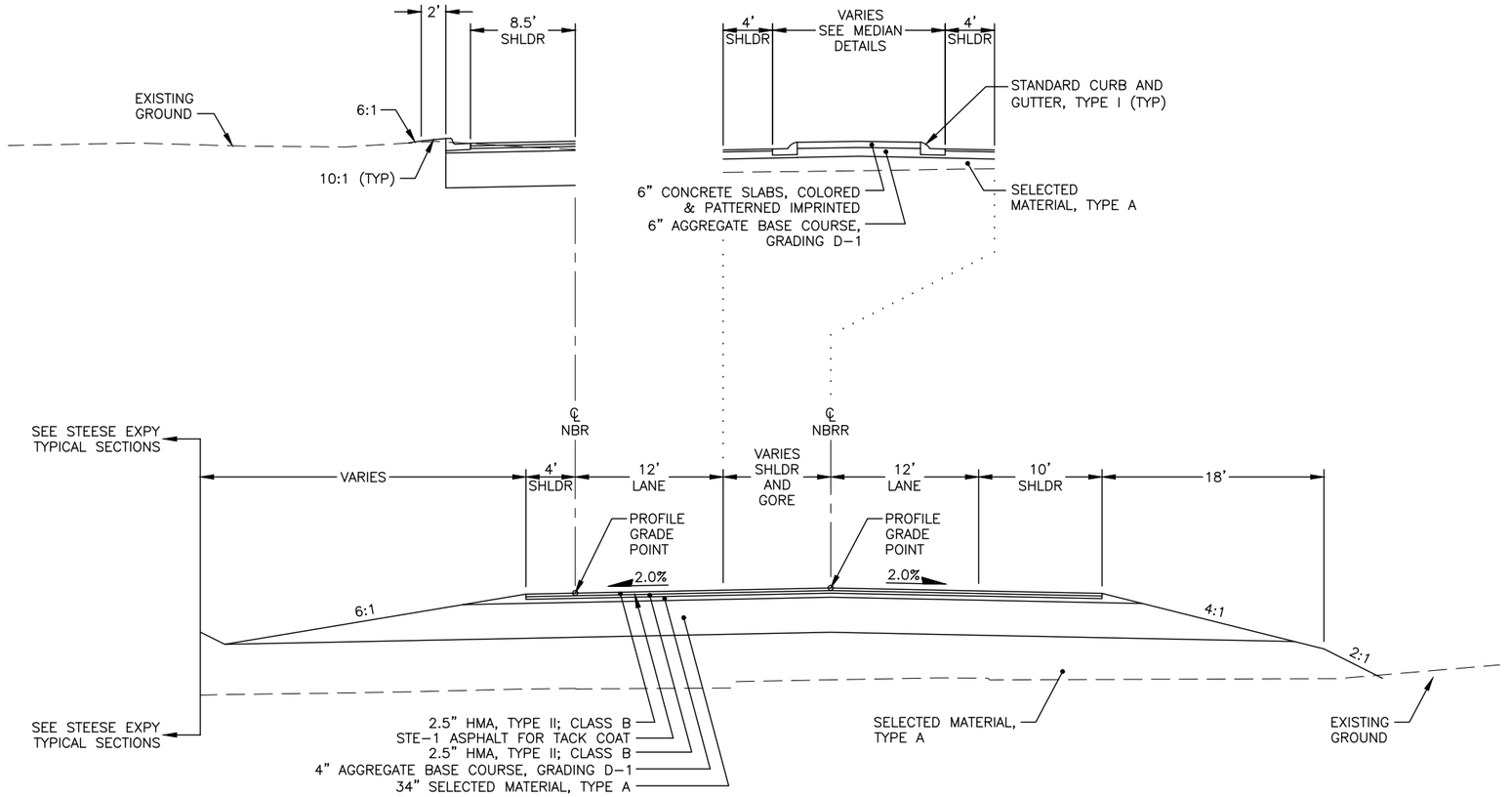
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	B6	B12







STEESE NB OFF-RAMP
"NBR" 701+22 TO 709+86

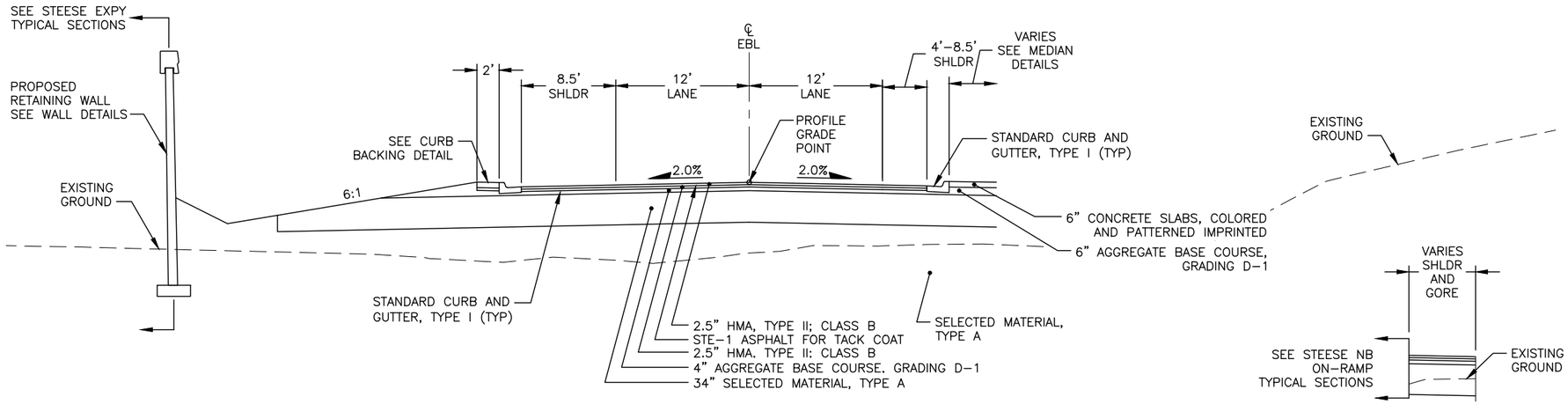


STEESE NB OFF-RAMP
"NBR" 709+86 TO 713+21
"NBRR" 700+00 TO 703+50

TYPICAL SECTIONS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	B7	B12

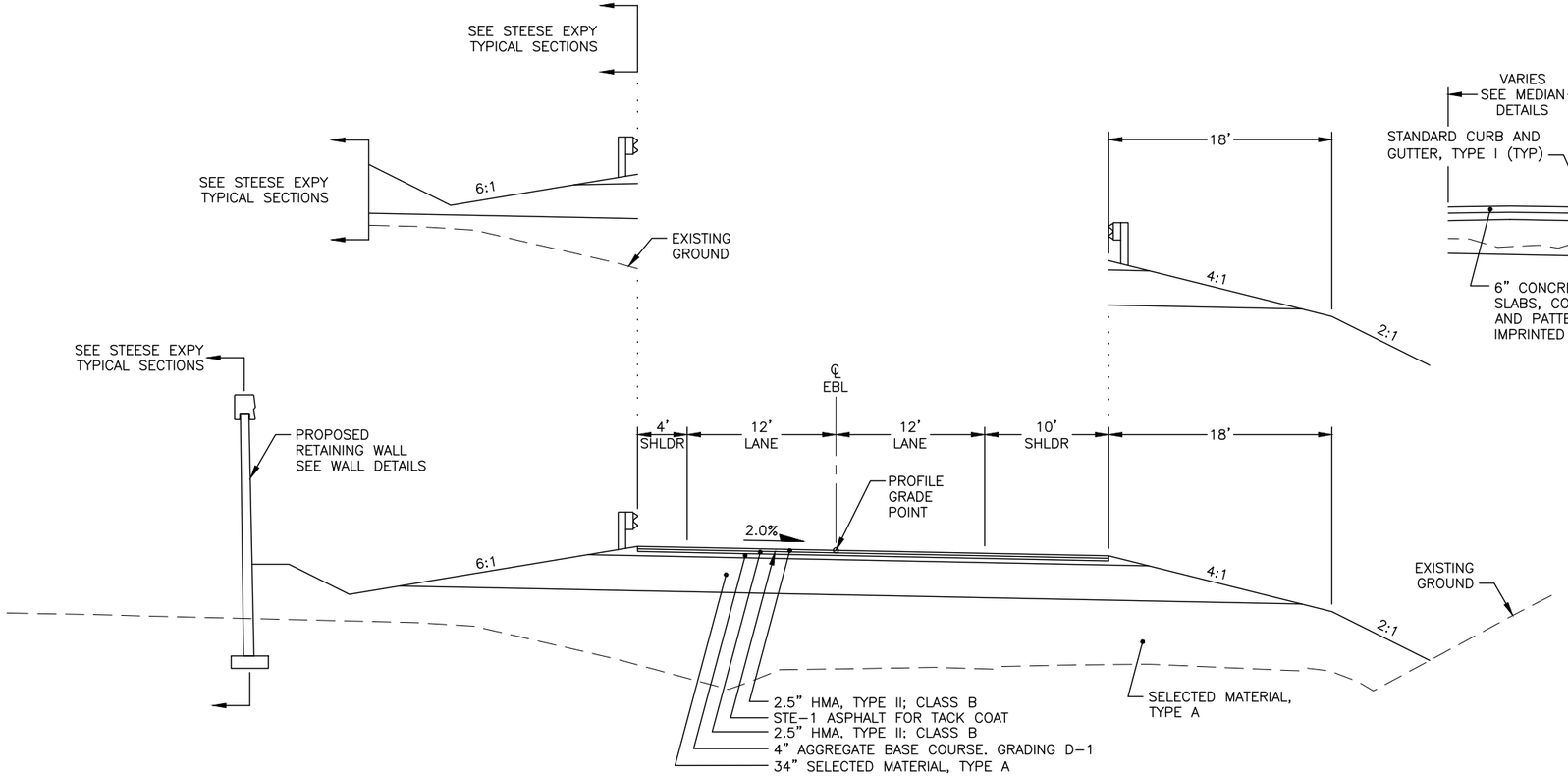


STEESE NB ON–RAMP

"EBL" 0+29 TO 3+38

STEESE NB ON–RAMP

"WBR" 400+65 TO 404+34



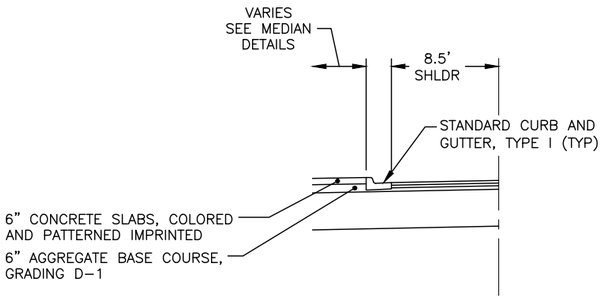
STEESE NB ON–RAMP

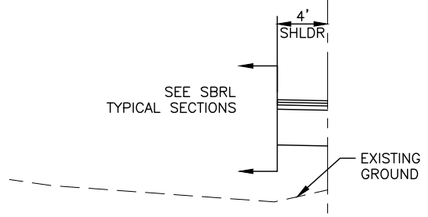
"EBL" 3+38 TO 15+14

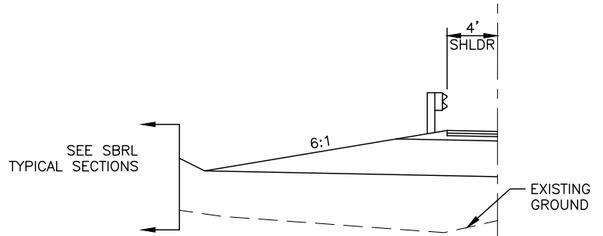
TYPICAL SECTIONS

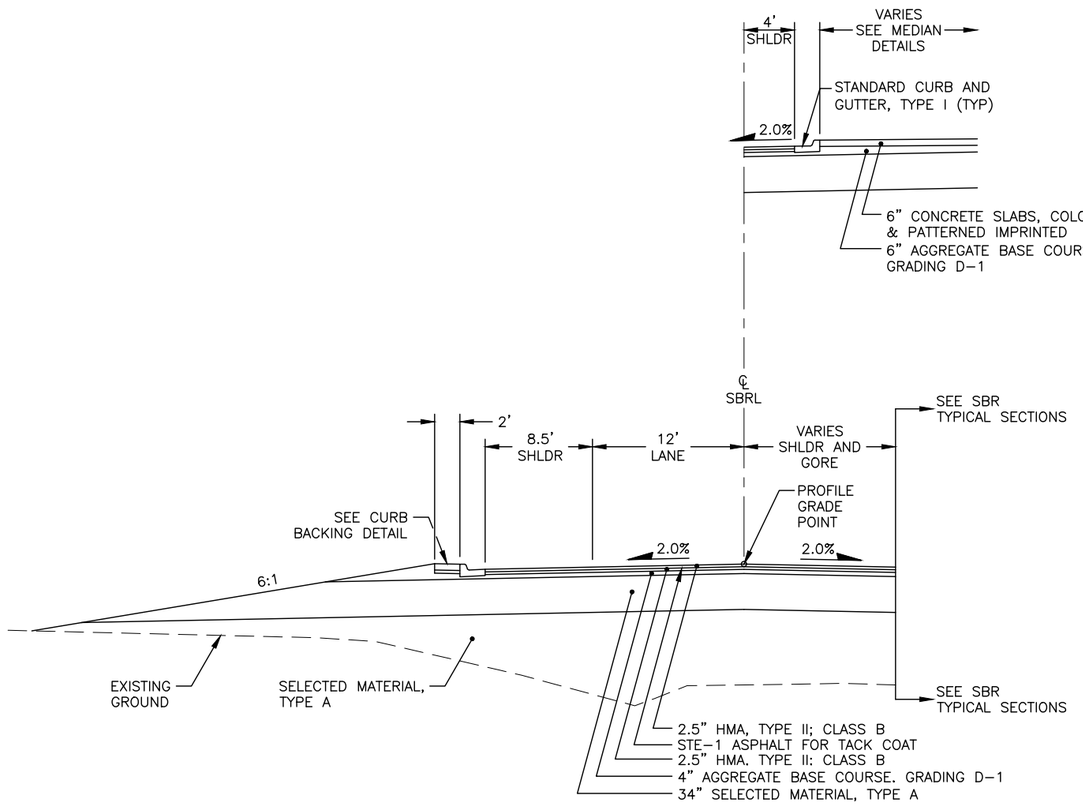
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	B8	B12

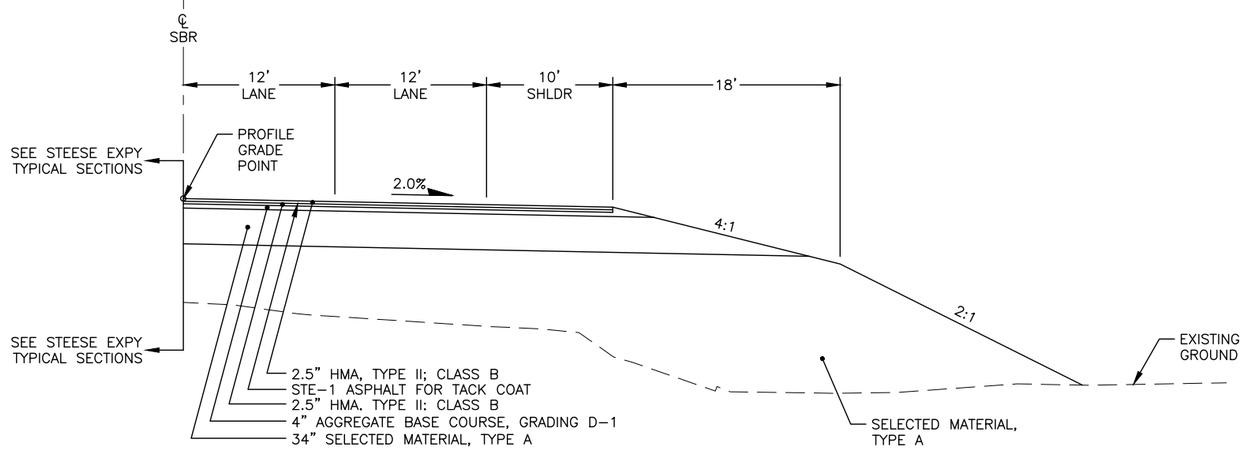








STEESE SB OFF-RAMP
"SBRL" 559+00 TO 562+90

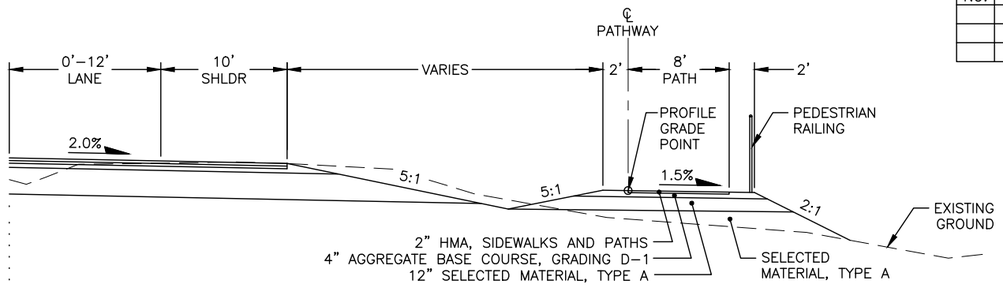


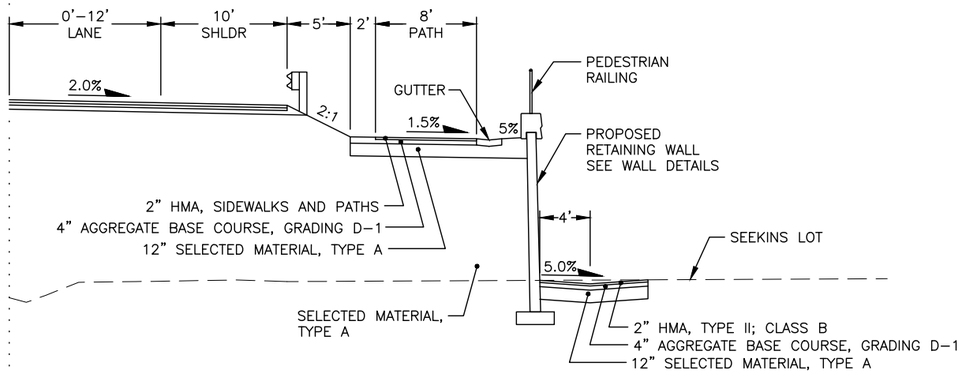
STEESE SB OFF-RAMP
"SBR" 500+00 TO 512+92

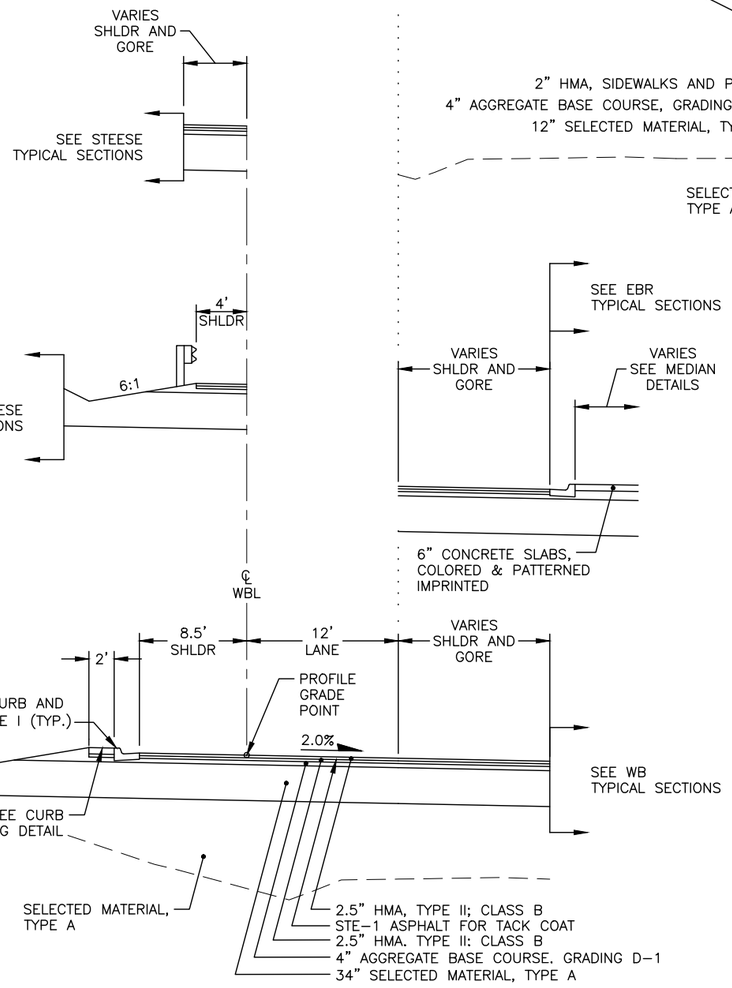
TYPICAL SECTIONS

NO.	DATE	REVISION

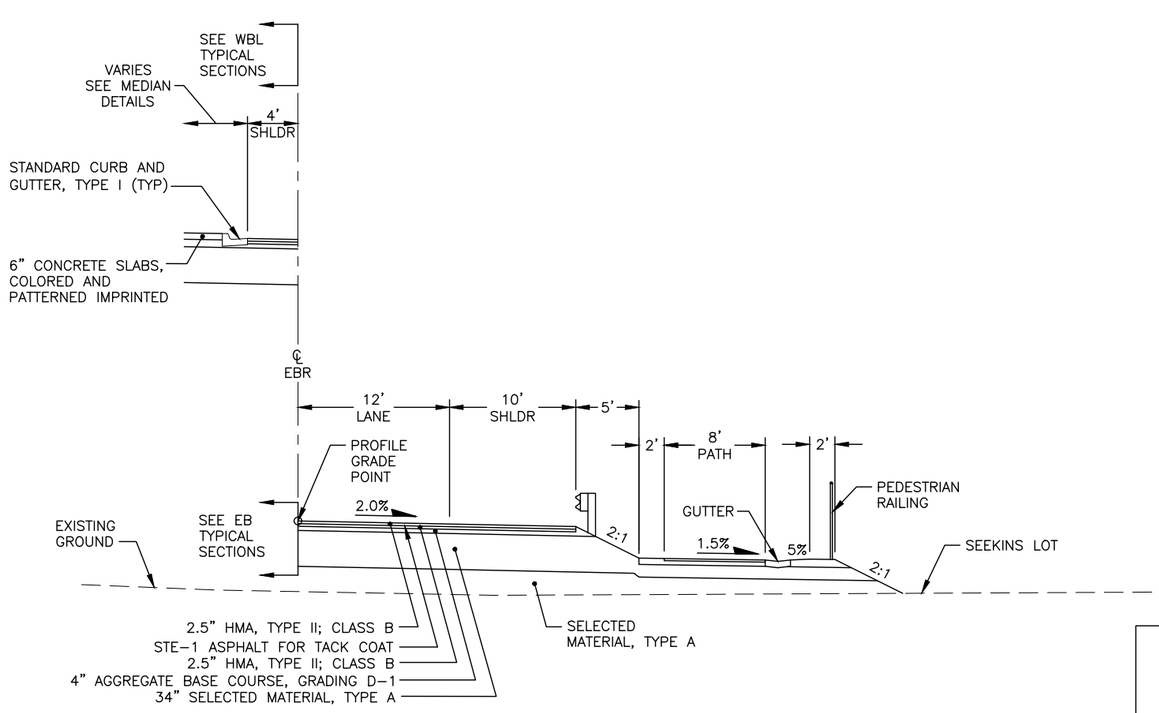
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	B9	B12







STEESE SB ON–RAMP
"WBL" 0+79 TO 17+28

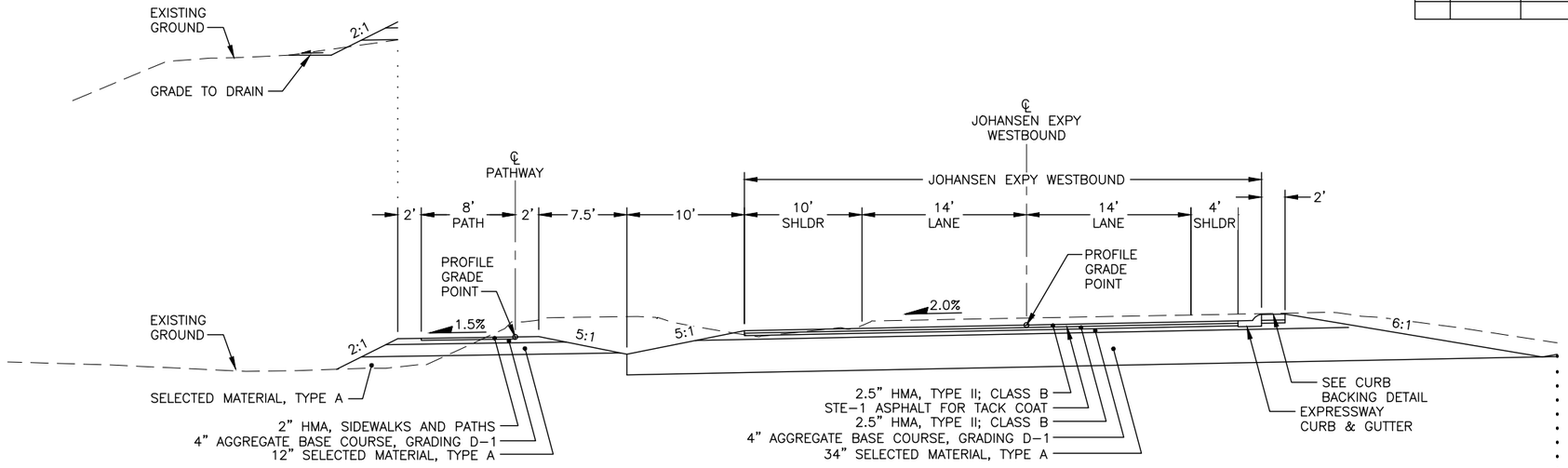


STEESE SB ON–RAMP
"EBR" 5+05 TO 10+04

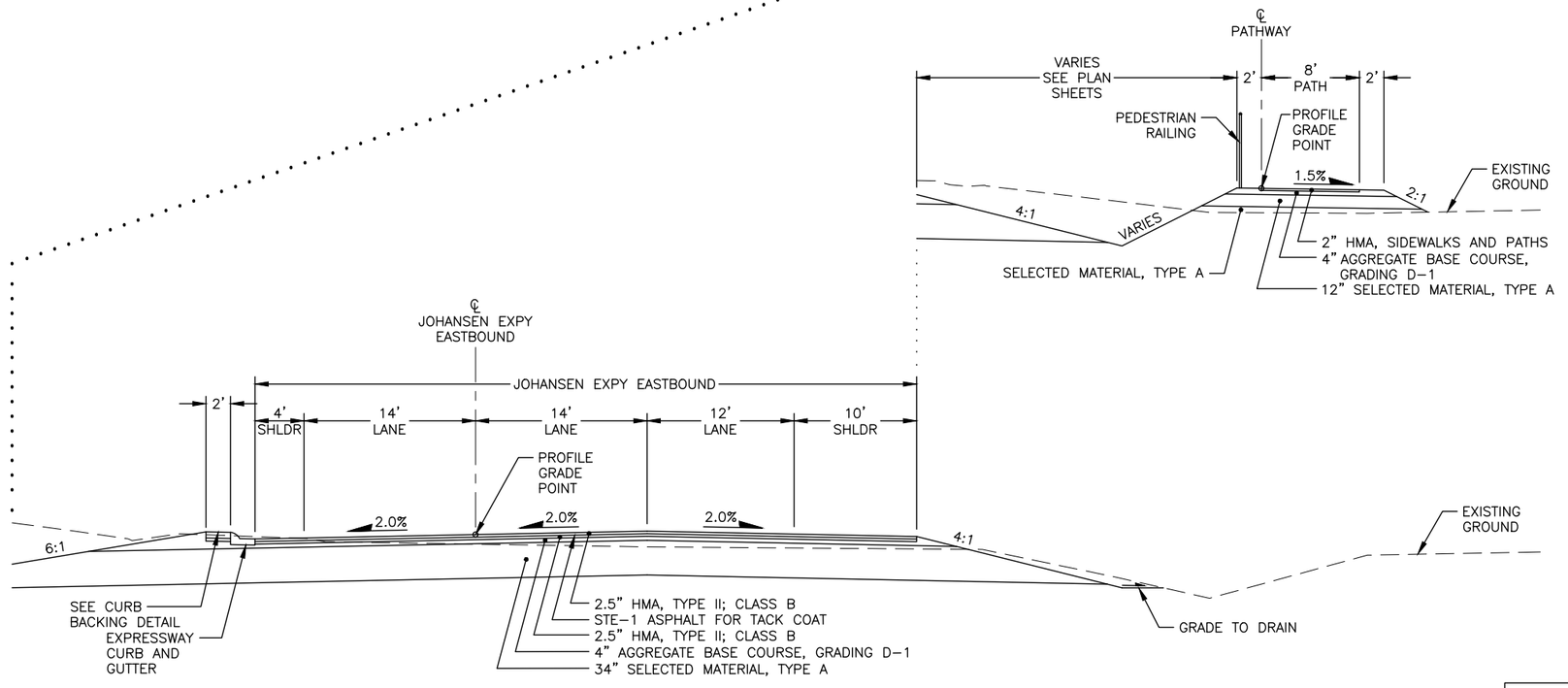
TYPICAL SECTIONS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	B10	B12



JOHANSEN EXPY
"WB" 202+00 TO 207+81



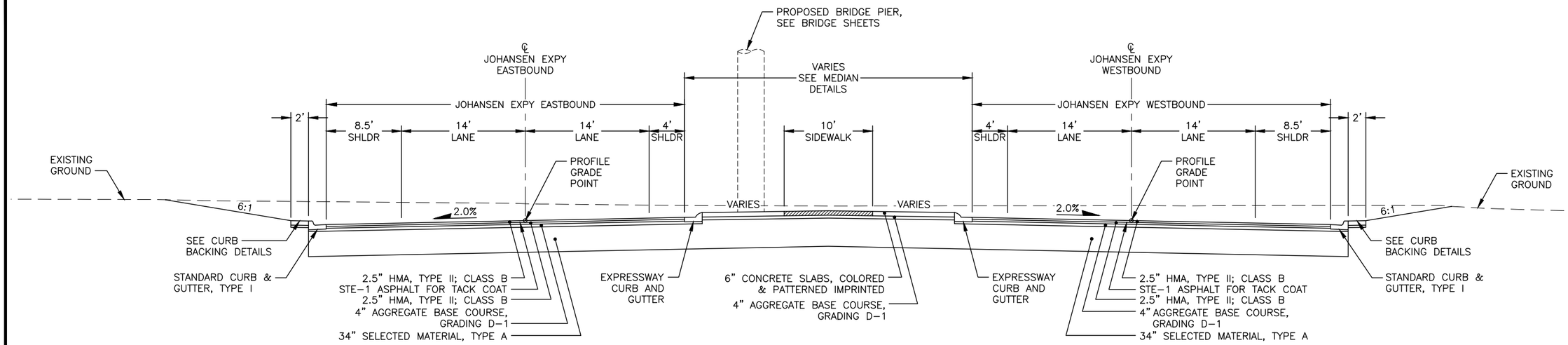
JOHANSEN EXPY
"EB" 302+00 TO 307+67
SEE GRADING SHEETS FOR TRANSITIONS

TYPICAL SECTIONS

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_B-B10 Thu, Jun/01/23 10:07AM

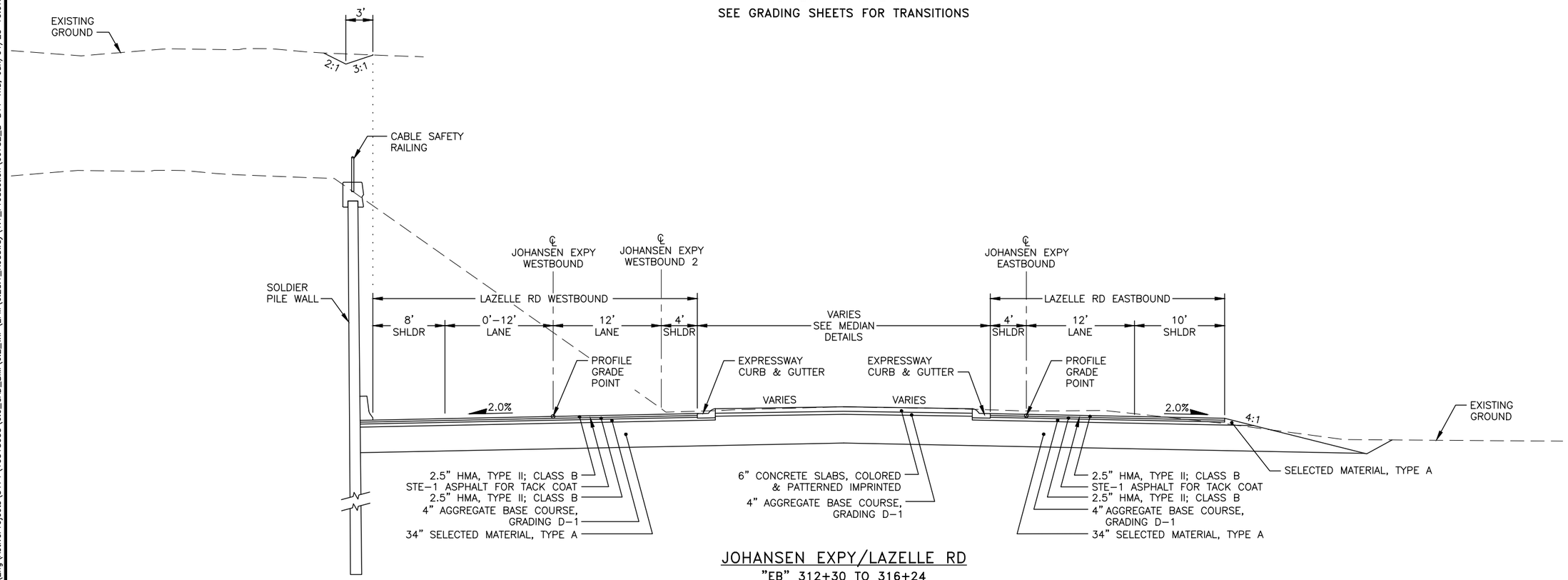
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	B11	B12



JOHANSEN EXPY

"EB" 307+67 TO 312+30
"WB" 207+81 TO 212+52
SEE GRADING SHEETS FOR TRANSITIONS



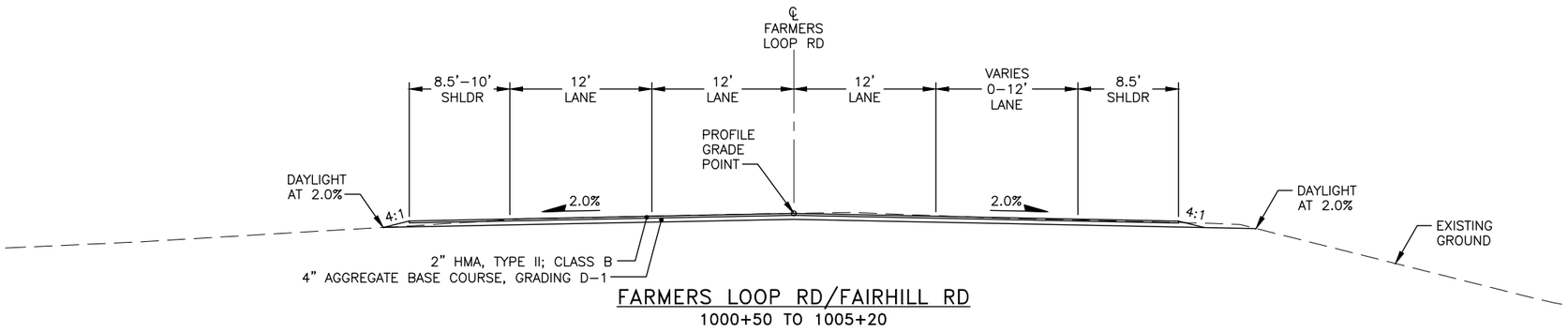
JOHANSEN EXPY/LAZELLE RD

"EB" 312+30 TO 316+24
"WB" 212+52 TO 213+00
"WB2" SHOWN FOR REFERENCE
SEE GRADING SHEETS FOR TRANSITIONS

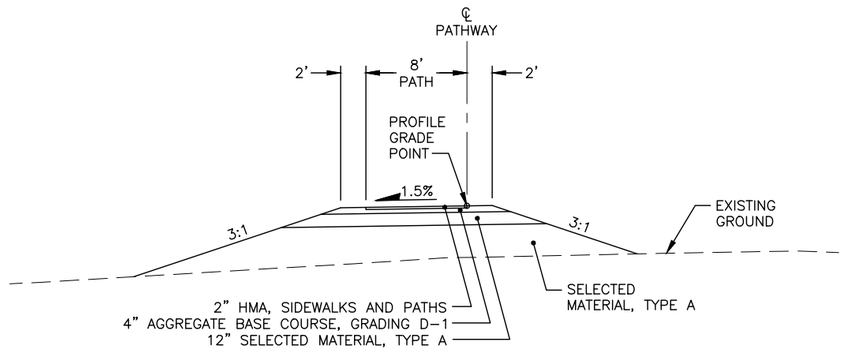
TYPICAL SECTIONS

NO.	DATE	REVISION

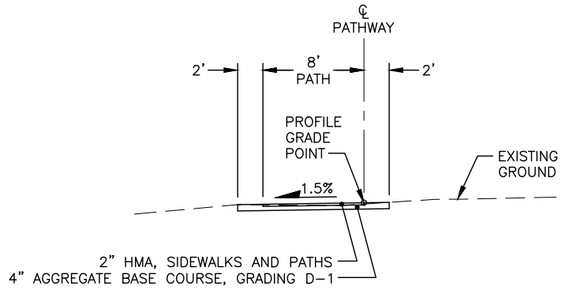
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	B12	B12



FARMERS LOOP RD/FAIRHILL RD
1000+50 TO 1005+20



FARMERS LOOP RD EXT
PATHWAY
1+29 TO 23+00



FARMERS LOOP RD EXT
PATHWAY
23+00 TO 48+50

TYPICAL SECTIONS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	C1	C2

ESTIMATE OF QUANTITIES

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
201.0009.0000	CLEARING AND GRUBBING	LS	ALL REQ'D
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	ALL REQ'D
202.0002.0000	REMOVAL OF PAVEMENT	SY	98,370
202.0004.0000	REMOVAL OF CULVERT PIPE	LF	788
202.0006.0000	REMOVAL OF MANHOLE	EACH	3
202.0009.0000	REMOVAL OF CURB AND GUTTER	LF	531
202.2022.0000	REMOVAL OF FENCE	LF	13,364
202.2029.0000	RESOLUTION OF CONFLICTS	CS	ALL REQ'D
203.0003.0000	UNCLASSIFIED EXCAVATION	CY	230,000
203.0006.0000	BORROW	TON	682,000
203.2008.0000	SPECIAL DITCH	LF	734
205.0006.0000	STRUCTURAL FILL	CY	2,400
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	30,000
401.0001.002B	HMA, TYPE II; CLASS B	TON	28,200
401.0004.5240	ASPHALT BINDER, GRADE PG 52-40	TON	1,560
401.0008.002B	HMA PRICE ADJUSTMENT, TYPE II; CLASS B	CS	ALL REQ'D
401.0009.0000	LONGITUDINAL JOINT DENSITY PRICE ADJUSTMENT	CS	ALL REQ'D
401.0010.0001	PAVEMENT SMOOTHNESS PRICE ADJUSTMENT, METHOD 1	CS	ALL REQ'D
401.0013.0000	JOB MIX DESIGN	EACH	1
401.0015.0000	ASPHALT MATERIAL PRICE ADJUSTMENT	CS	ALL REQ'D
401.2010.0000	HMA, SIDEWALKS AND PATHS	TON	800
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	TON	38.5
501.0001.0000	CLASS A CONCRETE	LS	ALL REQ'D
501.0007.0000	PRECAST CONCRETE MEMBER, 120'-6" DECKED BULB-TEE	EACH	32
501.0007.0000	PRECAST CONCRETE MEMBER, LAGGING SOLDIER PILE WALL	EACH	189
503.0001.0000	REINFORCING STEEL	LS	ALL REQ'D
503.0002.0000	EPOXY-COATED REINFORCING STEEL	LS	ALL REQ'D
505.0005.0000	FURNISH STRUCTURAL STEEL PIPE PILES, 2'-0" DIA. X 1/2"	LF	1,600
505.0005.0000	FURNISH STRUCTURAL STEEL PIPE PILES, 3'-0" DIA. X 3/4"	LF	900
505.0005.0001	FURNISH STRUCTURAL STEEL H-PILES, HP 14 X 117 SOLDIER PILE WALL	LF	730
505.0006.0000	DRIVE STRUCTURAL STEEL PIPE PILES, 2'-0" DIA. X 1/2"	EACH	32
505.0006.0000	DRIVE STRUCTURAL STEEL PIPE PILES, 3'-0" DIA. X 3/4"	EACH	9
505.0006.0001	DRIVE STRUCTURAL STEEL H-PILES, HP 14 X 117 SOLDIER PILE WALL	EACH	33
507.0002.0000	PEDESTRIAN RAILING	LF	1,022
507.0004.0000	CONCRETE BRIDGE BARRIER	LF	576
507.0004.0000	CONCRETE BRIDGE BARRIER, MEDIAN BARRIER	LF	288
507.0006.0000	CABLE SAFETY RAILING	LF	1,570
508.0001.0000	WATERPROOFING MEMBRANE, SPRAY-APPLIED	LS	ALL REQ'D
511.0001.0000	MECHANICALLY STABILIZED EARTH WALL	SF	47,700
602.0002.1509	STRUCTURAL PLATE PIPE-ARCH 15'-9" SPAN, 15'-1" RISE, 10 GAUGE	LF	216
602.2014.0000	HEADWALL/WINGWALL END TREATMENT	EACH	2
603.0001.0012	CSP 12 INCH	LF	24
603.0001.0018	CSP 18 INCH	LF	83
603.0001.0024	CSP 24 INCH	LF	1,097
603.0001.0030	CSP 30 INCH	LF	785
603.0001.0036	CSP 36 INCH	LF	594
603.0003.0012	END SECTION FOR CSP 12 INCH	EACH	2
603.0003.0018	END SECTION FOR CSP 18 INCH	EACH	2

ESTIMATE OF QUANTITIES

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
603.0003.0024	END SECTION FOR CSP 24 INCH	EACH	11
603.0003.0030	END SECTION FOR CSP 30 INCH	EACH	4
603.0003.0036	END SECTION FOR CSP 36 INCH	EACH	4
604.0001.0001	STORM SEWER MANHOLE, TYPE I	EACH	9
604.0001.0002	STORM SEWER MANHOLE, TYPE II	EACH	1
604.0005.000A	INLET, TYPE A	EACH	7
606.0001.0000	W-BEAM GUARDRAIL	LF	15,850
606.0006.0000	REMOVING AND DISPOSING OF GUARDRAIL	LF	1,707
606.0013.0000	PARALLEL GUARDRAIL TERMINAL	EACH	12
606.0016.0000	TRANSITION RAIL	EACH	11
606.2000.0000	BOLLARD	EACH	6
606.2007.0000	CRASH CUSHION	EACH	4
607.0003.0000	CHAIN LINK FENCE	LF	11,290
607.2003.0000	NOISE BARRIER	SF	31,500
608.0001.0006	CONCRETE SIDEWALK, 6 INCHES THICK	SY	540
608.0006.0000	CURB RAMP	EACH	12
608.2013.0005	CONCRETE SLABS, COLORED & PATTERN IMPRINTED, 6 INCHES THICK	SY	4,450
609.0002.0001	CURB AND GUTTER, TYPE 1	LF	5,850
610.0001.0000	DITCH LINING	CY	490
611.0001.0001	RIPRAP, CLASS I	CY	150
613.0002.0000	CULVERT MARKER POST	EACH	23
614.0001.0000	CONCRETE BARRIER	LF	662.5
615.0001.0000	STANDARD SIGN	SF	3,730
615.2017.0000	STANDARD OVERHEAD SIGN SUPPORT	EACH	3
618.0002.0000	SEEDING	LB	1,550
620.0001.0000	TOPSOIL	SY	114,804
631.0001.0002	GEOTEXTILE, DRAINAGE, CLASS 2	SY	975
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQ'D
641.0003.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LS	ALL REQ'D
641.0005.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CS	ALL REQ'D
641.0006.0000	WITHHOLDING	CS	ALL REQ'D
641.0007.0000	SWPPP MANAGER	LS	ALL REQ'D
642.0001.0000	CONSTRUCTION SURVEYING	LS	ALL REQ'D
642.0013.0000	THREE PERSON SURVEY PARTY	CS	ALL REQ'D

ESTIMATE OF QUANTITIES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	C2	C2

ESTIMATE OF QUANTITIES

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
643.0002.0000	TRAFFIC MAINTENANCE	LS	ALL REQ'D
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LS	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CS	ALL REQ'D
643.0025.0000	TRAFFIC CONTROL	CS	ALL REQ'D
643.0033.0000	DETOUR	LS	ALL REQ'D
644.0001.0000	FIELD OFFICE	LS	ALL REQ'D
644.0003.0000	CURING SHED	LS	ALL REQ'D
644.0006.0000	VEHICLE	LS	ALL REQ'D
644.0015.0000	NUCLEAR TESTING EQUIPMENT STORAGE SHED	EACH	1
645.0001.0000	TRAINING PROGRAM, 3 TRAINEES/APPRENTICES	LH	1,500
646.0001.0000	CPM SCHEDULING	LS	ALL REQ'D
660.0001.0000	TRAFFIC SIGNAL SYSTEM COMPLETE, STEESE–JO	LS	ALL REQ'D
660.0001.0000	TRAFFIC SIGNAL SYSTEM COMPLETE, TRAINOR GATE	LS	ALL REQ'D
660.0003.0000	HIGHWAY LIGHTING SYSTEM COMPLETE, STEESE	LS	ALL REQ'D
660.0007.0000	TEMPORARY SIGNAL SYSTEM COMPLETE, FARMERS LOOP	LS	ALL REQ'D
660.0007.0000	TEMPORARY SIGNAL SYSTEM COMPLETE, STEESE–JO	LS	ALL REQ'D
660.0012.0000	UNDERPASS LIGHTING SYSTEM COMPLETE, STEESE–JO	LS	ALL REQ'D
660.2002.0000	PEDESTRIAN LIGHTING	LS	ALL REQ'D
660.2003.0000	TRAFFIC SIGNAL SYSTEM MODIFICATIONS, FARMERS LOOP	LS	ALL REQ'D
660.2018.0000	TRAFFIC SYSTEM BY DIRECTIVE	CS	ALL REQ'D
660.2025.0000	PAN TILT ZOOM (PTZ) CAMERA	EACH	8
661.0002.0000	LOAD CENTER, TYPE 1A	EACH	3
661.0005.0000	MODIFY LOAD CENTER	EACH	2
662.2005.0000	FIBER OPTIC INTERCONNECT	LS	ALL REQ'D
663.2001.0000	ACTIVE ADVANCE WARNING FLASHER	EACH	2
669.2000.0000	TRAFFIC DATA – SITE V1–V5	LS	ALL REQ'D
669.2007.0000	AUTOMATIC VEHICLE CLASSIFICATION, SITE H1	LS	ALL REQ'D
670.2002.0000	MMA PAVEMENT MARKINGS, INLAID	LS	ALL REQ'D
670.2014.0000	MMA PAVEMENT MARKINGS, INLAID BY DIRECTIVE	CS	ALL REQ'D
682.2000.0000	VAC–TRUCK POTHOLE	CS	ALL REQ'D

ESTIMATING FACTORS

ITEM NO.	DESCRIPTION	UNIT
203.0006.0000	BORROW	2 TONS/CY
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D–1	148 LBS/CF
401.0001.002B	HMA, TYPE II, CLASS B	153 LBS/CF
401.0004.5240	ASPHALT BINDER, GRADE PG 52–40	5.5% OF 401.0001.002B
401.2010.0000	HMA, SIDEWALKS AND PATHS	153 LBS/CF
402.0001.STE1	STE–1 ASPHALT FOR TACK COAT	781.25 LBS/1000 SY

ESTIMATE OF QUANTITIES

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644–2000 CERT OF AUTH. NO. AECC569
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	D1	D6

201.0009.0000 CLEARING AND GRUBBING

SHEET	ALIGNMENT	STATION FROM	STATION TO	AREA (ACRES)	REMARKS
F2	NB	211+75.00	213+00.00	0.24	
F3	NB	213+00.00	227+00.00	2.92	
F4, F31–F34	NB	227+00.00	235+00.00	7.22	F4 AND ENTIRE DDI INCLUDING JOHANSEN
F5	NB	241+00.00	255+00.00	4.07	
F6	NB	255+00.00	266+00.00	2.66	
F7	NB	266+00.00	276+63.00	1.69	F7 AND THE INTERSECTION AT FARMERS LOOP AND STEESE
F44	NB	240+54.00	245+73.50	1.05	
F45	NB	245+45.50	248+68.00	1.23	
F46	NB	248+61.50	252+20.00	3.11	F46 AND ENTIRE DETOUR
F47	NB	251+95.50	256+37.50	0.27	
			TOTAL:	24.5	
			ROUNDED TOTAL:	25	

202.0001.0000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

SHEET	ALIGNMENT	STATION	OFFSET	EACH	REMARKS
F4, F33	NB	232+92.23	241.99 RT	1	LDS CHURCH BLDG
F4	NB	236+19.05	181.95 RT	1	WINTER STORAGE & SIGN
			TOTAL:	2	

202.0002.0000 REMOVAL OF PAVEMENT

SHEET	ALIGNMENT	STATION FROM	STATION TO	PLAN AREA (SY)	REMARKS
F2	NB	211+75.00	213+00.00	1,061	ROADWAY
F2	NB	211+75.00	212+98.00	97	PATHWAY
F3	NB	213+00.00	227+00.00	11,846	ROADWAY
F3	NB	212+98.00	227+01.00	1,050	PATHWAY
F4, F31–F33	NB	227+00.00	241+00.00	33,570	ROADWAY INCLUDES DDI AND JOHANSEN
F4, F31–F34	NB	227+01.00	240+98.00	2,030	PATHWAY INCLUDES DDI AND JOHANSEN
F5	NB	241+00.00	255+00.00	15,842	ROADWAY
F5, F47	NB	240+98.00	256+37.50	3,929	PATHWAY, INCLUDING PATHWAY THAT CONNECTS TO SHEET F47 AND EXTENDS NORTH
F6	NB	255+00.00	266+00.00	10,919	ROADWAY
F7	NB	266+00.00	276+63.00	17,982	ROADWAY
F7	NB	275+82.00	275+10.00	38	PORKCHOP AT STEESE AND FARMERS LOOP
			TOTAL:	98,364	
			ROUNDED TOTAL:	98,370	

202.0004.0000 REMOVAL OF CULVERT PIPE & 202.0006.0000 REMOVAL OF MANHOLE

ALIGNMENT	STATION	OFFSET	LENGTH (LF)	REMOVAL OF MANHOLE (EA)	REMARKS
NB	225+51	4.8 RT	74		
NB	234+66	84.4 RT	85		
NB	235+55	125 RT	45		
NB	235+76	160.4 LT	60		
NB	236+19	187.4 LT	32		
NB	238+33	2.9 RT	89		
NB	246+34	25.6 LT	182		
NB	252+73	384.3 LT	21		
NB	256+60	73.6 LT	109		
NB	274+54	149.3 LT	91		
NB	209+91.44	22.20 LT		1	
NB	225+51.96	35.53 LT		1	
NB	274+55.16	102.64 LT		1	
		TOTAL:	788	3	
		ROUNDED TOTAL:	788	3	

202.2009.0000 REMOVAL OF CURB AND GUTTER

SHEET	ALIGNMENT	BEGIN STATION	BEGIN OFFSET	END STATION	END OFFSET	LENGTH (LF)	REMARKS
F4	NB	235+32.19	0.81 RT	236+91.26	5.36 LT	218.88	
F31	EB	301+93.44	44.46 LT	303+52.54	50.84 LT	159.76	
F31	EB	302+00.00	17.58 LT	303+51.64	19.10 LT	151.89	
					TOTAL:	530.53	
					ROUNDED TOTAL:	531	

SUMMARY TABLES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	D2	D6

202.2022.0000 REMOVAL OF FENCE

SHEET	ALIGNMENT	BEGIN		END		LENGTH (FT)	REMARKS
		STATION	OFFSET	STATION	OFFSET		
F1–F4	NB	202+44	86.82 RT	234+40	121.99 RT	3,268	
F3–F4	NB	227+96	131.51 LT	233+16	174.83 LT	527	
F4	NB	230+52.5	71.44 RT	230+54.9	158.92 LT	87.5	
F31–F32	NB	233+81	445.07 LT	234+32	132.89 LT	324	
F32–F33	NB	233+97	145.03 RT	233+90	328.34 RT	330	
F33	NB	233+73	378.05 RT	234+17	378.45 RT	102	
F4–F7, F31–F32	NB	236+10	774.94 LT	273+64	149.84 LT	4,451	
F4–F6	NB	235+80	71.51 RT	262+30	96.12 RT	2,627	
F4–F5, F32–F33	NB	234+83	626.04 RT	246+94	233.48 RT	1,647	
					TOTAL:	13,363.5	
					ROUNDED TOTAL:	13,364	

203.2008.0000 SPECIAL DITCH

SHEET	ALIGNMENT	BEGIN		END		LENGTH (LF)	REMARKS
		STATION	OFFSET	STATION	OFFSET		
F4	NB	227+45	59.09 RT	232+21	244.48 RT	592	
F33	NB	233+81	367.97 RT	234+04	506.70 RT	142	
					TOTAL:	734	

507.0002.0000 PEDESTRIAN RAILING

SHEET	ALIGNMENT	BEGIN		END		LENGTH (LF)	REMARKS
		STATION	OFFSET	STATION	OFFSET		
F3–F4	NB	225+70.05	117.07 LT	234+03.42	235.11 LT	822.31	
F31–F32	EB	305+32.17	98.23 RT	307+16.03	66.04 RT	198.79	
					TOTAL:	1021.1	
					ROUNDED TOTAL:	1022	

SUMMARY TABLES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	D3	D6

606 ITEMS – GUARDRAIL SUMMARY

SHEET	ALIGNMENT	BEGIN		END		606.0001.0000		606.0006.0000	606.0013.0000	606.0016.0000	606.2007.0000	REMARKS
		STATION	OFFSET	STATION	OFFSET	W–BEAM GUARDRAIL (LF)	DOWNSTREAM END ANCHOR	REMOVING AND DISPOSING OF GUARDRAIL (LF)	PARALLEL GUARDRAIL TERMINAL (EA)	TRANSITION RAIL (EA)	CRASH CUSHION (EA)	
F5–F7	NB	249+44.30	15.50 RT	266+54.51	8.07 LT			1,706.48				
F2	NB	206+11.87	75.95 LT	207+99.35	77.40 RT	87.5	1					CASE 5
F2	NB	207+99.35	77.40 RT	207+49.35	78.22 LT				1			
F3	NB	214+33.10	34.95 RT	214+83.00	35.00 RT				1			
F3–F4	NB	214+83.00	35.00 RT	231+30.76	157.73 RT	1,712.5	1					CASE 5
F4	NB	288+47.98	36.53 RT	288+72.42	35.00 RT					1		
F4	NB	288+72.42	35.00 RT	233+03.34	35.00 RT	437.5	1					CASE 5
F4	NB	233+03.34	35.00 RT	233+28.32	34.00 RT					1		
F4	NB	288+47.82	37.92 RT	288+70.99	45.77 RT					1		
F4	NB	288+70.99	45.77 RT	230+41.93	100.31 RT	187.5	1					CASE 5
F3	NB	220+26.97	5.00 LT	220+52.04	5.02 LT				1			
F3–F4	NB	220+52.04	5.02 LT	230+54.96	5.00 LT	975						CASE 5
F4	NB	230+54.96	5.00 LT	230+80.00	4.00 LT					1		
F3–F4	NB	222+45.30	31.58 LT	230+55.09	9.04 LT	800	1					CASE 5
F4	NB	230+55.09	6.04 LT	230+80.00	6.00 LT					1		
F4	NB	227+02.36	60.51 LT	233+03.34	45.00 LT	587.5	1					CASE 5
F4	NB	233+03.34	45.00 LT	233+28.32	44.00 LT					1		
F4	NB	226+99.56	63.77 LT	232+43.00	85.93 LT	525	1					CASE 5
F4	NB	232+43.00	85.93 LT	232+93.03	83.28 LT				1			
F4	NB	228+38.97	106.09 LT	233+92.33	193.08 LT	550	1					CASE 5
F4	NB	233+92.33	193.08 LT	234+22.15	233.12 LT				1			
F31	EB	300+08.05	31.94 RT	300+58.03	33.25 RT				1			
F31	EB	300+58.03	33.25 RT	302+20.47	36.67 RT	162.5	1					CASE 5
F31	EB	301+68.59	38.67 LT	303+68.42	51.40 LT	200						CASE 5
F31	EB	303+68.42	51.40 LT	304+19.42	52.75 LT				1			
F4	NB	236+18.32	34.00 RT	236+43.34	34.57 RT				1			
F4–F5	NB	236+43.34	34.57 RT	244+18.91	35.16 RT	775						CASE 5
F4	NB	236+18.32	44.00 LT	236+43.27	45.00 LT					1		
F4–F5	NB	236+43.27	45.00 LT	245+05.31	59.09 LT	862.5						CASE 5
F5	NB	245+05.31	59.09 LT	245+30.42	59.33 LT					1		
F4	NB	236+81.06	82.20 RT	237+31.66	82.70 RT				1			
F4–F5	NB	237+31.66	82.70 RT	244+18.20	40.81 RT	687.5	1					CASE 5
F4–F5	NB	236+98.03	137.64 LT	245+05.67	64.37 LT	812.5	1					CASE 5
F5	NB	245+05.67	64.37 LT	245+30.40	60.73 LT					1		
F5	NB	243+41.20	87.59 RT	243+90.94	82.55 RT				1			
F5	NB	243+90.94	82.55 RT	249+65.26	59.00 RT	575						CASE 5
F5	NB	244+61.58	107.15 LT	250+48.19	80.57 LT	587.5						CASE 5
F5	NB	250+48.19	80.57 LT	250+98.18	81.44 LT				1			
F4	NB	238+68.15	6.97 LT	238+93.09	5.00 LT					1		
F4–F6	NB	238+93.08	5.00 LT	264+66.09	5.00 LT	2,575	1					CASE 5
F4	NB	238+68.12	8.96 LT	238+93.11	8.40 LT					1		
F4–F7	NB	238+93.11	8.40 LT	266+25.19	37.79 LT	2,750						CASE 5
F7	NB	266+25.19	37.79 LT	266+74.44	37.35 LT				1			

SUMMARY TABLES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	D4	D6

606 ITEMS – GUARDRAIL SUMMARY

SHEET	ALIGNMENT	BEGIN		END		606.0001.0000		606.0006.0000	606.0013.0000	606.0016.0000	606.2007.0000	REMARKS
		STATION	OFFSET	STATION	OFFSET	W-BEAM GUARDRAIL (LF)	DOWNSTREAM END ANCHOR	REMOVING AND DISPOSING OF GUARDRAIL (LF)	PARALLEL GUARDRAIL TERMINAL (EA)	TRANSITION RAIL (EA)	CRASH CUSHION (EA)	
F4	NB	228+15.76	33.65 RT	228+46.52	37.06 RT						1	
F5	NB	245+31.83	60.06 LT	245+63.40	60.61 LT						1	
F31	EB	301+63.56	26.41 LT	301+95.13	27.25 LT						1	
F32	EB	309+09.53	25.84 RT	309+31.41	27.21 RT						1	
					TOTAL:						4	
					ROUNDED TOTAL:	15,850	12	1,707	12	11	4	

607.0003.0000 CHAIN LINK FENCE

SHEET	ALIGNMENT	BEGIN		END		LENGTH (LF)	REMARKS
		STATION	OFFSET	STATION	OFFSET		
F2–F3	NB	211+74.76	113.20 LT	225+70.05	117.07 LT	1,325.47	
	NB	230+56.37	158.85 RT	233+72.74	519.68 RT	689.06	
F33, F4–F5	NB	234+94.63	328.23 RT	246+92.45	232.43 RT	1,385.73	
F5	NB	244+57.91	138.20 RT	245+03.50	105.12 RT	56.32	
F4–F5	NB	236+03.73	267.63 LT	244+87.27	149.97 LT	916.75	
F5–F7	NB	245+60.01	93.50 RT	275+17.86	126.48 RT	2,904.55	
F5–F7	NB	245+58.10	145.34 LT	274+76.82	248.32 LT	3,168.24	
F31–F32	EB	301+93.77	110.92 LT	307+04.92	112.32 LT	500.11	
F31–F32	EB	305+78.13	158.21 RT	307+37.31	84.42 RT	189.83	
F33	EB	314+99.23	47.81 LT	316+23.55	63.37 LT	153.80	
					TOTAL:	11,289.84	
					ROUNDED TOTAL:	11,290	

608.0001.0006 CONCRETE SIDEWALK, 6 INCHES THICK

SHEET	ALIGNMENT	BEGIN		END		AREA (SY)	REMARKS
		STATION	OFFSET	STATION	OFFSET		
F32	EB	307+34.51	59.08 LT	308+42.12	39.01 LT	125.25	NORTHWEST ISLAND
F32	EB	307+62.05	36.91 RT	307+95.17	56.57 RT	44.18	SOUTHWEST ISLAND
F32	EB	308+80.16	28.87 RT	311+36.74	33.57 RT	268.91	CENTER ISLAND
F32–F33	EB	311+72.04	77.91 RT	312+45.61	37.14 RT	94.00	SOUTHEAST ISLAND
					TOTAL:	532.34	
					ROUNDED TOTAL:	540	

SUMMARY TABLES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	D5	D6

608.0006.0000 CURB RAMP

SHEET	ALIGNMENT	STATION	OFFSET	EACH	REMARKS
F45	FLP	240+36.08	1547.91 LT	1	
F32	EB	307+14.12	109.07 LT	1	
F32	EB	307+35.10	61.32 RT	1	
F32	EB	307+30.92	67.88 LT	1	NORTHWEST ISLAND
F32	EB	308+51.58	24.50 LT	1	
F32	EB	307+49.37	37.24 RT	1	SOUTHWEST ISLAND
F32	EB	308+08.28	52.15 RT	1	
F32	EB	308+68.24	20.00 RT	1	CENTER ISLAND
F32	EB	308+65.43	32.92 RT	1	
F32	EB	311+46.57	42.65 RT	1	
F32	EB	311+62.21	68.83 RT	1	SOUTHEAST ISLAND
F33	EB	312+61.91	36.69 RT	1	
			TOTAL:	12	

608.2013.0005 CONCRETE SLABS, COLORED & PATTERN IMPRINTED, 6 INCHES THICK

SHEET	ALIGNMENT	BEGIN		END		AREA (SY)	REMARKS
		STATION	OFFSET	STATION	OFFSET		
F4	EB	307+16.30	60.33 LT	308+67.91	27.07 LT	741.92	NORTHWEST ISLAND
F4	EB	307+37.16	27.34 RT	309+03.85	98.25 RT	635.67	SOUTHWEST ISLAND
F4	EB	308+52.20	22.81 RT	311+74.39	22.79 RT	867.22	CENTER ISLAND
F4	EB	310+44.96	13.08 LT	312+46.84	25.77 LT	708.58	NORTHEAST ISLAND
F4	EB	311+49.56	79.21 RT	312+45.61	37.14 RT	635.42	SOUTHEAST ISLAND
F4	EB	312+90.32	8.83 LT	314+84.39	8.90 LT	434.91	EAST ISLAND
F4	EB	301+93.66	41.60 LT	306+81.17	23.61 LT	213.6	CURB BACKING
F4	EB	308+56.62	191.98 LT	310+46.81	162.61 LT	94.00	CURB BACKING
F4	EB	308+87.88	193.37 RT	311+99.37	191.75 RT	81.28	CURB BACKING
					TOTAL:	4,412.5	
					ROUNDED TOTAL:	4,450	

609.0002.0001 CURB AND GUTTER, TYPE I

SHEET	ALIGNMENT	BEGIN		END		LENGTH (LF)	REMARKS
		STATION	OFFSET	STATION	OFFSET		
F3–F4	NB	223+62.49	121.96 LT	234+06.40	252.42 LT	1,039	GUTTER ONLY
F7	NB	275+81.42	79.39 LT	276+09.80	69.62 LT	88	PORKCHOP AT STEESE AND FARMERS LOOP
F31–F32	EB	301+94.21	31.49 LT	306+85.08	21.72 LT	975.6	WESTERN ISLAND
F4–F32	EB	308+85.86	194.84 RT	312+01.57	192.94 RT	372.9	
F4–F32	EB	307+12.50	60.81 LT	308+71.49	25.61 LT	422.2	NORTHWEST ISLAND
F4–F32	EB	302+32.97	26.34 RT	309+07.55	97.72 RT	499	SOUTHWEST ISLAND
F4–F32	EB	308+55.14	194.00 LT	310+47.91	164.38 LT	430.1	
F4–F32	EB	308+48.08	21.75 RT	311+78.44	21.67 RT	646.6	CENTER ISLAND
F4, F32–F33	EB	310+41.52	11.66 RT	312+50.95	27.06 LT	494.9	NORTHEAST ISLAND
F4, F32–F33	EB	311+45.89	79.52 RT	312+69.18	25.30 RT	400.7	SOUTHEAST ISLAND
F33	EB	312+86.01	7.78 LT	314+88.77	8.09 LT	395.3	EASTERN ISLAND
F44	NB	240+27.09	1585.30 LT	240+72.20	1534.67 LT	79.1	
					TOTAL:	5,843.4	
					ROUNDED TOTAL:	5,850	

SUMMARY TABLES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	D6	D6

610.0001.0000 DITCH LINING

SHEET	ALIGNMENT	BEGIN		END		AREA (SF)	VOLUME (CY)	REMARKS
		STATION	OFFSET	STATION	OFFSET			
F17	NB	232+27.28	RT	233+42.85	RT	8774.16	487.45	DRAINAGE BASIN
						TOTAL:	487.45	
						ROUNDED TOTAL:	490	

611.0001.0001 RIPRAP, CLASS I

SHEET	ALIGNMENT	LOCATION		QUANTITY (CY)	REMARKS
		STATION	OFFSET		
F3	NB	222+40	45' RT	6	DOWN DRAIN
F4	NB	229+15	65' LT	7	DOWN DRAIN
F4	NB	231+05	170' RT	19	DOWN DRAIN
F4	NB	233+10	65' RT	28	DOWN DRAIN
F5	NB	248+70	120' LT	26	DOWN DRAIN
F6	NB	256+60	125' LT	23	DOWN DRAIN
F17	NB	232+45	250' RT	23	DOWN DRAIN
F17	NB	233+10	275' RT	11	DOWN DRAIN
F33	EB	313+15	85' RT	7	DOWN DRAIN
TOTAL				150	
ROUNDED TOTAL				150	

614.0001.0000 CONCRETE BARRIER

SHEET	ALIGNMENT	BEGIN		END		LENGTH (FT)	REMARKS
		STATION	OFFSET	STATION	OFFSET		
F4	NB	230+80	5.00 LT	233+28.32	5.00 LT	248.11	
F4	NB	236+18.32	5.00 LT	238+68.14	7.96 LT	249.93	
F33	EB	313+03.89	65.54 LT	314+98.40	45.89 LT	161.75	
					TOTAL:	659.79	
					ROUNDED TOTAL:	662.5	

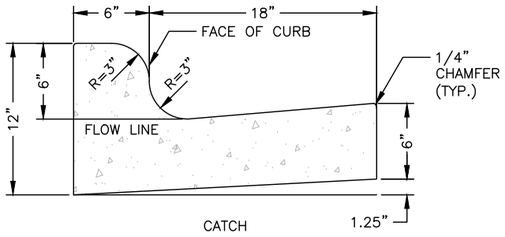
631.0001.0002 GEOTEXTILE, DRAINAGE, CLASS 2

SHEET	ALIGNMENT	BEGIN		END		AREA (SY)	REMARKS
		STATION	OFFSET	STATION	OFFSET		
F17	NB	232+27.28	307.31 RT	233+42.85	319.70 RT	974.9	DRAINAGE BASIN
					TOTAL:	974.9	
					ROUNDED TOTAL:	975	

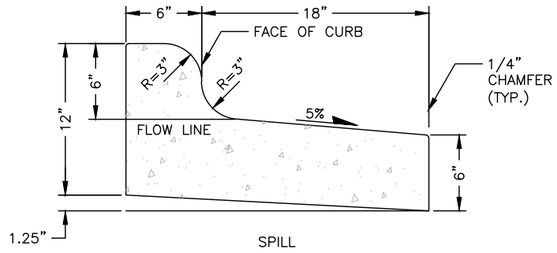
SUMMARY TABLES

NO.	DATE	REVISION

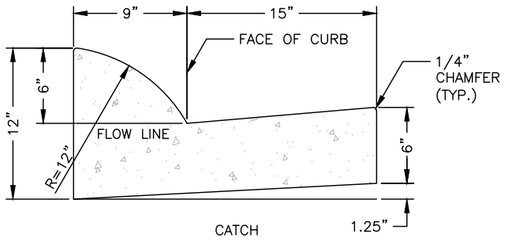
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E1	E25



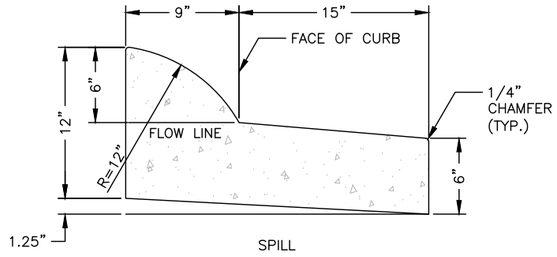
STANDARD CURB & GUTTER



STANDARD CURB & GUTTER



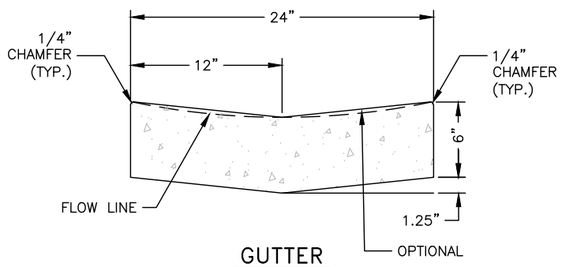
EXPRESSWAY CURB & GUTTER



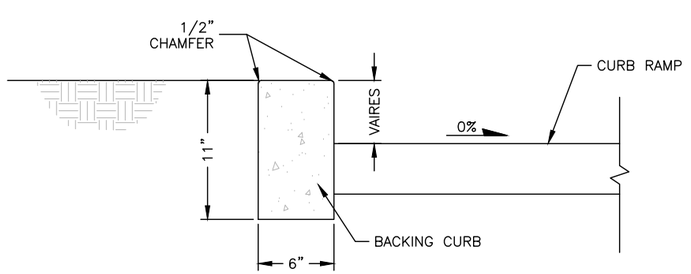
EXPRESSWAY CURB & GUTTER

NOTES:

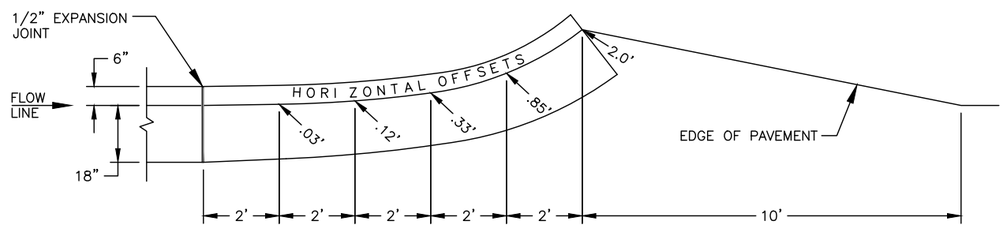
1. USE THE CURB RAMP CURB & GUTTER FOR ALL CURB RAMPS.
2. CONSTRUCT ALL CURB RAMPS WITH 6" CONCRETE THICKNESS.
3. USE THE TYPE OF CURB AND GUTTER SHOWN ON THE PLANS.
4. CONSTRUCT RAMP RUNS AND LANDINGS OF CONCRETE, REGARDLESS OF WHETHER THE SIDEWALK IS ASPHALT OR CONCRETE.
5. CONSTRUCT RAMP SLOPES AT A 7.7% NOMINAL GRADE, OR FLATTER. RAMP SLOPES MAY BE INCREASED TO A MAXIMUM OF 8.3% WHEN SITE CONDITIONS WARRANT IT. RAMP LENGTHS SHOULD BE INCREASED TO KEEP GRADES UNDER THE 8.3% MAXIMUM, BUT ARE NOT REQUIRED TO EXCEED 15.0 FEET. THE RESULTING RAMP GRADE AT A 15.0 FOOT RAMP LENGTH IS ACCEPTABLE EVEN IF IT EXCEEDS 8.3%.
6. CONSTRUCT FLARE SLOPES AT 8.3% (MEASURED PARALLEL TO THE CURB LINE) OR FLATTER, SIDEWALK CROSS SLOPES AT 1.5% NOMINAL (1.0% MIN. AND 2.0% MAX), AND ADA CURB AND GUTTER PAN SLOPES AT 4.7% NOMINAL. CONSTRUCT GRADE BREAKS PERPENDICULAR TO RAMP RUNS.
7. DO NOT CONSTRUCT FLARE SLOPES STEEPER THAN 10.0%, SIDEWALK CROSS SLOPES STEEPER THAN 2.0% AND ADA CURB AND GUTTER GUTTER PAN SLOPES STEEPER THAN 5.0%. THESE ARE THE STEEPEST SLOPES ALLOWED UNDER THE 2006 ADA STANDARDS FOR TRANSPORTATION FACILITIES.
8. PROVIDE A COARSE BROOMED FINISH ON RAMP RUNS PERPENDICULAR TO THE RAMP SLOPE.
9. WHEN APPROVED BY THE ENGINEER, CURB RETURNS MAY BE REPLACED WITH FLARES AT LOCATIONS WHERE ACCESS TO THE SIDE OF A RAMP RUN IS FREE OF POLES, UTILITY BOXES, OTHER OBSTRUCTIONS, OR NON-ACCESSIBLE SURFACES SUCH AS A DIRT PLANTER STRIPS. SEE STANDARD PLAN I-22 FOR FLARE DETAILS.
10. INSTALL 24" WIDE DETECTABLE WARNING TITLES FOR THE FULL WIDTH OF THE RAMP. PROVIDE TILES WITH TRUNCATED DOMES MEETING SECTION 705.1 OF THE 2006 ADA STANDARDS FOR TRANSPORTATION FACILITIES. ALIGN TRUNCATED DOME PATTERN IN THE PREDOMINANT DIRECTION OF WHEELCHAIR TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
11. MAXIMUM CROSS SLOPE ON UPPER LANDINGS, MEASURED IN ANY DIRECTION, IS 2.0%. MAXIMUM CROSS SLOPE ON RAMPS IS 2.0% MEASURED PERPENDICULAR TO THE RAMP RUN.



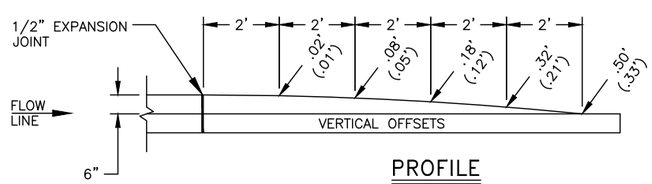
GUTTER



BACKING CURB



PLAN



PROFILE

CURB & GUTTER TERMINATION TRANSITIONS

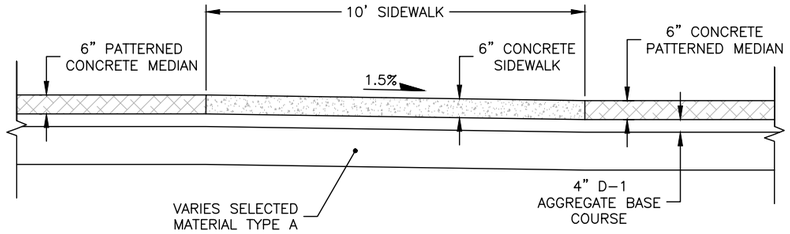
TERMINATION NOTE:

1. NUMBERS IN PARENTHESIS ARE FOR 4 INCH MOUNTABLE AND LOW PROFILE CURB & GUTTER.

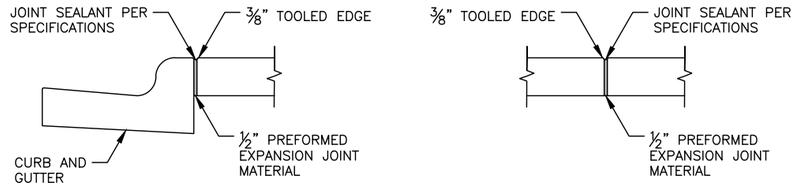
CURB & GUTTER DETAILS

NO.	DATE	REVISION

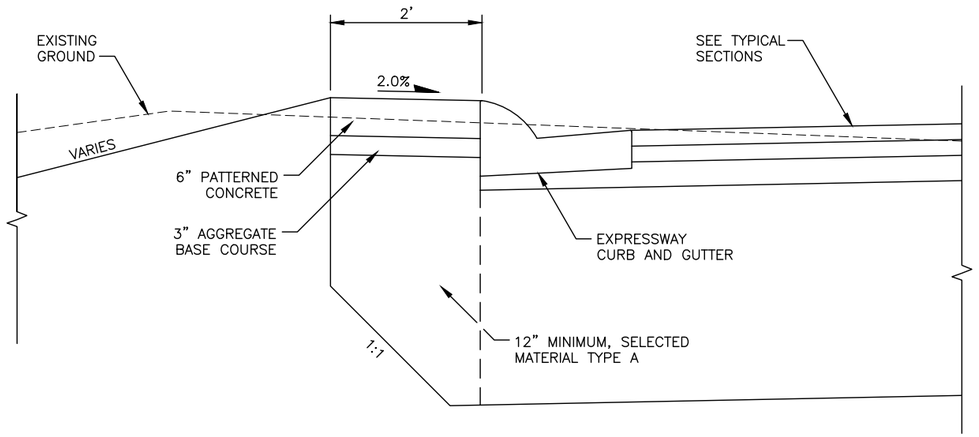
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E2	E25



MEDIAN SIDEWALK DETAIL



EXPANSION JOINT DETAIL

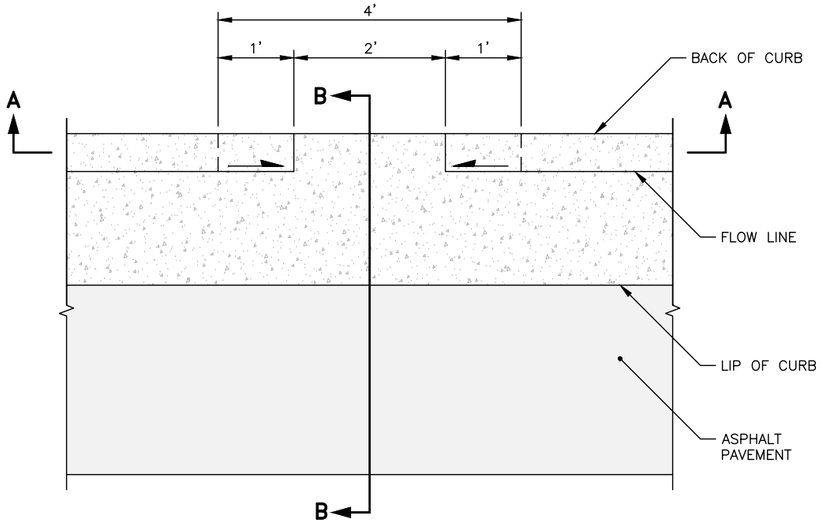


CURB BACKING DETAIL

SIDEWALK AND BACKING CURB DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E3	E25



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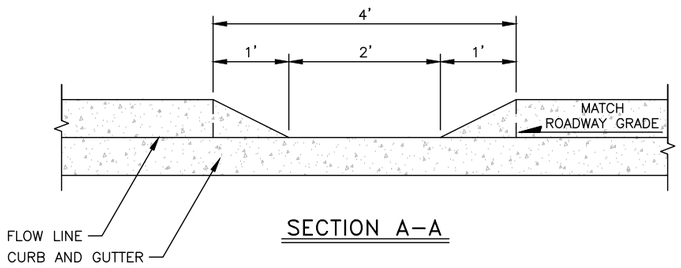
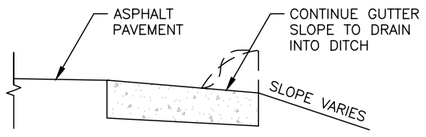


SECTION A–A



SECTION B–B

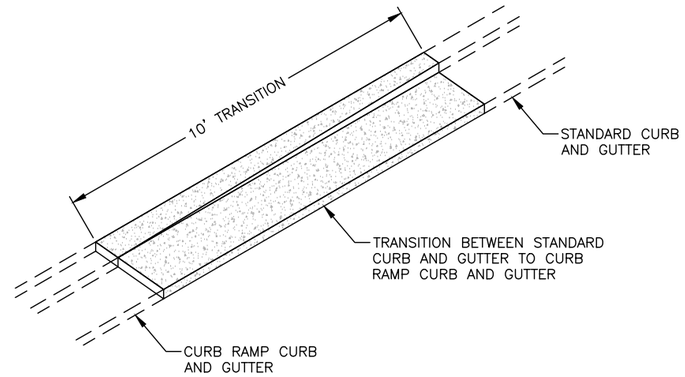
CURB DRAIN DETAIL

CURB DRAIN NOTES:

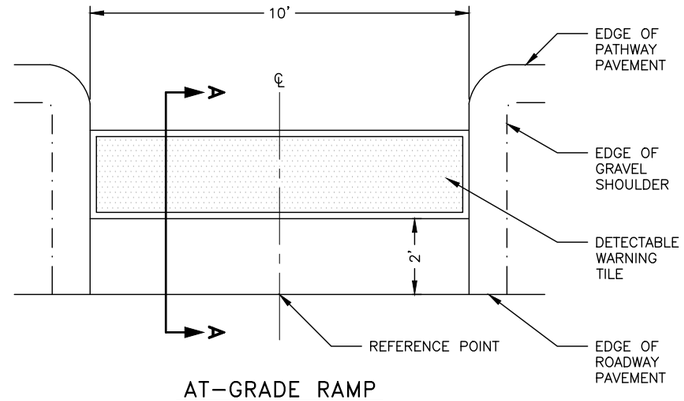
1. CURB DRAINS SHALL BE ADJUSTED AS NEEDED BY THE ENGINEER.
2. SEE F SHEETS FOR INSTALLATION LOCATIONS.

CURB RAMP NOTES:

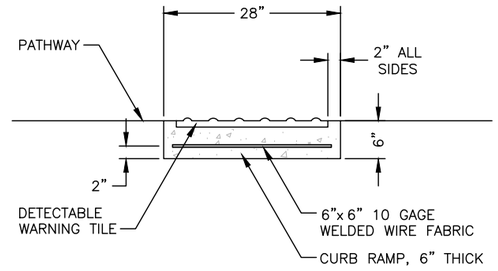
1. CONSTRUCT TERMINAL TRANSITIONS IN ACCORDANCE WITH STANDARD PLAN I–20.20.
2. CONSTRUCT PARALLEL CURB RAMPS IN ACCORDANCE WITH STANDARD PLAN I–21.12.
3. CONSTRUCT PERPENDICULAR CURB RAMPS IN ACCORDANCE WITH THE STANDARD PLAN I–22.11.
4. CONCRETE FOR CURB RAMPS SHALL BE 6" THICK.
5. CONSTRUCT RAMP SLOPES AT THE NOMINAL 7.7% GRADE, OR FLATTER. TRANSITION BETWEEN RAMP SLOPE AND LANDING SHALL BE SMOOTH AND WITHOUT ABRUPT CHANGE.
6. CONCRETE RAMP RUNS AND LANDINGS TO BE CONSTRUCTED WITH CONCRETE, REGARDLESS OF WHETHER THE SIDEWALK IS ASPHALT OR CONCRETE.
7. IN TRANSITION REGIONS, DUMMY JOINTS SHALL BE MADE ON THE SURFACE OF THE NEW SIDEWALK TO BEST MATCH THE SURROUNDING SIDEWALK AS APPROVED BY THE ENGINEER.
8. PROVIDE A COARSE BROOMED FINISH RUNNING PERPENDICULAR TO THE CURB ON RAMP RUNS AND UPPER LANDINGS AND PARALLEL TO THE CURB ON LOWER LANDINGS.
9. FURNISH AND INSTALL DETECTABLE WARNING TILES THAT CONFORM TO THOSE DETAILED IN STANDARD PLAN I–21.12. DETECTABLE WARNING TILES SHALL BE PLACED TO ALLOW 2" OF CONCRETE BETWEEN EDGE OF TILE AND THE CLOSEST CONCRETE JOINT.
10. WHEN SAWCUTTING EXISTING SIDEWALK, THE CONTRACTOR SHALL ENSURE THAT NO JUNCTION BOX, UTILITY VAULT, OR CONDUIT IS DAMAGED. ANY DAMAGE INCURRED DURING SIDEWALK REMOVAL OR INSTALLATION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.



STANDARD C&G TO CURB RAMP C&G TRANSITION DETAIL



AT–GRADE RAMP



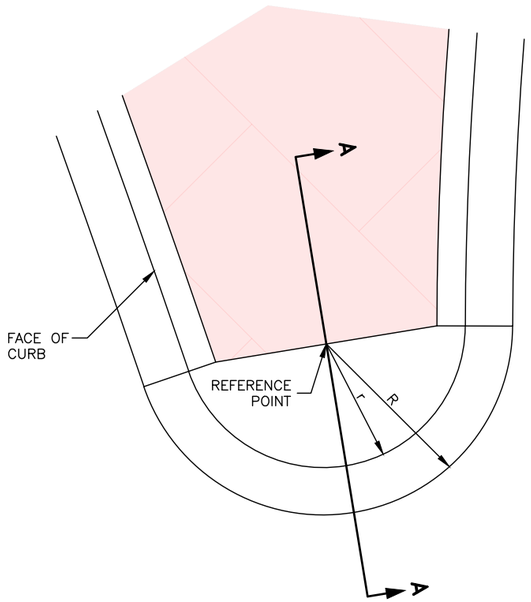
SECTION A–A

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

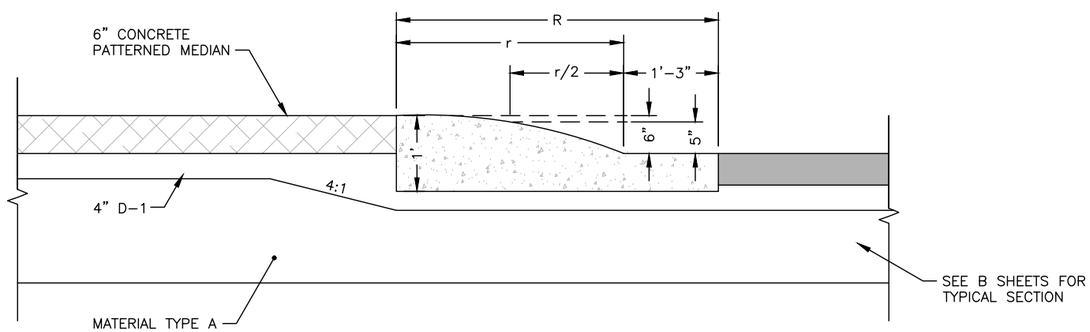
CURB RAMP DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E4	E25



PLAN



SECTION A–A

MEDIAN NOSE DETAIL

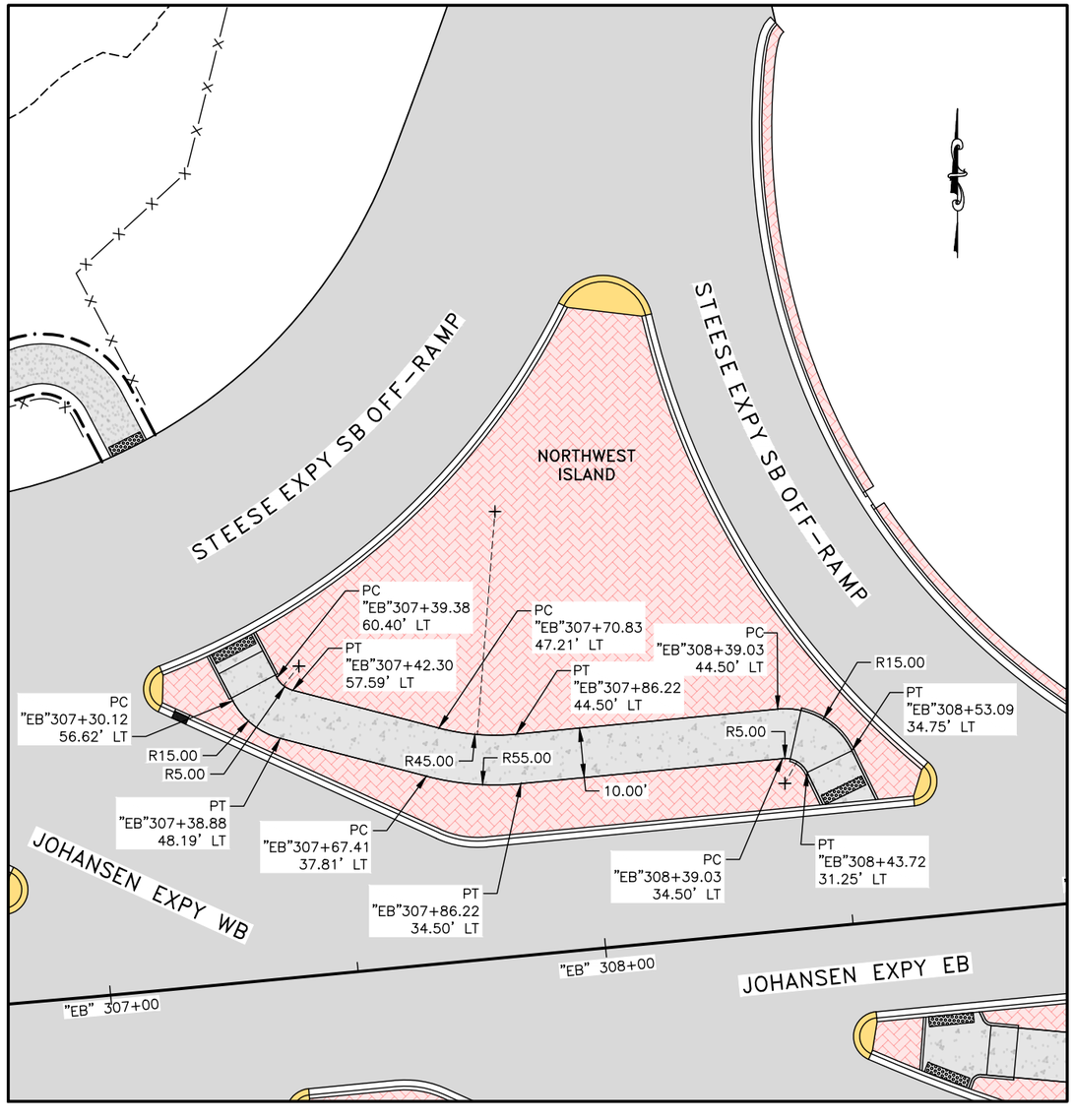
MEDIAN NOSE NOTES:

1. PAINT ISLAND NOSE AS DIRECTED IN THE SIGNING AND STRIPING PLANS.
2. SEE G SHEETS FOR R DIMENSIONS.

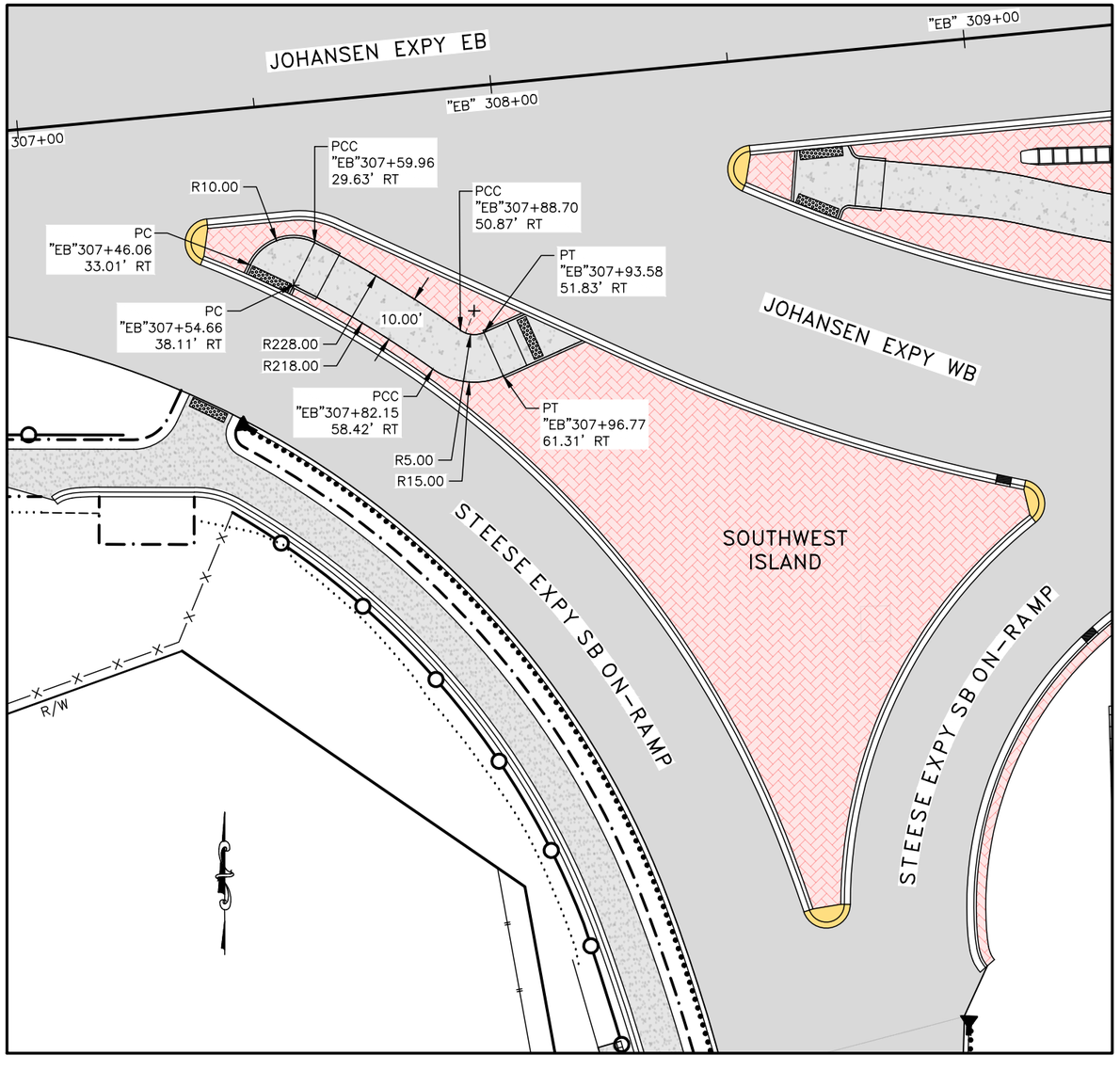
MEDIAN NOSE DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E5	E25



NORTHWEST ISLAND DETAIL



SOUTHWEST ISLAND DETAIL

NOTE:
SEE CURB RAMP DETAILS.

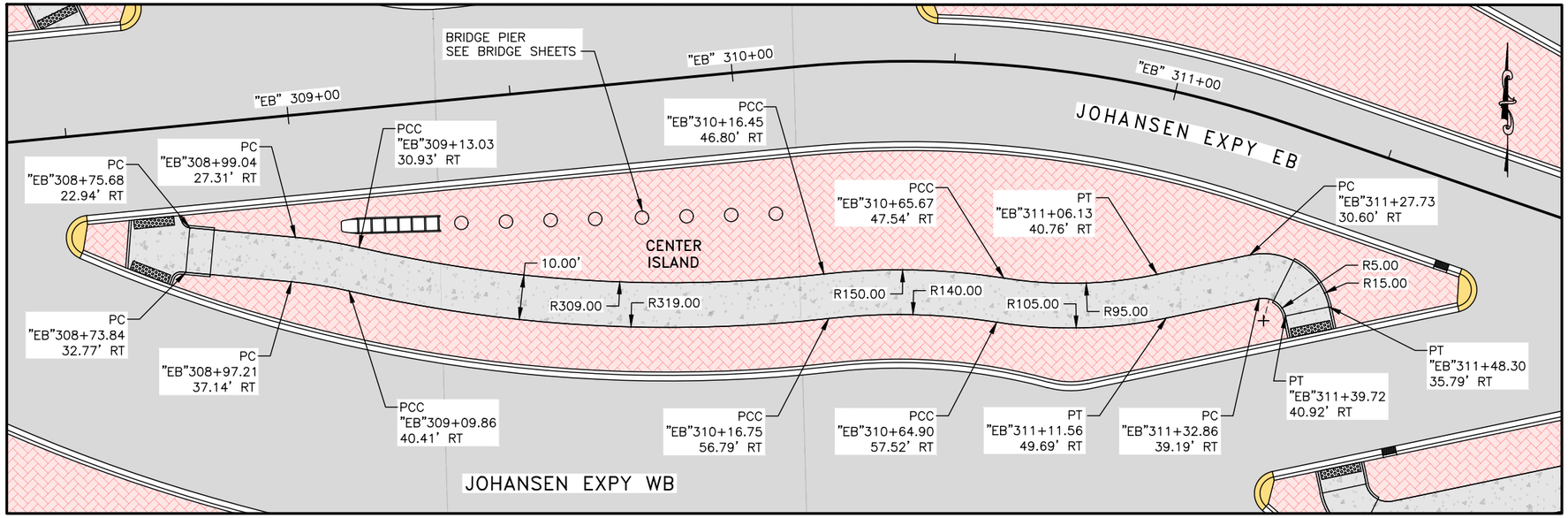
MEDIAN DETAILS

STATE OF ALASKA 49TH
REGISTERED PROFESSIONAL ENGINEER

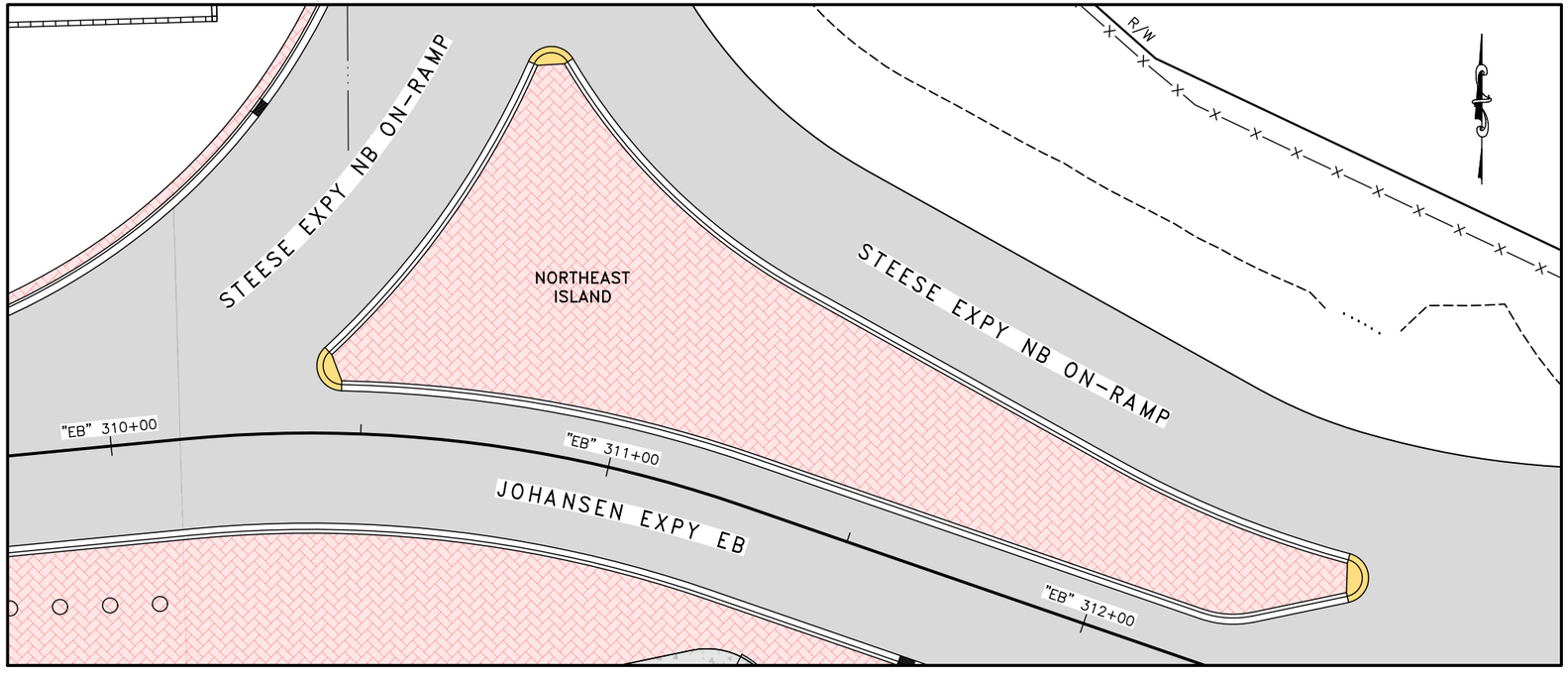
PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\103180331\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_E_Detail_Medians-E5 Thu, Jun/01/23 09:09AM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E6	E25



CENTER ISLAND DETAIL



NORTHEAST ISLAND DETAIL

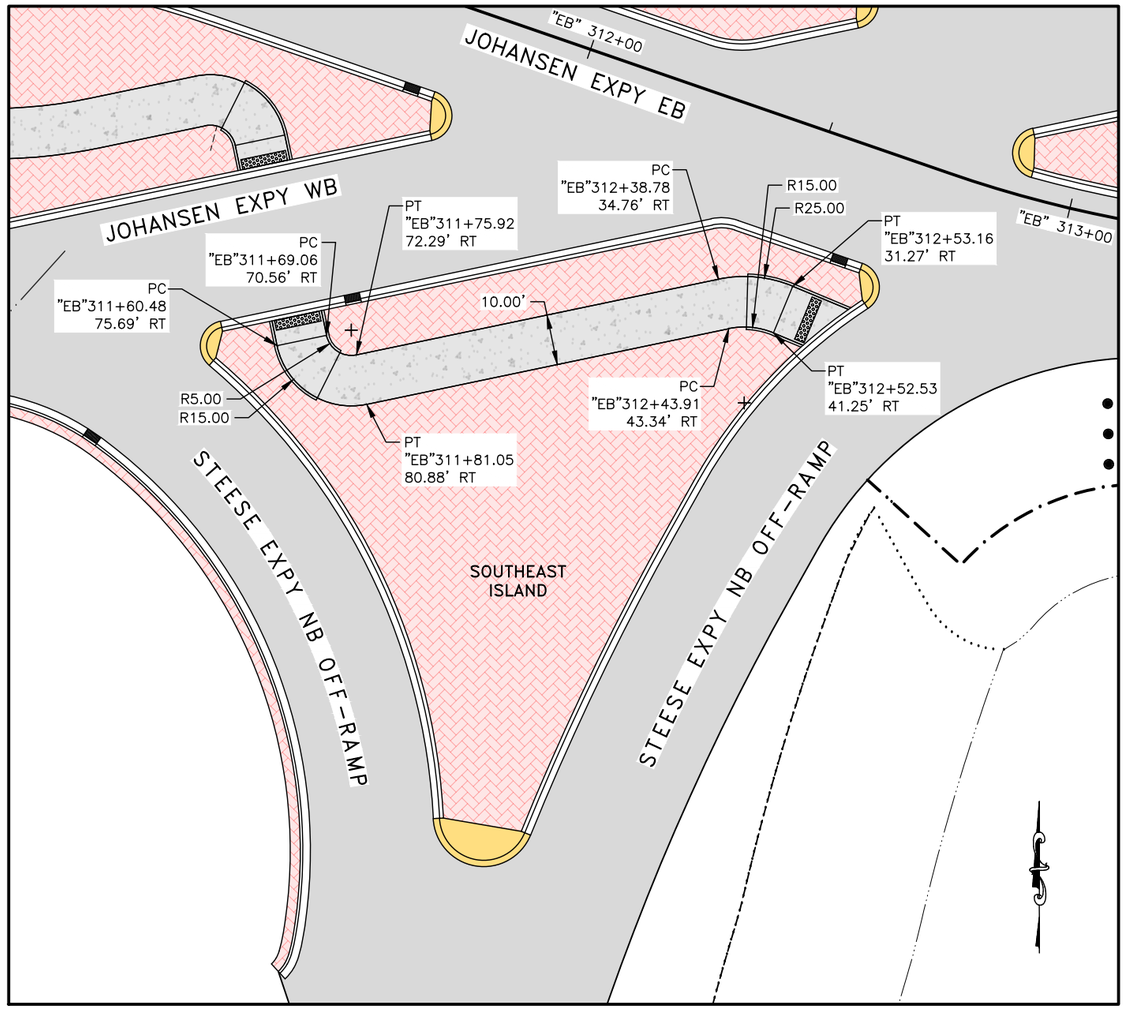
NOTE:
SEE CURB RAMP DETAILS

STATE OF ALASKA
49TH
REGISTERED PROFESSIONAL ENGINEER

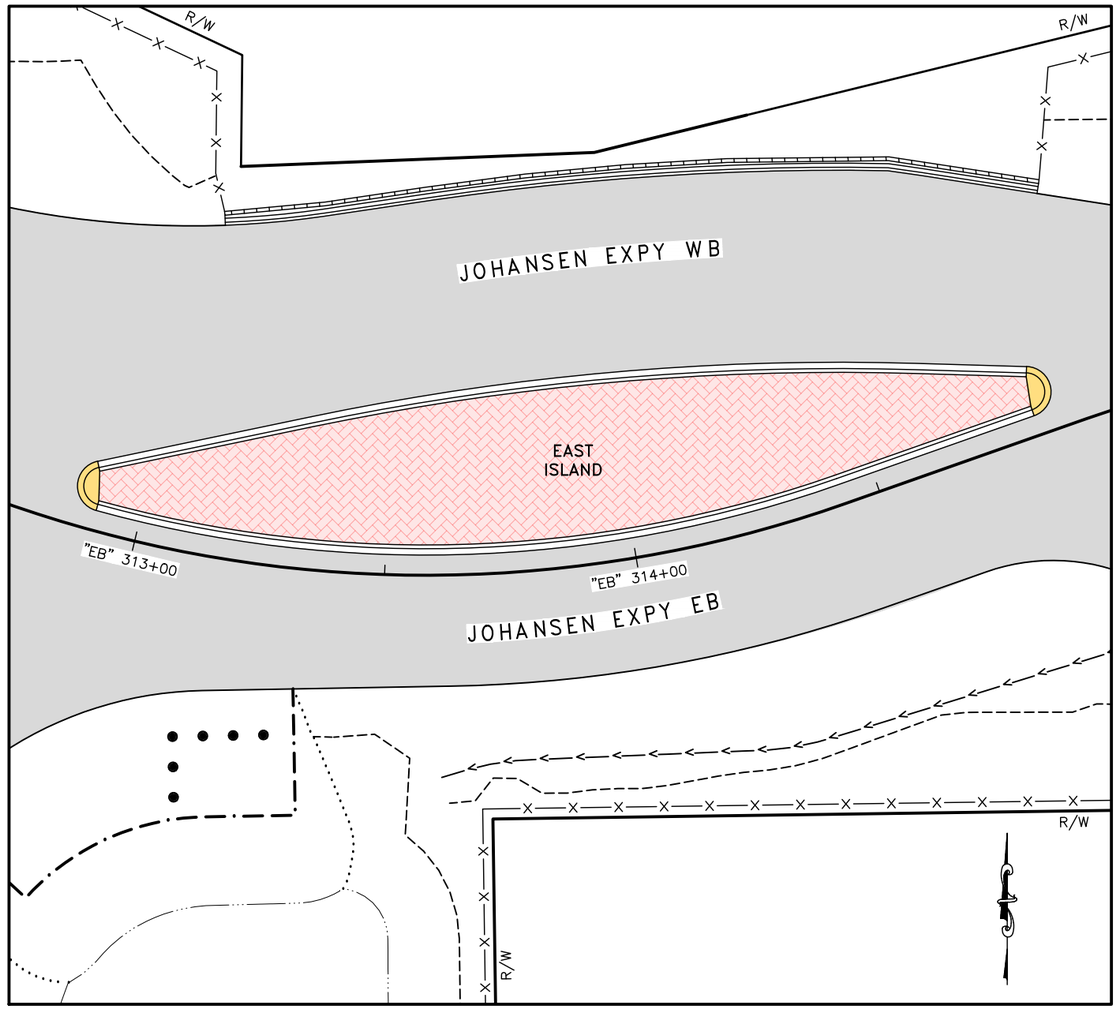
MEDIAN DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E7	E25



SOUTHEAST ISLAND DETAIL



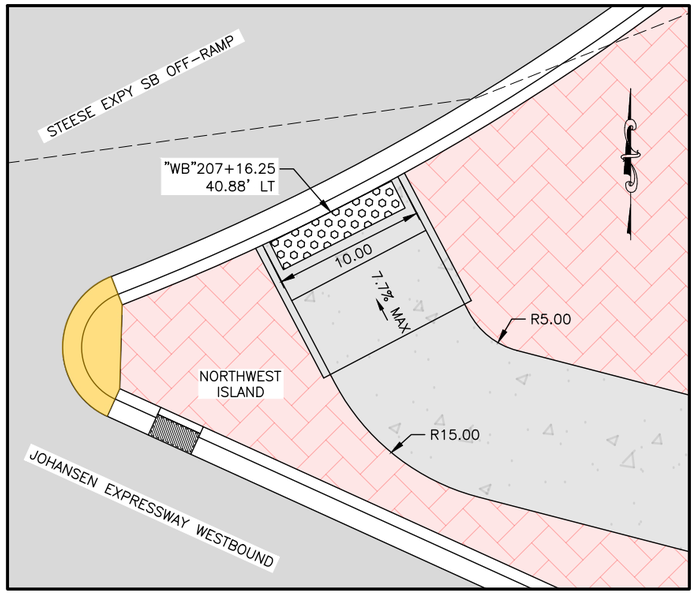
EAST ISLAND DETAIL

NOTE:
SEE CURB RAMP DETAILS

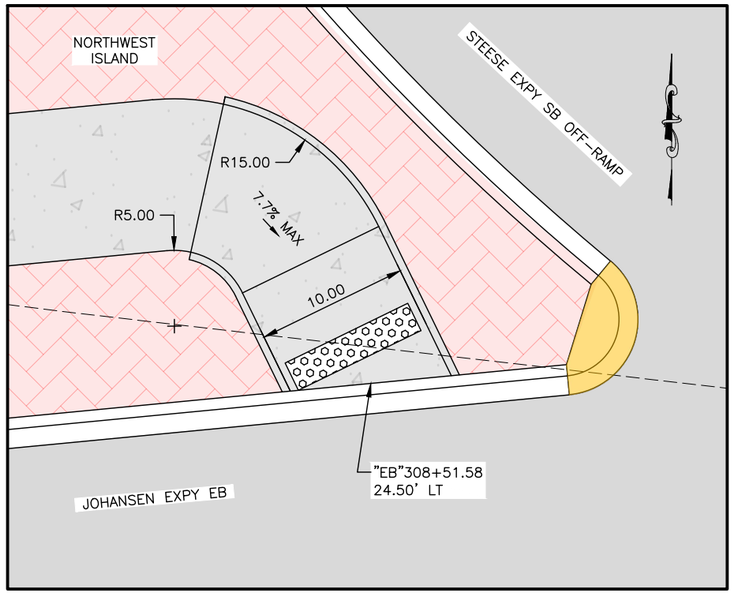
MEDIAN DETAILS

NO.	DATE	REVISION

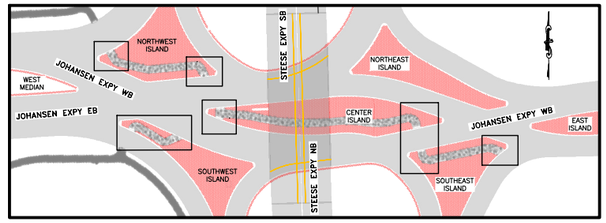
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E8	E25



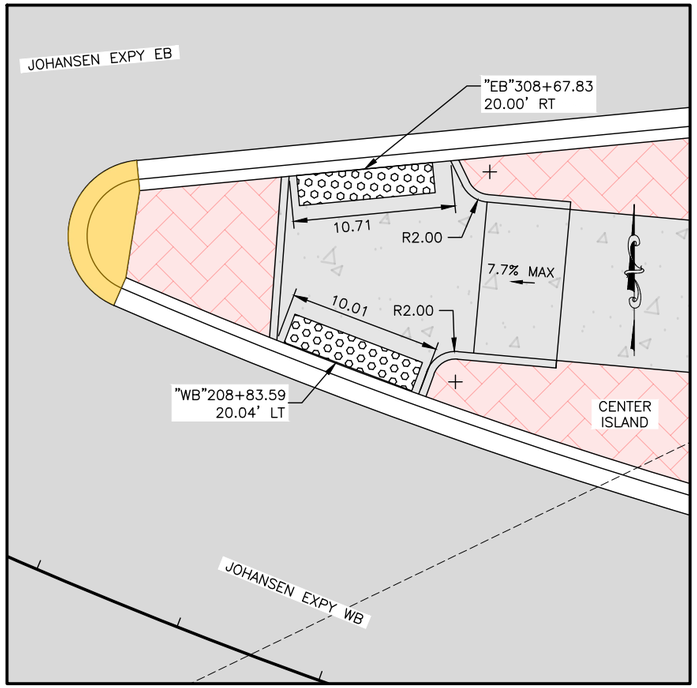
CURB RAMP
NORTHWEST ISLAND



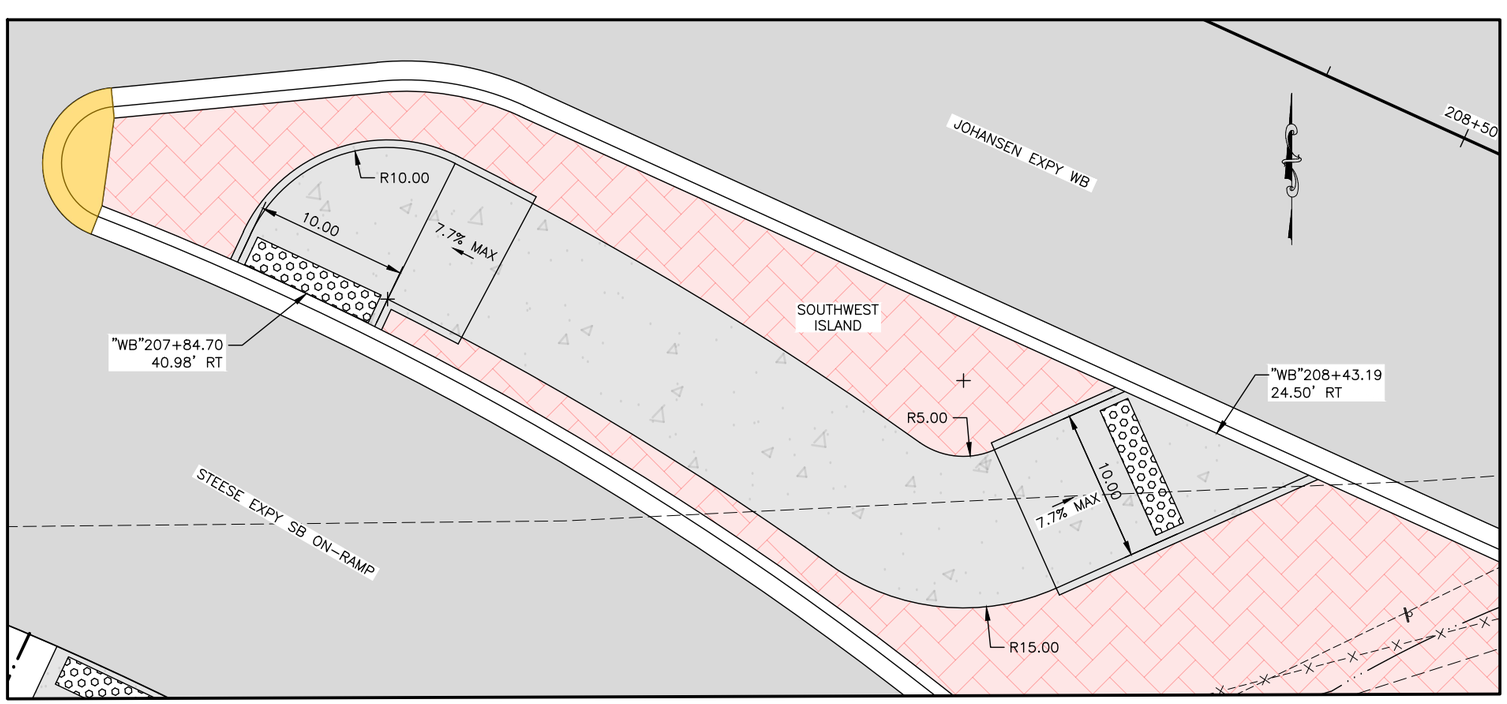
CURB RAMP
NORTHWEST ISLAND



LOCATION MAP
SCALE: 1"= 100'



CURB RAMPS
CENTER ISLAND

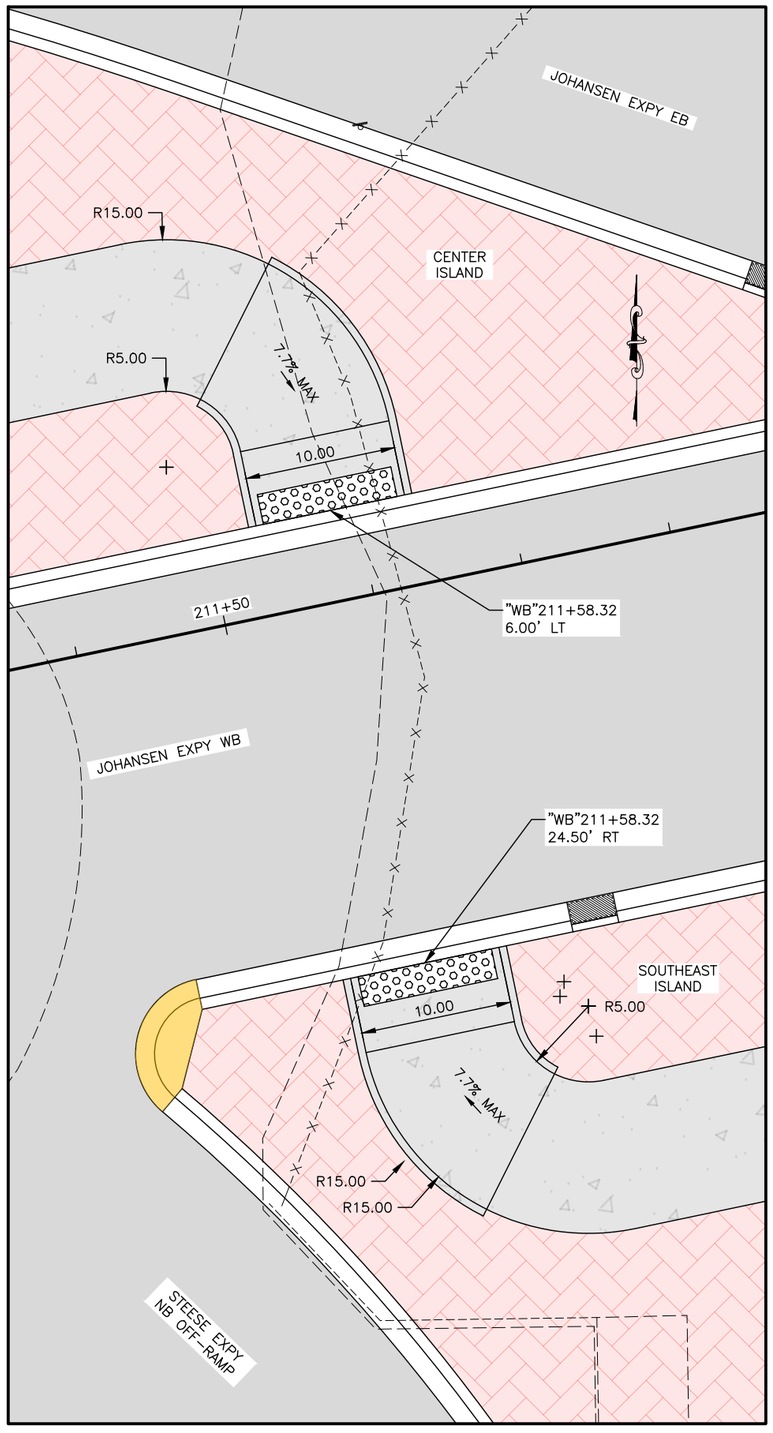


CURB RAMPS
SOUTHWEST ISLAND

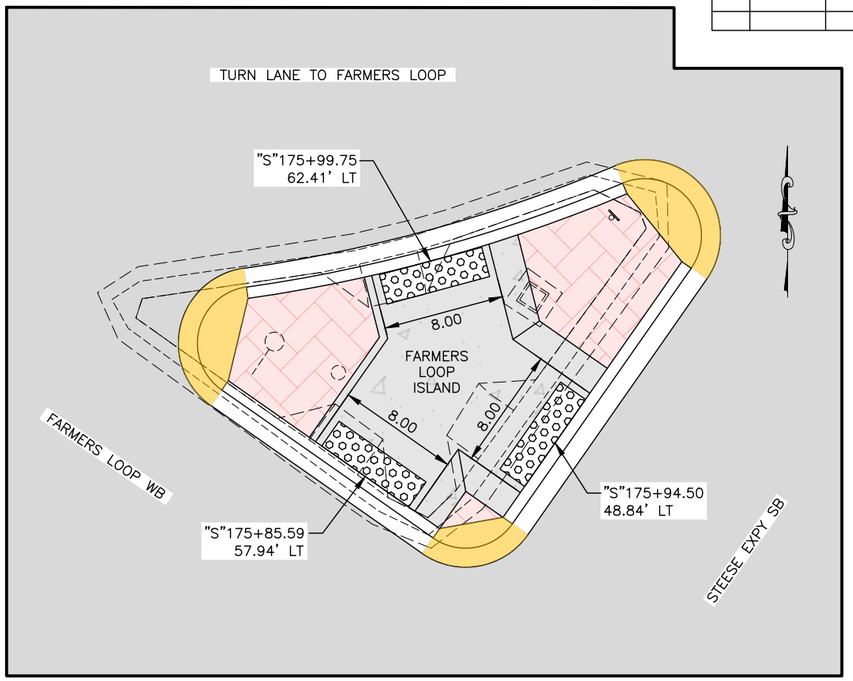
CURB RAMP DETAILS

NO.	DATE	REVISION

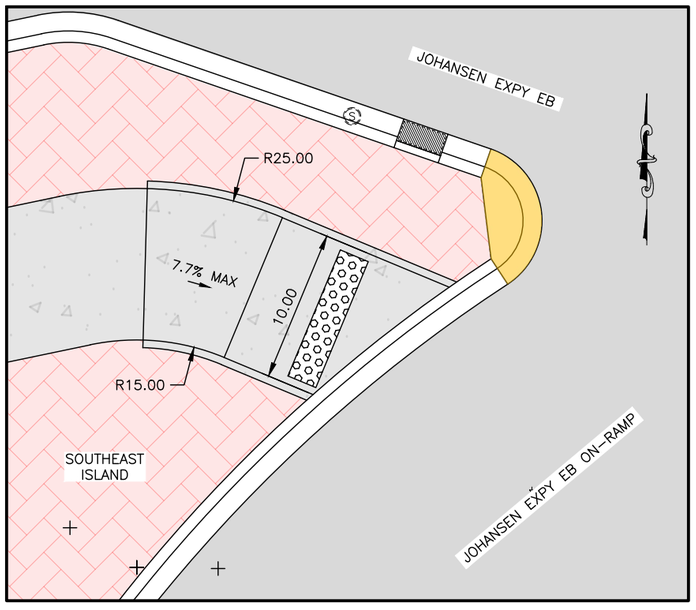
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E9	E25



CURB RAMPS
CENTER ISLAND
SOUTHEAST ISLAND



CURB RAMPS
FARMERS LOOP ISLAND



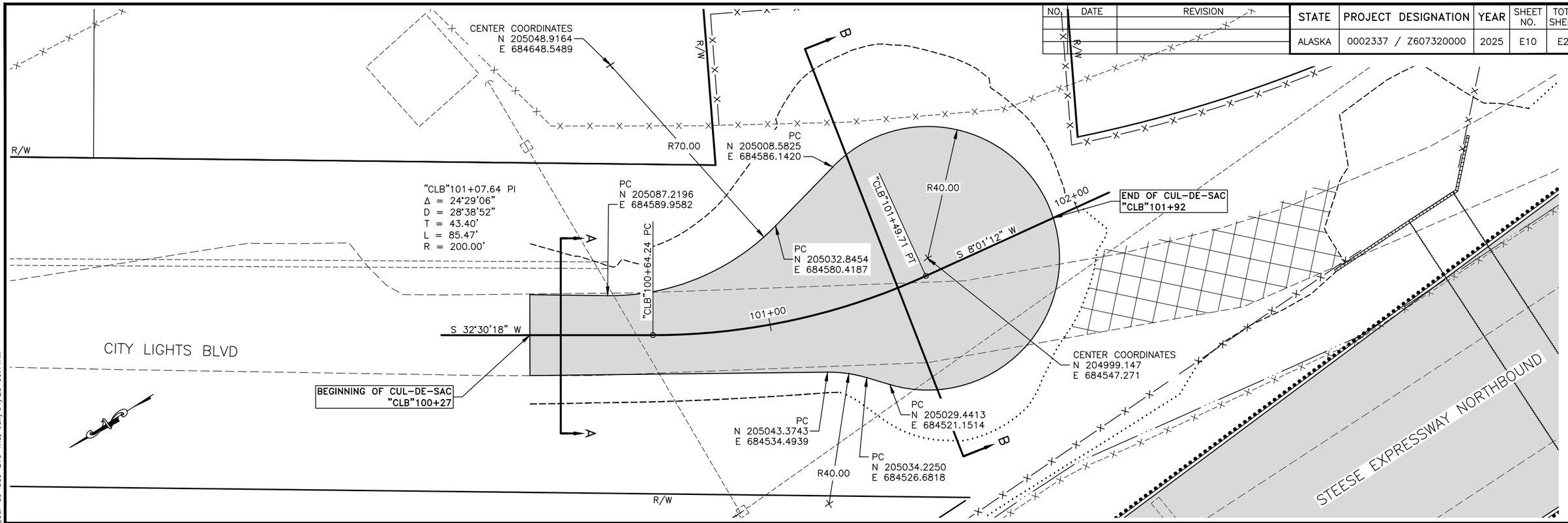
CURB RAMP
SOUTHEAST ISLAND

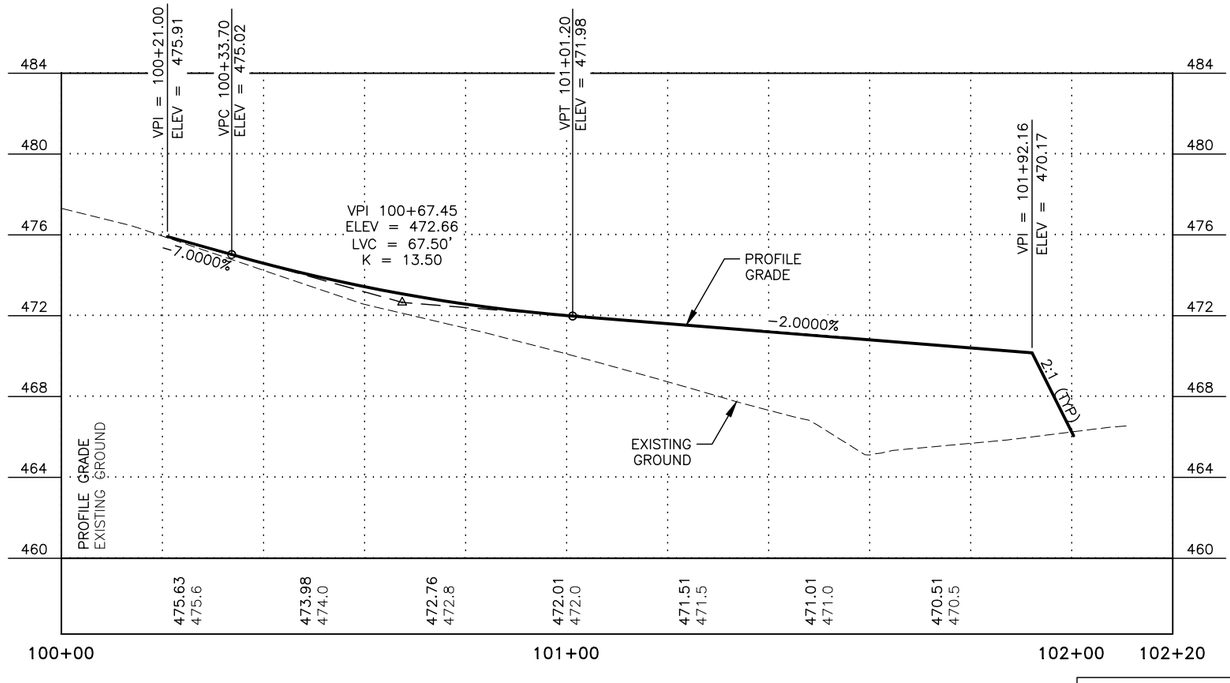
CURB RAMP DETAILS

STATE OF ALASKA
49 TH
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E10	E25



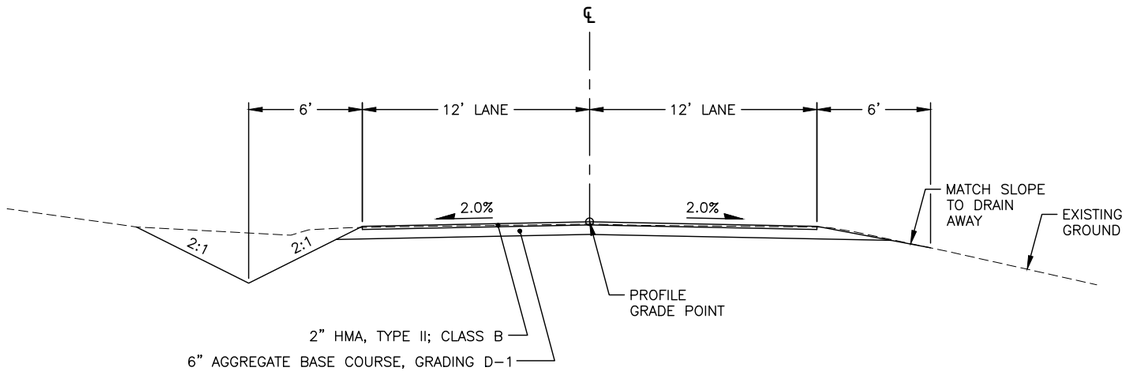


CUL-DE-SAC TURNAROUND DETAILS

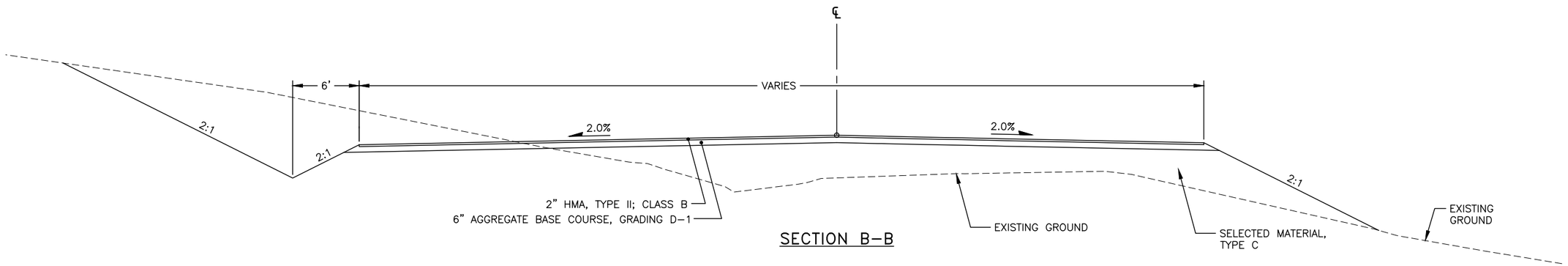
PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\Eng\ActiveProjects\3171\103180331\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_E_Detail_Cul-de-Sac-E10 Thu, Jun/01/23 09:11AM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E11	E25



SECTION A–A

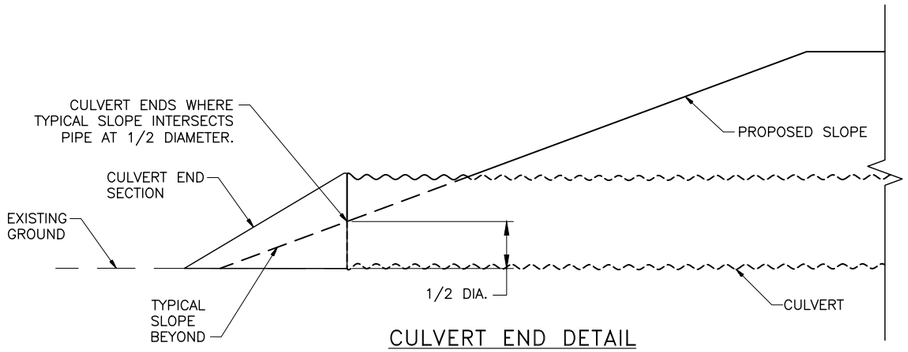


SECTION B–B

CUL–DE–SAC TURNAROUND DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E12	E25



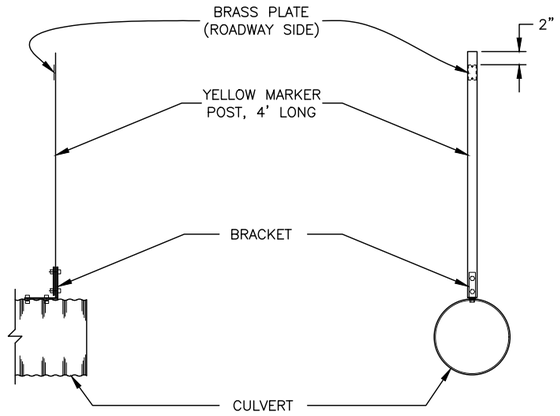
CULVERT END DETAIL

GENERAL DRAINAGE SHEET NOTES:

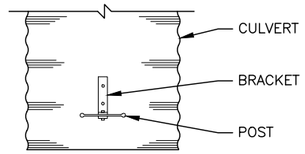
1. REMOVED PIPE BECOMES THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT. THIS WORK IS SUBSIDIARY TO PAY ITEM 202.0004.0000.
2. EXCAVATION FOR REMOVAL OF EXISTING CULVERTS SHALL BE SUBSIDIARY TO PAY ITEM 202.0004.0000.
3. THE CONTRACTOR SHALL PROVIDE AS–BUILT LOCATIONS FOR ALL CULVERTS. THIS WORK IS SUBSIDIARY TO 603 PAY ITEMS.
4. UNLESS OTHERWISE NOTED ALL 36" AND LARGER CSP CULVERTS SHALL BE 8 GAUGE. ALL 24" CSP CULVERTS SHALL BE 14 GAUGE.
5. STAKE CULVERT PIPES TO FIT FIELD CONDITIONS. LOCATION AND LENGTH OF NEW CULVERTS ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT THE EXISTING OR PROPOSED DRAINAGE CHANNEL. INVERT ELEVATION TO BE APPROVED BY THE ENGINEER.
6. DITCH CULVERTS OUTLETS AND INLETS TO DRAIN AS NEEDED OR AS DIRECTED BY THE ENGINEER. THIS WORK IS SUBSIDIARY TO 603 PAY ITEMS.
7. ALL PIPES SHALL BE GALVANIZED.
8. SEE D SHEETS FOR RIPRAP QUANTITY.

CULVERT MARKER POSTS NOTES:

1. MARKER POSTS ARE TO BE INSTALLED ON CROSS CULVERTS ONLY.
2. IF CULVERTS ARE CLOSELY SPACED, MARK ONLY THE FIRST AND LAST CULVERT IN SERIES AS APPROVED BY THE ENGINEER.
3. DRILL ALL BOLT HOLES. COAT HOLES WITH ZINC RICH PAINT. FLAME CUTTING SHALL NOT BE PERMITTED.
4. GASKET MATERIAL SHALL BE PLACED BETWEEN DISSIMILAR METALS. GASKET MATERIAL SHALL BE APPROVED PRIOR TO INSTALLATION.
5. HOT DIP GALVANIZE FLAT STEEL TO MEET AASHTO M 232. GALVANIZE AFTER BENDING.

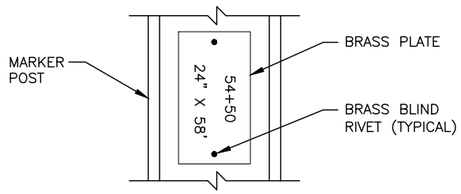


SIDE VIEW



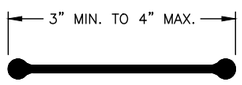
TOP VIEW

CULVERT MARKER POST DETAIL

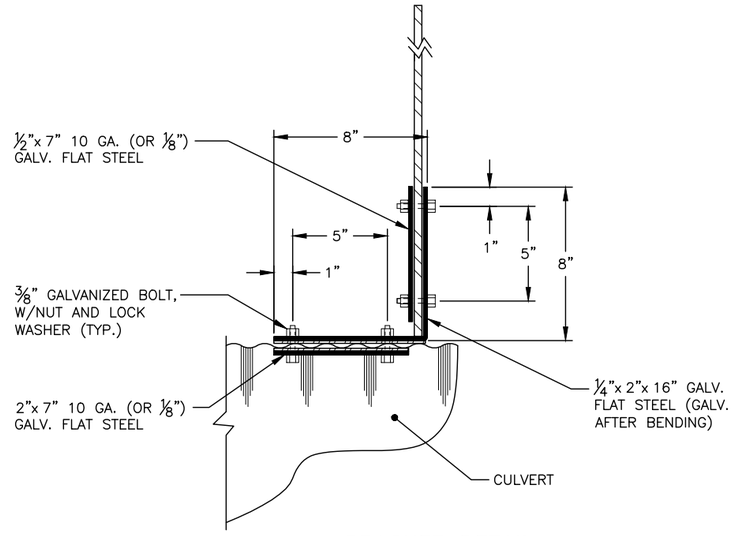


STAMP STATION AND PIPE SIZE, USING 3/8" HIGH MINIMUM LETTERS INTO A 2"X4"X 0.064" THICK BRASS PLATE. FASTEN PLATE TO THE SIDE FACING THE ROADWAY WITH TWO 1/8" BRASS BLIND RIVETS.

BRASS PLATE DETAIL



POST DETAIL
CROSS–SECTIONAL VIEW



BRACKET DETAIL

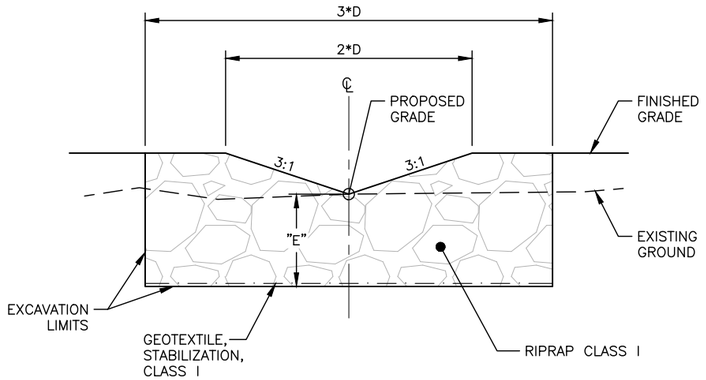
CULVERT MARKER POST DETAILS

CULVERT DETAILS

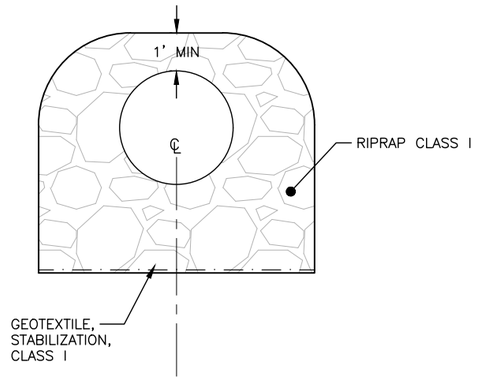
STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

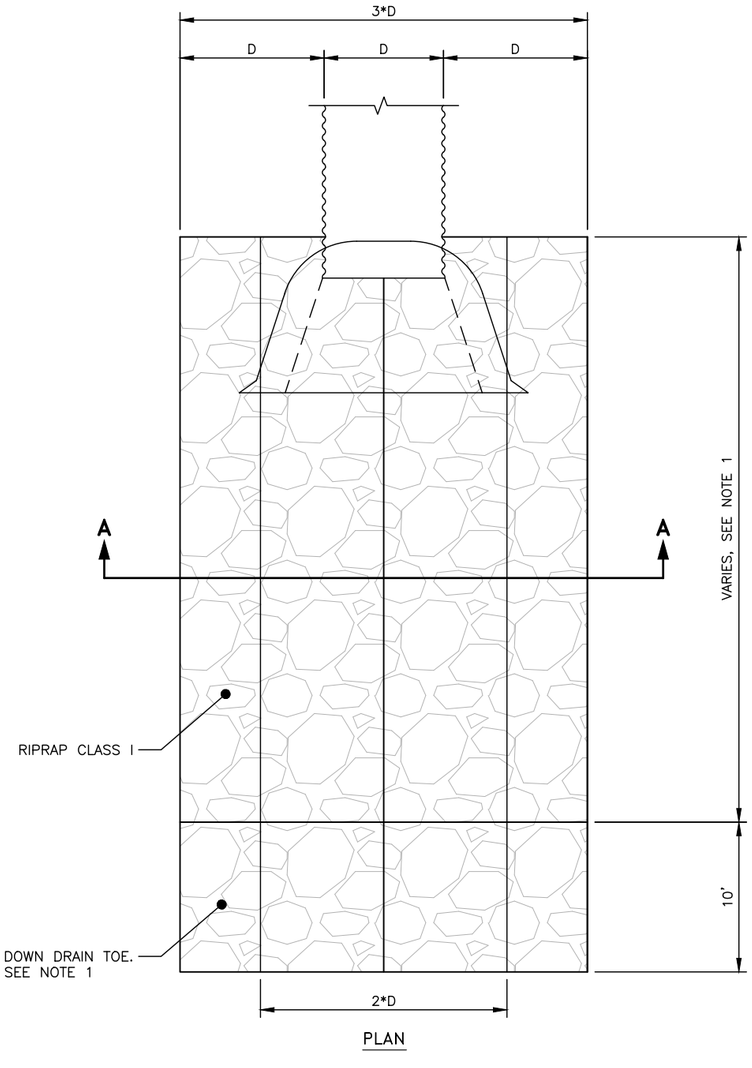
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E13	E25



SECTION A–A



SECTION B–B

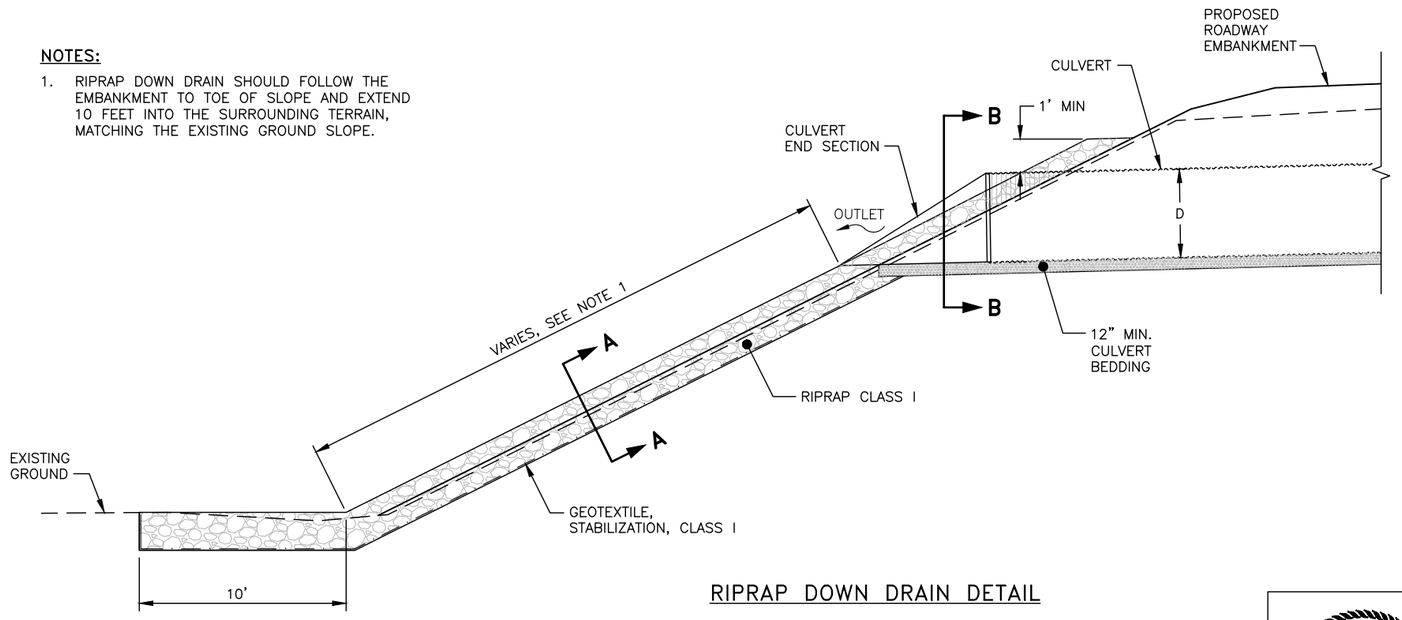


PLAN

DOWN DRAIN TABLE					
CULVERT PIPE	STATION	LOCATION	SIZE "D"	RIPRAP	"E"
PNB–4	"NB" 233+12	RT	24"	CLASS I	24"
PNB–13	"NB" 256+60	LT	24"	CLASS I	24"

NOTES:

1. RIPRAP DOWN DRAIN SHOULD FOLLOW THE EMBANKMENT TO TOE OF SLOPE AND EXTEND 10 FEET INTO THE SURROUNDING TERRAIN, MATCHING THE EXISTING GROUND SLOPE.

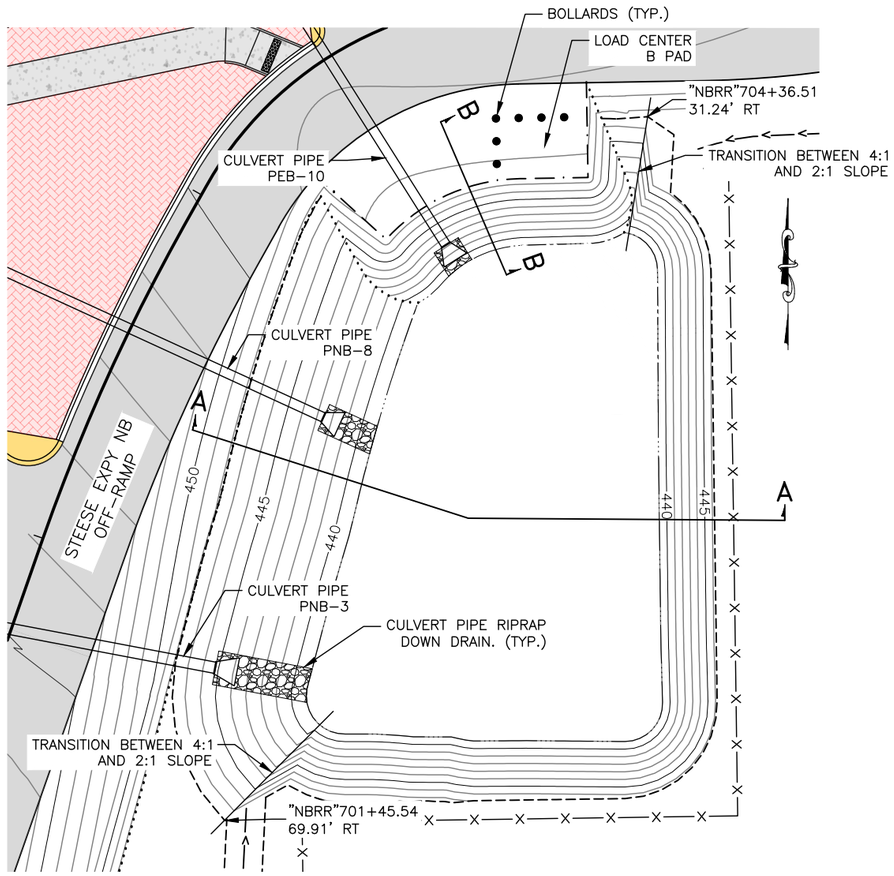


RIPRAP DOWN DRAIN DETAIL

DOWN DRAIN DETAILS

NO.	DATE	REVISION

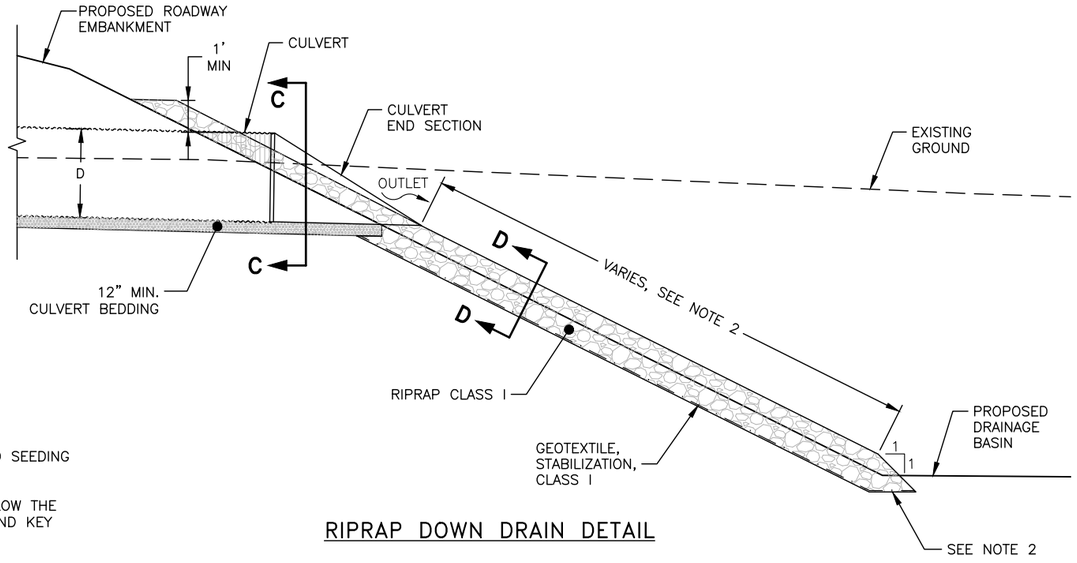
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E14	E25



INFILTRATION BASIN PLAN VIEW

DOWN DRAIN TABLE

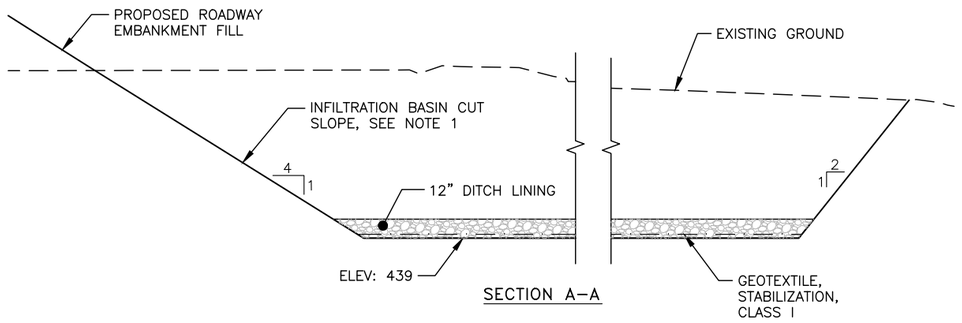
CULVERT PIPE	STATION	LOCATION	SIZE "D"	RIPRAP	"E"
PNB–3	"NB"232+48	RT	36"	CLASS I	24"
PNB–8	"NB"233+13	RT	30"	CLASS I	24"
PEB–10	"EB"313+09	RT	30"	CLASS I	24"



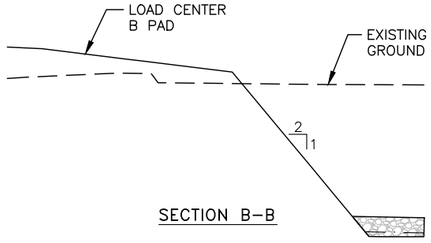
RIPRAP DOWN DRAIN DETAIL

NOTES:

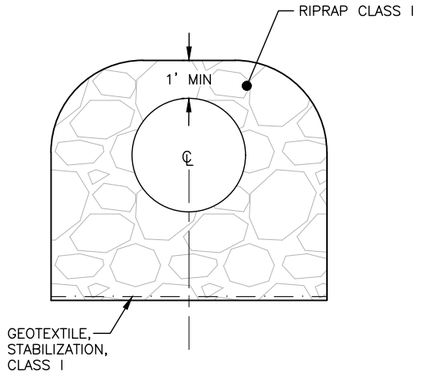
1. SEED CUT SLOPES WITH APPROVED SEEDING MIX AND PROCEDURE.
2. RIPRAP DOWN DRAIN SHOULD FOLLOW THE EMBANKMENT TO TOE OF SLOPE AND KEY INTO INFILTRATION BASIN BEDDING.



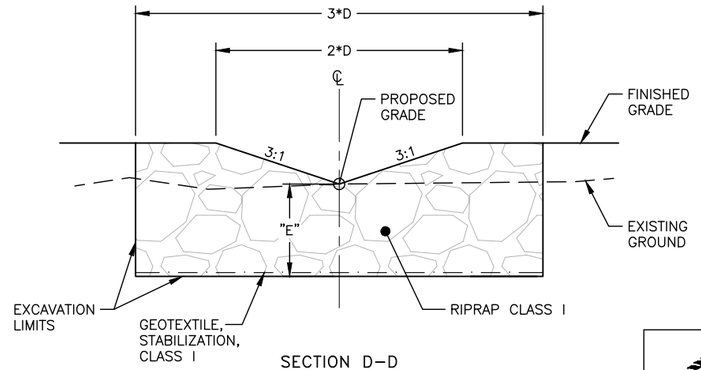
SECTION A–A



SECTION B–B



SECTION C–C

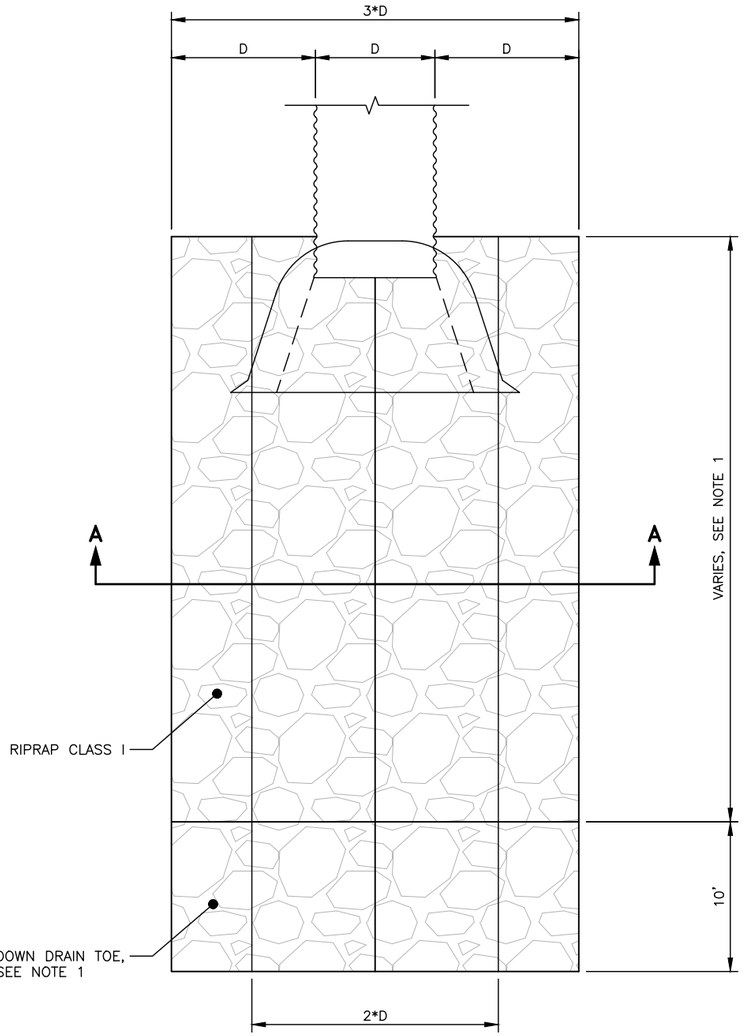


SECTION D–D

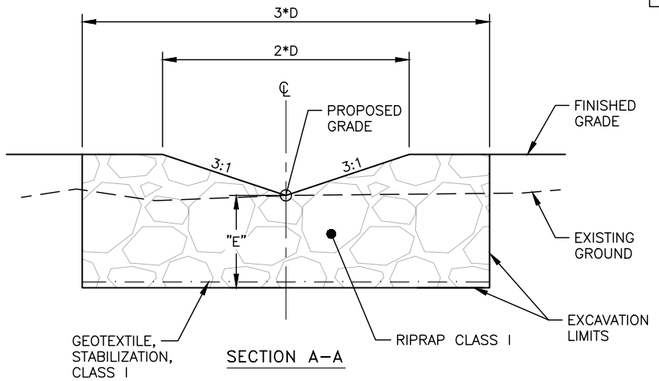
DRAINAGE BASIN DOWN DRAIN DETAILS

NO.	DATE	REVISION

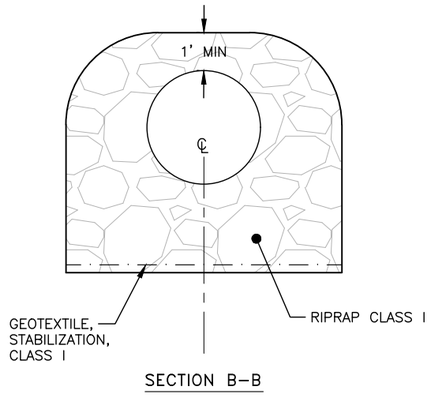
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E15	E25



PLAN



SECTION A–A



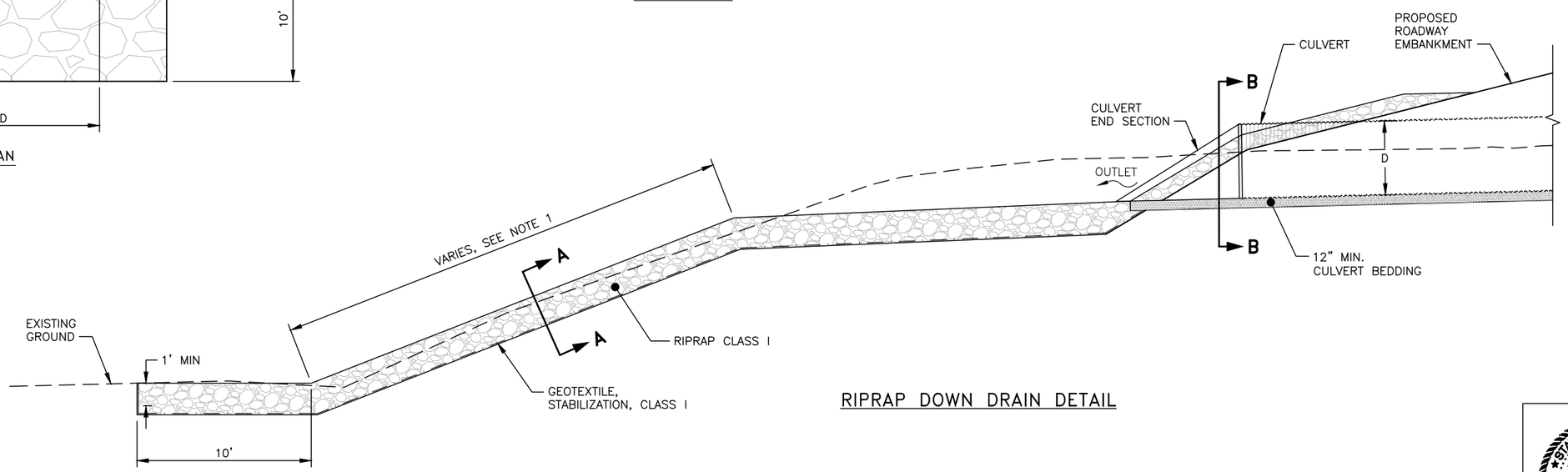
SECTION B–B

NOTES:

1. RIPRAP DOWN DRAIN SHOULD FOLLOW THE EMBANKMENT TO TOE OF SLOPE AND EXTEND 10 FEET INTO THE SURROUNDING TERRAIN, MATCHING THE EXISTING GROUND SLOPE.

DOWN DRAIN TABLE

CULVERT PIPE	STATION	LOCATION	SIZE "D"	RIPRAP	"E"
PNB–11	"NB" 248+72	LT	24"	CLASS I	24"

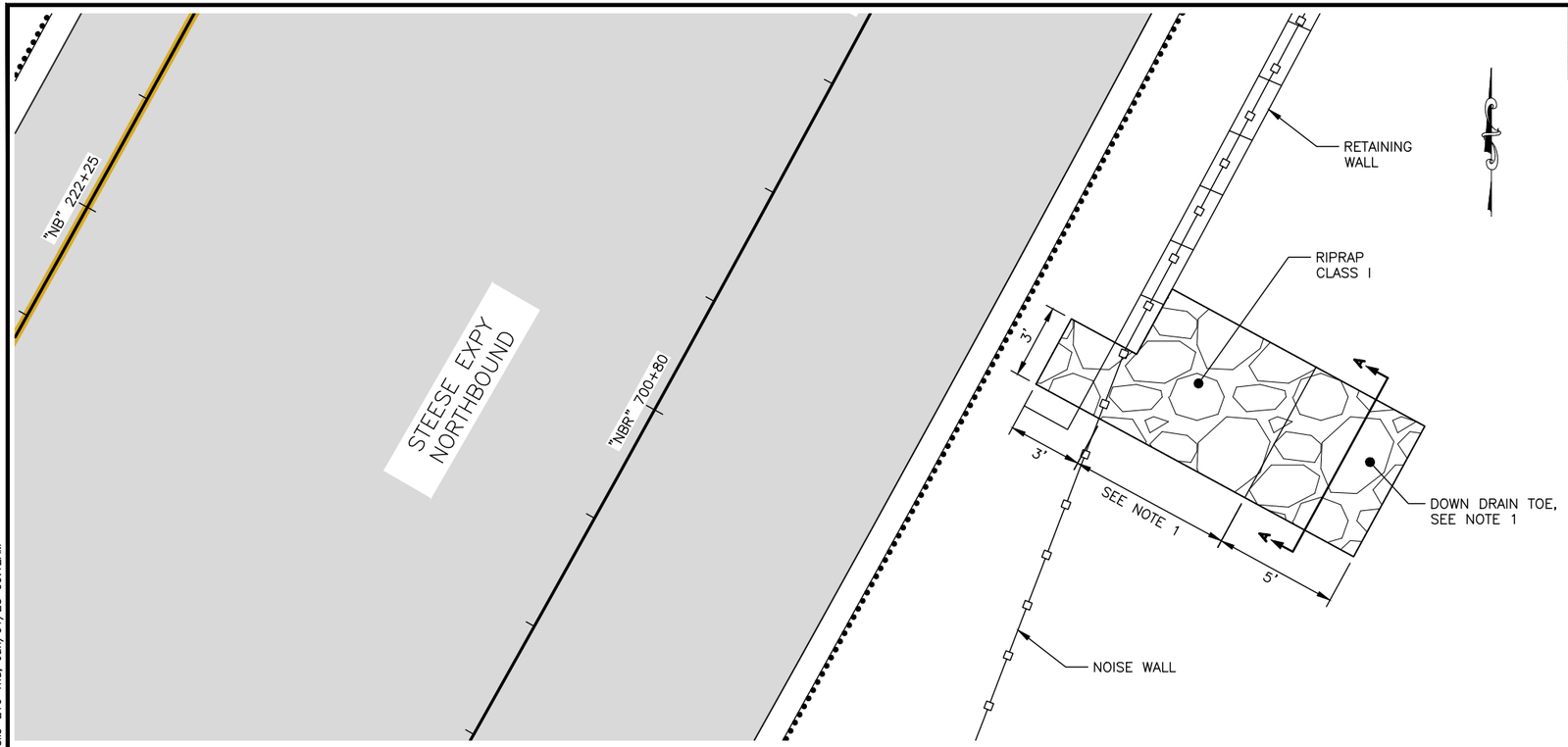


RIPRAP DOWN DRAIN DETAIL

PNB 11 CULVERT DOWN DRAIN DETAILS

NO.	DATE	REVISION

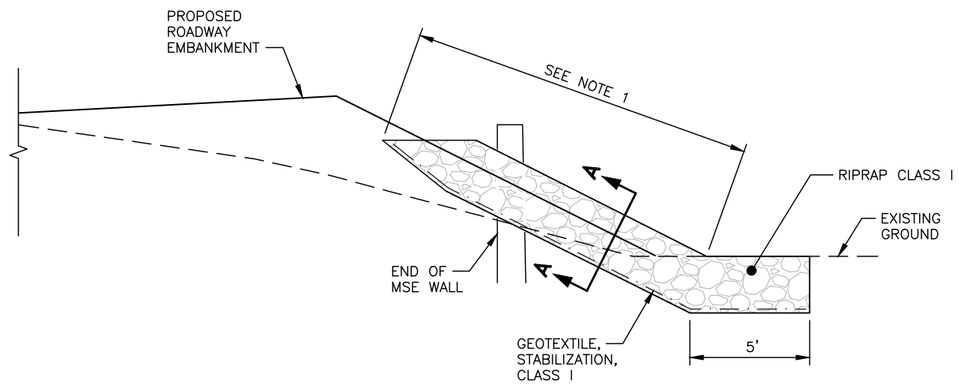
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E16	E25



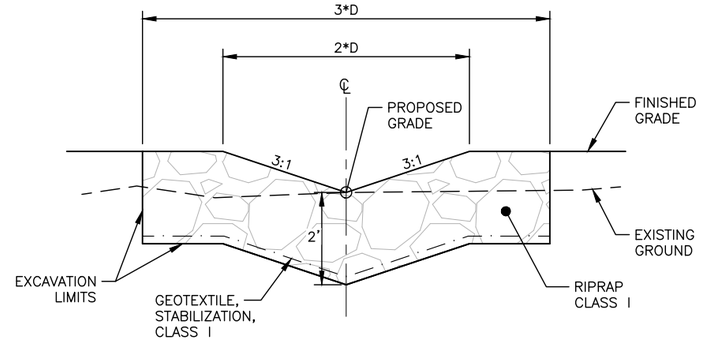
MSE WALL SOUTH END DOWN DRAIN PLAN VIEW

NOTE:

1. RIPRAP DOWN DRAIN SHOULD FOLLOW THE EMBANKMENT TO TOE OF SLOPE AND EXTEND 5 FEET INTO THE SURROUNDING TERRAIN, MATCHING THE EXISTING GROUND SLOPE.



PROFILE VIEW

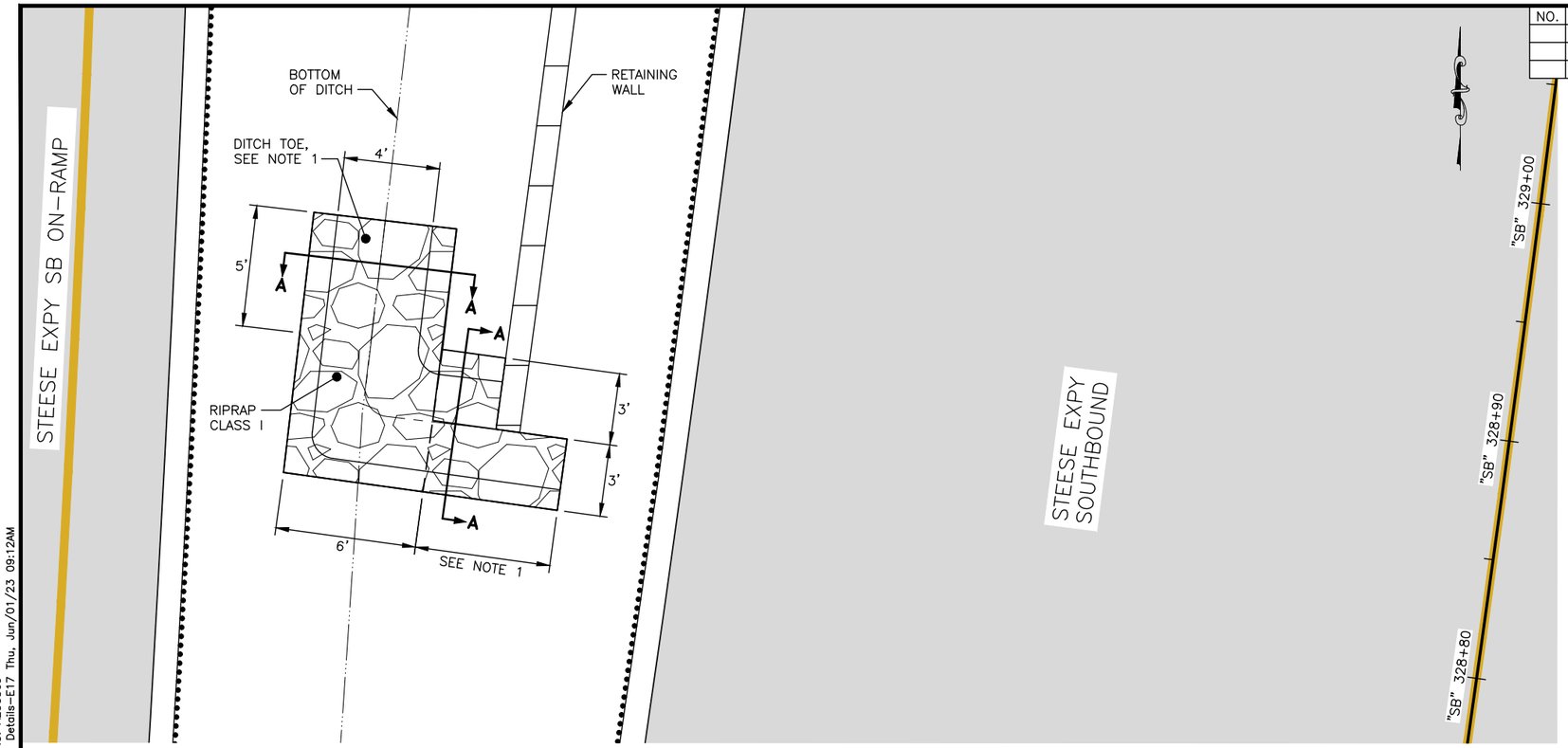


SECTION A–A

MSE WALL SOUTH DOWN DRAIN DETAILS

NO.	DATE	REVISION

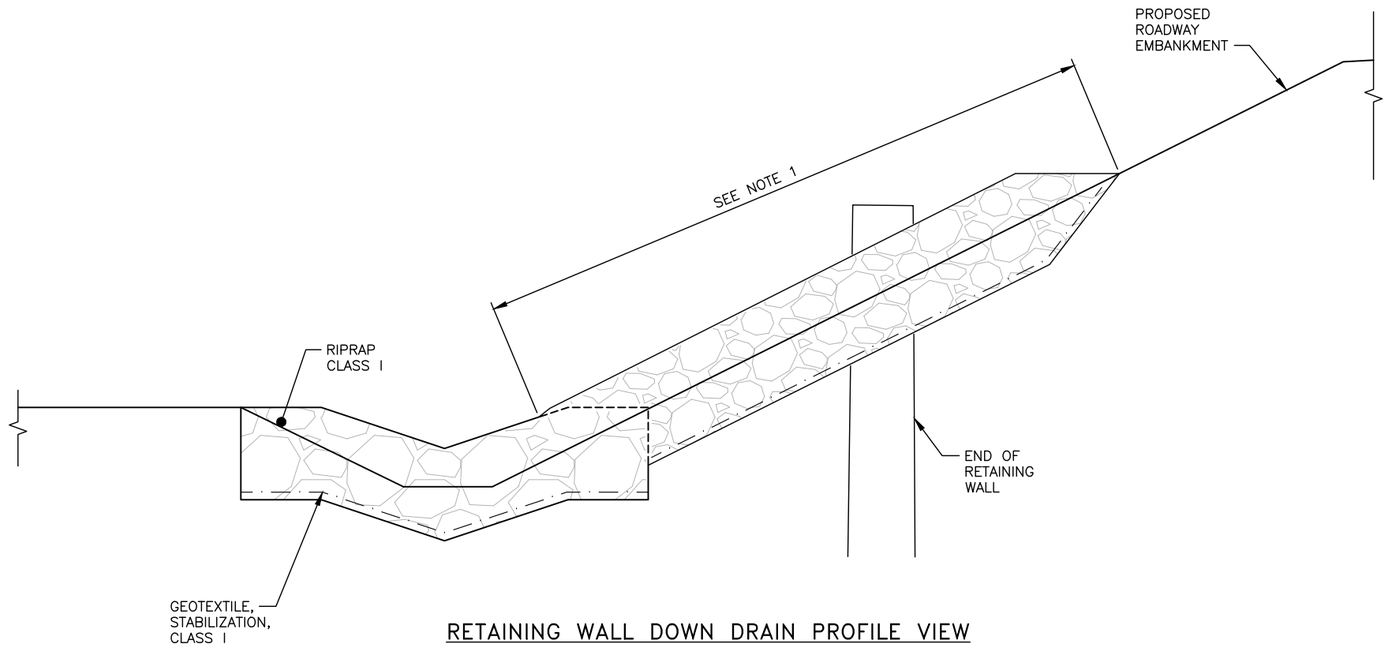
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E17	E25



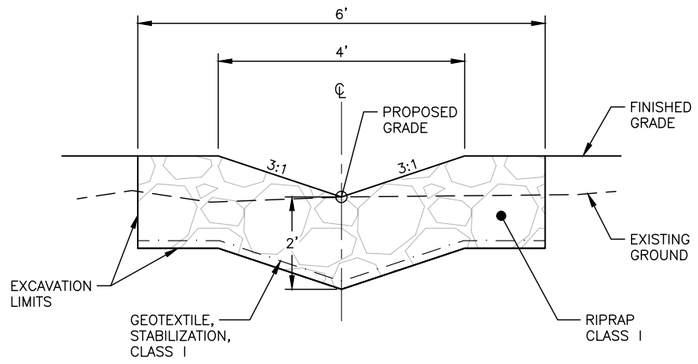
RETAINING WALL DOWN DRAIN PLAN VIEW

NOTES:

1. RIPRAP DOWN DRAIN BEGINS 3' UPSLOPE FROM THE END OF THE WALL, AND FOLLOWS THE EMBANKMENT SLOPE TO MATCH INTO DITCH BOTTOM TOE.
2. DITCH TOE TO EXTEND 5' ALONG DITCH TO DIRECT FLOW NORTH ALONG DITCH.



RETAINING WALL DOWN DRAIN PROFILE VIEW

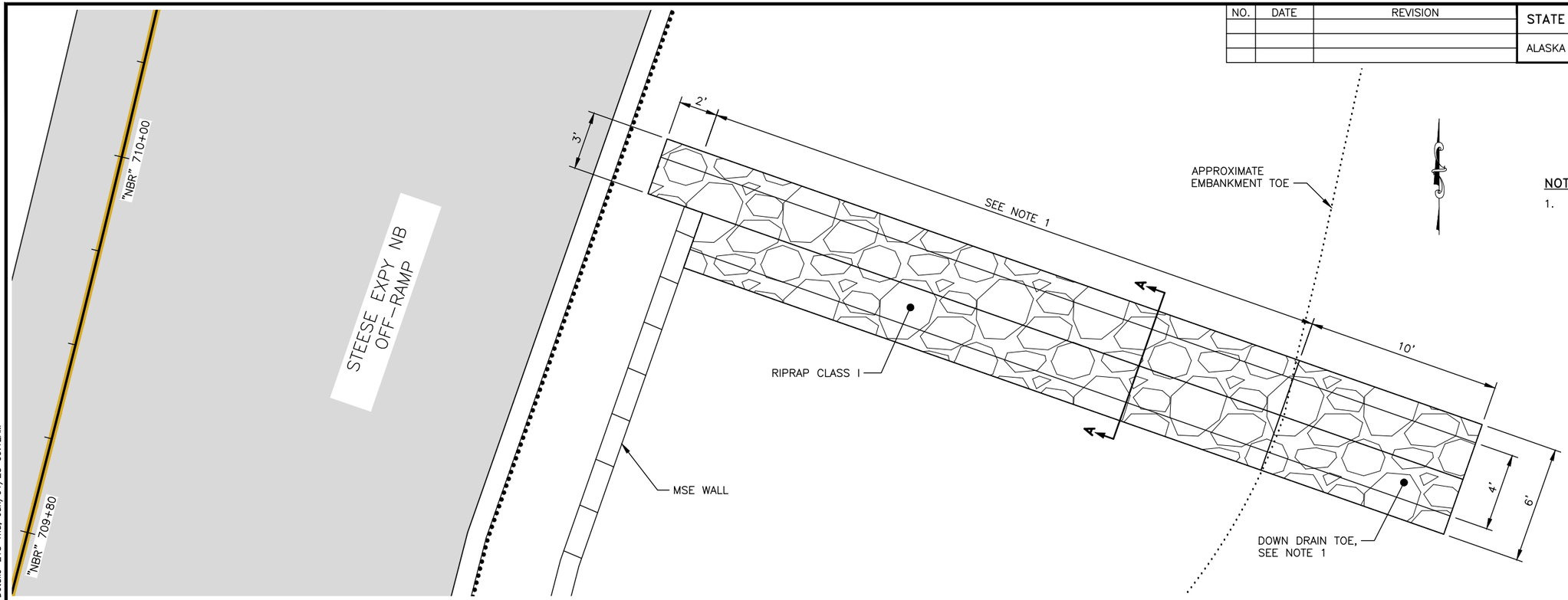


SECTION A–A

RETAINING WALL DOWN DRAIN DETAILS

NO.	DATE	REVISION

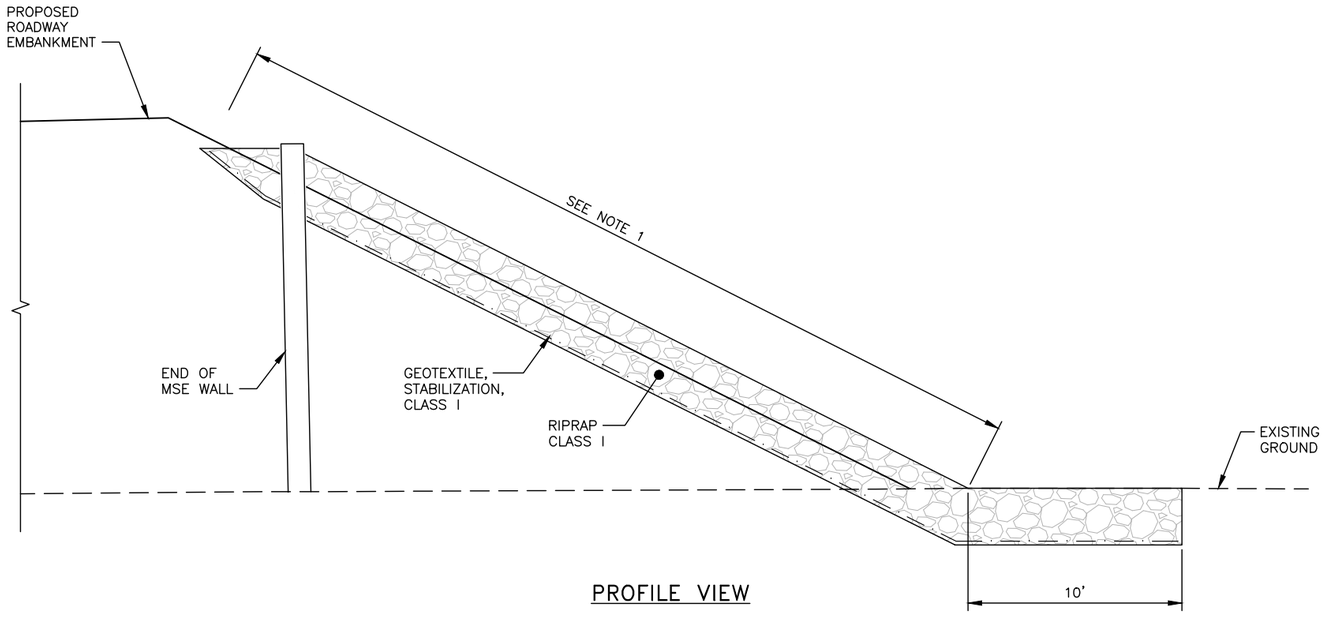
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E18	E25



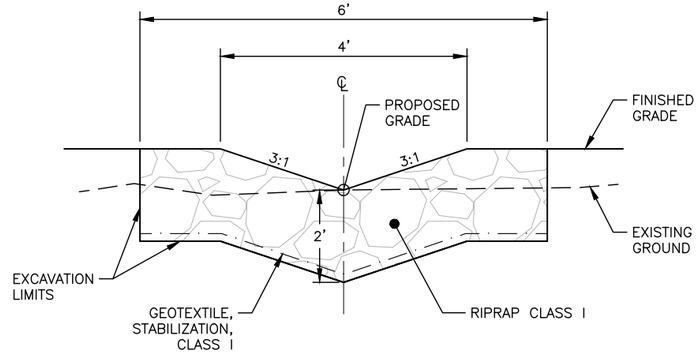
NOTES:

1. RIPRAP DOWN DRAIN SHOULD FOLLOW THE EMBANKMENT TO TOE OF SLOPE AND EXTEND 10 FEET INTO THE SURROUNDING TERRAIN, MATCHING THE EXISTING GROUND SLOPE.

MSE WALL NORTH END
DOWN DRAIN PLAN VIEW



PROFILE VIEW



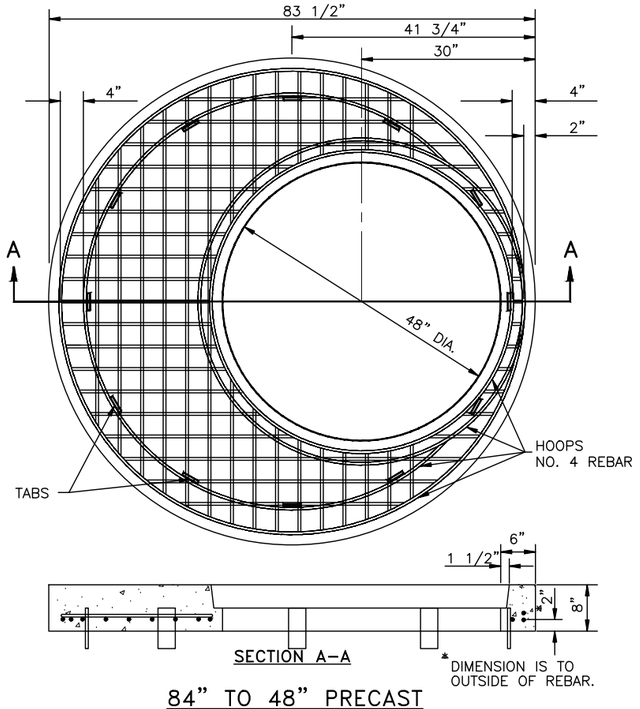
SECTION A–A

MSE WALL NORTH DOWN DRAIN DETAILS

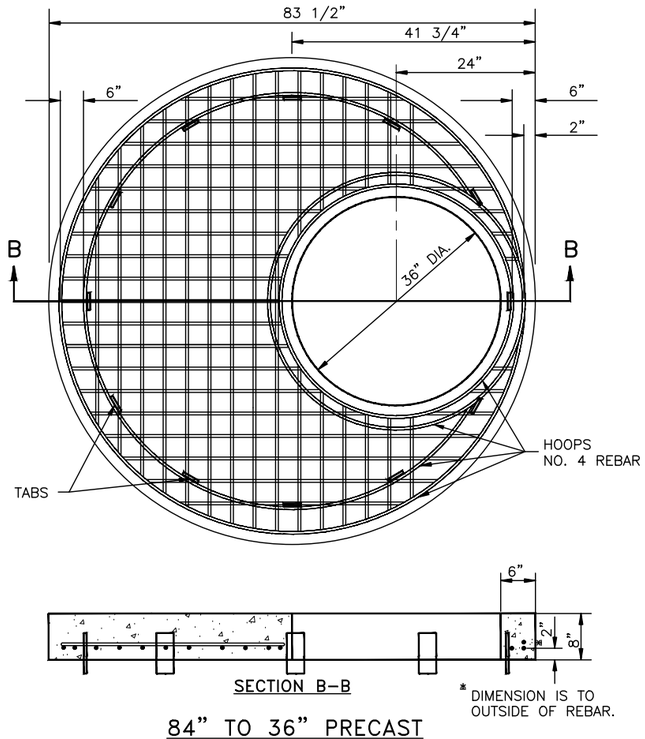
STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

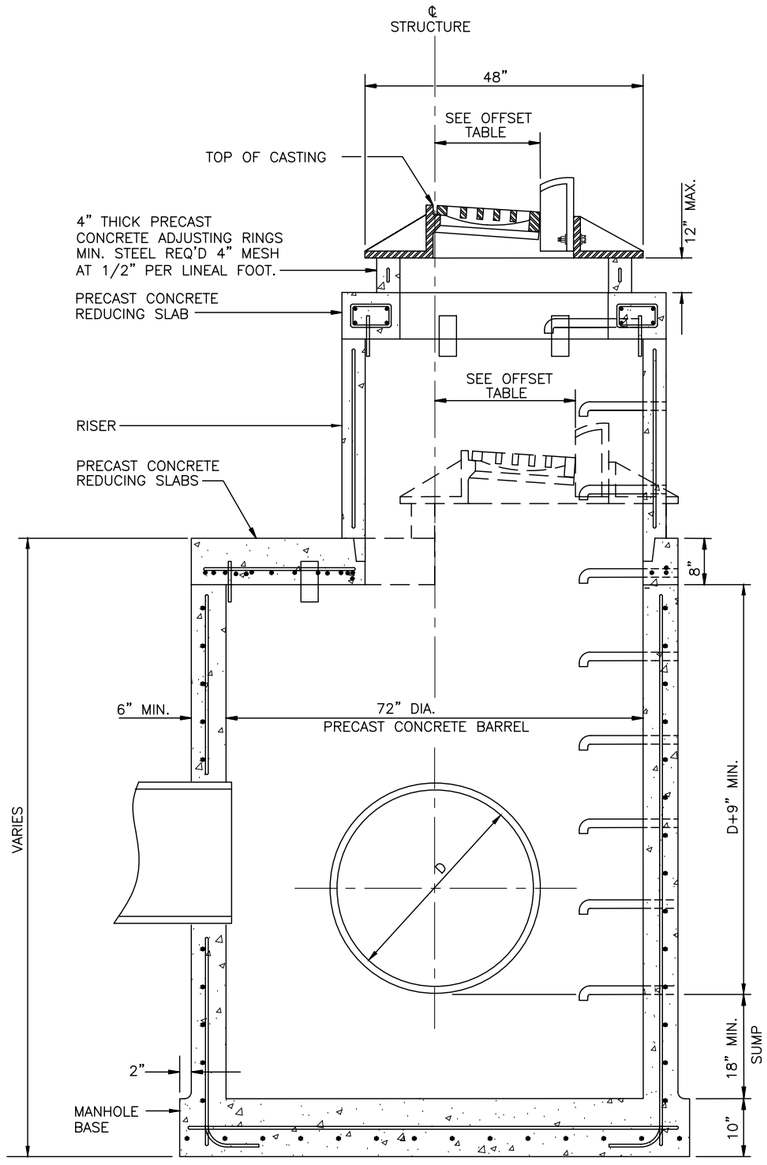
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E19	E25



84" TO 48" PRECAST CONCRETE REDUCING SLAB



84" TO 36" PRECAST CONCRETE REDUCING SLAB



STORM DRAIN MANHOLE, TYPE II

REDUCING SLAB NOTES

1. USE NO. 5 FOR ALL REBAR EXCEPT STIRRUPS AND HOOPS.
2. ALL REBAR SHALL BE SPACED AT 5" CENTERS UNLESS OTHERWISE NOTED.
3. MAINTAIN A MINIMUM OF 1 1/2" OF CONCRETE COVER OVER ALL REBAR.
4. TABS WILL BE 1/2"X3"X7" GALVANIZED STEEL PLATES. EVENLY SPACE 8 TABS AROUND EACH SLAB. INSERT TABS 4" INTO CONCRETE, 6 1/2" FROM OUTSIDE EDGE OF SLAB.

GENERAL NOTES:

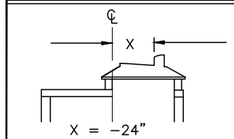
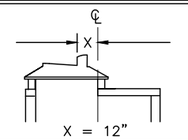
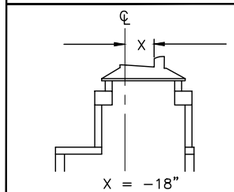
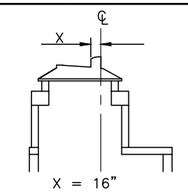
1. ALL DRAINAGE STRUCTURES SHALL MEET THE REQUIREMENTS OF ASTM C–478.
2. ALL STORM DRAIN MANHOLES AND INLETS SHALL HAVE MINIMUM 18 INCH SUMPS. MANHOLES WITH PETROLEUM SEPARATORS SHALL HAVE 24 INCH MINIMUM SUMPS.
3. RUBBER GASKET JOINTS ARE SHOWN. GROUTED JOINTS OR "RAM NECK" TYPE GASKET JOINTS ARE ACCEPTABLE ALTERNATIVES.
4. MINIMUM CLEARANCE BETWEEN MANHOLE JOINT AND WALL PENETRATION OR BETWEEN TWO WALL PENETRATIONS SHALL BE 12 INCHES.
5. ALL PENETRATIONS AND BLOCKOUTS SHALL BE FORMED.
6. HOLE IN ECCENTRIC REDUCING SLAB IS TO BE 48 INCHES WHEN ADDITIONAL MANHOLE SECTIONS ARE REQUIRED. ABOVE HOLE SHALL BE 36 INCHES WHEN GRADE RING AND CASTING SIT DIRECTLY ON SLAB.
7. STEPS SHALL BE PLACED 12 INCHES O.C. ON THE UNOBSTRUCTED SIDE OF THE STRUCTURE, 19 INCHES FROM TOP OF CASTING AND 18 INCHES MAXIMUM FROM MANHOLE BASE.
8. OFFSETS ARE MEASURED FROM CENTERLINE OF THE ROAD TO CENTERLINE OF THE STRUCTURE.
9. MAINTAIN 12" OF SEPARATION BETWEEN CULVERT ENDS WITHIN THE MANHOLE.
10. CAST IN PLACE STRUCTURES MAY BE USED AS APPROVED BY THE ENGINEER.

TYPE II MANHOLES:

1. MINIMUM STEEL REQUIRED FOR BARREL AS PER ASTM C–478 SHALL BE EMBEDDED IN BASE SO THAT THE FIRST BARREL SECTION IS CONNECTED TO THE BASE BY CONTINUOUS STEEL.
2. PRIMARY PIPES NOT TO EXCEED 42" CMP OR 36" REINFORCED CONCRETE PIPE WITH INCLUDED ANGLE BETWEEN PIPES NO LESS THAN 135° OR PRIMARY PIPES NOT TO EXCEED 36" CMP OR 30" REINFORCED CONCRETE PIPE WITH INCLUDED ANGLE NO LESS THAN 135°.

TYPE II OFFSET TABLE

DISTANCE TO ℄ OF STRUCTURE FROM FACE OF CURB IS:

STRUCTURE UNDER ROADWAY A	STRUCTURE OUT OF ROADWAY B	
 X = –24"	 X = 12"	WITHOUT RISER. PIPE COVER * < 75".
 X = –18"	 X = 16"	WITH RISER. PIPE COVER * > 75".

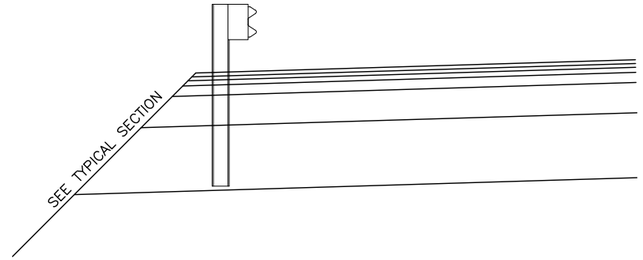
* ASSUMING A 6" GRADE RING AND A 3 FOOT RISER.

TYPE II MANHOLE OFFSETS ARE CALCULATED ASSUMING THE MINIMUM RISER HEIGHT IS 3 FEET

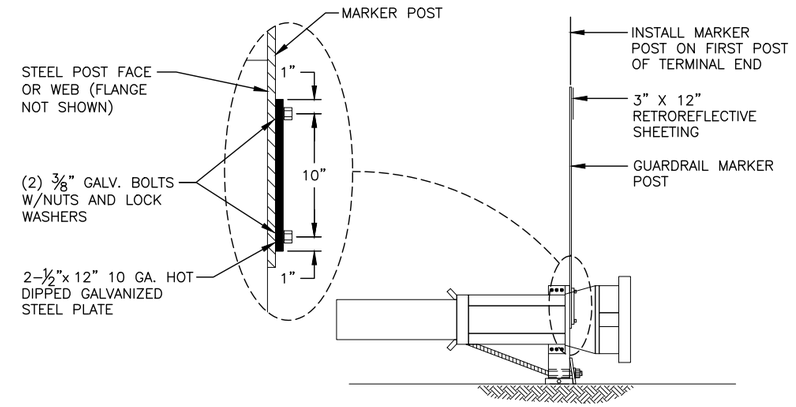
STORMDRAIN MANHOLE
TYPE II
72"

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E20	E25



GUARDRAIL WIDENING DETAIL
APPLIES TO BOTH SIDES OF THE ROADWAY



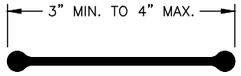
GUARDRAIL MARKER POST ATTACHMENT DETAIL
PARALLEL GUARDRAIL TERMINAL

GUARDRAIL NOTES:

1. FOR PARALLEL GUARDRAIL TERMINALS, CONSTRUCT THE GUARDRAIL TERMINAL WIDENING IN ACCORDANCE WITH THE STANDARD PLAN G20.12. THE END OFFSET (X) SHALL BE 2 FEET. USE 50' PARALLEL GUARDRAIL TERMINALS.

GUARDRAIL MARKER NOTES:

1. GUARDRAIL MARKER POSTS SHALL BE YELLOW AND AT LEAST 72" LONG. POSTS SHALL MEET THE REQUIREMENTS OF SECTION 730-2.05 FLEXIBLE DELINEATOR POSTS.
2. RETROREFLECTIVE SHEETING SHALL MEET ASTM D4956 REQUIREMENTS FOR TYPE VIII, IX, OR XI. COLOR OF RETROREFLECTIVE SHEETING SHALL MATCH COLOR OF ADJACENT EDGE LINE STRIPE. PLACE RETROREFLECTIVE SHEETING ON SIDE OF MARKER POST FACING TRAFFIC IN ADJACENT LANE.
3. DRILL ALL BOLT HOLES. COAT HOLES WITH ZINC RICH PAINT. FLAME CUTTING SHALL NOT BE PERMITTED.
4. ALL WORK AND MATERIAL REQUIRED TO INSTALL GUARDRAIL MARKER POSTS IS SUBSIDIARY TO 606 PAY ITEMS.

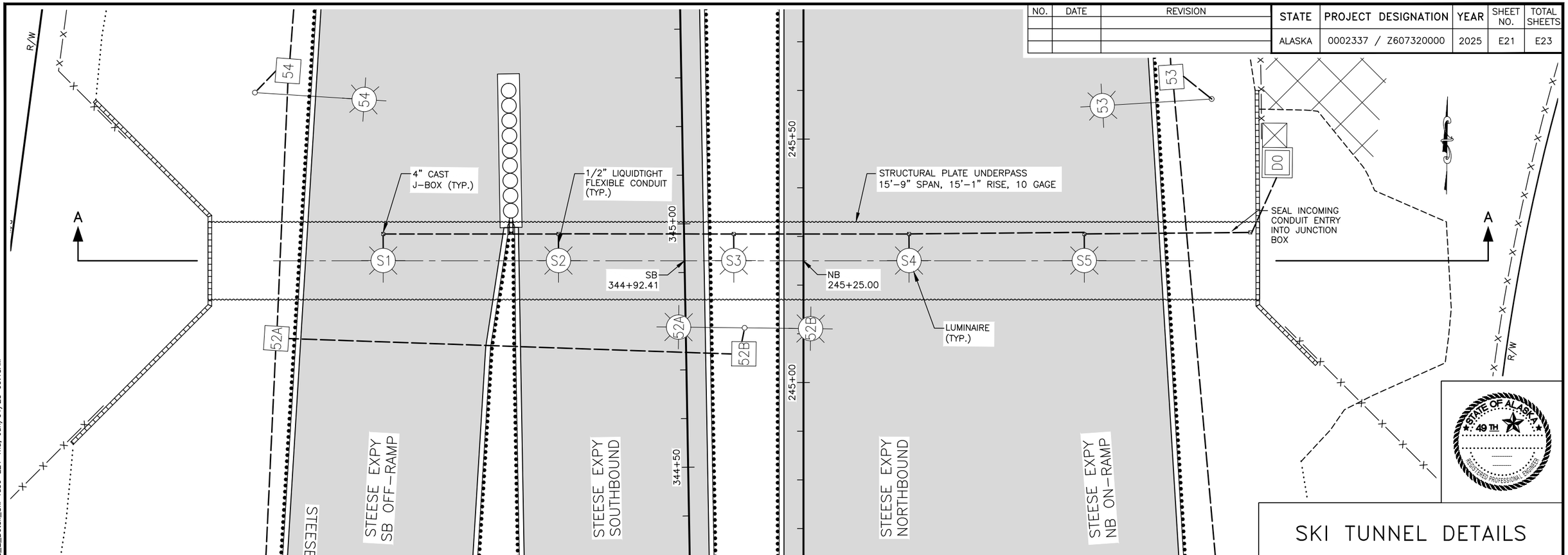


POST DETAIL
CROSS-SECTIONAL VIEW

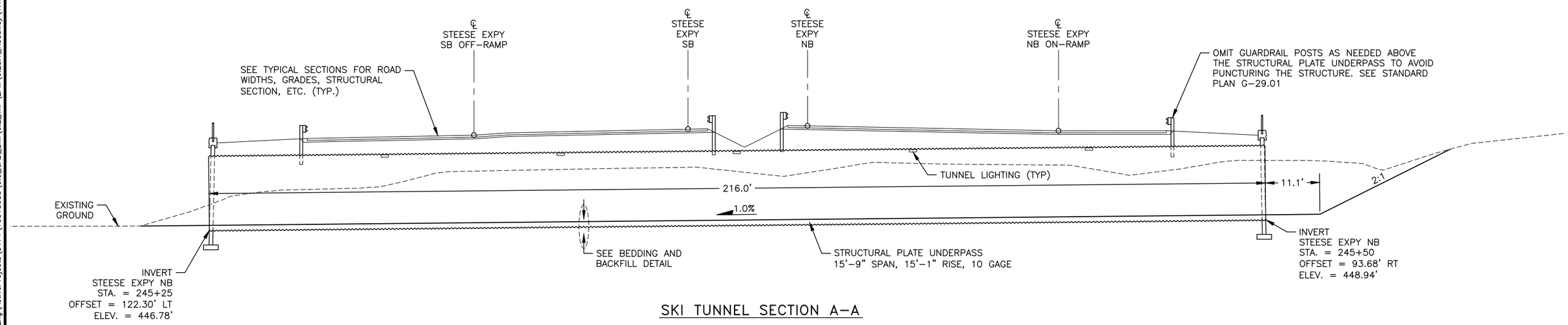
GUARDRAIL DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E21	E23



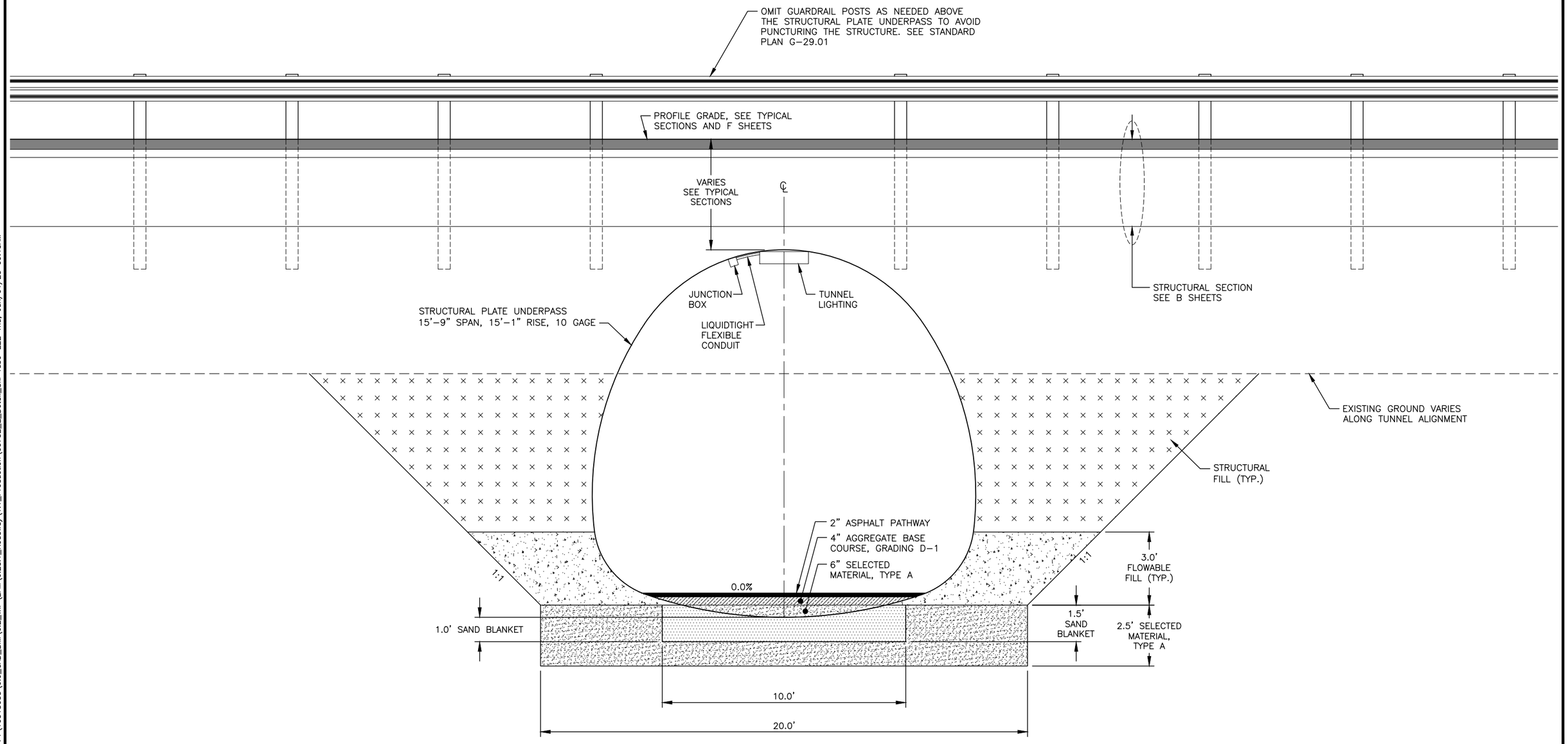
SKI TUNNEL DETAILS



SKI TUNNEL SECTION A-A

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E22	E25



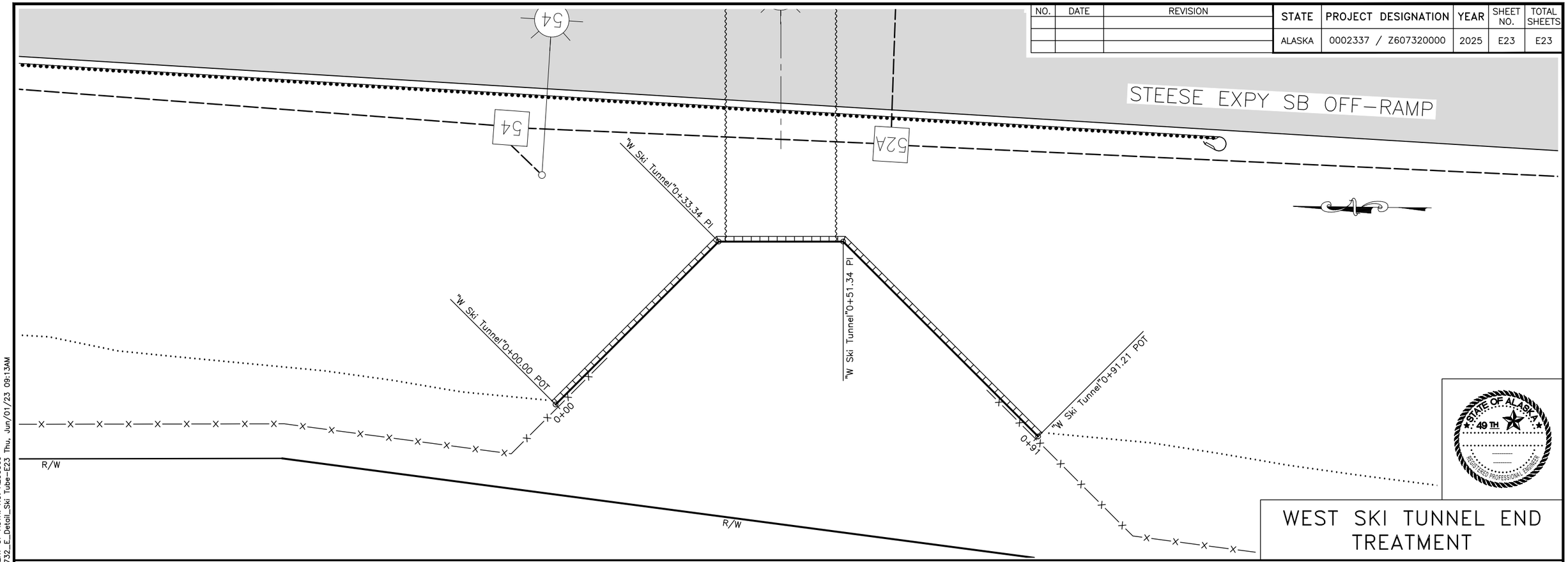
NORDIC SKI TUNNEL
BEDDING AND BACKFILL DETAIL

SKI TUNNEL DETAILS

STATE OF ALASKA
49TH
REGISTERED PROFESSIONAL ENGINEER

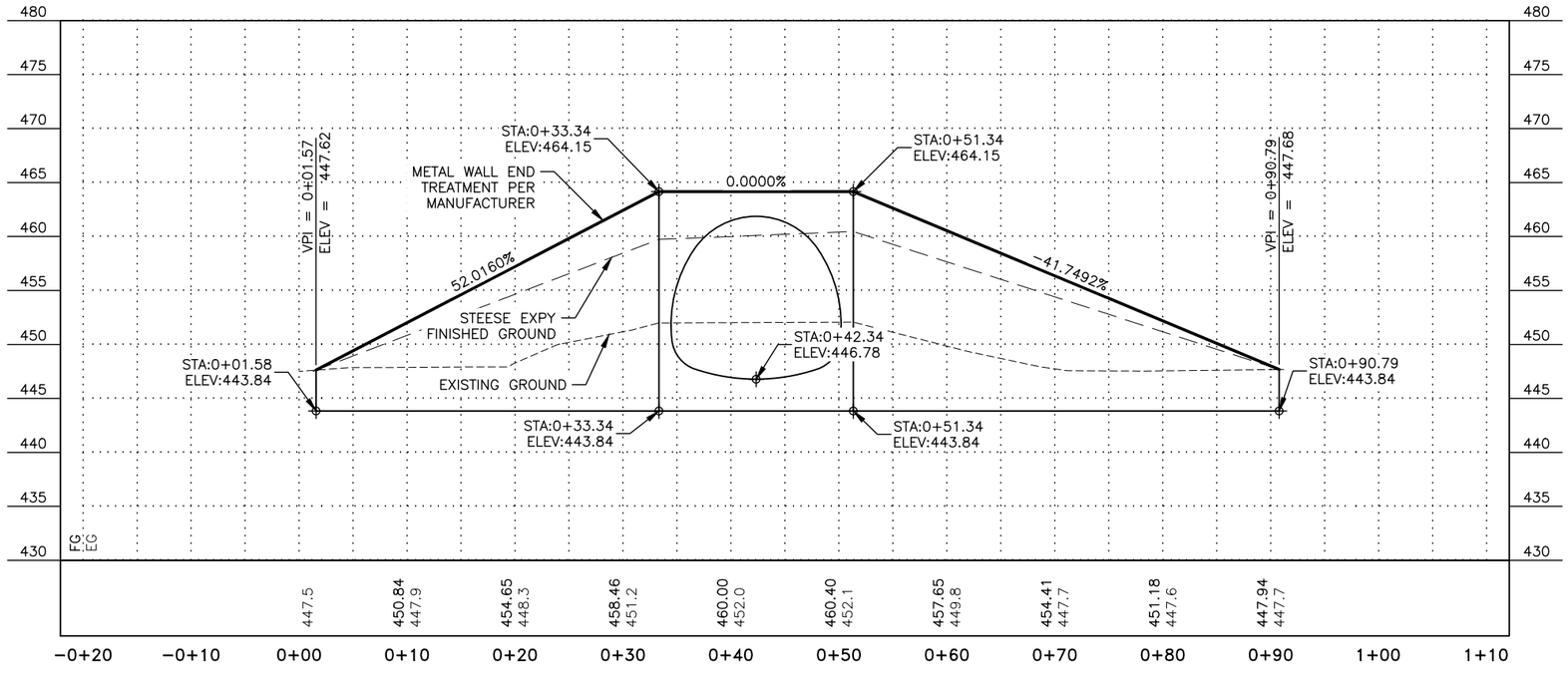
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E23	E23



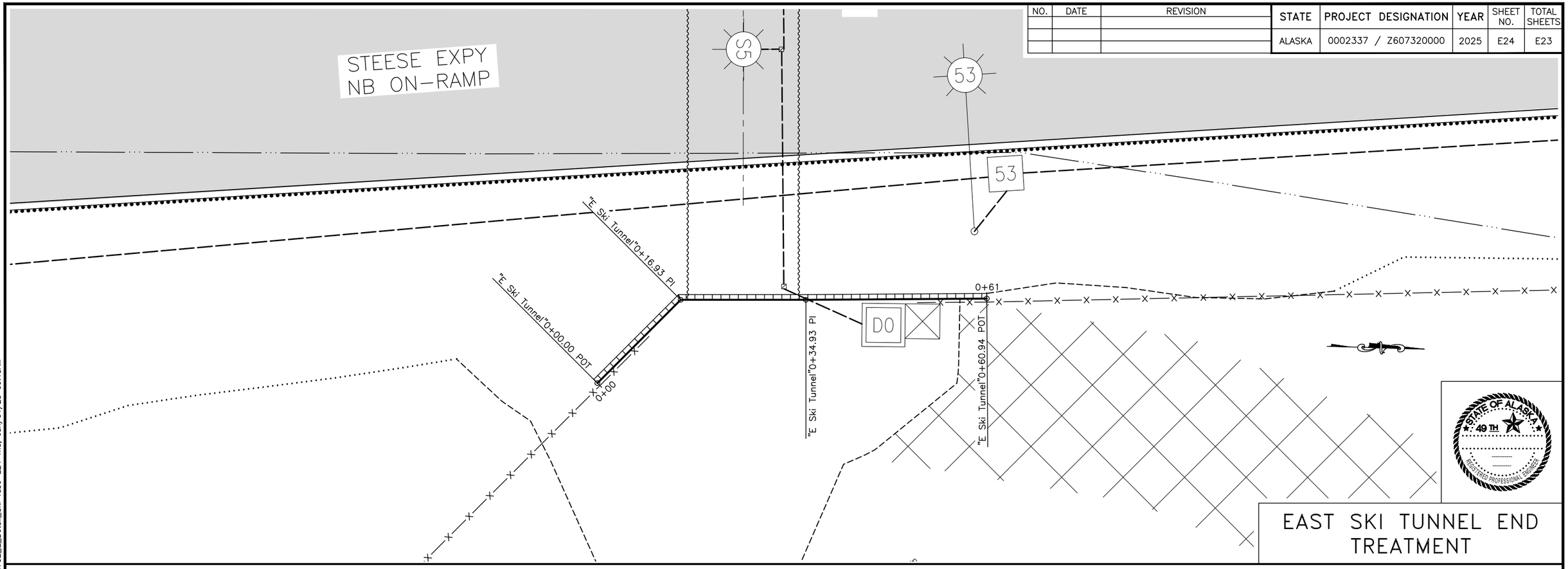
STATE OF ALASKA
49 TH
REGISTERED PROFESSIONAL ENGINEER

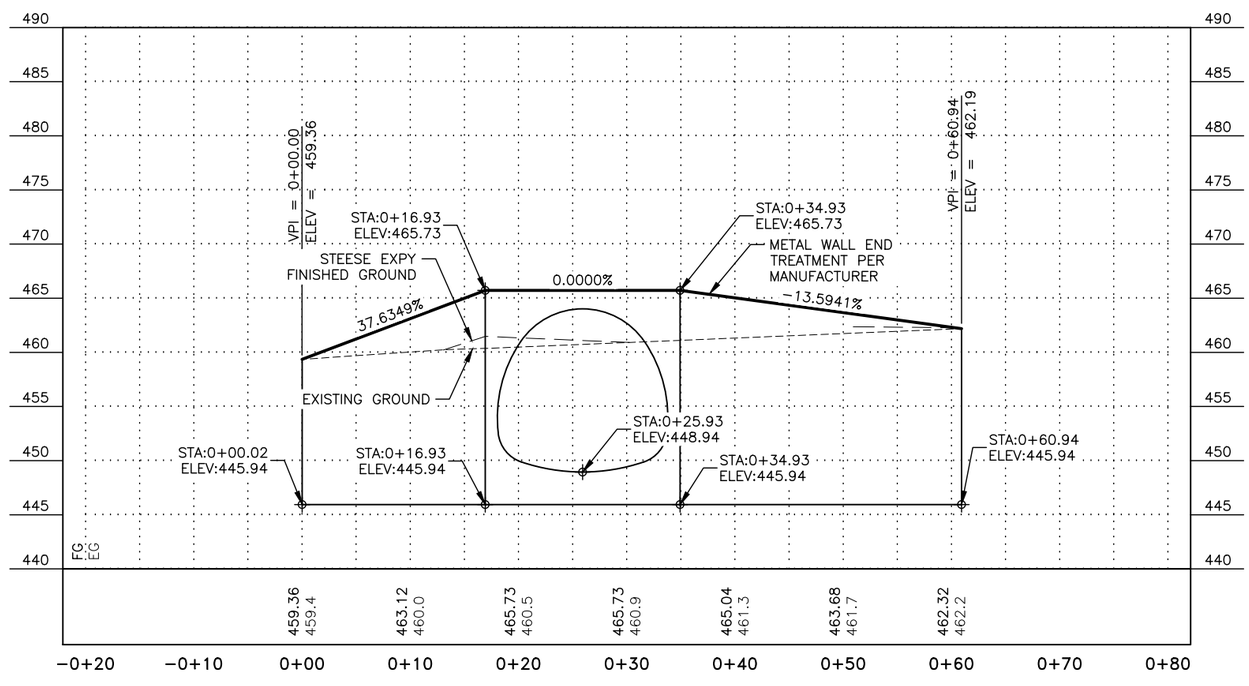
WEST SKI TUNNEL END TREATMENT



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E24	E23





STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

EAST SKI TUNNEL END TREATMENT

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	E25	E25

UNDERCROSSING LUMINAIRE PERFORMANCE CRITERIA		
LUMINAIRE TYPE	LED	
BASIS OF DESIGN	LITHONIA DSXPG LED-30C-700-40K-T5R	
DISTRIBUTION	T5 RECTANGULAR	
INITIAL FIXTURE LUMEN OUTPUT	8,425 MIN	
COLOR TEMPERATURE (CCT)	4000K	
COLOR RENDERING INDEX (CRI)	70 MIN	
MOUNTING HEIGHT	9.75'	
ARRANGEMENT	1 ROW, CENTER OF UNDERCROSSING	
SPACING	VARIES	
LLF	0.85	
REFLECTANCE OF SURFACES	0.5	
ILLUMINANCE	DAY	NIGHT
MAINTAINED AVERAGE (FOOT-CANDLES)	> 10.0 *	> 5.3 *
UNIFORMITY (AVERAGE/MIN)	< 1.2:1 *	< 1.2:1 *

* CALCULATIONS ARE BASED ON THE CENTER 134' OF THE ENCLOSED TUNNEL

NOTES:

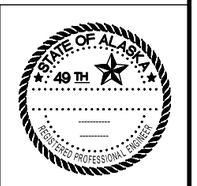
1. SEE SHEET H49 FOR LOAD CENTER SUMMARY, SHORT CIRCUIT AND ARC FLASH CALCUATIONS.
2. MAKE GROUND CONNECTION TO UNDERCROSSING TUNNEL USING #6 BARE COPPER FROM GROUND IN JUNCTION BOX TO EXOTHERMIC WELD OR TWO-HOLE COMPRESSION LUG BOLTED TO TUNNEL STEEL.

LUMINAIRE SUMMARY								
LUMINAIRE NO.	STATION	LOCATION		WATTAGE	CIRCUIT	LUMINAIRE ARM LENGTH(FT)	MOUNTING HEIGHT(FT)	REMARKS
		LT	RT					
S1	245+25	86.33		25	DA1	N/A	14	
S2	245+25	50.33		25	DA1	N/A	14	
S3	245+25	14.33		25	DA1	N/A	14	
S4	245+25		21.67	25	DA1	N/A	14	
S5	245+25		57.67	25	DA1	N/A	14	

LIGHTING JUNCTION BOX SCHEDULE								
LOCATION				JUNCTION BOX TYPE				REMARKS
STATION	OFFSET	JUNCTION BOX NO	CONTROLLER	IA	II	III	IV	
245+45	97.25 RT	D0			X			

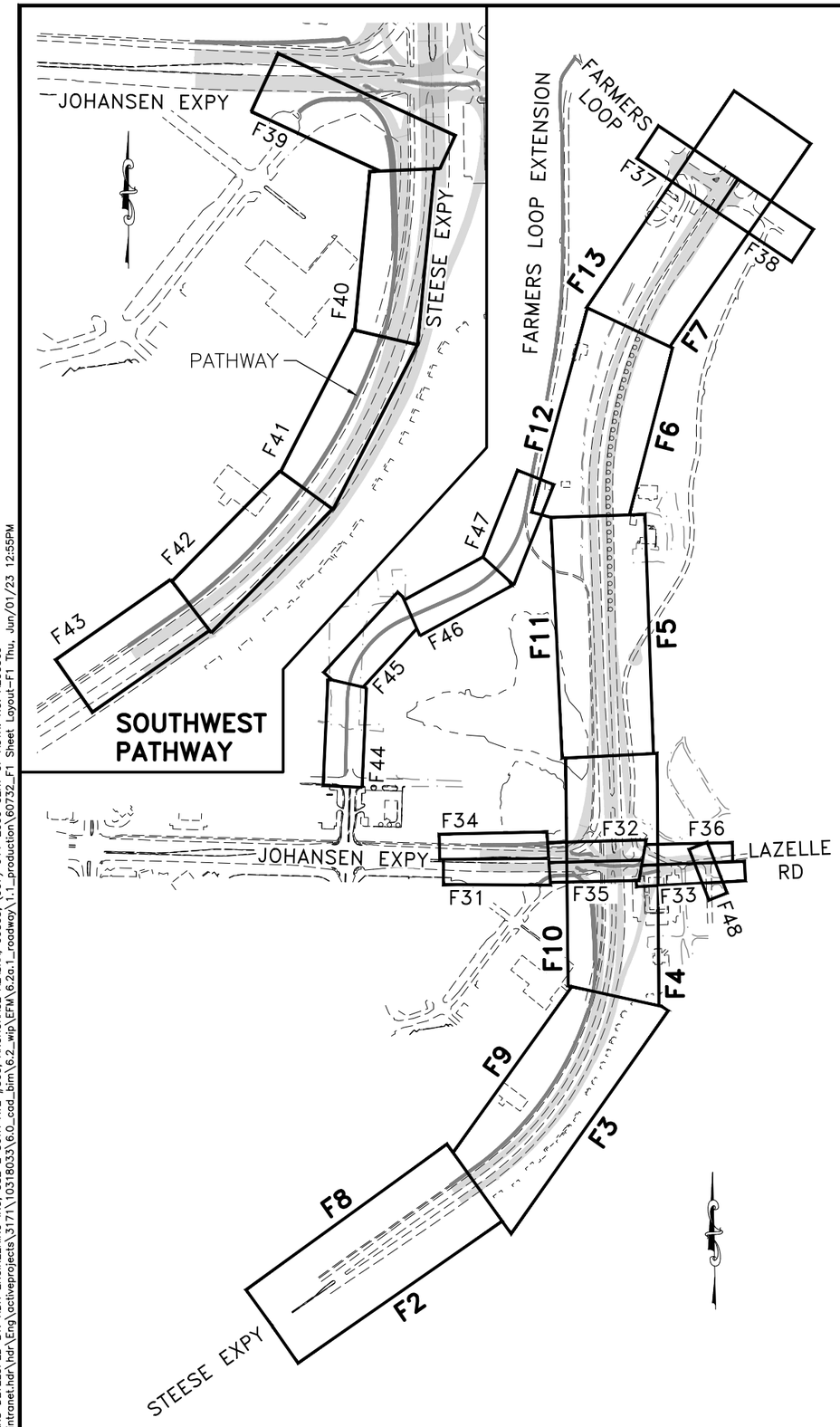
PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_E_Detail_Ski Tube-E25 Thu, Jun/01/23 09:13AM

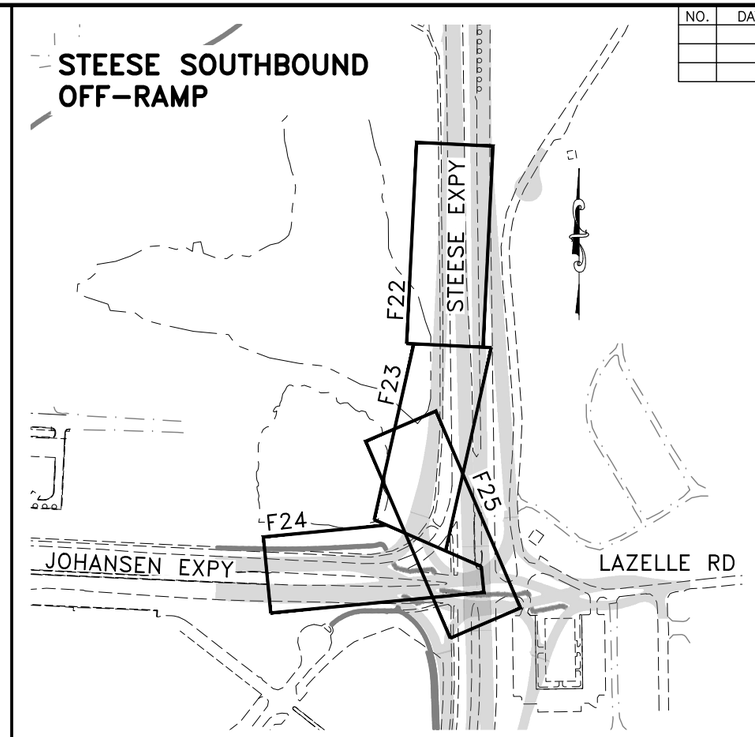
SKI TUNNEL LIGHTING DETAILS

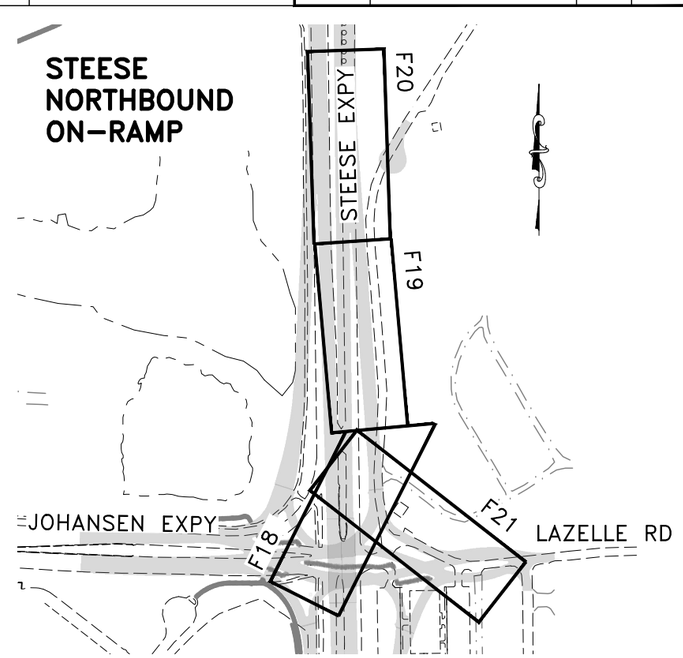


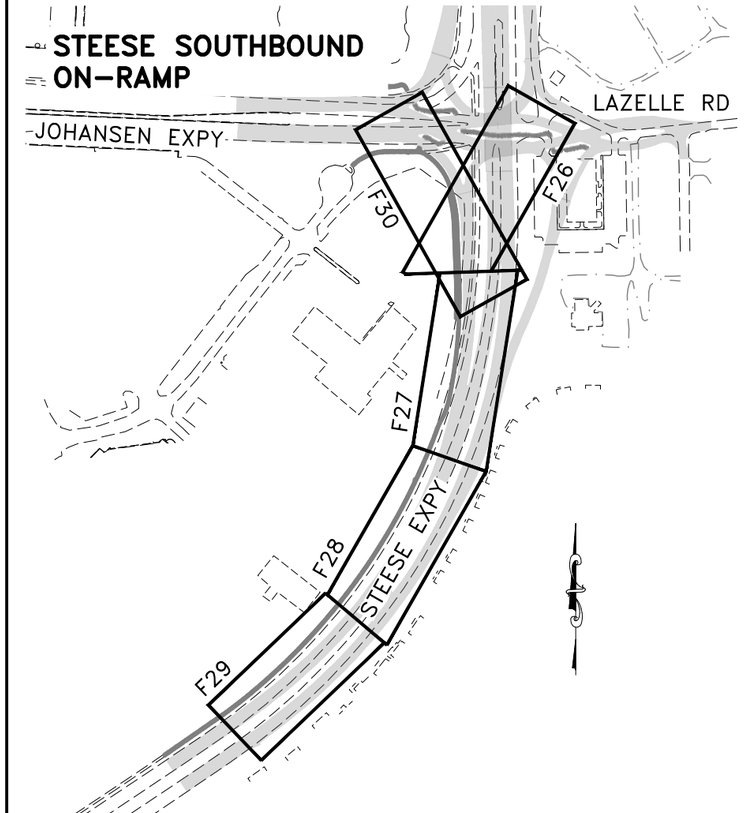
NO.	DATE	REVISION

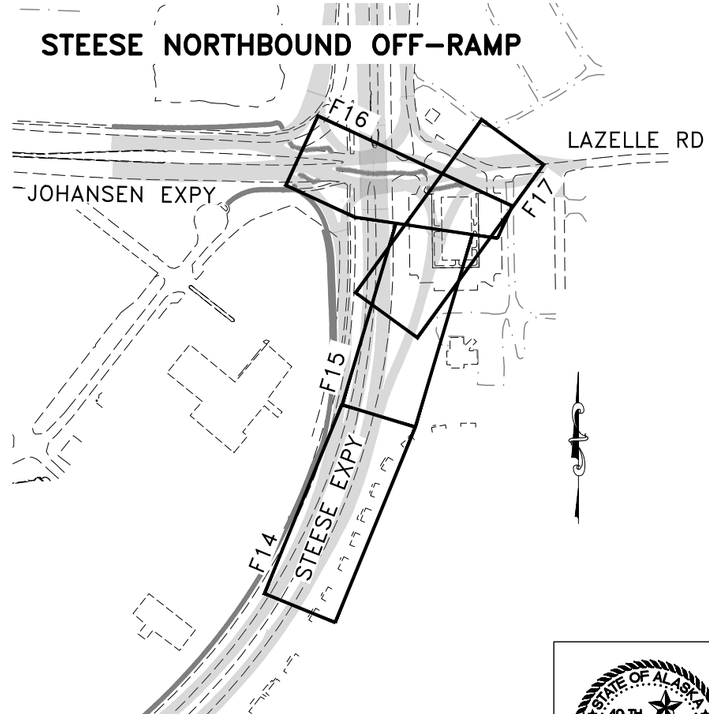
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F1	F49









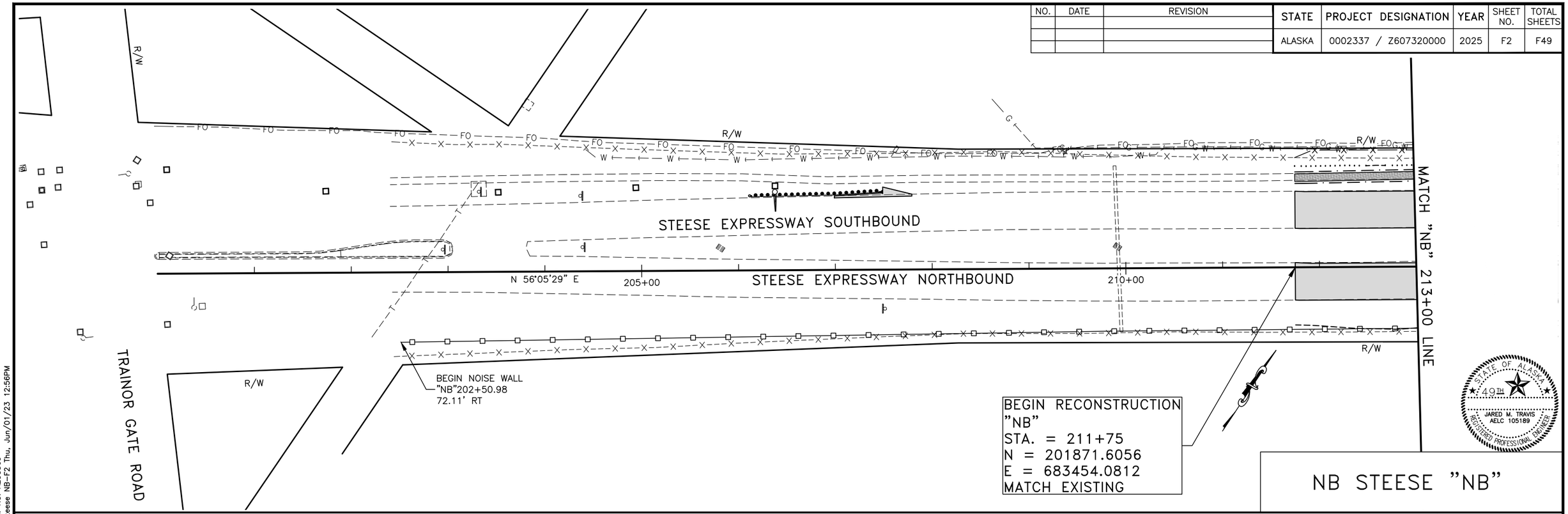


SHEET LAYOUT

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F2	F49



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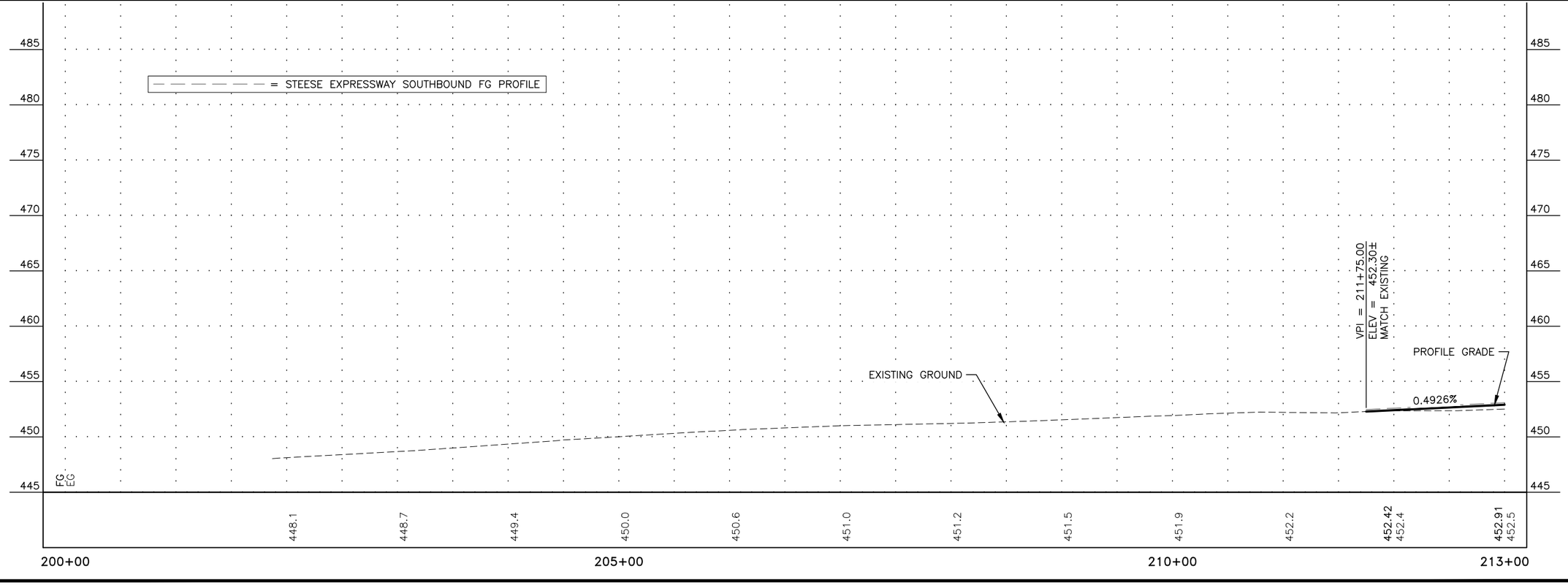
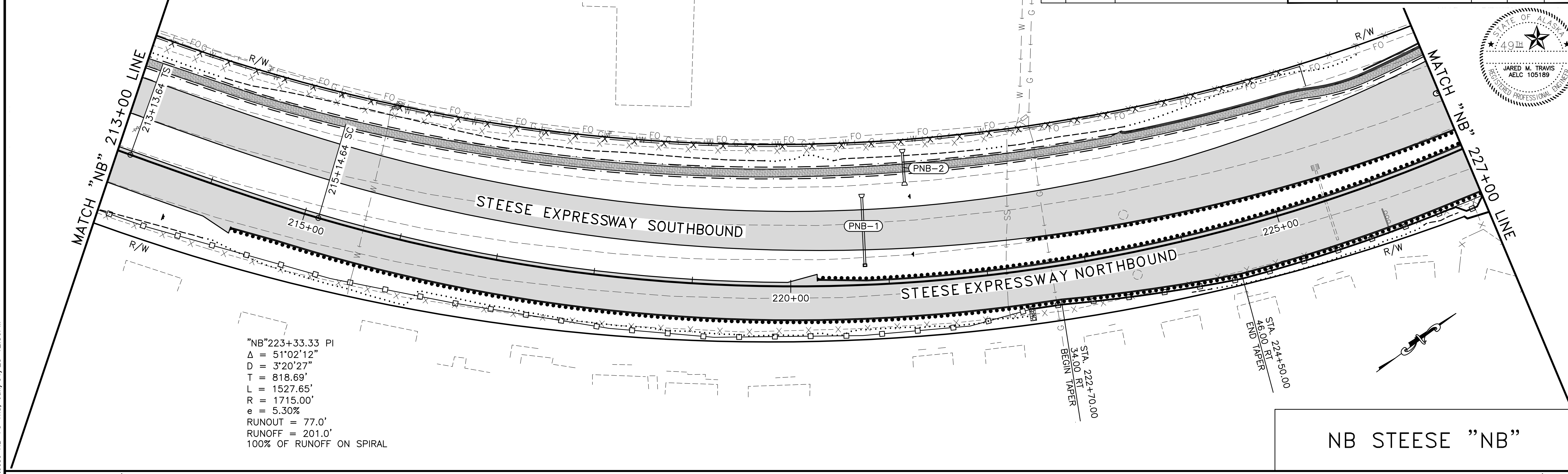


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002337 / Z607320000	2025	F3	F49



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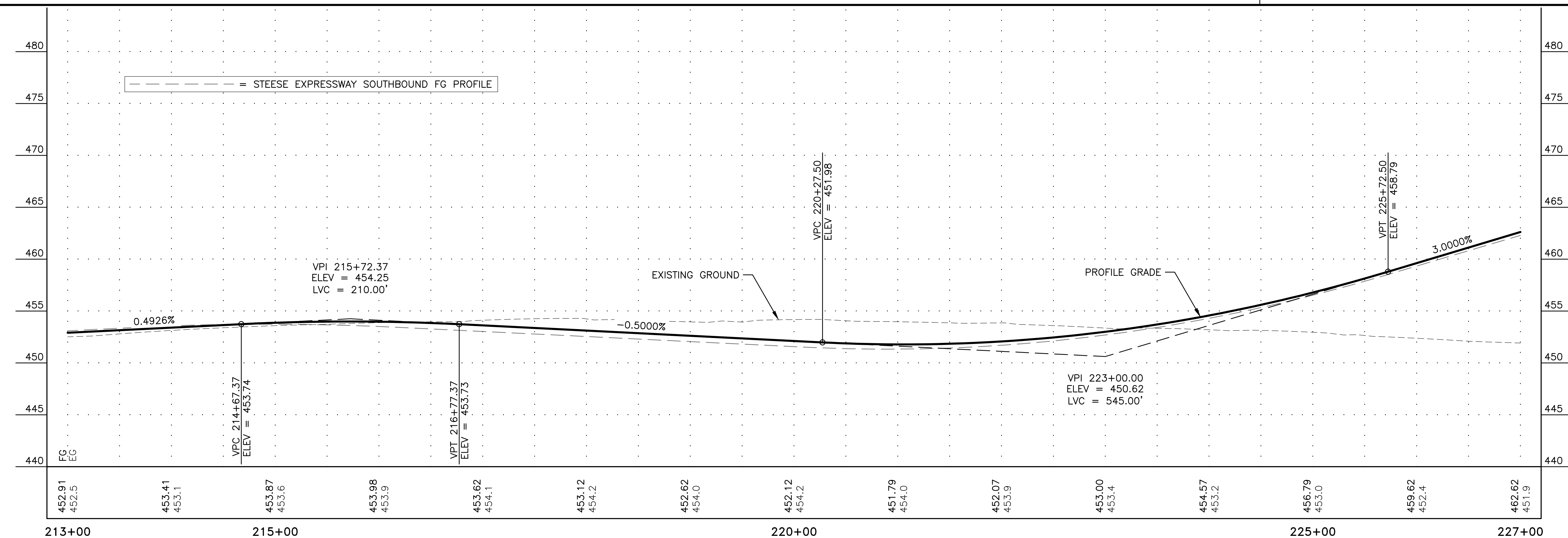

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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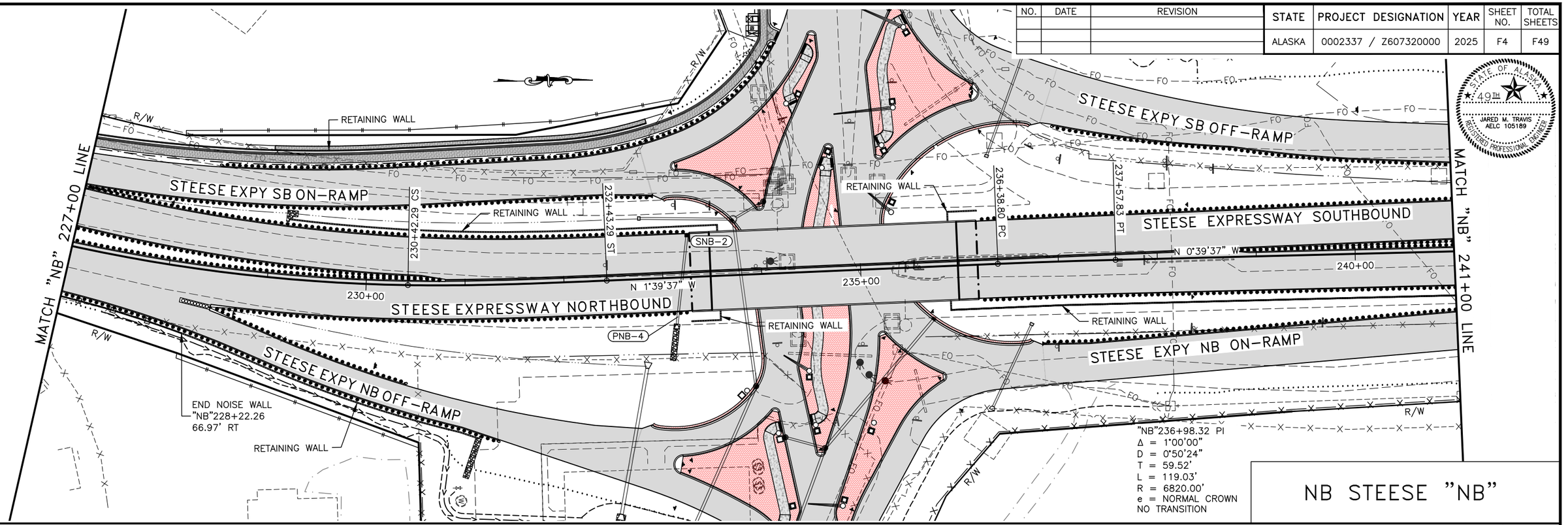
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F4	F49

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER



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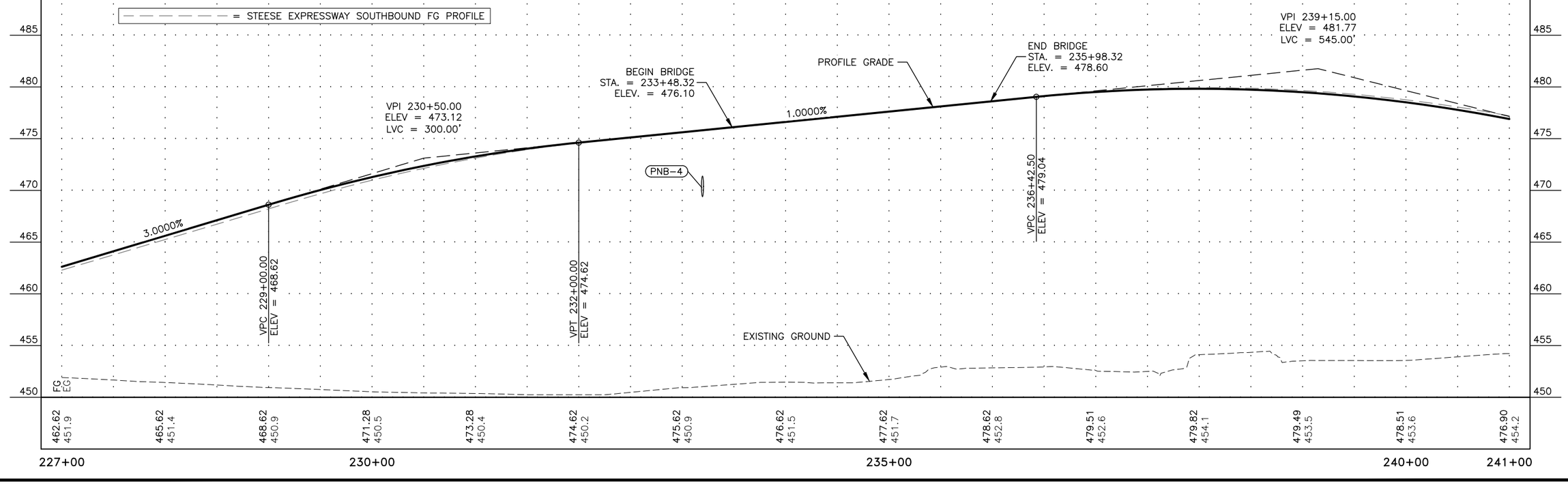
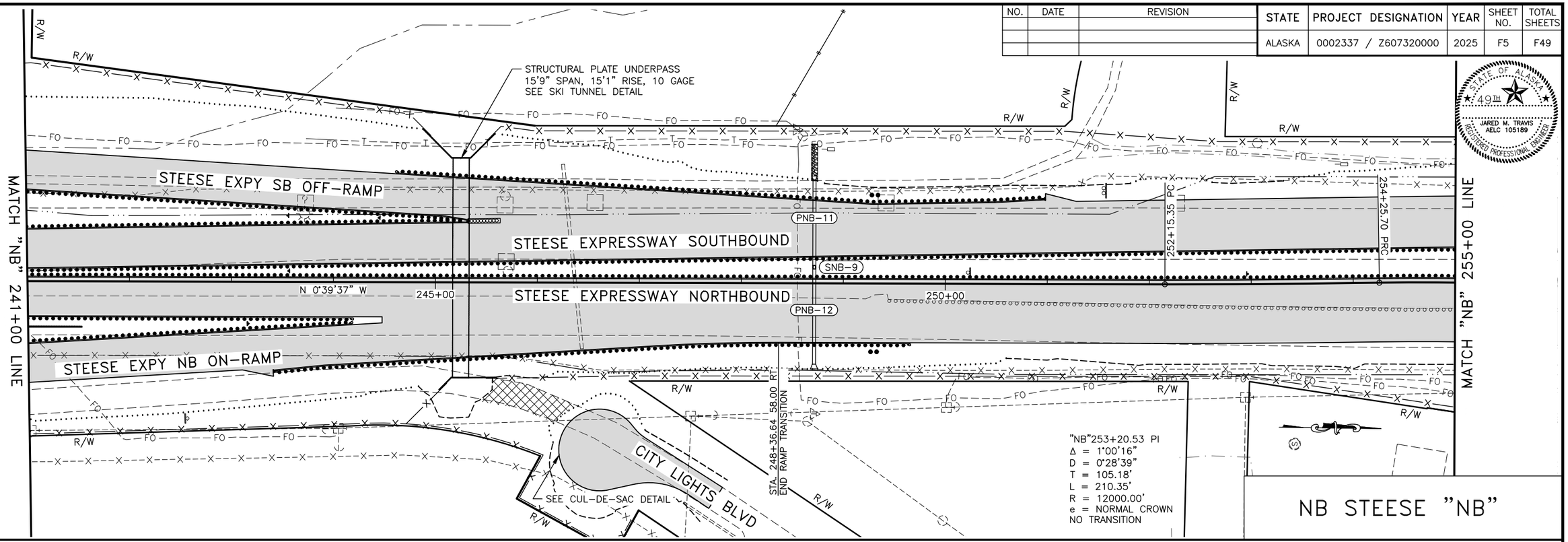
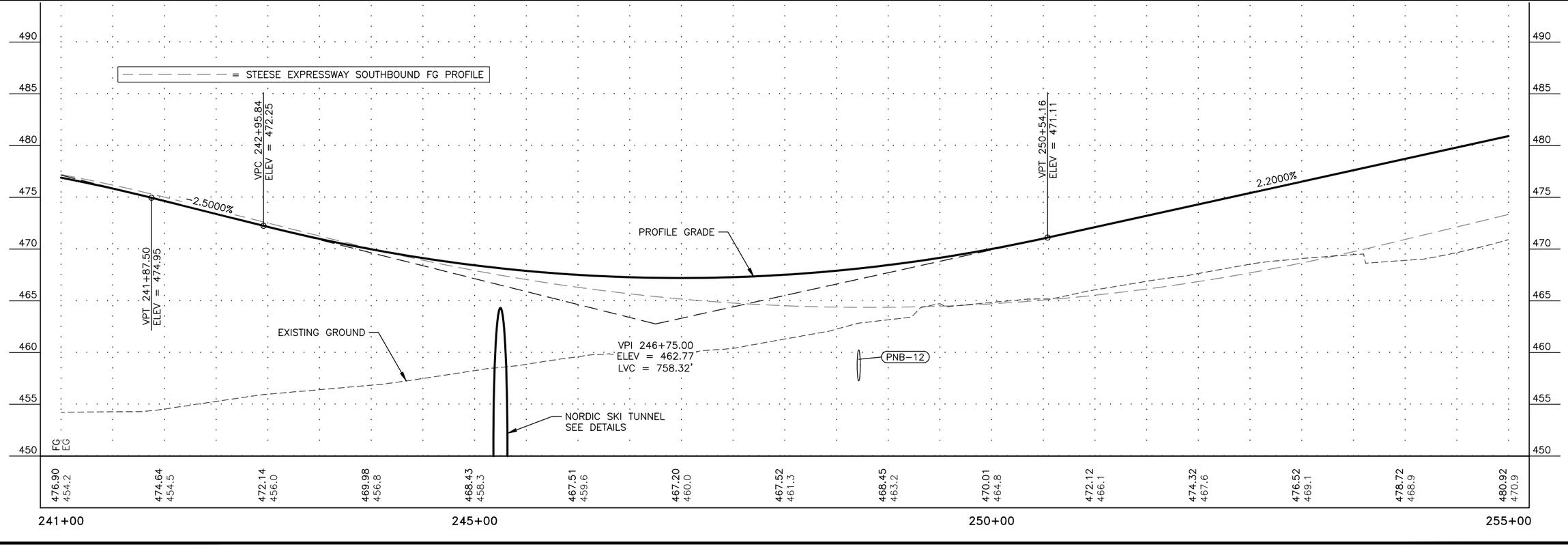


NO.	DATE	REVISION

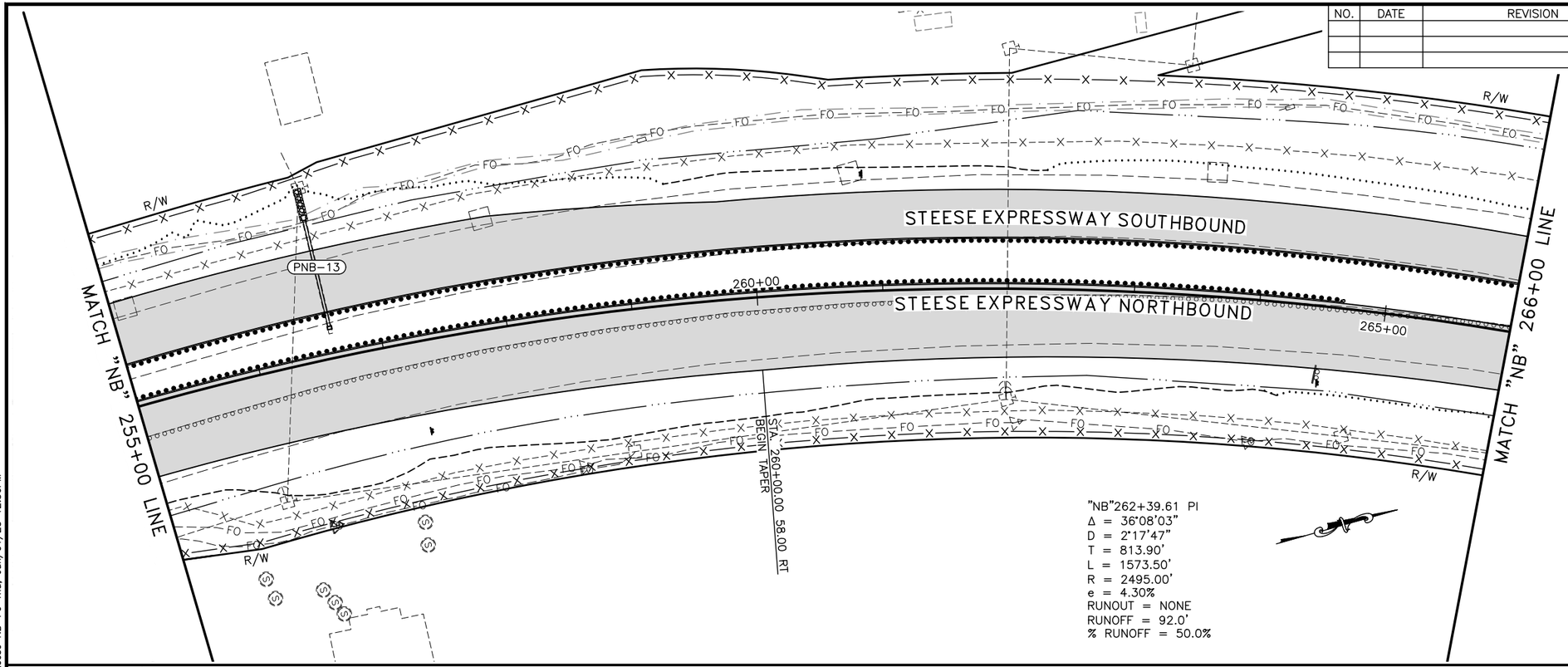
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F5	F49

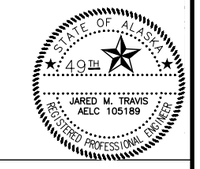




NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F6	F49





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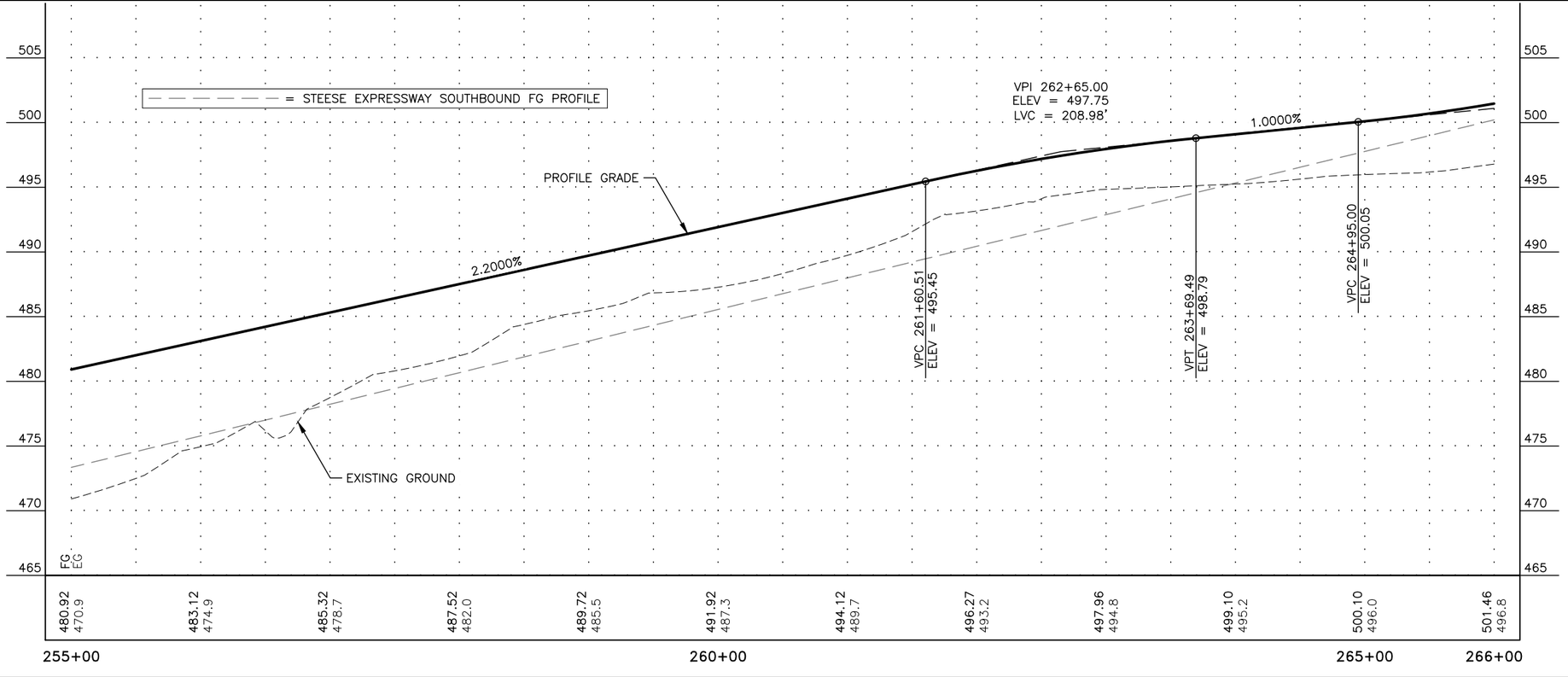
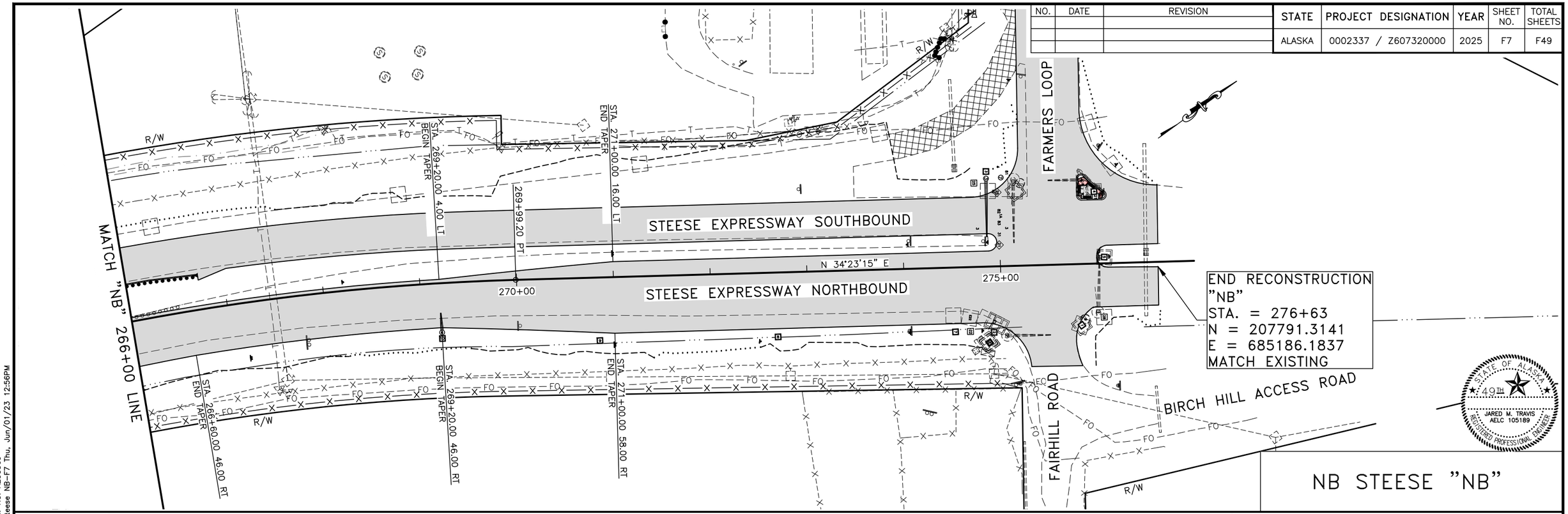


NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F7	F49



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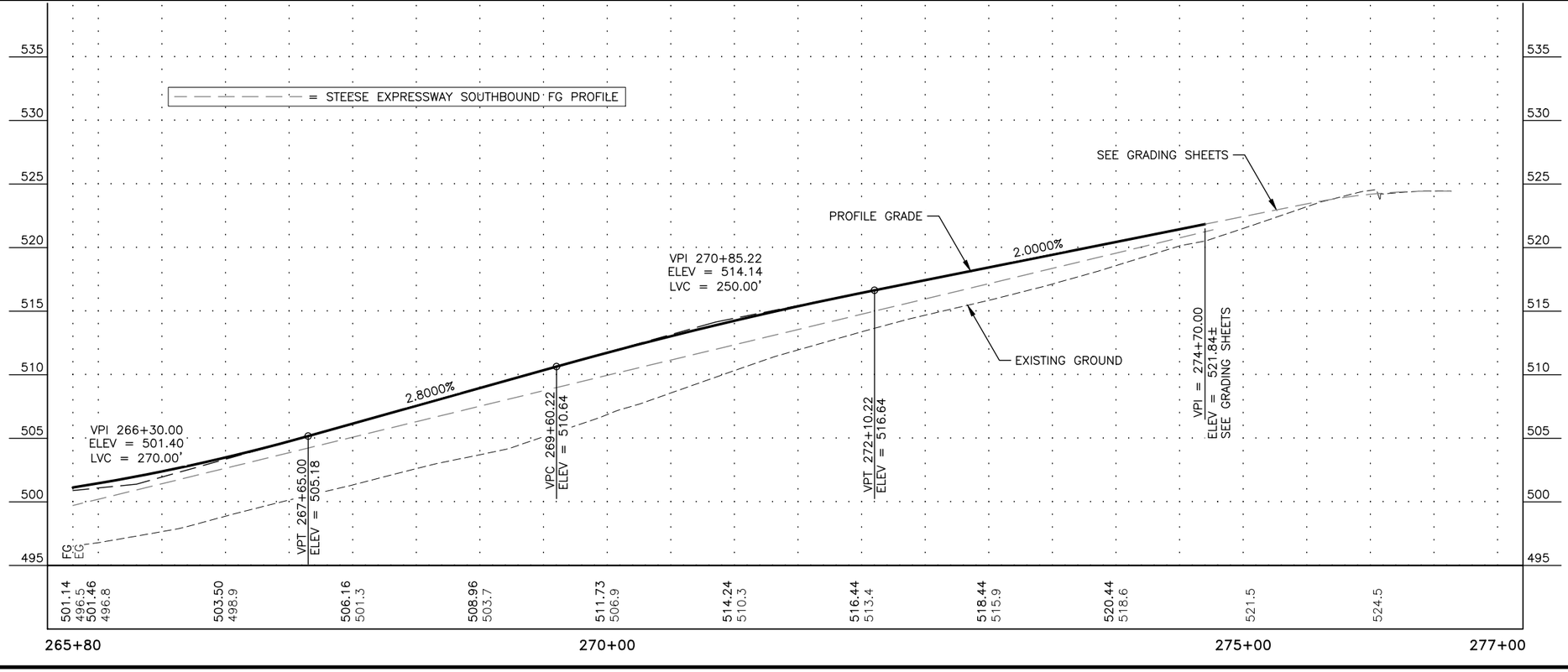
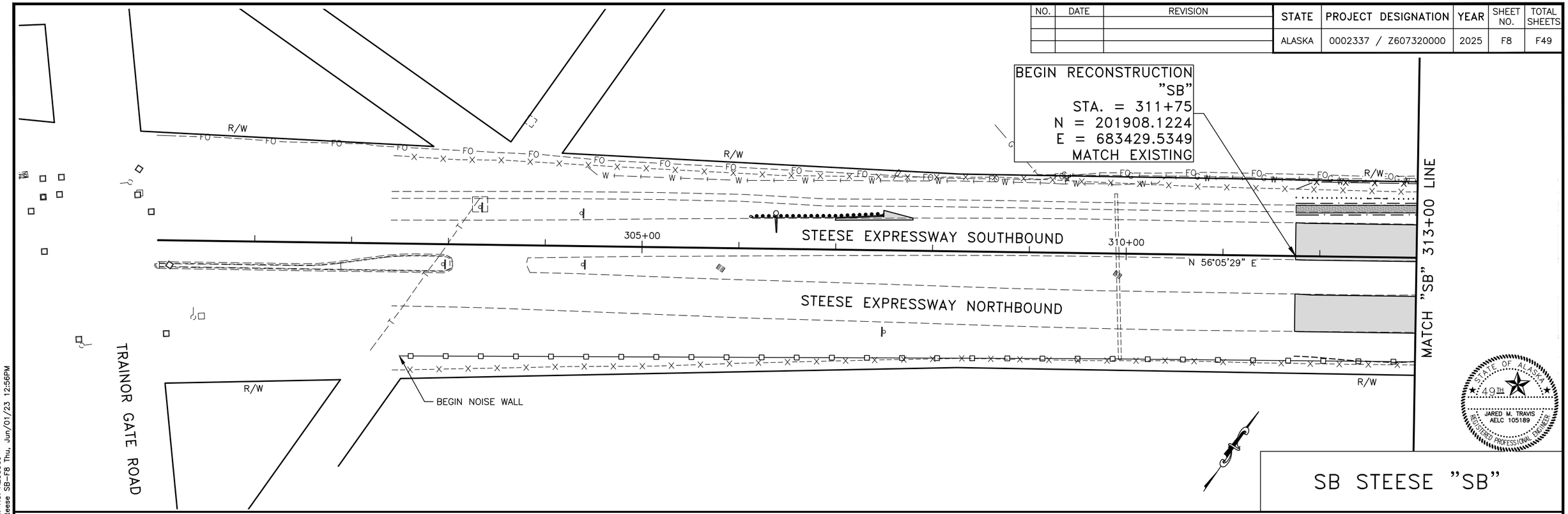
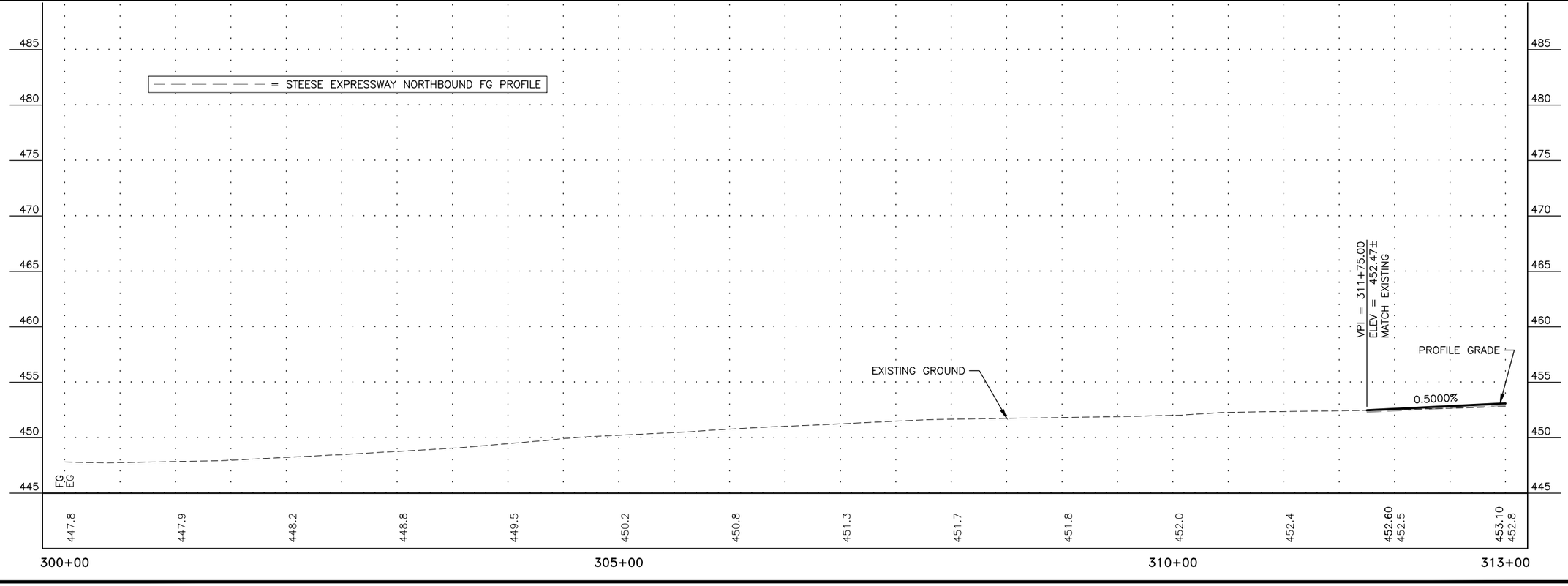


NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F8	F49

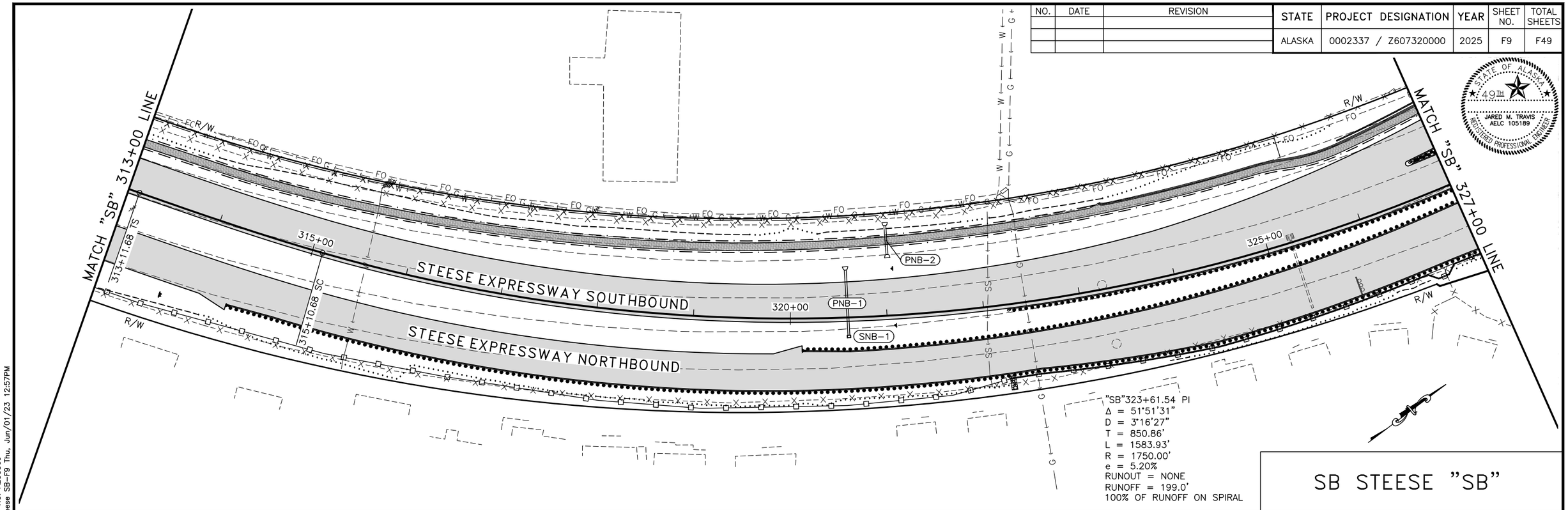


SB STEESE "SB"



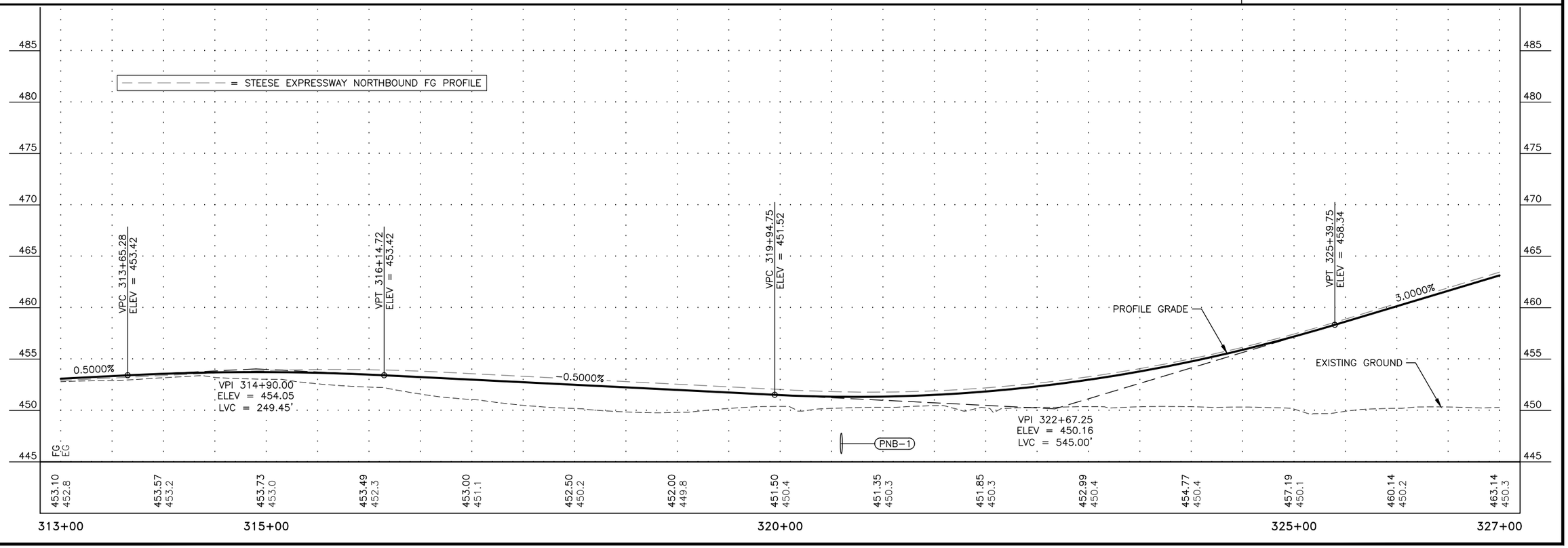
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F9	F49



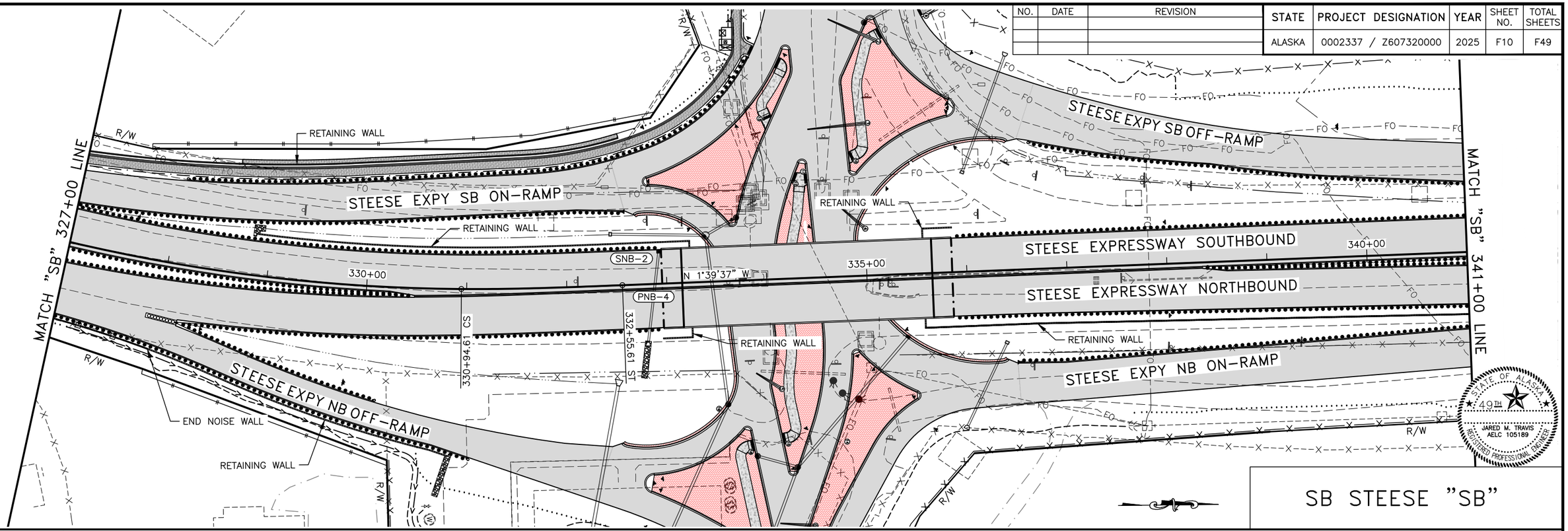
STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

SB STEESE "SB"



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F10	F49



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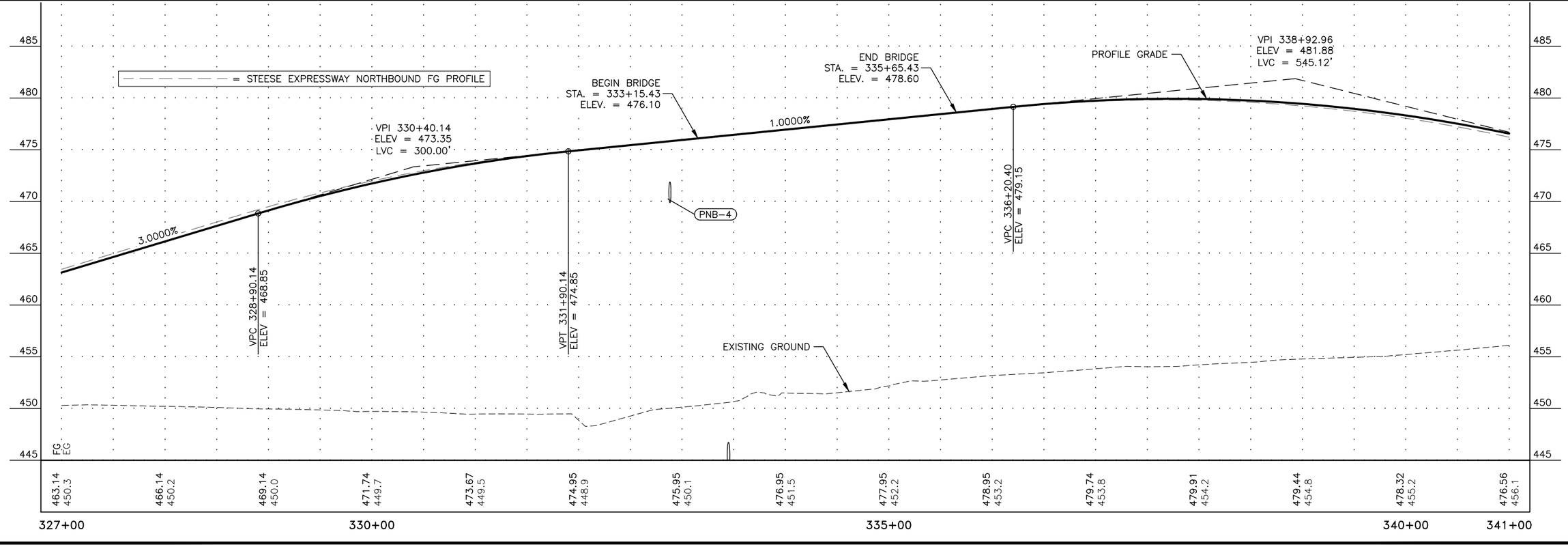
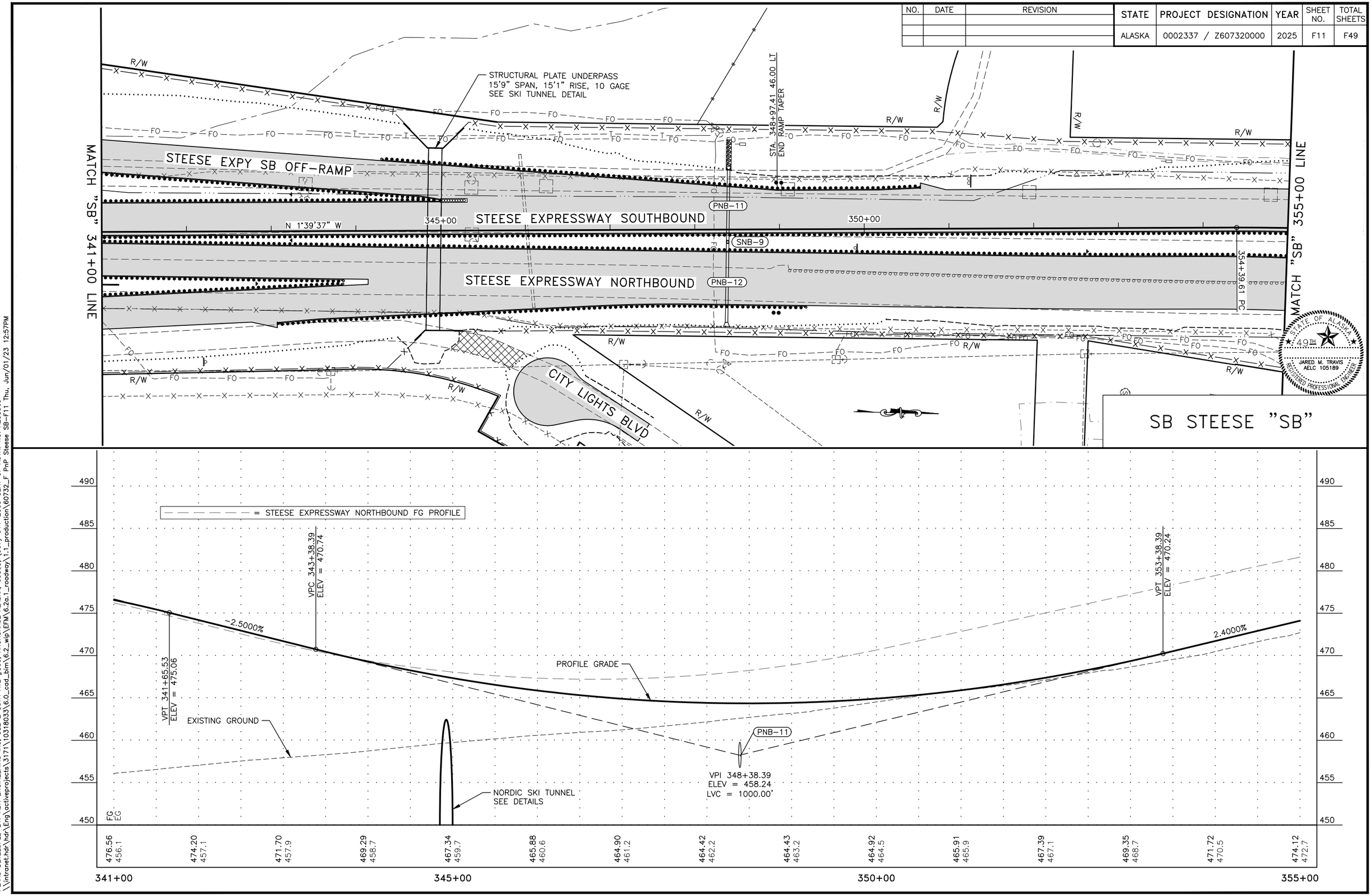


NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F11	F49



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F12	F49

"SB"362+20.53 PI
Δ = 36°02'52"
D = 2°23'14"
T = 780.92'
L = 1509.97'
R = 2400.00'
e = 4.40%
RUNOUT = 77.0'
RUNOFF = 169.0'
% RUNOFF = 70.0%

STA. 357+70.00 BEGIN TAPER
46.00 LT
STA. 359+50.00 END TAPER
34.00 LT

R/W
MATCH "SB" 355+00 LINE
MATCH "SB" 366+00 LINE
360+00
365+00
STEESE EXPRESSWAY SOUTHBOUND
STEESE EXPRESSWAY NORTHBOUND
PNB-13

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

SB STEESE "SB"

= STEESE EXPRESSWAY NORTHBOUND FG PROFILE

PROFILE GRADE
2.4000%
EXISTING GROUND
PNB-13

FG
EG

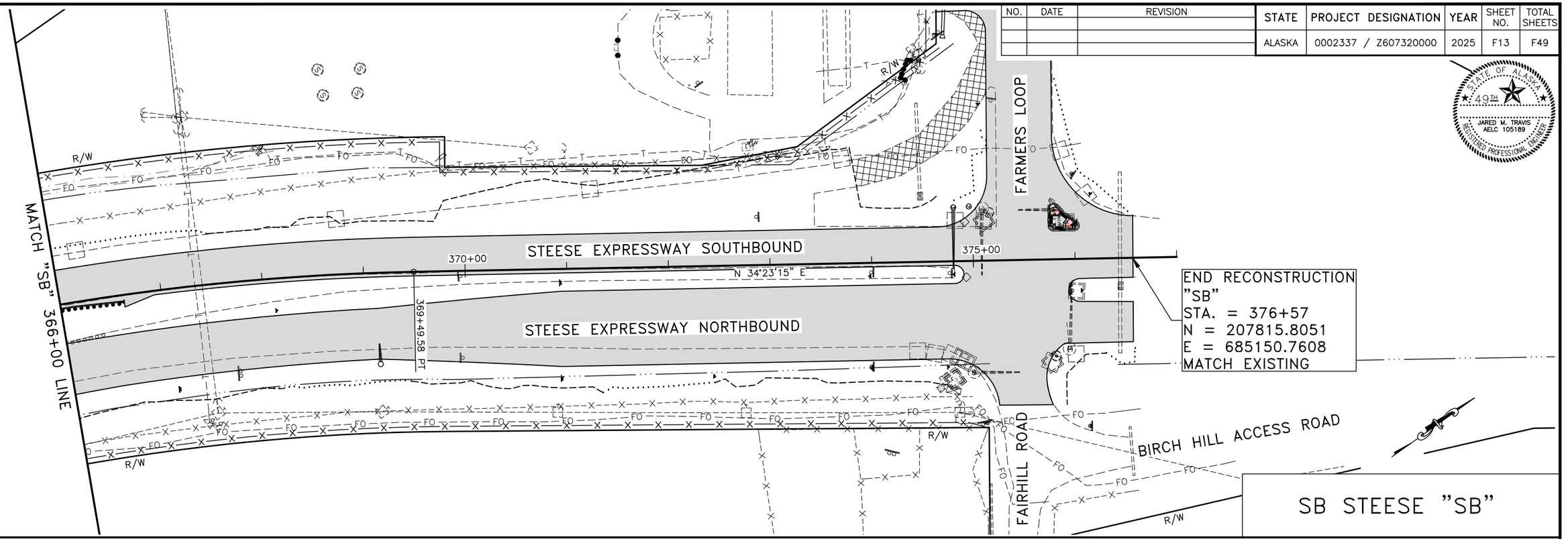
355+00	360+00	365+00	366+00
474.12 / 472.7	476.52 / 475.2	478.92 / 477.1	481.32 / 479.7
483.72 / 481.8	486.12 / 483.4	488.52 / 485.3	490.92 / 487.3
493.32 / 488.6	495.72 / 489.8	498.12 / 492.2	500.52 / 494.7

500 495 490 485 480 475 470 465 460

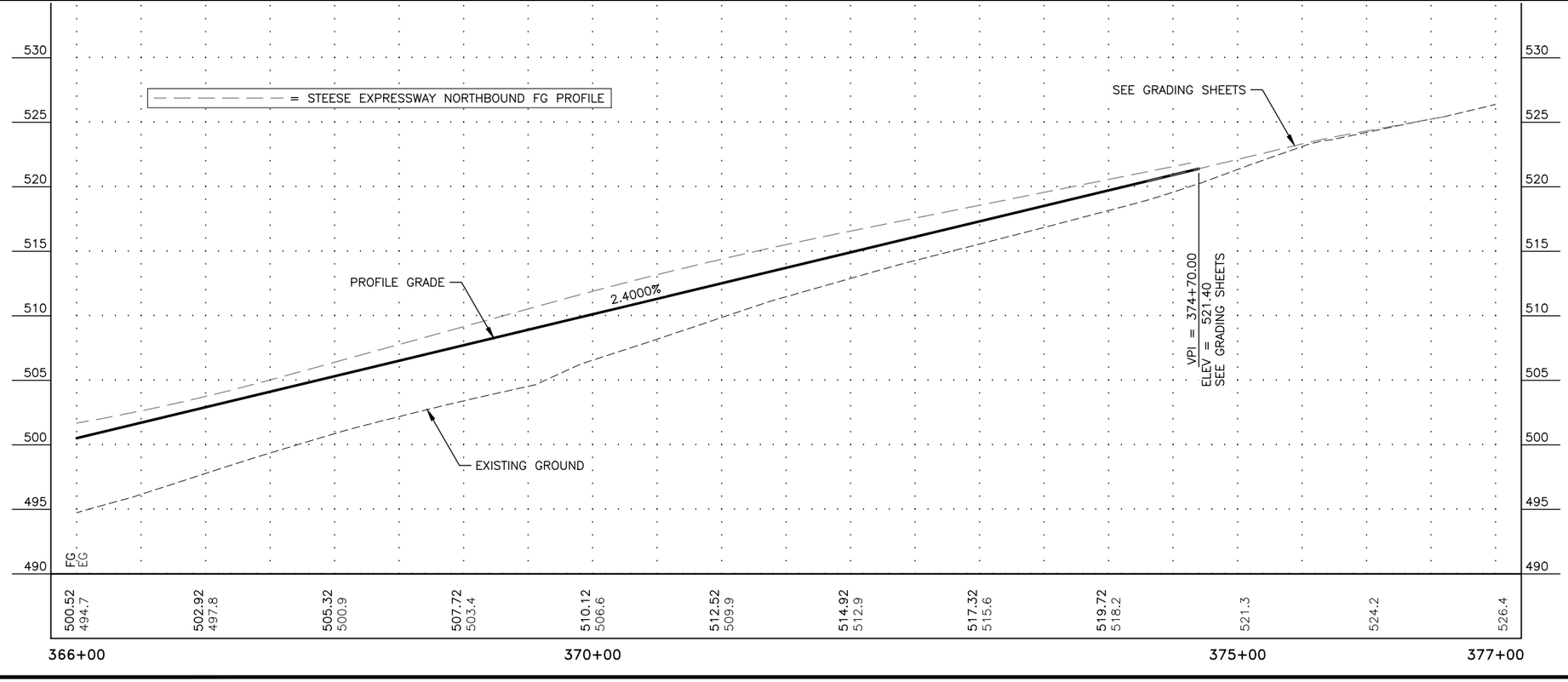
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F13	F49

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

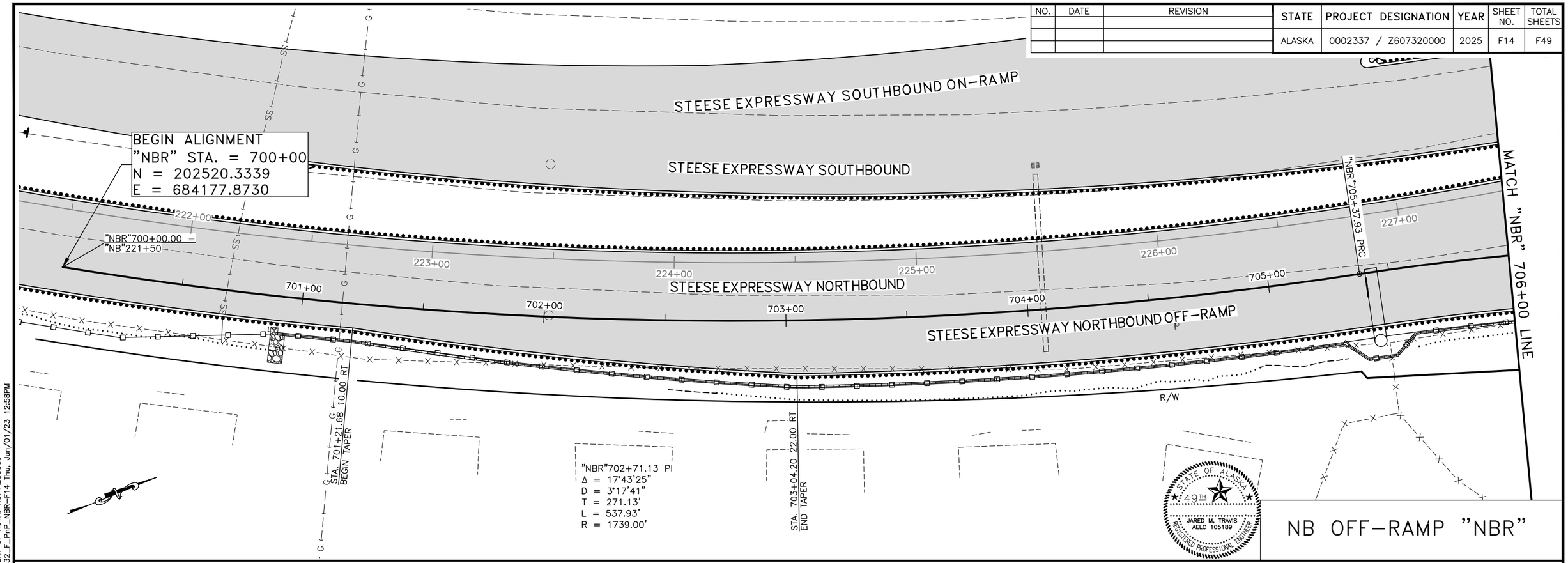


SB STEESE "SB"

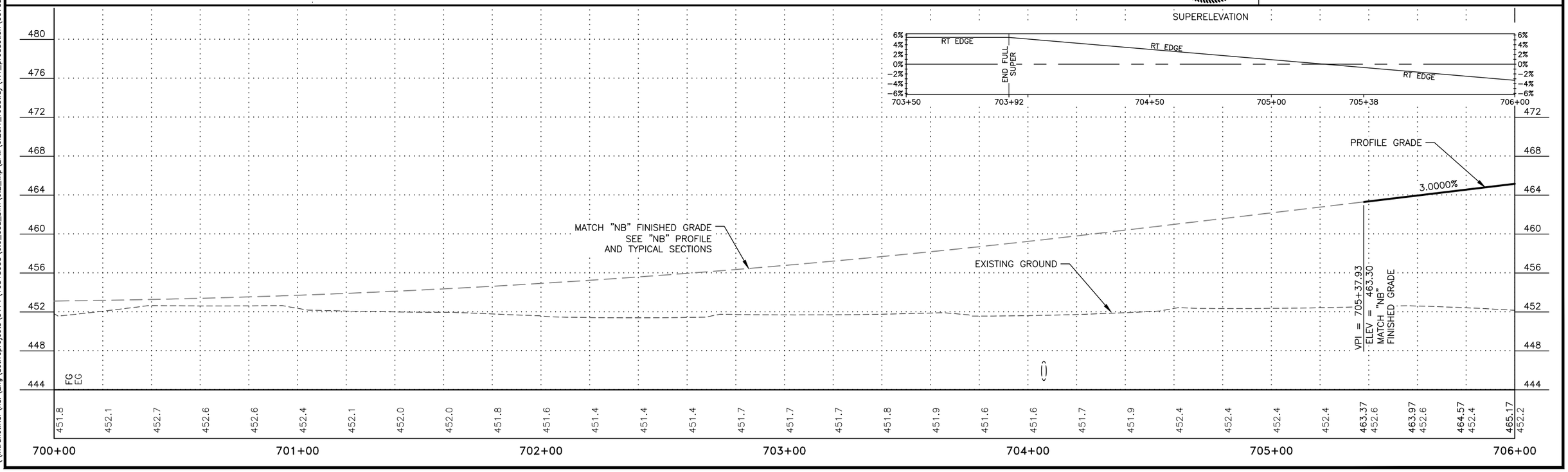


NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F14	F49



NB OFF–RAMP "NBR"

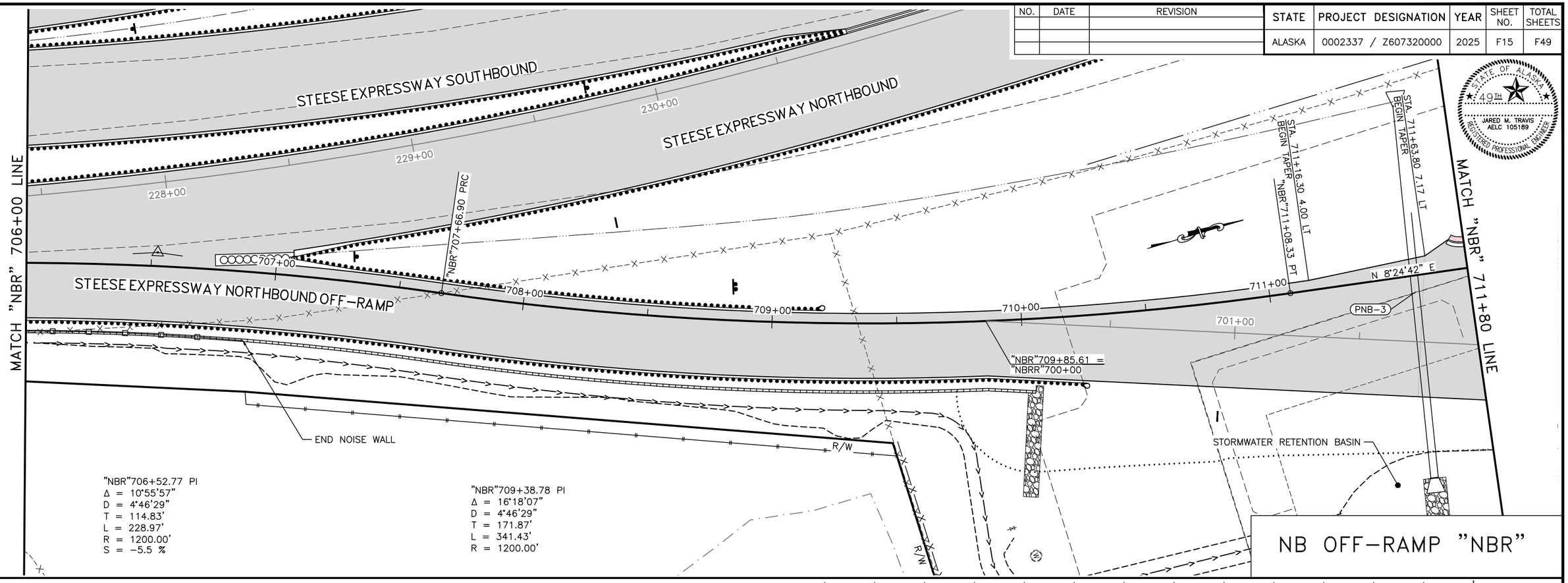


PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644–2000 CERT OF AUTH. NO. AECC569
\\Intranet.hdr\hdr\Eng\activeprojects\3171\10318033\6.0_cad_bim\6.2_wip\EFM\6.2a.1_roadway\1.1_production\60732_F_PnP_NBR–F14 Thu, Jun/01/23 12:58PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F15	F49

STATE OF ALASKA 49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER



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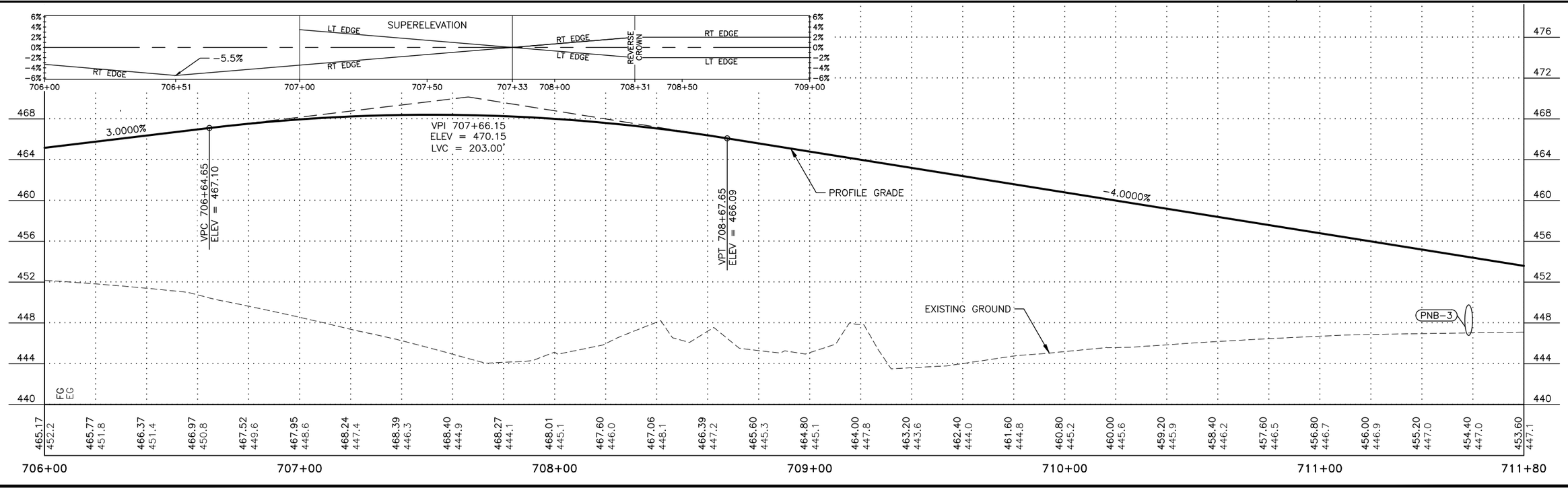

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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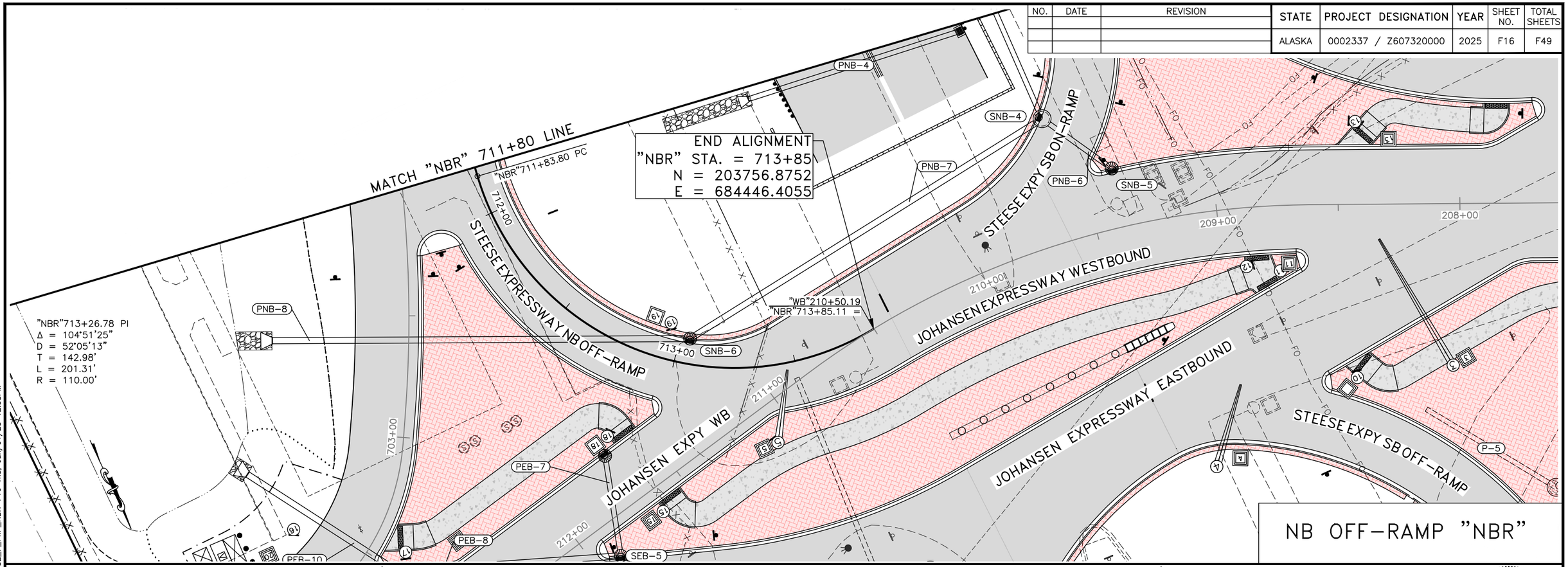
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F16	F49



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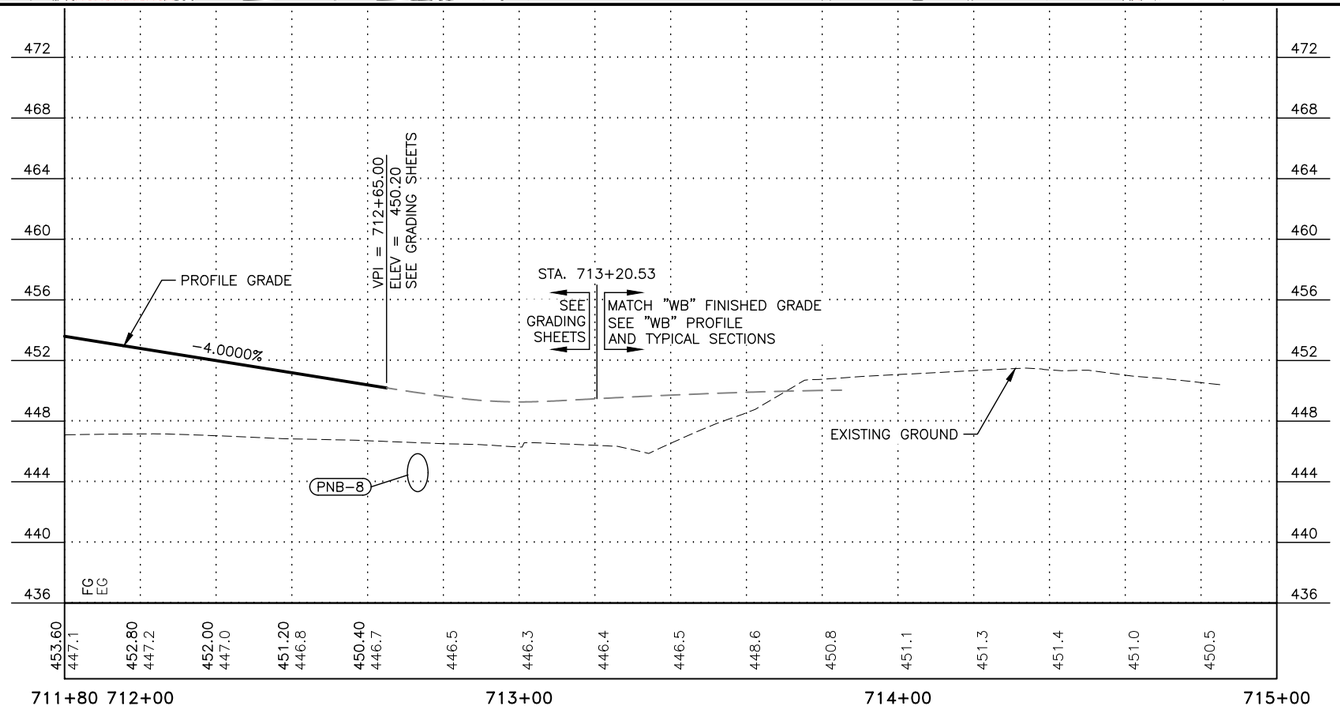

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F17	F49

STEESE EXPY SOUTHBOUND

STEESE EXPRESSWAY NORTHBOUND

STEESE EXPY NB OFF-RAMP

STEESE EXPY NB ON-RAMP

JOHANSEN EXPY WB

JOHANSEN EXPY EB

BEGIN ALIGNMENT
"NBRR" STA. = 700+00
N = 203436.5466
E = 684532.4057

END ALIGNMENT
"NBRR" STA. = 704+52
N = 203768.0813
E = 684772.7544

"NBRR"700+00.00 = "NBR"709+85.61

"NBRR"701+49.76 PI

"NBRR"702+00.06 PC

"NBRR"702+90.94 PT

"NBRR"703+02.55 PC

"NBRR"704+02.54 PT

"NBRR"704+51.71 = "EB"313+62.68

N 29°18'03" E

N 88°56'44" E

"NBRR"702+45.62 PI
Δ = 9°58'31"
D = 10°58'34"
T = 45.56'
L = 90.88'
R = 522.00'

"NBRR"703+57.62 PI
Δ = 59°40'41"
D = 59°40'59"
T = 55.07'
L = 99.99'
R = 96.00'

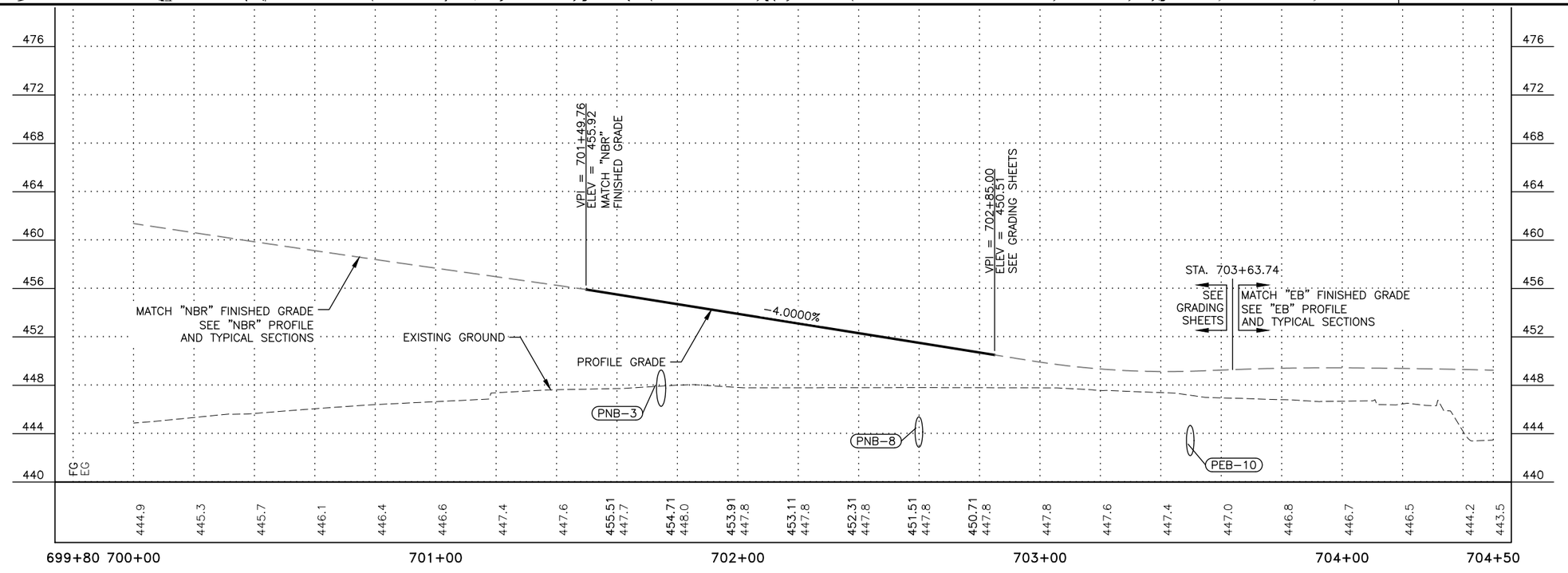
PNB-3 PNB-8 PEB-9 SEB-7 PEB-10

709+00 710+00 711+00 712+00 701+00 702+00 704+00

R/W

STORMWATER RETENTION BASIN

NB OFF-RAMP "NBRR"



STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F18	F49

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

BEGIN ALIGNMENT
"EBL" STA. = 0+29
N = 203828.9595
E = 684288.8446

"EBL"0+28.62 =
"EB"308+66.85

STEESE EXPRESSWAY SOUTHBOUND
STEESE EXPRESSWAY NORTHBOUND
JOHANSEN EXPRESSWAY EASTBOUND
JOHANSEN EXPRESSWAY WESTBOUND
STEESE EXPRESSWAY NORTHBOUND ON-RAMP
MATCH "EBL" 5+40 LINE

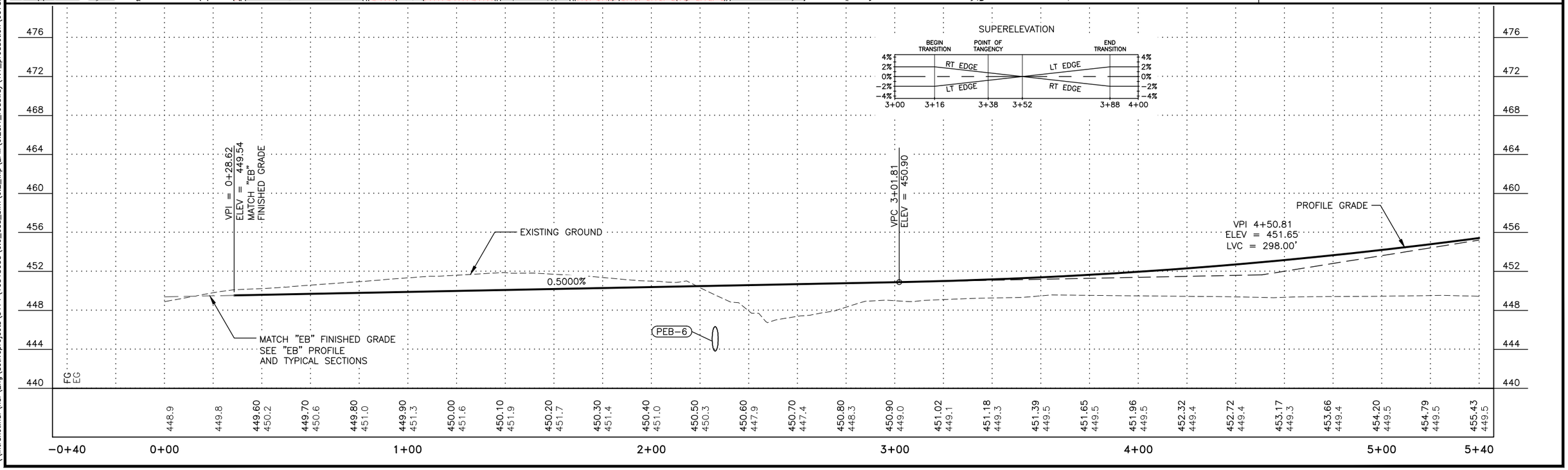
309+00
N 84°51'22" E
"EBL"1+00.00 PC
1+00
310+00
2+00
3+00
4+00
5+00
N 4°09'27" W
"EBL"3+38.36 PT
R/W

"EBL"2+50.49 PI
Δ = 88°40'50"
D = 37°12'18"
T = 150.49'
L = 238.36'
R = 154.00'

SNB-5
SNB-4
SNB-2
PNB-7
PNB-4
SEB-4
PEB-6
PNB-9

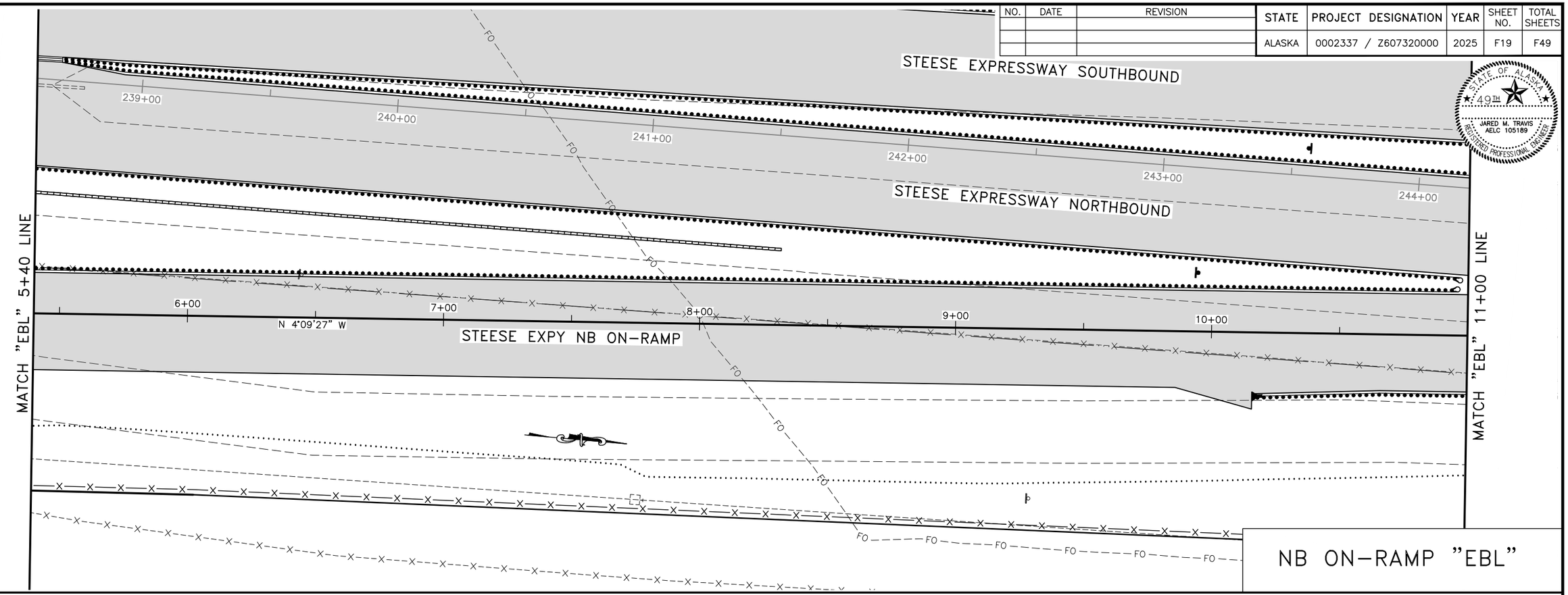
NB ON-RAMP "EBL"

SUPERELEVATION

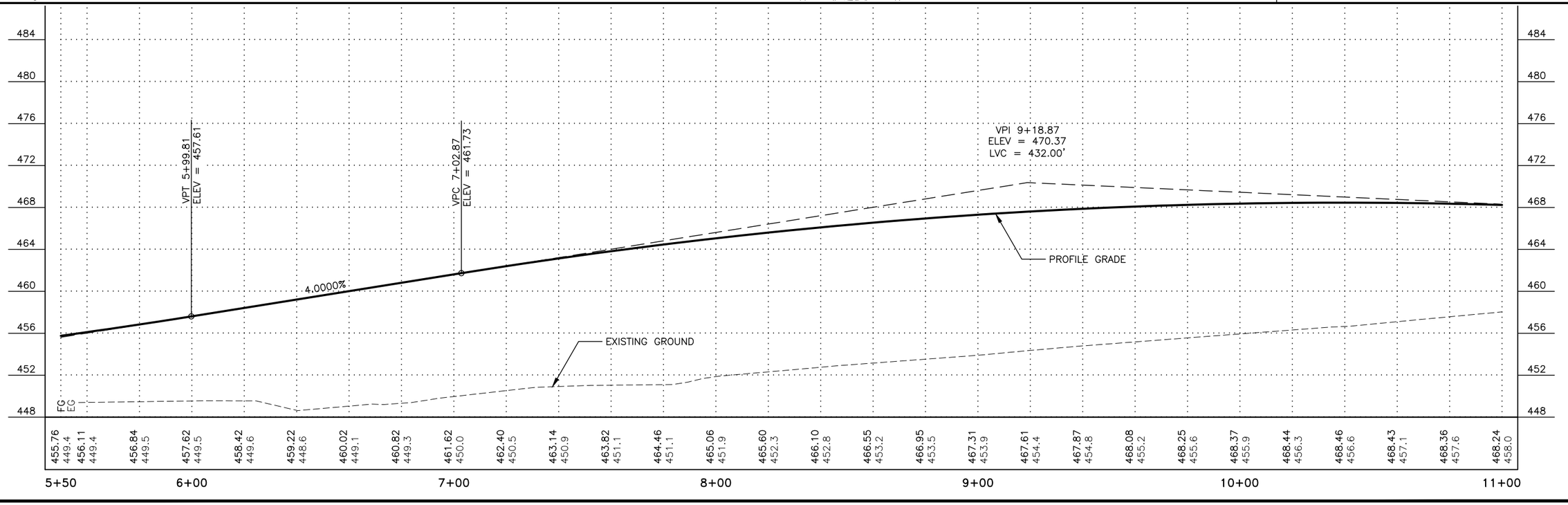


NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F19	F49

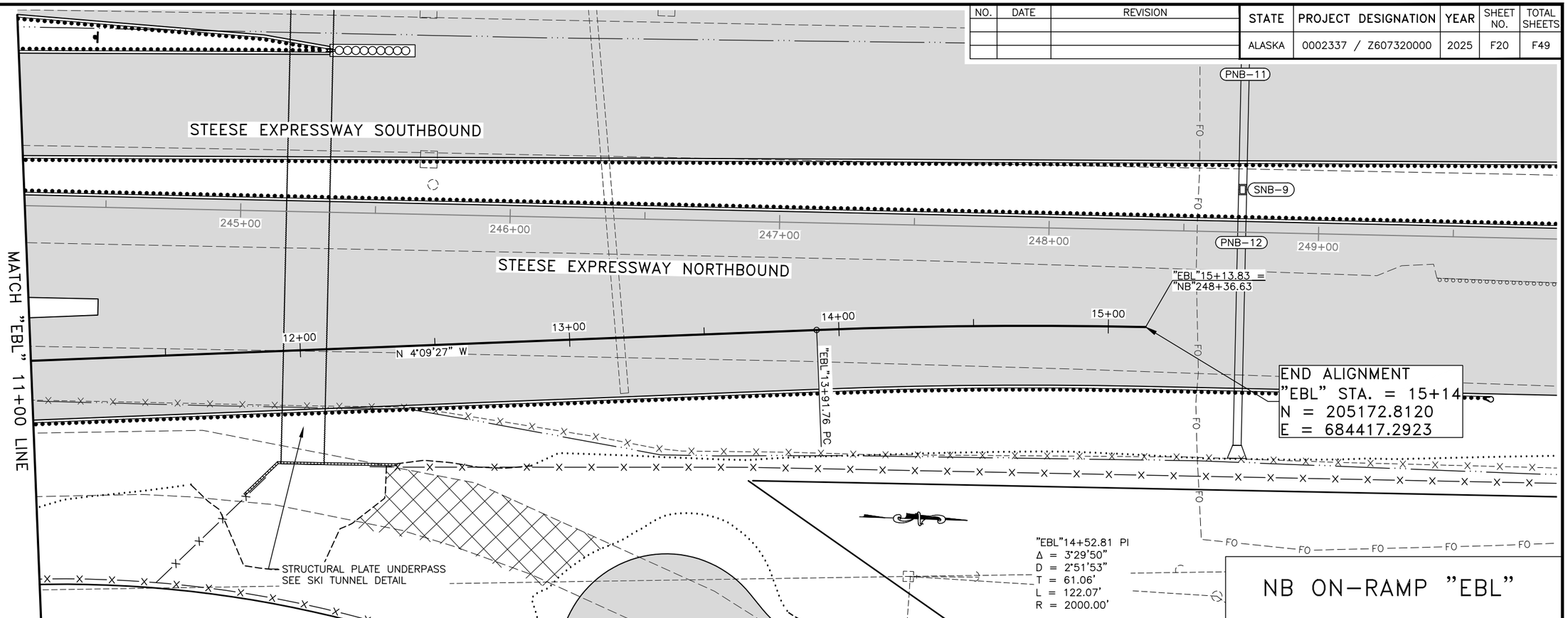


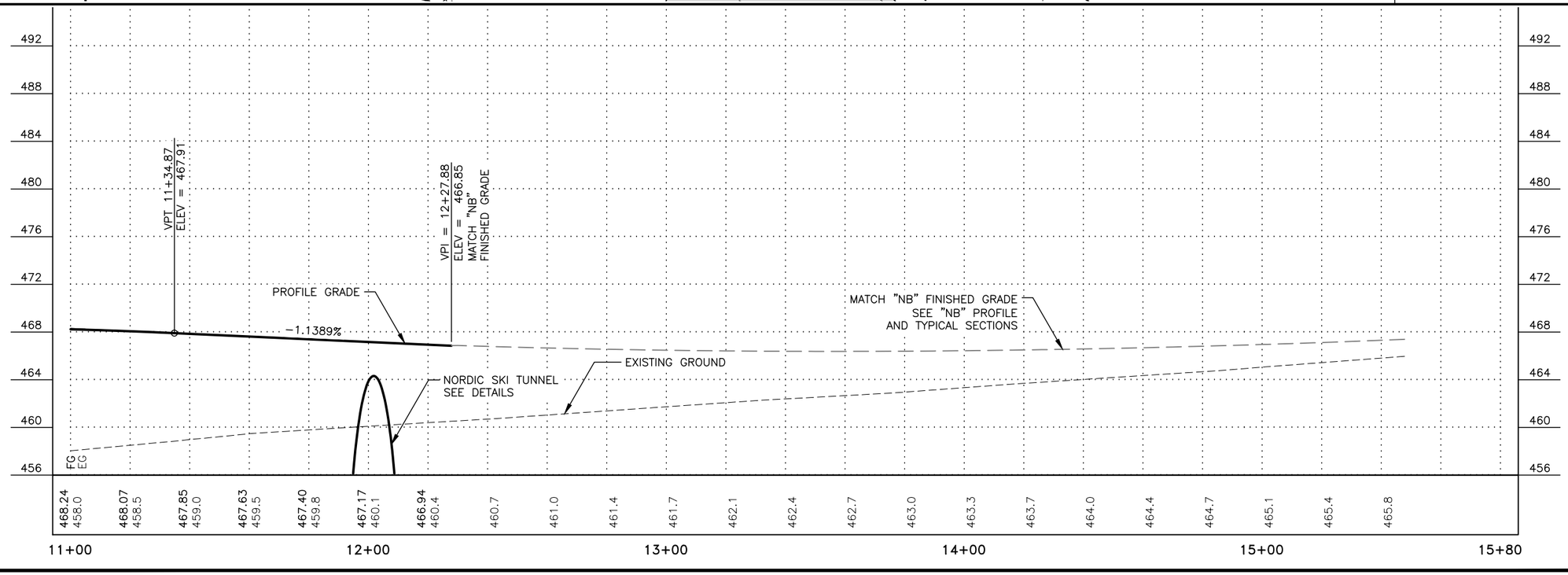
NB ON-RAMP "EBL"



NO.	DATE	REVISION

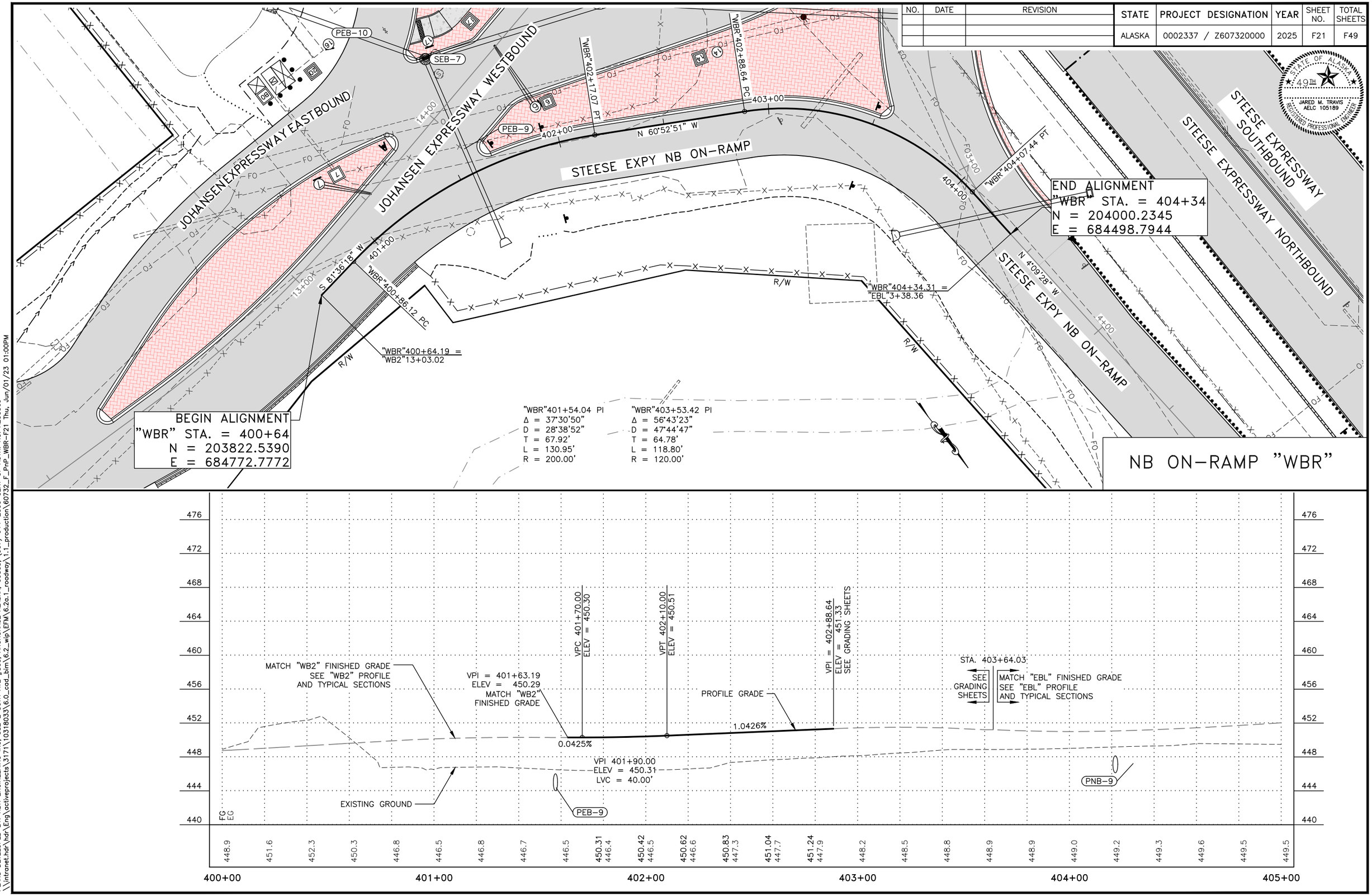
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F20	F49





NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F21	F49



STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F22	F49

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

STEESE EXPRESSWAY NORTHBOUND

STEESE EXPRESSWAY SOUTHBOUND

STEESE EXPY SB OFF-RAMP

342+00 343+00 344+00 345+00 346+00 347+00

"SBR"500+00.00 =
"SB"347+43.85

501+00 502+00 503+00 504+00

S 2°50'49" W

MATCH "SBR" 505+80 LINE

BEGIN ALIGNMENT
"SBR" STA. = 500+00
N = 205111.1384
E = 684329.1814

RETAINING WALL

STRUCTURAL PLATE UNDERPASS
15'9" SPAN, 15'1" RISE, 10 GAGE
SEE SKI TUNNEL DETAIL

R/W

R/W

SB OFF-RAMP "SBR"

VPI = 501+27.25
ELEV = 465.00
MATCH "SB"
FINISHED GRADE

VPC 503+70.96
ELEV = 467.43

PROFILE GRADE

1.0000%

MATCH "SB" FINISHED GRADE
SEE "SB" PROFILE
AND TYPICAL SECTIONS

NORDIC SKI TUNNEL
SEE DETAILS

EXISTING GROUND

FG
EG

484 480 476 472 468 464 460 456 452 448

500+00	501+00	502+00	503+00	504+00	505+00	505+80
461.1	460.9	460.8	460.6	460.4	460.3	460.1
465.12	460.0	465.32	459.8	465.52	459.6	465.72	459.4	465.92	459.2	466.12	459.0	466.32	458.8	466.52	458.6	466.72	458.4	466.92	458.2	467.12	457.9	467.32	457.5	467.52	456.9	467.68	456.4	467.80	456.0	467.89	455.6	467.93	455.2	467.93	454.9	467.89	454.5	467.81	454.1	467.70	453.0	467.54	452.9	467.34	452.8

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F23	F49

STEESE EXPRESSWAY NORTHBOUND

STEESE EXPRESSWAY SOUTHBOUND

STEESE EXPRESSWAY SOUTHBOUND OFF-RAMP

MATCH "SBR" 505+80 LINE

MATCH "SBR" 511+60 LINE

"SBR"507+62.01 PC

"SBR"509+54.04 PI
Δ = 17°41'25"
D = 4°38'35"
T = 192.03'
L = 381.00'
R = 1234.00'

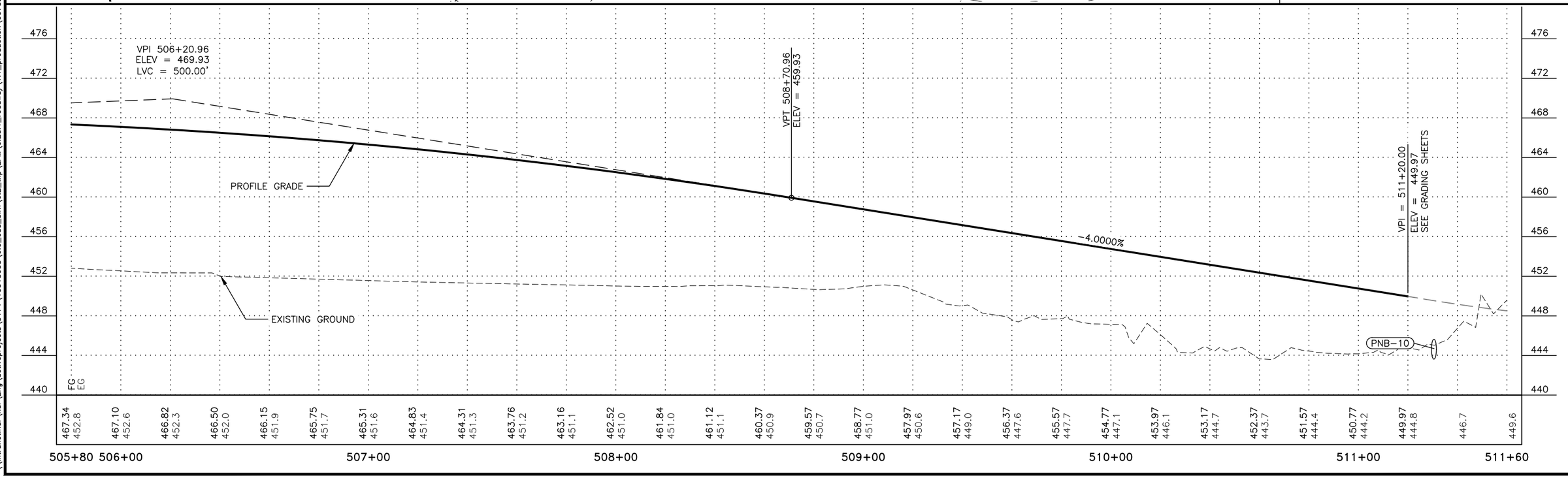
"SBR"511+43.01 PT

"SBR"511+52.26 PC

S 20°32'14" W

PNB-10

SB OFF-RAMP "SBR"



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F24	F49

JOHANSEN EXPRESSWAY EASTBOUND

JOHANSEN EXPRESSWAY WESTBOUND

STEESE EXPY SB OFF-RAMP

END ALIGNMENT
"SBR" STA. = 514+23
N = 203872.3018
E = 683979.4388

"SBR"514+23.32 =
"WB"205+59.43

"SBR"513+17.06 PT

"SBR"512+45.35 PI
Δ = 66°29'47"
D = 40°20'57"
T = 93.09'
L = 164.80'
R = 142.00'

MATCH "SBR" 511+60 LINE

SEB-3

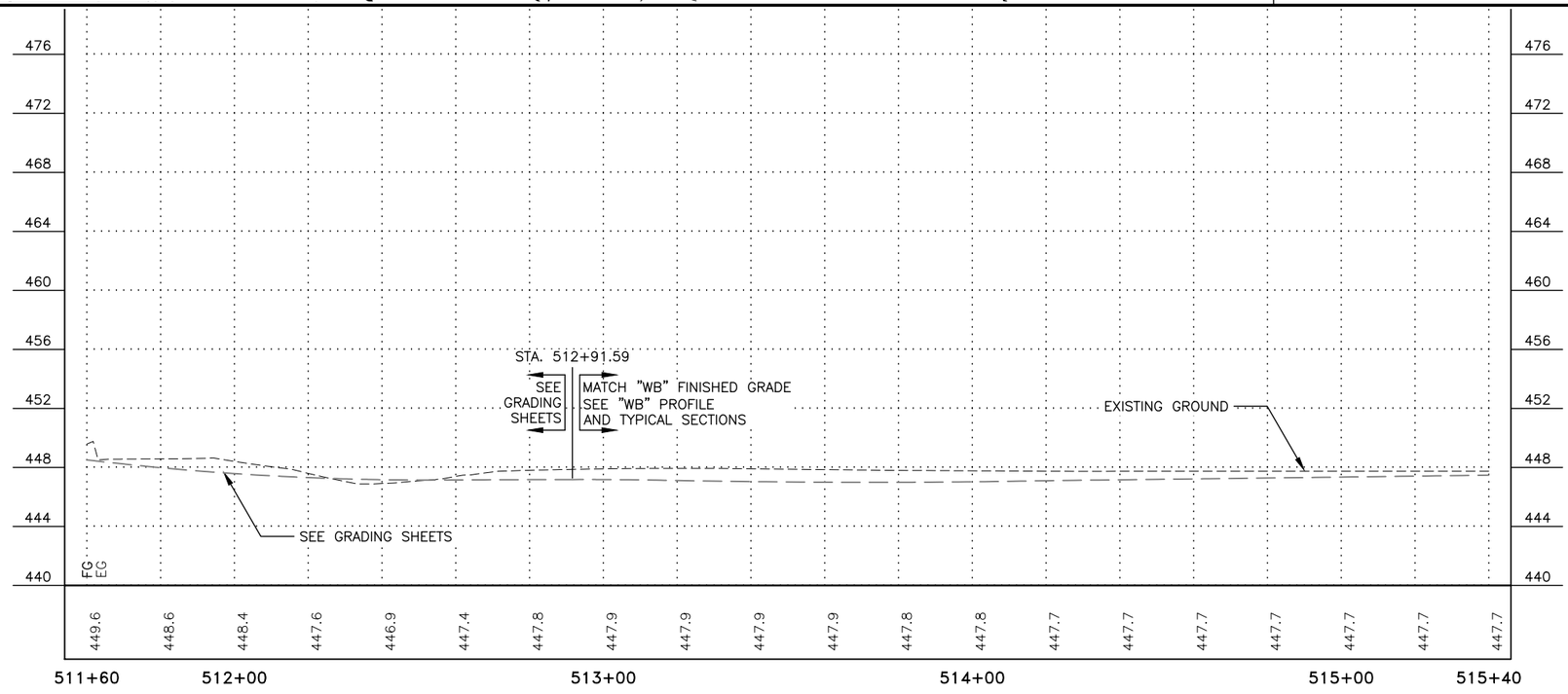
PEB-2

PEB-3

PEB-5

563+00 562+00 512+00 513+00 514+00 206+00 205+00 204+00 207+00 208+00 64+00

SB OFF-RAMP "SBR"



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F25	F49

"SBRL"559+00.00 =
"SBR"508+99.68

BEGIN ALIGNMENT
"SBRL" STA. = 559+00
N = 204212.5958
E = 684280.7967

STEESE EXPY SB OFF-RAMP

STEESE EXPY NORTHBOUND

STEESE EXPRESSWAY SOUTHBOUND

509+00

510+00

560+00

561+00

511+00

"SBRL"560+81.03 PRC

562+00

STEESE EXPY SB OFF-RAMP

PNB-10

"SBRL"559+41.12 PI
Δ = 13°00'22"
D = 4°37'41"
T = 141.12'
L = 281.03'
R = 1238.00'

"SBRL"563+26.22 PI
Δ = 113°05'39"
D = 35°22'04"
T = 245.19'
L = 319.77'
R = 162.00'

STEESE EXPY NB ON-RAMP

310+00

564+00

END ALIGNMENT
"SBRL" STA. = 564+01
N = 203826.3839
E = 684408.6606

"SBRL"564+00.79 =
"EB"309+85.88

JOHANSEN EXPY EASTBOUND

309+00

563+00

JOHANSEN EXPY WESTBOUND

STEESE EXPY SB ON-RAMP

PNB-7

SNB-4

PNB-6

SNB-5

SB OFF-RAMP "SBRL"

476
472
468
464
460
456
452
448
444
440

FG
EG

MATCH "SBR" FINISHED GRADE
SEE "SBR" PROFILE
AND TYPICAL SECTIONS

VPC 560+87.38
ELEV = 451.40

VPI = 560+81.03
ELEV = 451.65
MATCH "SBR"
FINISHED GRADE

-3.9099%

VPT 562+00.00
ELEV = 448.76
SEE GRADING SHEETS

STA. 562+90.31

SEE GRADING SHEETS

MATCH "EBL" FINISHED GRADE
SEE "EBL" PROFILE
AND TYPICAL SECTIONS

EXISTING GROUND

PNB-10
VPI 561+43.69
ELEV = 449.20
LVC = 112.62'

SEE GRADING SHEETS

451.3 451.2 451.4 451.0 450.8 451.1 450.6 448.9 448.4 448.3 448.1 447.3 446.0 444.8 445.4 450.93 445.6 450.27 447.6 449.73 448.6 449.29 448.5 448.97 448.3 448.76 449.1 449.4 446.9 448.7 449.9 450.5 450.8 451.1 451.4

558+00 559+00 560+00 561+00 562+00 563+00 563+60

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F26	F49

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

BEGIN ALIGNMENT
"WBL" STA. = 0+79
N = 203745.0803
E = 684465.8533

"WBL"0+78.76 =
"WB"210+67.48

"WBL"1+54.49 PC

"WBL"2+84.28 PT

"WBL"5+34.72 PC

MATCH "WBL" 5+40 LINE

S 83°13'42" W

S 2°14'42" E

"WBL"2+34.88 PI
Δ = 85°28'24"
D = 65°51'26"
T = 80.38'
L = 129.79'
R = 87.00'

JOHANSEN EXPY EASTBOUND

JOHANSEN EXPY WESTBOUND

STEESE EXPY NORTHBOUND

STEESE EXPY SOUTHBOUND

STEESE EXPY SOUTHBOUND ON-RAMP

STEESE EXPY NB ON-RAMP

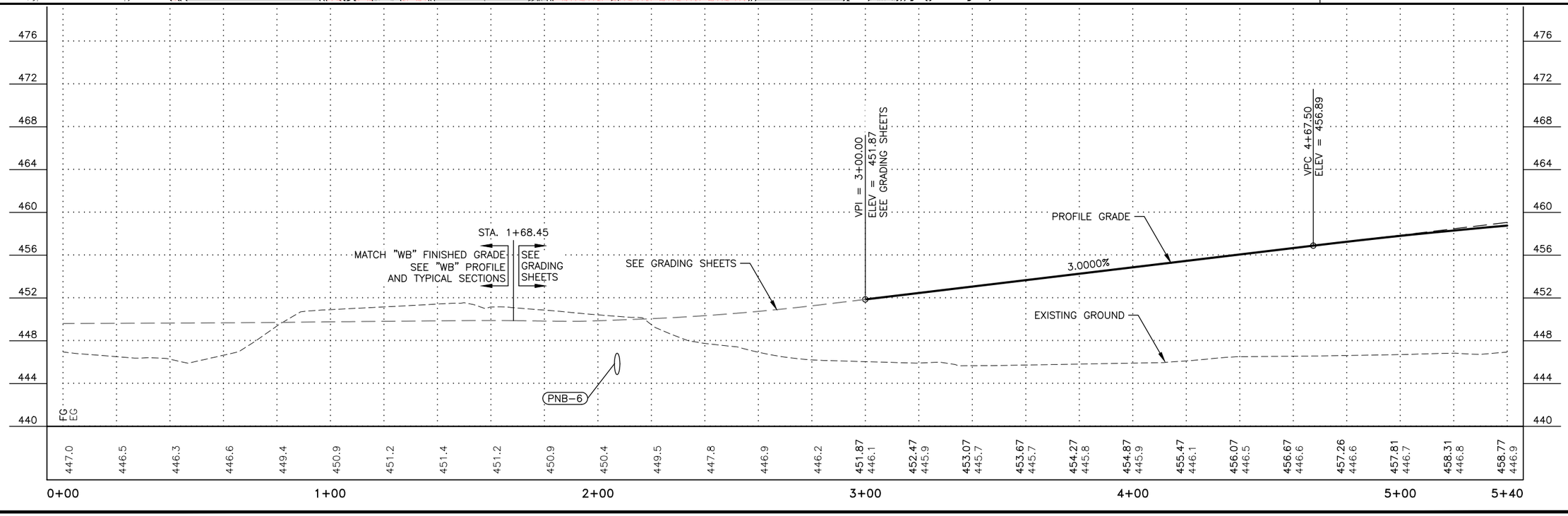
STEESE EXPY SB ON-RAMP

SEB-4, SEB-5, SEB-6, PEB-6, PEB-7, SNB-2, SNB-3, SNB-4, SNB-5, SNB-6, PNB-4, PNB-5, PNB-6, PNB-7

R/W

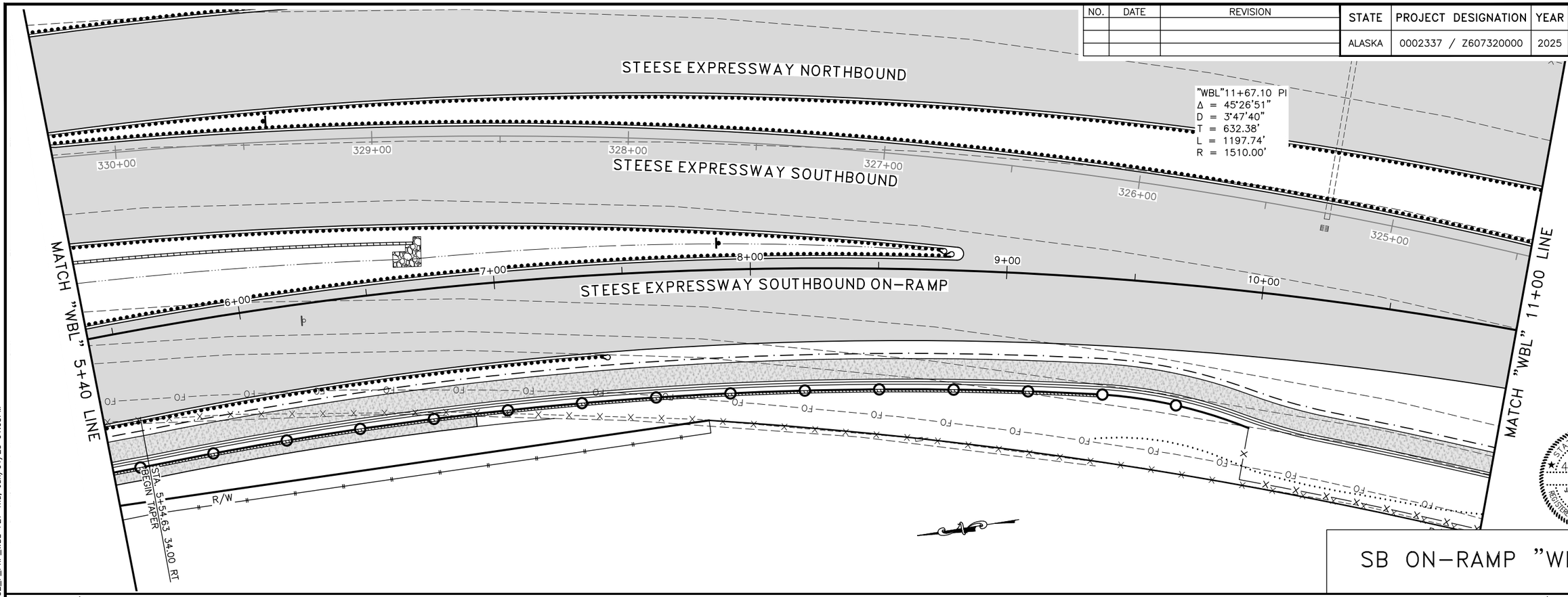
FO

SB ON-RAMP "WBL"

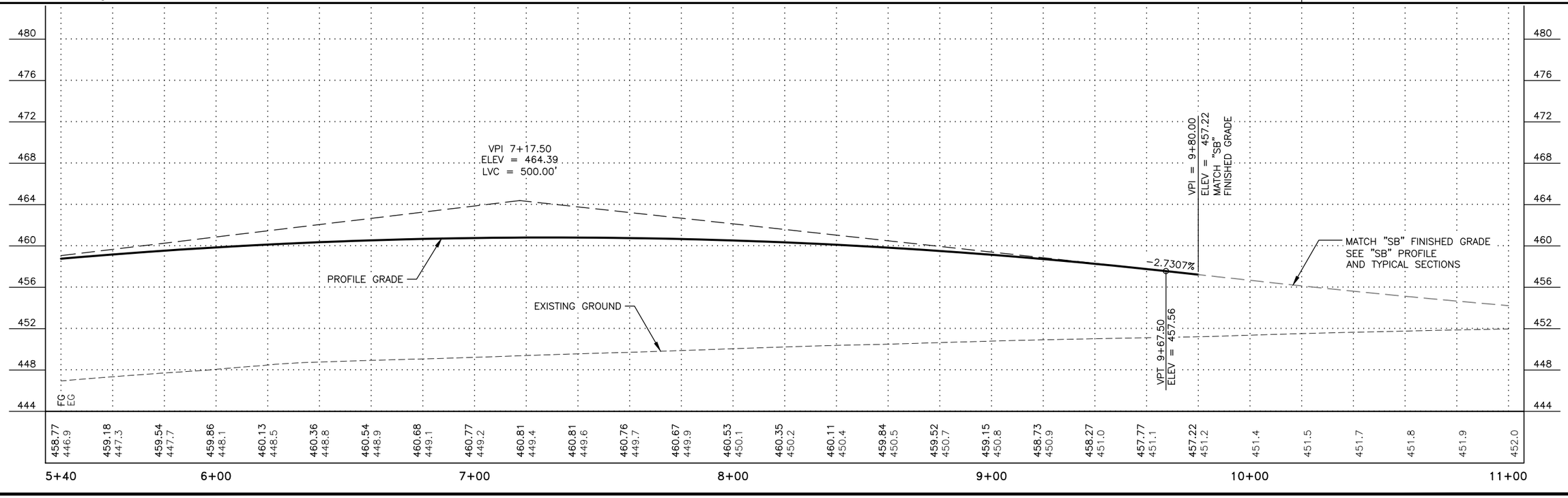


NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F27	F49

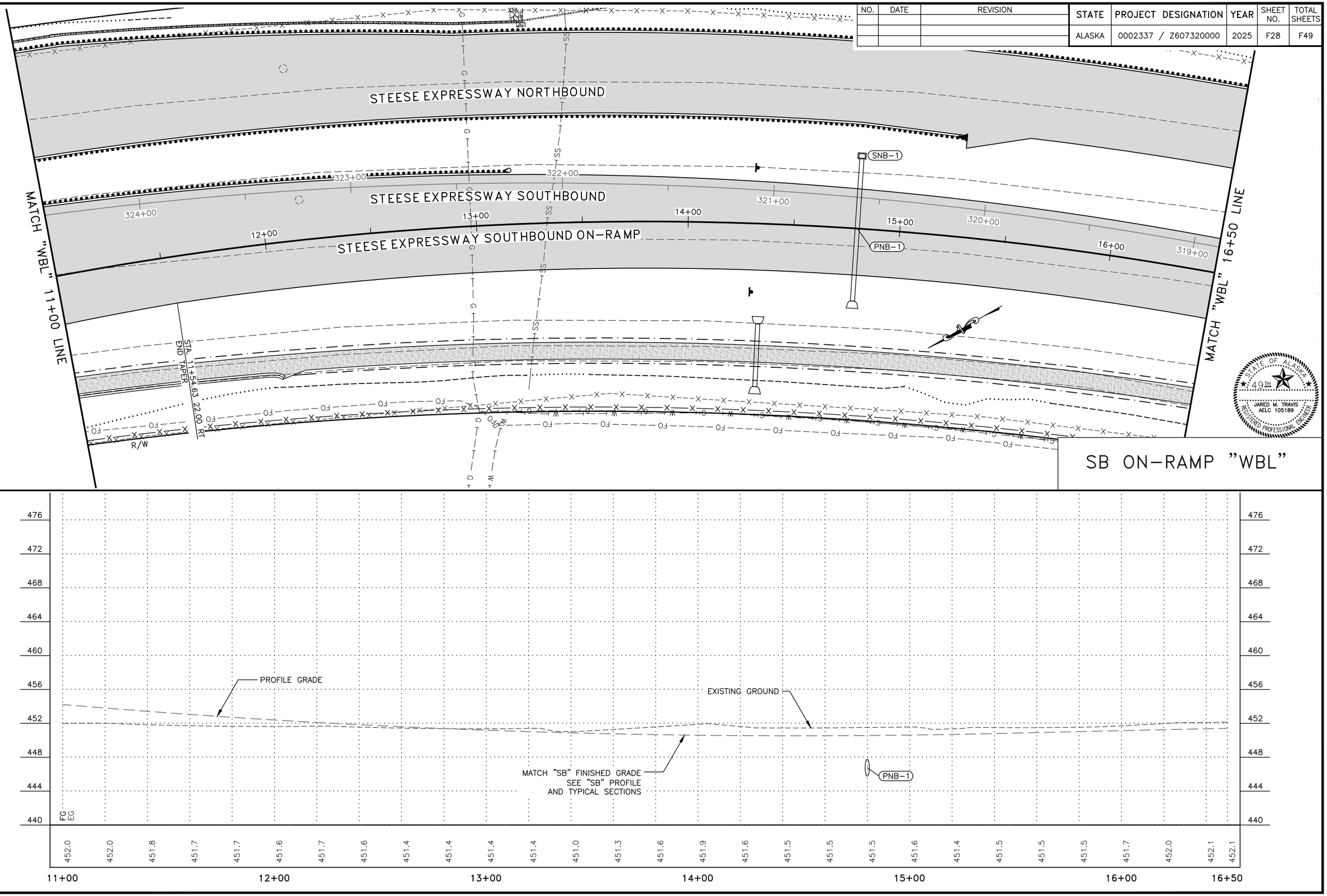


SB ON-RAMP "WBL"



NO.	DATE	REVISION

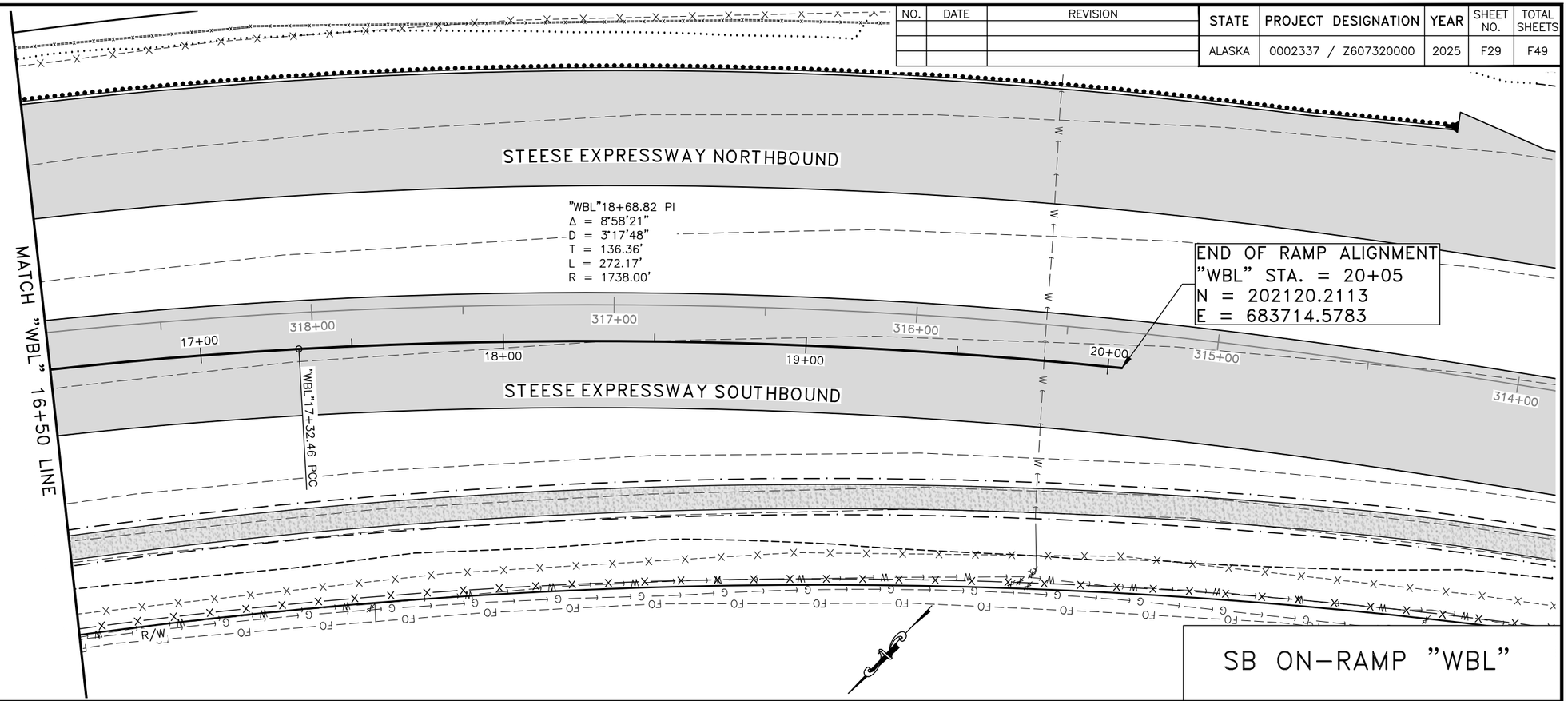
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F28	F49



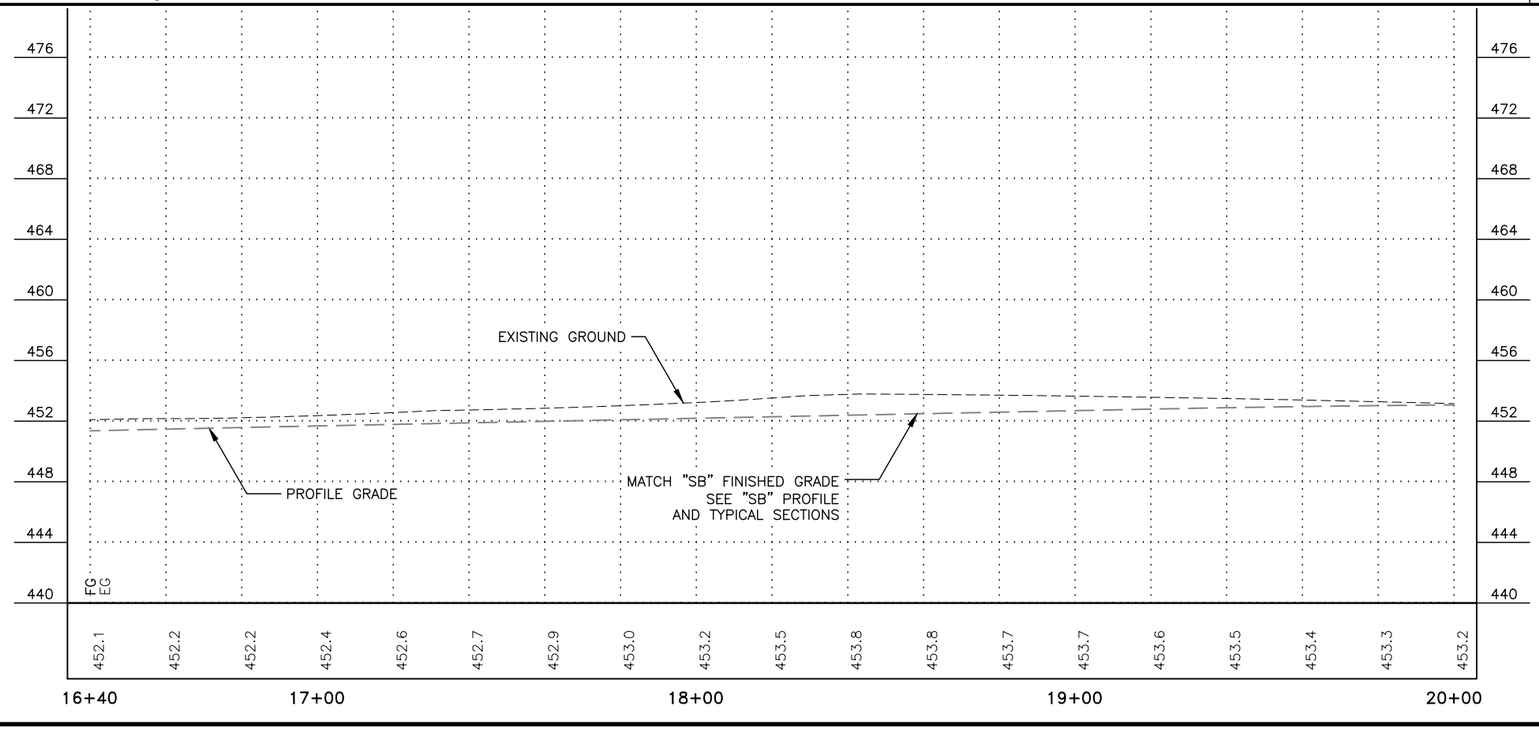
SB ON-RAMP "WBL"

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F29	F49



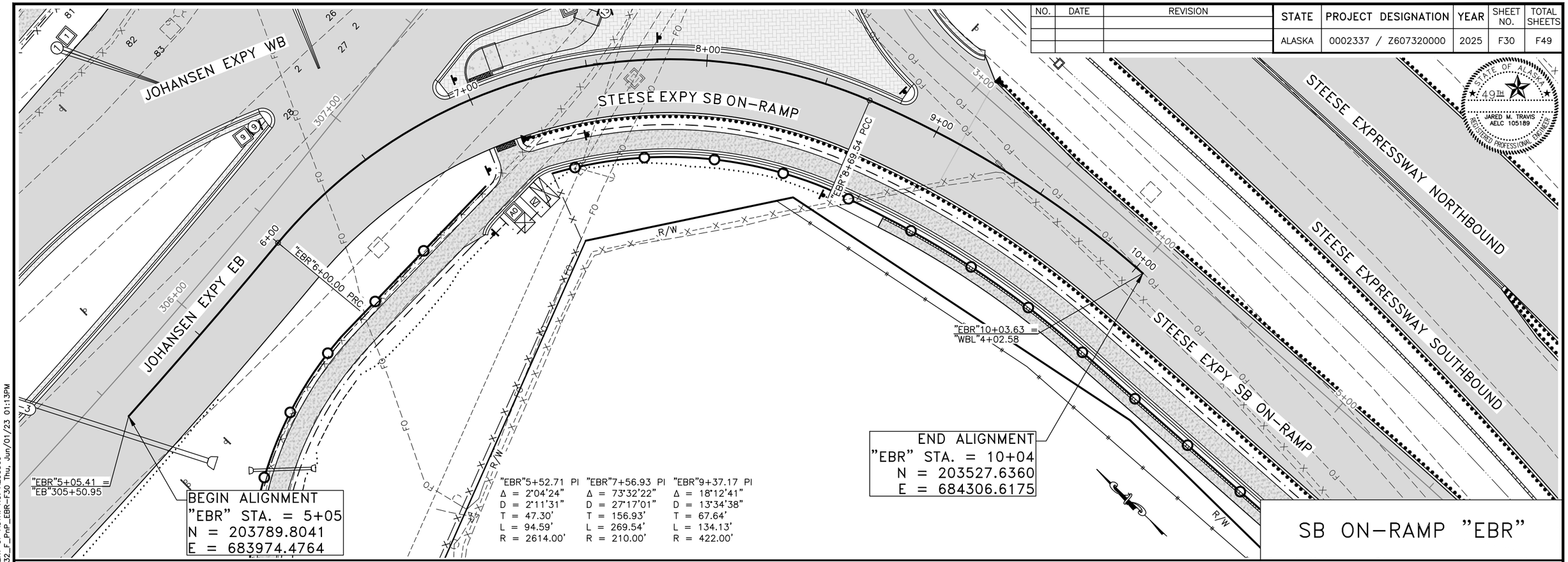
SB ON–RAMP "WBL"



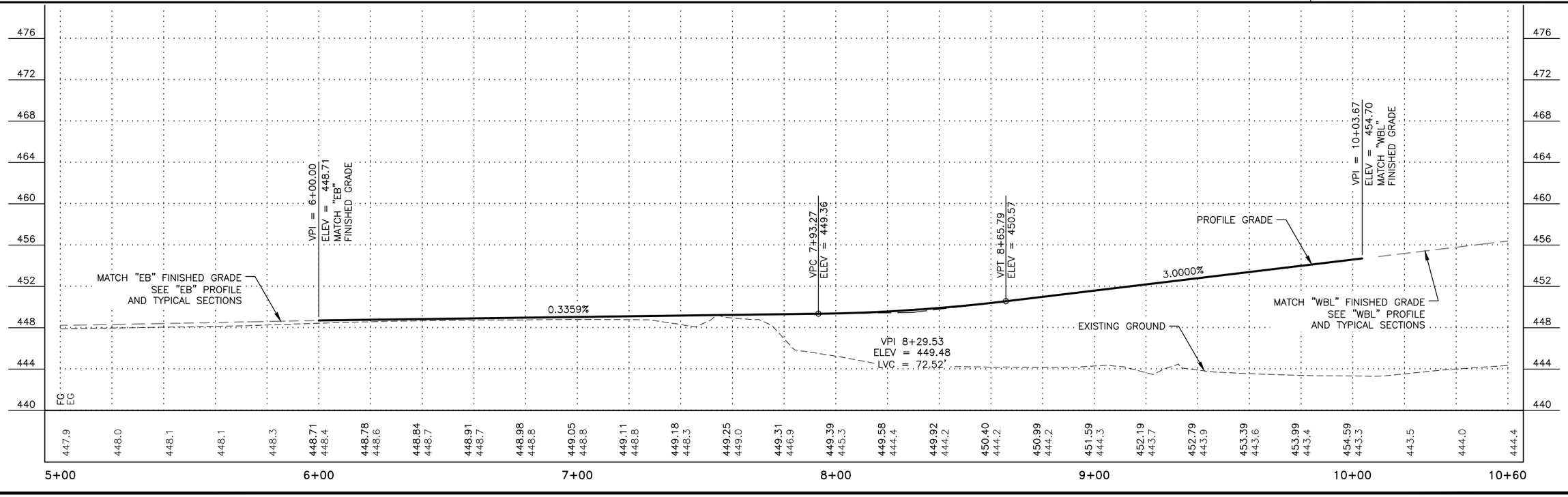
STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F30	F49



SB ON-RAMP "EBR"



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F31	F49

STATE OF ALASKA 49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

200+00 201+00 202+00 203+00 204+00 205+00

JOHANSEN EXPRESSWAY WESTBOUND

PEB–2

300+00 301+00 S 87°35'01" E 302+00 303+00 304+00 305+00

JOHANSEN EXPRESSWAY EASTBOUND

"EB"303+54.07 PC

PEB–3

MATCH "EB" 306+00 LINE

BEGINNING OF PROJECT
"EB" STA. = 302+00
N = 203811.1415
E = 683623.2093
MATCH EXISTING

R/W

R/W

"EB"305+33.45 PI
Δ = 7°53'36"
D = 2°12'13"
T = 179.38'
L = 358.19'
R = 2600.00'

PEB–4

EB JOHANSEN "EB"

SUPERELEVATION
RT EDGE
LT EDGE
REVERSE CROWN
RT EDGE
LT EDGE
303+02
6% 4% 2% 0% −2% −4% −6%
302+00 302+50 303+00 303+50 304+00

VPI = 302+00.00
ELEV = 448.03±
MATCH EXISTING

VPC 302+76.81
ELEV = 447.81

VPT 305+86.81
ELEV = 448.14

EXISTING GROUND

−0.2875%

0.5000%

VPI 304+31.81
ELEV = 447.36
LVC = 310.00'
K = 393.67

PROFILE GRADE

460 458 456 454 452 450 448 446 444 442

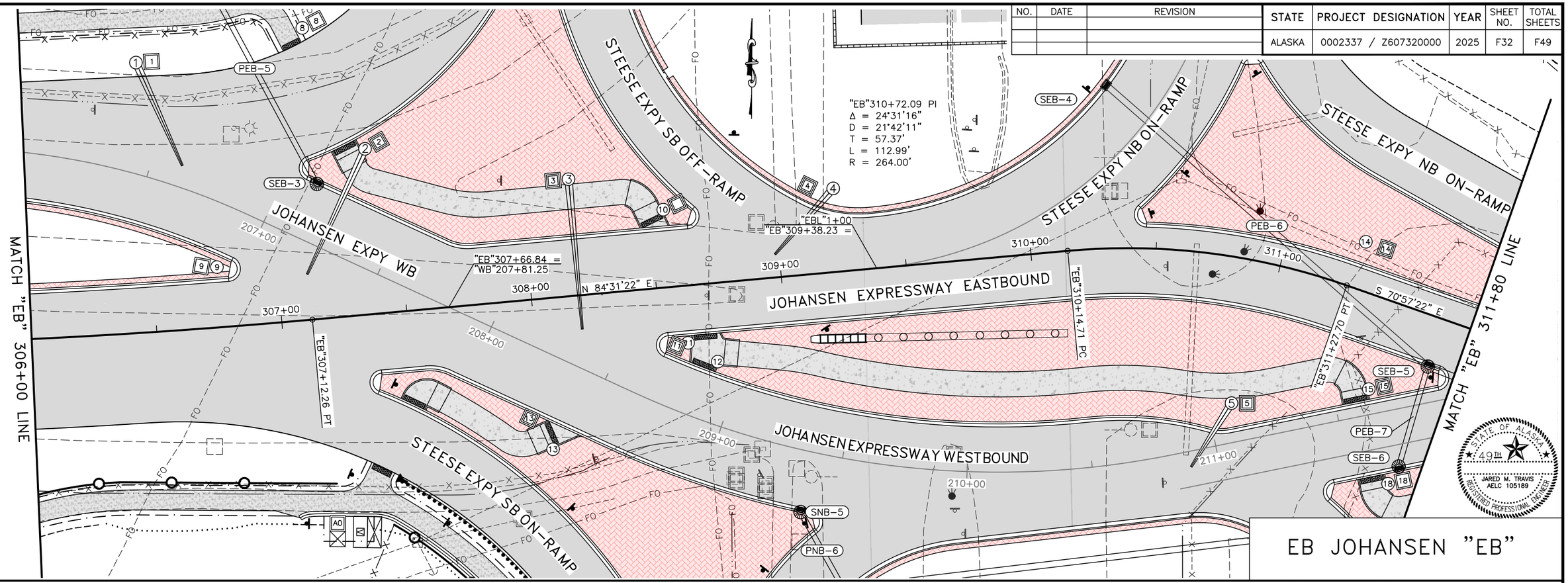
FG
EG

448.5 448.5 448.4 448.3 448.3 448.2 448.2 448.1 448.1 448.03 448.0 447.97 448.0 447.91 447.9 447.86 447.9 447.80 447.9 447.75 447.8 447.71 447.8 447.68 447.8 447.66 447.8 447.65 447.8 447.65 447.7 447.66 447.8 447.68 447.8 447.71 447.8 447.75 447.9 447.80 448.0 447.86 448.1 447.93 448.1 448.01 448.2 448.11 448.3 448.20 448.4

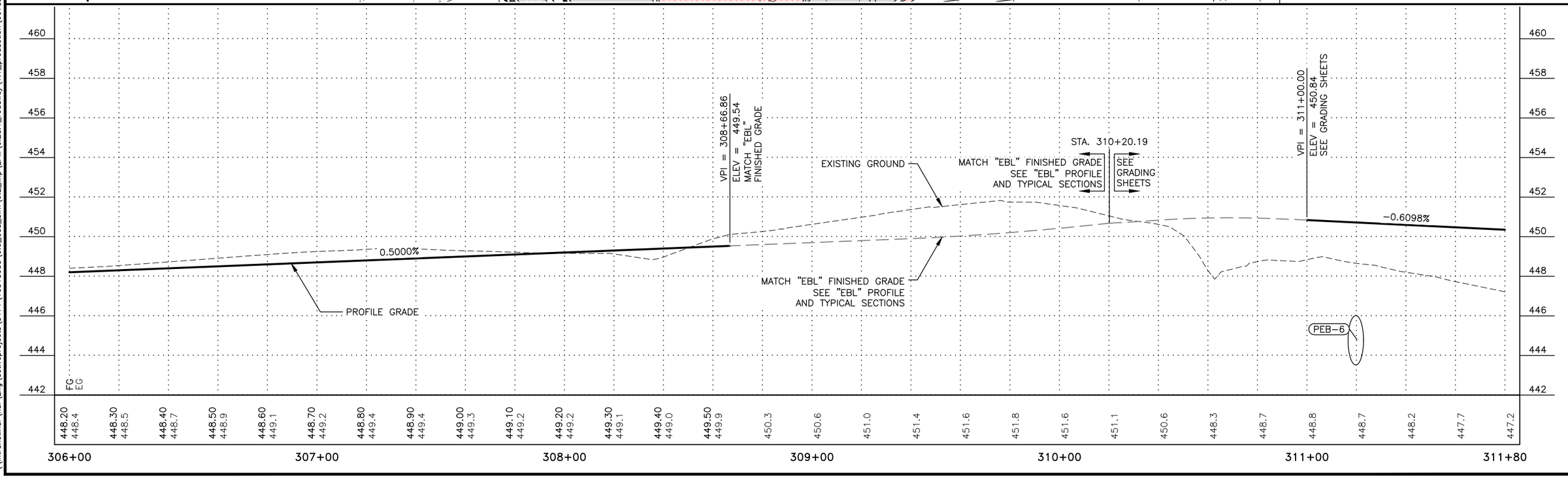
300+00 301+00 302+00 303+00 304+00 305+00 306+00

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F32	F49



EB JOHANSEN "EB"



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\activeprojects\3171\10318033\6.0_cad_bim\6.2_wip\EFW\6.2a.1_roadway\1.1_production\60732_F PnP Johansen EB-F32 Thu, Jun/01/23 01:13PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F33	F49

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

MATCH "EB" 311+80 LINE

"EB"312+29.69 = "WB"212+51.55

"EB"312+57.00 = "WB2"14+10.34

"EB"312+75.12 PC

"EB"313+62.28 PI
Δ = 38°26'27"
D = 22°55'06"
T = 87.16'
L = 167.73'
R = 250.00'

"EB"314+42.85 PT

"EB"314+93.44 PC

"EB"315+24.64 PI
Δ = 13°35'01"
D = 21°52'07"
T = 31.20'
L = 62.11'
R = 262.00'

"EB"315+55.55 PT

S 70°57'22" E

N 70°36'12" E

N 84°11'13" E

JOHANSEN EXPRESSWAY WESTBOUND

JOHANSEN EXPRESSWAY EASTBOUND

LAZELLE ROAD

STEESE EXPY NB OFF-RAMP

D STREET

R/W

FO

PEB-8 PEB-9 PEB-10 PEB-11

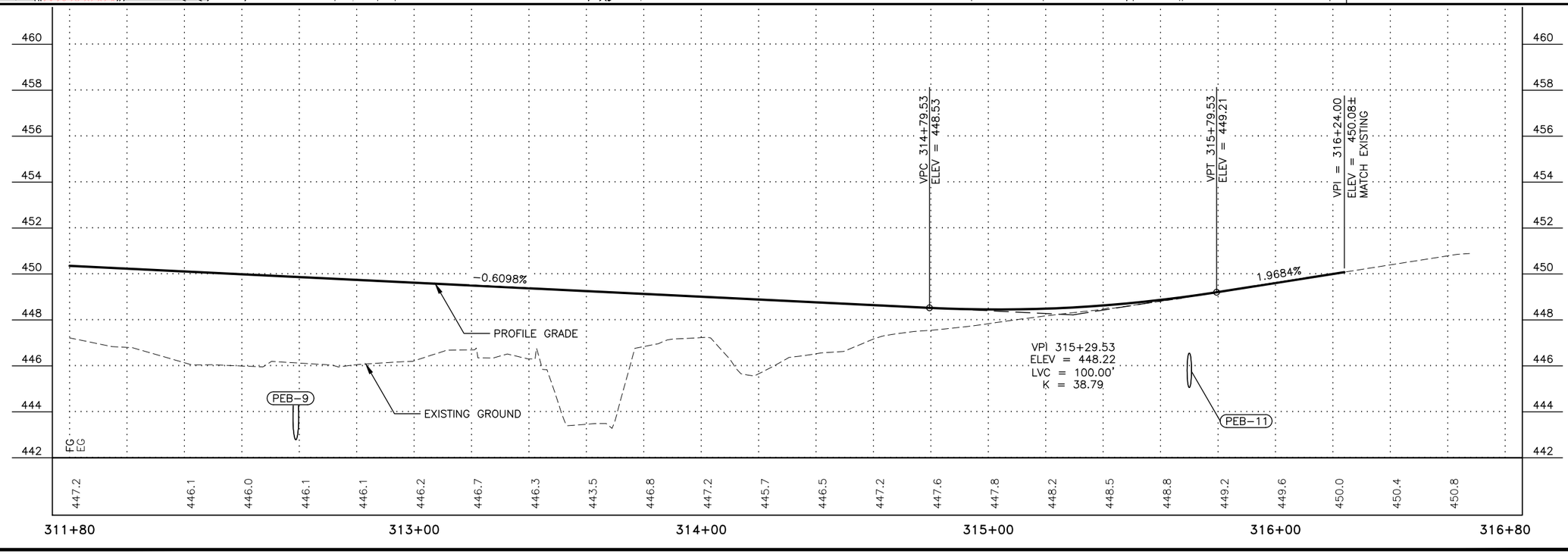
SEB-7

312+00 313+00 314+00 315+00 316+00

10+00 11+00 12+00 13+00 14+00

END OF PROJECT
"EB" STA. = 316+24
N = 203819.4407
E = 685027.1624
MATCH EXISTING

EB JOHANSEN "EB"



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F34	F49

BEGINNING OF PROJECT
"WB" STA. = 202+00
N = 203883.7618
E = 683619.8270
MATCH EXISTING

R/W

S 87°12'57" E

200+00 201+00 203+00 204+00 205+00

"WB"202+24.74 PC

JOHANSEN EXPRESSWAY WESTBOUND

"WB"203+71.73 PI
Δ = 4°43'44"
D = 1°36'34"
T = 147.00'
L = 293.83'
R = 3560.00'

"WB"205+18.56 PT

MATCH "WB" 205+40 LINE

300+00 301+00 302+00 303+00 304+00 305+00

JOHANSEN EXPRESSWAY EASTBOUND

FO

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

WB JOHANSEN "WB"

460 458 456 454 452 450 448 446 444 442

EXISTING GROUND

VPI = 202+00.00
ELEV = 448.00

−0.3000%

PROFILE GRADE

FG
EG

200+00	201+00	202+00	203+00	204+00	205+00	205+40
448.6	448.5	448.5	448.4	448.4	448.3	448.2
	448.2	448.1	448.1	448.00	447.94	447.87
				448.0	447.9	447.9
447.81	447.75	447.68	447.62	447.55	447.49	447.43
447.8	447.7	447.7	447.7	447.7	447.6	447.6
447.36	447.30	447.24	447.17	447.11	447.05	447.00
447.6	447.6	447.5	447.6	447.6	447.6	447.6
						446.99
						447.6

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F35	F49

MATCH "WB" 205+40 LINE

PEB-2

PEB-5

SEB-3

"WB"205+59.43 PC

"WB"206+93.13 PT

"WB"206+27.49 PI
Δ = 26°24'56"
D = 19°45'26"
T = 68.06'
L = 133.70'
R = 290.00'

"WB"209+76.17 PI
Δ = 36°16'07"
D = 16°25'02"
T = 114.30'
L = 220.92'
R = 349.00'

STEESE EXPY SB OFF-RAMP

STEESE EXPY NB ON-RAMP

SEB-6

JOHANSEN EXPRESSWAY EASTBOUND

JOHANSEN EXPRESSWAY WESTBOUND

"WB"207+81.25 =
"EB"307+66.84

"WB"208+61.87 PC

STEESE EXPY SB ON-RAMP

SNB-5

PNB-6

PNB-7

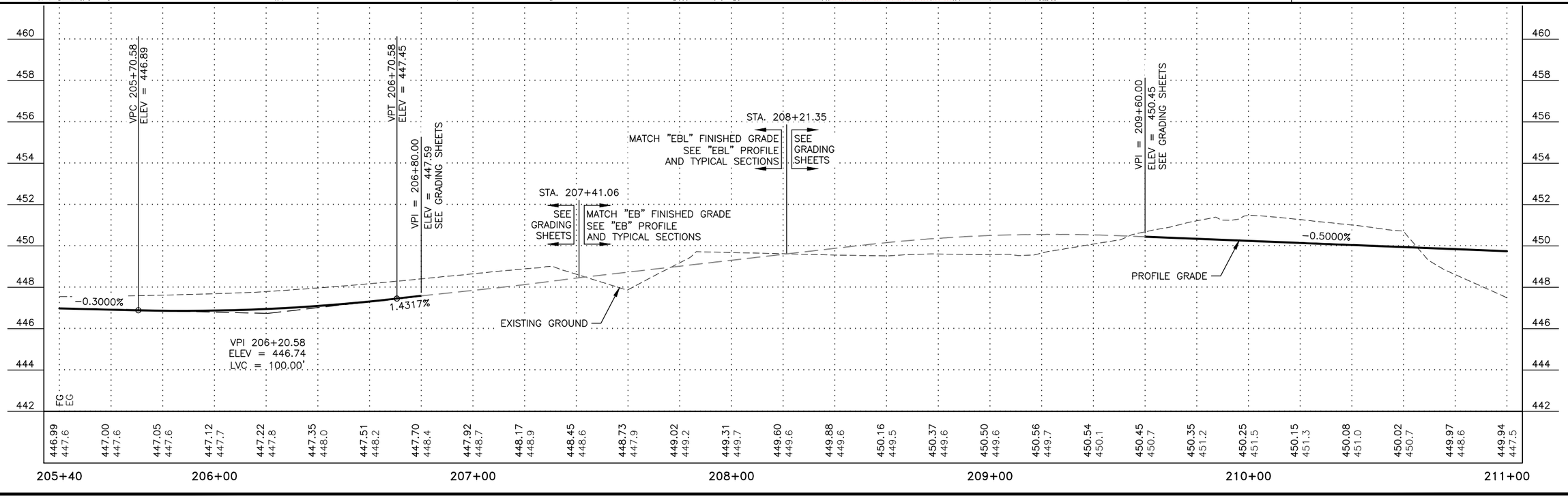
"WB"210+82.7

MATCH "WB" 211+00 LINE

206+00 207+00 208+00 209+00 210+00 211+00 306+00 307+00 308+00 309+00 310+00

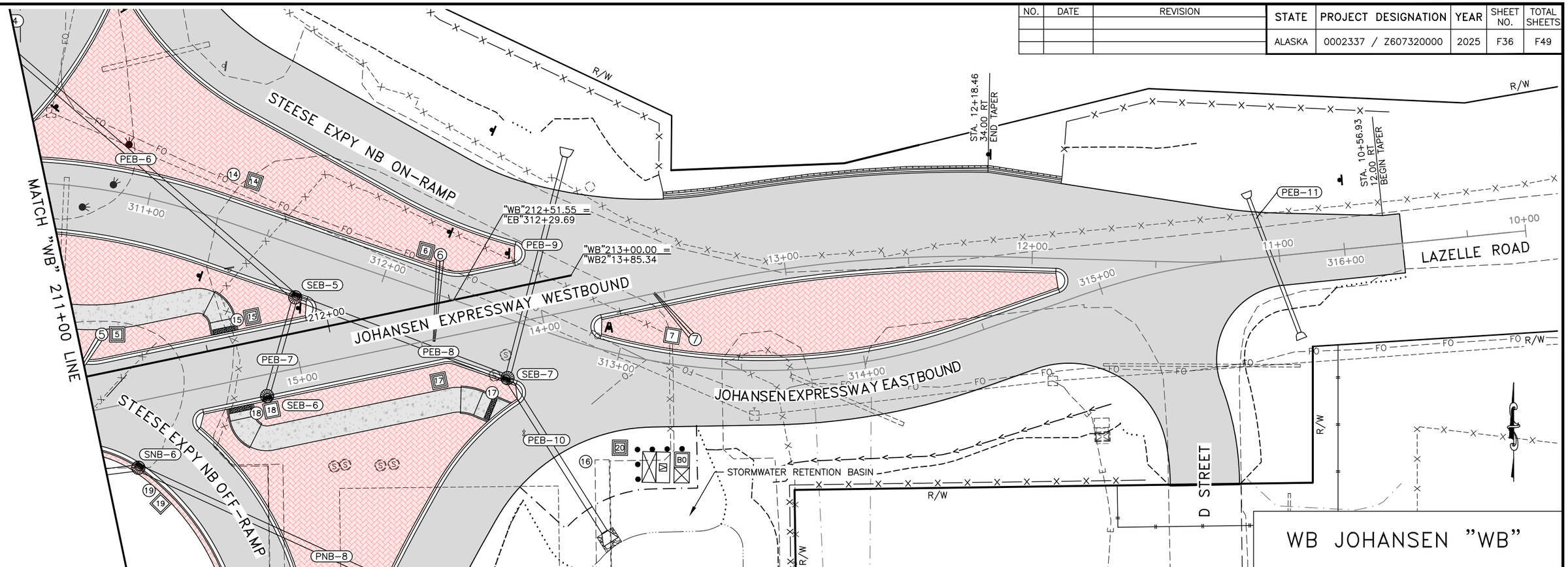
STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

WB JOHANSEN "WB"

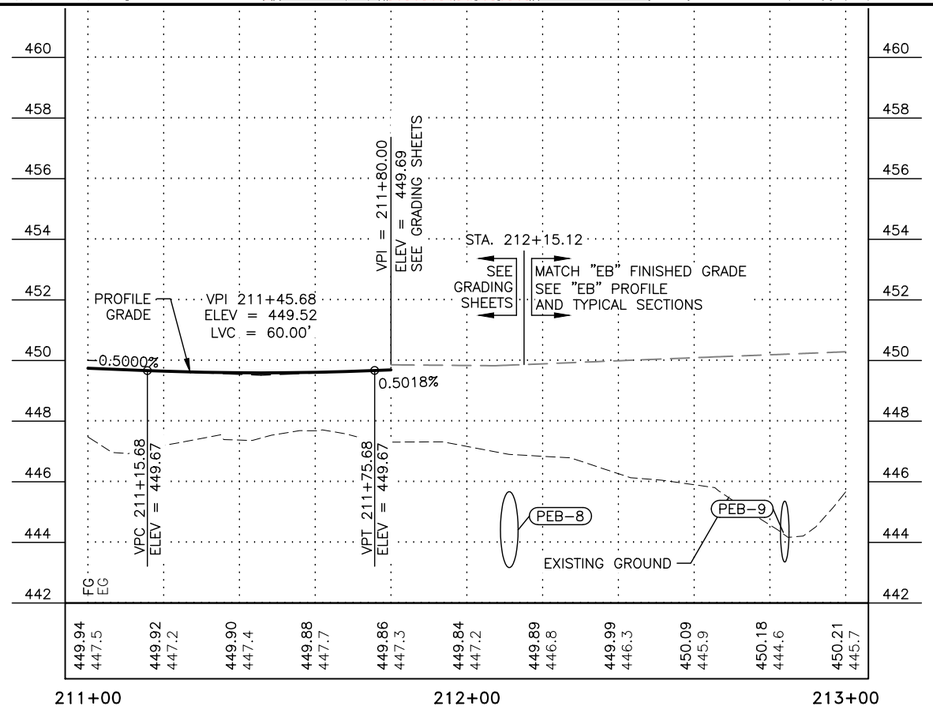


NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F36	F49



WB JOHANSEN "WB"



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F37	F49

BEGIN ALIGNMENT
"WB2" STA. = 10+50
N = 203819.4407
E = 685027.1624

D STREET

JOHANSEN EXPRESSWAY EASTBOUND

JOHANSEN EXPRESSWAY WESTBOUND

LAZELLE ROAD

"WB2"11+15.25 = "EB"315+58.30

"WB2"11+15.25 PC

"WB2"11+41.44 PT

"WB2"12+12.36 PC

"WB2"13+33.61 PT

"WB2"14+10.34 = "EB"312+57

"WB2"13+85.34 = "WB"213+00

"WBR"400+64.19 = "WB2"13+03.02

S 84°11'13" W

N 88°18'35" W

S 78°12'07" W

PEB-10

PEB-9

SEB-7

STEESE EXPY NB ON-RAMP

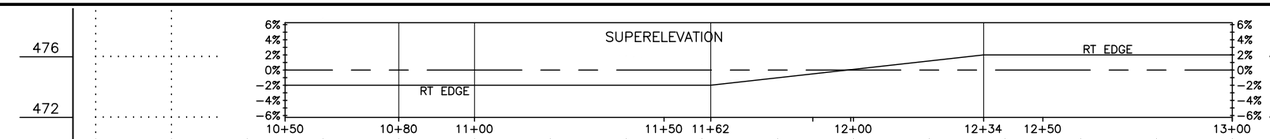
STA. 10+56.93
12.00 RT
BEGIN TAPER

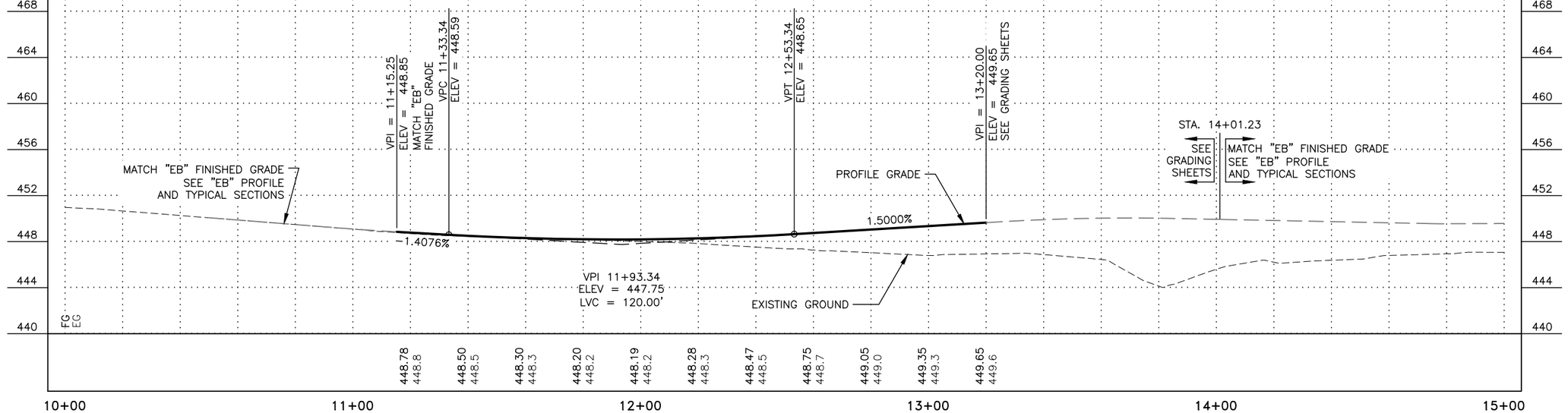
STA. 12+18.46
34.00 RT
END TAPER

"WB2"11+28.36 PI
Δ = 7°30'13"
D = 28°38'52"
T = 13.11'
L = 26.19'
R = 200.00'
S = ?.? %

"WB2"12+73.27 PI
Δ = 13°27'55"
D = 11°06'21"
T = 60.90'
L = 121.25'
R = 515.91'
S = ?.? %

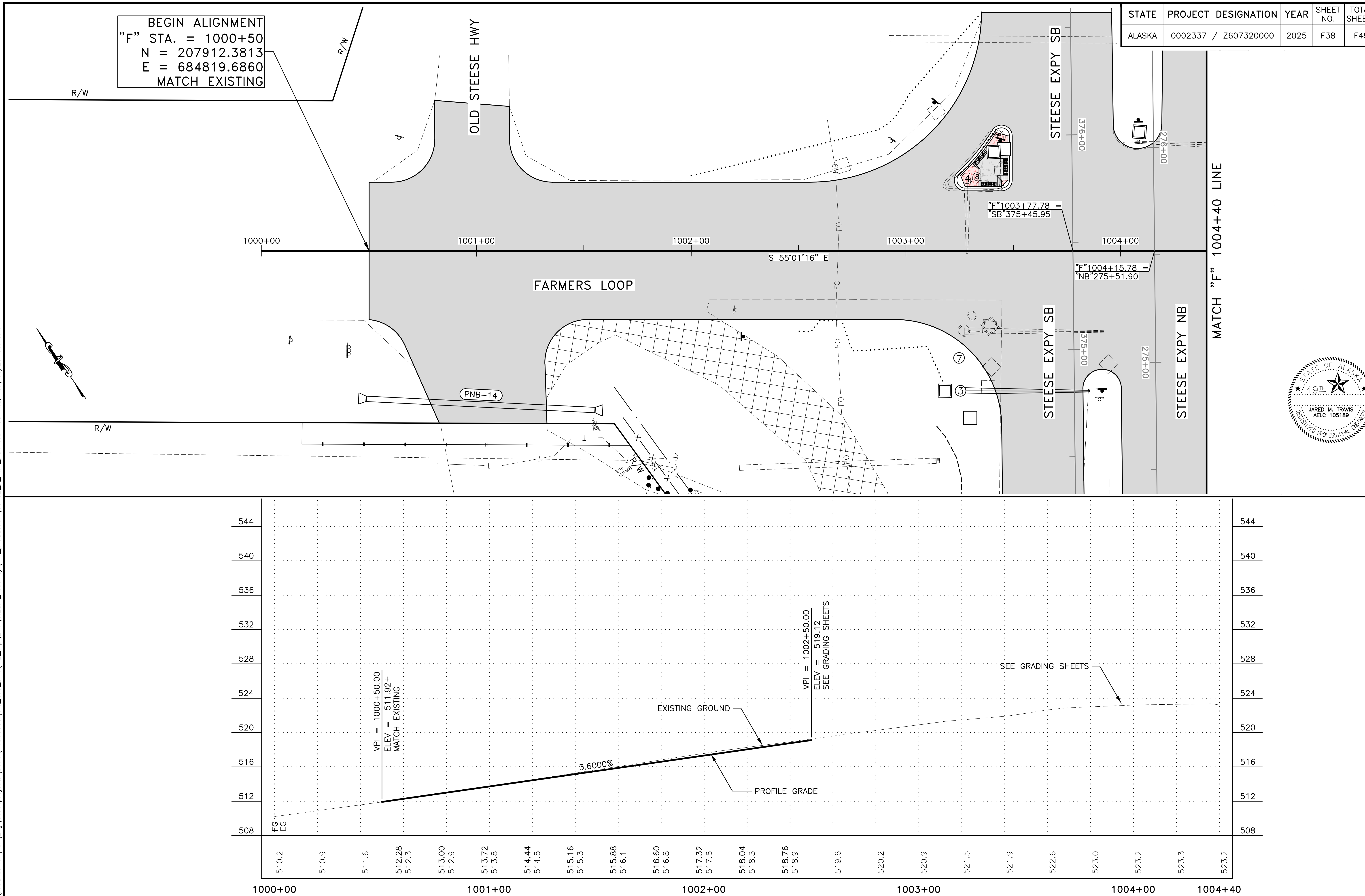
WB JOHANSEN "WB2"





STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F38	F49



BEGIN ALIGNMENT
"F" STA. = 1000+50
N = 207912.3813
E = 684819.6860
MATCH EXISTING
R/W
OLD STEESE HWY
STEESE EXPY SB
STEESE EXPY NB
FARMERS LOOP
S 55°01'16" E
1000+00
1001+00
1002+00
1003+00
1004+00
376+00
375+00
276+00
275+00
"F"1003+77.78 =
"SB"375+45.95
"F"1004+15.78 =
"NB"275+51.90
MATCH "F" 1004+40 LINE
PNB-14
FO
STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER
544
540
536
532
528
524
520
516
512
508
VPI = 1000+50.00
ELEV = 511.92±
MATCH EXISTING
VPI = 1002+50.00
ELEV = 519.12
SEE GRADING SHEETS
SEE GRADING SHEETS
EXISTING GROUND
3.6000%
PROFILE GRADE
FG
EG
510.2
510.9
511.6
512.28
512.3
513.00
512.9
513.72
513.8
514.44
514.5
515.16
515.3
515.88
516.1
516.60
516.8
517.32
517.6
518.04
518.3
518.76
518.9
519.6
520.2
520.9
521.5
521.9
522.6
523.0
523.2
523.3
523.2
1000+00
1001+00
1002+00
1003+00
1004+00
1004+40

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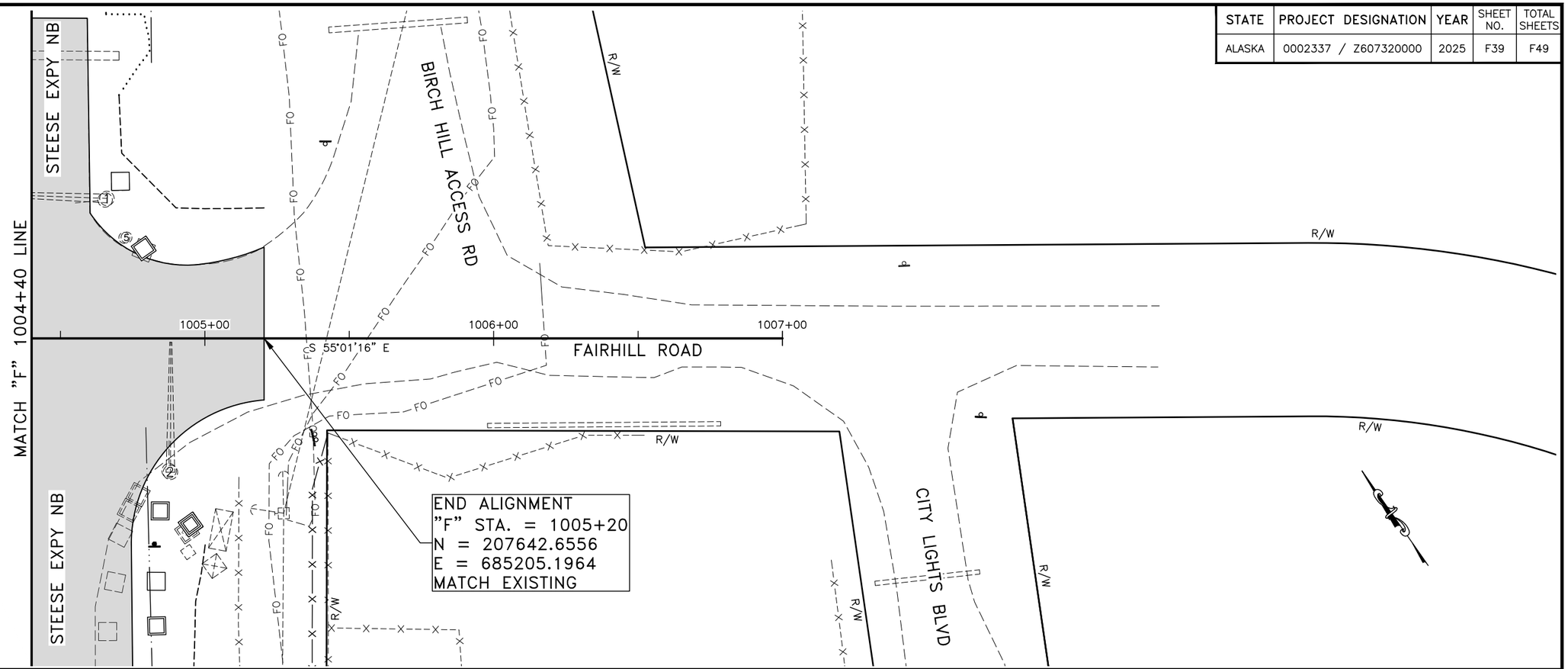
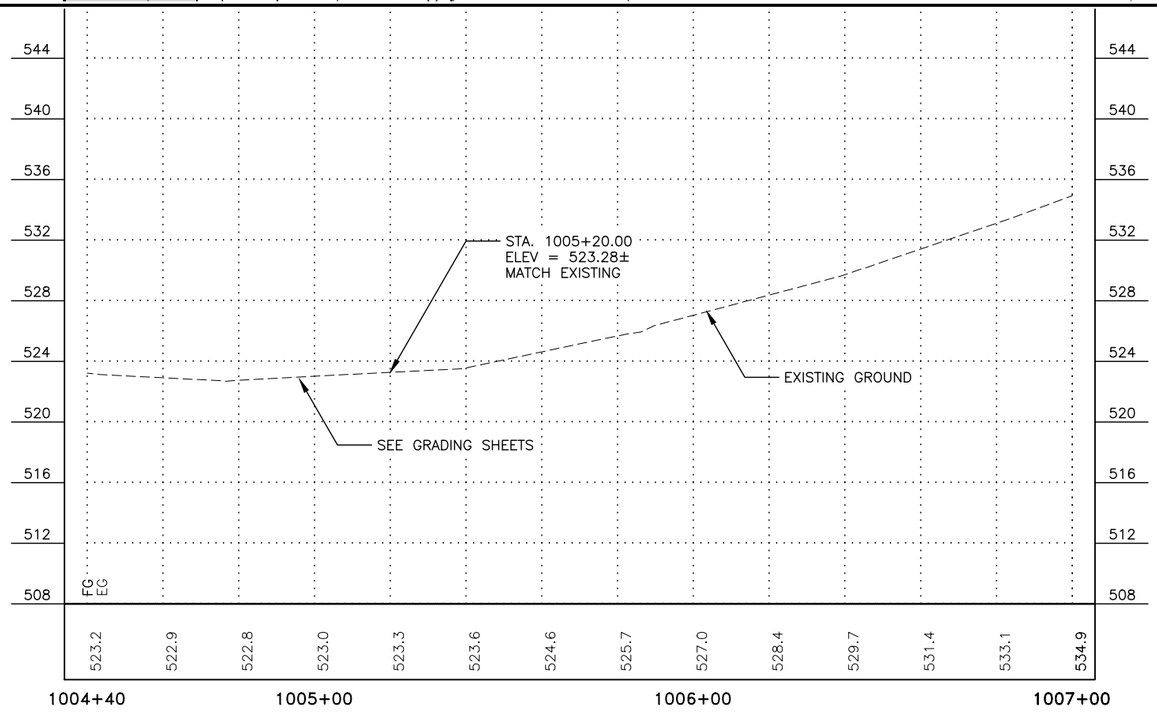
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F39	F49

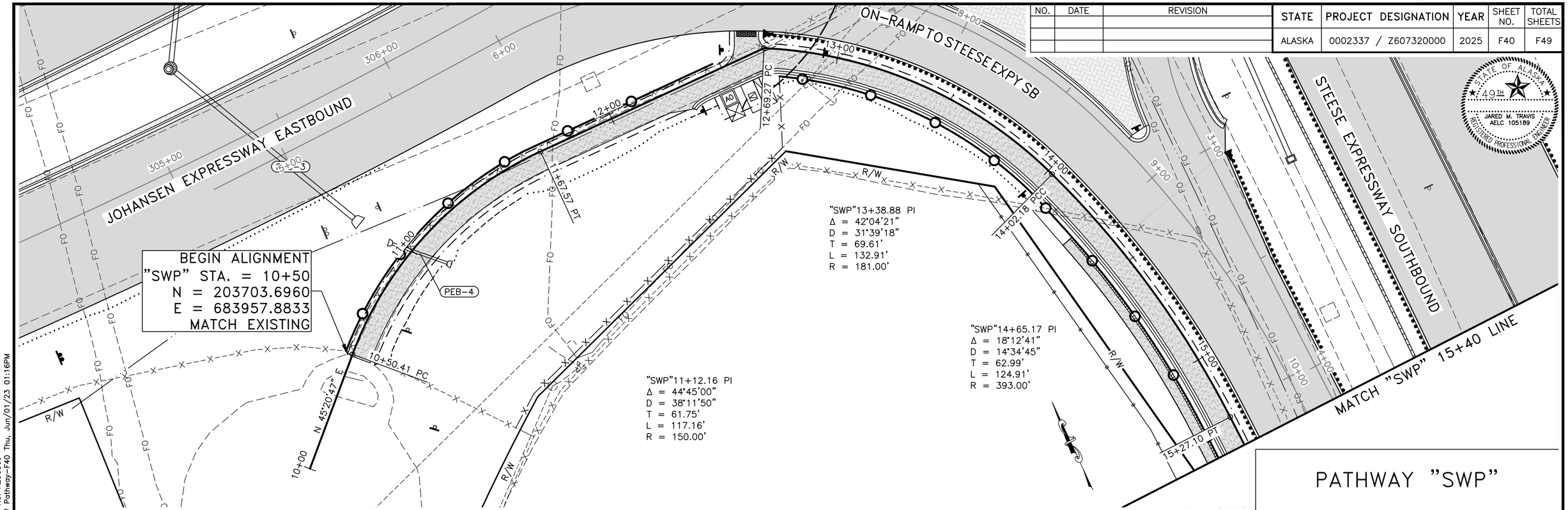




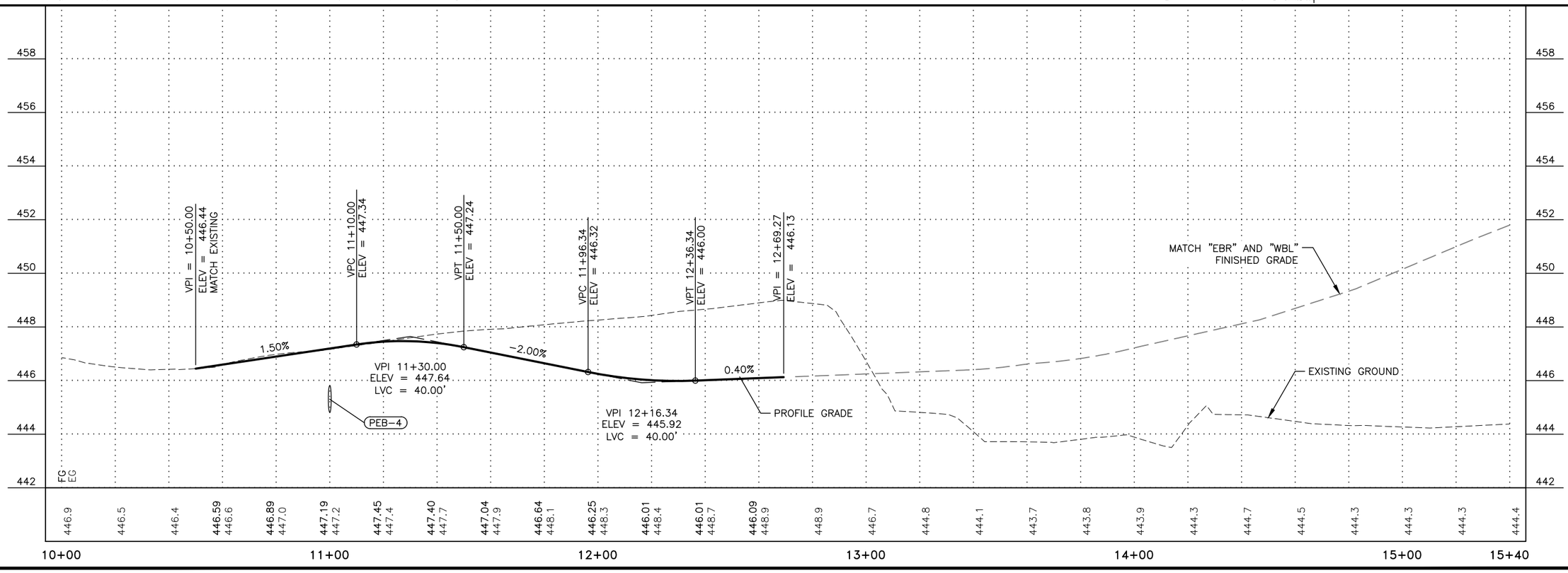
STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F40	F49

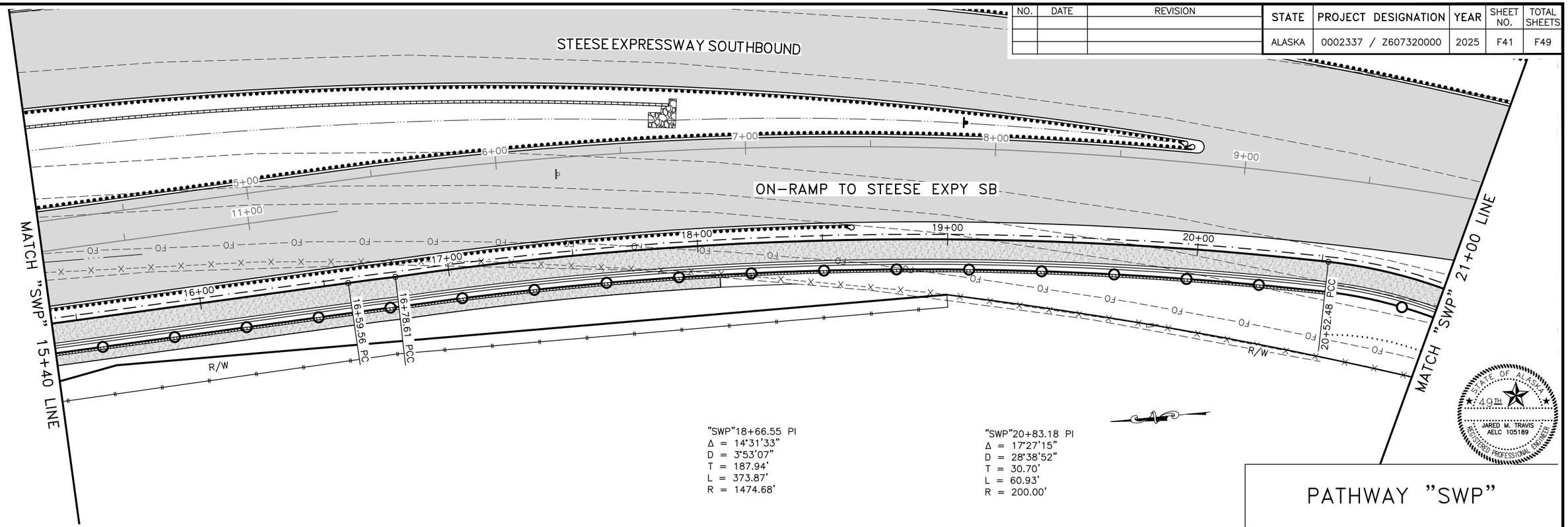


PATHWAY "SWP"



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F41	F49

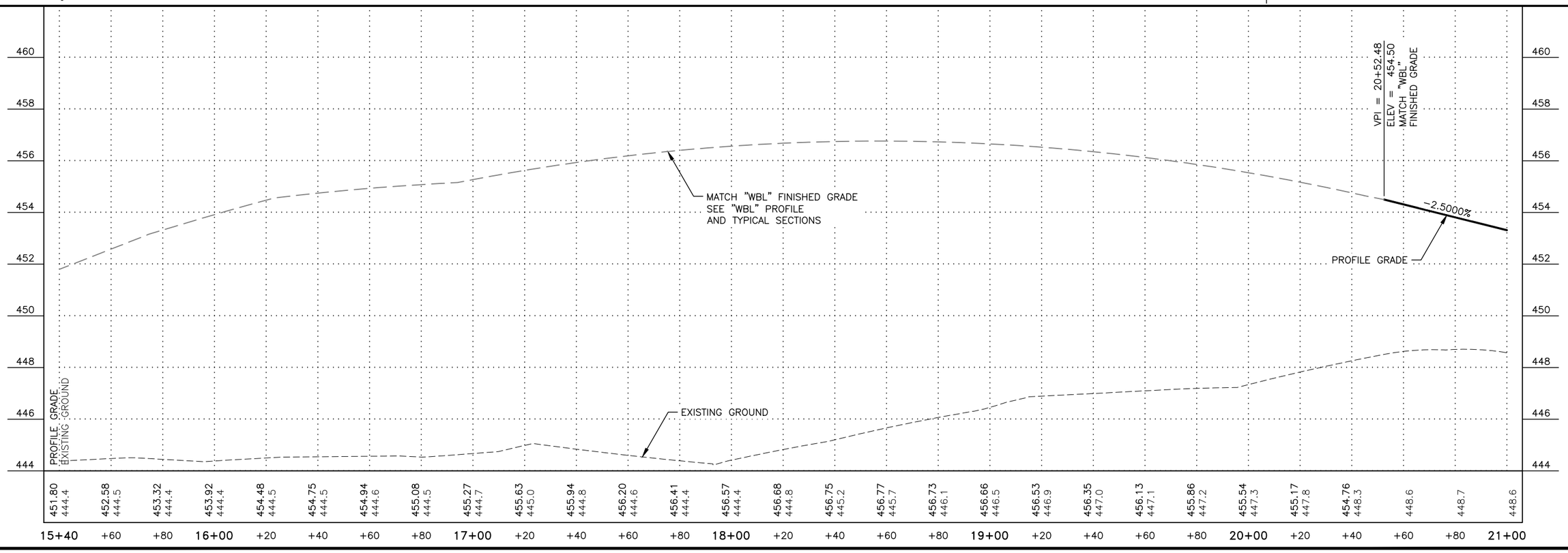


"SWP"18+66.55 PI
Δ = 14°31'33"
D = 3°53'07"
T = 187.94'
L = 373.87'
R = 1474.68'

"SWP"20+83.18 PI
Δ = 17°27'15"
D = 28°38'52"
T = 30.70'
L = 60.93'
R = 200.00'

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

PATHWAY "SWP"



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F42	F49

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

STEESE EXPRESSWAY SOUTHBOUND

MATCH "SWP" 21+00 LINE

MATCH "SWP" 26+60 LINE

10+00 11+00 12+00 13+00 14+00 15+00 22+00 23+00 24+00 25+00 26+00

21+13.41 PRC

21+45.68 PRC

R/W

"SWP"21+29.58 PI
Δ = 9°14'43"
D = 28°38'52"
T = 16.17'
L = 32.27'
R = 200.00'

PNB-2

PATHWAY "SWP"

PROFILE GRADE
EXISTING GROUND

PROFILE GRADE

EXISTING GROUND

-2.5000%

VPC 22+35.08
ELEV = 449.94

VPT 23+35.08
ELEV = 448.75

VPI 22+85.08
ELEV = 448.69
LVC = 100.00'

0.1200%

VPC 25+35.90
ELEV = 448.99

VPT 26+35.90
ELEV = 449.00

VPI 25+85.90
ELEV = 449.05
LVC = 100.00'

-0.0968%

460 458 456 454 452 450 448 446 444

448.6 448.1 447.8 447.9 448.0 448.1 448.2 448.3 448.5 448.6 448.6 448.7 448.7 448.6 448.5 448.4 448.3 448.6 448.7 448.6 448.6 448.7 448.8 448.9 449.0 449.1 449.1 449.1 449.1

21+00 +20 +40 +60 +80 22+00 +20 +40 +60 +80 23+00 +20 +40 +60 +80 24+00 +20 +40 +60 +80 25+00 +20 +40 +60 +80 26+00 +20 +40 26+60

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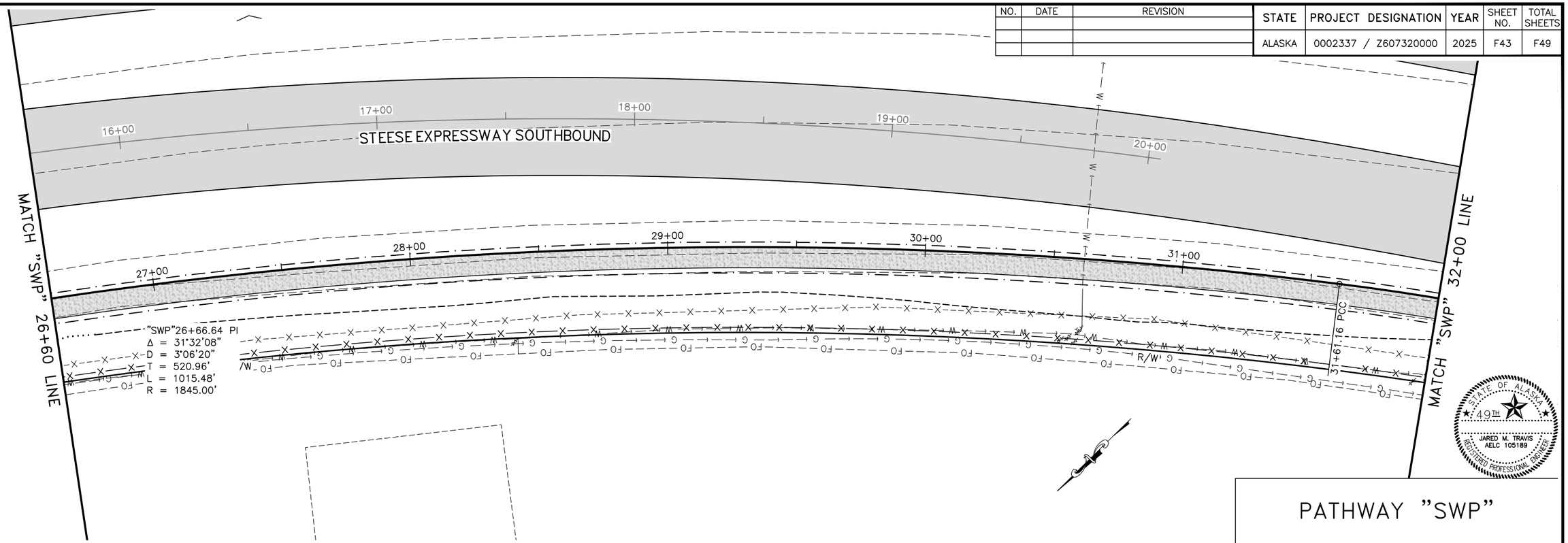
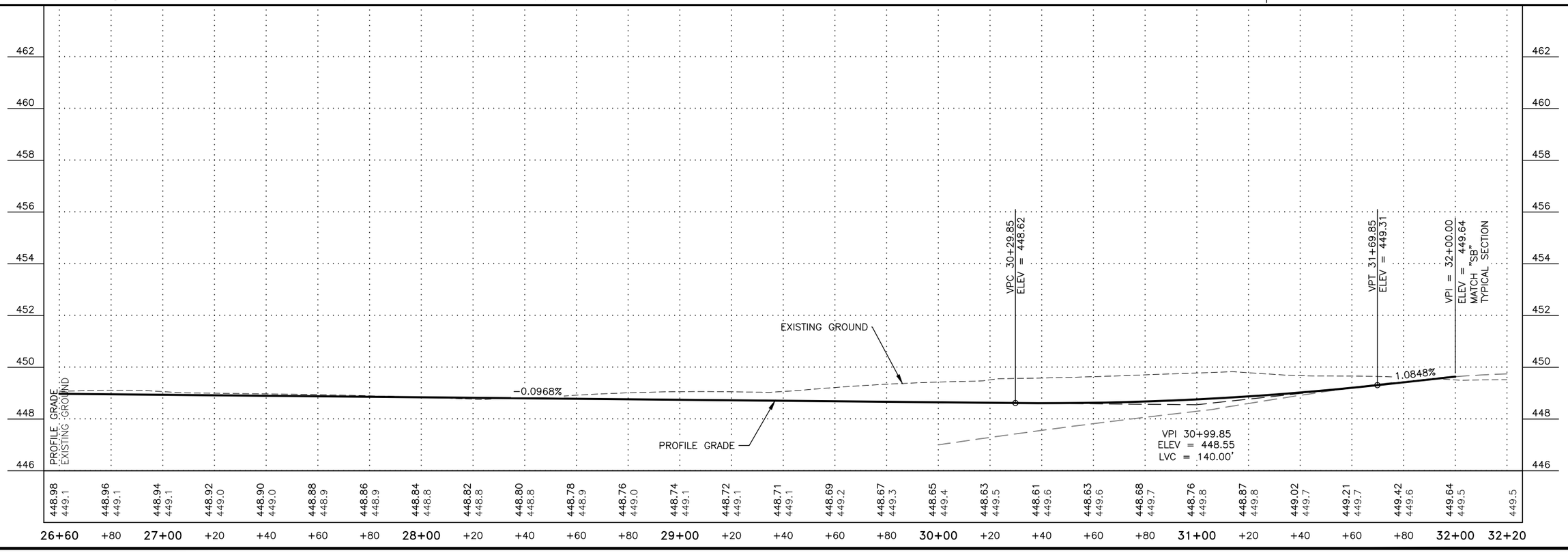
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F43	F49

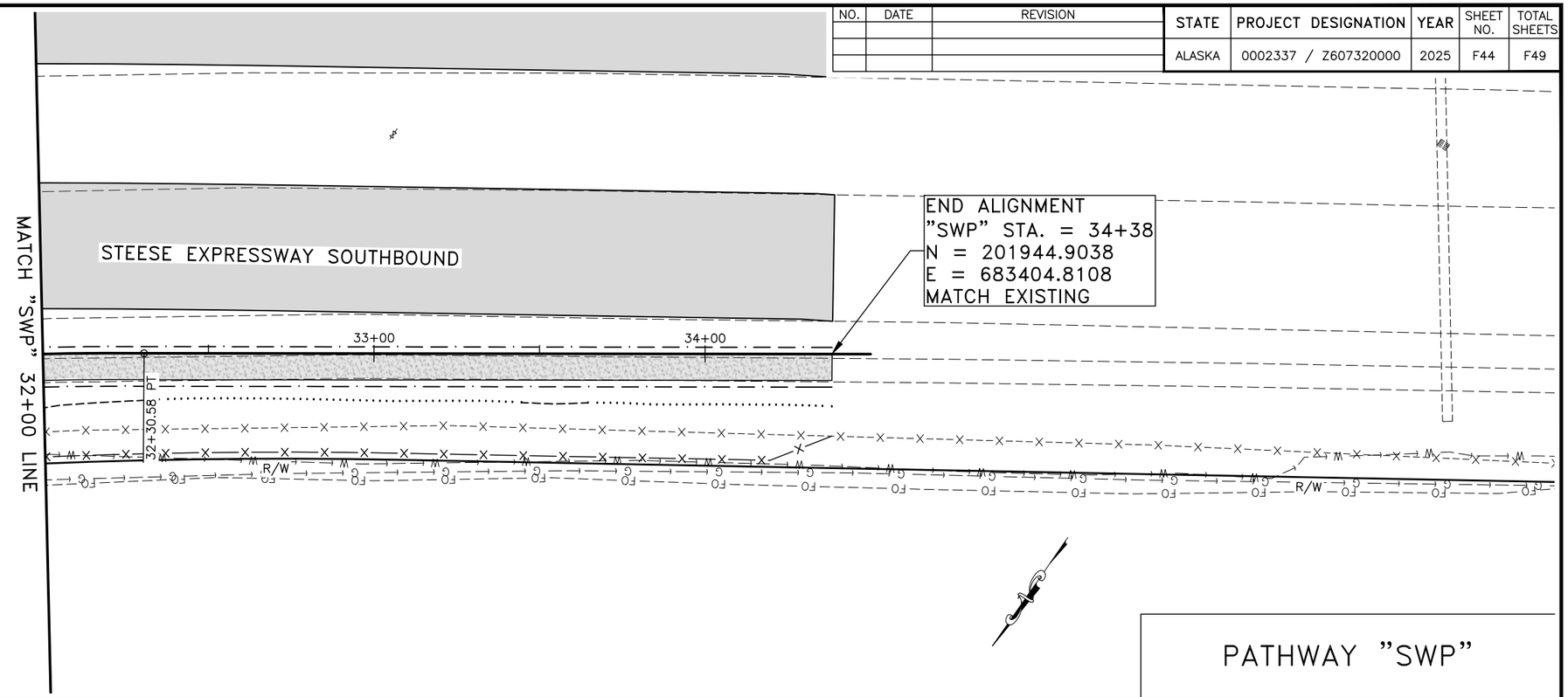


PATHWAY "SWP"

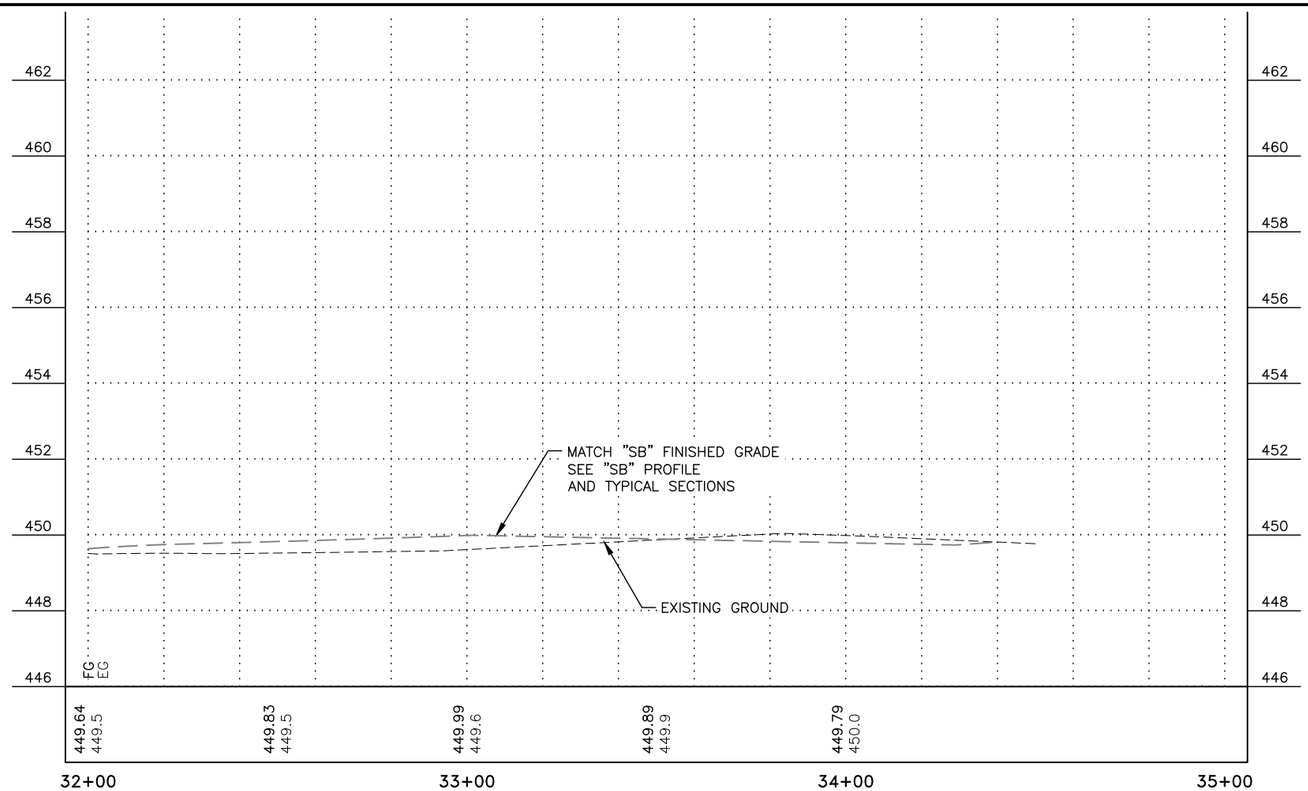


NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F44	F49



PATHWAY "SWP"



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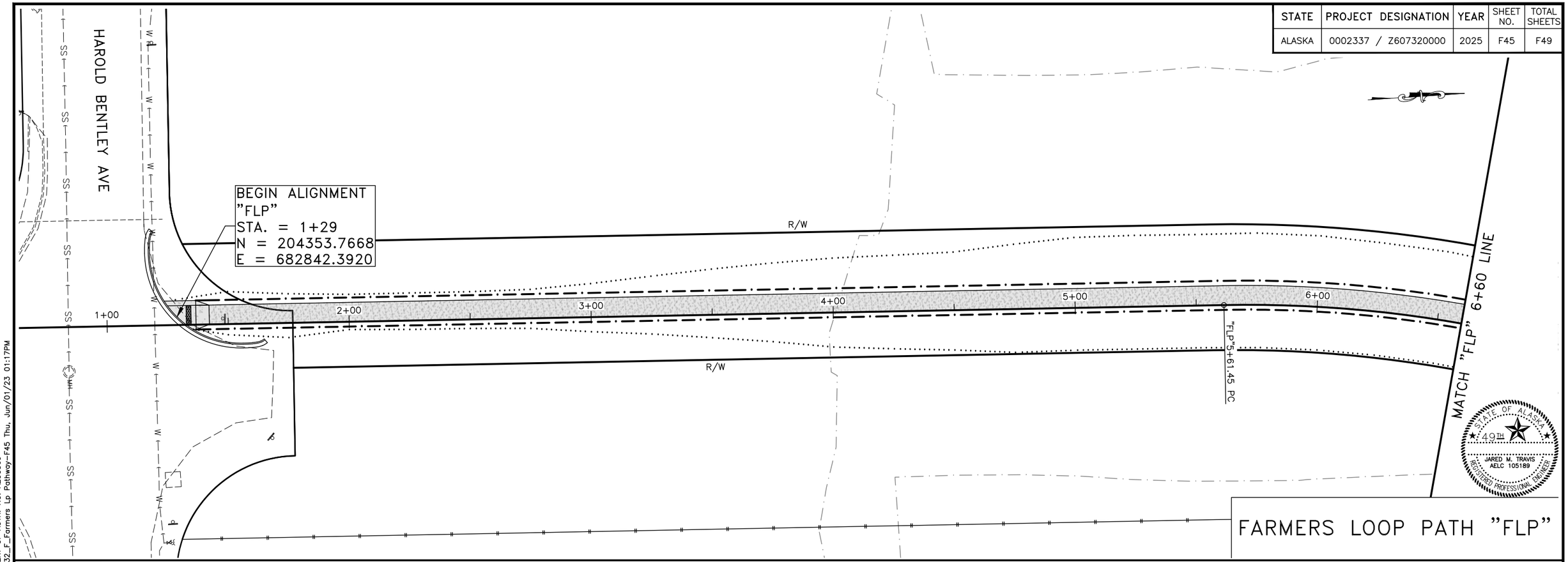
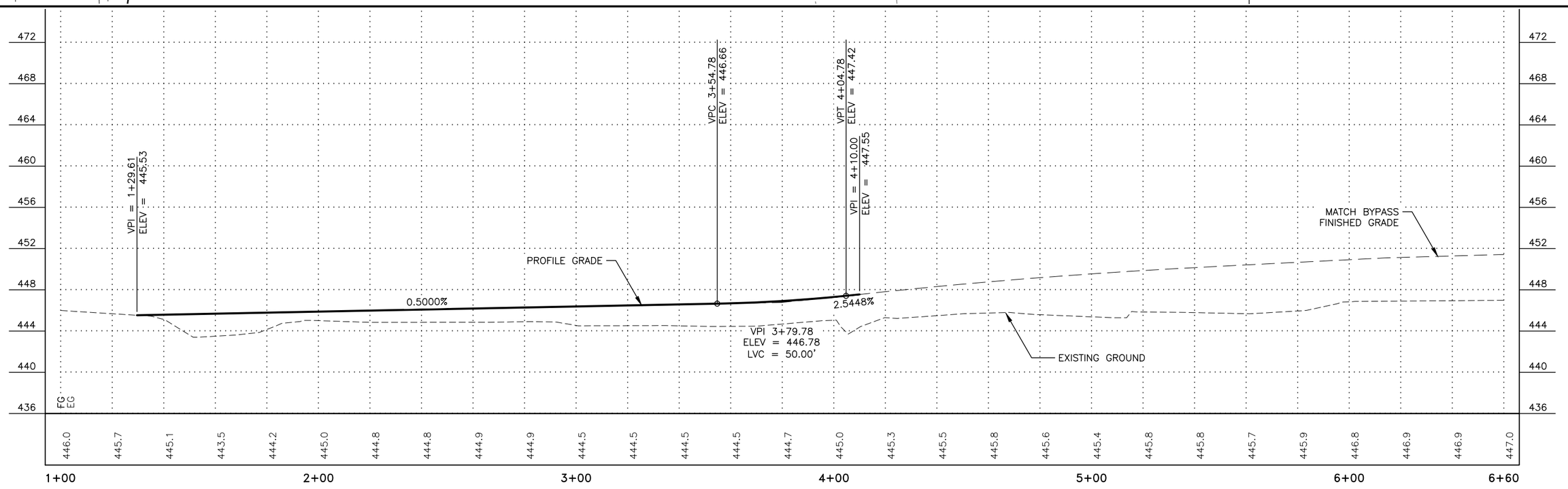
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F45	F49



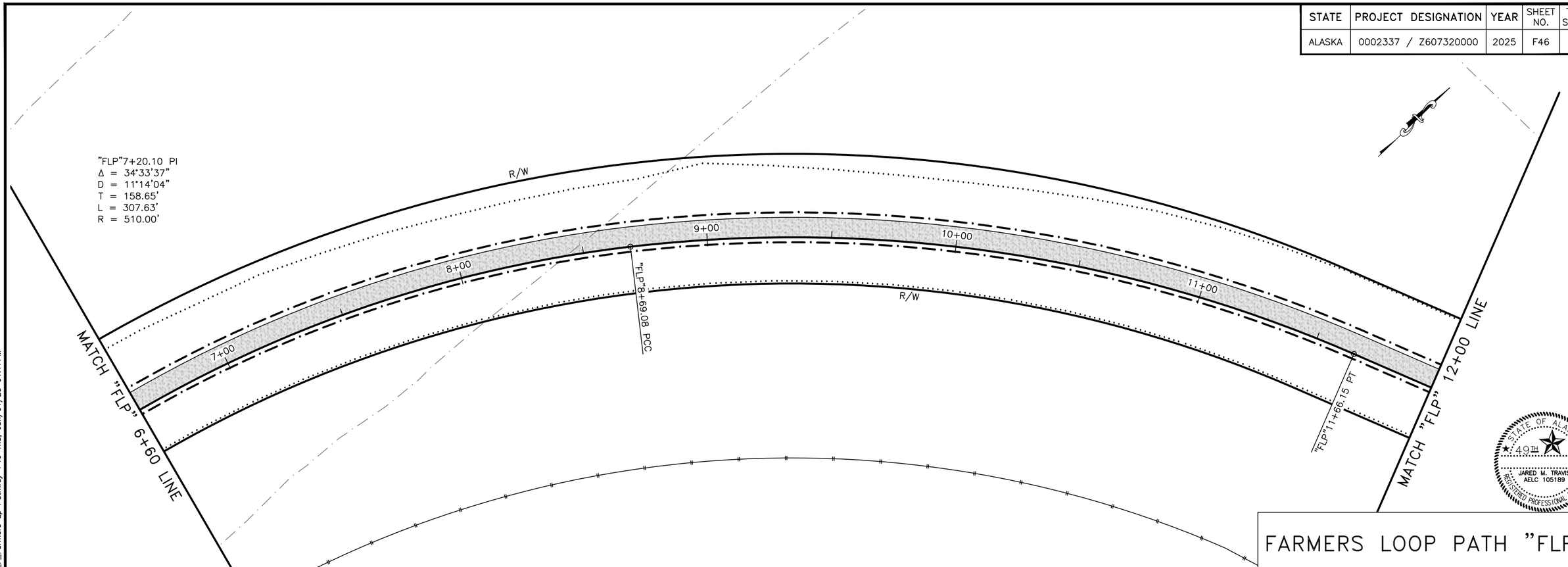
STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

FARMERS LOOP PATH "FLP"



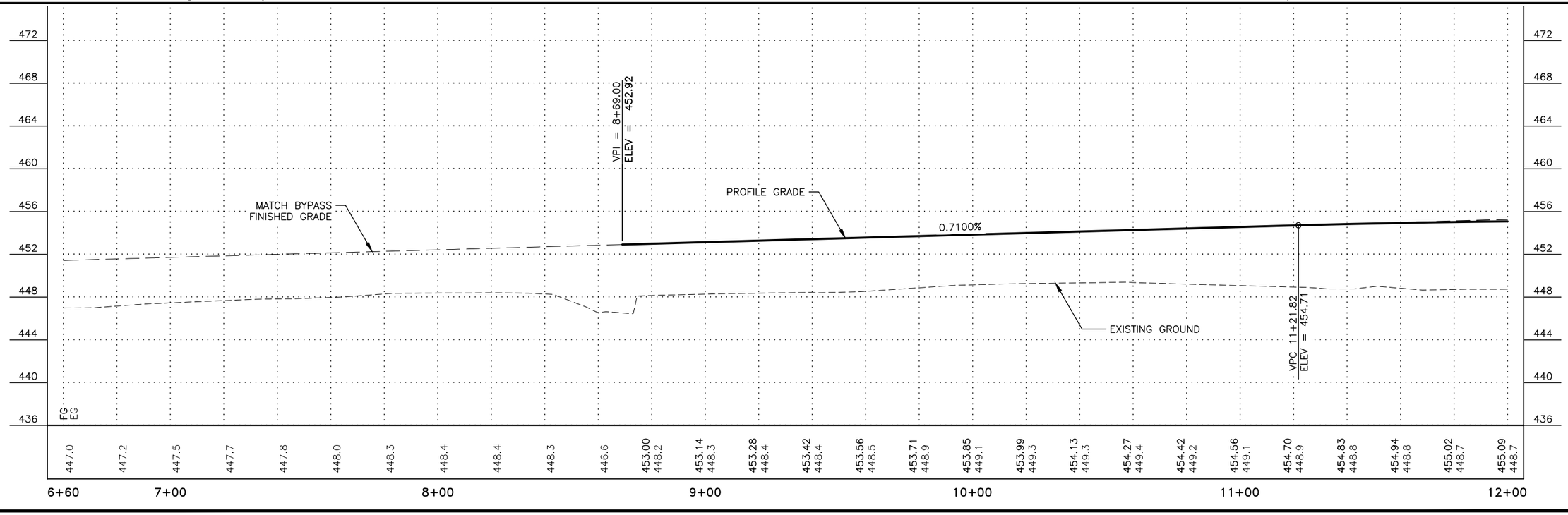
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F46	F49

"FLP"7+20.10 PI
Δ = 34°33'37"
D = 11°14'04"
T = 158.65'
L = 307.63'
R = 510.00'



STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

FARMERS LOOP PATH "FLP"



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F47	F49

STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

MATCH "FLP" 12+00 LINE

MATCH "FLP" 17+80 LINE

R/W

13+00

14+00

15+00

16+00

"FLP"15+29.19 PC

R/W

FARMERS LOOP PATH "FLP"

VPI 12+21.82
ELEV = 455.42
LVC = 200.00'

PROFILE GRADE

-0.4892%

EXISTING GROUND

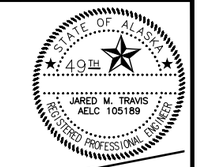
VPT 13+21.82
ELEV = 454.93

VPC 16+90.47
ELEV = 453.13

FG
EG

12+00	13+00	14+00	15+00	16+00	17+00	17+80
455.09 / 448.7	454.94 / 448.7	454.85 / 448.8	454.75 / 448.7	454.65 / 448.7	454.55 / 448.6	454.45 / 448.5
454.36 / 448.8	454.26 / 448.8	454.16 / 448.8	454.06 / 448.8	453.96 / 448.8	453.87 / 448.8	453.77 / 448.8
453.67 / 448.9	453.57 / 449.0	453.48 / 448.9	453.38 / 449.3	453.28 / 449.1	453.18 / 449.1	453.08 / 449.1
452.99 / 449.1	452.91 / 449.2	452.84 / 449.2	452.77 / 449.0			

472 468 464 460 456 452 448 444 440 436



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F48	F49

JARED M. TRAVIS
AELC 105189

FARMERS LOOP PATH "FLP"

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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	F49	F49

BEGIN ALIGNMENT
"D STREET"
STA. = 0+00
N = 203804.0336
E = 684914.8245
MATCH EXISTING

END ALIGNMENT
"D STREET"
STA. = 0+90
N = 203721.6478
E = 684947.3468
MATCH EXISTING

"D STREET"0+62.47 PI
Δ = 29°39'34"
D = 57°17'45"
T = 26.48'
L = 51.77'
R = 100.00'

"D STREET"0+00.00 =
"EB"315+10

S 30°46'29" E

"D STREET"0+35.99 PC

"D STREET"0+87.76 PT

S 1°06'55" E

LAZELLE ROAD

PEB-11

315+50

315+00

0+50

1+00

1+20

D STREET

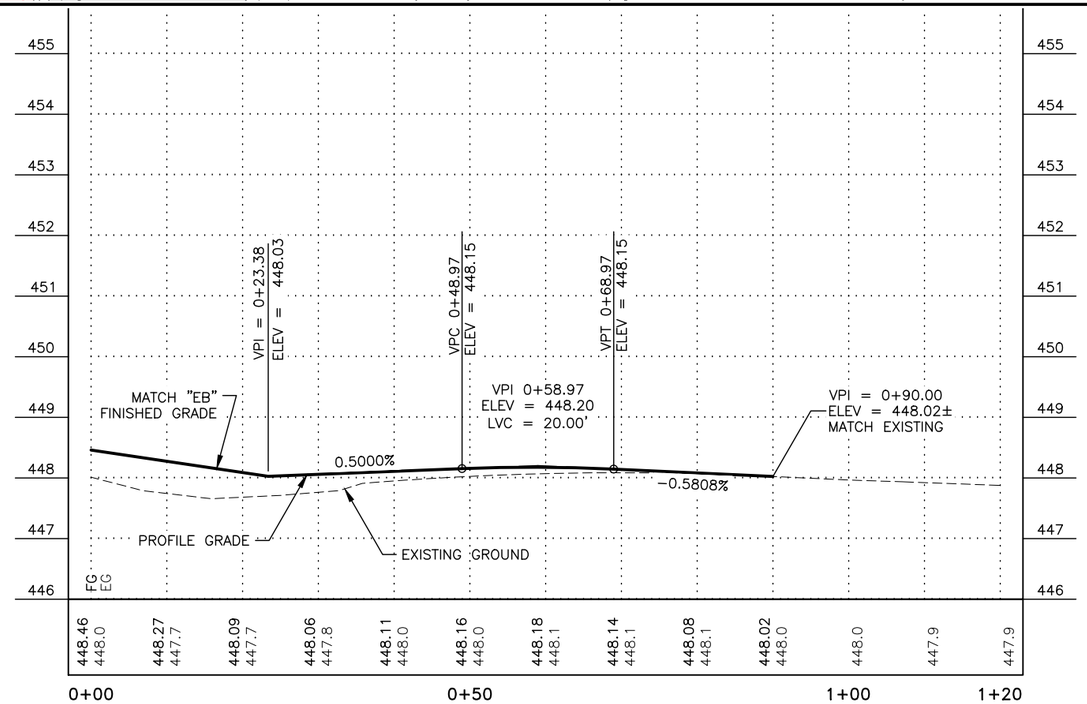
JOHANSEN EXPRESSWAY WESTBOUND

JOHANSEN EXPRESSWAY EASTBOUND

FO

E

D STREET



STATE OF ALASKA
49TH
JARED M. TRAVIS
AELC 105189
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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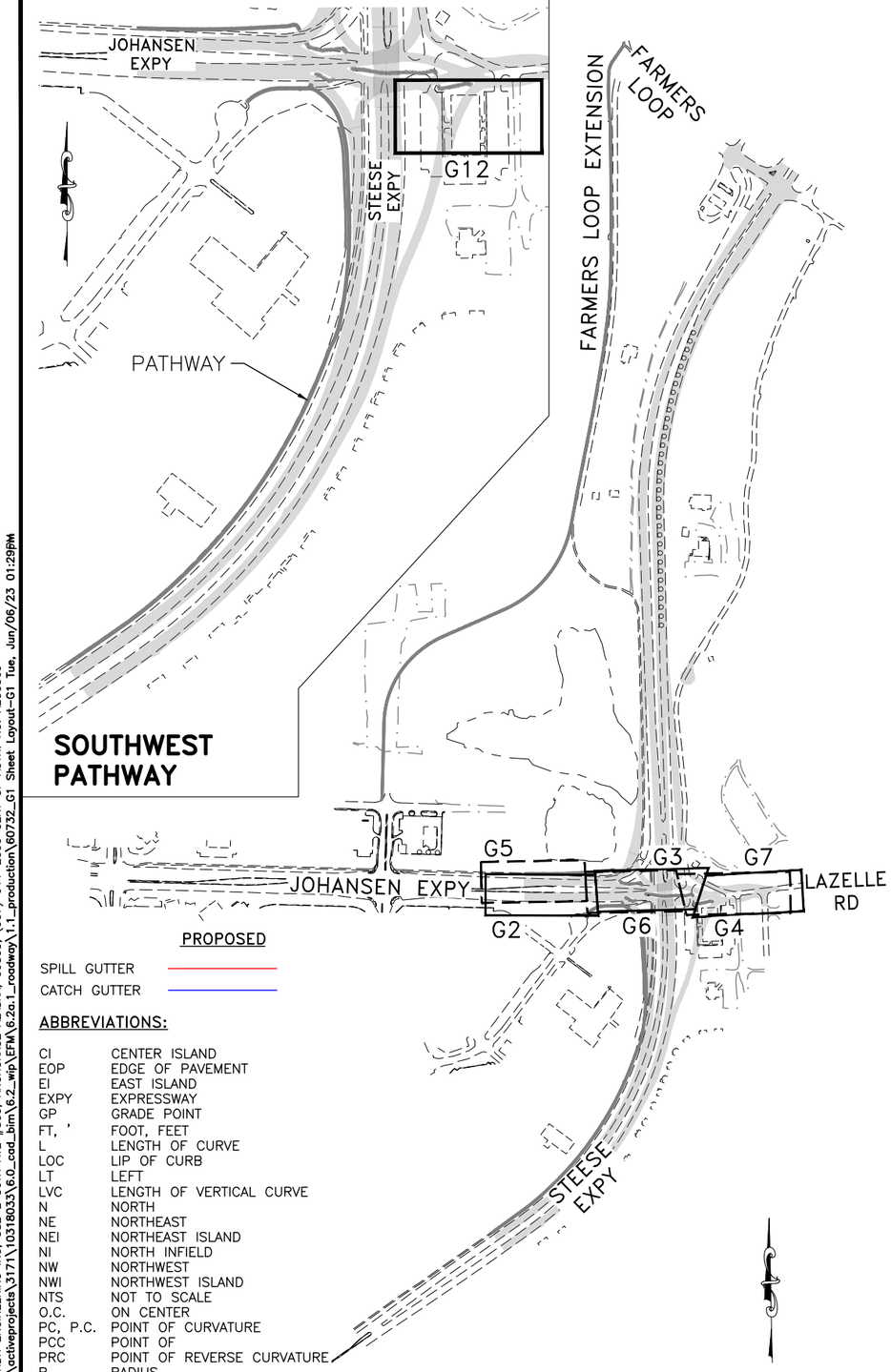
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G1	



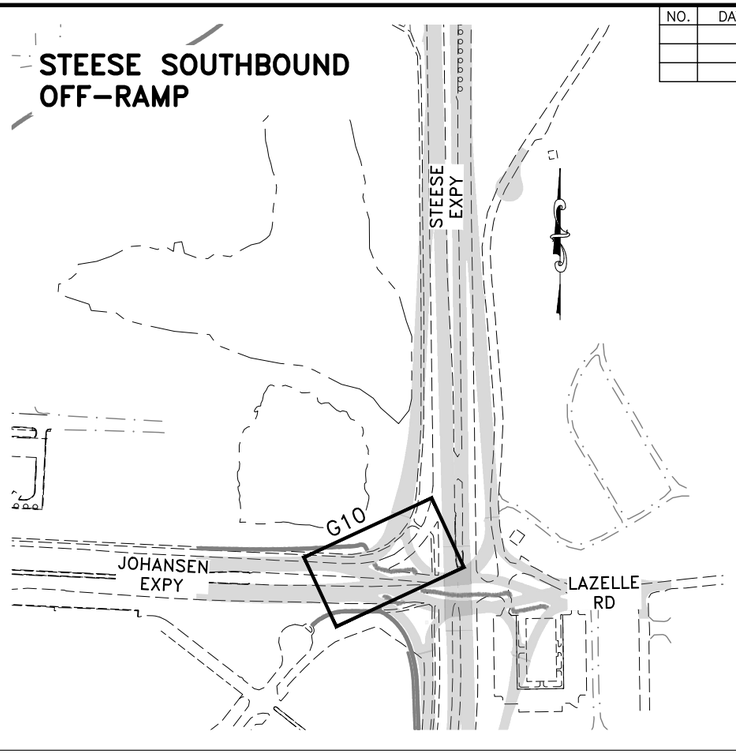
PROPOSED

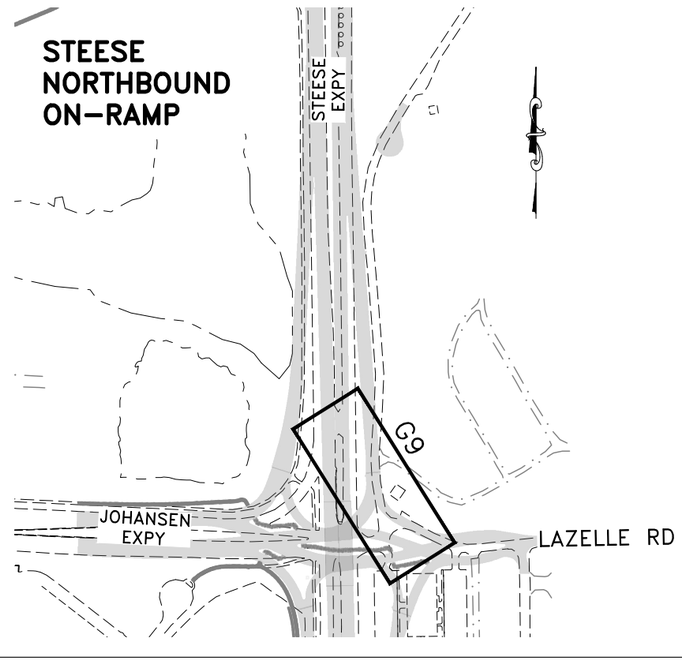
SPILL GUTTER

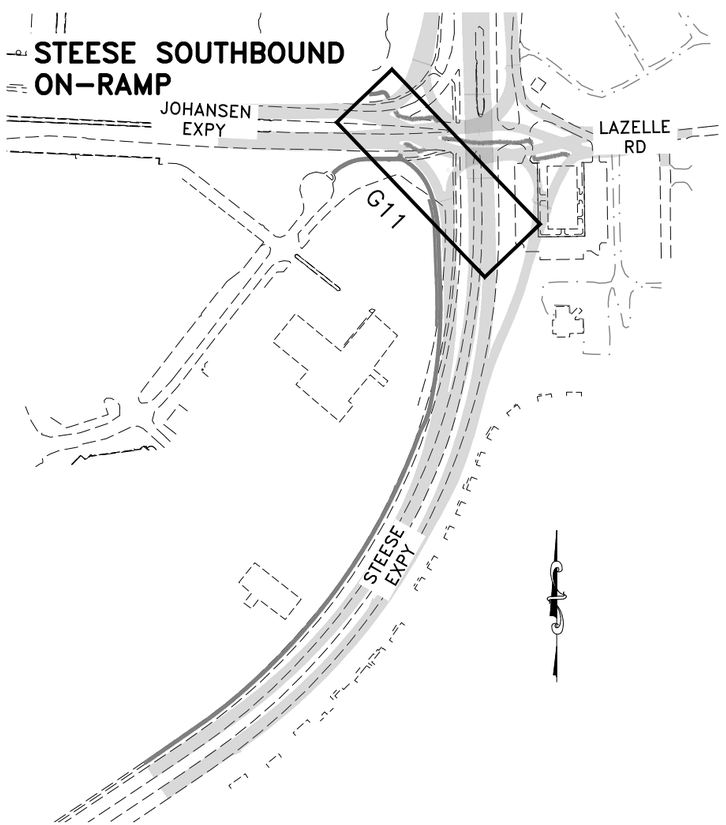
CATCH GUTTER

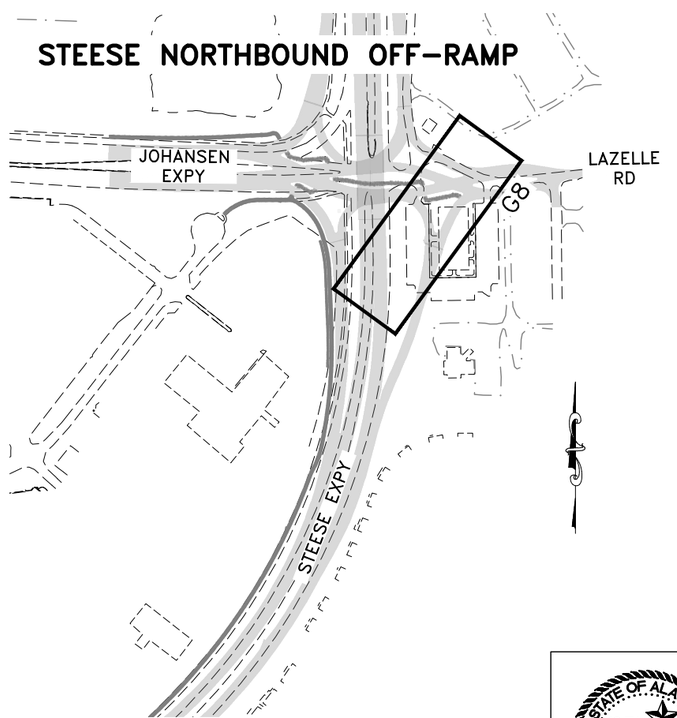
ABBREVIATIONS:

CI	CENTER ISLAND
EOP	EDGE OF PAVEMENT
EI	EAST ISLAND
EXPY	EXPRESSWAY
GP	GRADE POINT
FT, '	FOOT, FEET
L	LENGTH OF CURVE
LOC	LIP OF CURB
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
N	NORTH
NE	NORTHEAST
NEI	NORTHEAST ISLAND
NI	NORTH INFIELD
NW	NORTHWEST
NWI	NORTHWEST ISLAND
NTS	NOT TO SCALE
O.C.	ON CENTER
PC, P.C.	POINT OF CURVATURE
PCC	POINT OF
PRC	POINT OF REVERSE CURVATURE
R	RADIUS
RD	ROAD
S	SOUTH
SE	SOUTHEAST
SEI	SOUTHEAST ISLAND
SW	SOUTHWEST
SWI	SOUTHWEST ISLAND
SI	SOUTH INFIELD
WM	WEST MEDIAN









SHEET LAYOUT

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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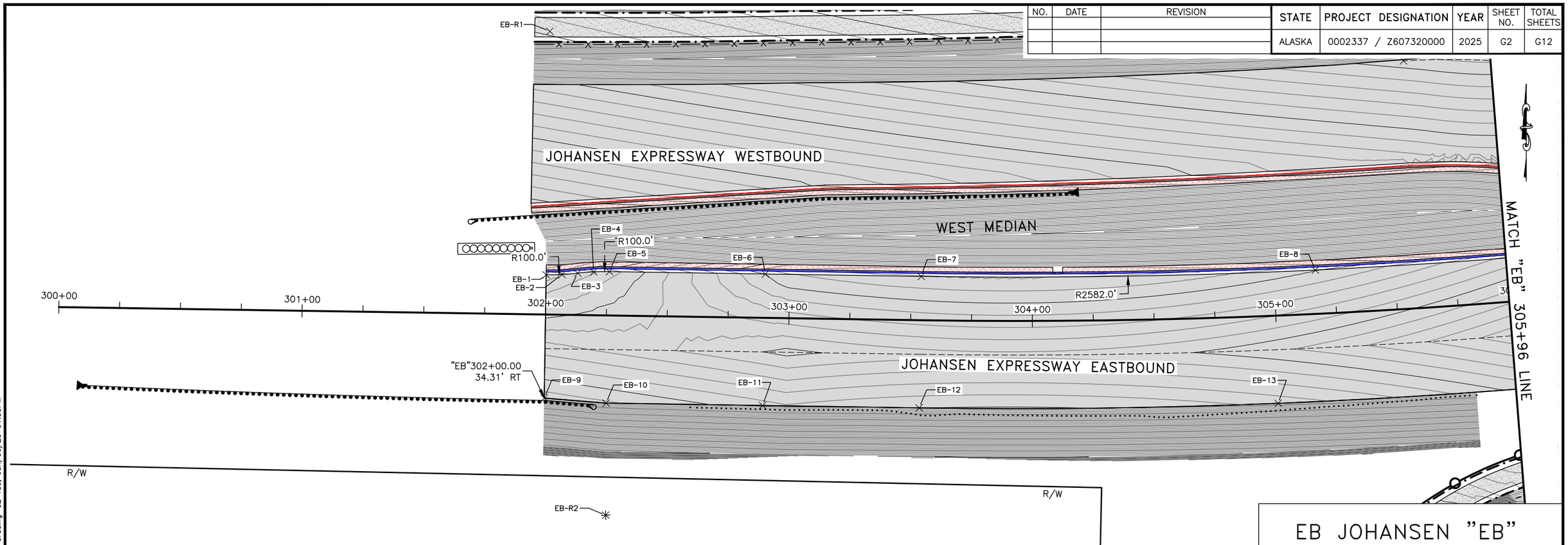
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G2	G12



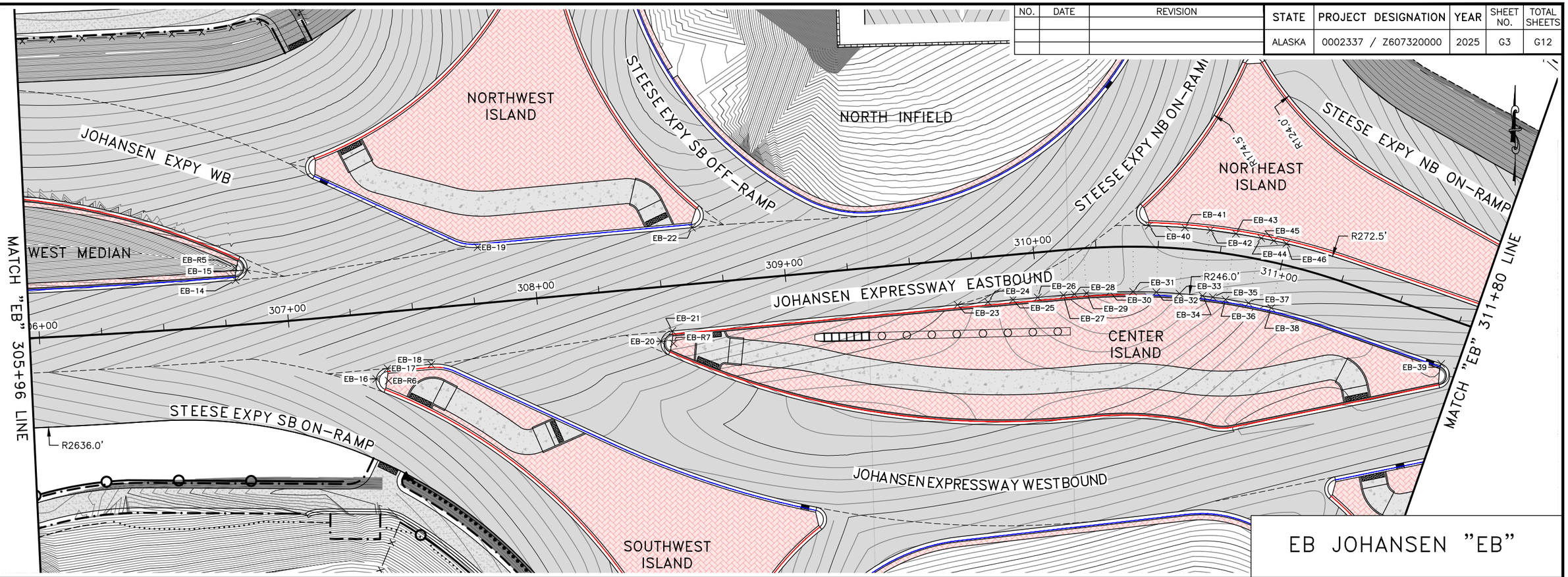
EB JOHANSEN "EB"

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
EB-1	203827.4311	683623.9314	448.37'	WM PC
EB-2	203827.3686	683630.4429	448.30'	WM LOC
EB-3	203827.7299	683636.9447	448.26'	WM PC
EB-4	203828.0913	683643.4465	448.21'	WM LOC
EB-5	203828.0288	683649.9580	448.15'	WM PC
EB-6	203825.3287	683713.9453	447.50'	WM LOC
EB-7	203822.6286	683777.9327	447.32'	WM PC
EB-8	203820.8780	683939.8394	447.49'	WM LOC
EB-9	203776.8632	683621.8081	447.35'	SW EOP
EB-10	203774.1008	683647.1116	447.38'	SW EOP
EB-11	203771.3887	683711.3838	447.56'	SW EOP
EB-12	203768.6766	683775.6561	447.50'	SW PC
EB-13	203766.5833	683923.1210	447.64'	SW EOP
EB-R1	203927.3422	683628.1473	'	EB R=100.0'
EB-R2	203728.1177	683645.7421	'	EB R=100.0'
EB-R3	206402.3329	683886.7886	'	WM R=2582.0'

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G3	G12



EB JOHANSEN "EB"

GRADING LAYOUT POINT SUMMARY

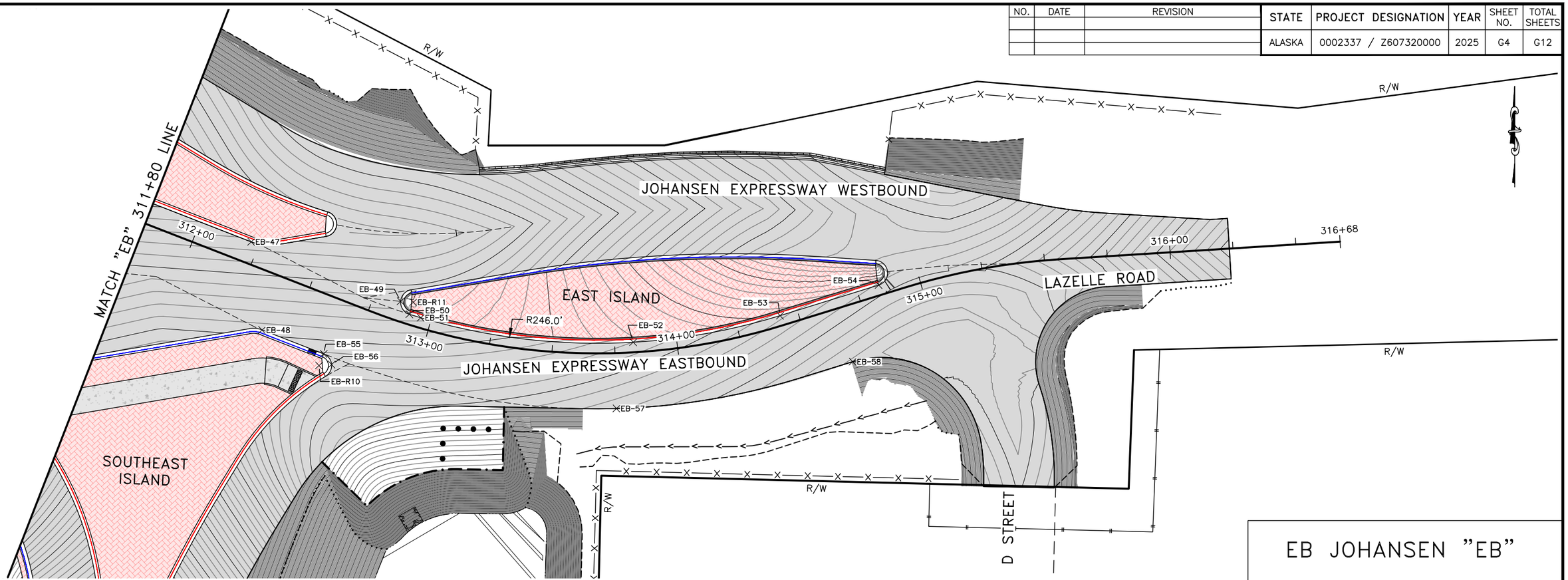
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
EB-14	203829.2789	684101.5375	448.25'	SW PC
EB-15	203833.3904	684106.0451	448.22'	WM LOC
EB-16	203789.9577	684158.0882	449.15'	SWI LOC
EB-17	203794.2477	684162.5635	449.34'	SWI PC
EB-18	203795.9310	684180.1190	449.43'	SWI PC
EB-19	203842.8955	684198.4541	448.65'	NWI PC
EB-20	203805.5186	684272.2362	449.88'	CI LOC
EB-21	203809.7121	684276.6972	449.83'	CI PC
EB-22	203851.1366	684284.4016	449.08'	NWI PC
EB-23	203820.6692	684390.9691	450.44'	CI GP
EB-24	203821.8412	684403.1917	450.53'	CI GP
EB-25	203822.7957	684413.1461	450.61'	CI GP
EB-26	203823.7502	684423.1004	450.69'	CI GP
EB-27	203824.7353	684433.3747	450.76'	CI GP
EB-28	203825.1592	684437.7956	450.78'	CI PC
EB-29	203825.5756	684442.6547	450.79'	CI GP
EB-30	203826.1030	684451.9574	450.81'	CI GP
EB-31	203826.2777	684461.2734	450.80'	CI GP
EB-32	203826.0996	684470.5893	450.78'	CI GP
EB-33	203825.5687	684479.8918	450.73'	CI GP

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
EB-34	203824.6859	684489.1675	450.67'	CI GP
EB-35	203824.1785	684493.2967	450.64'	CI LOC
EB-36	203823.1785	684498.3568	450.63'	CI GP
EB-37	203821.8703	684507.5855	450.54'	CI GP
EB-38	203819.9414	684516.7012	450.48'	CI GP
EB-39	203797.8295	684584.9050	450.03'	CI PCC
EB-40	203852.7062	684467.4710	450.91'	NEI PRC
EB-41	203851.9912	684481.9496	450.91'	NEI GP
EB-42	203851.0145	684492.1773	451.08'	NEI GP
EB-43	203849.6490	684502.4030	451.09'	NEI GP
EB-44	203847.8955	684512.5793	451.06'	NEI GP
EB-45	203846.8731	684517.6379	451.04'	NEI LOC
EB-46	203845.7589	684522.6771	451.01'	NEI GP
EB-R4	206402.3444	683886.8001	'	WM R=2636.0'
EB-R5	203834.2616	684101.1216	'	WM R=5.0'
EB-R6	203789.2705	684163.0407	'	SWI R=5.0'
EB-R7	203804.7350	684277.1744	'	CI R=5.0'
EB-R8	203580.2778	684461.2275	'	CI R=246.0'
EB-R9	203580.2778	684461.2277	'	NEI R=272.5'

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G4	G12



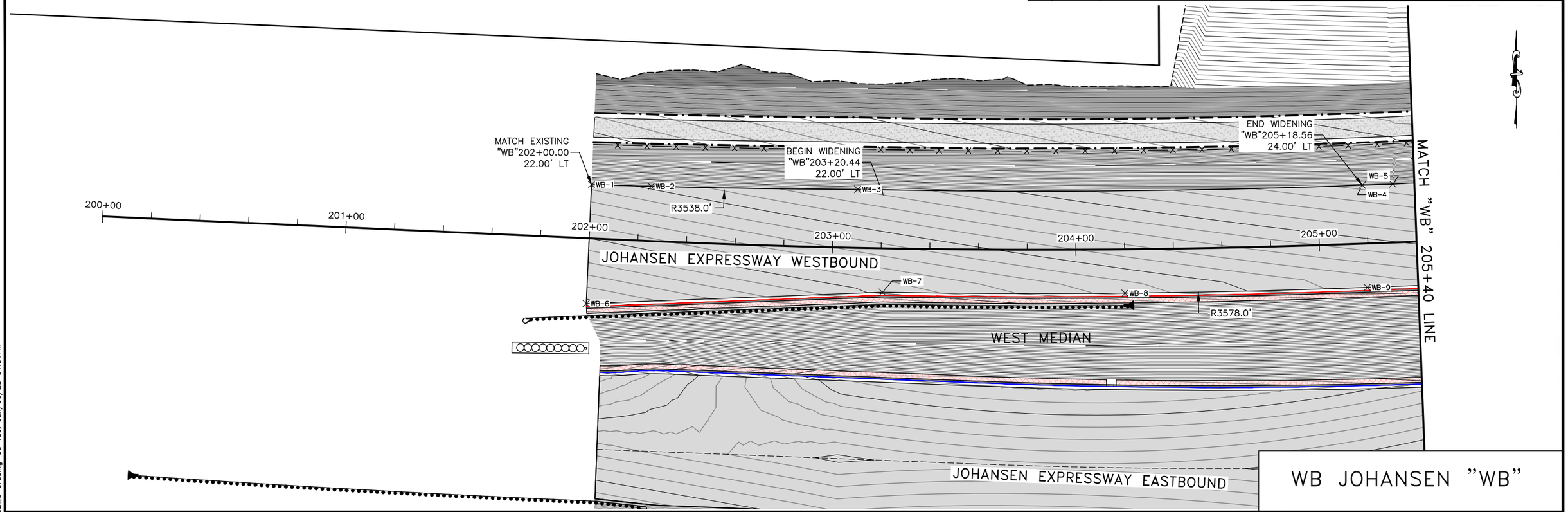
EB JOHANSEN "EB"

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
EB-47	203807.1479	684639.1248	450.27'	NEI PC
EB-48	203772.3281	684644.7326	449.88'	SEI PC
EB-49	203785.8504	684699.3073	449.86'	EI LOC
EB-50	203780.8728	684702.9771	449.76'	EI PC
EB-51	203779.6725	684707.5031	449.73'	EI PC
EB-52	203773.2132	684792.1523	449.20'	EI LOC
EB-53	203786.0041	684849.9974	448.83'	EI PC
EB-54	203799.6192	684888.6667	448.58'	EI PC
EB-55	203763.8606	684669.5210	449.39'	SEI PC
EB-56	203759.7480	684672.8517	449.30'	SEI LOC
EB-57	203746.6541	684786.5425	448.72'	SE EOP
EB-58	203768.8348	684879.5215	448.17'	SE EOP
EB-R10	203759.1342	684667.8895	'	SEI R=5.0'
EB-R11	203785.6933	684704.3048	'	EI R=5.0'
EB-R12	204018.0416	684768.2991	'	EI R=246.0'

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G5	G12



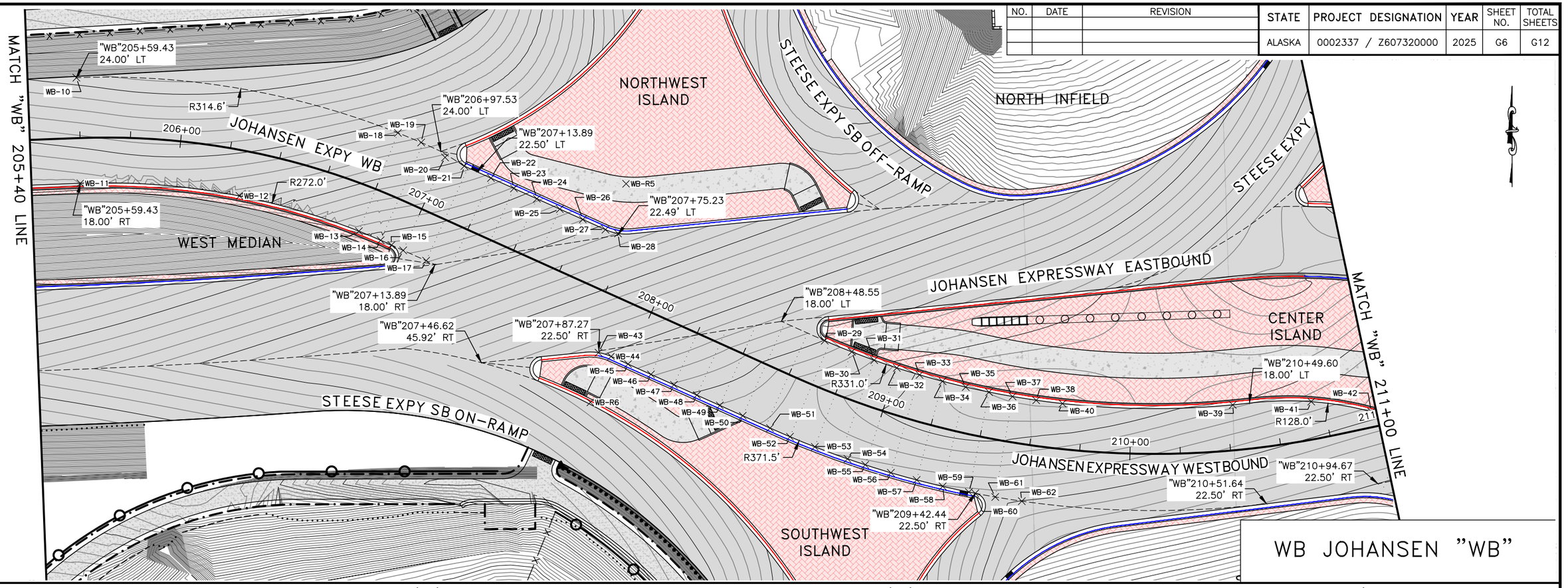
WB JOHANSEN "WB"

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
WB-1	203905.7375	683620.8957	447.56'	NW EOP
WB-2	203904.9909	683645.4421	447.48'	NW EOP
WB-3	203903.4341	683730.2387	447.19'	NW EOP
WB-4	203904.3954	683937.4538	446.56'	NM EOP
WB-5	203904.8206	683949.9739	446.53'	NM EOP
WB-6	203856.9724	683618.5242	448.53'	WM LOC
WB-7	203861.1929	683740.1783	448.00'	WM LOC
WB-8	203860.4285	683839.8422	447.66'	WM LOC
WB-9	203862.4359	683939.3597	447.36'	WM PC
WB-R1	207438.3585	683817.4490	'	WM R=3538.0'
WB-R2	207438.3585	683817.4490	'	WM R=3578.0'

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G6	G12



WB JOHANSEN "WB"

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
WB-10	203905.7782	683978.2969	446.44'	NW EOP
WB-11	203863.8067	683979.7273	447.28'	WM PC
WB-12	203858.5524	684042.9427	447.60'	WM LOC
WB-13	203844.3779	684090.3039	447.95'	WM GP
WB-14	203840.7339	684098.9459	448.08'	WM GP
WB-15	203838.7990	684103.2220	448.09'	WM PC
WB-16	203836.6829	684107.8754	448.22'	WM GP
WB-17	203832.5444	684116.9788	448.29'	WM GP
WB-18	203883.3537	684105.9528	447.11'	NW GP
WB-19	203879.5038	684115.1830	447.24'	NW PC
WB-20	203873.5487	684124.6532	447.43'	NW GP
WB-21	203870.0710	684132.2948	447.55'	NWI PC
WB-22	203865.2642	684142.8567	447.74'	NWI GP
WB-23	203861.1220	684151.9584	447.91'	NWI GP
WB-24	203856.9797	684161.0602	448.08'	NWI GP
WB-25	203852.8375	684170.1619	448.24'	NWI GP
WB-26	203848.6952	684179.2637	448.40'	NWI GP
WB-27	203844.6007	684188.2606	448.54'	NWI PC
WB-28	203843.0783	684193.2453	448.61'	NWI LOC
WB-29	203800.1501	684275.1797	450.01'	CI PC
WB-30	203795.6892	684285.9475	450.17'	CI GP

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
WB-31	203792.3410	684294.8207	450.30'	CI GP
WB-32	203789.2484	684303.7862	450.42'	CI GP
WB-33	203786.4139	684312.8366	450.52'	CI GP
WB-34	203783.8398	684321.9645	450.60'	CI GP
WB-35	203781.5283	684331.1624	450.66'	CI GP
WB-36	203779.4813	684340.4228	450.70'	CI GP
WB-37	203777.7004	684349.7380	450.73'	CI GP
WB-38	203776.1859	684359.1121	450.74'	CI GP
WB-39	203774.0308	684437.2202	450.42'	CI PRC
WB-40	203774.8170	684369.6008	450.73'	CI LOC
WB-41	203775.2062	684468.4020	450.28'	CI LOC
WB-42	203771.1133	684492.2399	450.06'	CI PRC
WB-43	203795.7482	684185.3277	449.48'	SWI LOC
WB-44	203794.2258	684190.3124	449.54'	SWI PC
WB-45	203791.1684	684197.0305	449.64'	SWI GP
WB-46	203787.0261	684206.1322	449.78'	SWI GP
WB-47	203782.8839	684215.2340	449.91'	SWI GP
WB-48	203778.7416	684224.3357	450.02'	SWI LOC
WB-49	203774.5993	684233.4375	450.11'	SWI GP
WB-50	203770.4571	684242.5392	450.17'	SWI GP
WB-51	203765.5396	684253.3444	450.21'	SWI PC

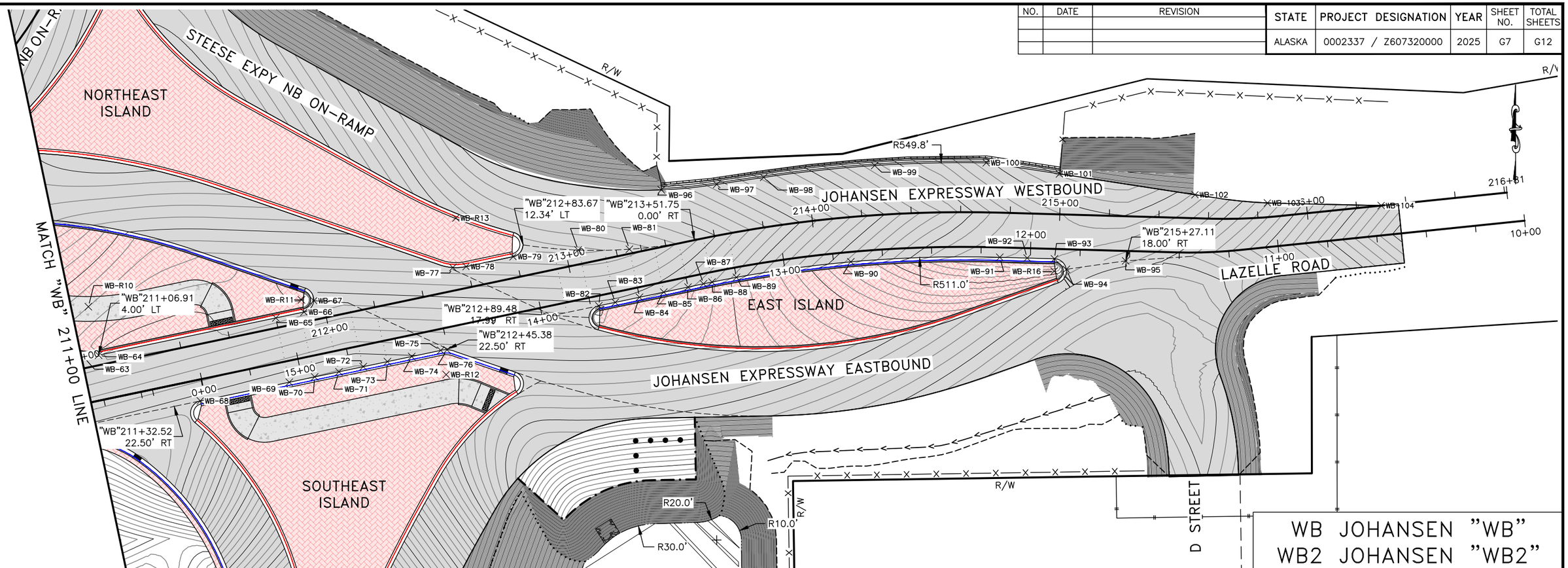
GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
WB-52	203762.0475	684261.2607	450.23'	SWI GP
WB-53	203758.0059	684271.1079	450.22'	SWI GP
WB-54	203753.1778	684284.0755	450.19'	SWI LOC
WB-55	203750.7769	684291.1293	450.17'	SWI GP
WB-56	203747.5956	684301.2871	450.14'	SWI GP
WB-57	203744.7066	684311.5319	450.12'	SWI GP
WB-58	203742.1122	684321.8552	450.09'	SWI GP
WB-59	203739.8147	684332.2486	450.07'	SWI LOC
WB-60	203739.2992	684334.7956	450.06'	SWI PRC
WB-61	203737.8156	684342.7054	450.05'	SW GP
WB-62	203736.1119	684353.2570	450.00'	SW GP
WB-R3	203591.4096	683988.9109	'	NW R=314.6'
WB-R4	203591.9634	683988.9584	'	WM R=272.0'
WB-R5	203862.8042	684196.5451	'	NWI R=20.0'
WB-R6	203776.0223	684182.0279	'	SWI R=20.0'
WB-R7	204103.6693	684407.2291	'	CI R=331.0'
WB-R8	204103.6693	684407.2291	'	SWI R=371.5'
WB-R9	203647.5704	684458.7533	'	CI R=128.0'

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\activeprojects\3171\10318033\6.0_cad_bim\6.2_wip\EFM\6.2a.1_roadway\1.1_production\60732_G Grading-G6 Tue, Jun/06/23 01:31PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G7	G12



GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
WB-63	203770.6108	684494.9629	450.04'	CI PC
WB-64	203770.8887	684501.3758	450.01'	CI PC
WB-65	203785.8336	684572.9243	449.94'	CI LOC
WB-66	203788.2088	684584.2958	449.93'	CI PC
WB-67	203792.7872	684588.2635	449.96'	CI LOC
WB-68	203752.3937	684542.4376	449.45'	SEI PC
WB-69	203759.8934	684578.3426	449.41'	SEI GP
WB-70	203762.0330	684588.5857	449.40'	SEI GP
WB-71	203764.0780	684598.3765	449.39'	SEI GP
WB-72	203766.1231	684608.1673	449.39'	SEI GP
WB-73	203768.1682	684617.9581	449.44'	SEI GP
WB-74	203770.2133	684627.7490	449.49'	SEI GP
WB-75	203772.6567	684639.4467	449.55'	SEI PC
WB-76	203772.8602	684641.9859	449.56'	SEI LOC
WB-77	203806.0932	684644.3869	450.23'	NEI LOC
WB-78	203806.4758	684649.7400	450.26'	NEI PC
WB-79	203810.4411	684668.7241	450.35'	NEI PC
WB-80	203813.0723	684694.9325	450.42'	NE GP
WB-81	203813.4030	684715.6392	450.35'	NE GP
WB-82	203790.5877	684703.2825	449.96'	EI PC

GRADING LAYOUT POINT SUMMARY

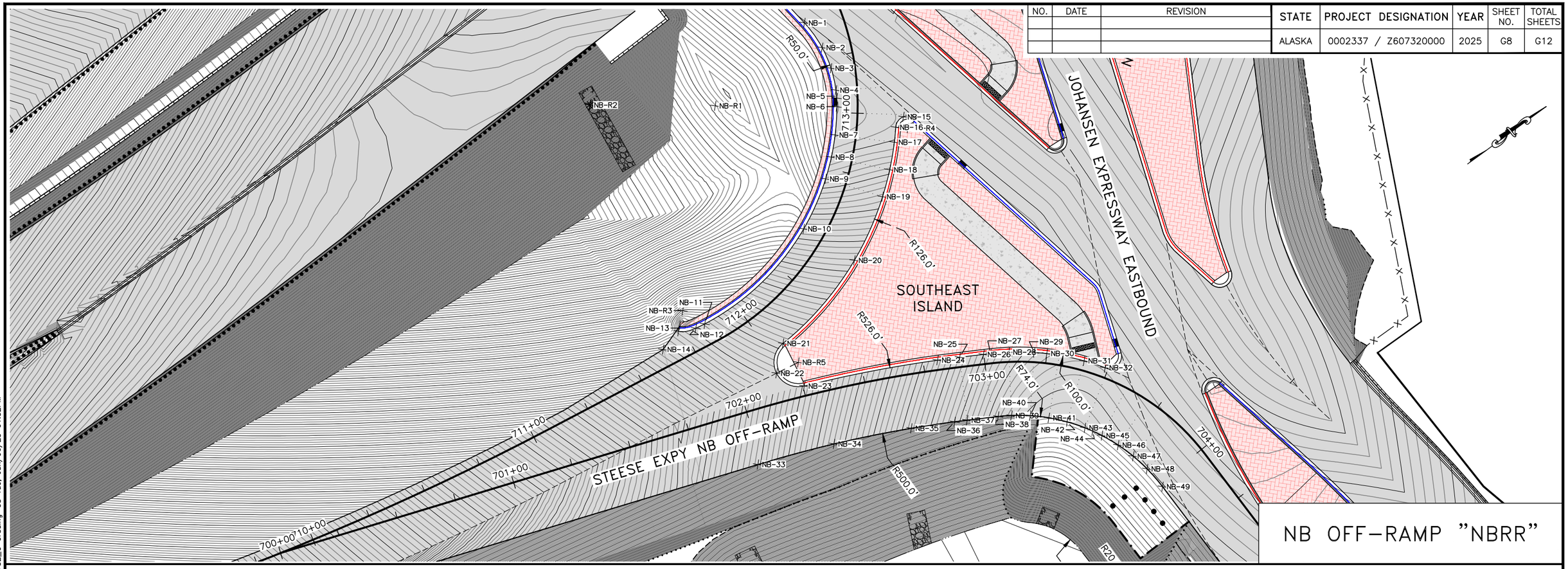
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
WB-83	203791.9700	684709.9003	449.97'	EI GP
WB-84	203794.0146	684719.6890	449.95'	EI LOC
WB-85	203796.0593	684729.4777	449.91'	EI LOC
WB-86	203798.1040	684739.2665	449.82'	EI LOC
WB-87	203799.4116	684745.5267	449.76'	EI GP
WB-88	203800.1178	684748.9681	449.71'	EI GP
WB-89	203802.0061	684758.8278	449.57'	EI GP
WB-90	203808.2204	684804.9929	448.86'	EI LOC
WB-91	203809.9846	684865.0821	448.20'	EI PC
WB-92	203809.6619	684876.1501	448.19'	EI LOC
WB-93	203809.3333	684887.1537	448.20'	EI PC
WB-94	203805.1050	684891.9466	448.39'	EI LOC
WB-95	203808.4848	684915.9026	448.37'	NE GP
WB-96	203837.3174	684728.5490	449.80'	NE PRC
WB-97	203839.5226	684750.8918	449.55'	NE PRC
WB-98	203842.3247	684769.8573	449.27'	NE PRC
WB-99	203847.0678	684814.6591	448.64'	NE EOP
WB-100	203848.1215	684859.6990	448.03'	NE PC
WB-101	203843.6105	684889.2268	447.77'	NE EOP
WB-102	203835.1268	684943.9319	448.13'	NE EOP

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
WB-103	203831.7781	684973.1350	448.69'	NE EOP
WB-104	203830.6772	685019.0538	449.70'	NE EOP
WB-R10	203790.4661	684497.2865	'	CI R=20.0'
WB-R11	203793.1032	684583.2735	'	CI R=5.0'
WB-R12	203762.9015	684641.6522	'	SEI R=5.0'
WB-R13	203826.0533	684645.6507	'	NEI R=20.0'
WB-R14	203298.3614	684849.9833	'	EI R=511.0'
WB-R15	203298.3614	684849.9833	'	WB R=549.85'
WB-R16	203804.3354	684887.0062	'	EI R=5.0'

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G8	G12



NB OFF-RAMP "NBRR"

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
NB-1	203738.6157	684483.4973	449.49'	SI PC-LOC
NB-2	203738.5282	684495.9835	449.41'	SI GP
NB-3	203736.4753	684504.9724	449.33'	SI GP
NB-4	203732.8088	684513.4278	449.23'	SI GP
NB-5	203731.1544	684516.2258	449.20'	SI LOC
NB-6	203729.1529	684519.1400	449.19'	SI LOC
NB-7	203721.6882	684528.0988	449.29'	SI GP
NB-8	203715.0867	684534.5412	449.50'	SI GP
NB-9	203707.9276	684540.3576	449.82'	SI GP
NB-10	203688.5418	684551.6133	450.80'	SI LOC
NB-11	203632.7224	684559.1614	453.27'	SI LOC
NB-12	203628.6944	684558.4417	453.43'	SI LOC
NB-13	203622.2340	684555.2474	453.66'	SI LOC
NB-14	203612.7303	684557.5544	454.10'	SI EOP
NB-15	203748.7296	684538.6137	449.43'	SEI LOC
NB-16	203743.6852	684540.2269	449.42'	SEI PRC
NB-17	203739.5787	684544.8374	449.34'	SEI GP
NB-18	203731.3837	684552.8348	449.49'	SEI GP
NB-19	203722.4966	684560.0552	449.82'	SEI GP
NB-20	203697.7423	684574.3278	451.32'	SEI LOC

GRADING LAYOUT POINT SUMMARY

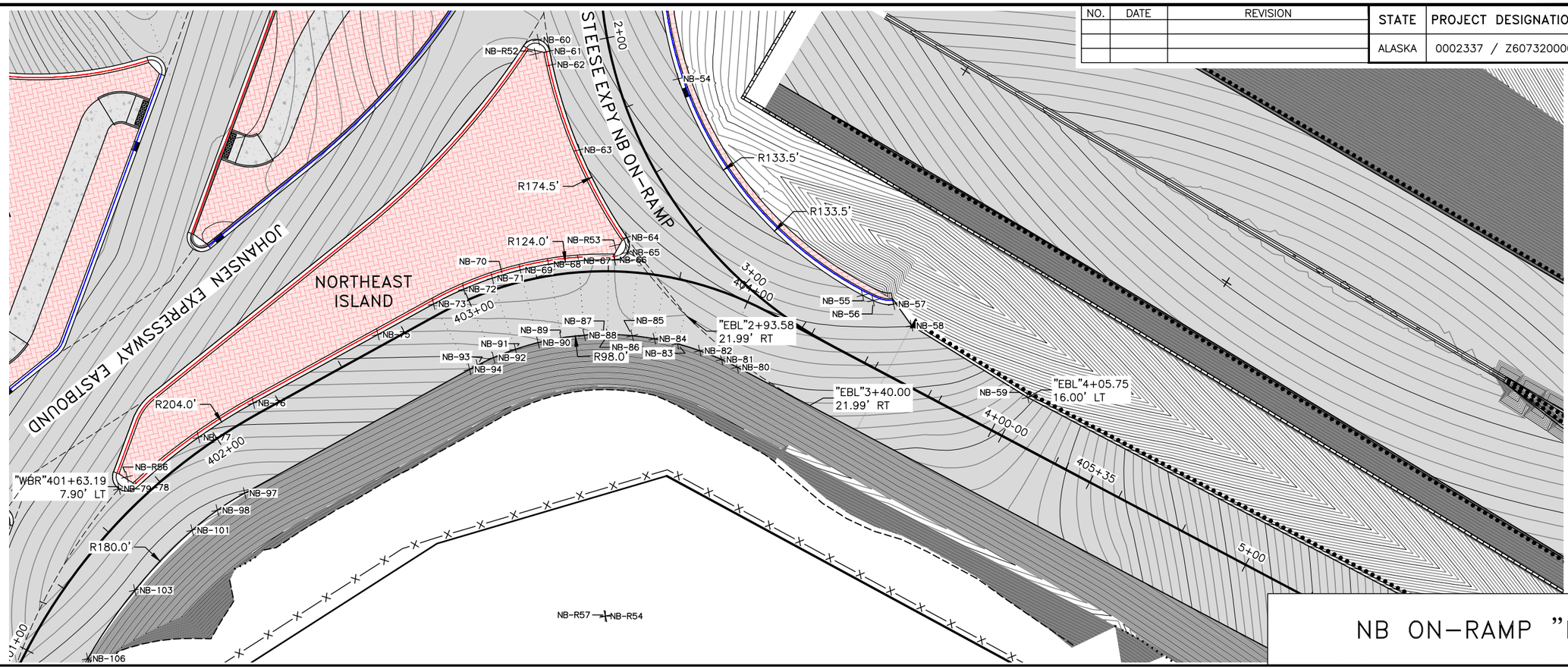
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
NB-21	203653.9580	684584.5913	452.89'	SEI PRC
NB-22	203644.6053	684592.9093	453.40'	SEI LOC
NB-23	203650.6991	684603.8423	453.16'	SEI PC
NB-24	203701.1805	684627.5630	450.75'	SEI PC
NB-25	203709.2150	684631.9541	450.39'	SEI GP
NB-26	203717.7989	684636.7704	450.00'	SEI GP
NB-27	203720.4099	684638.2356	449.90'	SEI PC
NB-28	203726.7733	684642.1519	449.67'	SEI GP
NB-29	203735.1179	684648.3789	449.42'	SEI GP
NB-30	203739.0235	684651.7983	449.33'	SEI LOC
NB-31	203749.6461	684663.2581	449.20'	SEI GP
NB-32	203754.9479	684670.6234	449.22'	SEI PRC
NB-33	203616.3321	684618.6467	453.54'	SE EOP
NB-34	203646.5659	684630.2456	452.19'	SE PC
NB-35	203675.9854	684643.7772	450.84'	SE EOP
NB-36	203691.9551	684652.1218	450.09'	SE PC
NB-37	203696.4907	684654.6278	449.87'	SE GP
NB-38	203707.6856	684660.9093	449.34'	SE PCC
NB-39	203712.2860	684663.8358	449.13'	SE GP
NB-40	203718.4545	684668.4390	448.93'	SE GP

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
NB-41	203724.1128	684673.6567	448.81'	SE GP
NB-42	203729.1940	684679.4380	448.76'	SE GP
NB-43	203733.7147	684685.6726	448.79'	SE GP
NB-44	203735.5322	684688.5572	448.82'	SE EOP
NB-45	203737.4965	684692.3855	448.86'	SE GP
NB-46	203740.5598	684699.4552	448.92'	SE GP
NB-47	203742.8714	684706.8051	448.96'	SE GP
NB-48	203744.4062	684714.3556	448.98'	SE GP
NB-49	203745.2085	684723.9828	448.98'	SE PC
NB-R1	203688.9645	684489.3928	'	S R=50.0'
NB-R2	203647.5704	684458.7533	'	S R=126.0'
NB-R3	203628.6125	684549.4259	'	S R=8.655'
NB-R4	203747.4993	684543.4600	'	SEI R=5.0'
NB-R5	203654.4650	684594.5784	'	SEI R=10.0'
NB-R6	203452.6149	685091.1190	'	SE R=500.0'
NB-R7	203452.6149	685091.1190	'	SE R=526.0'
NB-R8	203671.2202	684725.3016	'	SE R=74.0'
NB-R9	203671.2202	684725.3016	'	SEI R=100.0'

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G9	G12



NB ON-RAMP "EBL"

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
NB-54	203904.4660	684448.4687	450.09'	NI EOP
NB-55	203998.7388	684478.3490	450.76'	NI EOP
NB-56	204002.8090	684477.9301	450.80'	NI EOP
NB-57	204009.4886	684475.2238	450.86'	NI EOP
NB-58	204018.7828	684478.2288	451.53'	NI EOP
NB-59	204066.2698	684477.9519	451.94'	NE EOP
NB-60	203855.9280	684462.8642	450.84'	NEI LOC
NB-61	203861.3649	684464.1297	450.81'	NEI PRC
NB-62	203864.6780	684467.5905	450.83'	NEI PC
NB-63	203888.4086	684487.7188	450.97'	NEI LOC
NB-64	203918.5131	684504.8041	451.12'	NEI PRC
NB-65	203921.4831	684509.0834	451.21'	NEI LOC
NB-66	203919.0358	684513.6817	451.30'	NEI PC
NB-67	203908.6228	684520.5663	451.46'	NEI GP
NB-68	203900.4384	684527.1426	451.53'	NEI GP
NB-69	203893.1036	684534.1145	451.56'	NEI GP
NB-70	203888.7863	684538.8640	451.56'	NEI LOC
NB-71	203886.3618	684541.6614	451.55'	NEI GP
NB-72	203879.9941	684550.1143	451.51'	NEI GP
NB-73	203873.8025	684560.0878	451.41'	NEI GP

GRADING LAYOUT POINT SUMMARY

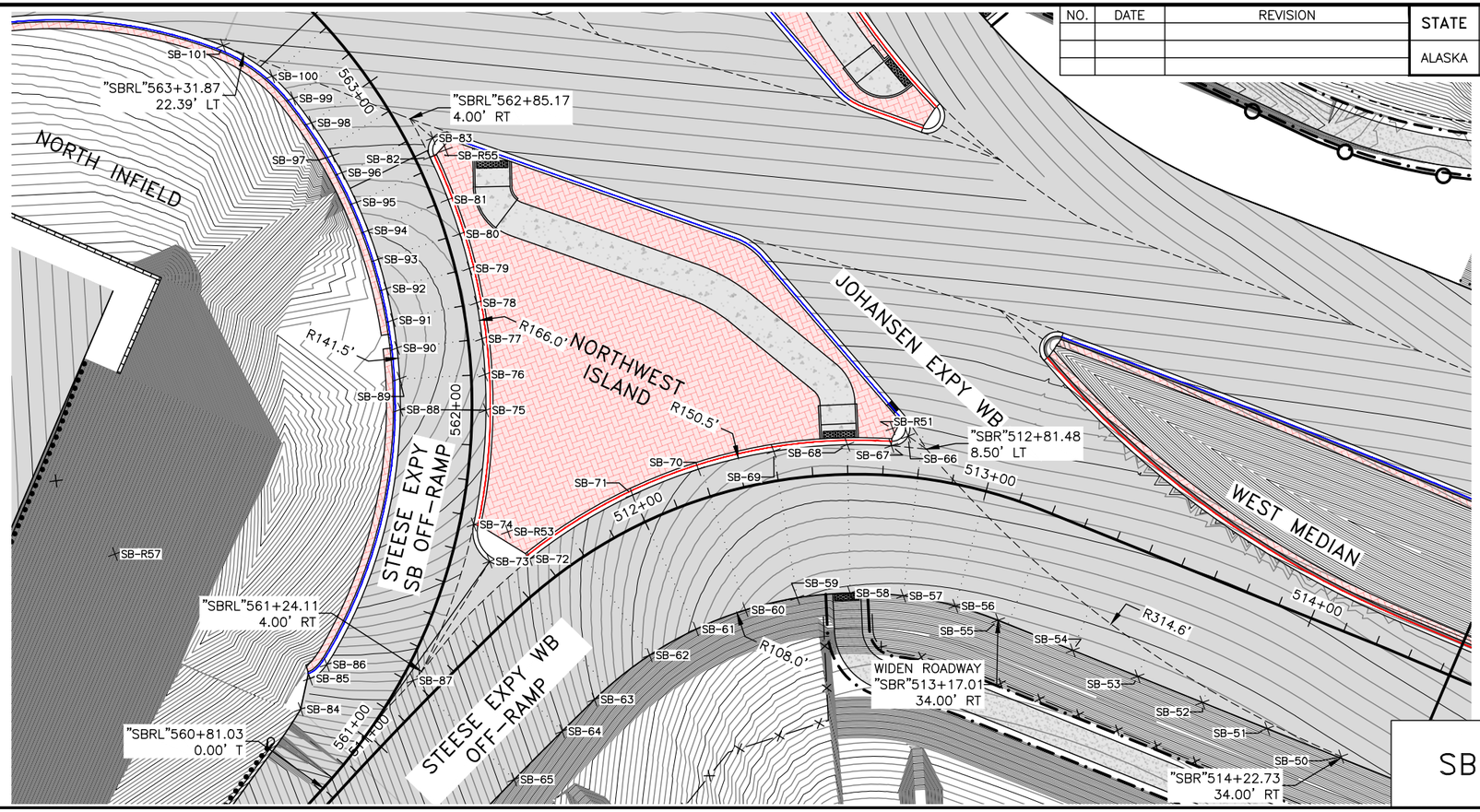
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
NB-75	203863.0431	684579.4035	451.18'	NEI PC
NB-76	203838.9730	684622.6149	450.67'	NEI PC
NB-77	203829.1258	684642.8421	451.15'	NEI LOC
NB-78	203820.1646	684668.9981	450.38'	NEI PRC
NB-79	203815.1947	684672.6998	450.45'	NEI LOC
NB-80	203975.0249	684522.6875	451.43'	NE PRC
NB-81	203968.9858	684523.3161	451.40'	NE GP
NB-82	203960.9479	684524.7467	451.38'	NE GP
NB-83	203953.0569	684526.8415	451.36'	NE GP
NB-84	203945.3681	684529.5869	451.34'	NE GP
NB-85	203938.2612	684532.7967	451.33'	NE GP
NB-86	203930.8073	684536.9447	451.31'	NE GP
NB-87	203929.5936	684538.0250	451.24'	NE EOP
NB-88	203924.0362	684541.5062	451.28'	NE GP
NB-89	203917.6682	684546.6153	451.24'	NE GP
NB-90	203911.7704	684552.2128	451.18'	NE GP
NB-91	203906.3170	684558.3299	451.11'	NE GP
NB-92	203901.4097	684564.8578	451.02'	NE GP
NB-93	203898.0540	684570.0788	450.94'	NE PC
NB-94	203896.5164	684572.7401	450.89'	NE GP

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
NB-97	203853.0408	684650.7889	449.98'	NE GP
NB-98	203848.1478	684660.8613	449.93'	NE GP
NB-101	203844.4117	684671.4175	449.90'	NE GP
NB-103	203838.5705	684699.6860	449.91'	NE GP
NB-106	203837.3174	684728.5490	449.80'	NE GP
NB-R50	203989.0600	684345.2003	'	NEI R=174.5'
NB-R51	203989.0695	684345.1996	'	N R=133.5'
NB-R52	203857.7060	684467.5374	'	NEI R=5.0'
NB-R53	203916.4917	684509.3773	'	NEI R=5.0'
NB-R54	203982.1301	684620.4295	'	NEI R=124.0'
NB-R55	204017.1894	684721.8868	'	NEI R=204.0'
NB-R56	203815.3355	684667.7018	'	NEI R=5.0'
NB-R57	203982.1301	684620.4295	'	NE R=98.0'
NB-R58	204017.1938	684721.8790	'	NE R=180.0'

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G10	G12



SB OFF-RAMP "SBR"

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
SB-50	203905.7825	683978.3019	446.44'	NW EOP
SB-51	203907.4582	684000.8736	446.35'	NW GP
SB-52	203908.4932	684020.8468	446.31'	NW GP
SB-53	203909.5282	684040.8200	446.30'	NW GP
SB-54	203910.5632	684060.7932	446.31'	NW GP
SB-55	203911.7554	684083.8002	446.36'	NW PC
SB-56	203913.1919	684096.6243	446.39'	NW GP
SB-57	203916.8344	684111.3930	446.42'	NW GP
SB-58	203922.5157	684125.5035	446.46'	NW GP
SB-59	203930.1255	684138.6794	446.52'	NW GP
SB-60	203939.5089	684150.6522	446.68'	NW GP
SB-61	203950.4774	684161.1846	446.95'	NW GP
SB-62	203962.8097	684170.0679	447.32'	NW GP
SB-63	203980.9607	684179.0618	448.00'	NW PC
SB-64	203993.1243	684183.6147	448.55'	NW GP
SB-65	204011.4079	684190.2452	449.29'	NW GP
SB-66	203874.7661	684129.3680	447.42'	NWI LOC
SB-67	203879.2846	684132.5605	447.35'	NWI PC
SB-68	203884.3070	684144.1139	447.33'	NWI GP
SB-69	203894.9075	684162.4688	447.33'	NWI GP

GRADING LAYOUT POINT SUMMARY

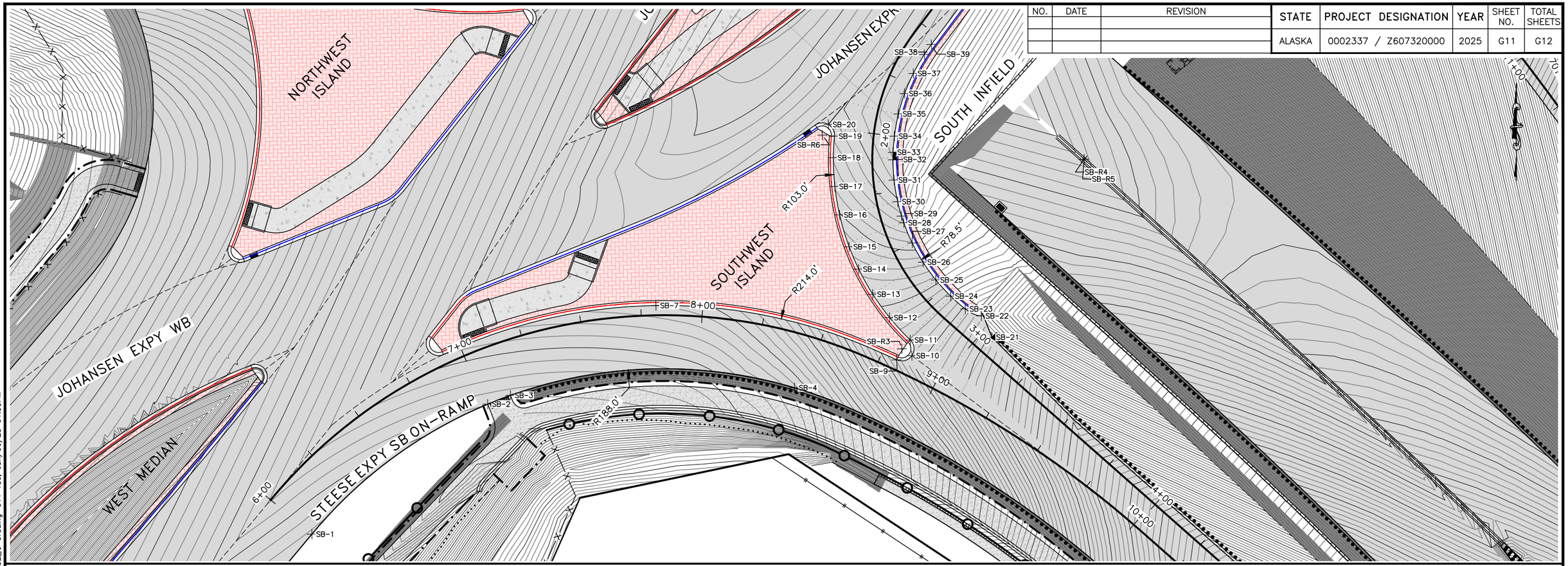
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
SB-70	203908.6340	684179.8546	447.48'	NWI LOC
SB-71	203923.2721	684193.8361	447.77'	NWI GP
SB-72	203952.2962	684212.8180	448.48'	NWI PC
SB-73	203957.7542	684222.9367	448.86'	NWI LOC
SB-74	203950.0860	684231.5027	449.24'	NWI PRC
SB-75	203918.9081	684242.0976	448.84'	NWI GP
SB-76	203909.7178	684246.6256	448.76'	NWI GP
SB-77	203900.8243	684251.7120	448.69'	NWI LOC
SB-78	203892.1196	684257.4370	448.66'	NWI GP
SB-79	203884.0620	684263.4802	448.66'	NWI GP
SB-80	203876.2571	684270.1172	448.71'	NWI GP
SB-81	203868.7813	684277.3205	448.79'	NWI GP
SB-82	203859.9597	684287.1195	448.94'	NWI PRC
SB-83	203854.6419	684288.7028	449.05'	NWI LOC
SB-84	204018.9121	684254.1709	450.72'	NI EOP
SB-85	204009.7997	684255.4686	450.32'	NI EOP
SB-86	204004.1613	684252.7861	450.11'	NI EOP
SB-87	203997.9082	684228.4336	450.11'	NI GP
SB-88	203929.0529	684264.3985	448.35'	NI GP
SB-89	203921.1155	684268.3134	448.28'	NI PCC

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
SB-90	203913.4769	684272.6930	448.25'	NI GP
SB-91	203906.7324	684277.1139	448.26'	NI LOC
SB-92	203899.3498	684282.6253	448.31'	NI GP
SB-93	203892.6968	684288.2827	448.39'	NI GP
SB-94	203886.4055	684294.3398	448.51'	NI GP
SB-95	203880.4998	684300.7734	448.67'	NI GP
SB-96	203874.5622	684308.1411	448.85'	NI GP
SB-97	203871.3029	684312.6565	448.96'	NI PC
SB-98	203865.3137	684322.0820	449.14'	NI GP
SB-99	203861.1620	684329.7593	449.26'	NI GP
SB-100	203857.9422	684337.8815	449.35'	NI EOP
SB-101	203855.9011	684354.3131	449.47'	NI EOP
SB-R50	204019.6315	684078.2190	'	NW R=108.0'
SB-R51	203874.6219	684134.3659	'	NWI R=5.0'
SB-R52	204019.6315	684078.2190	'	NWI R=150.5'
SB-R53	203947.8234	684221.7620	'	NWI R=11.5'
SB-R54	203989.5637	684393.4508	'	NWI R=166.0'
SB-R55	203856.1138	684283.9244	'	NWI R=5.0'
SB-R57	204000.9756	684321.0885	'	N R=155.0'
SB-R58	203989.5624	684393.4521	'	NWI R=146.0'

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G11	G12



GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
SB-1	203772.7405	684070.4721	448.27'	SW EOP
SB-2	203757.4076	684158.9881	448.61'	SW PC
SB-3	203753.1474	684168.0522	448.65'	SW EOP
SB-4	203670.9202	684250.8858	449.60'	SW PCC
SB-7	203735.4314	684235.9725	449.40'	SWI LOC
SB-9	203648.5081	684288.1738	451.22'	SWI PRC
SB-10	203645.1867	684293.7157	451.38'	SWI LOC
SB-11	203650.1040	684297.9066	451.31'	SWI PRC
SB-12	203662.5904	684298.7086	451.09'	SWI GP
SB-13	203674.2267	684300.8548	450.91'	SWI GP
SB-14	203685.5401	684304.3214	450.76'	SWI GP
SB-15	203694.7414	684308.2484	450.18'	SWI LOC
SB-16	203706.6071	684315.0159	450.51'	SWI GP
SB-17	203716.0826	684322.1027	450.39'	SWI GP
SB-18	203724.6829	684330.2296	450.28'	SWI GP
SB-19	203730.4767	684336.9265	449.42'	SWI PRC
SB-20	203735.5690	684338.6809	449.31'	SWI LOC
SB-21	203626.6453	684321.9174	451.88'	S EOP
SB-22	203635.8341	684325.2309	451.75'	S EOP
SB-23	203642.6003	684322.7491	451.53'	S LOC

GRADING LAYOUT POINT SUMMARY

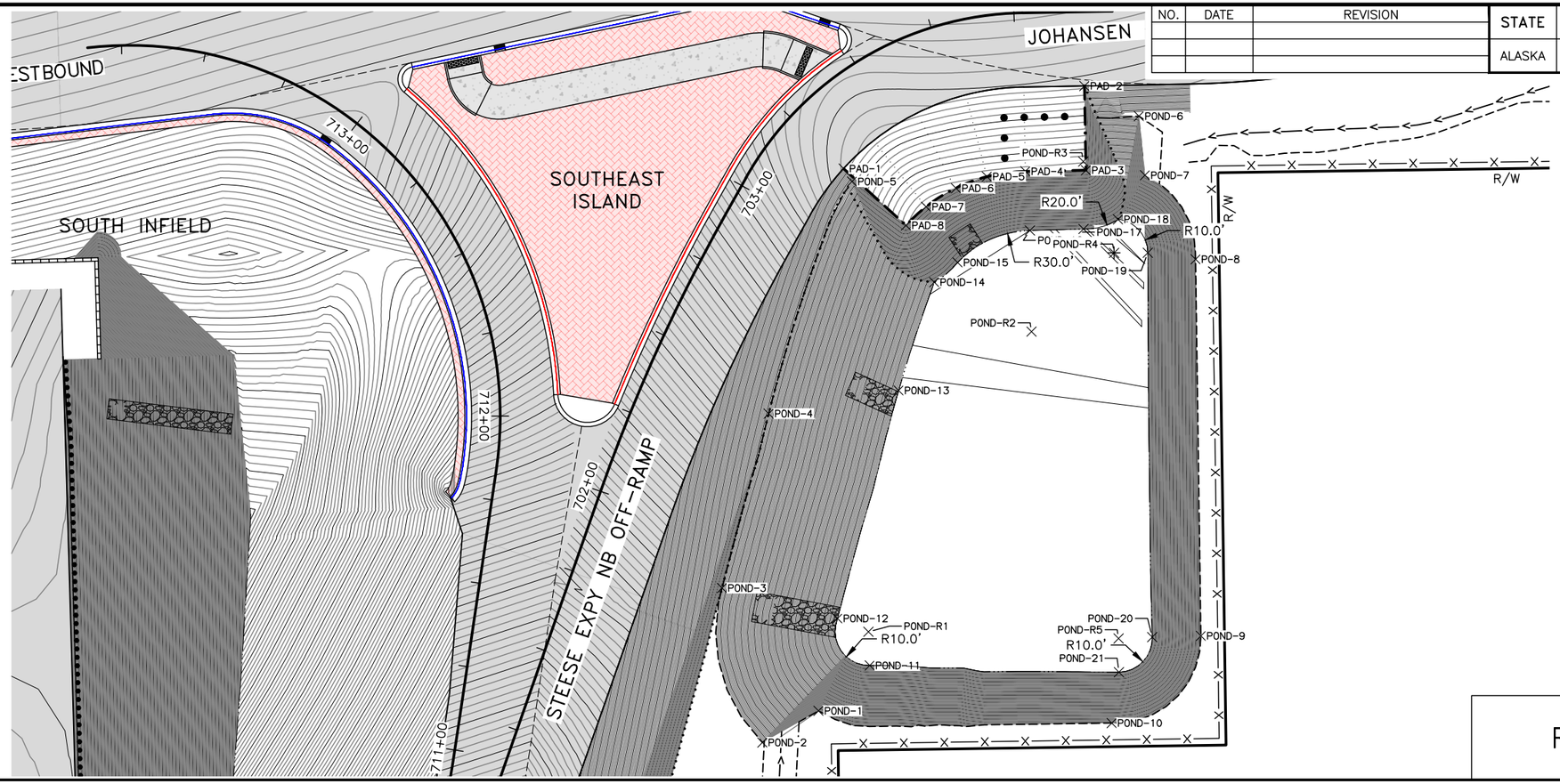
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
SB-24	203650.5404	684322.4099	451.25'	S GP
SB-25	203659.5379	684323.0177	450.94'	S GP
SB-26	203668.4063	684324.6534	450.66'	S GP
SB-27	203677.0287	684327.2954	450.41'	S GP
SB-28	203685.2911	684330.9088	450.19'	S GP
SB-29	203687.8442	684332.2664	450.13'	S LOC
SB-30	203693.0845	684335.4461	450.02'	S GP
SB-31	203700.3062	684340.8472	449.90'	S GP
SB-32	203706.3796	684346.5354	449.81'	S LOC
SB-33	203708.4711	684348.8009	449.78'	S LOC
SB-34	203712.6617	684353.9456	449.73'	S GP
SB-35	203717.7712	684361.7096	449.69'	S GP
SB-36	203721.7076	684369.5147	449.69'	S GP
SB-37	203724.8330	684377.9738	449.71'	S GP
SB-38	203726.9677	684386.7355	449.72'	S GP
SB-39	203727.7097	684391.6499	449.72'	S PC-LOC
SB-R1	203585.1975	684083.5725	'	SWI R=188.0'
SB-R2	203585.1975	684083.5725	'	SWI R=214.0'
SB-R3	203650.1208	684292.9066	'	SWI R=5.0'
SB-R4	203649.7573	684400.9060	'	S R=78.5'

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
SB-R5	203649.7573	684400.9060	'	SWI R=103.0'
SB-R6	203734.3951	684333.8207	'	SWI R=5.0'

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	G12	G12



RETENTION POND

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
PAD-1	203721.0096	684670.5565	448.88'	PAD GP
PAD-2	203745.5286	684741.9423	448.94'	PAD GP
PAD-3	203720.5326	684742.3878	447.69'	PAD GP
PAD-4	203720.2125	684724.4283	447.73'	PAD GP
PAD-5	203718.6587	684713.0296	447.71'	PAD GP
PAD-6	203715.2014	684703.8796	447.57'	PAD GP
PAD-7	203709.7050	684695.0190	447.50'	PAD GP
PAD-8	203704.1889	684689.0514	447.63'	PAD GP
POND-1	203560.2058	684663.1206	447.90'	POND GP
POND-2	203550.8149	684646.4746	447.89'	POND GP
POND-3	203596.6314	684634.5051	447.85'	POND GP
POND-4	203648.3396	684648.3419	447.85'	POND GP
POND-5	203717.1862	684673.0325	447.80'	POND GP
POND-6	203736.5776	684758.1133	446.79'	POND GP
POND-7	203719.0412	684759.8904	446.36'	POND GP
POND-8	203694.1272	684774.8930	446.07'	POND GP
POND-9	203582.4543	684776.4634	446.21'	POND GP
POND-10	203556.5902	684750.0299	446.55'	POND GP
POND-11	203573.6635	684678.3059	439.00'	POND GP
POND-12	203587.6106	684668.7332	439.00'	POND GP

GRADING LAYOUT POINT SUMMARY

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
POND-13	203655.2185	684686.8451	439.00'	POND GP
POND-14	203687.3345	684697.4313	439.00'	POND GP
POND-15	203693.1735	684704.3504	439.00'	POND GP
POND-16	203702.6729	684725.7788	439.00'	POND GP
POND-17	203703.1060	684741.6616	439.00'	POND GP
POND-18	203705.9678	684751.9096	439.00'	POND GP
POND-19	203696.0556	684760.7354	439.00'	POND GP
POND-20	203582.0660	684762.0522	439.00'	POND GP
POND-21	203571.6702	684752.1634	439.00'	POND GP
POND-R1	203583.6559	684677.9180	'	POND R=10.0'
POND-R2	203672.6767	684726.2566	'	POND R=30.0'
POND-R3	203723.1059	684741.6001	'	POND R=20.0'
POND-R4	203696.0370	684750.7354	'	POND R=10.0'
POND-R5	203581.6697	684752.0600	'	POND R=10.0'

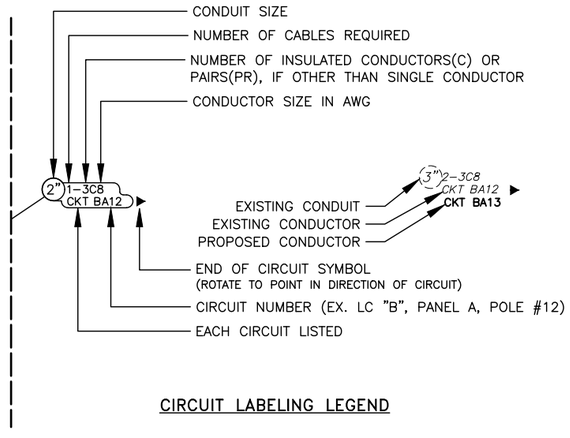
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H01	H80

LEGEND

LEGEND IDENTIFIES SYMBOLS USED THAT ARE NOT SHOWN ON THE A SHEET

	EXISTING	PROPOSED
INTERCONNECT VAULT		
SIGNAL FACE, RIGHT TURN, BACKPLATE		
SIGNAL FACE, STRAIGHT–THROUGH, BACKPLATE		
SIGNAL FACE, ANGLED TURN, BACKPLATE		
PAN, TILT, ZOOM CAMERA		
SIGNAL POLE W/MAST ARM		
SIGNAL CONTROLLER		
TRAFFIC SIGNAL INTERCONNECT	I/C	I/C
TEMPORARY SIGNAL POLE		
SIGN		
CANTILEVER SIGN		
OVERHEAD SIGN BRIDGE		
BRIDGE MOUNTED SIGN		
BRIDGE MOUNTED JUNCTION BOX		



CIRCUIT LABELING LEGEND

ABBREVIATIONS

ABBREVIATIONS APPLY TO H SHEETS ONLY

AAWF	ACTIVE ADVANCE WARNING FLASHER
ALUM	ALUMINUM
ASDS	ALASKA SIGN DESIGN SPECIFICATIONS
DIR	DIRECTION
DWG	DRAWING
EB	EASTBOUND
EMS	EXTINGUISHABLE MESSAGE SIGN
EXPY	EXPRESSWAY
INTX	INTERSECTION
J–BOX	JUNCTION BOX
LBS	POUNDS
LUM	LUMINAIRE
MFG	MANUFACTURER
MMA	METHYL METHACRYLATE
MTNG	MOUNTING
NB	NORTHBOUND
NE	NORTHEAST
NO.	NUMBER
NW	NORTHWEST
PED	PEDESTRIAN
RDET	RADAR DETECTION
ROW	RIGHT OF WAY
SB	SOUTHBOUND
SE	SOUTHEAST
SQ	SQUARE
SF	SQUARE FOOT
STD	STANDARD
SW	SOUTHWEST
VEH	VEHICLE
WB	WESTBOUND

SIGNING KEY

(XX) STATION
SIGN CODE(S)
SIGN LOCATION #

TRAFFIC MARKING KEY

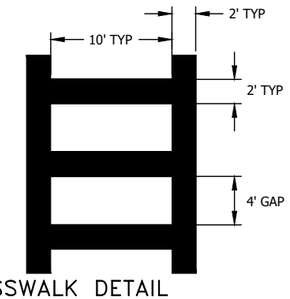
4"W	4" WHITE LINE
4"WS	4" WHITE SKIP LINE (10' STRIPE/30'SKIP PATTERN)
4"WD-1	4" WHITE DOTTED LINE (2' STRIPE/6'SKIP PATTERN)
4"WD-2	4" WHITE DOTTED LINE (3' STRIPE/9'SKIP PATTERN)
8"W	8" WHITE LINE
8"WD-1	8" WHITE WIDE DOTTED LINE (2' STRIPE/4' SKIP PATTERN)
8"WD-2	8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
24"W	24" WHITE LINE
4"Y	4" YELLOW LINE
4"DY	4" DOUBLE YELLOW LINE
STD	SEE STANDARD PLAN
DTL	SEE DETAIL

670.2002.0000 MMA PAVEMENT MARKINGS, INLAID

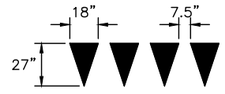
DESCRIPTION	QUANTITY (4" LF EQUIVALENT)	REMARKS
LONGITUDINAL LINES	49424	120 MILS
GORE, TRANSVERSE	4998	200 MILS
SYMBOLS	3615	200 MILS
STOP BARS	7720	200 MILS
MEDIAN NOSES	2195	SURFACE APPLIED 60 MILS

615.0001.0000 STANDARD SIGN

	AREA (SF)
ROAD SIGNS	3643
MASTARM SIGNS	83
TOTAL	3730.00



1/H1 CROSSWALK DETAIL
SCALE: N.T.S.



1/H2 YIELD LINE DETAIL
SCALE: N.T.S.

TRAFFIC LEGEND, ABBREVIATIONS

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

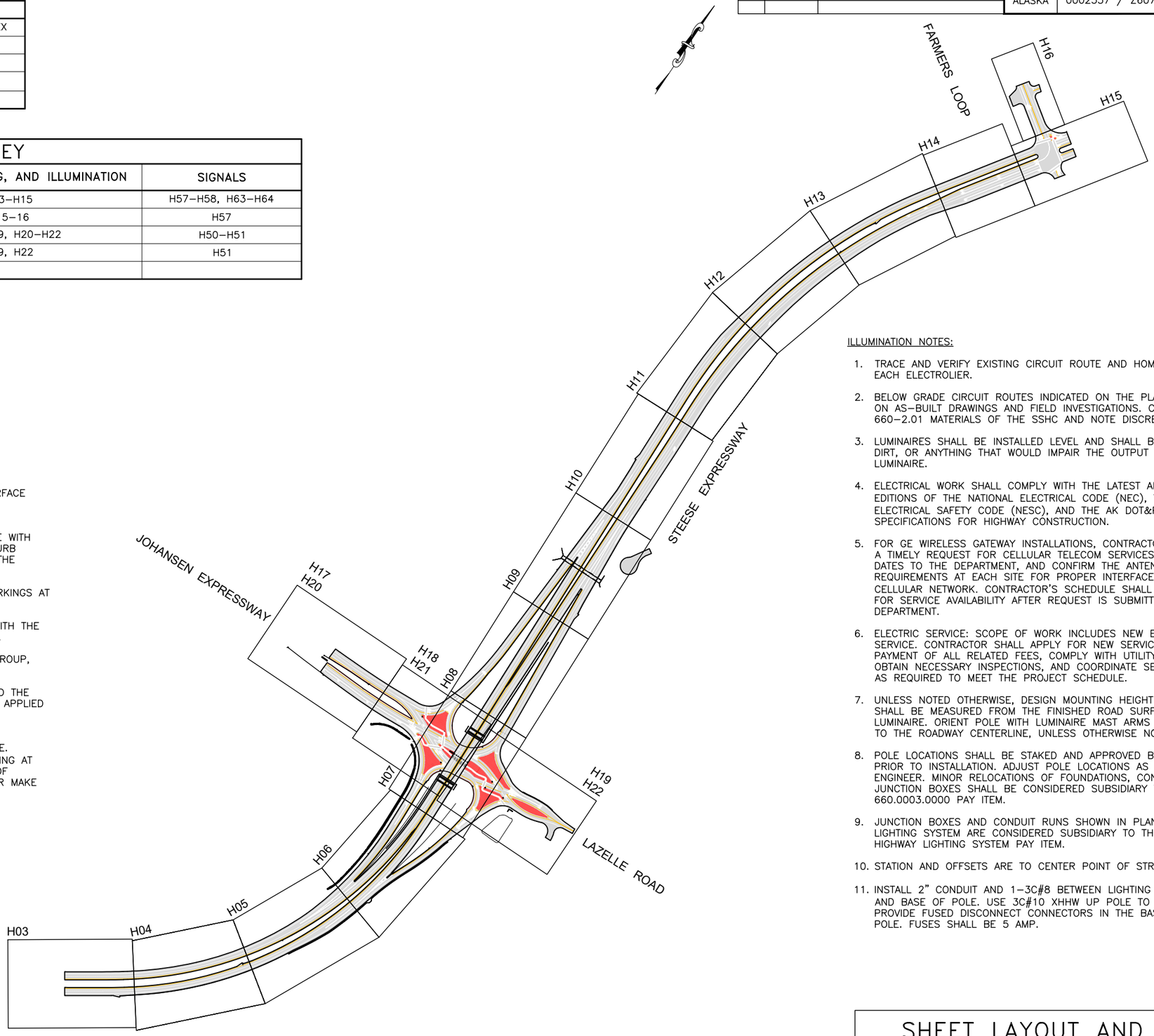
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H02	H80

INDEX OF SHEETS

SHEET KEY

ALIGNMENT	ROADWAY	SIGNING, STRIPING, AND ILLUMINATION	SIGNALS
NB	STEESE EXPRESSWAY	H03–H15	H57–H58, H63–H64
F	FARMERS LOOP ROAD	H15–16	H57
EB	JOHANSEN EXPRESSWAY	H17–H19, H20–H22	H50–H51
EB	LAZELLE ROAD	H19, H22	H51



TRAFFIC MARKING NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE INLAID METHYL METHACRYLATE (MMA) UNLESS INSTALLED IN THE ASPHALT SURFACE TREATMENT ZONES WHICH SHALL BE SURFACE APPLIED MMA.
2. BEGIN PAVEMENT MARKINGS BY INSTALLING THE INTERSECTION CROSSWALKS FIRST. LAYOUT THE CROSSWALKS IN ACCORDANCE WITH STD. PLAN T–23. FOR SKEWED INTERSECTIONS AND WHERE CURB RAMPS ARE LOCATED IN NON–STANDARD LOCATIONS, CENTER THE CROSSWALK PAVEMENT MARKINGS ON THE CURB RAMP.
3. TRANSITION NEW PAVEMENT MARKINGS TO MATCH EXISTING MARKINGS AT A 100:1 TAPER.
4. REMOVE ALL EXISTING PAVEMENT MARKINGS NOT COINCIDING WITH THE NEW MARKINGS. THIS WORK IS SUBSIDIARY TO 670 PAY ITEMS.
5. DIMENSIONS REFER TO THE CENTER OF THE STRIPE, STRIPE GROUP, EDGE OF PAVEMENT OR LIP OF GUTTER WHEN PRESENT.
6. PAINT THE TOP AND FACE OF ALL RAMPED MEDIAN NOSES AND THE CURB AND GUTTER ISLAND NOSES WITH 20 MILS OF SURFACE APPLIED YELLOW METHYL METHACRYLATE TRAFFIC PAINT. THIS WORK IS SUBSIDIARY TO 670 PAY ITEMS.
7. STRIPING CONFIGURATIONS IN THIS PLAN SET ARE APPROXIMATE. PERFORM PRELIMINARY SPOTTING (RABBIT TRACKING) OF STRIPING AT LEAST 48 HOURS PRIOR TO FINAL MILLING AND APPLICATION OF MARKINGS. THE ENGINEER WILL THEN APPROVE THE LAYOUT OR MAKE MODIFICATIONS AS APPROPRIATE.

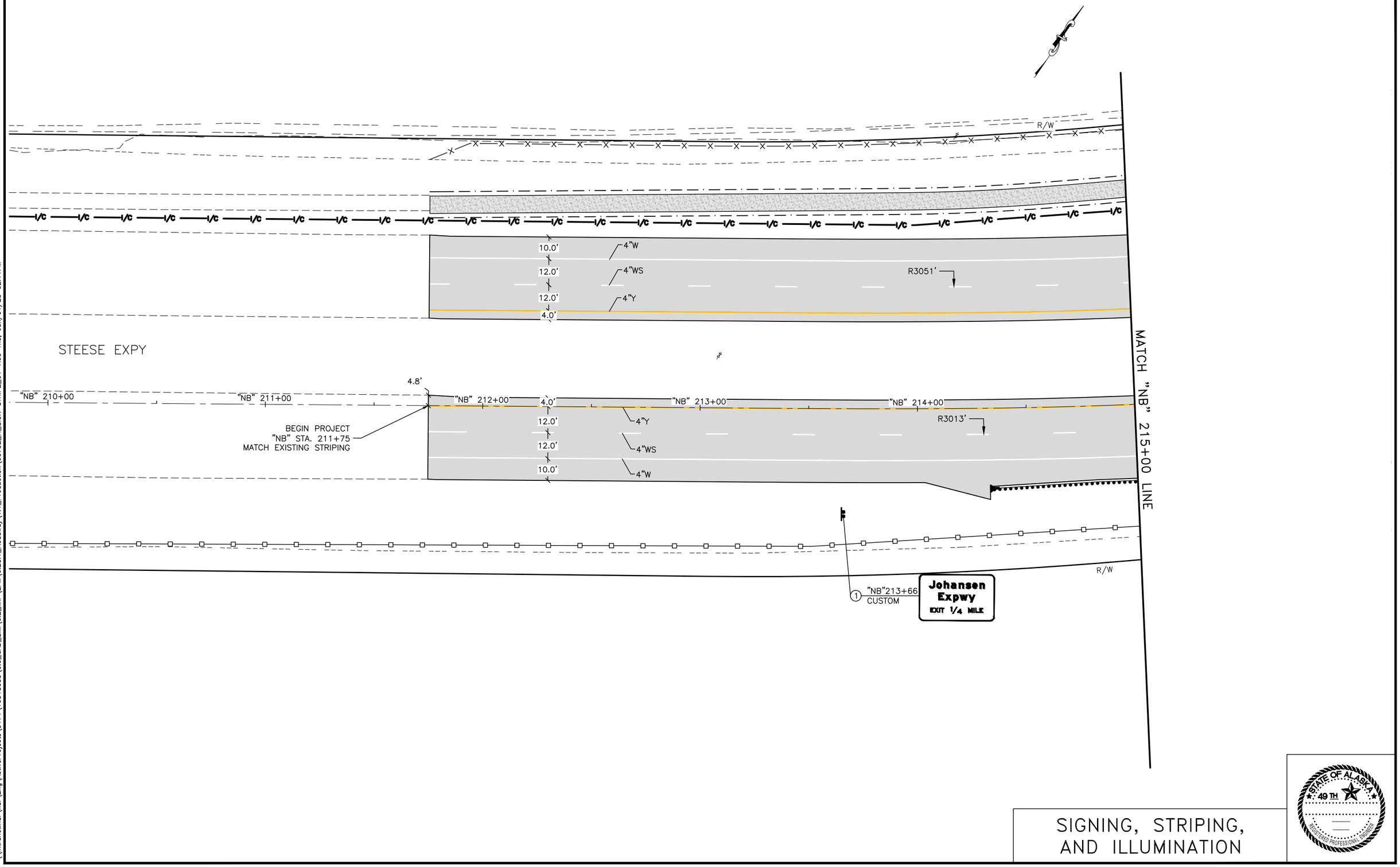
ILLUMINATION NOTES:

1. TRACE AND VERIFY EXISTING CIRCUIT ROUTE AND HOME–RUN FOR EACH ELECTROLIER.
2. BELOW GRADE CIRCUIT ROUTES INDICATED ON THE PLAN ARE BASED ON AS–BUILT DRAWINGS AND FIELD INVESTIGATIONS. COMPLY WITH 660–2.01 MATERIALS OF THE SSHC AND NOTE DISCREPANCIES FOUND.
3. LUMINAIRES SHALL BE INSTALLED LEVEL AND SHALL BE FREE OF DUST, DIRT, OR ANYTHING THAT WOULD IMPAIR THE OUTPUT OF THE LUMINAIRE.
4. ELECTRICAL WORK SHALL COMPLY WITH THE LATEST APPLICABLE EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC), THE NATIONAL ELECTRICAL SAFETY CODE (NESC), AND THE AK DOT&PF STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
5. FOR GE WIRELESS GATEWAY INSTALLATIONS, CONTRACTOR SHALL SUBMIT A TIMELY REQUEST FOR CELLULAR TELECOM SERVICES WITH PROPOSED DATES TO THE DEPARTMENT, AND CONFIRM THE ANTENNA AND MODEM REQUIREMENTS AT EACH SITE FOR PROPER INTERFACE TO THE CELLULAR NETWORK. CONTRACTOR'S SCHEDULE SHALL ALLOW 45 DAYS FOR SERVICE AVAILABILITY AFTER REQUEST IS SUBMITTED TO THE DEPARTMENT.
6. ELECTRIC SERVICE: SCOPE OF WORK INCLUDES NEW ELECTRIC UTILITY SERVICE. CONTRACTOR SHALL APPLY FOR NEW SERVICE, INCLUDE PAYMENT OF ALL RELATED FEES, COMPLY WITH UTILITY STANDARDS, OBTAIN NECESSARY INSPECTIONS, AND COORDINATE SERVICE HOOKUP AS REQUIRED TO MEET THE PROJECT SCHEDULE.
7. UNLESS NOTED OTHERWISE, DESIGN MOUNTING HEIGHT AS SCHEDULED SHALL BE MEASURED FROM THE FINISHED ROAD SURFACE TO THE LUMINAIRE. ORIENT POLE WITH LUMINAIRE MAST ARMS PERPENDICULAR TO THE ROADWAY CENTERLINE, UNLESS OTHERWISE NOTED.
8. POLE LOCATIONS SHALL BE STAKED AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ADJUST POLE LOCATIONS AS DIRECTED BY THE ENGINEER. MINOR RELOCATIONS OF FOUNDATIONS, CONDUIT AND JUNCTION BOXES SHALL BE CONSIDERED SUBSIDIARY TO THE SECTION 660.0003.0000 PAY ITEM.
9. JUNCTION BOXES AND CONDUIT RUNS SHOWN IN PLANS FOR THE LIGHTING SYSTEM ARE CONSIDERED SUBSIDIARY TO THE 660.0003.0000 HIGHWAY LIGHTING SYSTEM PAY ITEM.
10. STATION AND OFFSETS ARE TO CENTER POINT OF STRUCTURE.
11. INSTALL 2" CONDUIT AND 1–3C#8 BETWEEN LIGHTING JUNCTION BOX AND BASE OF POLE. USE 3C#10 XHHW UP POLE TO LUMINAIRE. PROVIDE FUSED DISCONNECT CONNECTORS IN THE BASE OF EACH POLE. FUSES SHALL BE 5 AMP.

SHEET LAYOUT AND INDEX

NO.	DATE	REVISION

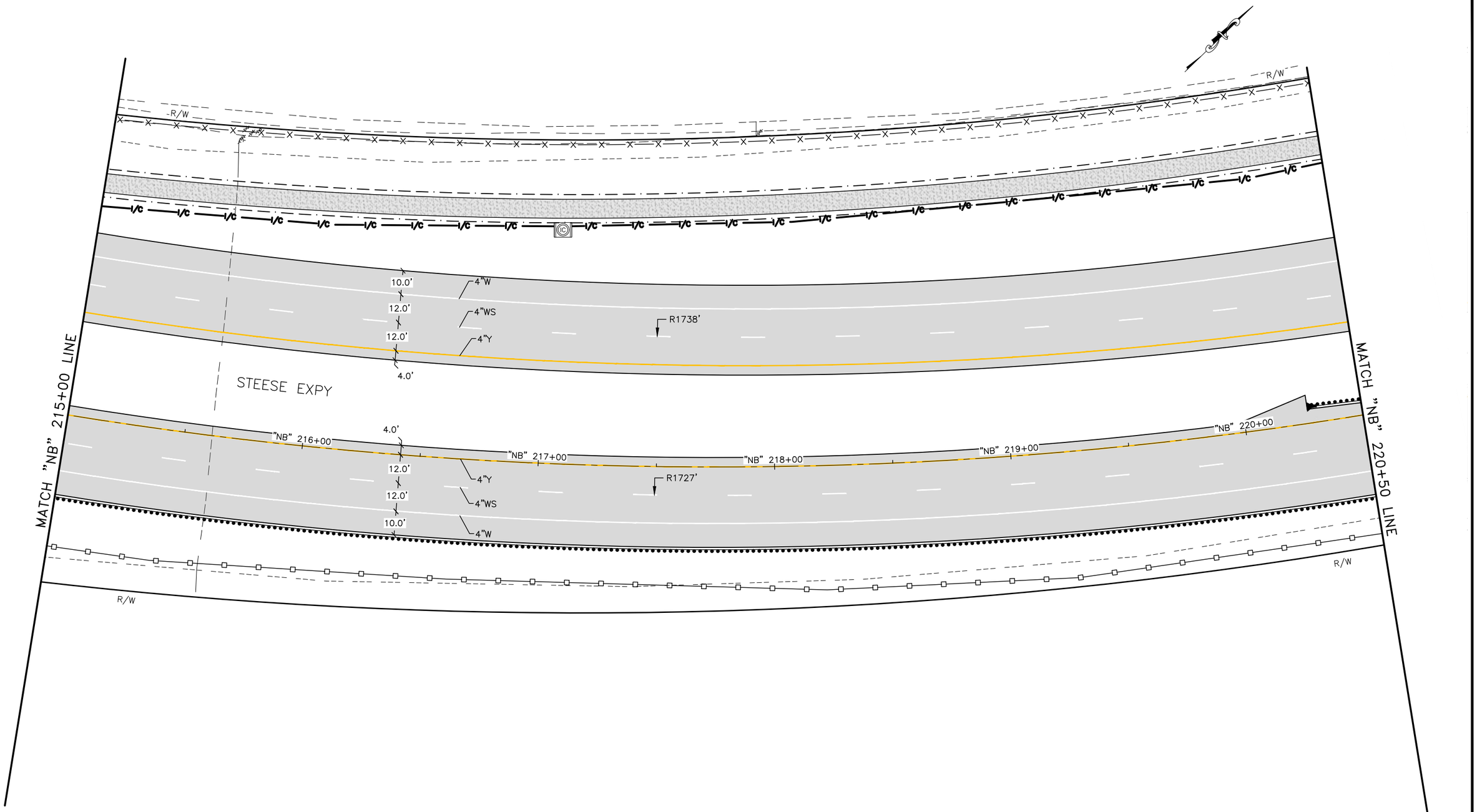
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H03	H80



SIGNING, STRIPING, AND ILLUMINATION

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H04	H80

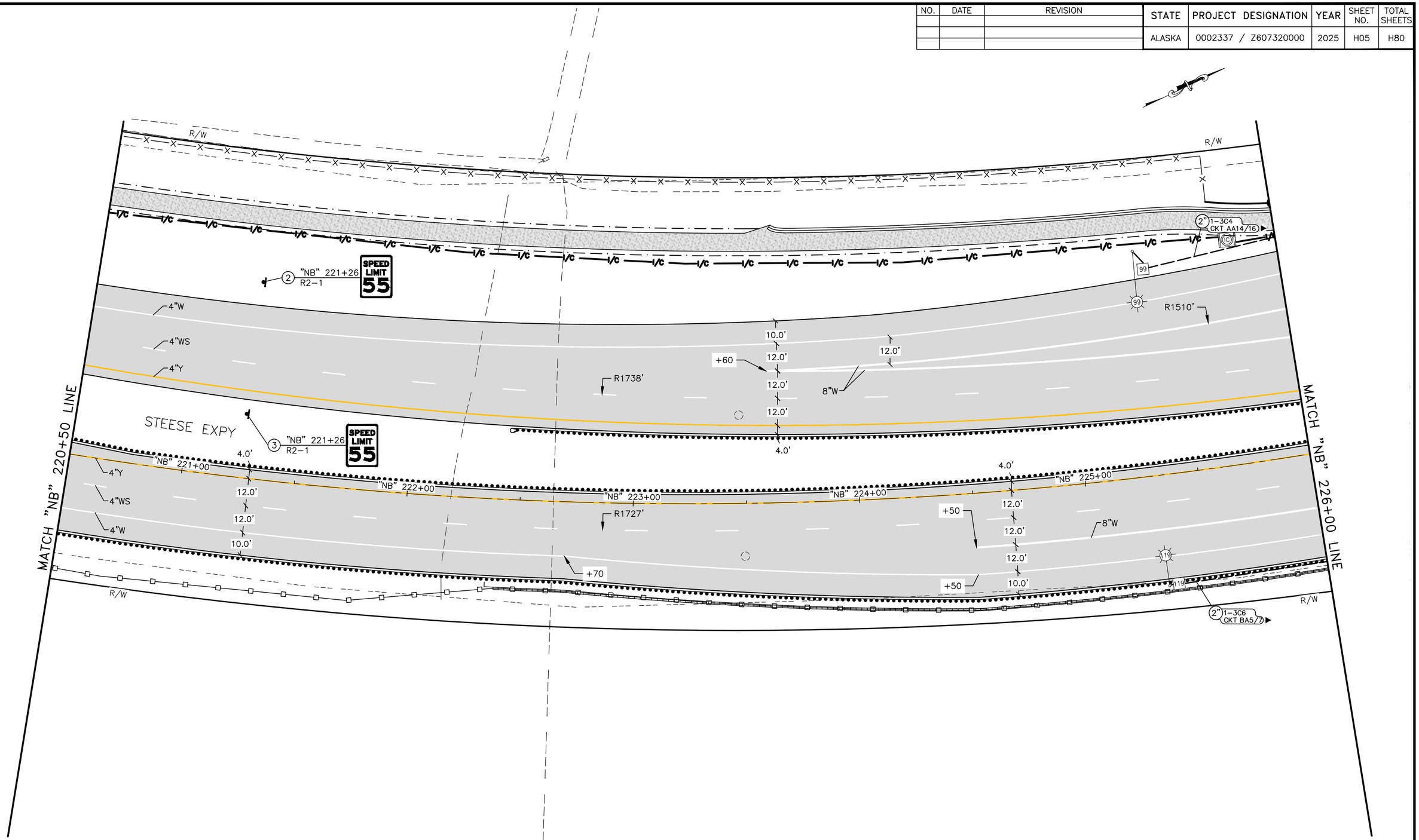


SIGNING, STRIPING, AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H05	H80

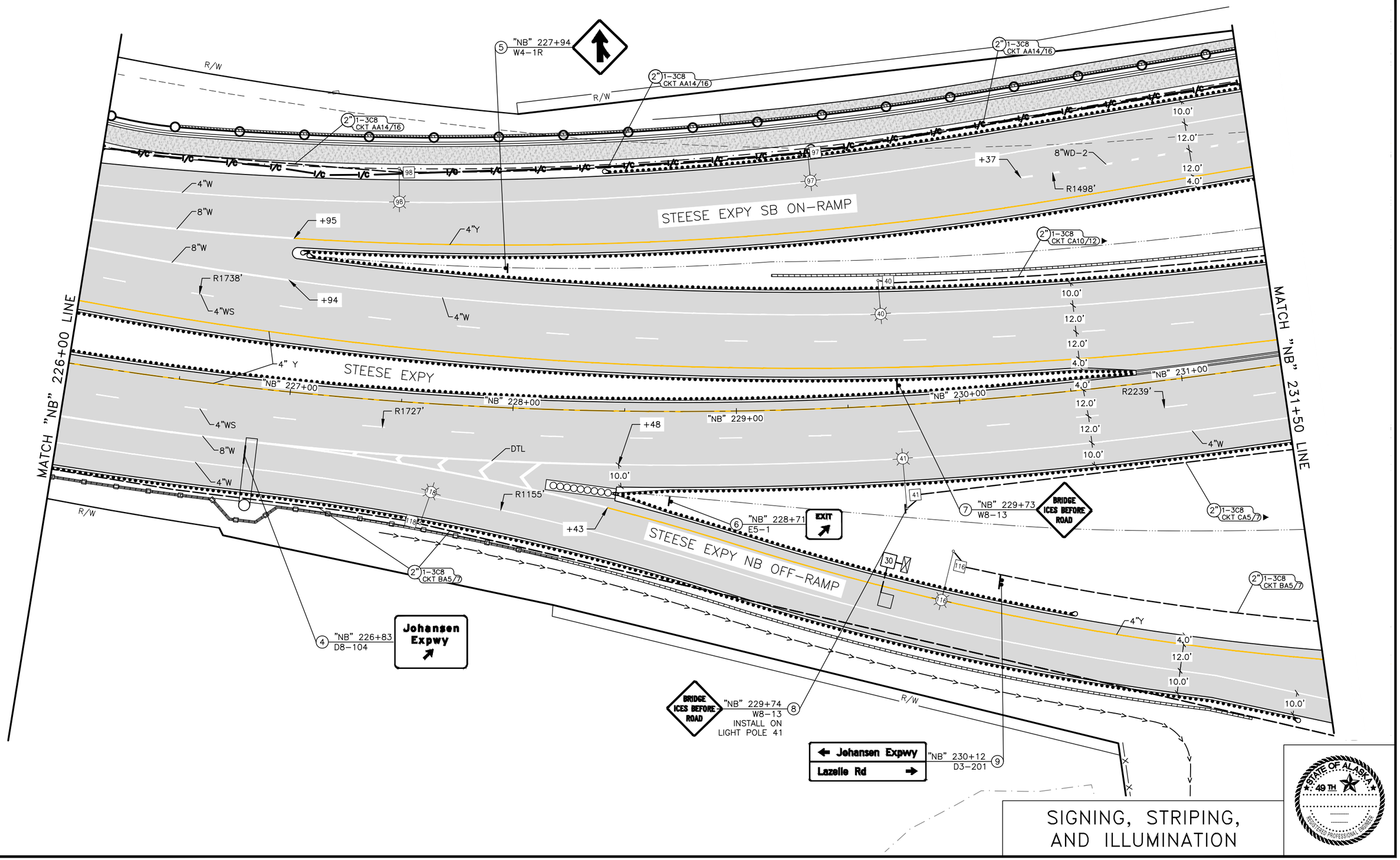


SIGNING, STRIPING, AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H06	H80



SIGNING, STRIPING, AND ILLUMINATION

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H07	H80

SEE SHEET H18

SEE SHEET H18

R/W

2" 1-3C8 CKT AA14/16

2" 1-3C8 CKT CA10/12

2" 1-3C8 CKT CA10/12

2" 1-3C8 CKT CA10/12

MATCH "NB" 231+50 LINE

4"W
4"WS
4"Y

"NB" 232+00 "NB" 233+00 "NB" 234+00 "NB" 235+00 "NB" 236+00

4"Y
4"WS
4"W

STEESE EXPY

10.0' 12.0' 12.0' 10.0' 4.0' 12.0' 12.0' 10.0'

MATCH "NB" 236+90 LINE

8.5' 12.0' 12.0' 10.0'

2" 1-3C8 CKT CA5/7

2" 1-3C8 CKT CA5/7

2" 1-3C8 CKT CA5/7

2" 1-3C8 CKT BA5/7
2" SPARE

2" 1-3C8 CKT BA5/7

NORTH
Steese Expwy
Fox
RAMP ONLY

12 "NB" 234+94 CUSTOM

SOUTH
Steese Expwy
North Pole

11 "NB" 234+12 CUSTOM

10 "NB" 231+75
R3-108L/R
INSTALL ON
LIGHT POLE 117

ONLY ONLY

SEE SHEET H19

SIGNING, STRIPING, AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H08	H80

MATCH "NB" 236+90 LINE

MATCH "NB" 242+50 LINE

13 "NB" 237+28 R3-108L/R/R INSTALL ON LIGHT POLE 91

14 "NB" 238+31 D10-101

15 "NB" 238+35 D10-101

16 "NB" 240+05 D3-201

← Lazelle Rd

Johansen Expwy →

STEESE EXPY SB OFF-RAMP

STEESE EXPY

STEESE EXPY NB ON-RAMP

SEE SHEET H7 AND H18

SEE SHEET H7 AND H19

"NB" 238+00 "NB" 239+00 "NB" 240+00 "NB" 241+00 "NB" 242+00

R1213' R1219'

+18 +19 +23 +72 +73 +74

4"W 4"WS 4"Y 8"W

10.0' 12.0' 4.0'

2" 1-3C8 CKT AA6/8

2" 1-3C8 CKT CA10/12

2" 1-3C8 CKT CA5/7

2" 1-3C4 CKT BA9/11

2" 1-3C8 CKT BA9/11

91 92 93 46 47 48 49 50 50B 51 51B 108 109 110 33 34

E1 E2 E3 E4

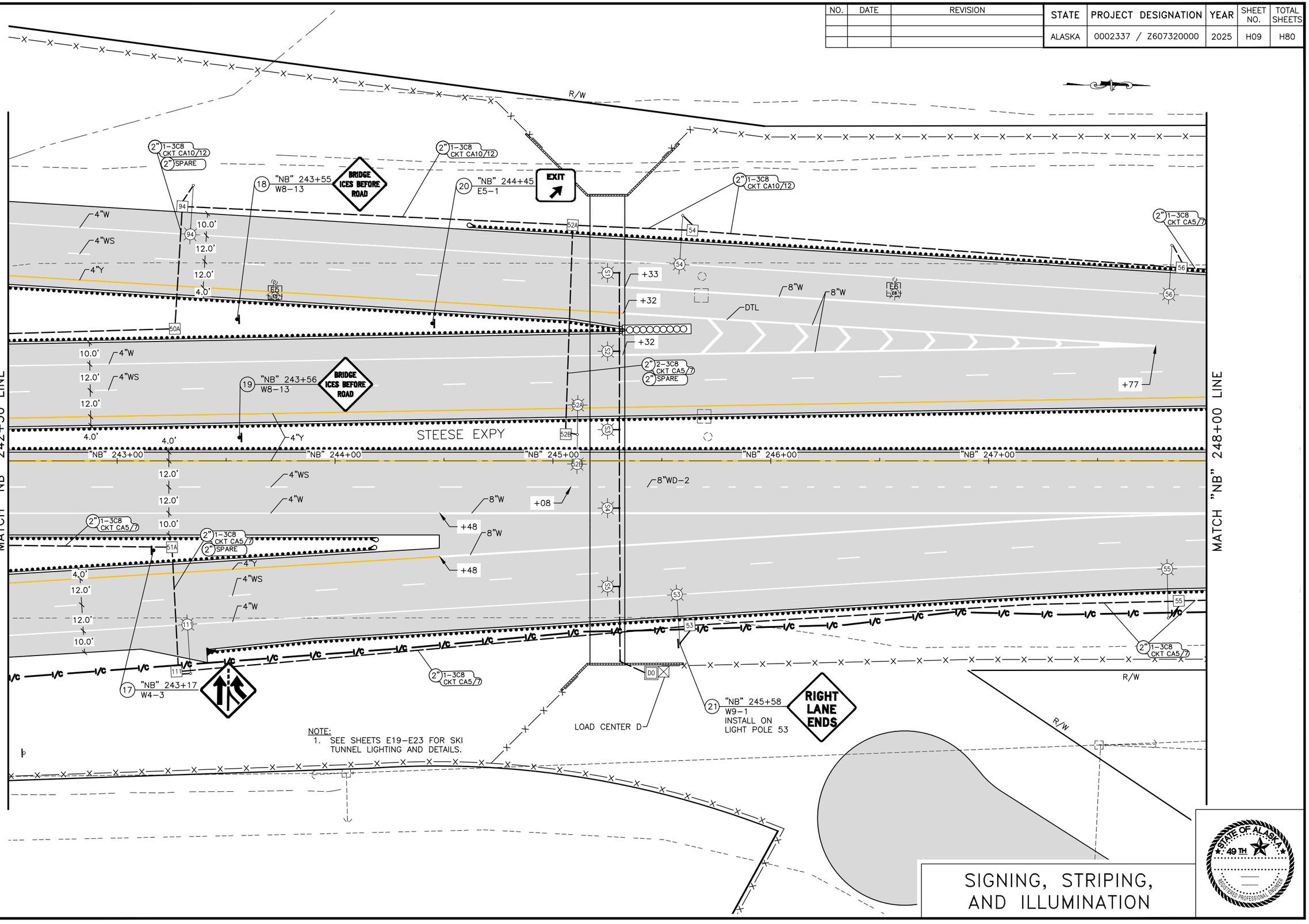
MILE 2

SIGNING, STRIPING, AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H09	H80



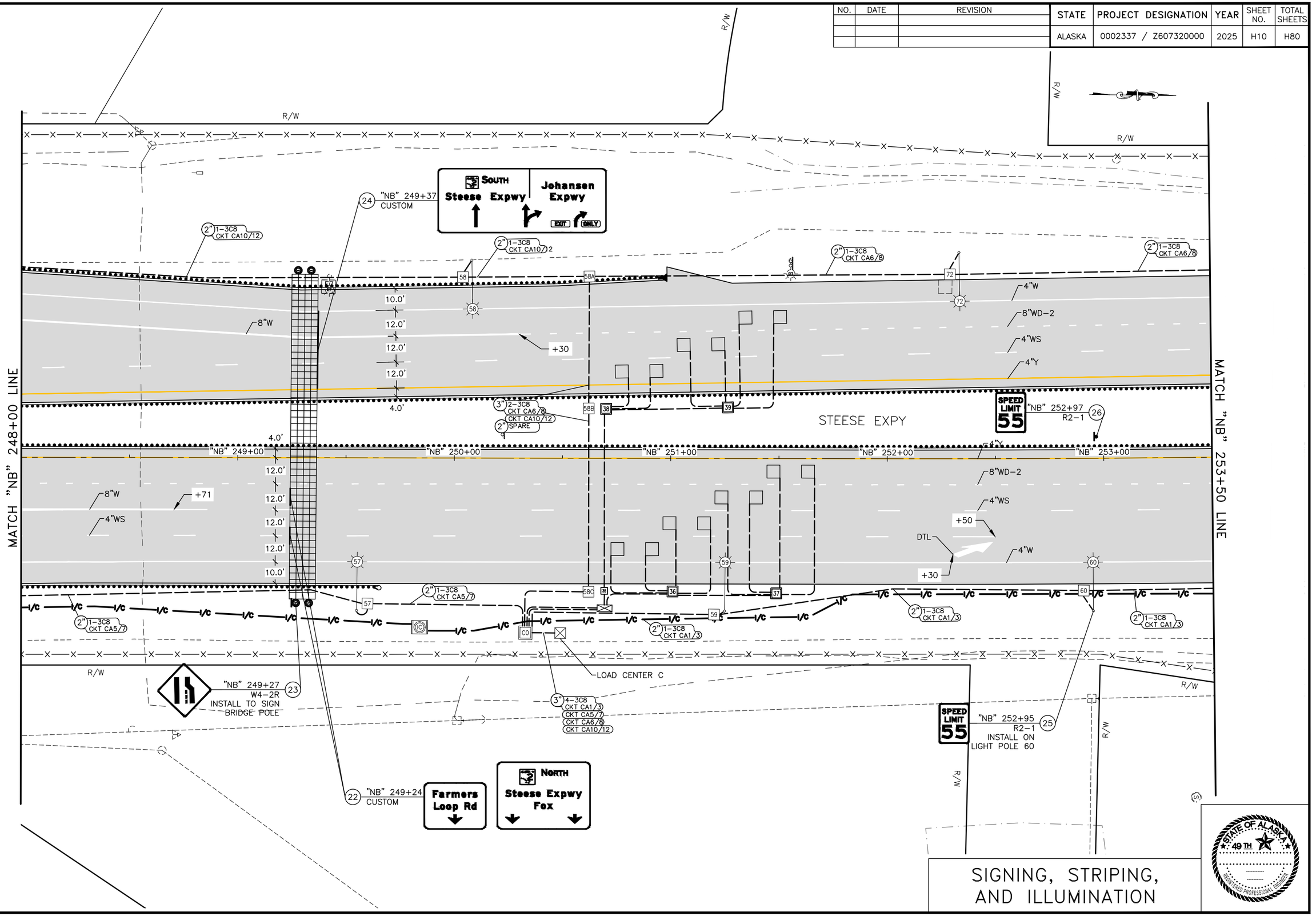
NOTE:
1. SEE SHEETS E19–E23 FOR SKI TUNNEL LIGHTING AND DETAILS.

SIGNING, STRIPING, AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

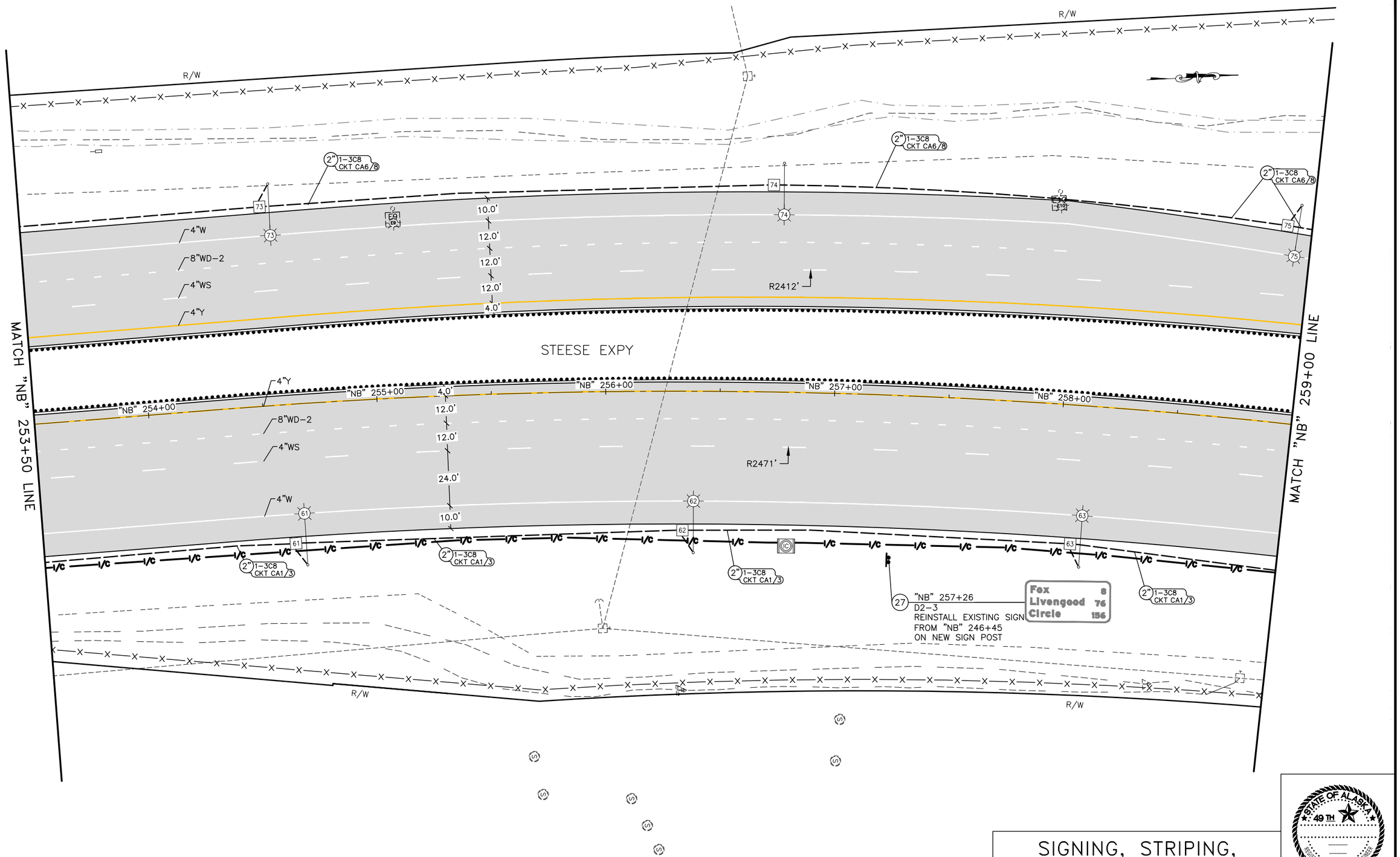
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H10	H80



SIGNING, STRIPING, AND ILLUMINATION

NO.	DATE	REVISION

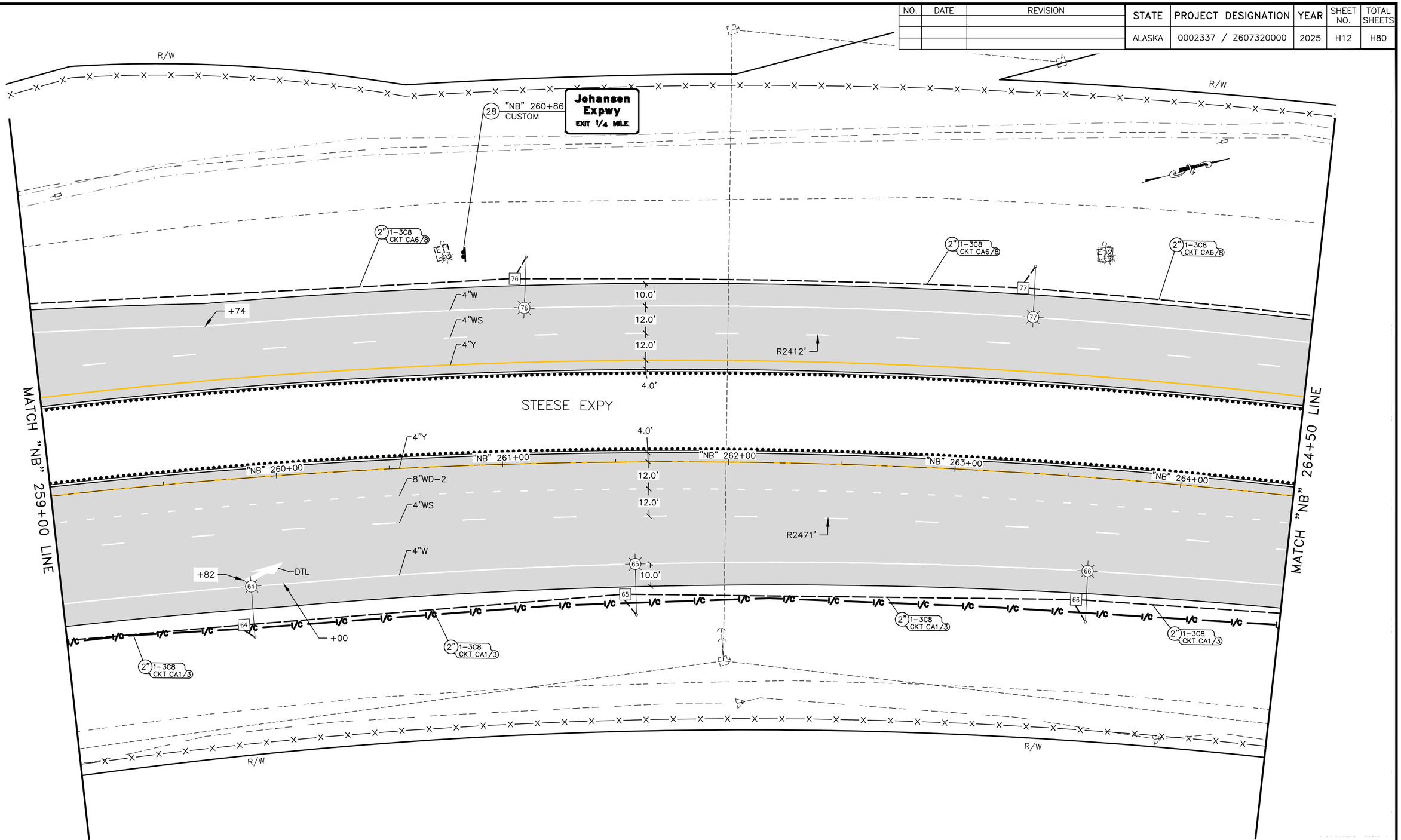
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H11	H80



SIGNING, STRIPING, AND ILLUMINATION

NO.	DATE	REVISION

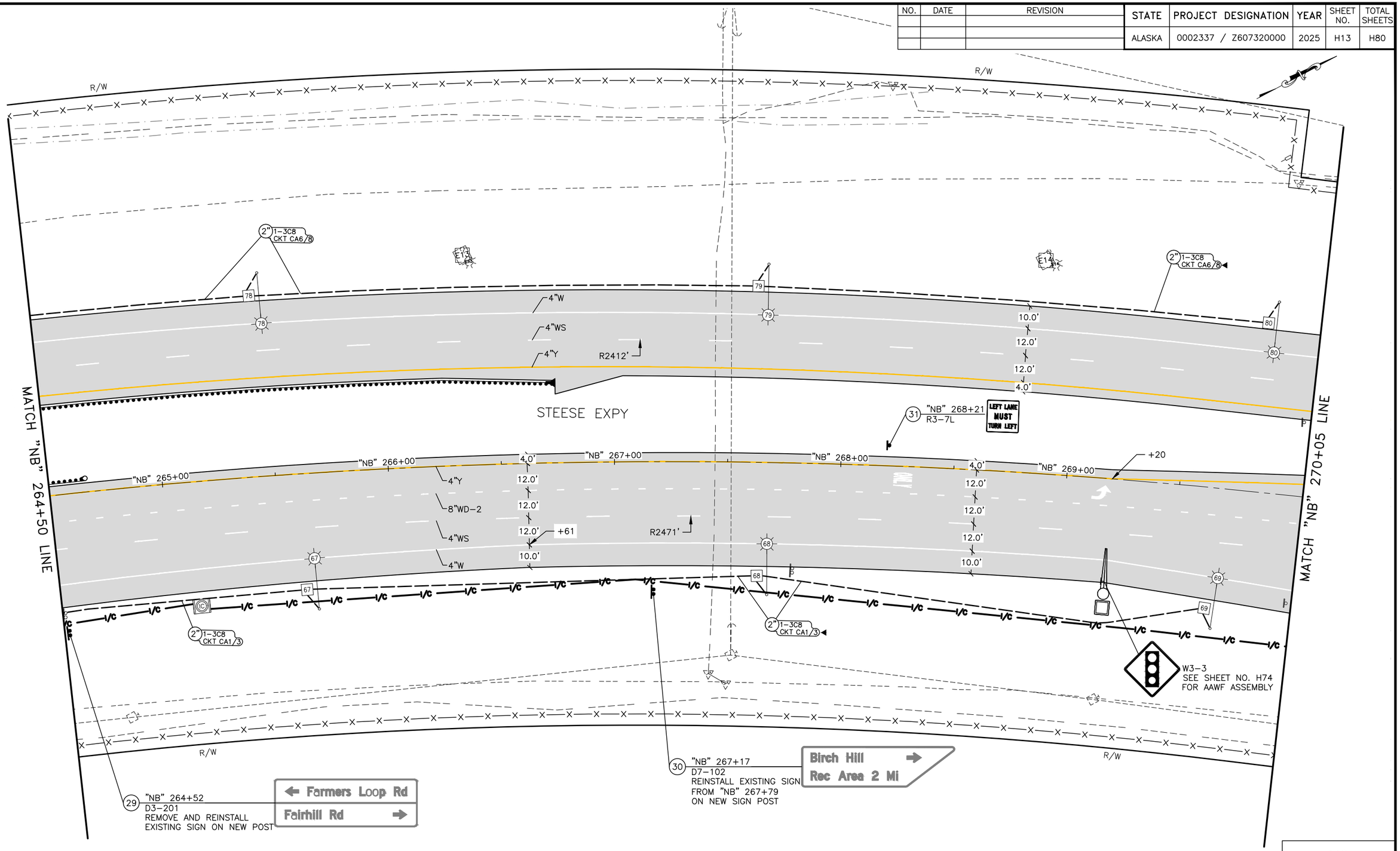
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H12	H80



SIGNING, STRIPING, AND ILLUMINATION

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H13	H80



SIGNING, STRIPING, AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

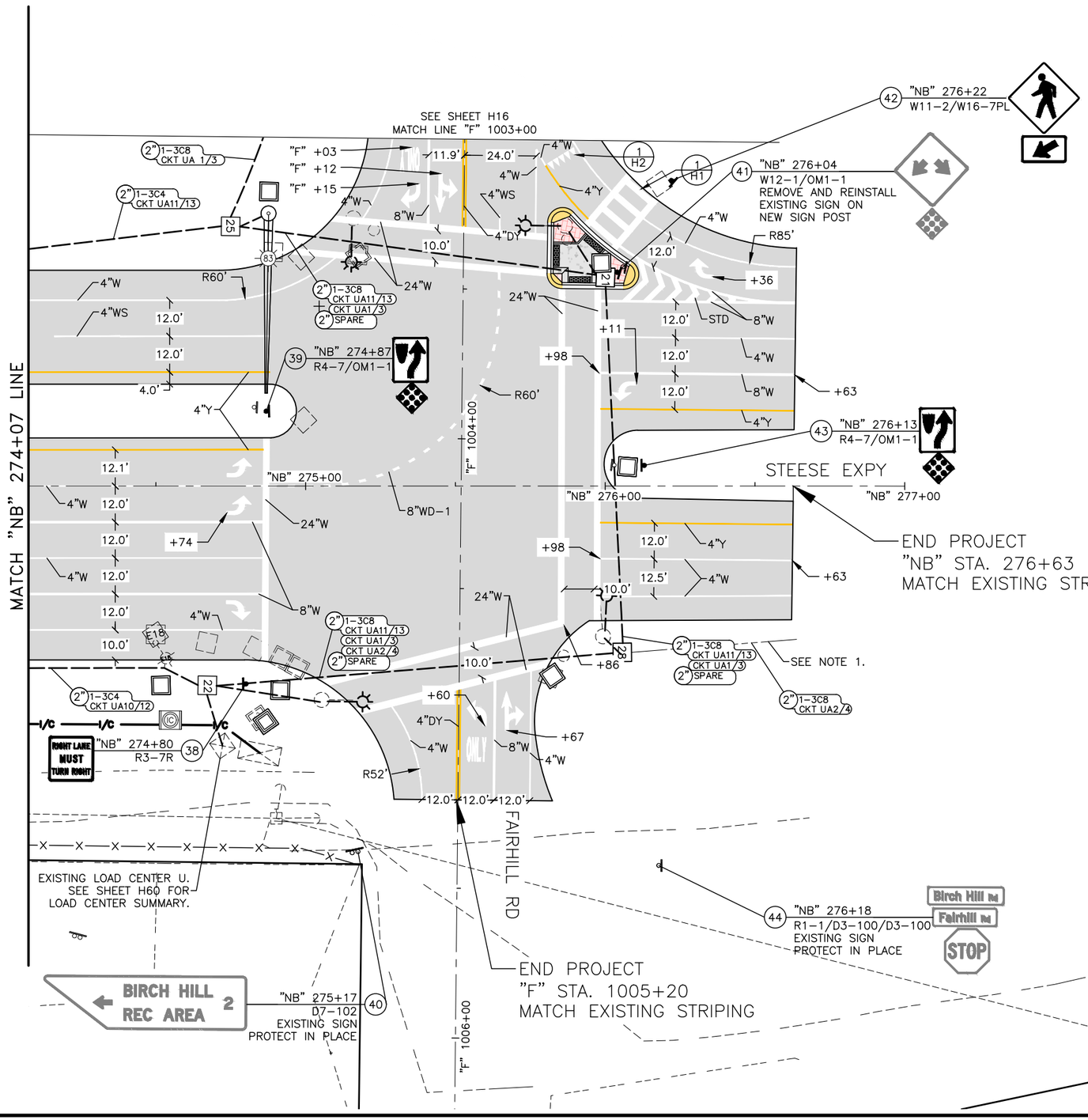
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H14	H80

SIGNING, STRIPING, AND ILLUMINATION

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H15	H80



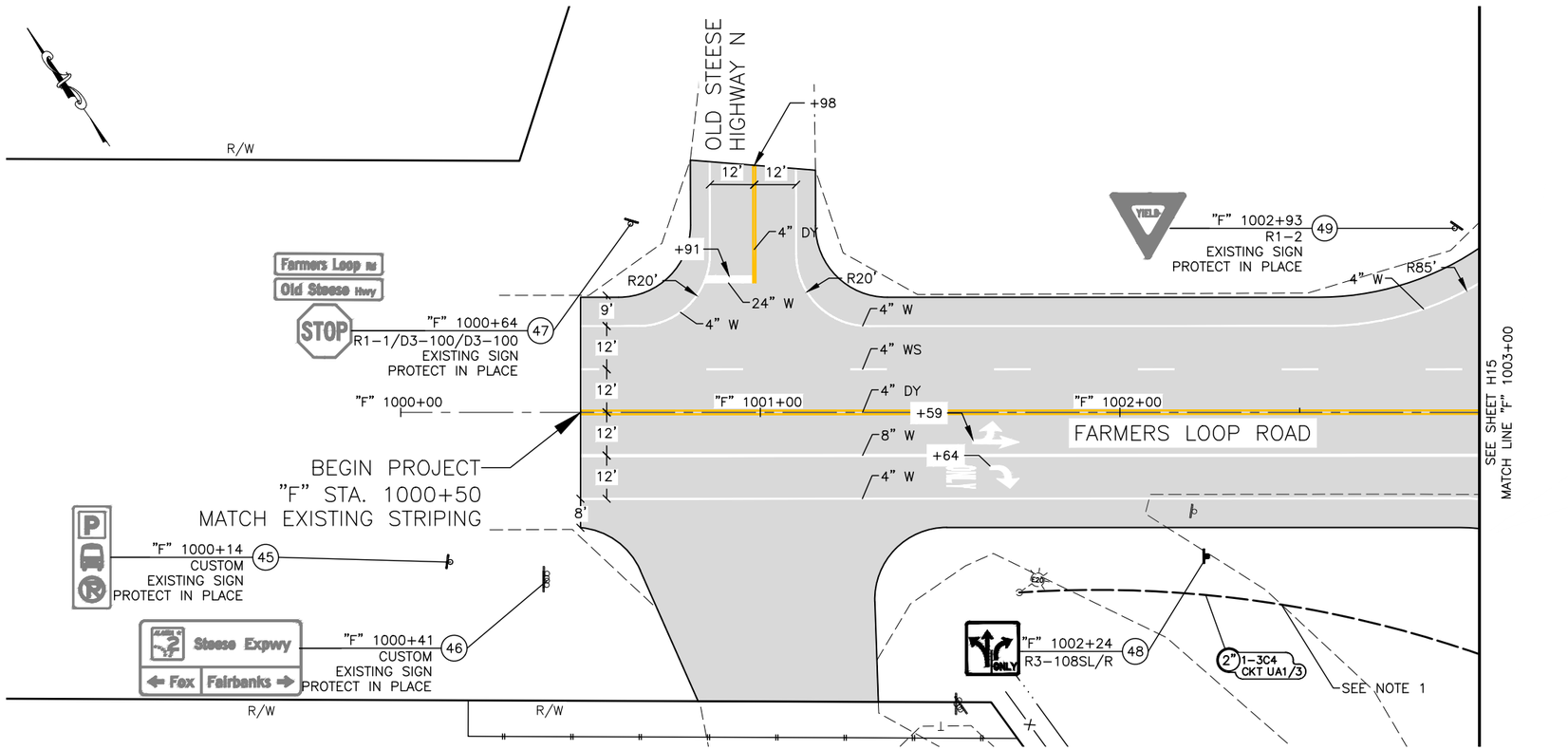
NOTE:
1. INTERCEPT EXISTING CONTINUOUS LIGHTING CONDUIT RUN FOR STEESE EXPY AT JUNCTION BOX 28. RUN NEW 3C8 CABLE TO NEAREST POLE NORTH OF INTERSECTION AT THE FUSE DISCONNECT.
2. UTILITY DATA NOT AVAILABLE FOR NW QUADRANT. FIELD VERIFY LOCATION OF UTILITIES PRIOR TO CONSTRUCTION. PRESERVE AND PROTECT ALL EXISTING SIGNAL AND ILLUMINATION EQUIPMENT NOT SHOWN UNLESS OTHERWISE DIRECTED BY ENGINEER.

SIGNING, STRIPING, AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H16	H80



NOTE:

1. INTERCEPT EXISTING LIGHTING RUN UA 1/3 FOR FARMERS LOOP ROAD AT THE FUSE DISCONNECT ON ELECTROLIER E20.

2. UTILITY DATA NOT AVAILABLE OUTSIDE OF EOP AT FARMERS LOOP. FIELD VERIFY LOCATION OF UTILITIES PRIOR TO CONSTRUCTION OF IMPROVEMENTS. PRESERVE AND PROTECT ALL EXISTING ILLUMINATION AND SIGNAL EQUIPMENT NOT SHOWN UNLESS OTHERWISE DIRECTED BY ENGINEER.

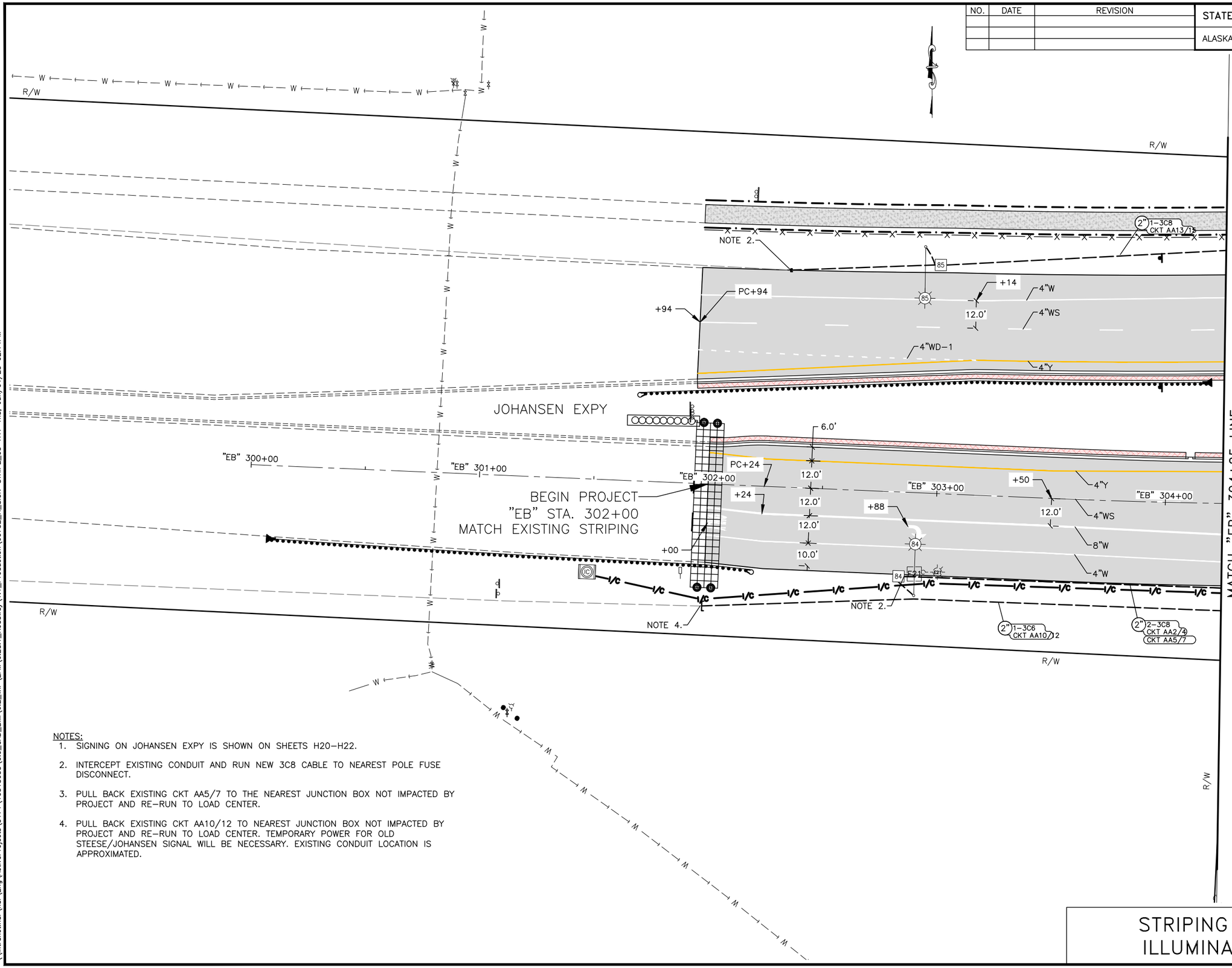
SIGNING, STRIPING, AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\Intranet.hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_H_SIGN-STRIPE_02-H16 Thu, Jun/01/23 02:13PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H17	H80



NOTES:

1. SIGNING ON JOHANSEN EXPY IS SHOWN ON SHEETS H20–H22.
2. INTERCEPT EXISTING CONDUIT AND RUN NEW 3C8 CABLE TO NEAREST POLE FUSE DISCONNECT.
3. PULL BACK EXISTING CKT AA5/7 TO THE NEAREST JUNCTION BOX NOT IMPACTED BY PROJECT AND RE–RUN TO LOAD CENTER.
4. PULL BACK EXISTING CKT AA10/12 TO NEAREST JUNCTION BOX NOT IMPACTED BY PROJECT AND RE–RUN TO LOAD CENTER. TEMPORARY POWER FOR OLD STEESE/JOHANSEN SIGNAL WILL BE NECESSARY. EXISTING CONDUIT LOCATION IS APPROXIMATED.

STRIPING AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_H_SIGN-STRIPE_03-H17 Thu, Jun/01/23 02:14PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H18	H80

SEE SHEET H08

SEE SHEET H08

SEE SHEET H07

MATCH "EB" 304+25 LINE

MATCH "EB" 310+25 LINE

JOHANSEN EXPY

LOAD CENTER A

NOTES:

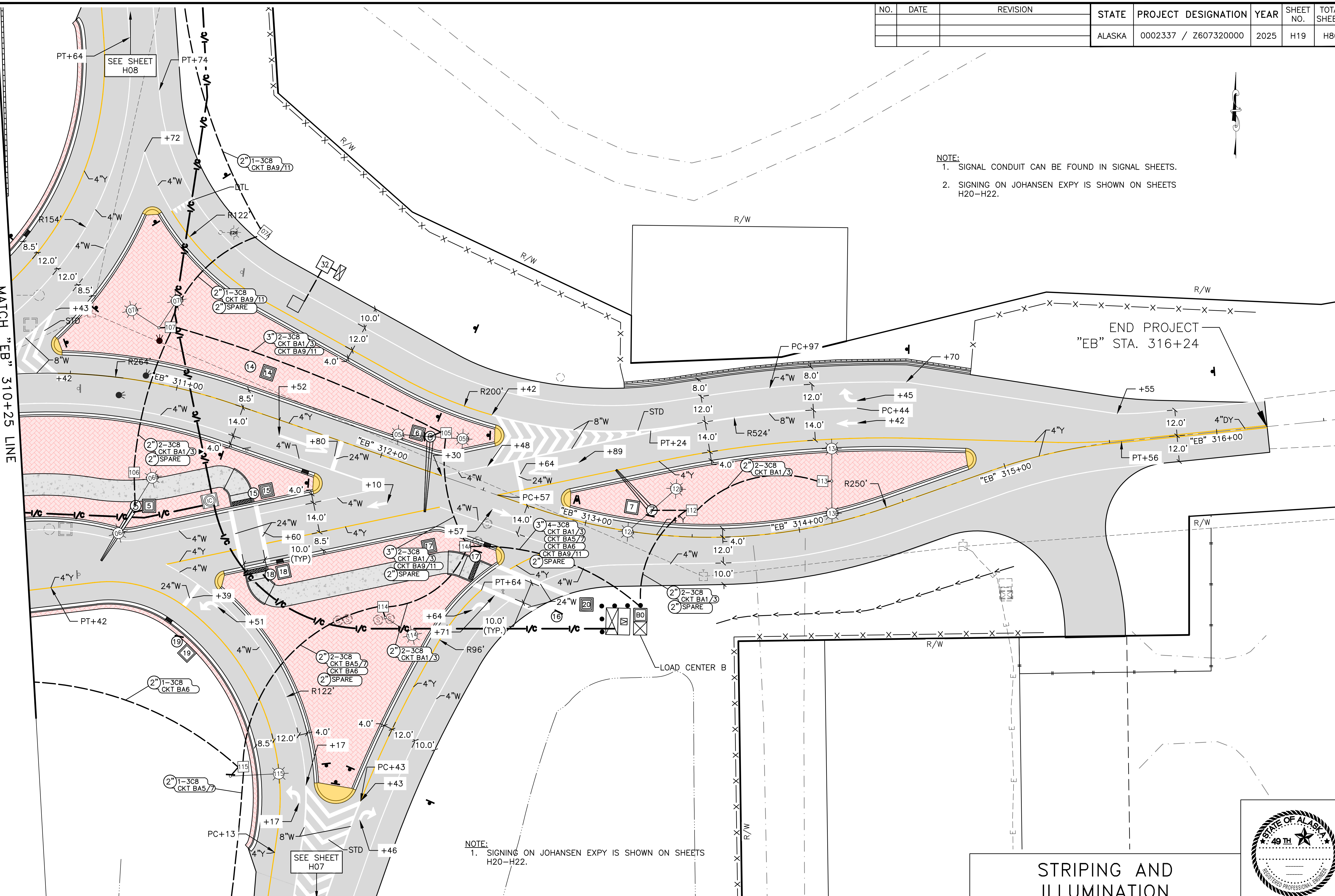
1. SIGNAL CONDUIT CAN BE FOUND IN SIGNAL SHEETS.
2. SIGNING ON JOHANSEN EXPY IS SHOWN ON SHEETS H20–H22.
3. PULL BACK EXISTING CKT AA5/7 TO THE NEAREST JUNCTION BOX NOT IMPACTED BY PROJECT AND RE–RUN TO LOAD CENTER.
4. PULL BACK EXISTING CKT AA10/12 TO NEAREST JUNCTION BOX NOT IMPACTED BY PROJECT AND RE–RUN TO LOAD CENTER. TEMPORARY POWER FOR OLD STEESE/JOHANSEN SIGNAL WILL BE NECESSARY. EXISTING CONDUIT ROUTE IS UNKNOWN.

STRIPING AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H19	H80



NOTE:
1. SIGNAL CONDUIT CAN BE FOUND IN SIGNAL SHEETS.
2. SIGNING ON JOHANSEN EXPY IS SHOWN ON SHEETS H20–H22.

NOTE:
1. SIGNING ON JOHANSEN EXPY IS SHOWN ON SHEETS H20–H22.

STRIPING AND ILLUMINATION

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC. 582 E. 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569

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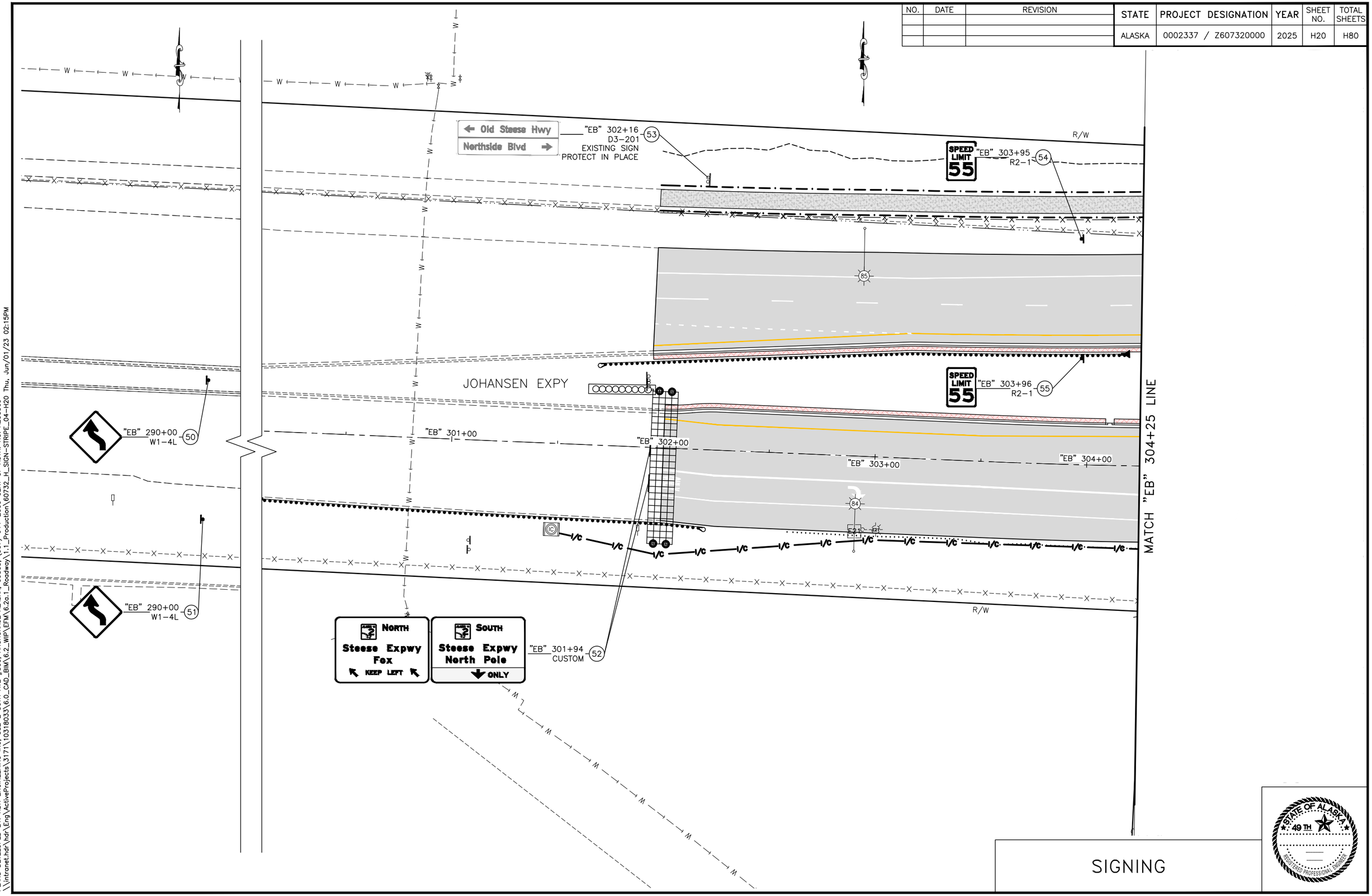
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H20	H80



SIGNING

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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STATE OF ALASKA
49TH
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H21	H80

MATCH "EB" 304+25 LINE

MATCH "EB" 310+25 LINE

JOHANSEN EXPY

"EB" 306+00

"EB" 307+00

"EB" 308+00

"EB" 309+00

57 "EB" 304+86 R5-10B INSTALL ON LIGHT POLE 87

64 "EB" 307+19 R5-1 INSTALL ON SIGNAL POLE 8

73 "EB" 308+09 R5-1A/R5-10B

69 "EB" 307+60 R5-1A/R5-10B

62 "EB" 307+10 D11-1/R5-103

SEE SHEET H08

75 "EB" 308+12 W12-1

77 "EB" 308+53 R5-1A/R5-10B

76 "EB" 308+16 R5-1A/R5-10B

79 "EB" 308+56 R6-1R/R5-1 INSTALL ON SIGNAL POLE 10

83 "EB" 308+86 R5-1

R3-5R

R3-5R

60 "EB" 306+76 R4-7/OM1-1 INSTALL ON SIGNAL POLE 9

61 "EB" 306+76 R3-18 INSTALL ON SIGNAL POLE 9

66 "EB" 307+39 R5-1 INSTALL ON SIGNAL POLE 2

R3-5A

R3-5A

CUSTOM

R3-5A

R3-5L

71 "EB" 308+03 R5-1 INSTALL ON SIGNAL POLE 13

80 "EB" 308+61 R4-8/OM1-1 INSTALL ON SIGNAL POLE 11

86 "EB" 309+16 R6-1L

81 "EB" 308+72 R5-1

67 "EB" 307+43 W11-15/W16-7PR

72 "EB" 308+03 R3-2 INSTALL ON SIGNAL POLE 13

74 "EB" 308+09 R5-10B

56 "EB" 304+28 CUSTOM

SOUTH Steese Expwy North Pole

63 "EB" 307+03 D11-1/R5-103

59 "EB" 305+58 D11-1/R5-103 EXISTING SIGNS PROTECT IN PLACE

LOAD CENTER A

65 "EB" 307+22 W11-15/W16-7PL

84 "EB" 309+00 CUSTOM/OM1-1

North Pole

85 "EB" 309+06 R5-10B

82 "EB" 308+82 R5-10B

END

58 "EB" 305+50 W14-100/OM1-1 EXISTING SIGN PROTECT IN PLACE

68 "EB" 307+59 D11-1/R5-103

70 "EB" 307+99 W4-1R

78 "EB" 308+54 W4-1R

SEE SHEET H07

SIGNING

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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Thu, Jun/01/23 02:15PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H22	H80

SEE SHEET H08

MATCH "EB" 310+25 LINE

87 "EB" 310+26 R5-10B

92 "EB" 311+00 R1-2

90 "EB" 310+79 R1-2

"EB" 312+19 R3-2 INSTALL ON SIGNAL POLE 6

99 "EB" 312+19 R5-10B

100 "EB" 312+22 R5-10B

104 "EB" 312+44 W12-1

89 "EB" 310+60 R5-10B

88 "EB" 310+48 CUSTOM/OM1-1

"EB" 311+00

96 "EB" 311+71 R4-8/OM1-1

"EB" 312+00

108 "EB" 312+93 R3-18 FACING EAST

"EB" 314+75 R3-108 112

"EB" 316+01 CUSTOM 113

"EB" 316+00

"EB" 315+00

93 "EB" 311+29 R5-1

R3-5R

111 "EB" 314+20 R3-8S/R INSTALL ON LIGHT POLE 113

"EB" 313+00

"EB" 314+00

110 "EB" 313+30 R6-1R INSTALL ON SIGNAL POLE 7

R3-5L

R3-5A

R3-5A

91 "EB" 310+92 R6-1L INSTALL ON SIGNAL POLE 5

"EB" 312+93 R4-7/OM1-1 FACING WEST 107

LOAD CENTER B

109 "EB" 312+97 R5-1 INSTALL ON SIGNAL POLE 16

94 "EB" 311+39 R5-1 INSTALL ON SIGNAL POLE 19

95 "EB" 311+69 R5-1 INSTALL ON SIGNAL POLE 18

105 "EB" 312+57 R5-1 INSTALL ON SIGNAL POLE 17

101 "EB" 312+23 R5-1A/ R5-10B

103 "EB" 312+34 R5-1A/ R5-10B

97 "EB" 311+82 R5-1A/R5-10B INSTALL ON LIGHT POLE 115

106 "EB" 312+74 R5-1A/ R5-10B

102 "EB" 312+30 W12-1

SEE SHEET H07

R/W

SIGNING

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H23	H80

SIGNING SUMMARY

SHEET NO.	LOC. NO.	STATION	LOCATION LT.	LOCATION RT.	ASDS CODES	LEGEND	SIZE H X V (INCHES)	AREA (SQ.FT.)	DIR.	BRACING/ FRAMING BRACED	BRACING/ FRAMING FRAMED	POST TYPE	POST SIZE (INCHES)	POST NO.	REMARKS
H03	1	"NB" 213+66		42.00	CUSTOM	JOHANSEN EXPWY EXIT ¼ MILE	186 X 108	139.5	S		X	TS	5X5	2	
H05	2	"NB" 221+26	87.15		R2-1	SPEED LIMIT 55	36 X 48	12	N	X		PST	2.5	1	
H05	3	"NB" 221+26	28.12		R2-1	SPEED LIMIT 55	36 X 48	12	N	X		PST	2.5	1	
H06	4	"NB" 226+83		OVERHEAD	D8-104	JOHANSEN EXPWY	186 X 126	162.8	S						INSTALL ON CANTILEVER SIGN STRUCTURE
H06	5	"NB" 227+94	62.36		W4-1R	MERGE	36 X 36	9	N	X		PST	2.5	1	
H06	6	"NB" 228+71		38.23	E5-1	EXIT GORE	72 X 60	30	S		X	TS	3	1	
H06	7	"NB" 229+73	8.78		W8-13	BRIDGE ICES BEFORE ROAD	48 X 48	16	S	X		PST	2.5	1	
H06	8	"NB" 229+74		46.49	W8-13	BRIDGE ICES BEFORE ROAD	48 X 48	16	S	X					INSTALL ON LIGHT POLE 41
H06	9	"NB" 230+12		83.38	D3-201	JOHANSEN EXPWY LAZELLE RD	126 X 42	36.8	S	X		TS	3	2	
H07	10	"NB" 231+75		184.29	R3-108L/R	LEFT ONLY RIGHT ONLY	30 X 30	6.25	S	X					INSTALL ON LIGHT POLE 117
H07	11	"NB" 234+12		OVERHEAD	CUSTOM	SOUTH STEESE EXPWY NORTH POLE	222 X 168	259	E						INSTALL ON BRIDGE
H07	12	"NB" 234+94		OVERHEAD	CUSTOM	NORTH STEESE EXPWY FOX	270 X 156	292.5	W						INSTALL ON BRIDGE
H08	13	"NB" 237+28	182.28		R3-108L/R/R	LEFT ONLY RIGHT ONLY RIGHT ONLY	48 X 30	10	S	X					INSTALL ON LIGHT POLE 91
H08	14	"NB" 238+31	54.07		D10-101	MILE 2	12 X 24	2	N	X		PST	2.5	1	
H08	15	"NB" 238+35		39.30	D10-101	MILE 2	12 X 24	2	S	X		PST	2.5	1	
H08	16	"NB" 240+05	146.65		D3-201	LAZELLE RD JOHANSEN EXPWY	126 X 42	36.8	N		X	TS	3	2	
H09	17	"NB" 243+17		41.07	W4-3	ADDED LANE	36 X 36	9	S	X		PST	2.5	1	
H09	18	"NB" 243+55	65.03		W8-13	BRIDGE ICES BEFORE ROAD	48 X 48	16	N	X		PST	2.5	1	
H09	19	"NB" 243+56		10.74	W8-13	BRIDGE ICES BEFORE ROAD	48 X 48	16	N	X		PST	2.5	1	
H09	20	"NB" 244+45	63.08		E5-1	EXIT GORE	72 X 60	30	N		X	TS	3	1	
H09	21	"NB" 245+58		83.84	W9-1	RIGHT LANE ENDS	48 X 48	16	S	X					INSTALL ON LIGHT POLE 53
H10	22	"NB" 249+24		OVERHEAD	CUSTOM	FARMERS LOOP RD	144 X 108	108	S						INSTALL ON OVERHEAD SIGN BRIDGE
					CUSTOM	NORTH STEESE EXPWY FOX	222 X 156	240.5							
H09	23	"NB" 249+27		67.18	W4-2R	LANE ENDS	48 X 48	16	S	X		PST	2.5	1	
H10	24	"NB" 249+37		OVERHEAD	CUSTOM	SOUTH STEESE EXPWY JOHANSEN EXPWY	486 X 186	627.75	N						INSTALL ON OVERHEAD SIGN BRIDGE
H10	25	"NB" 252+95		70.50	R2-1	SPEED LIMIT 55	36 X 48	12	S	X					INSTALL ON LIGHT POLE 60
H10	26	"NB" 252+97	9.99		R2-1	SPEED LIMIT 55	36 X 48	12	S	X		PST	2.5	1	
H11	27	"NB" 257+26		70.97	D2-3	FOX/LIVENGOOD/CRICLE					X	TS	3	2	REMOVE AND RELOCATE EXISTING SIGN
H12	28	"NB" 260+86	94.16		CUSTOM	JOHANSEN EXPWY EXIT ¼ MILE	186 X 108	139.5	N		X	TS	5X5	2	

NOTES:

1. REMOVE AND DISPOSE OF ALL EXISTING SIGNS AND SIGN POST FOUNDATIONS WITHIN THE PROJECT LIMITS, EXCEPT SIGNS DESIGNATED FOR REINSTALLATION, SALVAGE, OR OTHERWISE NOTED.
2. ALL OFFSET DISTANCES ARE FROM DESIGN CENTERLINE TO CENTER OF POST.
3. MOUNT SIGNS PER STANDARD PLAN S-05. SIGNS THAT PROJECT OVER OR WITHIN 2 FEET OF THE SIDEWALK AND PATHWAYS SHALL BE MOUNTED TO A HEIGHT OF 8 FEET.
4. DETERMINE POST LENGTHS IN THE FIELD. DO NOT EXTEND POSTS ABOVE TOP OF SIGN.
5. UNLESS OTHERWISE NOTED, INSTALL PST POSTS, WITH SLEEVE TYPE CONCRETE FOUNDATIONS PER STANDARD PLAN S-30. ATTACH THE SIGN POST USING GALVANIZED 3/8" DIA. BOLT, NUT, SPLIT LOCK WASHER AND TWO FLAT WASHER.
6. PROVIDE "TUBE POST BRACING" AS SHOWN ON STANDARD PLAN S-01 FOR ALL SIGNS MOUNTED ON A SINGLE POST AND HAVING A HORIZONTAL DIMENSION OF 30 INCHES OR GREATER, EXCEPT D3-1 AND D3-100 SERIES SIGNS. INSTEAD OF 5/8" DIA. GALVANIZED BOLTS AND NYLON LOCKING NUTS SHOWN ON STANDARD PLAN S-01, USE GALVANIZED 3/8" DIA. BOLTS, SPLIT LOCK WASHERS AND NUTS. 1/4" T X 1-1/2" W ALUMINUM ALLOY 6061-T6 BAR MAY ALSO BE USED TO FABRICATE SIGN BRACES.
7. ATTACH ALL SIGNS TO THEIR SUPPORTS WITH 3/8" DIA. BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO POSTS WITH ALUMINUM DRIVE RIVETS. WIND WASHERS ARE NOT REQUIRED WITH DRIVE RIVETS. INCLUDE SPLIT LOCK WASHERS WHEN BOLTS ARE USED.
8. ALL FASTENER HARDWARE SHALL MEET THE REQUIREMENTS OF THE "FASTENER SPECIFICATION TABLE" ON SHEET H33.
9. SIGNS INSTALLED ON LIGHT POLES MAY REQUIRE TEMPORARY INSTALLATION ON 2-1/2" PST POST UNTIL LIGHT POLES ARE IN PLACE. THIS WORK IS SUBSIDIARY TO PAY ITEM 615.0001.0000.
10. SEE SIGNING SHEETS H2-H17, H19-H22 AND TRAFFIC SIGNAL SHEET H42 FOR ADDITIONAL TRAFFIC SIGNS, MOUNTING LOCATIONS, AND MOUNTING DETAILS.
11. YIELD (R1-2) SIGN LOCATION MAY NEED ADJUSTMENT IN FIELD. THE ENGINEER WILL APPROVE FINAL LOCATION.
12. MAINTAIN EXISTING SIGNS UNTIL NEW SIGNS ARE INSTALLED. DO NOT LEAVE DUPLICATE OR CONFLICTING SIGNING UP AT ANY TIME.
13. ALL SIGNS NOTED FOR REMOVAL AND REINSTALLATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE IF THEY ARE DAMAGED DURING THE RELOCATION EFFORT.
14. LOCATE AND PROTECT ALL NEW AND EXISTING UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGN POSTS. UTILITIES MAY NOT BE SHOWN ON THE SIGNING AND STRIPING PLANS. SEE OTHER PROJECT PLAN SHEETS AND AS-BUILT DRAWINGS FOR UTILITY INFORMATION.
15. CLEARING OR TRIMMING OF VEGETATION AS DIRECTED BY THE ENGINEER MAY BE REQUIRED TO ENSURE ADEQUATE VISIBILITY OF SIGNS. THIS WORK IS SUBSIDIARY TO PAY ITEM 615.0001.0000.
16. PROVIDE WEATHER TIGHT CAPS ON ALL TUBE POSTS, EXCEPT PERFORATED STEEL TUBES.
17. PROVIDE FRANGIBLE COUPLINGS SYSTEMS IN ACCORDANCE TO STANDARD PLAN S-31.
18. HINGED JOINTS WITH FRANGIBLE FUSE PLATE ARE REQUIRED ON ALL MULTIPLE POST SIGNS WITH FRANGIBLE COUPLING SYSTEMS. THE HINGE LOCATION ON ALL POSTS SHALL BE THE SAME DISTANCE BELOW THE SIGNS. INSTEAD OF THE 6 INCH MINIMUM SHOWN ON STANDARD PLAN S-31. SEE MANUFACTURER'S SPECIFICATIONS FOR HINGE LOCATION BELOW SIGN.
19. UNLESS OTHERWISE NOTED, RELOCATE EXISTING (SALVAGED) SIGNS TO LOCATIONS IDENTIFIED IN THE SIGNING SUMMARY USING NEW POSTS, FOUNDATIONS, BRACING/FRAMING, MOUNTING BRACKETS, AND FASTENERS. THIS WORK SHALL BE SUBSIDIARY TO PAY ITEM 615.0001.0000.

SIGN SUMMARY TABLE
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STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H24	H80

SIGNING SUMMARY

SHEET NO.	LOC. NO.	STATION	LOCATION LT.	LOCATION RT.	ASDS CODES	LEGEND	SIZE H X V (INCHES)	AREA (SQ.FT.)	DIR.	BRACING/ FRAMING BRACED	BRACING/ FRAMING FRAMED	POST TYPE	POST SIZE (INCHES)	POST NO.	REMARKS
H13	29	"NB" 264+52		62.95	D3-201	FARMERS LOOP RD FAIRHILL RD			S		X	TS	3	2	REMOVE AND RELOCATE EXISTING SIGN
H13	30	"NB" 267+17		58.52	D7-102	BIRCH HILL REC AREA 2 MI			N		X	TS	2	2	REMOVE FROM "NB"275+17.49 AND RELOCATE EXISTING SIGN
H13	31	"NB" 268+21	9.00		R3-7L	LEFT LANE MUST TURN LEFT	36 X 36	9	S	X		PST	2.5	1	
H13	32	"NB" 271+00		68.86	R3-108	LEFT ONLY LEFT ONLY STRAIGHT ONLY STRAIGHT ONLY RIGHT ONLY	120 X 36	30	S	X		PST	2.5	2	
H13	33	"NB" 271+00	25.28		R3-108	LEFT ONLY LEFT ONLY STRAIGHT ONLY STRAIGHT ONLY RIGHT ONLY	120 X 36	30	S	X		PST	2.5	2	
H14	34	"NB" 272+50		70.70	R3-7R	RIGHT LANE MUST TURN RIGHT	36 X 36	9	S	X		PST	2.5	1	
H14	35	"NB" 273+71	84.50		R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75	E	X					INSTALL ON LIGHT POLE 82
H14	36	"NB" 274+04	24.94		R5-1A	WRONG WAY	36 X 24	6	N	X		PST	2.5	1	
H14	37	"NB" 274+04		66.00	R5-1A	WRONG WAY						PST	2.5	1	REMOVE AND REINSTALL EXISTING SIGN
					R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75	NE	X		PST	2.5	1	
H15	38	"NB" 274+80		66.00	R3-7R	RIGHT LANE MUST TURN RIGHT	36 X 36	9	S	X		PST	2.5	1	
H15	39	"NB" 274+87	25.03		R4-7	KEEP RIGHT	36 X 48	12	N	X		PST	2.56	1	
					OM1-1	OBJECT MARKER, TYPE 1	18 X 18	2.25	N						
H15	40	"NB" 275+17		121.98	D7-102	BIRCH HILL REC AREA 2									EXISTING SIGN PROTECT IN PLACE
H15	41	"NB" 276+04	73.16		W12-2	DOUBLE ARROWS						PST	2.5	1	REMOVE AND REINSTALL EXISTING SIGN
					OM1-1	OBJECT MARKER, TYPE 1									
H15	42	"NB" 276+09	101.95		W11-2	PEDESTRIAN TRAFFIC	36 X 36	9	E	X		PST	2.5	1	
					W16-7PL	DIAGONAL DOWN LEFT ARROW	24 X 12	2							
H15	43	"NB" 276+22	25.03		R4-7	KEEP RIGHT	36 X 48	12	N	X		PST	2.56	1	
					OM1-1	OBJECT MARKER, TYPE 1	18 X 18	2.25	N						
H15	44	"NB" 276+18		126.60	R1-1	STOP									EXISTING SIGN PROTECT IN PLACE
					D3-100	BIRCH HILL RD									
					D3-100	FAIRHILL RD									
H16	45	"F" 1000+14		41.60	CUSTOM	BUS PARKING/ NO PARKING									EXISTING SIGN PROTECT IN PLACE
H16	46	"F" 1000+41		46.80	CUSTOM	STEESE EXPWY FOX FAIRBANKS									EXISTING SIGN PROTECT IN PLACE
H16	47	"F" 1000+64	51.90		R1-1	STOP									EXISTING SIGN PROTECT IN PLACE
					D3-100	FARMERS LOOP RD									
					D3-100	OLD STEESE HWY									
H16	48	"F" 1002+24		40.50	R3-108 SL/R	STRAIGHT/LEFT RIGHT ONLY	48 X 48	16	W	X		PST	2.5	2	
H16	49	"F" 1002+93	50.60		R1-2	YIELD									EXISTING SIGN PROTECT IN PLACE
H20	50	"EB" 290+00	X		W1-4L	REVERSE CURVE	36 X 36	9	W	X		PST	2.5	1	

SIGN SUMMARY TABLE
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H25	H80

SIGNING SUMMARY

SHEET NO.	LOC. NO.	STATION	LOCATION		ASDS CODES	LEGEND	SIZE H X V (INCHES)	AREA (SQ.FT.)	DIR.	BRACING/ FRAMING		POST			REMARKS
			LT.	RT.						BRACED	FRAMED	TYPE	SIZE (INCHES)	NO.	
H20	51	"EB" 290+00		X	W1-4L	REVERSE CURVE	36 X 36	9	W	X		PST	2.5	1	
H20	52	"EB" 301+94		OVERHEAD	CUSTOM	NORTH STEESE EXPWY FOX KEEP LEFT	222 X 156	240.5	W						INSTALL ON OVERHEAD SIGN BRIDGE
					CUTSOM	SOUTH STEESE EXPWY NORTH POLE NEXT RIGHT	222 X 156	240.5	W						
H20	53	"EB" 302+16	128.44		D3-201	OLD STEESE HWY NORTHSIDE BLVD									EXISTING SIGN PROTECT IN PLACE
H20	54	"EB" 303+95	106.32		R2-1	SPEED LIMIT 55	36 X 48	12	E	X		PST	2.5	1	
H20	55	"EB" 303+96	50.18		R2-1	SPEED LIMIT 55	36 X 48	12	E	X		PST	2.5	1	
H21	56	"EB" 304+28		51.30	CUSTOM	SOUTH STEESE EXPWY NORTH POLE	204 X 120	170	W		X	TS	3	2	
H21	57	"EB" 304+86	110.31		R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75	E	X					INSTALL ON LIGHT POLE 87
H21	58	"EB" 305+50		142.75	W14-100	END									EXISTING SIGN PROTECT IN PLACE
					OM1-1	OBJECT MARKER, TYPE 1									
H21	59	"EB" 305+58		101.78	D11-1	BIKE ROUTE									EXISTING SIGN PROTECT IN PLACE
					R5-103	NO MOTOR VEHICLES									
H21	60	"EB" 306+76	24.03		R4-7	KEEP RIGHT	36 X 48	12	E	X					INSTALL ON SIGNAL POLE 9
					OM1-1	OBJECT MARKER, TYPE 1	18 X 18	2.25							
H21	61	"EB" 306+76	24.03		R3-18	COMBINATION U-TURN & LEFT TURN PROHIBITION	36 X 36	9	W	X					INSTALL ON SIGNAL POLE 9
H21	62	"EB" 307+10	127.93		D11-1	BICYCLE ROUTE	24 X 18	3	SE	X		PST	2.5	1	
					R5-103	NO MOTOR VEHICLES	24 X 24	4							
H21	63	"EB" 307+03		80.80	D11-1	BICYCLE ROUTE	24 X 18	3	E	X		PST	2.5	1	
					R5-103	NO MOTOR VEHICLES	24 X 24	4							
H21	64	"EB" 307+19	116.20		R5-1	DO NOT ENTER	36 X 36	9	E	X					INSTALL ON SIGNAL POLE 8
H21	65	"EB" 307+22		63.00	W11-15	BICYCLE / PEDESTRIAN	36 X 36	9	W	X		PST	2.5	1	
					W16-7PL	DIAGONAL DOWN LEFT ARROW	24 X 12	2							
H21	66	"EB" 307+39	65.89		R5-1	DO NOT ENTER	36 X 36	9	SW	X					INSTALL ON SIGNAL POLE 2
H21	67	"EB" 307+43		28.78	W11-15	BICYCLE / PEDESTRIAN	36 X 36	9	W	X		PST	2.5	1	
					W16-7PR	DIAGONAL DOWN RIGHT ARROW	24 X 12	2							
H21	68	"EB" 307+59		85.94	D11-1	BICYCLE ROUTE	24 X 18	3	NW	X		PST	2.5	1	
					R5-103	NO MOTOR VEHICLES	24 X 24	4							
H21	69	"EB" 307+60	157.66		R5-1A	WRONG WAY	36 X 24	6	SW	X		PST	2.5	1	
					R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75							
H21	70	"EB" 307+99		177.92	W4-1R	MERGE	36 X 36	9	N	X		PST	2.5	1	
H21	71	"EB" 308+03		60.20	R5-1	DO NOT ENTER	36 X 36	9	NW	X					INSTALL ON SIGNAL POLE 13
H21	72	"EB" 308+03		60.20	R3-2	LEFT TURN PROHIBITION	36 X 36	9	SE	X					INSTALL ON SIGNAL POLE 13
H21	73	"EB" 308+09	127.32		R5-1A	WRONG WAY	36 X 24	6	SW	X		PST	2.5	1	
					R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75							
H21	74	"EB" 308+09		84.45	R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75	NW	X		PST	2.5	1	

SIGN SUMMARY TABLE
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H26	H80

SIGNING SUMMARY

SHEET NO.	LOC. NO.	STATION	LOCATION LT.	LOCATION RT.	ASDS CODES	LEGEND	SIZE H X V (INCHES)	AREA (SQ.FT.)	DIR.	BRACING/FRAMING BRACED	BRACING/FRAMING FRAMED	POST TYPE	POST SIZE (INCHES)	POST NO.	REMARKS
H21	75	"EB" 308+12	127.18		W12-1	DOUBLE ARROW	36 X 36	9	N	X		PST	2.5	1	
H21	76	"EB" 308+16	125.84		R5-1A	WRONG WAY	36 X 24	6	SE	X		PST	2.5	1	
					R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75							
H21	77	"EB" 308+53	131.27		R5-1A	WRONG WAY	36 X 24	6	S	X		PST	2.5	1	
					R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75							
H21	78	"EB" 308+54		177.91	W4-1R	MERGE	36 X 36	9	N	X		PST	2.5	1	
H21	79	"EB" 308+56	30.99		R5-1	DO NOT ENTER	36 X 36	9	SE	X					INSTALL ON SIGNAL POLE 10
H21	80	"EB" 308+61		22.81	R4-8	KEEP LEFT	36 X 48	12	W	X					INSTALL ON SIGNAL POLE 11
					OM1-1	OBJECT MARKER, TYPE 1	18 X 18	2.25							
H21	81	"EB" 308+72		20.45	R5-1	DO NOT ENTER	36 X 36	9	E	X					INSTALL ON SIGNAL POLE 12
H21	82	"EB" 308+82		115.87	R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75	NE	X		PST	2.5	1	
H21	83	"EB" 308+86	59.06		R5-1	DO NOT ENTER	36 X 36	9	SE	X		PST	2.5	1	
H21	84	"EB" 309+00		98.76	CUSTOM	NORTH POLE	42 X 54	15.75	E		X	TS	3	2	
					OM1-1	OBJECT MARKER, TYPE 1	18 X 18	2.25							
H21	85	"EB" 309+06		142.75	R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75	NE	X		PST	2.5	1	
H21	86	"EB" 309+16		22.63	R6-1L	ONE WAY	36 X 12	3	NW	X		PST	2.5	1	
H22	87	"EB" 310+26	64.34		R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75	SW	X		PST	2.5	1	
H22	88	"EB" 310+48	14.38		CUSTOM	FOX	42 X 42	12.25	W		X	TS	3	2	
					OM1-1	OBJECT MARKER, TYPE 1	18 X 18	2.25							
H22	89	"EB" 310+60	31.27		R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75	SW	X		PST	2.5	1	
H22	90	"EB" 310+79	73.98		R1-2	YIELD	48 X 48	16	SE	X		PST	2.5	1	
H22	91	"EB" 310+92		57.70	R6-1L	ONE WAY	36 X 12	3	S	X					INSTALL ON SIGNAL POLE 5
H22	92	"EB" 311+00	101.60		R1-2	YIELD	48 X 48	16	SE	X		PST	2.5	1	
H22	93	"EB" 311+29		24.25	R5-1	DO NOT ENTER	36 X 36	9	SE	X		PST	2.5	1	
H22	94	"EB" 311+39		112.90	R5-1	DO NOT ENTER	36 X 36	9	N	X					INSTALL ON SIGNAL POLE 19
H22	95	"EB" 311+69		69.19	R5-1	DO NOT ENTER	36 X 36	9	W	X					INSTALL ON SIGNAL POLE 18

SIGN SUMMARY TABLE
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STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H27	H80

SIGNING SUMMARY

SHEET NO.	LOC. NO.	STATION	LOCATION LT.	LOCATION RT.	ASDS CODES	LEGEND	SIZE H X V (INCHES)	AREA (SQ.FT.)	DIR.	BRACING/ FRAMING BRACED	BRACING/ FRAMING FRAMED	POST TYPE	POST SIZE (INCHES)	POST NO.	REMARKS
H22	96	"EB" 311+71		23.62	R4-8	KEEP LEFT	36 X 48	12	E	X		PST	2.5	1	
					OM1-1	OBJECT MARKER, TYPE 1	18 X 18	2.25							
H22	97	"EB" 311+82		163.82	R5-1A	WRONG WAY	36 X 24	6	N	X					INSTALL ON LIGHT POLE 115
					R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75							
H22	98	"EB" 312+19	15.53		R3-2	LEFT TURN PROHIBITION	36 X 36	9	W	X					INSTALL ON SIGNAL POLE 6
H22	99	"EB" 312+19	25.43		R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75	SE	X		PST	2.5	1	
H22	100	"EB" 312+22	69.98		R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75	SE	X		PST	2.5	1	
H22	101	"EB" 312+23		144.64	R5-1A	WRONG WAY	36 X 24	6	N	X		PST	2.5	1	
					R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75							
H22	102	"EB" 312+30		150.36	W12-1	DOUBLE ARROW	36 X 36	9	S	X		PST	2.5	1	
H22	103	"EB" 312+34		142.83	R5-1A	WRONG WAY	36 X 24	6	NE	X		PST	2.5	1	
					R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75							
H22	104	"EB" 312+44	24.87		W12-1	DOUBLE ARROW	36 X 36	9	E	X		PST	2.5	1	
H22	105	"EB" 312+57		30.36	R5-1	DO NOT ENTER	36 X 36	9	NE	X					INSTALL ON SIGNAL POLE 17
H22	106	"EB" 312+74		145.58	R5-1A	WRONG WAY	36 X 24	6	NE	X		PST	2.5	1	
					R5-10B	NO PEDESTRIANS OR BICYCLES	30 X 18	3.75							
H22	107	"EB"312+93	9.21		R4-7	KEEP RIGHT	36 X 48	12	W	X		PST	2.5	1	
					OM1-1	OBJECT MARKER, TYPE 1	18 X 18	2.25							
H22	108	"EB"312+93	9.21		R3-18	COMBINATION U-TURN & LEFT TURN PROHIBITION	36 X 36	9	E	X					MOUNT ON THE BACKSIDE OF SIGN 94. USE SAME POST AS 94
H22	109	"EB"312+94		43.91	R5-1	DO NOT ENTER	36 X 36	9	N	X					INSTALL ON SIGNAL POLE 16
H22	110	"EB" 313+30	11.04		R6-1R	ONE WAY	36 X 12	3	SW	X					INSTALL ON SIGNAL POLE 7
H22	111	"EB" 314+20	19.04		R3-8S/R	STRAIGHT ONLY RIGHT ONLY	30 X 30	6.25	E	X		PST	2.5	1	INSTALL ON LIGHT POLE 113
H22	112	"EB" 314+75	66.17		R3-8S/R	STRAIGHT ONLY RIGHT ONLY	30 X 30	6.25	E	X		PST	2.5	1	
H22	113	"EB" 316+01	27.52		CUSTOM	NORTH ALASKA 2	60 X 84	35	E		X	TS	3	2	

SIGN SUMMARY TABLE
5 OF 5

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H28	H80

MAST ARM POLE SIGNS

LOCATION NUMBER		ASDS CODE	LEGEND	SIZE (INCHES)			AREA (SF)	DIRECTION	BRACING/FRAMING		REMARKS
POLE #	OFFSET			H	x	V			BRACED	FRAMED	
1	37.0	R3-5R	MANDATORY MOVEMENT LANE CONTROL (RIGHT)	36	X	30	7.5	E	X		
	25.0	R3-5R	MANDATORY MOVEMENT LANE CONTROL (RIGHT)	36	X	30	7.5	E	X		
2	47.5	R3-5A	MANDATORY MOVEMENT (AHEAD)	36	X	30	7.5	E	X		
	33.5	R3-5A	MANDATORY MOVEMENT (AHEAD)	36	X	30	7.5	E	X		
3	37.0	CUSTOM	ALASKA 2 NORTH (OVERHEAD)	30	X	36	7.5	W	X		
	51.0	R3-5A	MANDATORY MOVEMENT (AHEAD)	36	X	30	7.5	W	X		
4	27.5	R3-5L	MANDATORY MOVEMENT LANE CONTROL (LEFT)	36	X	30	7.5	N	X		
5	22.5	R3-5L	MANDATORY MOVEMENT LANE CONTROL (LEFT)	36	X	30	7.5	S	X		
6	20.5	R3-5A	MANDATORY MOVEMENT (AHEAD)	36	X	30	7.5	W	X		
	24.5	R3-5A	MANDATORY MOVEMENT (AHEAD)	36	X	30	7.5	E	X		
7	15.5	R3-5R	MANDATORY MOVEMENT LANE CONTROL (RIGHT)	36	X	30	7.5	S	X		
SUBTOTAL = 82.50											

REMOVAL SIGN SUMMARY

STATION	CL REF	ASDS CODE	LEGEND	REMARKS
"NB"237+89	0.94 RT	R5-1A	WRONG WAY	
"NB"238+35	70.87 RT	D10-101	MILE 2	
"NB"239+68	68.62 RT	M1-5	ALASKA 2	
		M3-1	NORTH	
"NB"270+02	47.57 RT	W3-4	PREPARE TO STOP	FLASHER SIGN (R)
"NB"270+02	32.93 LT	W3-4	PREPARE TO STOP	FLASHER SIGN (L)
"NB"274+50	49.39 RT	I-160	PLEASE DONT DRINK AND DRIVE	MOUNTED ON LIGHT POLE (R)
		I-162	IN MEMORY OF TOM ROWINSKI	
"NB"274+83	26.30 LT	R6-1R	ONE WAY	
"NB"276+03	6.94 LT	R4-7	KEEP RIGHT	
		OM1-1	OBJECT MARKER TYPE 1	
"NB"276+06	73.13 LT	W12-1	DOUBLE ARROW	
		OM1-1	OBJECT MARKER TYPE 1	
"NB"272+94	85.44 LT	W4-3	ADDED LANE RIGHT	
"NB"276+18	100.44 LT	I-161	PLEASE DRIVE SAFELY	
		I-162	IN MEMORY OF SUMMER WILLIAMS	
"NB"275+93	145.09 LT	D14-100	ADOPT A HIGHWAY/ PUBLIC DEFENDER AGENCY	
"NB"274+83	26.30 LT	R4-7	KEEP RIGHT	
"NB"274+06	28.64 LT	R5-1	DO NOT ENTER	
"NB"251+55	91.10 LT	D3-201	CITY LIGHTS BLVD/ JOHANSEN EXPY	
"NB"250+22	10.81 LT	W3-3	SIGNAL AHEAD	
"NB"249+42	79.07 LT	W3-3	SIGNAL AHEAD	MOUNTED ON LIGHT POLE (R)
"NB"245+68	84.67 LT	W3-4	PREPARE TO STOP	FLASHER SIGN (L)
"NB"245+71	11.12 LT	W3-4	PREPARE TO STOP	FLASHER SIGN (R)
"NB"240+87	76.61 LT	W13-2	EXIT 25 MPH	STATIONING IS APPROXIMATE

REMOVAL SIGN SUMMARY

STATION	CL REF	ASDS CODE	LEGEND	REMARKS
"NB"223+47	39.04 LT	W3-4	PREPARE TO STOP	FLASHER SIGN (L)
"NB"223+49	23.99 RT	W3-4	PREPARE TO STOP	FLASHER SIGN (R)
"NB"226+04	33.28 RT	D3-201	JOHANSEN EXPY/ CITY LIGHTS BLVD	
"NB"233+94	7.29 LT	R6-1R	ONE WAY	
"NB"234+13	72.57 RT	I-161	PLEASE DRIVE SAFELY	
		I-162	IN MEMORY OF KIRSTEN SHAYE TOMPKINS	
"NB"234+34	59.28 RT	R10-3B	PUSH BUTTON EDUCATIONAL	MOUNTED ON SIGNAL POST NEAREST TO SIGNAL POLE
		R10-3B	PUSH BUTTON EDUCATIONAL	
"NB"235+48	0.38 LT	R4-7	KEEP RIGHT	
		OM1-1	OBJECT MARKER TYPE 1	
"NB"235+30	57.34 RT	D3-102	JOHANSEN EXPY/ CITY LIGHTS BLVD	MOUNTED ON SIGNAL POLE MAST ARM
"NB" 235+56	2.88 LT	R5-1	DO NOT ENTER	
"NB"235+59	0.14 RT	R6-1R	ONE WAY	

NOTES:

1. SIGNS INCLUDED IN THE REMOVAL SIGN SUMMARY ARE THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE. REMOVAL SIGN SUMMARY IS SUBSIDIARY TO STANDARD SIGN 615.0001.0000.

MAST ARM POLE SIGNS AND REMOVAL SIGN SUMMARY

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H29	H80

REMOVAL SIGN SUMMARY

STATION	CL REF	ASDS CODE	LEGEND	REMARKS
"NB"243+72	82.21 LT	R3-7R	RIGHT LANE MUST TURN RIGHT	
"NB"238+56	89.69 LT	D10-101	MILE 2	
"NB"238+10	96.12 LT	D3-200	JOHANSEN EXPY	
"NB"238+10	96.12 LT	R5-1A	WRONG WAY	
"NB"237+03	103.87 LT	W11-1	BICYCLE TRAFFIC	
		W16-7PL	LEFT DIAGONAL ARROW PLAQUE	
"NB"236+44	67.23 LT	E5-1	EXIT GORE	
"NB"236+75	119.17 LT	D11-1	BICYCLE ROUTE	
		R5-3	NO MOTOR VEHICLES	
"NB"235+40	189.91 LT	W4-3	ADDED LANE RIGHT	
"NB"235+61	296.41 LT	D14-100	ADOPT A HIGHWAY/ LITTER CONTROL/ NEXT MILE/ WARRANT OFFICER	
"NB"235+18	80.95 LT	R10-3B	PUSH BUTTON EDUCATIONAL	MOUNTED ON SIGNAL POST NEAREST TO SIGNAL POLE
"NB"234+22	74.13 LT	D3-102	CITY LIGHTS BLVD/ JOHANSEN EXPY	MOUNTED ON SIGNAL POLE MAST ARM
"NB"234+04	11.35 LT	R4-7	KEEP RIGHT	
		OM1-1	OBJECT MARKER TYPE 1	
"NB"233+98	12.73 LT	R5-1	DO NOT ENTER	STATIONING IS APPROXIMATE
"NB"233+48	71.45 LT	R2-1	SPEED LIMIT 55	
"NB"232+42	15.58 LT	R5-1A	WRONG WAY	
"NB"232+15	75.45 LT	M1-5	ALASKA 2	
		M3-3	SOUTH	
"NB"229+64	87.64 LT	D14-100	ADOPT A HIGHWAY	
"EB"308+92	22.56 LT	D3-1	STEESE EXPY	MOUNTED ON SIGNAL POLE MAST ARM
"EB"308+70	4.81 RT	R4-7	KEEP RIGHT	
		OM1-1	OBJECT MARKER TYPE 1	
"EB"308+28	1.37 LT	R5-1	DO NOT ENTER	
"EB"306+30	90.06 LT	R5-10B	PEDESTRIANS AND BICYCLES PROHIBITED	
"EB"304+87	90.53 LT	R2-1	SPEED LIMIT 55	

REMOVAL SIGN SUMMARY

STATION	CL REF	ASDS CODE	LEGEND	REMARKS
"EB"301+10	47.44 RT	D3-201	FOX NORTH POLE	
"EB"301+92	30.54 LT	R3-108	LANE USE CONTROL OPTIONS	
"EB"305+47	49.51 RT	R3-108	LANE USE CONTROL OPTIONS	
"EB"305+70	51.14 RT	R5-1A	WRONG WAY	
"EB"305+72	26.60 LT	R5-1A	WRONG WAY	
"EB"308+20	65.35 RT	R5-1	DO NOT ENTER	
"EB"308+82	69.54 RT	R10-3B	PUSH BUTTON EDUCATIONAL	MOUNTED ON SIGNAL POST NEAREST TO SIGNAL POLE
"EB"308+84	77.80 RT	D11-1	BICYCLE ROUTE	
		R5-3	NO MOTOR VEHICLES	
"EB"310+51	72.40 RT	D3-1	STEESE EXPY	MOUNTED ON SIGNAL POLE MAST ARM
"EB"311+40	18.03 RT	W16-5PR	ARROW PLAQUE	
		OM1-1	OBJECT MARKER TYPE 1	
"EB"311+14	59.48 LT	R1-1	STOP	
"EB"310+85	22.69 LT	OM1-1	OBJECT MARKER TYPE 1	
"EB"310+74	6.71 RT	OM1-1	OBJECT MARKER TYPE 1	
"EB"310+54	8.64 RT	R10-6	STOP HERE ON RED	
		OM1-1	OBJECT MARKER TYPE 1	
"EB"310+48	1.31 LT	R10-3B	PUSH BUTTON EDUCATIONAL	STATIONING IS APPROXIMATE
"NB"242+57	134.11 RT	R2-1	SPEED LIMIT 30	
"NB"236+95	85.72 RT	W3-3	SIGNAL AHEAD	
"EB"310+88	22.69 LT	OM1-1	OBJECT MARKER TYPE 1	

NOTES:

1. SIGNS INCLUDED IN THE REMOVAL SIGN SUMMARY ARE THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE. REMOVAL SIGN SUMMARY IS SUBSIDIARY TO STANDARD SIGN 615.0001.0000.

REMOVAL SIGN SUMMARY

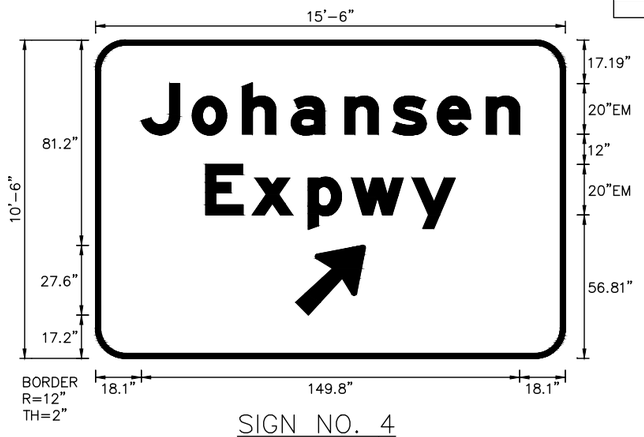
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H30	H80

SIGN NO. 1 & NO. 28

CUSTOM

BORDER AND LEGEND: WHITE
BACKGROUND: GREEN



SIGN NO. 4

CUSTOM

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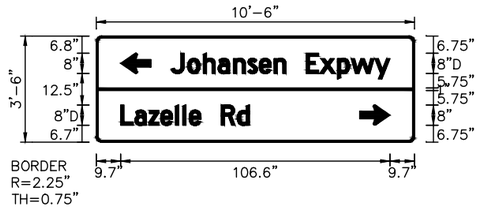
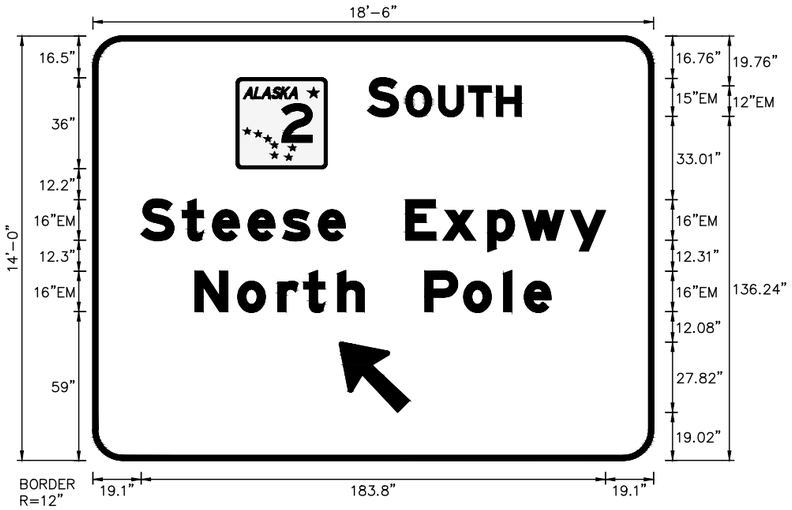
BACKGROUND: GREEN



SIGN NO. 9

D3–201

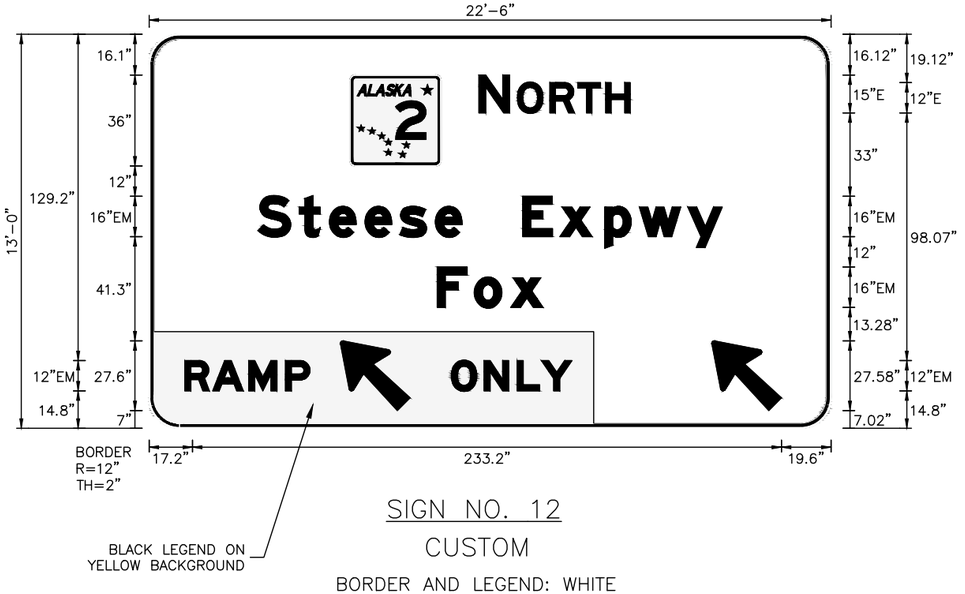
BORDER AND LEGEND: WHITE
BACKGROUND: GREEN



SIGN NO. 11

CUSTOM

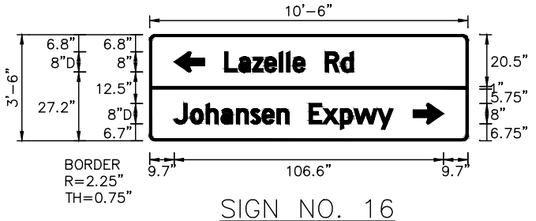
BORDER AND LEGEND: WHITE
BACKGROUND: GREEN



SIGN NO. 12

CUSTOM

BORDER AND LEGEND: WHITE
BACKGROUND: GREEN



SIGN NO. 16

D3–201

BORDER AND LEGEND: WHITE
BACKGROUND: GREEN

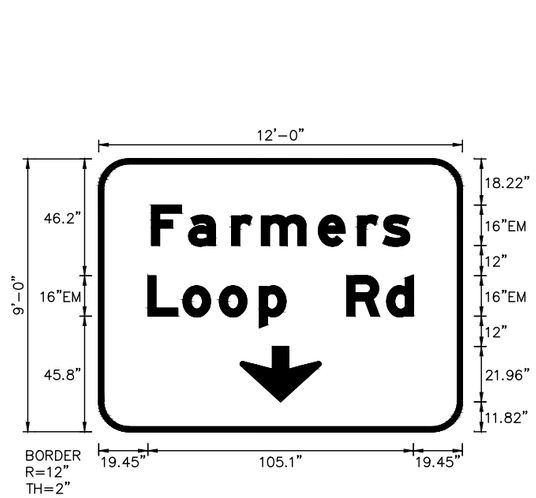
CUSTOM SIGN DETAIL
1 OF 3

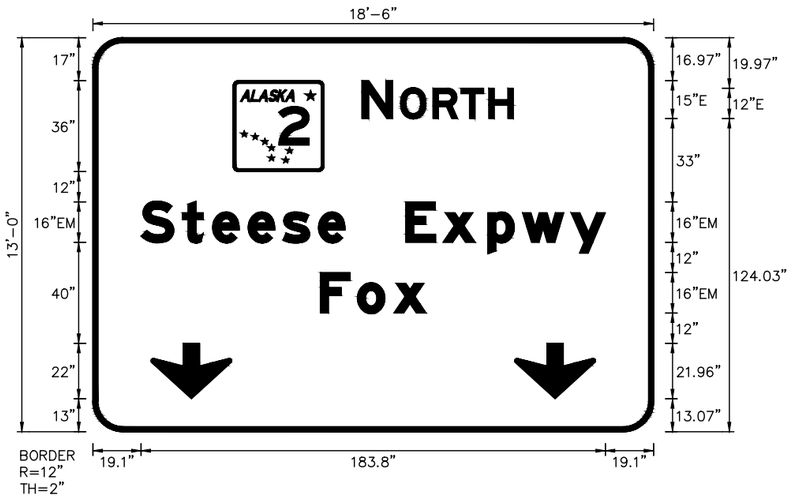
STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_H_SIGN-STRIPE_06-H30 Thu, Jun/01/23 02:17PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H31	H80

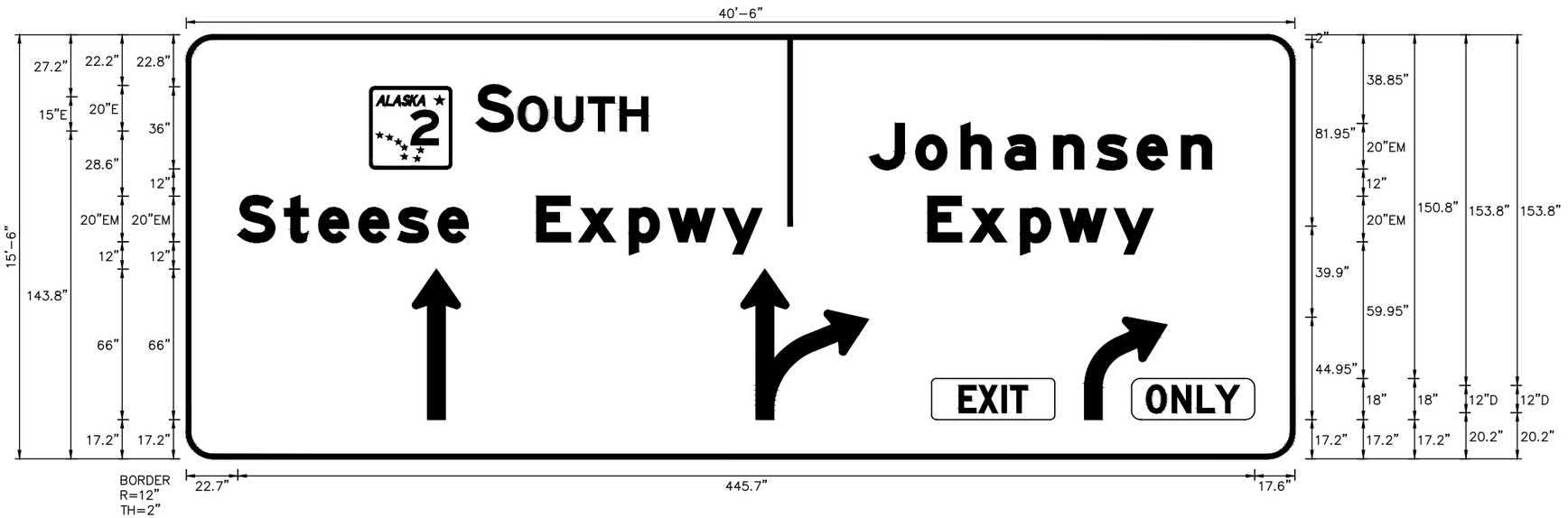




SIGN NO. 22

CUSTOM

BORDER AND LEGEND: WHITE
BACKGROUND: GREEN



SIGN NO. 24

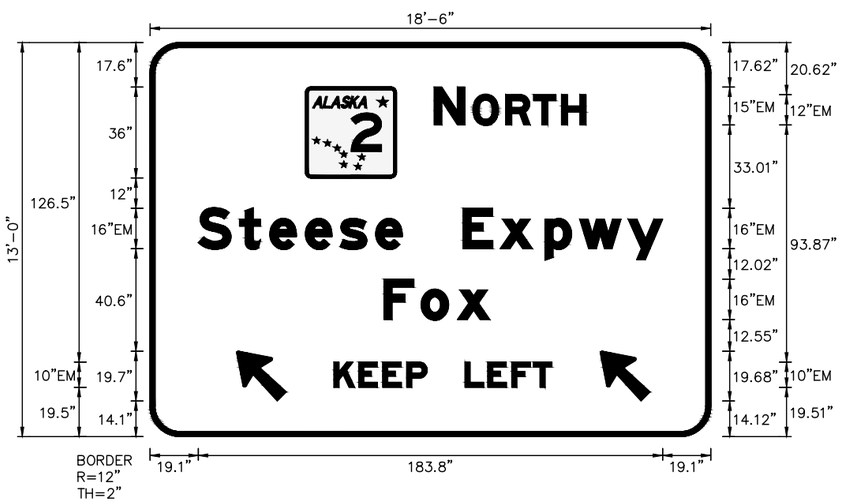
CUSTOM

BORDER AND LEGEND: WHITE
BACKGROUND: GREEN

CUSTOM SIGN DETAIL
2 OF 3

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H32	H80



SIGN NO. 52

CUSTOM

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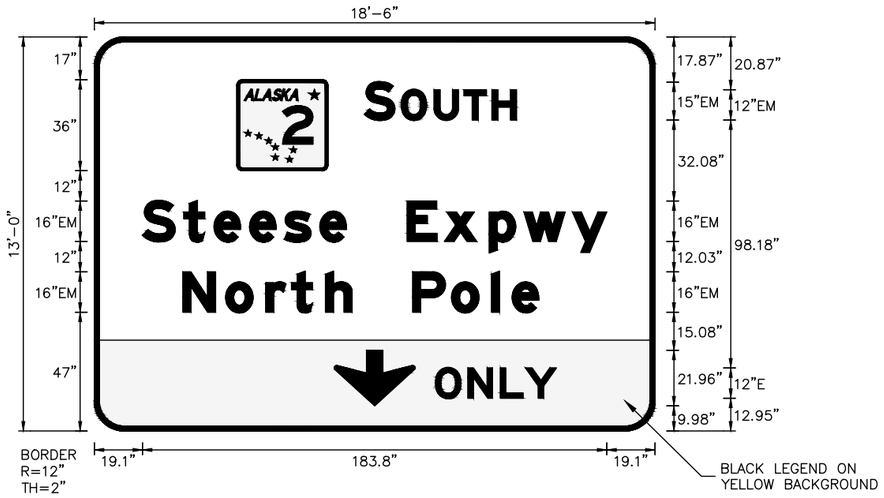
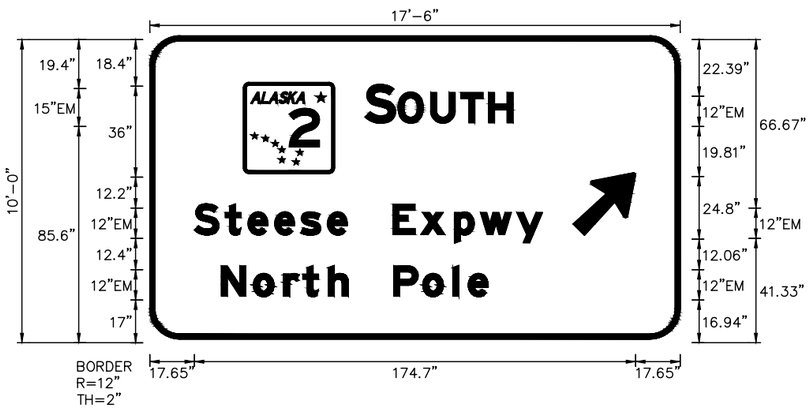
BACKGROUND: GREEN





SIGN NO. 56

CUSTOM

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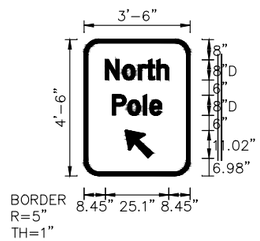
BACKGROUND: GREEN



SIGN NO. 84

CUSTOM

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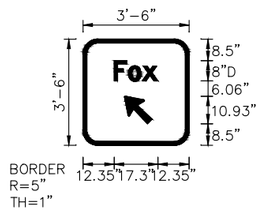
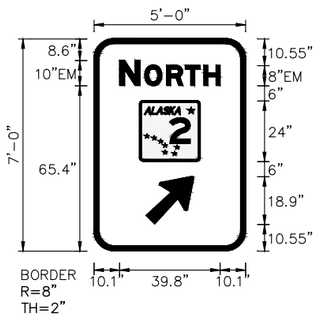
BACKGROUND: GREEN



SIGN NO. 88

CUSTOM

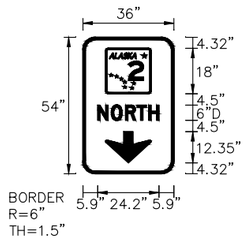
BORDER AND LEGEND: WHITE
BACKGROUND: GREEN



SIGN NO. 113

CUSTOM

BORDER AND LEGEND: WHITE
BACKGROUND: GREEN



CUSTOM SIGN ON
SIGNAL POLE #3
MAST ARM

BORDER AND LEGEND: WHITE
BACKGROUND: GREEN

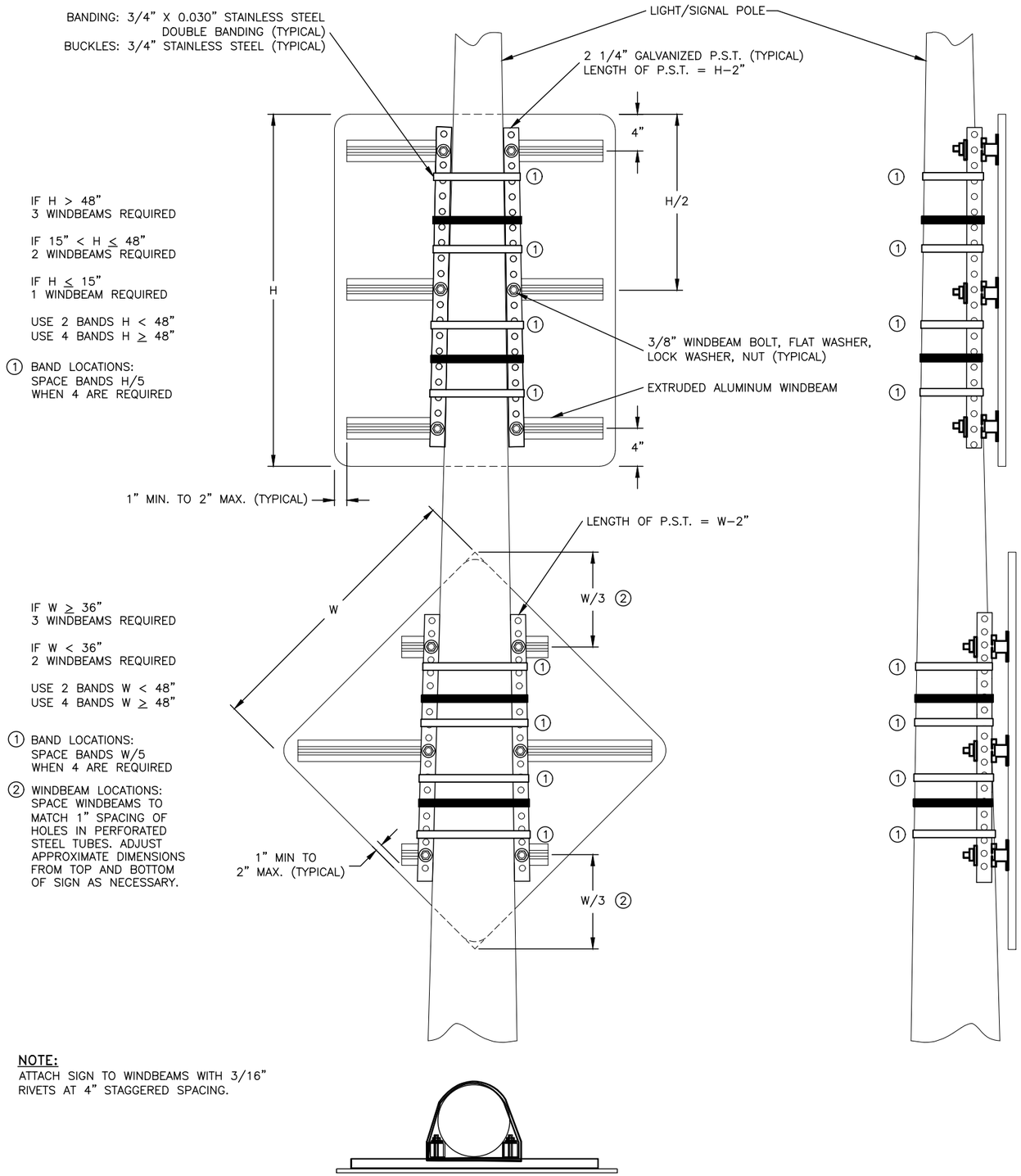
CUSTOM SIGN DETAIL
3 OF 3

STATE OF ALASKA
49TH
REGISTERED PROFESSIONAL ENGINEER

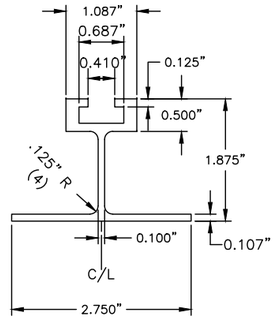
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H33	H80

LIGHT/SIGNAL POLE SIGN FRAMING & MOUNTING DETAILS



NOTE:
ATTACH SIGN TO WINDBEAMS WITH 3/16" RIVETS AT 4" STAGGERED SPACING.



EXTRUDED ALUMINUM WINDBEAM

NOTES:

1. ALUMINUM ALLOY 6061-T6 SHALL BE USED FOR EXTRUDED WINDBEAM AND RIVETS.
2. ATTACH SIGNS TO WINDBEAM WITH 3/16" RIVETS AT 4" STAGGERED SPACING.

FASTENER SPECIFICATION TABLE

FASTENERS	STEEL	STAINLESS STEEL
BOLTS	ASTM A 307	ASTM F 593
NUTS	ASTM A 563	ASTM F 594
WASHERS	ASTM F 844	ASTM A 480

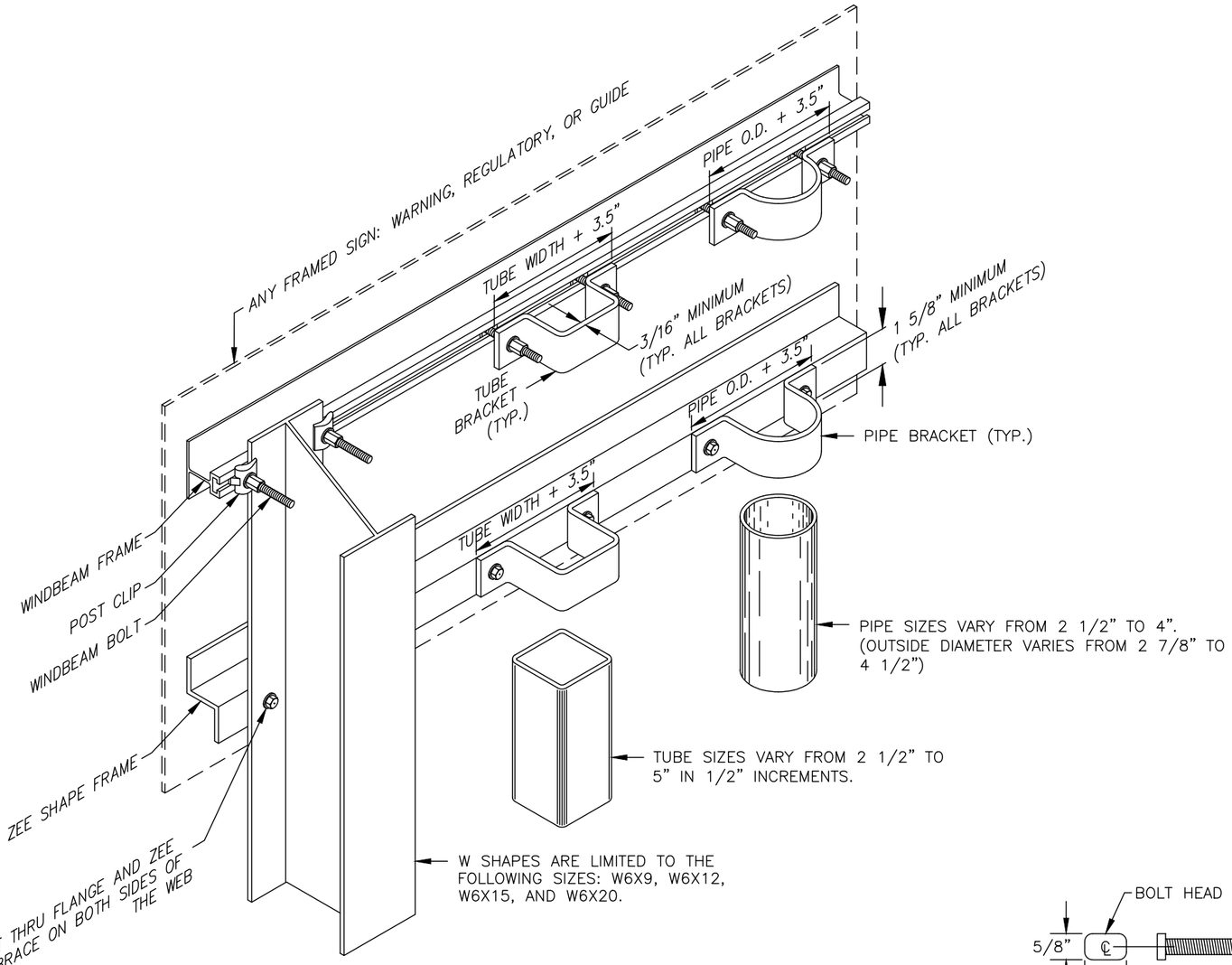
THESE SPECIFICATIONS APPLY TO ALL SIGN FASTENER HARDWARE ON THE PROJECT.

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

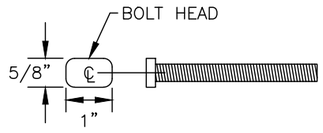
SIGN DETAILS
1 OF 3

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H34	H80

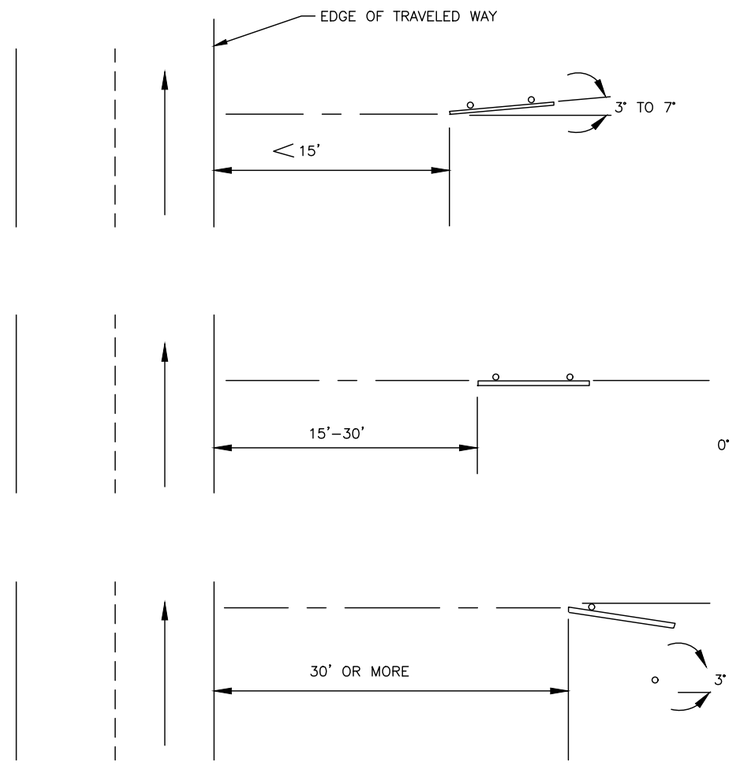


FRAMED SIGN ATTACHMENT BRACKETS



3/8" WINDBEAM BOLT

SIGN INSTALLATION ANGLES



NOTES:

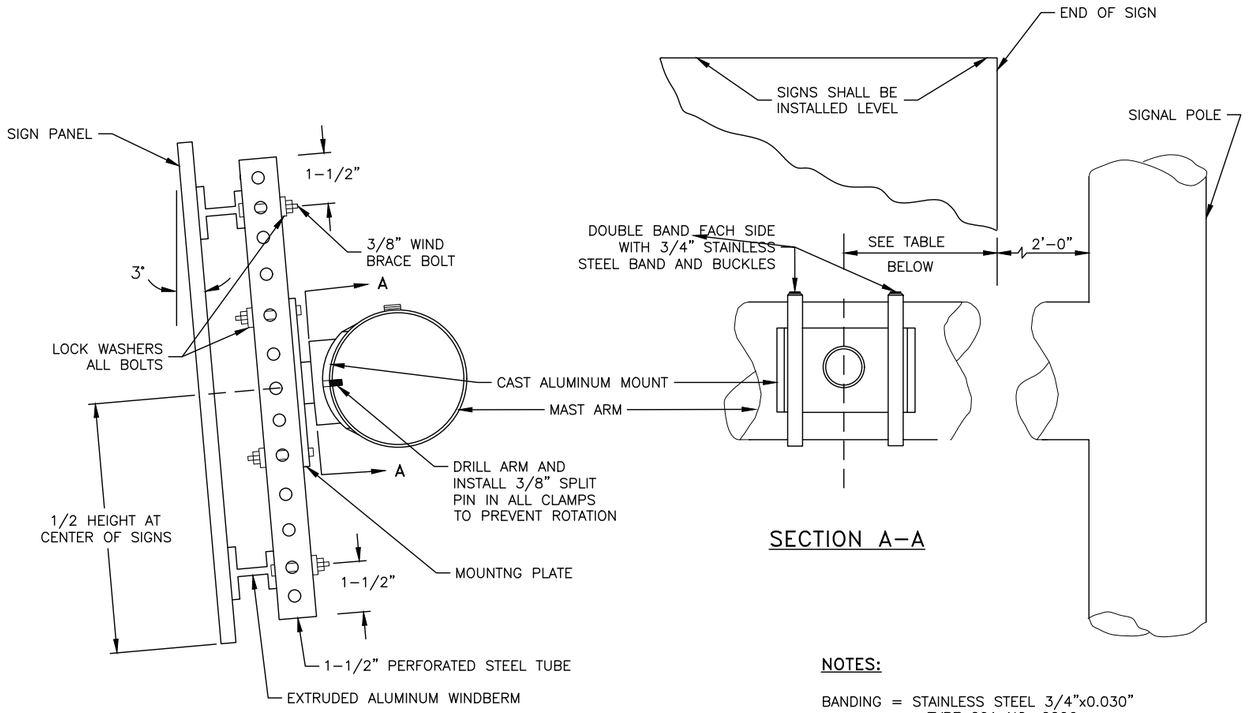
1. ATTACH FRAMED SIGNS TO POSTS WHEREVER THE FRAMES CROSS THE POSTS. AT EACH CROSSING, ATTACH THE SIGN USING TWO POST CLIPS ON W–SHAPE POSTS, A U–SHAPED BRACKET ON PIPES OR A BRACKET WITH SQUARE CORNERS ON TUBES.
2. THE TUBE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.
3. THE BRACKET DETAILS SHOWN INDICATE GENERAL DESIGNS ONLY. DESIGNS MAY VARY BY MANUFACTURER.
4. ALUMINUM ALLOY 6061–T6 SHALL BE USED FOR ZEE SHAPE FRAMING AND RIVETS.

SIGN DETAILS
2 OF 3

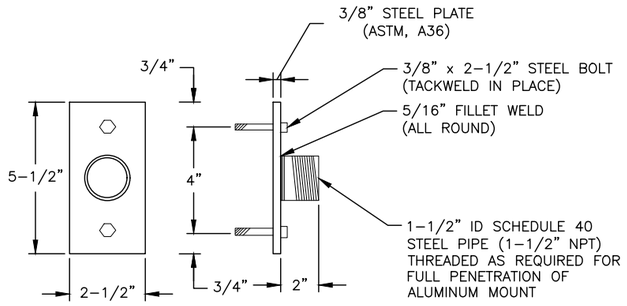
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H35	H80

SIGNAL MAST ARM MOUNTED SIGNS (NOT FOR "R" SERIES SIGNS)



SECTION A-A



MOUNTING PLATE DETAIL

NOTES:

1. CAST ALUMINUM MOUNTS AND BANDING MATERIALS SHALL BE "BAND-IT" OR APPROVED EQUAL.
2. MOUNTING PLATE SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.
3. ALL WELDING SHALL MEET AMERICAN WELDING SOCIETY SPECS.
4. BOLTS, NUTS AND WASHERS SHALL MEET THE REQUIREMENTS OF STANDARD PLAN S-20.

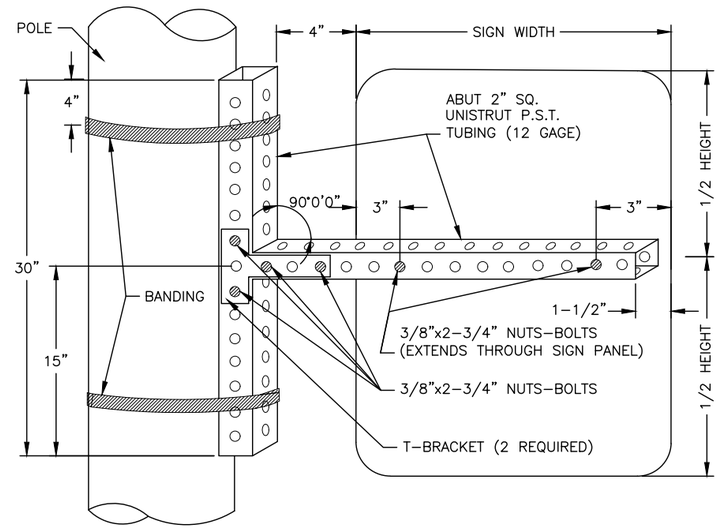
NOTES:

BANDING = STAINLESS STEEL 3/4"x0.030" TYPE 201 NO. C206
BUCKLES = STAINLESS STEEL 3/4" TYPE 201 NO. C256
ALUMINUM MOUNT (SIGNAL) = 1-1/2"NPT NO. D040
PIN = NO. D042

SIGNAL MAST ARM CLAMPS

SIGN WIDTH (W)	NO. OF CLAMPS	CLAMP SPACING		
		OVERHANG	BETWEEN CLAMPS	OVERHANG
0-12½'	2	.02 W	1 SPACE AT 0.6 W	.02 W
13' TO 21'	3	0.15 W	2 SPACES AT 0.35 W	0.15 W

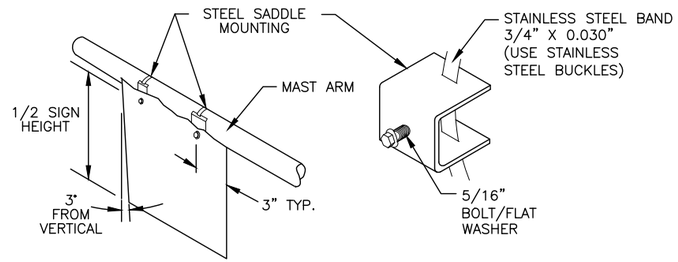
POLE /POST SIDE MOUNTED SIGN BRACKET



NOTES:

ALL NUTS SHALL BE INSTALLED WITH LOCK WASHERS
BANDING = STAINLESS STEEL 3/4"x0.030" (DOUBLE BANDING REQUIRED)
BUCKLES = STAINLESS STEEL 3/4"

MAST ARM MOUNTING FOR "R" SERIES SIGNS



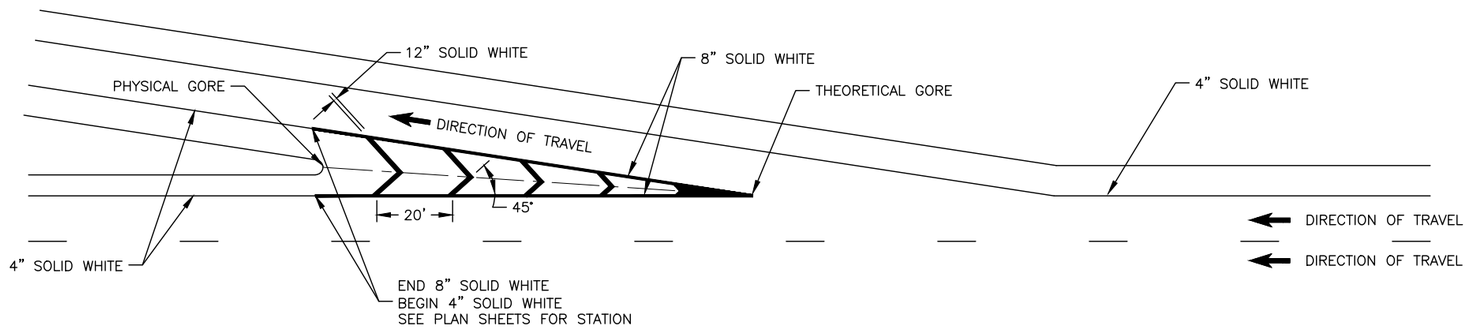
FIELD DRILL SIGNS FOR LEVEL INSTALLATION

ALL HARDWARE THAT IS NOT STAINLESS STEEL SHALL BE GALVANIZED STEEL.

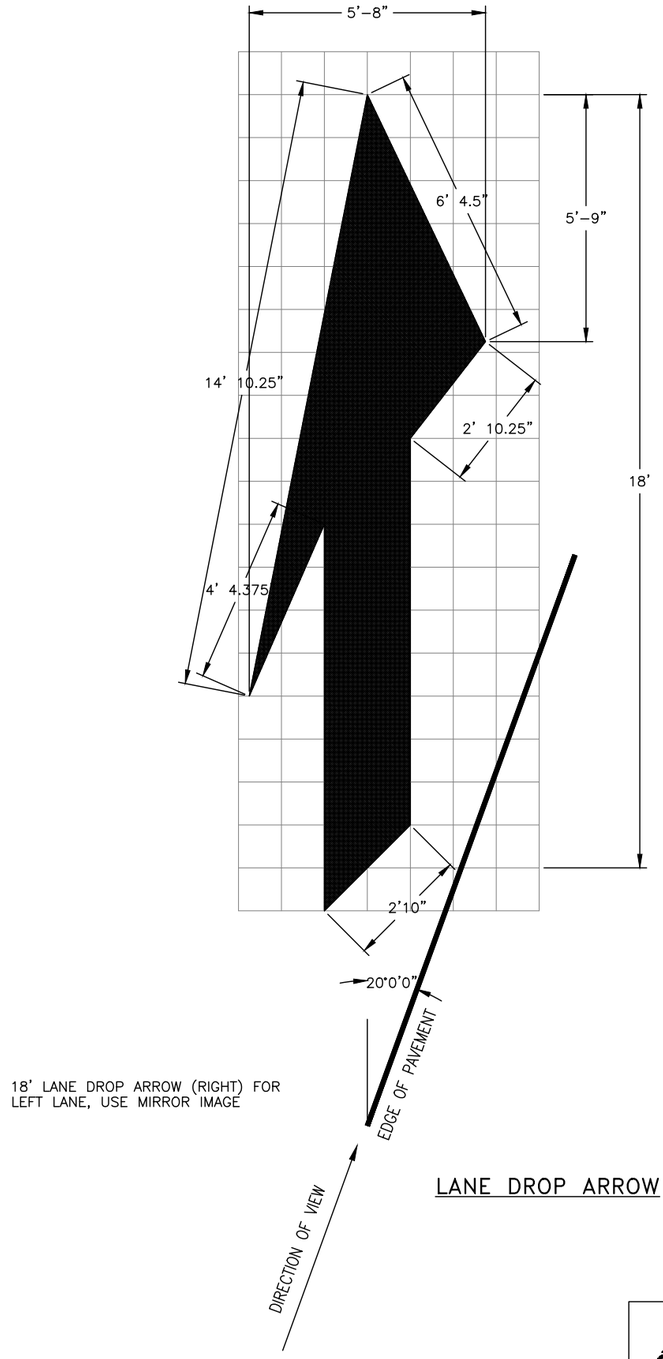
SIGN DETAILS
3 OF 3

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H36	H80



GORE STRIPING DETAIL



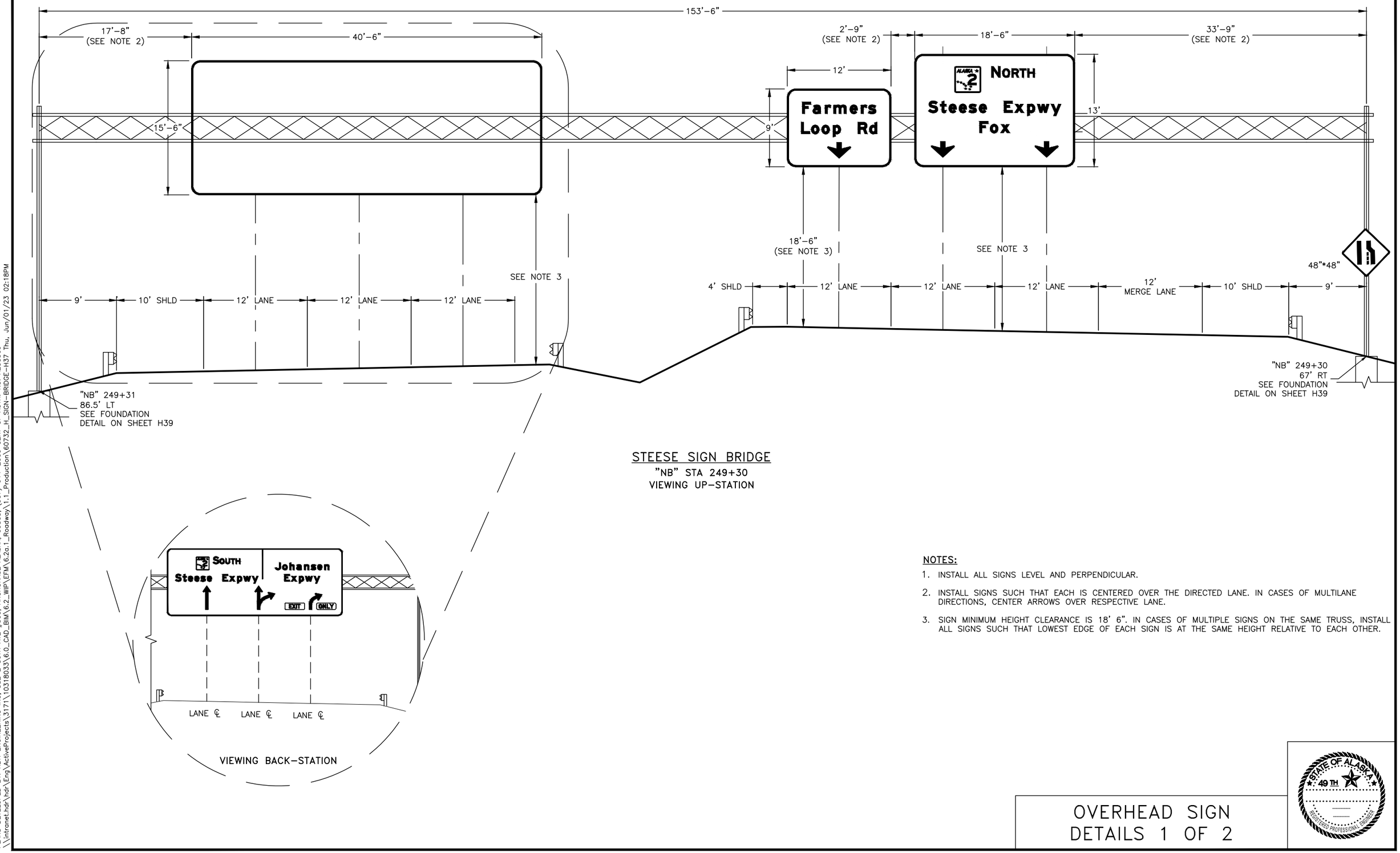
18' LANE DROP ARROW (RIGHT) FOR LEFT LANE, USE MIRROR IMAGE

LANE DROP ARROW

STRIPING DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H37	H80



STEESE SIGN BRIDGE

"NB" STA 249+30
VIEWING UP–STATION

NOTES:

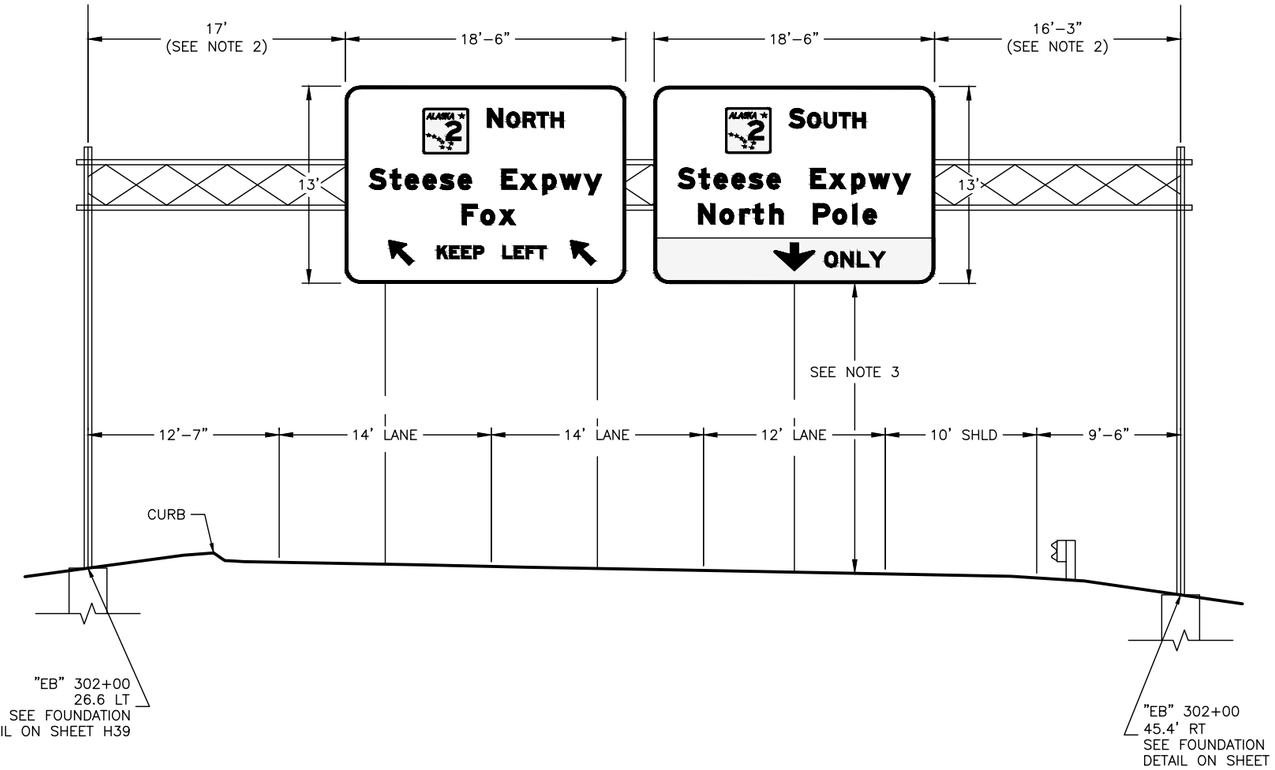
1. INSTALL ALL SIGNS LEVEL AND PERPENDICULAR.
2. INSTALL SIGNS SUCH THAT EACH IS CENTERED OVER THE DIRECTED LANE. IN CASES OF MULTILANE DIRECTIONS, CENTER ARROWS OVER RESPECTIVE LANE.
3. SIGN MINIMUM HEIGHT CLEARANCE IS 18' 6". IN CASES OF MULTIPLE SIGNS ON THE SAME TRUSS, INSTALL ALL SIGNS SUCH THAT LOWEST EDGE OF EACH SIGN IS AT THE SAME HEIGHT RELATIVE TO EACH OTHER.

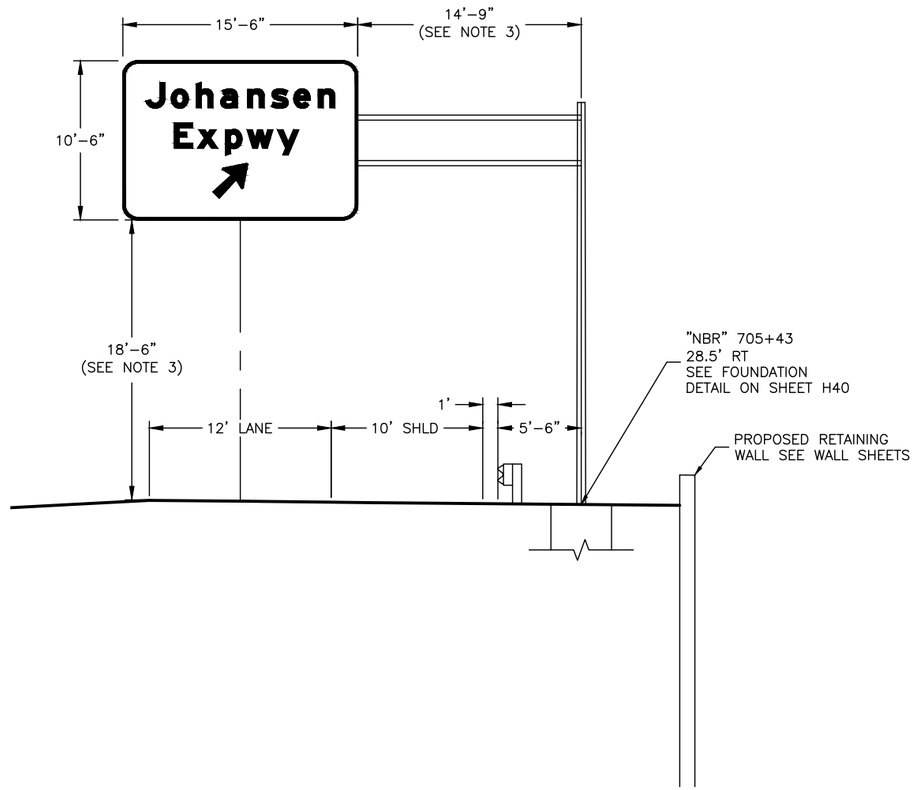
OVERHEAD SIGN DETAILS 1 OF 2

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H38	H80





JOHANSON SIGN BRIDGE

"EB" STA 302+00
VIEWING UP-STATION

NORTHBOUND RAMP CANTILEVER

"NBR" STA 705+38
VIEWING UP-STATION

NOTES:

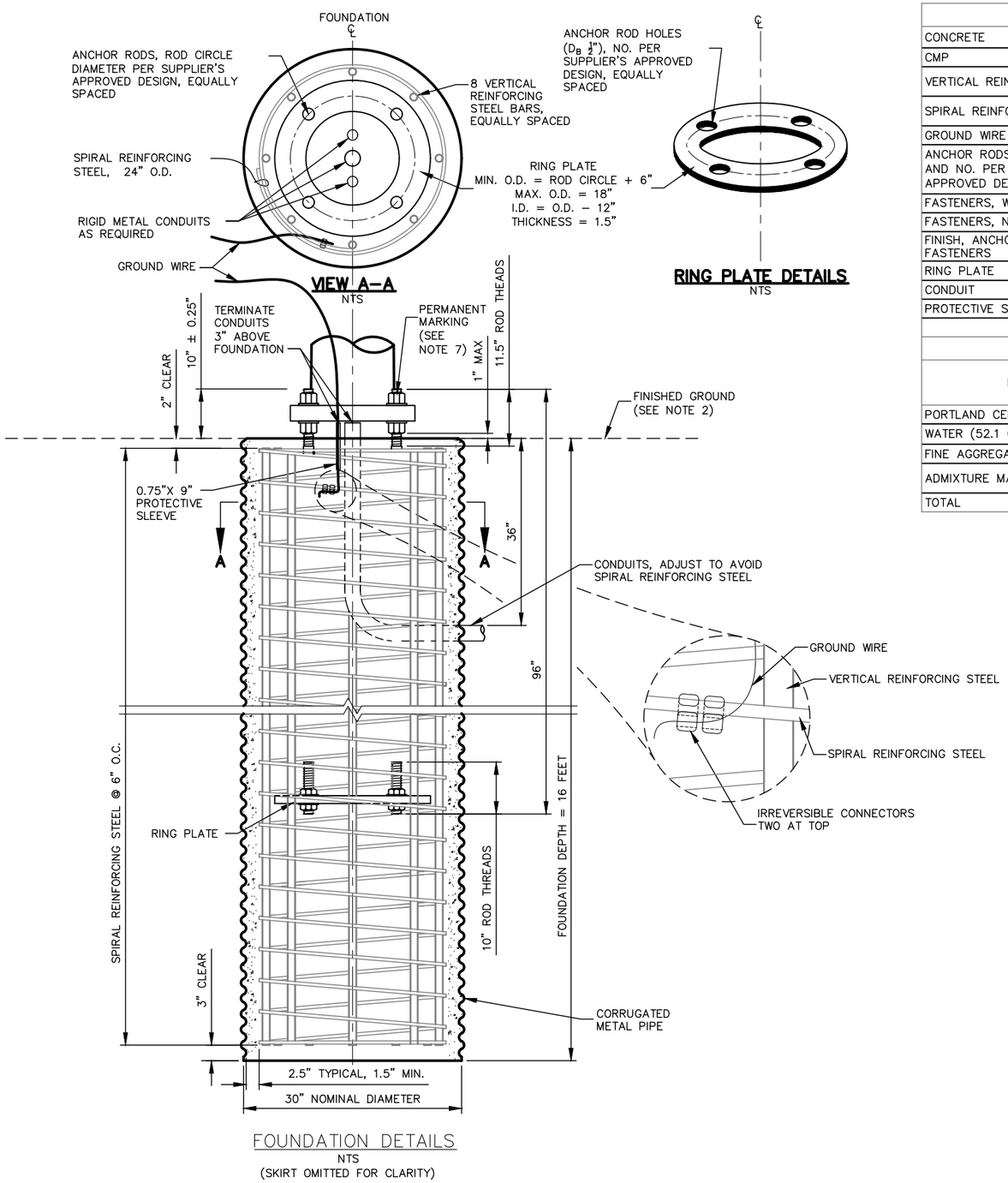
1. INSTALL ALL SIGNS LEVEL AND PERPENDICULAR.
2. INSTALL SIGNS SUCH THAT EACH IS CENTERED OVER THE DIRECTED LANE. IN CASES OF MULTILANE DIRECTIONS, CENTER ARROWS OVER RESPECTIVE LANE.
3. SIGN MINIMUM HEIGHT CLEARANCE IS 18' 6". IN CASES OF MULTIPLE SIGNS ON THE SAME TRUSS, INSTALL ALL SIGNS SUCH THAT LOWEST EDGE OF EACH SIGN IS AT THE SAME HEIGHT RELATIVE TO EACH OTHER.

OVERHEAD SIGN DETAILS 2 OF 2

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H39	H80



MATERIAL REQUIREMENTS		
CONCRETE	CLASS A	F'C = 4000 PSI
CMP	AASHTO M218	14 GA.
VERTICAL REINFORCING STEEL	AASHTO M31 #11	GR 60
SPIRAL REINFORCING STEEL	AASHTO M31 #5	GR 60
GROUND WIRE		#4 AWG
ANCHOR RODS (SIZE, LENGTH, AND NO. PER SUPPLIER'S APPROVED DESIGN)	ASTM F1554 S2, S3, & S5	GR 105
FASTENERS, WASHERS	ASTM F436	
FASTENERS, NUTS	AASHTO M292M	
FINISH, ANCHOR RODS & FASTENERS	AASHTO M232	
RING PLATE	AASHTO M270	GR 36
CONDUIT	SCH 40	RMC
PROTECTIVE SLEEVE	SCH 40	PVC

SAND SLURRY MIX DESIGN		
ITEM	BATCHING QUANTITIES PER CY BATCH (LBS.)	APPLICABLE SPECS.
PORTLAND CEMENT	188	701−2.01
WATER (52.1 GAL.)	435	712−2.01
FINE AGGREGATE SSD	3041	703−2.01
ADMIXTURE MASTERAIR AE 200	2.0 OZ.	711−2.02
TOTAL	3664	

DESIGN NOTES:

DESIGN STANDARD: 2013 STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS WITH 2013 ERRATA AND 2015 INTERIM REVISION.

DESIGN LOAD (PER UPRIGHT): SEE DETAIL.

SPECIFICATIONS: LATEST EDITION OF THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION WITH SPECIAL PROVISIONS.

NOTES:

1. SUPPLIER OF THE SIGN STRUCTURE SHALL VERIFY THAT THE BASE REACTIONS FOR THE PROPOSED STRUCTURE ARE LESS THAN THE VALUES LISTED UNDER 'DESIGN LOAD'.
2. CONCRETE INSIDE THE CORRUGATED METAL PIPE SHALL BE PLACED IN THE DRY. GROUNDWATER MAY BE ENCOUNTERED WHEN DRILLING/EXCAVATING FOR THE FOUNDATIONS.
3. PLACE FOUNDATION IN DRILLED OR EXCAVATED HOLE WITH CENTERLINE OF FOUNDATION LOCATED AT THE STATION, OFFSET, AND ELEVATION SPECIFIED IN PLANS. SET FOUNDATION FLUSH WITH SURROUNDING SURFACE. GRADE TO DRAIN AWAY FROM FOUNDATION WITHOUT EXPOSING MORE THAN 4" OF THE FOUNDATION FROM THE SURROUNDING GROUND SURFACE.
4. FORM THE FOUNDATION IN CORRUGATED METAL PIPE CONFORMING TO SUBSECTION 707−2.01 OF THE SPECIFICATIONS.
5. PROVIDE 1.5 EXTRA TURNS AT EACH END OF THE SPIRAL REINFORCING STEEL. REINFORCING STEEL SHALL NOT BE SPLICED. TIE VERTICAL REINFORCING STEEL TO EACH INTERSECTION OF THE SPIRAL REINFORCING STEEL.
6. CONNECT GROUND WIRE NEAR THE TOP SPIRAL REINFORCING STEEL WITH TWO IRREVERSIBLE CONNECTORS AS SHOWN. FASTEN CONNECTORS ACCORDING TO THE MANUFACTURERS' RECOMMENDATIONS INCLUDING THE USE OF MANUFACTURER SPECIFIED TOOLS. THE GROUND WIRE MAY BE BARE SOLID, STRANDED, OR BRAIDED COPPER. PROTECT GROUND WIRE WITH PROTECTIVE SLEEVE AS SHOWN AND FILL WITH SILICON SEALANT.
7. THE RING PLATE MAY BE "BUILT UP" OF MULTIPLE STEEL PLATES. THE MINIMUM THICKNESS FOR ANY ONE PLATE IS 0.5 INCHES. FASTEN THE RING PLATE TO ANCHOR RODS WITH NUTS AND WASHERS ON BOTH SIDES OF RING PLATE AS SHOWN. TORQUE RING PLATE NUTS TO 600 FT−LBS.
8. ANCHOR RODS ARE SUBJECT TO CHARPY V−NOTCH IMPACT TESTING. SUBMIT MILL CERTIFICATIONS FOR ANCHOR RODS, NUTS AND WASHERS. GALVANIZE ANCHOR RODS FULL LENGTH. PROVIDE PERMANENT MANUFACTURER'S IDENTIFICATION AND PERMANENT GRADE IDENTIFICATION ON EACH END OF ANCHOR ROD BY STEEL DIE STAMP. SECURE EXPOSED ANCHOR RODS WITH A "RING PLATE" WHEN NOT IN SERVICE. INSTALL ANCHOR RODS PLUMB. ANCHOR RODS GREATER THAN 1:40 OUT−OF−PLUMB WILL RESULT IN FOUNDATION REJECTION.
9. COMPLETE ALL CONCRETE WORK IN CONFORMANCE WITH SECTIONS 501, 503, AND 660 OF THE SPECIFICATIONS. USE A TREMIE, TUBE OR OTHER APPROVED DEVICE PER SUBSECTION 501−3.05. VIBRATE CONCRETE DURING PLACEMENT BY MECHANICAL VIBRATION PER SUBSECTION 501−3.06. ENSURE UPPER ANCHOR ROD THREADS ARE PROTECTED FROM CONTACT WITH CONCRETE DURING POUR.
10. BACKFILL AND COMPACT ACCORDING TO SECTION 204, AND SUBSECTIONS 203−3.04 AND 660−3.01 OF THE SPECIFICATIONS. USE SELECT MATERIAL, TYPE A OR SAND SLURRY AS BACKFILL MATERIAL. ENSURE AREA BELOW FOUNDATION MEETS COMPACTION REQUIREMENTS AND IS FREE OF LOOSE MATERIAL AND DEBRIS PRIOR TO CONCRETE WORK.

FINAL DESIGN PENDING GEOTECHNICAL RECOMMENDATIONS

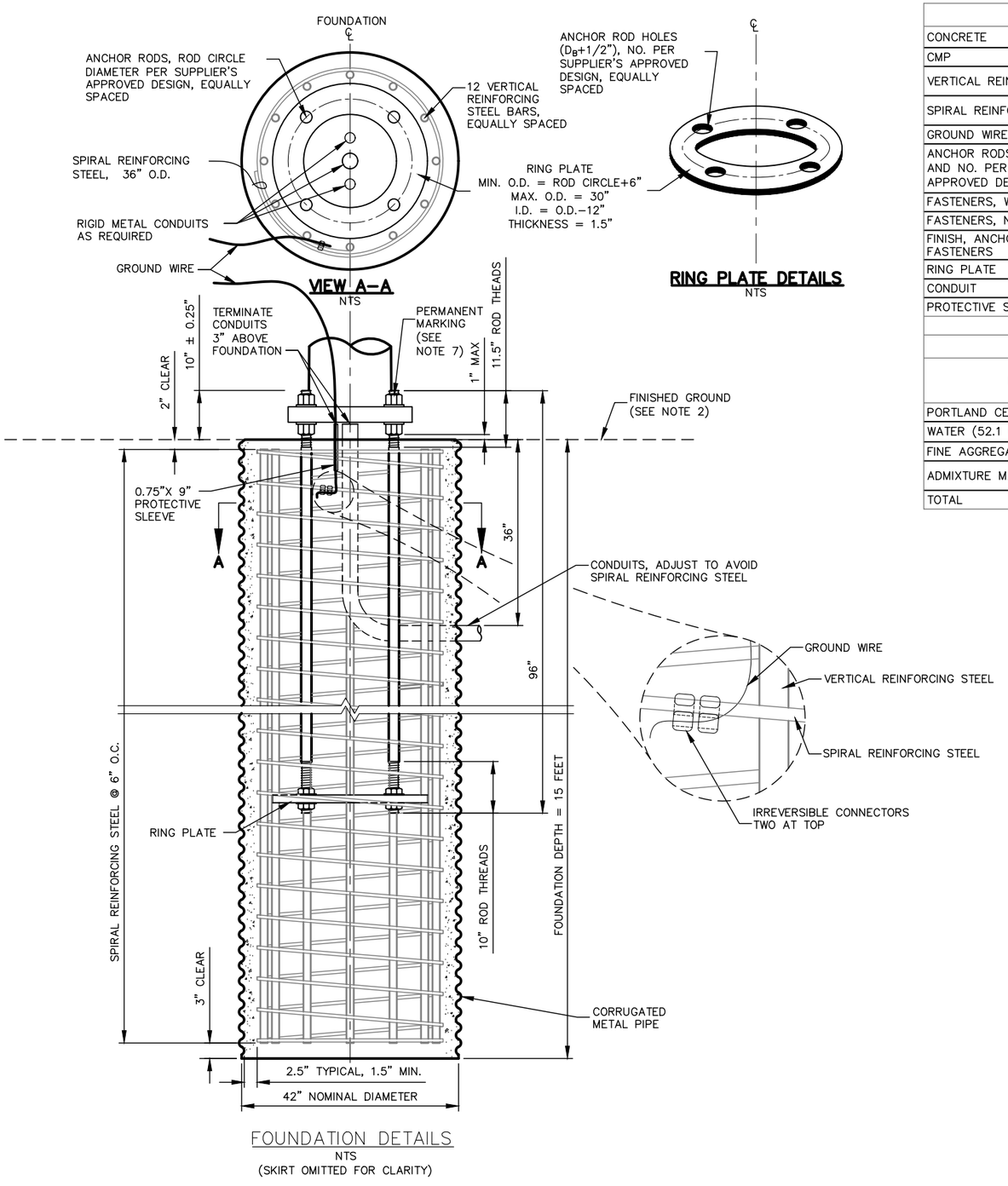
OVERHEAD SIGN FOUNDATION DETAILS

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644−2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_H_SIGN−BRIDGE−H39 Thu, Jun/01/23 02:18PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H40	H80



FOUNDATION DETAILS
NTS
(SKIRT OMITTED FOR CLARITY)

MATERIAL REQUIREMENTS		
CONCRETE	CLASS A	F'C = 4000 PSI
CMP	AASHTO M218	14 GA.
VERTICAL REINFORCING STEEL	AASHTO M31 #11	GR 60
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FINAL DESIGN PENDING GEOTECHNICAL RECOMMENDATIONS

OVERHEAD SIGN
FOUNDATION DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H41	H80

660.0003.0000 LIGHT POLE SUMMARY

POLE NO.	STATION	LOCATION		LUMINAIRE TYPE	CIRCUIT	LUMNAIRE ARM LENGTH(FT)	MOUNTING HEIGHT(FT)	FOUNDATION TYPE	REMARKS
		LT	RT						
40	"NB"229+66.5	56.17		A	CA10/12	15	45	SEE NOTE 3	
41	"NB"229+73.7		46.49	A	CA5/7	22	45	SEE NOTE 3	
42	"NB"232+22.6	49.33		A	CA10/12	15	45	SEE NOTE 3	
43	"NB"232+20.2		46.49	A	CA5/7	22	45	SEE NOTE 3	
44	"EB"309+31.4		27.31	A	CA10/12	22	45	SEE NOTE 3	BRIDGE MOUNT
45	"EB"310+11.7		32.67	A	CA5/7	22	45	SEE NOTE 3	BRIDGE MOUNT
46	"NB"237+22.7	57.02		A	CA10/12	22	45	SEE NOTE 3	
47	"NB"237+21.5		39.21	A	CA5/7	15	45	SEE NOTE 3	
48	"NB"239+70.9	61.26		A	CA10/12	22	45	SEE NOTE 3	
49	"NB"239+72.5		39.00	A	CA5/7	15	45	SEE NOTE 3	
50	"NB"242+20.3	65.62		A	CA10/12	22	45	SEE NOTE 3	
51	"NB"242+21.2		46.50	A	CA5/7	22	45	SEE NOTE 3	
52A/B	"NB"245+91.0	12.82		A	CA10/12	15	45	SEE NOTE 3	
53	"NB"244+48.7		90.54	A	CA5/7	22	45	SEE NOTE 3	
54	"NB"244+52.1	119.26		A	CA10/12	22	45	SEE NOTE 3	
55	"NB"247+82.4		72.10	A	CA5/7	22	45	SEE NOTE 3	
56	"NB"247+84.1	98.94		A	CA10/12	22	45	SEE NOTE 3	
57	"NB"249+55.0		70.50	A	CA5/7	22	45	SEE NOTE 3	
58	"NB"250+42.1	91.97		A	CA10/12	22	45	SEE NOTE 3	
59	"NB"251+25.0		70.50	A	CA1/3	22	45	SEE NOTE 3	
60	"NB"252+94.8		70.50	A	CA1/3	22	45	SEE NOTE 3	
61	"NB"254+65.0		70.50	A	CA1/3	22	45	SEE NOTE 3	
62	"NB"256+38.5		70.50	A	CA1/3	22	45	SEE NOTE 3	
63	"NB"258+11.8		70.50	A	CA1/3	22	45	SEE NOTE 3	
64	"NB"259+85.1		70.50	A	CA1/3	22	45	SEE NOTE 3	
65	"NB"261+58.8		67.62	A	CA1/3	22	45	SEE NOTE 3	
66	"NB"263+62.5		63.91	A	CA1/3	22	45	SEE NOTE 3	
67	"NB"265+65.7		60.21	A	CA1/3	22	45	SEE NOTE 3	
68	"NB"267+68.2		58.50	A	CA1/3	22	45	SEE NOTE 3	
69	"NB"269+69.6		62.08	A	CA1/3	22	45	SEE NOTE 3	
70	"NB"271+71.3		70.63	A	UA10	22	45	SEE NOTE 3	
71	"NB"273+70.5		70.50	A	UA10	22	45	SEE NOTE 3	
72	"NB"252+33.3	95.27		A	CA6/8	22	45	SEE NOTE 3	
73	"NB"254+58.9	96.67		A	CA6/8	22	45	SEE NOTE 3	
74	"NB"256+76.3	99.94		A	CA6/8	22	45	SEE NOTE 3	
75	"NB"258+94.6	95.54		A	CA6/8	22	45	SEE NOTE 3	
76	"NB"261+12.8	91.21		A	CA6/8	22	45	SEE NOTE 3	
77	"NB"263+30.0	91.33		A	CA6/8	22	45	SEE NOTE 3	
78	"NB"265+48.2	89.90		A	CA6/8	22	45	SEE NOTE 3	
79	"NB"267+66.9	87.58		A	CA6/8	22	45	SEE NOTE 3	
80	"NB"269+85.5	84.50		A	CA6/8	22	45	SEE NOTE 3	
81	"NB"271+71.2	84.50		A	UA10	22	45	SEE NOTE 3	
82	"NB"273+70.9	84.50		A	UA10	22	45	SEE NOTE 3	
83	"NB"274+87.6	90.98		A	UA10	15	40	SEE NOTE 3	SIGNAL POLE
84	"EB"302+91.8		44.98	B	AA5/7	22	45	SEE NOTE 3	
85	"EB"302+90.7	107.60		B	AA9/11	22	45	SEE NOTE 3	

660.0003.0000 LIGHT POLE SUMMARY

POLE NO.	STATION	LOCATION		LUMINAIRE TYPE	CIRCUIT	LUMNAIRE ARM LENGTH(FT)	MOUNTING HEIGHT(FT)	FOUNDATION TYPE	REMARKS
		LT	RT						
86	"EB"304+83.6		44.41	B	AA5/7	22	45	SEE NOTE 3	
87	"EB"304+86.0	113.93		B	AA9/11	22	45	SEE NOTE 3	
88	"EB"306+88.1	58.09 RT		B	AA5/7	22	45	SEE NOTE 3	
89	"EB"306+48.8	107.70		B	AA1/3	15	40	SEE NOTE 3	SIGNAL POLE
90	"EB"307+16.0	123.14		B	AA1/3	22	45	SEE NOTE 3	
91	"EB"307+93.9	239.57		A	AA6/8	22	45	SEE NOTE 3	
92	"NB"238+99.3	159.18		A	AA6/8	22	45	SEE NOTE 3	
93	"NB"241+11.0	140.15		A	AA6/8	22	45	SEE NOTE 3	
94	"NB"243+35	126.43		A	AA6/8	22	45	SEE NOTE 3	
95	"EB"307+77.4		126.65	B	AA10/12	22	45	SEE NOTE 3	
96	"NB"231+73.2	141.99		A	AA10/12	22	45	SEE NOTE 3	
97	"NB"229+36.0	117.09		A	AA10/12	15	45	SEE NOTE 3	
98	"NB"227+40.9	104.02		A	AA10/12	15	45	SEE NOTE 3	
99	"NB"225+33.0	99.67		A	AA10/12	22	45	SEE NOTE 3	
100	"NB"233+18.4	64.44		B	AA10/12	22	45	SEE NOTE 3	
101	"EB"309+02.8		39.45	B	AA1/3	15	40	SEE NOTE 3	
102	"EB"309+23.9	33.25		B	AA1/3	15	40	SEE NOTE 3	SIGNAL POLE
103A/B	"EB"308+19.0	46.50		B	AA1/3	15 / 15	40	SEE NOTE 3	SIGNAL POLE
104	"EB"307+39.3	65.90		B	AA1/3	15	40	SEE NOTE 3	SIGNAL POLE
105A/B	"EB"312+18.8	15.53		B	BA1/3	15 / 15	40	SEE NOTE 3	SIGNAL POLE
106A/B	"EB"310+91.6		57.52	B	BA1/3	15 / 15	40	SEE NOTE 3	SIGNAL POLE
107A/B	"EB"310+86.9	25.57		B	BA9/11	15 / 15	45	SEE NOTE 3	
108	"NB"237+08.5		135.56	A	BA9/11	22	45	SEE NOTE 3	
109	"NB"238+84.7		125.03	A	BA9/11	22	45	SEE NOTE 3	
110	"NB"241+09.1		111.30	A	BA9/11	22	45	SEE NOTE 3	
111	"NB"243+33.7		97.57	A	BA9/11	22	45	SEE NOTE 3	
112A/B	"EB"313+30.0	11.04		A	BA1/3	15 / 15	40	SEE NOTE 3	SIGNAL POLE
113A/B	"EB"314+20.2	19.05		A	BA1/3	15 / 15	45	SEE NOTE 3	
114A/B	"EB"312+26.4		70.69	A	BA5/7	15 / 15	45	SEE NOTE 3	
115	"NB"233+17.1		140.21	A	BA5/7	22	45	SEE NOTE 3	
116	"NB"229+92.6		66.81	A	BA5/7	22	45	SEE NOTE 3	
117	"NB"231+75.2		186.36	A	BA5/7	22	45	SEE NOTE 3	
118	"NB"227+61.8		53.94	A	BA5/7	15	45	SEE NOTE 3	
119	"NB"225+31.6		48.99	A	BA5/7	15	45	SEE NOTE 3	

ELECTROLIER NOTES:

1. ALL ELECTROLIERS WILL INCLUDE A MESH NODE. GATEWAY LOCATION TO BE DETERMINED.
2. SEE LUMINAIRE SCHEDULE ON H44 FOR LUMINAIRE TYPE.
3. FOUNDATION TYPES WILL BE INCLUDED PENDING BORE SAMPLE ASSESSMENT.

ILLUMINATION SUMMARY

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H42	H80

660.0003.0000 LIGHTING JUNCTION BOX SCHEDULE

LOCATION				JUNCTION BOX TYPE				REMARKS
STATION	OFFSET	JUNCTION BOX NO	CONTROLLER	IA	II	III	IV	
"NB"276+00.1	69.7 LT	21		X				
"NB"274+67.2	66.5 RT	22		X				
"NB"274+74.9	86.7 LT	25		X				
"NB"276+05.7	55.5 RT	28		X				
"NB"229+71.1	55.6 LT	40		X				
"NB"229+77.6	40.5 RT	41		X				
"NB"232+27.0	48.3 LT	42		X				
"NB"232+24.5	40.8 RT	43		X				
"NB"237+26.5	47.2 LT	46		X				
"NB"237+16.7	36.6 RT	47		X				
"NB"239+75.2	51.4 LT	48		X				
"NB"239+76.9	36.5 RT	49		X				
"NB"234+26.5	60.7 LT	50A		X				
"NB"242+25.1	57.9 LT	50B		X				
"NB"243+25.1	39.6 RT	51A		X				
"NB"242+26.1	38.6 RT	51B		X				
"NB"245+09.0	108.2 LT	52A		X				
"NB"245+05.8	12.2 LT	52B		X				
"NB"245+62.8	75.7 RT	53		X				
"NB"245+64.0	105.9 LT	54		X				
"NB"247+87.2	64.2 RT	55		X				
"NB"247+88.5	88.7 LT	56		X				
"NB"249+60.0	67.3 RT	57		X				
"NB"250+04.0	83.6 LT	58		X				
"NB"250+62.3	84.0 LT	58A		X				
"NB"250+62.1	23.0 LT	58B		X				
"NB"250+62.1	61.7 RT	58C		X				
"NB"250+33.0	80.6 RT	C0			X			
"NB"251+20.1	72.1 RT	59		X				
"NB"252+90.4	61.1 RT	60		X				
"NB"254+60.4	60.8 RT	61		X				
"NB"256+33.5	60.7 RT	62		X				
"NB"258+07.3	60.7 RT	63		X				
"NB"259+80.6	64.7 RT	64		X				
"NB"261+53.8	58.5 RT	65		X				
"NB"263+57.6	54.4 RT	66		X				
"NB"265+60.8	51.3 RT	67		X				
"NB"267+63.6	50.2 RT	68		X				
"NB"269+66.0	53.4 RT	69		X				
"NB"271+75.3	62.21 RT	70		X				
"NB"273+66.7	61.11 RT	71		X				
"NB"252+29.0	85.2 LT	72		X				
"NB"254+54.7	87.0 LT	73		X				
"NB"256+72.1	90.4 LT	74		X				
"NB"258+89.5	86.1 LT	75		X				
"NB"261+07.6	81.8 LT	76		X				
"NB"263+25.3	81.5 LT	77		X				
"NB"265+44.0	80.1 LT	78		X				
"NB"267+62.4	77.8 LT	79		X				
"NB"269+81.8	74.9 LT	80		X				
"NB"271+74.7	75.2 LT	81		X				
"NB"273+74.5	75.2 LT	82		X				

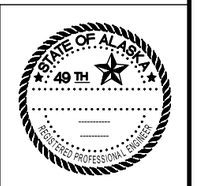
660.0003.0000 LIGHTING JUNCTION BOX SCHEDULE

LOCATION				JUNCTION BOX TYPE				REMARKS
STATION	OFFSET	JUNCTION BOX NO	CONTROLLER	IA	II	III	IV	
"EB"302+84.8	36.8 RT	84		X				
"EB"302+97.6	99.9 LT	85		X				
"EB"304+79.1	38.6 RT	86		X				
"EB"304+93.0	114.0 LT	87		X				
"EB"306+86.0	48.4 RT	88		X				
"EB"306+52.2	113.5 LT	89		X				
"EB"307+24.9	127.8 LT	90		X				
"NB"237+21.2	195.0 LT	91		X				
"NB"238+93.8	152.1 LT	92		X				
"NB"241+05.8	132.8 LT	93		X				
"NB"243+29.9	116.8 LT	94		X				
"NB"233+68.9	177.1 LT	95		X				
"NB"231+78.0	127.7 LT	96		X				
"NB"229+39.8	114.8 LT	97		X				
"NB"227+45.6	102.3 LT	98		X				
"NB"225+36.9	91.3 LT	99		X				
"EB"308+90.7	174.8 RT	100		X				
"EB"308+82.1	37.8 RT	101		X				
"EB"307+94.2	65.1 RT	101A		X				
"EB"309+16.0	38.9 RT	102		X				
"EB"308+26.7	53.4 LT	103		X				
"EB"307+54.2	65.3 LT	104		X				
"EB"312+25.2	19.3 LT	105		X				
"EB"310+87.5	42.5 RT	106		X				
"EB"310+91.6	26.8 RT	107		X				
"EB"311+18.1	80.3 LT	107A		X				
"NB"237+12.9	127.4 RT	108		X				
"NB"238+88.7	116.8 RT	109		X				
"NB"241+13.1	103.1 RT	110		X				
"NB"243+27.2	96.7 RT	111		X				
"EB"313+49.4	12.4 LT	112		X				
"EB"314+15.7	20.1 LT	113		X				
"EB"312+23.8	66.3 RT	114		X				
"EB"312+50.6	27.8 RT	114A		X				
"NB"233+21.3	146.3 RT	115		X				
"NB"229+95.0	73.8 RT	116		X				
"NB"232+01.1	128.5 RT	117A		X				
"NB"231+81.3	182.7 RT	117		X				
"NB"227+57.9	53.1 RT	118		X				
"NB"225+35.6	48.5 RT	119		X				

JUNCTION BOX NOTES:

1. LOCATIONS OF JUNCTION BOXES ARE APPROXIMATE. REFER TO SUBSECTION 660-3.04 OF THE SPECIFICATIONS FOR PLACEMENT REQUIREMENTS.
2. FOR BRIDGE MOUNTED JUNCTION BOXES, SEE SHEET NO. H45.
3. SHARED JUNCTION BOXES WITH SIGNAL ARE FOUND IN SIGNAL SHEETS AND PAID FOR UNDER TRAFFIC SIGNAL SYSTEM COMPLETE ITEM.

ILLUMINATION SUMMARY



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H43	H80

660.0003.0000 LIGHT POLE SALVAGE SUMMARY

POLE NO.	STATION	LOCATION		REMARKS
		LT	RT	
E1	"NB"232+15.2	71.35		
E2	"NB"237+32.6		58.29	
E3	"NB"238+01.7	82.8		
E4	"NB"240+86.3	81.37		
E5	"NB"243+72.6	81.86		
E6	"NB"246+56.9	83.24		
E7	"NB"249+42.3	83.94		
E8	"NB"251+55.4	91.55		
E9	"NB"255+10.9	82.72		
E10	"NB"257+92.8	92.63		
E11	"NB"260+77.3	98.68		
E12	"NB"263+58.6	103.24		
E13	"NB"266+36.1	95.60		
E14	"NB"268+85.7	98.19		
E15	"NB"271+30.2	119.07		
E16	"NB"271+84.8	147.56		
E17	"NB"273+77.3	143.51		
E18	"NB"274+49.9		52.31	
E19	"NB"274+41.6	214.17		
E20	"NB"275+04.4	244.26		
E21	"EB"302+95.5		34.58	
E22	"EB"304+88.0	94.36		
E23	"EB"305+07.4	105.98		
E24	"EB"306+87.2	78.73		
E25	"EB"308+61.0	146.26		
E26	"EB"311+02.7	74.83		

666.0003.0000 JUNCTION BOX REMOVAL SUMMARY

POLE NO.	STATION	LOCATION		REMARKS
		LT	RT	
E1	"NB"232+14.5	75.26		
E3	"NB"238+01.2	78.43		
E4	"NB"240+86.2	76.33		
E5	"NB"243+72.5	77.49		
E6	"NB"246+56.3	78.98		
E7	"NB"249+41.5	79.16		
E9	"NB"255+10.9	78.40		
E10	"NB"257+92.2	87.79		
E11	"NB"260+77.7	94.24		
E12	"NB"263+59.4	98.86		
E13	"NB"266+36.1	92.87		
E14	"NB"268+83.6	93.60		
E15	"NB"271+30.4	115.99		
E17	"NB"273+79.0	141.10		
E18	"NB"274+50.2		49.29	
E21	"EB"302+91.7		35.69	
E22	"EB"304+86.7	91.11		
E24	"EB"306+85.9	76.42		
E25	"EB"308+63.5	144.87		

STREET LIGHTING CRITERIA

ROADWAY CHARACTERISTICS	
ROADWAY LIGHTING STANDARD	RP-8-14
CALCULATION ZONE	STEESE-JOHANSEN INTERCHANGE
STREET CLASSIFICATION	MAJOR/MAJOR
PEDESTRIAN CLASSIFICATION	LOW
PAVEMENT CLASSIFICATION	R3
TRAFFIC FLOW	INTERSECTION
LANE WIDTH	12-14'
LUMINAIRE DEPRECATION	
LED - TOTAL LIGHT LOSS FACTOR (LFF): 0.85	
ROADWAY ILLUMINANCE CRITERIA	
AVERAGE MAINTAINED (Lavg):	>1.8
Lavg/Lmin RATIO (MAXIMUM):	<3.0

STREET LIGHTING CRITERIA

ROADWAY CHARACTERISTICS	
ROADWAY LIGHTING STANDARD	RP-8-14
CALCULATION ZONE	STEESE CONTINUOUS
STREET CLASSIFICATION	MAJOR
PEDESTRIAN CLASSIFICATION	LOW
PAVEMENT CLASSIFICATION	R3
TRAFFIC FLOW	TWO-WAY/DIVIDED
LANE WIDTH	12'
NO. OF LANES, LEFT / RIGHT:	2 / 2
MEDIAN	0-35'
LUMINAIRE DEPRECATION	
LED - TOTAL LIGHT LOSS FACTOR (LFF): 0.85	
ROADWAY LUMINANCE CRITERIA	
AVERAGE MAINTAINED (Lavg):	1.0
Lavg/Lmin RATIO (MAXIMUM):	<3.0
Lmax/Lmin RATIO (MAXIMUM):	<5.0
Lvmax/Lavg VEILING LUMINANCE RATIO	<0.3

LUMINAIRE SCHEDULE

LUMINAIRE TYPE	MANUFACTURER & MODEL NO.	LIGHT SOURCE	IES TYPE OPTICS	INITIAL LUMENS	COLOR TEMP (CCT)	DRIVER CURRENT	VOLTAGE & WATTS	MOUNTING HEIGHT	POWER FACTOR	REMARKS
A	AUTOBAHN ATB2 P603	LED	TYPE III	33988	4000K		480V & 233W	45	>0.9	ROADWAY, INTERCHANGE RAMPS
B	AUTOBAHN ATB0 P453	LED	TYPE III	10609	4000K		480V & 159W	40	>0.9	INTERSECTION
C	HOLOPHANE PARKPAK SQUARE LED	LED	TYPE 5W	2500	4000K	200MA	240V & 25W	14	>0.9	TUNNEL
D	HOLOPHANE PARKPAK SQUARE LED	LED	TYPE 5W	2500	4000K	200MA	240V & 25W	18.5	>0.9	UNDERDECK

LIGHT POLE NOTES:

1. DELIVER SALVAGED LIGHT POLES AND LUMINAIRES NOT IDENTIFIED FOR REUSE IN THE LUMINAIRE SALVAGE SUMMARY TO THE DOT&PF FAIRBANKS MAINTENANCE YARD LOCATED AT 2301 PEGER ROAD. CONTACT WILL BE MADE THROUGH THE PROJECT ENGINEER.

LUMINAIRE NOTES:

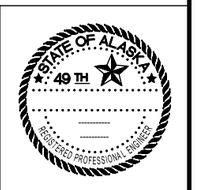
1. MODEL AND MANUFACTURER LISTED ARE BASIS OF DESIGN. PROVIDE SCHEDULED LUMINAIRES OR APPROVED EQUAL. REFER TO SECTION 740 SPECIFICATIONS.

2. ALL LUMINAIRES SHALL BE FURNISHED WITH 0-10V DIMMING BALLAST. LUMINAIRE TYPES A AND B SHALL BE FURNISHED WITH 7-PIN NEMA PHOTOCELL RECEPTACLE AND WIRELESS CONTROL NODE.

3. PROVIDE ALL LUMINAIRES WITH FIELD ADJUSTABLE OUTPUT, ADJUSTABLE IN APPROXIMATELY 10 TO 15% INCREMENTS.

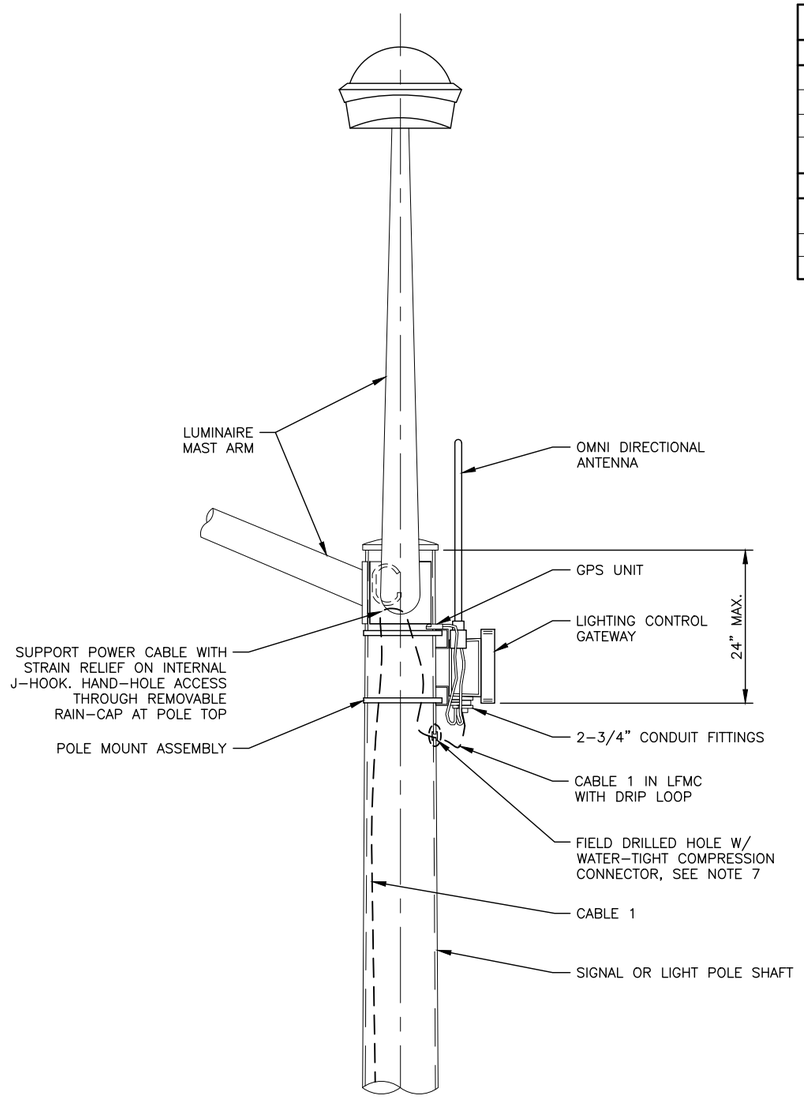
4. TUNNEL LIGHTING CAN BE FOUND IN THE E SHEETS

ILLUMINATION SUMMARY



NO.	DATE	REVISION

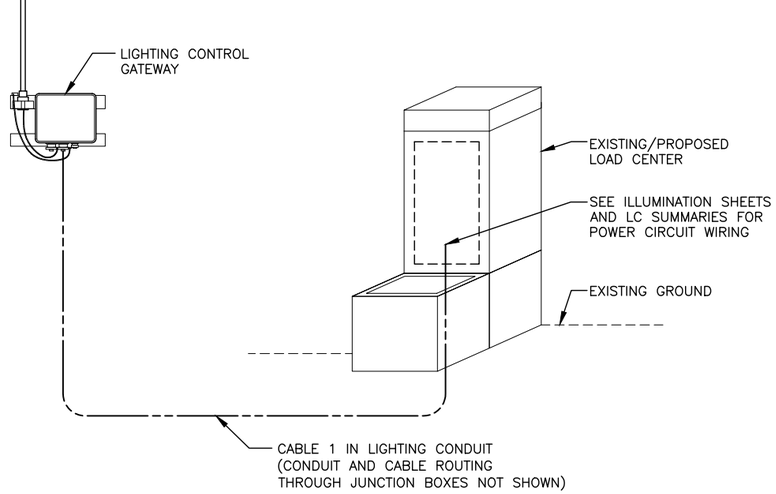
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H44	H80



GATEWAY INSTALLATION DETAIL
NTS

MATERIAL REQUIREMENTS

ALL ASSEMBLIES	
CABLE 1	3c#8
CONDUIT DRIP LOOP AT POLE	3/4" LFMC, ARCTIC GRADE
CONNECTOR	ENVIRONMENTALLY HARDENED RJ-45
STRAIN RELIEF	REMKE 2201-013 OR EQUIVALENT PRODUCT BY HUBBELL KELLUM OR APPROVED EQUAL
LIGHTING CONTROL GATEWAY ASSEMBLY	
LIGHTING CONTROL GATEWAY AND ENCLOSURE AND POLE MOUNT ASSEMBLY	GE LIGHTGRID GATEWAY OUTDOOR WIRELESS CONTROL SYSTEM.
OMNI DIRECTION ANTENNA	STANDARD 18 IN.
GPS UNIT	3M ACCURACY



GATEWAY WIRING DIAGRAM
NTS

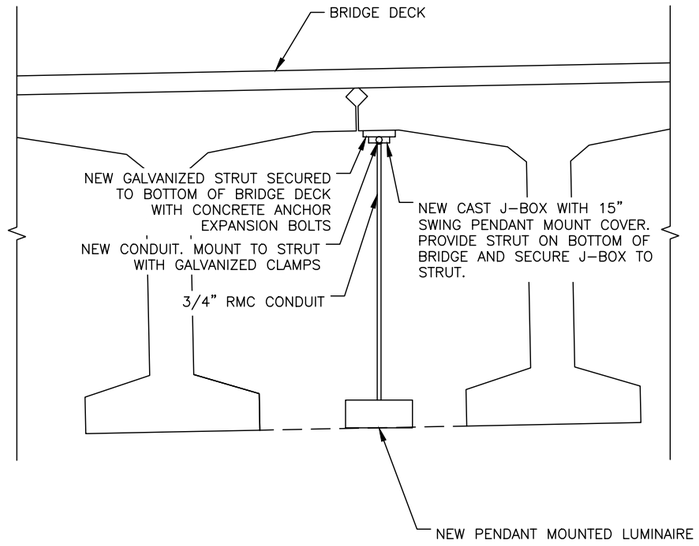
LIGHTING CONTROL GATEWAY INSTALLATION NOTES:

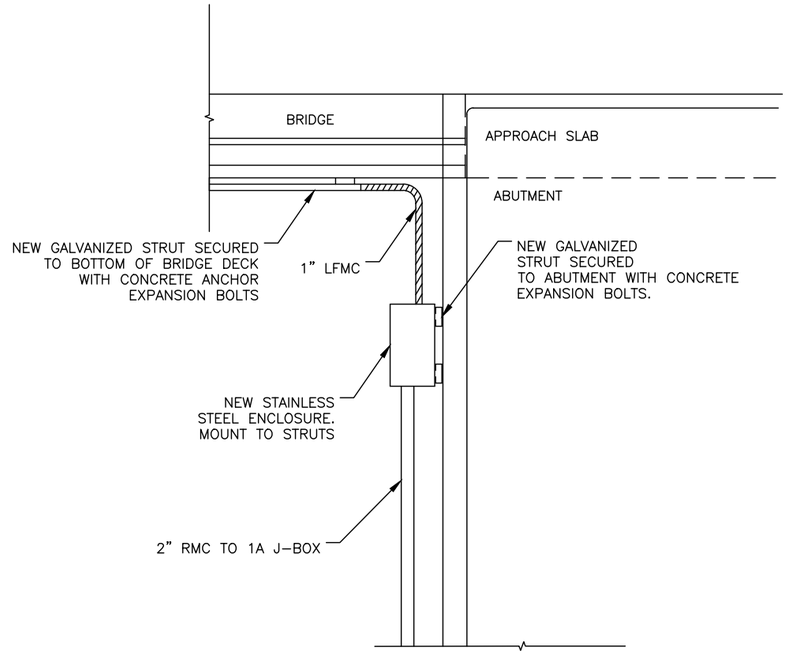
1. PROTECT CABLE ENDS FROM MOISTURE AT ALL TIMES.
2. PULL CABLE IN ACCORDANCE WITH SECTION 660 OF THE SPECIAL PROVISIONS. PULL CABLE SO THAT THERE IS SUFFICIENT LENGTH TO REACH THE TOP OF THE LOAD CENTER. CABLES ARE TO BE PULLED WITHOUT CONNECTORS ATTACHED. WHEN CABLE HAS BEEN PULLED TO FINAL LOCATIONS INSTALL AND MAKE FINAL CONNECTIONS.
3. CABLE RUNS ARE TO BE MADE CONTINUOUS WITHOUT SPLICES.
4. CABLE WITH DAMAGED INSULATION, OR THAT HAS BEEN CRIMPED OR BENT BEYOND THE MINIMUM BEND RADIUS MUST BE REPLACED AT CONTRACTORS EXPENSE.
5. THE MINIMUM BEND RADIUS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS.
6. ENSURE ADEQUATE LENGTH OF THE CABLE TO ALLOW WORK ON THE ENDS OF THE CABLE IN THE LOAD CENTER AND AT THE POLE MOUNT ENCLOSURE.
7. INSTALL WATERTIGHT RUBBER GROMMETS WHERE CABLE PASSES THROUGH THE LIGHT POLE SHAFT.
8. FURNISH ONLY NEW EQUIPMENT OF THE BRAND AND TYPE LISTED OR ITS APPROVED EQUAL. PROVIDE AT NO ADDITIONAL COST ALL NECESSARY DEVICES, WIRES, BRACKETS/HARDWARE ETC. TO PROVIDE A FULLY FUNCTIONING LIGHTING CONTROL GATEWAY SYSTEM WITH CELLULAR MODEM.

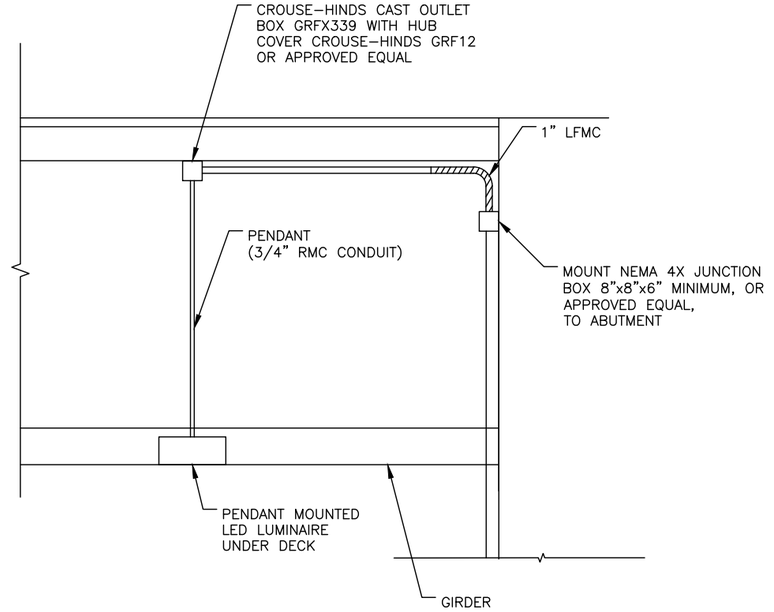
LIGHTING CONTROL GATEWAY DETAIL

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H45	H80







NOTES:

1. ADJUST THE LENGTH OF THE PIPE SUPPORTING THE LUMINAIRE AS NECESSARY SO THAT THE BOTTOM OF THE LENS OF THE LUMINAIRE IS AT THE SAME HEIGHT AS THE BOTTOM OF THE CONCRETE GIRDERS. SEE BRIDGE DRAWINGS FOR GIRDER HEIGHT.

2. ADJUST LUMINAIRE MOUNTING AS NECESSARY TO ENSURE THAT LUMINAIRE HANGS STRAIGHT DOWN.

LUMINAIRE MOUNTING DETAIL

ENCLOSURE MOUNTING DETAIL

SECTION VIEW

660.0012.0000 UNDERDECK SUMMARY

LUMINAIRE NO.	STATION	LOCATION		LUMINAIRE TYPE	CIRCUIT	LUMNAIRE ARM LENGTH(FT)	MOUNTING HEIGHT(FT)	REMARKS
		LT	RT					
J1	309+43.3	0		D	BA6	N/A	18.5	
J2	309+48.5	1.4		D	BA6	N/A	18.5	
J3	309+73.8	4.3		D	BA6	N/A	18.5	
J4	309+89.3	8.7		D	BA6	N/A	18.5	
J5	310+04.8	15.2		D	BA6	N/A	18.5	
J6	309+38.1		79.0	D	AA16	N/A	18.5	
J7	309+53.0		82.1	D	AA16	N/A	18.5	
J8	309+68.0		84.1	D	AA16	N/A	18.5	
J9	309+83.0		85.8	D	AA16	N/A	18.5	
J10	309+98.0		86.5	D	AA16	N/A	18.5	

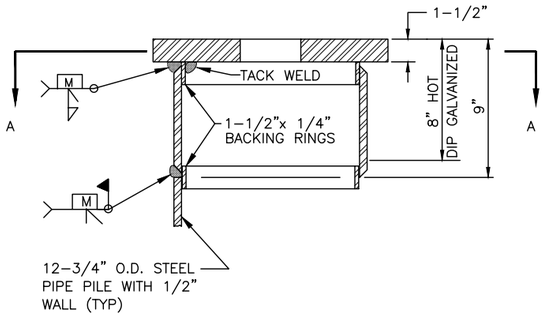
660.0012.0000 LIGHTING JUNCTION BOX SCHEDULE

LOCATION				JUNCTION BOX TYPE				REMARKS
STATION	OFFSET	JUNCTION BOX NO	CONTROLLER	IA	II	III	IV	
"NB"235+85	49.6 LT	J0		X				
"NB"233+64	39.7 RT	J1		X				

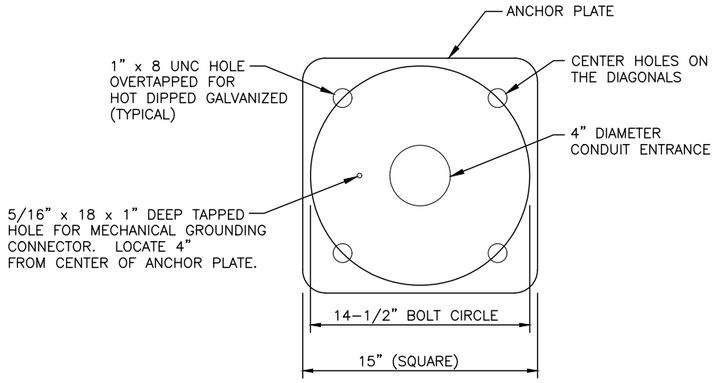
ILLUMINATION DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H46	H80

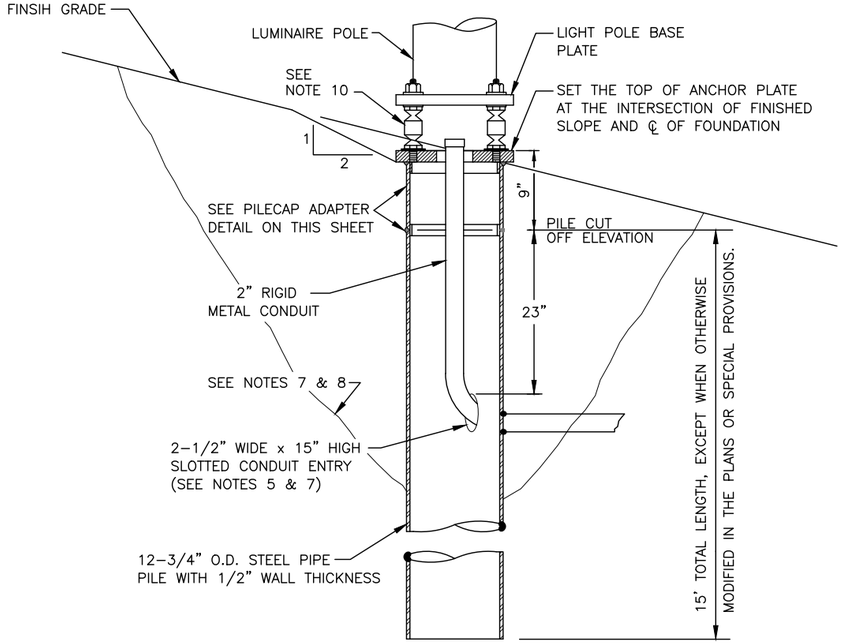


PILECAP ADAPTER DETAIL



SECTION A–A

MATERIAL PROPERTIES		
STRUCTURAL STEEL PLATE	ASTM A709 GRADE 50	Fy= 50 KSI
STEEL PIPE PILE	ASTM A252 GRADE 3, API 5L X–42	Fy= 45 KSI
HOT DIP GALVANIZING	ASTM A123	



PIPE PILE FOUNDATION
(SHOWN WITH FRANGIBLE COUPLINGS)

FOUNDATION NOTES:

DESIGN: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION 2001.

CONSTRUCTION: STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2002 EDITION WITH SPECIAL PROVISIONS.

WIND LOAD: 100 MILES PER HOUR WITH 1.3 GUST FACTOR

LIGHT SUPPORT DETAIL: FOUNDATION DESIGN BASED ON A MAXIMUM OF A 55' SHAFT LENGTH AND 20' LONG MAST ARM.

PILE FOUNDATION NOTES:

1. FURNISH STEEL PIPE, SEAMLESS PILES OR PILES WITH A SINGLE ELECTRIC RESISTANCE WELDED LONGITUDINAL SEAM, THAT CONFORMS TO ASTM A252, GRADE 3 API 5L X–42 FOR THE PILE FOUNDATIONS AND THE PILECAP ADAPTERS.

2. FURNISH PILECAP ADAPTERS MANUFACTURED BY THE POLE MANUFACTURER. AFTER FABRICATION, HOT DIP GALVANIZE THE TOP 8" IN ACCORDANCE WITH ASTM A123.

3. DRIVE ALL PILES OPEN ENDED. PRE–BORE THROUGH A.C.E. FILLS AND FROZEN BORROW EMBANKMENTS. END PRE–BORE 1' ABOVE PLANNED BOTTOM OF PILE ELEVATION. COMPLETE ALL PILE DRIVING IN CONFORMANCE WITH SECTION 505 OF THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

4. REMOVE AND REINSTALL ALL PILES MORE THAN 1/8" PER FOOT OUT OF PLUMB.

5. CUT THE CONDUIT ENTRY HOLE AFTER THE PILE HAS BEEN INSTALLED.

6. PERFORM ALL WELDING IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS D1.1, STRUCTURAL WELDING CODE–STEEL.

7. AT EACH FOUNDATION, EXCAVATE A CONE SHAPED WORK HOLE 6' IN DIAMETER AT THE SURFACE DOWN TO 1' BELOW THE CONDUIT ENTRY HOLE. AFTER CUTTING THE CONDUIT ENTRY HOLE AND AFTER WELDING ON THE PILECAP ADAPTER, BACKFILL AND COMPACT THE WORKHOLE IN 660–3.02 OF THE 2002 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

8. WAIT AT LEAST 3 DAYS AFTER BACKFILLING THE WORK HOLE BEFORE ERECTING THE LUMINAIRE POLE.

9. TERMINATE THE 2" RMC 1" ABOVE THE TOP OF THE ANCHOR PLATE. IN ADDITION TO THE BONDING AND GROUNDING REQUIRED IN SECTION 660 OF THE SPECIFICATIONS, INSTALL A GROUNDING BUSHING ON THE END OF THE RIGID METAL CONDUIT AND USE #4 AWG BARE COPPER TO BOND THE CONDUIT GROUNDING BUSHING TO THE MECHANICAL GROUNDING CONNECTOR ON THE ANCHOR PLATE. USE 4' #4 AWG BARE COPPER WIRE TO BOND FROM THE MECHANICAL GROUNDING CONNECTOR ON THE ANCHOR PLATE TO THE GROUNDING LUG LOCATED INSIDE THE POLE HAND HOLE.

10. SEE LIGHT POLE BREAKAWAY SUPPORT DETAIL. FEMALE ANCHORS ARE NOT REQUIRED FOR BREAKAWAY SUPPORTS ATTACHED TO PILECAP ANCHOR PLATE.

ILLUMINATION DETAILS

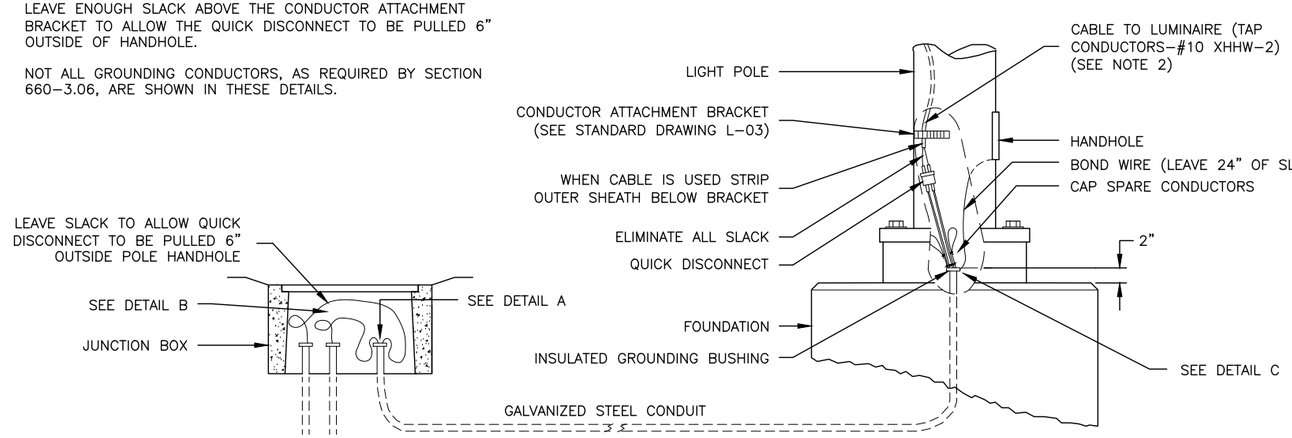
NO.	DATE	REVISION

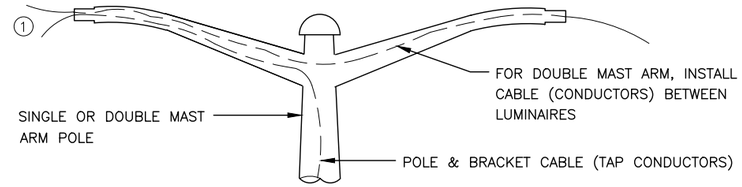
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H47	H80

LIGHTING SYSTEM POLE AND J–BOX WIRING DETAILS

NOTES:

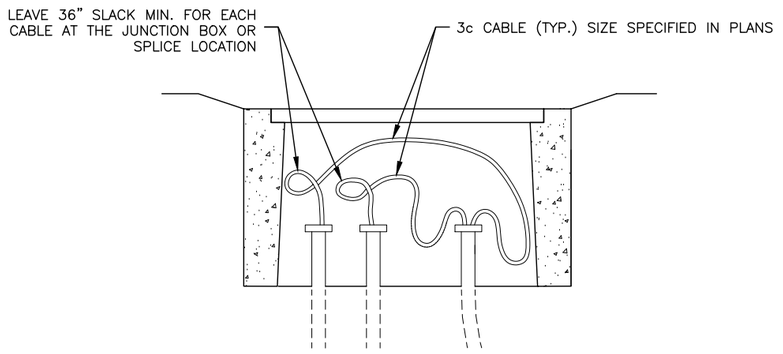
1. LABEL ALL CABLES AND CONDUCTORS IN POLE BASE AND J–BOX.
2. LEAVE ENOUGH SLACK ABOVE THE CONDUCTOR ATTACHMENT BRACKET TO ALLOW THE QUICK DISCONNECT TO BE PULLED 6" OUTSIDE OF HANDHOLE.
3. NOT ALL GROUNDING CONDUCTORS, AS REQUIRED BY SECTION 660–3.06, ARE SHOWN IN THESE DETAILS.



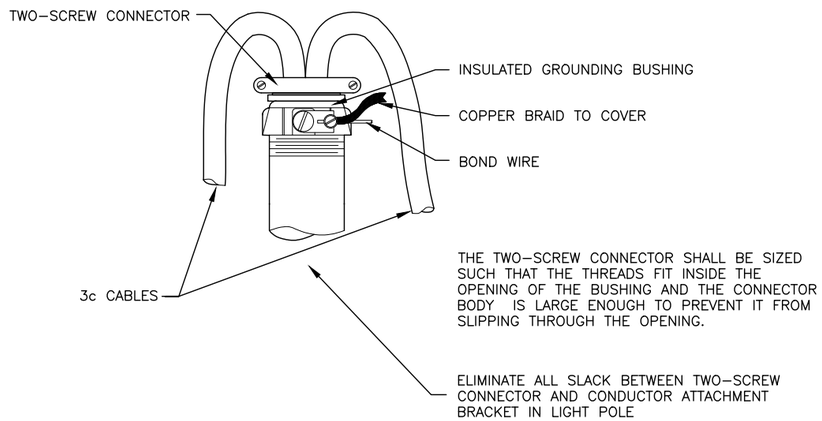


① INSTALL 2"x1" REDUCING WASHER AND 1" CONNECTOR TO SECURE CONDUCTORS AT THE END OF THE MAST ARM

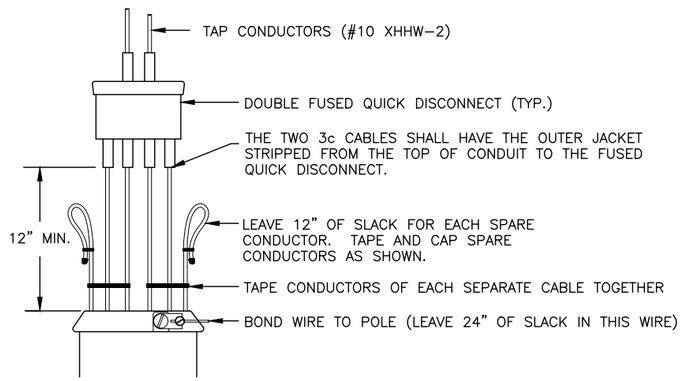
LIGHT STANDARD MAST ARM WIRING DETAIL



DETAIL B



DETAIL A



DETAIL C

ILLUMINATION DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H48	H80

SUMMARY OF NEW LOAD CENTER "C"

LOAD CENTER TYPE:	TYPE 1A (DOT*PF OWNED AND MAINTAINED)
SERVING UTILITY:	GOLDEN VALLEY ELECTRIC ASSOCIATION (GVEA)
SERVICE CONDUIT TYPE:	RIGID METAL CONDUIT
LOCATION DATA	
LOAD CENTER:	STEESE HWY
STATION, OFFSET	"NB" 250+49, 80.8' RT
POWER SOURCE:	NEW
PHOTOELECTRIC CONTROL:	NO
SERVICE VOLTAGE:	240/480V, 100 AMP, 1-PHASE, 3-WIRE WITH GROUNDED NEUTRAL
PROVIDE METER SOCKET:	YES
MAIN BREAKER A:	240/480V, 2 POLE, 100 AMPS
CONTACTOR:	480V, 18 POLES, 30 AMPS
AIC RATING:	14 kAIC

PANEL A

POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aø	Bø	POLE KVA	DESCRIPTION	AMP TRIP	POLE
1	20/2	STEESE LTG (59-69)**	1.2	1.3		0.1	LIGHTING CONTROL	15/1	2
3			1.2		1.3	0.1	LTG CONTROL GATEWAY	20/1	4
5	20/2	STEESE LTG (57-41 ODD, 111)**	1.0	1.9		0.9	STEESE LTG (72-80)**	20/2	6
7			1.0		1.9	0.9			8
9	40/1	AVC CONTROL	2.5	3.8		1.3	STEESE LTG (58-54 EVEN, 52A/B, 50-40 EVEN, 94)**	20/2	10
11		SPACE			3.8	1.3			12
13		SPACE					SPARE	20/2	14
15		SPACE							16
17		SPACE					SPACE		18
** ADD JUMPER TO BYPASS LIGHTING CONTACTOR								TOTAL KVA	14.0
				7.0	7.0			AMPS	29.2

ARC FLASH AND SHOCK HAZARD RESULTS - LC "C" MAIN BREAKERS ENCLOSURE

ARC FLASH BOUNDARY	32 INCHES
INCIDENT ENERGY IN CAL/CM^2	3.03 CAL/CM^2
WORKING DISTANCE	18 INCHES
SHOCK HAZARD EXPOSURE	480 VAC
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	5/25/2023

SHORT CIRCUIT CALCULATION - LC "C"

480V, POWER FACTOR = 0.90, SERVICE LATERAL CONSISTS OF ONE ALUMINUM CONDUCTOR PER PHASE IN RMC & PVC.

TRANSFORMER RATING	15 kVA MAXIMUM
VOLTAGE	240/480 VAC SECONDARY
TRANSFORMER IMPEDANCE	1.6
TRANSFORMER LET-THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	1953 A
LENGTH TO FAULT	25FT MINIMUM
SERVICE CONDUCTOR SIZE	1/0 AWG AL MAXIMUM
SERVICE CONDUIT	RMC & PVC
CALCULATED AVAILABLE FAULT CURRENT AT LC "C"	1885 A
DATE CALCULATED	5/25/2023

VOLTAGE DROPS

480V IN A 1-PH, 3W CONFIGURATION WITH A POWER-FACTOR OF 0.9, 1 COPPER CONDUCTOR PER PHASE IN A RMC. TEMPERATURE RATING 75°C.

CKT #	SEGMENT	SEGMENT SIZE (AWG)	SEGMENT LENGTH (FT)	LOAD (AMPS)	TOTAL (AMPS)	SEG. DROP (%VD)	CUMULATIVE DROP (%VD)
CA 1/3	C0-59	3C8	88	0.49	5.34	0.01%	0.01%
	59-60	3C8	167	0.49	4.85	0.05%	0.6%
	60-61	3C8	165	0.49	4.37	0.08%	0.14%
	61-62	3C8	164	0.49	3.88	0.10%	0.24%
	62-63	3C8	165	0.49	3.40	0.13%	0.36%
	63-64	3C8	164	0.49	2.91	0.15%	0.51%
	64-65	3C8	164	0.49	2.43	0.17%	0.69%
	65-66	3C8	194	0.49	1.94	0.24%	0.92%
	66-67	3C8	194	0.49	1.46	0.26%	1.19%
	67-68	3C8	194	0.49	0.97	0.29%	1.48%
	68-69	3C8	195	0.49	0.49	0.33%	1.81%
CA 5/7	C0-57	3C8	77	0.49	5.34	0.01%	0.01%
	57-55	3C8	169	0.49	4.85	0.05%	0.06%
	55-53	3C8	220	0.49	4.37	0.10%	0.16%
	53-111	3C8	231	0.49	3.88	0.14%	0.30%
	111-51A	3C8	75	0.49	3.40	0.06%	0.36%
	51A-51B	3C8	94	0.49	2.91	0.09%	0.45%
	51B-49	3C8	244	0.49	2.43	0.26%	0.70%
	49-47	3C8	255	0.49	1.94	0.31%	1.01%
	47-45	3C8	241	0.49	1.46	0.33%	1.34%
	45-43	3C8	246	0.49	0.97	0.37%	1.72%
	43-41	3C8	246	0.49	0.49	0.41%	2.13%
CA 6/8	C0-58C	3C8	42	0.49	5.83	0.01%	0.01%
	58C-58B	3C8	80	0.49	5.34	0.02%	0.03%
	58B-58A	3C8	56	0.49	4.85	0.03%	0.06%
	58A-72	3C8	161	0.49	4.37	0.10%	0.15%
	72-73	3C8	223	0.49	3.88	0.17%	0.32%
	73-74	3C8	225	0.49	3.40	0.20%	0.53%
	74-75	3C8	223	0.49	2.91	0.24%	0.76%
	75-76	3C8	220	0.49	2.43	0.27%	1.03%
	76-77	3C8	220	0.49	1.94	0.30%	1.33%
	77-78	3C8	221	0.49	1.46	0.34%	1.67%
	78-79	3C8	220	0.49	0.97	0.37%	2.03%
	79-80	3C8	221	0.49	0.49	0.40%	2.44%
CA 10/12	C0-58C	3C8	42	0.49	8.25	0.01%	0.01%
	58C-58B	3C8	80	0.49	7.77	0.02%	0.03%
	58B-58A	3C8	56	0.49	7.28	0.03%	0.06%
	58A-58	3C8	53	0.49	6.80	0.03%	0.09%
	58-56	3C8	211	0.49	6.31	0.16%	0.25%
	56-54	3C8	220	0.49	5.83	0.20%	0.45%
	54-52A	3C8	50	0.49	5.34	0.05%	0.50%
	52A-52B	3C8	91	0.49	4.85	0.11%	0.61%
	52B-52A	3C8	91	0.49	4.37	0.12%	0.74%
	52A-94	3C8	177	0.49	3.88	0.27%	1.00%
	94-50A	3C8	51	0.49	3.40	0.09%	1.09%
	50A-50B	3C8	96	0.49	2.91	0.17%	1.26%
	50B-48	3C8	245	0.49	2.43	0.48%	1.75%
	48-46	3C8	244	0.49	1.94	0.52%	2.27%
	46-44	3C8	251	0.49	1.46	0.57%	2.84%
	44-42	3C8	244	0.49	0.97	0.59%	3.43%
	42-40	3C8	246	0.49	0.49	0.63%	4.06%

LOAD CENTER DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H49	H80

SUMMARY OF NEW LOAD CENTER "D"

LOAD CENTER TYPE:	TYPE 1A (SKI ASSOCIATION OWNED AND MAINTAINED)
SERVING UTILITY:	GOLDEN VALLEY ELECTRIC ASSOCIATION (GVEA)
SERVICE CONDUIT TYPE:	RIGID METAL CONDUIT
LOCATION DATA	
LOAD CENTER:	STEESE HWY
STATION, OFFSET	"NB" 245+51, 96.8' RT
POWER SOURCE:	NEW
PHOTOELECTRIC CONTROL:	NO
SERVICE VOLTAGE:	240/480V, 100 AMP, 1-PHASE, 3-WIRE WITH GROUNDED NEUTRAL
PROVIDE METER SOCKET:	YES
MAIN BREAKER A:	240/480V, 2 POLE, 100 AMPS
CONTACTOR:	480V, 18 POLES, 30 AMPS
AIC RATING:	14 kAIC

PANEL A

POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aø	Bø	POLE KVA	DESCRIPTION	AMP TRIP	POLE
1	20/1	TUNNEL LIGHTING**	0.1	0.2		0.1	PHOTOCELL	15/1	2
3	20/1	SPARE					SPARE	20/1	4
5		SPACE					SPARE	20/2	6
7									8
9		SPACE					SPARE	20/2	10
11									12
13		SPACE					SPARE	20/2	14
15		SPACE							16
17		SPACE					SPACE		18
** ADD JUMPER TO BYPASS LIGHTING CONTACTOR							TOTAL KVA		0.2
				0.2	0.0		AMPS		0.42

ARC FLASH AND SHOCK HAZARD RESULTS – LC "D" MAIN BREAKERS ENCLOSURE

ARC FLASH BOUNDARY	32 INCHES
INCIDENT ENERGY IN CAL/CM^2	3.03 CAL/CM^2
WORKING DISTANCE	18 INCHES
SHOCK HAZARD EXPOSURE	240 VAC
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	5/25/2023

SHORT CIRCUIT CALCULATION – LC "D"

480V, POWER FACTOR = 0.90, SERVICE LATERAL CONSISTS OF ONE ALUMINUM CONDUCTOR PER PHASE IN RMC & PVC.

TRANSFORMER RATING	15 kVA MAXIMUM
VOLTAGE	240/480 VAC SECONDARY
TRANSFORMER IMPEDANCE	1.6
TRANSFORMER LET-THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	1953 A
LENGTH TO FAULT	25FT MINIMUM
SERVICE CONDUCTOR SIZE	1/0 AWG AL MAXIMUM
SERVICE CONDUIT	1/0 AWG AL MAXIMUM
CALCULATED AVAILABLE FAULT CURRENT AT LC "C"	1885 A
DATE CALCULATED	5/25/2023

LOAD CENTER DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H50	H80

PHASE SEQUENCE

PHASING	
* 1	* 5
2	6
* 3	* 7
4	8

* FUTURE USE/ NOT USED

PEDESTRIAN MOVEMENT

VEHICLE MOVEMENT

POLE 8
SHAFT MOUNTING
DETAIL

POLE 2
SHAFT MOUNTING
DETAIL

POLE 10
SHAFT MOUNTING
DETAIL

POLE 11
SHAFT MOUNTING
DETAIL

POLE 12
SHAFT MOUNTING
DETAIL

POLE 13
SHAFT MOUNTING
DETAIL

LOAD CENTER A

"EB" 306+00

"EB" 307+00

"EB" 308+00

"EB" 309+00

MATCH LINE
SEE SHEET H51

SIGNAL PLAN

STATE OF ALASKA
49TH
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H51	H80

PHASE SEQUENCE

PHASING	
* 1	* 5
2	6
* 3	* 7
4	8

* FUTURE USE/ NOT USED

PEDESTRIAN MOVEMENT

VEHICLE MOVEMENT

MATCH LINE
SEE SHEET H50

POLE 15
SHAFT MOUNTING
DETAIL

POLE 18
SHAFT MOUNTING
DETAIL

POLE 17
SHAFT MOUNTING
DETAIL

POLE 16
SHAFT MOUNTING
DETAIL

LOAD CENTER B

R/W

"EB" 311+00

"EB" 312+00

"EB" 313+00

"EB" 314+00

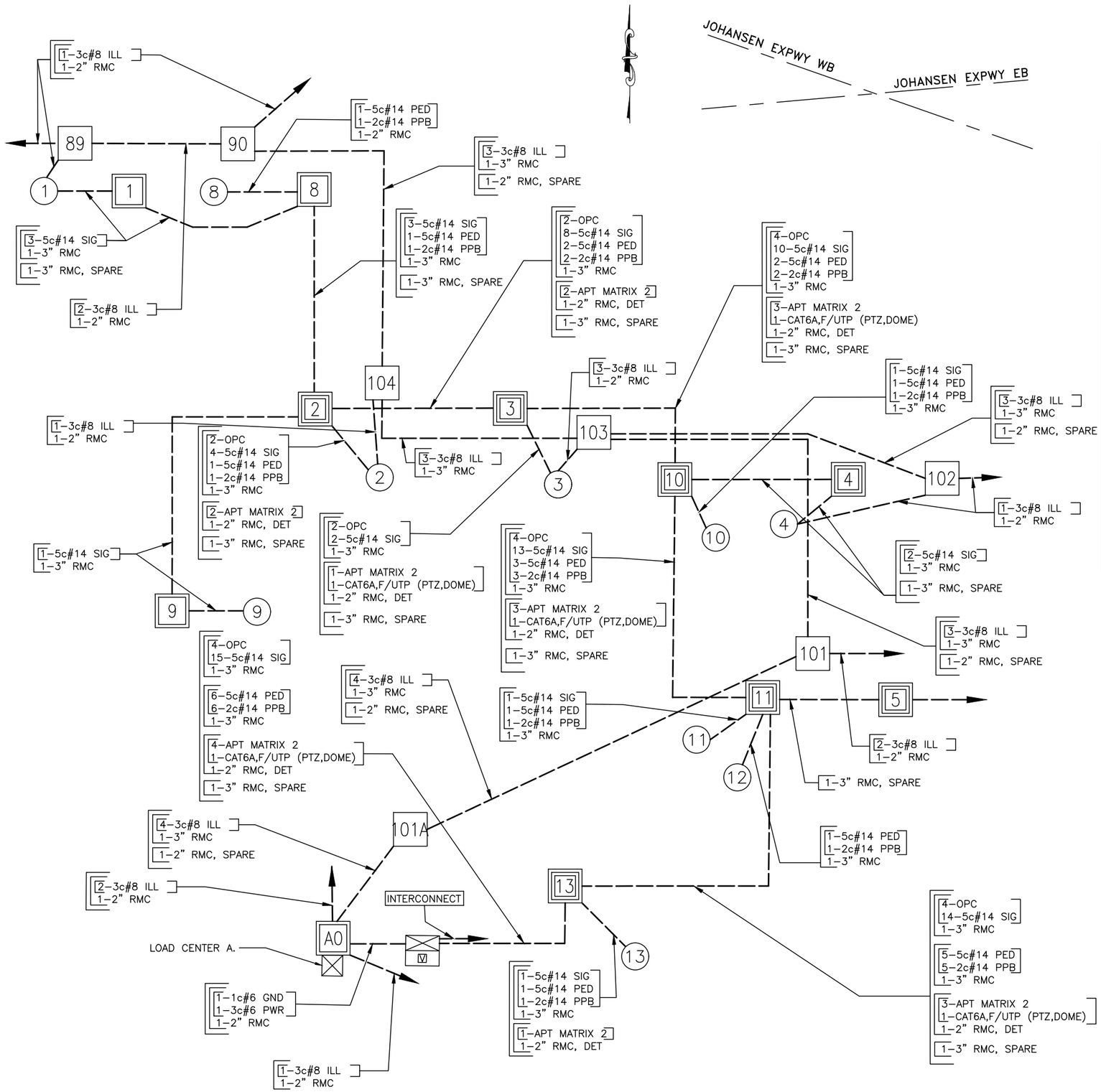
SIGNAL PLAN

STATE OF ALASKA
49TH
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EPM\6.2a.1_Roadway\1.1_Production\60732_H_SIGNAL_01-H51 Thu, Jun/01/23 02:20PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H52	H80



WIRING DIAGRAM CODING LEGEND

OPC	=	OPTICOM CABLE	5c#14	TRAFFIC SIGNALS
LL	=	LOOP LEAD–IN	7c#14	PROTECTED–PERMITTED SIGNALS
NT	=	INTERCONNECT CABLE	7c#14	FLASHING YELLOW ARROW SIGNALS
PWR	=	POWER CONDUCTORS FOR	5c#14	PEDESTRIAN SIGNALS
		SIGNAL CONTROLLER	2c#14	PEDESTRIAN PUSH–BUTTON
T	=	TRANSFORMER		
GND	=	GROUND	3c#8	AAWF
ILL	=	ILLUMINATION	3c#8	ILLUMINATION
RMC	=	RIGID METAL CONDUIT	3c#6	SIGNAL POWER
PVC	=	POLYVINYL CHLORIDE CONDUIT	1c#8	BARE COPPER GROUND
HDPE	=	HIGH DENSITY POLYETHYLENE CONDUIT		
AAWF	=	ACTIVE ADVANCE WARNING FLASHER	12 pr #19	INTERCONNECT CABLE
PPB	=	PEDESTRIAN PUSH BUTTON	6 pr #19	VIDEO DETECTION
SIG	=	SIGNAL	18 pr #19	INTERCONNECT CABLE
DET	=	DETECTION CONDUIT	CAT6A F/UTP	CAMERA
F	=	FUTURE USE	APT MATRIX 2	RDET HOME RUN CABLE
E	=	EXISTING		
PTZ	=	PAN, TILT, ZOOM CAMERA		
RDET	=	RADAR DETECTION		
VDET	=	VIDEO DETECTION		
DOME	=	360 DEGREE FISHEYE CAMERA		

WIRING LEGEND:

– – – – – INDICATES NEW RIGID METAL CONDUIT RUN(S)

NOTES:

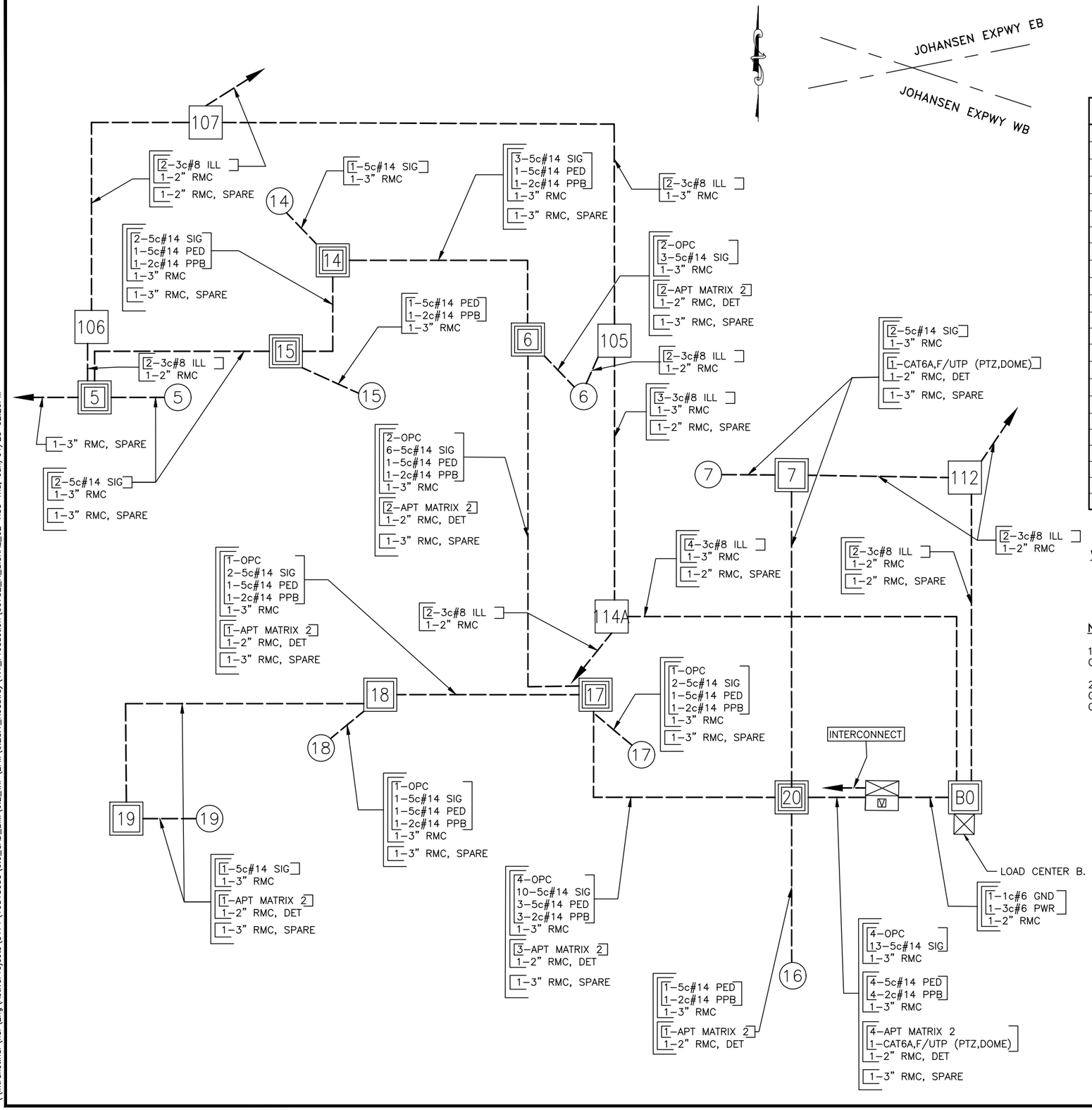
1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE COMMENCING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

2. EXCEPT FOR CONDUITS WITH FIBER OPTIC CABLE, INSTALL 1–1c#8 BARE COPPER GROUND CONDUCTOR IN ALL CONDUITS UNLESS ANOTHER SIZED GROUND CONDUCTOR IS SPECIFIED.

SIGNAL WIRING DIAGRAM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H53	H80



WIRING DIAGRAM CODING LEGEND

OPC	=	OPTICOM CABLE	5c#14	TRAFFIC SIGNALS
LL	=	LOOP LEAD–IN	7c#14	PROTECTED–PERMITTED SIGNALS
NT	=	INTERCONNECT CABLE	7c#14	FLASHING YELLOW ARROW SIGNALS
PWR	=	POWER CONDUCTORS FOR	5c#14	PEDESTRIAN SIGNALS
		SIGNAL CONTROLLER	2c#14	PEDESTRIAN PUSH–BUTTON
T	=	TRANSFORMER		
GND	=	GROUND	3c#8	AAWF
ILL	=	ILLUMINATION	3c#8	ILLUMINATION
RMC	=	RIGID METAL CONDUIT	3c#6	SIGNAL POWER
PVC	=	POLYVINYL CHLORIDE CONDUIT	1c#8	BARE COPPER GROUND
HDPE	=	HIGH DENSITY POLYETHYLENE CONDUIT		
AAWF	=	ACTIVE ADVANCE WARNING FLASHER	12 pr #19	INTERCONNECT CABLE
PPB	=	PEDESTRIAN PUSH BUTTON	6 pr #19	VIDEO DETECTION
SIG	=	SIGNAL	18 pr #19	INTERCONNECT CABLE
DET	=	DETECTION CONDUIT	CAT6A F/UTP	CAMERA
F	=	FUTURE USE	APT MATRIX 2	RDET HOME RUN CABLE
E	=	EXISTING		
PTZ	=	PAN, TILT, ZOOM CAMERA		
RDET	=	RADAR DETECTION		
VDET	=	VIDEO DETECTION		
DOME	=	360 DEGREE FISHEYE CAMERA		

WIRING LEGEND:

——— INDICATES NEW RIGID METAL CONDUIT RUN(S)

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE COMMENCING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

2. EXCEPT FOR CONDUITS WITH FIBER OPTIC CABLE, INSTALL 1–1c#8 BARE COPPER GROUND CONDUCTOR IN ALL CONDUITS UNLESS ANOTHER SIZED GROUND CONDUCTOR IS SPECIFIED.

SIGNAL WIRING DIAGRAM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H54	H80

SUMMARY OF NEW LOAD CENTER "A"

LOAD CENTER TYPE:	TYPE 1A (DOT&PF OWNED AND MAINTAINED)
SERVING UTILITY:	GOLDEN VALLEY ELECTRIC ASSOCIATION (GVEA)
SERVICE CONDUIT TYPE:	RIGID METAL CONDUIT
LOCATION DATA	
LOAD CENTER:	WEST STEESE JOHANSEN INTERSECTION
STATION, OFFSET	"EB" 306+93, 85.2' RT
POWER SOURCE:	NEW
PHOTOELECTRIC CONTROL:	NO
SERVICE VOLTAGE:	240/480V, 200 AMP, 1PHASE, 3-WIRE WITH GROUNDED NEUTRAL
PROVIDE METER SOCKET:	YES
MAIN BREAKER A:	240/480V, 2 POLE, 200 AMPS
CONTACTOR:	480V, 18 POLES, 30 AMPS
AIC RATING:	14 kAIC

PANEL A

POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aø	Bø	POLE KVA	DESCRIPTION	AMP TRIP	POLE
1	20/2	STEESE JO INTERSECTION LTG (100, 101, 102, 103A/B, 104. 90, 89)*	0.6	2.6		2.1	JOHANSEN LTG JOHANSEN TO OLD STEESE EB (EX LUMINAIRES 19, 84, 86, 88)*	20/2	2
3			0.6		2.6	2.1			4
5	20/2	JOHANSEN LTG HUNTER TO OLD STEESE EB (9 EXT LUMINAIRES)*	1.0	0.4		0.3	SB STEESE OFF RAMP (91-93)*	20/2	6
7			1.0		0.4	0.3			8
9	30/2	SIGNAL CONTROLLER JOHANSEN/STEESE**	3.0	6.0		3.0	SIGNAL CONTROLLER JOHANSEN/OLD STEESE**	30/2	10
11			3.0		6.0	3.0			12
13	20/2	JOHANSEN LTG WB (EX LUM 13, 85, 87, 89)*	1.6	2.1		0.5	SB STEESE ON RAMP (95-99)*	20/2	14
15			1.6		2.1	0.5			16
17	15/1	PHOTOCELL	0.1	0.2		0.1	UNDERDECK LTG (5) **	20/1	18
CIRCUIT THROUGH CONTACTOR * STEP DOWN 10 KVA TRANSFORMER 120V **								TOTAL KVA	22.4
				11.3	11.1			AMPS	46.7

LOAD CENTER NOTES:

1. TEMPORARY POWER WILL BE NEEDED FOR TWO SIGNALS JOHANSEN/STEESE CKT AA9/11 AND JOHANSEN/OLD STEESE CKT AA10/12.

SUMMARY OF NEW LOAD CENTER "B"

LOAD CENTER TYPE:	TYPE 1A (DOT&PF OWNED AND MAINTAINED)
SERVING UTILITY:	GOLDEN VALLEY ELECTRIC ASSOCIATION (GVEA)
SERVICE CONDUIT TYPE:	RIGID METAL CONDUIT
LOCATION DATA	
LOAD CENTER:	EAST STEESE JOHANSEN INTERSECTION
STATION, OFFSET	"EB" 313+30, 39.5' RT
POWER SOURCE:	NEW
PHOTOELECTRIC CONTROL:	NO
SERVICE VOLTAGE:	240/480V, 100 AMP, 1PHASE, 3-WIRE WITH GROUNDED NEUTRAL
PROVIDE METER SOCKET:	YES
MAIN BREAKER A:	240/480V, 2 POLE, 100 AMPS
CONTACTOR:	480V, 18 POLES, 30 AMPS
AIC RATING:	14 kAIC

PANEL A

POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aø	Bø	POLE KVA	DESCRIPTION	AMP TRIP	POLE
1	20/2	INTERSECTION LTG (105-107 A/B, 112-113 A/B)*	0.7	6.1		2.4	TRAFFIC CONTROLLER STEESE/JO**	50/2	2
3			0.7		6.1	2.4			4
5	20/2	NB STEESE OFF RAMP (114-119)*	0.6	0.7		0.1	UNDERDECK LTG (5)*	20/1	6
7			0.6		0.7	0.1	LTG CONTROL GATEWAY**	20/1	8
9	20/2	NB STEESE ON RAMP (108-110)*	0.3	0.3			SPARE	20/2	10
11			0.3		0.3				12
13	15/1	PHOTOCELL	0.1	0.1			SPARE	20/2	14
15									16
17									18
CIRCUIT THROUGH CONTACTOR * STEP DOWN 7.5 KVA TRANSFORMER 120V **								TOTAL KVA	14.3
				7.2	7.1			AMPS	29.8

SHORT CIRCUIT CALCULATION - LC "A"

480V, POWER FACTOR = 0.90, SERVICE LATERAL CONSISTS OF ONE ALUMINUM CONDUCTOR PER PHASE IN RMC & PVC.

TRANSFORMER RATING	15 kVA MAXIMUM
VOLTAGE	240/480 VAC SECONDARY
TRANSFORMER IMPEDANCE	1.6
TRANSFORMER LET-THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	1953 A
LENGTH TO FAULT	25FT MINIMUM
SERVICE CONDUCTOR SIZE	1/0 AWG AL MAXIMUM
SERVICE CONDUIT	RMC & PVC
CALCULATED AVAILABLE FAULT CURRENT AT LC "A"	1885 A
DATE CALCULATED	5/25/2023

ARC FLASH AND SHOCK HAZARD RESULTS - LC "A" MAIN BREAKERS ENCLOSURE

ARC FLASH BOUNDARY	32 INCHES
INCIDENT ENERGY IN CAL/CM^2	3.03 CAL/CM^2
WORKING DISTANCE	18 INCHES
SHOCK HAZARD EXPOSURE	480 VAC
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	5/25/2023

VOLTAGE DROPS

480V IN A 1-PH, 3W CONFIGURATION WITH A POWER-FACTOR OF 0.9, 1 COPPER CONDUCTOR PER PHASE IN A RMC. TEMPERATURE RATING 75°C.

CKT #	SEGMENT	SEGMENT SIZE (AWG)	SEGMENT LENGTH (FT)	LOAD (AMPS)	TOTAL (AMPS)	SEG. DROP (%VD)	CUMULATIVE DROP (%VD)
AA1/3	A0-101A	3C8	79	0.33	3.98	0.01%	0.01%
	101A-100	3C8	142	0.33	3.64	0.03%	0.04%
	100-101A	3C8	142	0.33	3.31	0.04%	0.08%
	101A-101	3C8	87	0.33	2.98	0.04%	0.12%
	101-101 POLE	3C8	18	0.33	2.65	0.01%	0.13%
	101 POLE-101	3C8	18	0.33	2.32	0.01%	0.14%
	101-103	3C8	106	0.33	1.99	0.08%	0.22%
	103-102	3C8	86	0.33	1.66	0.07%	0.29%
	102-103A/B	3C8	86	0.33	1.33	0.08%	0.37%
	103A/B-104	3C8	70	0.33	0.99	0.07%	0.44%
	104-90	3C8	65	0.33	0.66	0.07%	0.51%
	90-89	3C8	68	0.33	0.33	0.08%	0.60%
BA5/7	B0-114A	3C8	86	0.33	2.98	0.01%	0.01%
	114A-114	3C8	46	0.33	2.65	0.01%	0.02%
	114-115	3C8	102	0.33	2.32	0.03%	0.05%
	115-117A	3C8	117	0.33	1.99	0.05%	0.10%
	117A-116	3C8	216	0.33	1.66	0.11%	0.21%
	116 TO 117A	3C8	216	0.33	1.33	0.13%	0.34%
	117A-117	3C8	53	0.33	0.99	0.04%	0.38%
	117-118	3C8	459	0.33	0.66	0.39%	0.77%
	118-119	3C8	223	0.33	0.33	0.21%	0.98%

VOLTAGE DROP NOTES:

1. CIRCUITS PRESENTED IN THE VOLTAGE DROP CALCULATIONS ARE THE WORST CASE SCENARIO OF THE NEW CIRCUITS.

SHORT CIRCUIT CALCULATION - LC "B"

480V, POWER FACTOR = 0.90, SERVICE LATERAL CONSISTS OF ONE ALUMINUM CONDUCTOR PER PHASE IN RMC & PVC.

TRANSFORMER RATING	15 kVA MAXIMUM
VOLTAGE	240/480 VAC SECONDARY
TRANSFORMER IMPEDANCE	1.6
TRANSFORMER LET-THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	1953 A
LENGTH TO FAULT	25FT MINIMUM
SERVICE CONDUCTOR SIZE	1/0 AWG AL MAXIMUM
SERVICE CONDUIT	RMC & PVC
CALCULATED AVAILABLE FAULT CURRENT AT LC "B"	1885 A
DATE CALCULATED	5/25/2023

ARC FLASH AND SHOCK HAZARD RESULTS - LC "B" MAIN BREAKERS ENCLOSURE

ARC FLASH BOUNDARY	32 INCHES
INCIDENT ENERGY IN CAL/CM^2	3.03 CAL/CM^2
WORKING DISTANCE	18 INCHES
SHOCK HAZARD EXPOSURE	480 VAC
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	5/25/2023

SIGNAL SUMMARY

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H55	H80

BASE SCHEDULE

LOCATION		DESCRIPTION		BASE TYPE*			REMARKS
STATION	OFFSET	POLE NO	CONTROLLER	CIDH	P	A	
"EB" 306+48.84	107.70' LT	1		X			
"EB" 307+39.29	65.90' LT	2		X			
"EB" 308+19.03	46.50' LT	3		X			
"EB" 309+23.80	33.28' LT	4		X			
"EB" 310+91.59	57.33' RT	5		X			
"EB" 312+18.75	15.53' LT	6		X			
"EB" 313+29.98	11.00' LT	7		X			
"EB" 307+18.80	116.18' LT	8				X	
"EB" 306+75.90	24.03' LT	9				X	
"EB" 308+55.56	30.99' LT	10				X	
"EB" 308+60.36	22.59' RT	11				X	
"EB" 308+71.24	31.48' RT	12				X	
"EB" 308+03.17	60.20' RT	13				X	INSTALL 12' POLE FOR MOUNTING RADAR
"EB" 311+37.80	18.94' RT	14				X	
"EB" 311+49.67	36.14' RT	15				X	
"EB" 312+95.44	46.39' RT	16				X	INSTALL 12' POLE FOR MOUNTING RADAR
"EB" 312+54.57	31.73' RT	17				X	
"EB" 311+69.41	69.19' RT	18				X	
"EB" 311+38.53	112.90' RT	19				X	INSTALL 12' POLE FOR MOUNTING RADAR
"EB" 307+29.17	86.63' RT		X				
"EB" 313+19.05	42.25' RT		X				

BASE NOTES:

*BASE TYPE ABBREVIATIONS
P = PRECAST BASE (FOUNDATION)
A = TYPE "A" SIGNAL BASE POST FOUNDATION. SEE STANDARD PLANS, T-31.01
CIDH = CAST IN DRILLED HOLE

JUNCTION BOX SCHEDULE

LOCATION				JUNCTION BOX TYPE				REMARKS
STATION	OFFSET	JUNCTION BOX NO	CONTROLLER	IA	II	III	IV	
"EB" 306+55.31	107.70' LT	1			X			
"EB" 307+45.02	68.21' LT	2				X		
"EB" 308+12.83	46.50' LT	3				X		
"EB" 309+13.74	35.21' LT	4				X		
"EB" 310+91.59	57.53' RT	5				X		
"EB" 312+12.55	15.11' LT	6				X		
"EB" 313+20.25	11.29' LT	7			X			
"EB" 307+24.52	118.55' LT	8			X			
"EB" 306+69.67	24.93' LT	9			X			
"EB" 308+61.42	32.82' LT	10				X		
"EB" 308+81.90	36.45' RT	12				X		
"EB" 307+94.86	65.27' RT	13				X		
"EB" 311+29.15	18.94' RT	14				X		
"EB" 311+55.00	32.96' RT	15				X		
"EB" 312+93.19	53.56' RT	16			X			
"EB" 312+48.38	31.35' RT	17				X		
"EB" 311+74.73	66.01' RT	18			X			
"EB" 311+44.66	116.34' RT	19			X			
"EB" 313+07.98	36.97' RT	20				X		
"EB" 306+93.38	85.20' RT	A0						
"EB" 313+30.15	39.52' RT	B0						

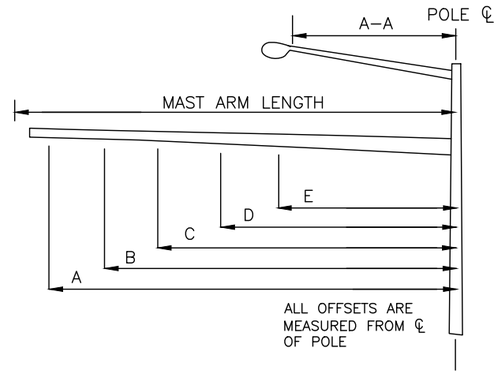
JUNCTION BOX NOTES:

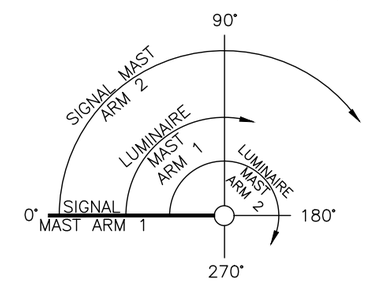
1. LOCATIONS OF JUNCTION BOXES ARE APPROXIMATE. REFER TO SUBSECTION 660-3.04 OF THE SPECIFICATIONS FOR PLACEMENT REQUIREMENTS.

POLE-POST DESIGN LOADING SCHEDULE

POLE NO.	CORNER	LUM ARM L (FT.)	SIGNAL ARM L (FT.)		A	B	C	D	E	F	G	REMARKS
1	WEST CROSSOVER	15'	45' ORIENT MAST ARM 155° FROM NORTH	SIG. OR SIGN	SIGNAL	SIGN	SIGNAL	SIGN				LUMINAIRE ARM @ 0°, MOUNTING HEIGHT @ 40'
				LOC. OFFSET (FT.)	40.0	37.0	28.0	25.0				
				LxW OR S.F.	11.50	7.50	11.50	7.50				
2	WEST CROSSOVER	15'	55'	SIG. OR SIGN	SIGNAL	SIGN	RADAR	SIGNAL	SIGN			LUMINAIRE ARM @ 0°, MOUNTING HEIGHT @ 40'
				LOC. OFFSET (FT.)	50.5	47.5	40.0	36.5	33.5			
				LxW OR S.F.	11.50	7.50	1.00	11.50	7.50			
3	WEST CROSSOVER	LUM ARM 1-15' LUM ARM 2-15'	60'	SIG. OR SIGN	SIGNAL	SIGN	SIGNAL	SIGN				LUMINAIRE ARM 1 @ 0°, MOUNTING HEIGHT @ 40', LUMINAIRE ARM 2 @ 180°, MOUNTING HEIGHT @ 40'
				LOC. OFFSET (FT.)	54.0	51.0	40.0	37.0				
				LxW OR S.F.	11.50	7.50	11.50	7.50				
4	WEST CROSSOVER	15'	35'	SIG. OR SIGN	SIGNAL	SIGN						LUMINAIRE ARM @ 0°, MOUNTING HEIGHT @ 40'
				LOC. OFFSET (FT.)	30.5	27.5						
				LxW OR S.F.	11.50	7.50						
5	EAST CROSSOVER	LUM ARM 1-15' LUM ARM 2-15'	30'	SIG. OR SIGN	SIGN	SIGNAL						LUMINAIRE ARM 1 @ 0°, MOUNTING HEIGHT @ 40', LUMINAIRE ARM 2 @ 180°, MOUNTING HEIGHT @ 40'
				LOC. OFFSET (FT.)	25.5	22.5						
				LxW OR S.F.	7.50	11.50						
6	EAST CROSSOVER	LUM ARM 1-15' LUM ARM 2-15'	35' ORIENT MAST ARM 185° FROM NORTH	SIG. OR SIGN	SIGNAL	SIGN	SIGNAL	SIGN				LUMINAIRE ARM 1 @ 90°, MOUNTING HEIGHT @ 40', LUMINAIRE ARM 2 @ 270°, MOUNTING HEIGHT @ 40'
				LOC. OFFSET (FT.)	27.5	24.5	23.5	20.5				
				LxW OR S.F.	11.50	9.00	11.50	9.00				
7	EAST CROSSOVER	LUM ARM 1-15' LUM ARM 2-15'	25'	SIG. OR SIGN	SIGNAL	SIGN						LUMINAIRE ARM 1 @ 90°, MOUNTING HEIGHT @ 40', LUMINAIRE ARM 2 @ 270°, MOUNTING HEIGHT @ 40'
				LOC. OFFSET (FT.)	18.5	15.5						
				LxW OR S.F.	11.50	7.50						

NOTES:
1. BOTH SIGNAL AND ILLUMINATION MAST ARMS ARE ORIENTATED IN THE SAME DIRECTION UNLESS NOTED OTHERWISE.
2. ORIENT SIGNAL MAST ARM(S) 90° TO ℄ OF ROADWAY UNLESS NOTED OTHERWISE.
3. MOUNTING HEIGHT FROM BOTTOM OF SIGNAL HEAD TO ROADWAY SURFACE IS 18.5 FT.
4. CENTER SIGNAL HEADS OVER DRIVING LANE TO WITHIN ±1 FT.
5. SEE SHEET H28 FOR MAST ARM SIGNS.





SIGNAL & LUMINAIRE ARM ORIENTATION

SIGNAL SUMMARY

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H56	H80

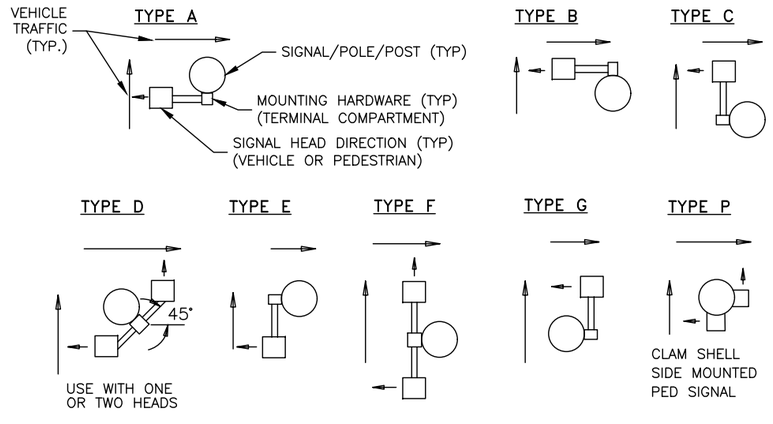
VEHICULAR SIGNAL HEAD SCHEDULE

POLE/ POST NO	FACE NO	INDICATIONS						MOUNTING				REMARKS
		12" BALL			12" ARROW			MAST ARM		SIDE MTNG TYPE	TOP OF POST	
		R	Y	G	R	Y	G	LOC OFFSET	ELEV PLUMB			
1	81	X	X	X						D		
	82	X	X	X				28.0	X			
	83	X	X	X				40.0	X			
2	25				THRU	THRU	THRU			D		
	26				THRU	THRU	THRU	36.5	X			
	27				THRU	THRU	THRU	50.5	X			
	84	X	X	X						D		
3	41				THRU	THRU	THRU	40.0	X			
	42				THRU	THRU	THRU	54.0	X			
4	61				LEFT	LEFT	LEFT			D		
	62				LEFT	LEFT	LEFT	30.5	X			
5	85				LEFT	LEFT	LEFT			D		
	86				LEFT	LEFT	LEFT	22.5	X			
6	21				THRU	THRU	THRU			D		
	22				THRU	THRU	THRU	23.5	X			
	45				THRU	THRU	THRU	27.5	X			
7	64	X	X	X				18.5	X			
	65	X	X	X						D		
9	28				THRU	THRU	THRU				X	
10	63				LEFT	LEFT	LEFT				X	
11	43				THRU	THRU	THRU				X	PROGRAMMED VISIBILITY SIGNAL
13	24	X	X	X							X	PROGRAMMED VISIBILITY SIGNAL
14	44				THRU	THRU	THRU				X	PROGRAMMED VISIBILITY SIGNAL
17	46				THRU	THRU	THRU			D		
	66	X	X	X						D		
18	87				LEFT	LEFT	LEFT				X	
19	88				LEFT	LEFT	LEFT				X	

LOCATION OFFSETS ARE FROM CENTER OF SIGNAL HEAD TO ℄ OF SIGNAL POLE

YF = YELLOW FLASHING ARROW
ANGLED = ANGLE THE ARROW TO APPROXIMATE THE DIRECTION OF TRAFFIC

POLE/POST SIGNAL HEAD SIDE MOUNTING TYPES



FLASH PROGRAM COLOR								
PHASE	2	6	4	8				
COLOR	R	R	R	R				

PEDESTRIAN DETECTION SCHEDULE

POLE	PUSH BUTTON	PHASE	REMARKS
8	1	4	SEE NOTE 2
2	2	4	SEE NOTE 1
10	3	4	SEE NOTE 2
11	4	4	SEE NOTE 2
12	5	4	SEE NOTE 2
13	6	4	SEE NOTE 1
15	7	4	SEE NOTE 2
16	8	4	SEE NOTE 2
17	9	4	SEE NOTE 2
18	10	4	SEE NOTE 1

PED SIGNAL HEAD SCHEDULE

POLE/ POST NO	FACE NO	MOUNTING TYPE	REMARKS
2	41	P	
8	40	P	
10	42	P	
11	43	P	
12	44	P	
13	45	P	
15	46	P	
16	49	P	
17	48	P	
18	47	P	

PEDESTRIAN DETECTION NOTES:

1. INSTALL AN R10-3EL SIGN WITH PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO TRAFFIC SIGNAL PAY ITEMS.

2. INSTALL AN R10-3ER SIGN WITH PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO TRAFFIC SIGNAL PAY ITEMS.

OPTICOM DETECTOR SCHEDULE

LOCATION	DET. NO.	PHASE CALL	FACING DIR.	PREEMPTOR PRIORITY
ON TOP OF POLE 2	1	8	NE	721
ON TOP OF SIGNAL HEAD 27	2	2	SE	721
ON TOP OF POLE 3	3	6	N	721
ON TOP OF SIGNAL HEAD 42	4	4	W	721
ON TOP OF SIGNAL HEAD 87	5	8	S	721
ON TOP OF SIGNAL HEAD 45	6	4	NW	721
ON TOP OF SIGNAL HEAD 22	7	2	NE	721
ON TOP OF SIGNAL HEAD 66	8	6	SW	721

(#) OPTICOM DETECTOR NUMBER

RADAR DETECTION SCHEDULE

DET. NO.	PHASE CALL	TYPE	FACING DIR.	POLE NO.	LOCATION	RADAR TYPE
1	8	STOP BAR	NW	2	SIGNAL POLE	SMARTSENSOR MATRIX
2	4	STOP BAR	SW	2	SIGNAL MAST ARM	SMARTSENSOR MATRIX
3	6	STOP BAR	NE	3	SIGNAL POLE	SMARTSENSOR MATRIX
4	2	STOP BAR	NE	13	SIGNAL POST	SMARTSENSOR MATRIX
5	4	STOP BAR	W	6	SIGNAL POLE	SMARTSENSOR MATRIX
6	2	STOP BAR	SE	6	SIGNAL POLE	SMARTSENSOR MATRIX
7	6	STOP BAR	W	16	SIGNAL POST	SMARTSENSOR MATRIX
8	8	STOP BAR	E	19	SIGNAL POLE	SMARTSENSOR MATRIX

(#) RADAR DETECTOR NUMBER

CABINET EQUIPMENT

QTY	DESCRIPTION
2	CLICK! 650, CABINET INTERFACE (WX-CLK-650)
2	SLDC CABLES (310-0411)
12	ZINC UPS BATTERY
2	UPS INVERTER
2	POWER INTERFACE MODULE

RADAR DETECTION EQUIPMENT

QTY	DESCRIPTION
0	SMARTSENSOR ADVANCE EXTENDED RANGE (WX-SS-200E)
8	SMARTSENSOR MATRIX (WX-SS-225)
8	PELCO MOUNT (WX-SS-611)
8	SMARTSENSOR 6-CONDUCTOR CABLE (WX-SS-704-XXX)

ADDITIONAL EQUIPMENT

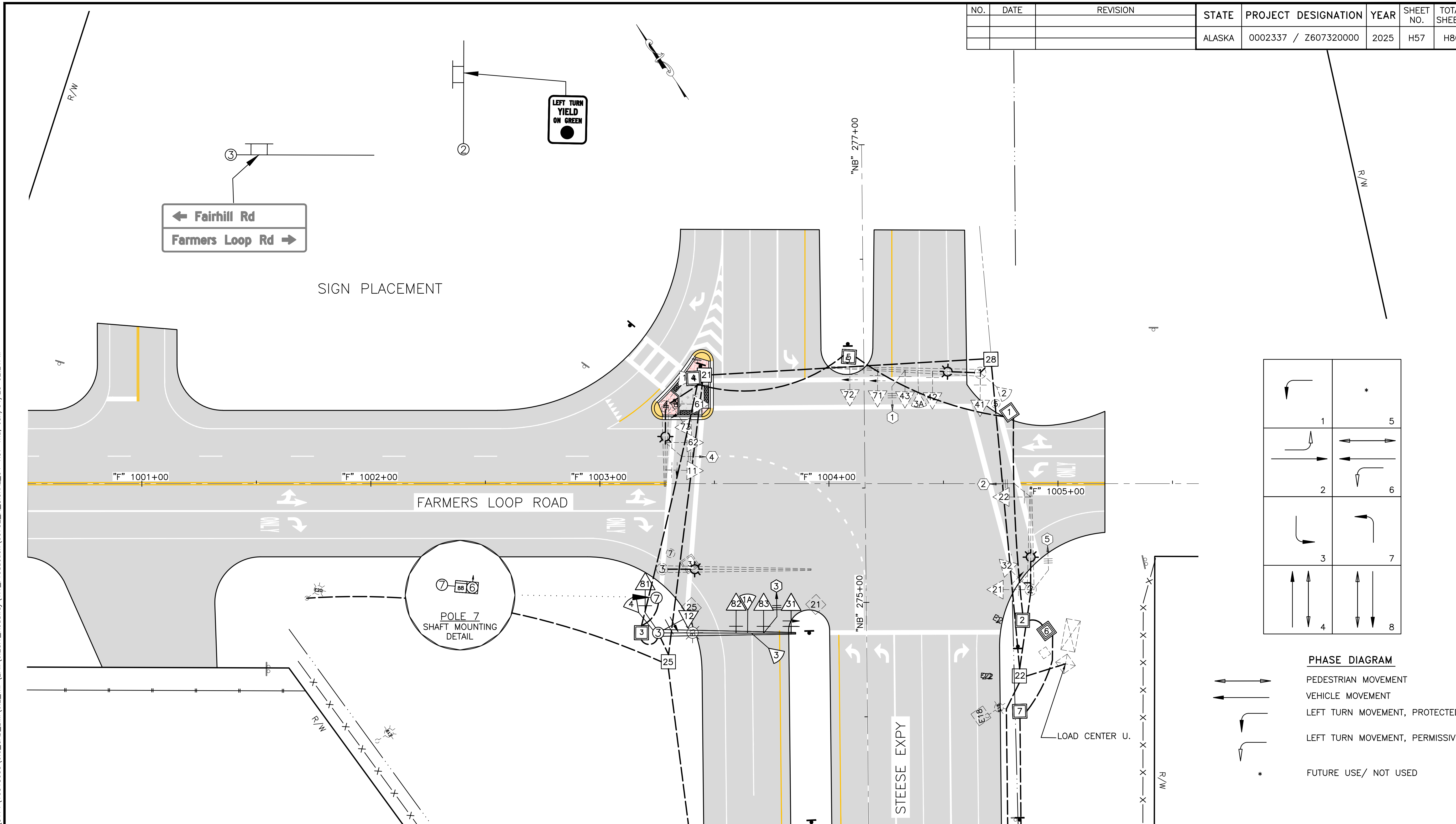
QTY	DESCRIPTION
0	SMARTSENSOR MANAGER ADVANCE SOFTWARE (WX-550-0001)
1	SMARTSENSOR MANAGER MATRIX SOFTWARE (WX-550-0004)

SIGNAL SUMMARY

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H57	H80



MATCH LINE "NB" STA. 274+00

NOTES:

1. RE-POSITION EXISTING VEHICLE SIGNAL HEADS, OPTICOM, AND RADAR DETECTION ON EXISTING SIGNAL POLES AS SHOWN IN THE POLE-POST DESIGN LOADING SCHEDULE, OPTICOM DETECTOR SCHEDULE, AND RADAR DETECTION SCHEDULE.
2. UTILITY DATA NOT AVAILABLE FOR NW QUADRANT. FIELD VERIFY LOCATION OF UTILITIES PRIOR TO CONSTRUCTION. PRESERVE AND PROTECT ALL EXISTING SIGNAL AND ILLUMINATION EQUIPMENT NOT SHOWN UNLESS OTHERWISE DIRECTED BY ENGINEER.

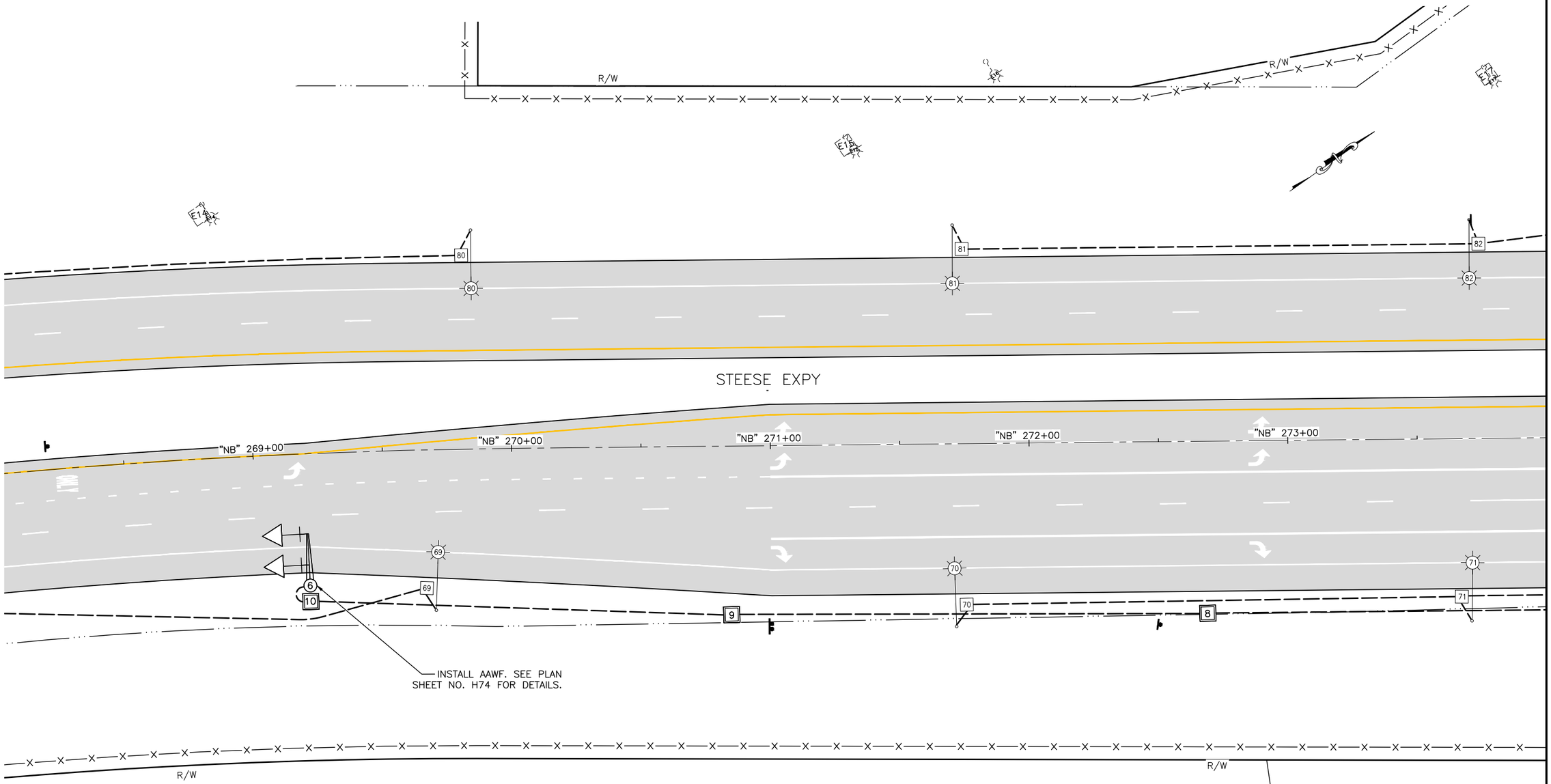
STEESE EXPY & FARMERS LOOP RD SIGNAL PLAN

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC. 582 E. 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_H_SIGNAL_04-H57 Thu, Jun/01/23 02:21PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H58	H80



MATCH LINE "NB" STA. 274+00

BASE SCHEDULE

LOCATION		DESCRIPTION		BASE TYPE*			REMARKS
STATION	OFFSET	POLE NO	CONTROLLER	CIDH	P	A	
"NB" 269+20	51' RT	6					AAWF

BASE NOTES:

SEE SHEET NO. H39–H40 FOR AAWF FOUNDATION DETAILS.

JUNCTION BOX SCHEDULE

LOCATION			JUNCTION BOX TYPE				REMARKS
STATION	OFFSET	JUNCTION BOX NO	IA	II	III	IV	
"NB" 274+52	67' RT	7		X			AAWF
"NB" 272+68	68' RT	8		X			AAWF
"NB" 270+84	65' RT	9		X			AAWF
"NB" 269+20	57' RT	10		X			AAWF

JUNCTION BOX NOTES:

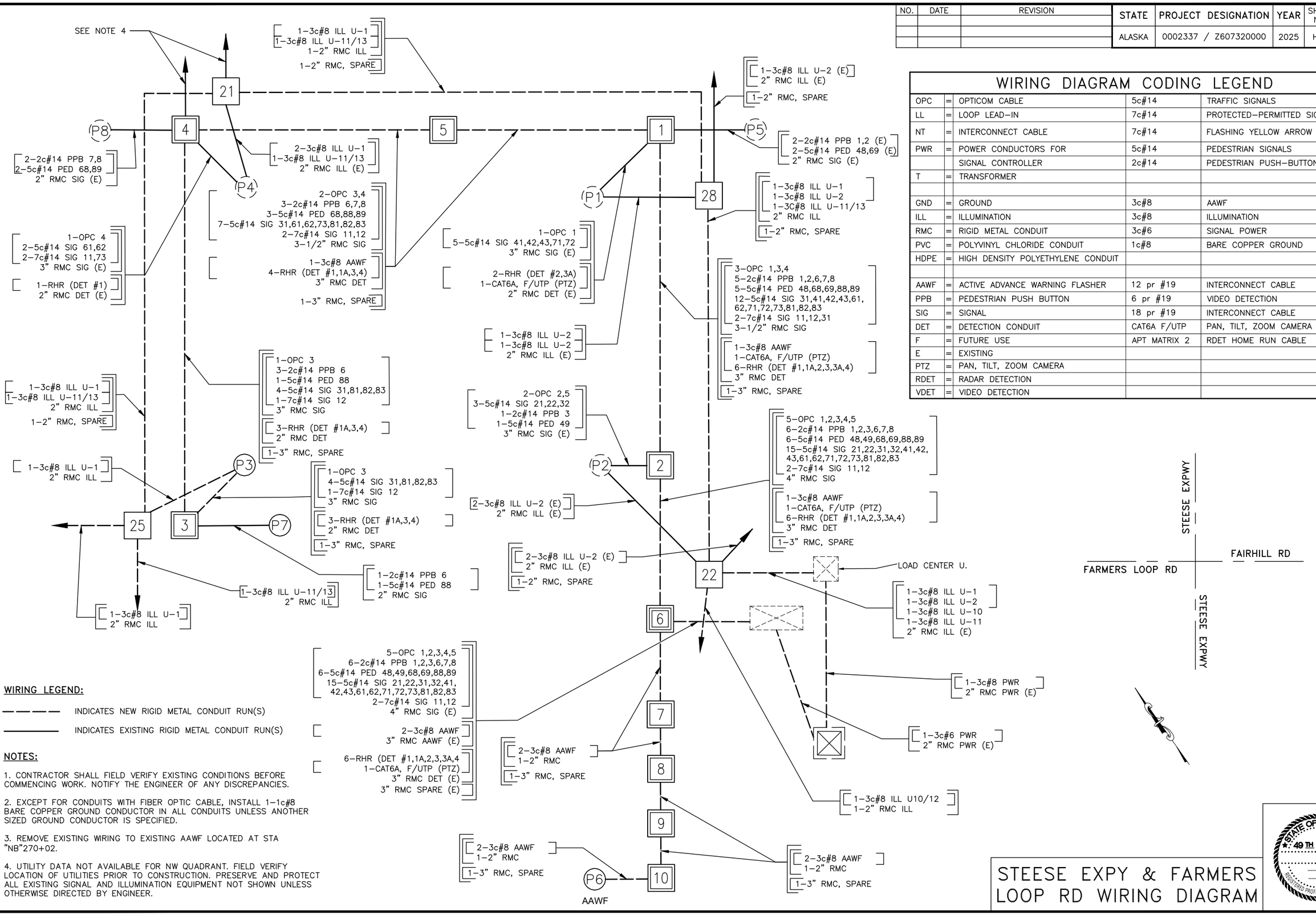
1. LOCATIONS OF JUNCTION BOXES ARE APPROXIMATE. REFER TO SUBSECTION 660–3.04 OF THE SPECIFICATIONS FOR PLACEMENT REQUIREMENTS.

STEESE EXPY & FARMERS LOOP RD AAWF PLAN

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H59	H80



WIRING DIAGRAM CODING LEGEND

OPC	=	OPTICOM CABLE	5c#14	TRAFFIC SIGNALS
LL	=	LOOP LEAD–IN	7c#14	PROTECTED–PERMITTED SIGNALS
NT	=	INTERCONNECT CABLE	7c#14	FLASHING YELLOW ARROW SIGNALS
PWR	=	POWER CONDUCTORS FOR	5c#14	PEDESTRIAN SIGNALS
		SIGNAL CONTROLLER	2c#14	PEDESTRIAN PUSH–BUTTON
T	=	TRANSFORMER		
GND	=	GROUND	3c#8	AAWF
ILL	=	ILLUMINATION	3c#8	ILLUMINATION
RMC	=	RIGID METAL CONDUIT	3c#6	SIGNAL POWER
PVC	=	POLYVINYL CHLORIDE CONDUIT	1c#8	BARE COPPER GROUND
HDPE	=	HIGH DENSITY POLYETHYLENE CONDUIT		
AAWF	=	ACTIVE ADVANCE WARNING FLASHER	12 pr #19	INTERCONNECT CABLE
PPB	=	PEDESTRIAN PUSH BUTTON	6 pr #19	VIDEO DETECTION
SIG	=	SIGNAL	18 pr #19	INTERCONNECT CABLE
DET	=	DETECTION CONDUIT	CAT6A F/UTP	PAN, TILT, ZOOM CAMERA
F	=	FUTURE USE	APT MATRIX 2	RDET HOME RUN CABLE
E	=	EXISTING		
PTZ	=	PAN, TILT, ZOOM CAMERA		
RDET	=	RADAR DETECTION		
VDET	=	VIDEO DETECTION		

WIRING LEGEND:

- INDICATES NEW RIGID METAL CONDUIT RUN(S)
- INDICATES EXISTING RIGID METAL CONDUIT RUN(S)

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE COMMENCING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. EXCEPT FOR CONDUITS WITH FIBER OPTIC CABLE, INSTALL 1–1c#8 BARE COPPER GROUND CONDUCTOR IN ALL CONDUITS UNLESS ANOTHER SIZED GROUND CONDUCTOR IS SPECIFIED.
3. REMOVE EXISTING WIRING TO EXISTING AAWF LOCATED AT STA "NB"270+02.
4. UTILITY DATA NOT AVAILABLE FOR NW QUADRANT. FIELD VERIFY LOCATION OF UTILITIES PRIOR TO CONSTRUCTION. PRESERVE AND PROTECT ALL EXISTING SIGNAL AND ILLUMINATION EQUIPMENT NOT SHOWN UNLESS OTHERWISE DIRECTED BY ENGINEER.

STEESE EXPY & FARMERS LOOP RD WIRING DIAGRAM

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644–2000 CERT OF AUTH. NO. AECC569
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H60	H80

SUMMARY OF EXISTING LOAD CENTER "U"

LOAD CENTER TYPE:	TYPE 1
SERVING UTILITY:	GOLDEN VALLEY ELECTRIC ASSOCIATION
SERVICE CONDUIT TYPE:	RIGID METAL CONDUIT
LOCATION DATA	
LOAD CENTER:	
POWER SOURCE:	GOLDEN VALLEY ELECTRIC ASSOCIATION
PHOTOELECTRIC CONTROL:	AT LOAD CENTER
SERVICE VOLTAGE:	480/240VAC, 1–PHASE, 3–WIRE WITH GROUNDED NEUTRAL
PROVIDE METER SOCKET:	YES
MAIN BREAKER A:	480V, 100A, 2–POLE
CONTACTOR:	600V, 12–POLE
AIC RATING:	14,000A

PANEL A

POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aø	Bø	POLE KVA	DESCRIPTION	AMP TRIP	POLE
1	15/2	LIGHTING (WEST FARMERS EX 12 U–1)*	1.5	1.7		0.2	LIGHTING (NB STEESE LTG (1 POLE) U–2)*	15/2	2
3			1.5		1.7	0.2			4
5	15/2	~~LIGHTING*~~		2.5		2.5	SIGNAL**	30/2	6
7					2.5	2.5			8
9	15/1	PHOTOCELL	0.1	0.3		0.2	**STEESE EXPY NB LTG (70, 71)***	**20/2**	10
11	**20/2**	**STEESE EXPY SB LTG (81, 82)***	0.2		0.4	0.2			12
13			0.2	0.2					14
15									16
17									18
*THROUGH CONTACTOR **STEP DOWN TRANSFORMER								TOTAL KVA	9.3
				4.7	4.6			AMPS	19.4

LOAD CENTER NOTES:

1. EXISTING LOAD CENTER CIRCUIT INFORMATION IS APPROXIMATED.
2. NEW CIRCUITS ARE SHOWN AS BOLD.

ARC FLASH AND SHOCK HAZARD RESULTS – LC "U" MAIN BREAKERS ENCLOSURE

ARC FLASH BOUNDARY	32 INCHES
INCIDENT ENERGY IN CAL/CM^2	3.03 CAL/CM^2
WORKING DISTANCE	18 INCHES
SHOCK HAZARD EXPOSURE	480 VAC
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	5/25/2023

SHORT CIRCUIT CALCULATION – LC "U"

480V, POWER FACTOR = 0.90, SERVICE LATERAL CONSISTS OF ONE ALUMINUM CONDUCTOR PER PHASE IN RMC & PVC.

TRANSFORMER RATING	25 kVA MAXIMUM
VOLTAGE	240/480 VAC SECONDARY
TRANSFORMER IMPEDANCE	1.6
TRANSFORMER LET–THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	1953 A
LENGTH TO FAULT	25FT MINIMUM
SERVICE CONDUCTOR SIZE	1/0 AWG AL MAXIMUM
SERVICE CONDUIT	RMC & PVC
CALCULATED AVAILABLE FAULT CURRENT AT LC "U"	1885 A
DATE CALCULATED	5/25/2023

VEHICULAR SIGNAL HEAD SCHEDULE

POLE/ POST NO	FACE NO	INDICATIONS						MOUNTING				REMARKS
		12" BALL			12" ARROW			MAST ARM		SIDE MTNG TYPE	TOP OF POST	
		R	Y	G	R	Y	G	LOC OFFSET	ELEV PLUMB			
1	41	X	X	X						D		EXISTING
	42	X	X	X					X			EXISTING
	43	X	X	X					X			EXISTING
	71				LEFT	LEFT	LEFT		X			EXISTING
	72				LEFT	LEFT	LEFT		X			EXISTING
2	21	X	X	X						D		EXISTING
	22	X	X	X					X			EXISTING
	32				LEFT	LEFT	LEFT			D		EXISTING
3	12				LEFT	LEFT	LEFT			D		
	31				LEFT	LEFT	LEFT		X			
	81	X	X	X						D		
	82	X	X	X					X			
	83	X	X	X					X			
4	11				LEFT	LEFT	LEFT		X			EXISTING
	61	X	X	X						D		EXISTING
	62	X	X	X					X			EXISTING
	73				LEFT	LEFT	LEFT			D		EXISTING

LOCATION OFFSETS ARE FROM CENTER OF SIGNAL HEAD TO ℄ OF SIGNAL POLE
YF = YELLOW FLASHING ARROW
ANGLED = ANGLE THE ARROW TO APPROXIMATE THE DIRECTION OF TRAFFIC

JUNCTION BOX SCHEDULE

LOCATION			JUNCTION BOX TYPE				REMARKS
STATION	OFFSET	JUNCTION BOX NO	IA	II	III	IV	
"NB" 275+82	63' RT	1		X			REPLACE EXISTING
"NB" 274+92	68' RT	2		X			
"NB" 274+88	98' LT	3		X			
"NB" 275+99	74' LT	4		X			REPLACE EXISTING
"NB" 276+06	07' LT	5		X			REPLACE EXISTING
"NB" 274+86	79' RT	6			X		REPLACE EXISTING
"NB" 276+00	70' LT	21	X				
"NB" 274+67	67' RT	22	X				
"NB" 274+75	87' LT	25	X				
"NB" 276+06	55' RT	28	X				REPLACE EXISTING

JUNCTION BOX NOTES:

1. LOCATIONS OF JUNCTION BOXES ARE APPROXIMATE. REFER TO SUBSECTION 660–3.04 OF THE SPECIFICATIONS FOR PLACEMENT REQUIREMENTS.

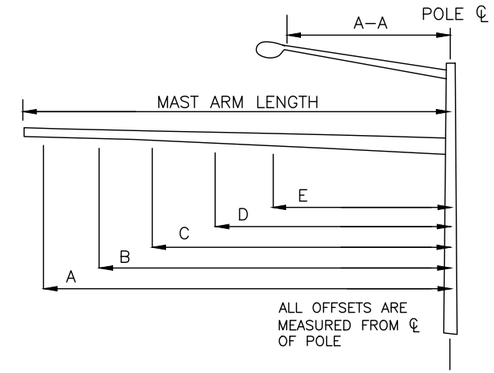
STEESE EXPY & FARMERS LOOP RD SIGNAL SUMMARY

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H61	H80

POLE–POST DESIGN LOADING SCHEDULE

POLE NO.	CORNER	LUM ARM L (FT.)	SIGNAL ARM L (FT.)		A	B	C	D	E	F	G	H	REMARKS
1 (E)	NE	12 (EXISTING)	65 (EXISTING)	SIG. OR SIGN	SIGNAL	SIGNAL	SIGNAL	RADAR	SIGNAL	SIGN			(E) LUMINAIRE ARM = 0° (E) MOUNTING HEIGHT = 40'
				LOC. OFFSET (FT.)	57.0	45.0	33.0	27.5	21.0	EX			
				LxW OR S.F.	11.5	11.5	11.5	1.0	11.5	27.5			
2 (E)	SE	15 (EXISTING)	40 (EXISTING)	SIG. OR SIGN	SIGNAL	SIGN	SIGN						(E) LUMINAIRE ARM = 0° (E) MOUNTING HEIGHT = 40'
				LOC. OFFSET (FT.)	38.5	35.5	EX						
				LxW OR S.F.	11.5	5.0	19.0						
3	SW	15	60	SIG. OR SIGN	SIGNAL	SIGNAL	RADAR	RADAR	SIGNAL	SIGN			LUMINAIRE ARM = 0° MOUNTING HEIGHT = 40'
				LOC. OFFSET (FT.)	58.0	46.0	41.0	39.0	34.0	13.5			
				LxW OR S.F.	11.1	11.5	1.0	1.0	11.5	27.5			
4 (E)	NW	12 (EXISTING)	35 (EXISTING)	SIG. OR SIGN	SIGNAL	SIGNAL	SIGN						(E) LUMINAIRE ARM = 0° (E) MOUNTING HEIGHT = 40'
				LOC. OFFSET (FT.)	29.0	17.0	EX						
				LxW OR S.F.	14.1	11.5	19.0						



NOTES:
1. BOTH SIGNAL AND ILLUMINATION MAST ARMS ARE ORIENTATED IN THE SAME DIRECTION UNLESS NOTED OTHERWISE.
2. ORIENT SIGNAL MAST ARM(S) 90° TO ℄ OF ROADWAY UNLESS NOTED OTHERWISE.
3. MOUNTING HEIGHT FROM BOTTOM OF SIGNAL HEAD TO ROADWAY SURFACE IS 18.5 FT.
4. CENTER SIGNAL HEADS OVER DRIVING LANE TO WITHIN ±1 FT.

PED SIGNAL HEAD SCHEDULE

POLE/ POST NO	FACE NO	MOUNTING TYPE	REMARKS
5	48	P	EXISTING
	69	P	EXISTING
2	49	P	EXISTING
7	88	P	
8	68	P	EXISTING
	89	P	EXISTING

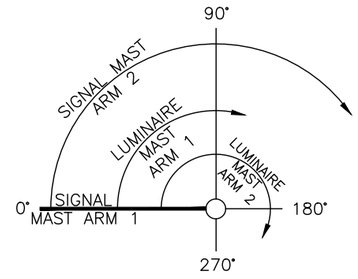
PEDESTRIAN DETECTION SCHEDULE

POLE	PUSH BUTTON	PHASE	REMARKS
5	1	6	EXISTING
	2	4	EXISTING
2	3	4	EXISTING
7	6	8	SEE NOTE 2
8	7	8	EXISTING
	8	6	EXISTING

PEDESTRIAN DETECTION NOTES:

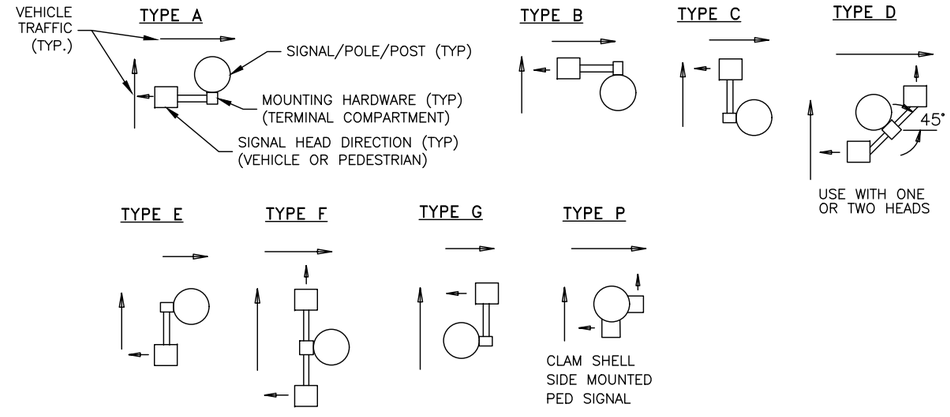
1. INSTALL AN R10–3EL SIGN WITH PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO TRAFFIC SIGNAL PAY ITEMS.

2. INSTALL AN R10–3ER SIGN WITH PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO TRAFFIC SIGNAL PAY ITEMS.



SIGNAL & LUMINAIRE ARM ORIENTATION

POLE/POST SIGNAL HEAD SIDE MOUNTING TYPES



BASE SCHEDULE

LOCATION		DESCRIPTION		BASE TYPE*			REMARKS
STATION	OFFSET	POLE NO	CONTROLLER	CIDH	P	A	
"EX"	"EX"						LOAD CENTER "U" (E)
"EX"	"EX"	1					SIGNAL POLE (E)
"EX"	"EX"	2					SIGNAL POLE (E)
"NB" 274+88	91' LT	3		X			SIGNAL POLE
"EX"	"EX"	4					SIGNAL POLE (E)
"EX"	"EX"	5					SIGNAL POST (E)
"NB" 275+03	92' LT	7				X	SIGNAL POST
"EX"	"EX"	8					SIGNAL POST (E)
"EX"	"EX"						TRAFFIC CONTROLLER (E)
"EX"	"EX"						TRANSFORMER POST (E)

BASE NOTES:

1. *BASE TYPE ABBREVIATIONS
   P = PRECAST BASE (FOUNDATION)
   A = TYPE "A" SIGNAL BASE POST FOUNDATION. SEE STANDARD PLANS, T–31.01
   CIDH = CAST IN DRILLED HOLE

STEESE EXPY & FARMERS LOOP RD SIGNAL SUMMARY

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644–2000 CERT OF AUTH. NO. AECC569
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H62	H80

SIGNAL SIGN SCHEDULE

LOCATION		ASDS CODE	LEGEND	SIZE HXV (INCHES)	AREA (SQ FT)	SIGN FACES	BRACING/ FRAMING		REMARKS
POLE NO.	OFFSET						BRACED	FRAMED	
4		D3-1	STEESE HIGHWAY	EX	EX	E	X		EXISTING
8		R10-3E	PED. CROSS SIGN	EX	EX	SE	X		EXISTING
		R10-3E	PED. CROSS SIGN	EX	EX	SW	X		EXISTING
1		D3-102	FAIRHILL ROAD/ FARMERS LOOP ROAD	EX	EX	S		X	EXISTING
5		R10-3E	PED. CROSS SIGN	EX	EX	NW	X		EXISTING
		R10-3E	PED. CROSS SIGN	EX	EX	SW	X		EXISTING
2		D3-1	STEESE HIGHWAY	EX	EX	NW	X		EXISTING
		R10-3E	PED. CROSS SIGN	EX	EX	N	X		EXISTING
	37.48	R10-12	LEFT TURN YIELD ON GREEN	30X24	5.00	NW		X	INSTALL ON EXISTING MAST ARM
3	16.99	D3-102	FAIRHILL ROAD/ FARMERS LOOP ROAD	EX	EX	NE		X	REMOVE AND REINSTALL ON NEW MAST ARM
7		R10-3E	PED. CROSS SIGN	EX	EX	SE	X		REMOVE AND REINSTALL ON NEW SIGNAL POLE
SUBTOTAL SIGNAL SIGNS					5.00				

LOCATION OFFSETS ARE FROM CENTER OF SIGNAL HEAD TO ℄ OF SIGNAL POLE

FLASH PROGRAM COLOR

PHASE	1	2	3	4	6	7	8
COLOR	R	R	R	R	R	R	R

RADAR DETECTION EQUIPMENT

QTY	DESCRIPTION
1	SMARTSENSOR ADVANCE EXTENDED RANGE (WX-SS-200E)
2	SMARTSENSOR MATRIX (WX-SS-225)
3	PELCO MOUNT (WX-SS-611)
3	SMARTSENSOR 6-CONDUCTOR CABLE (WX-SS-704-XXX)

CABINET EQUIPMENT

QTY	DESCRIPTION
0	CLICK! 656, CABINET INTERFACE (WX-CLK-656)
0	SLDC CABLES (310-0411)

NOTE:

1. SEE SHEET H100-H1XX FOR COMMUNICATION EQUIPMENT AND CAMERAS.

RADAR DETECTION SCHEDULE

DET. NO.	PHASE CALL	TYPE	FACING DIR.	POLE NO.	LOCATION	RADAR TYPE	REMARKS
1	3, 8	STOP BAR	NE	4	SIGNAL POLE 4 SHAFT	SMARTSENSOR MATRIX	EXISTING
2	1, 6	STOP BAR	S	1	SIGNAL POLE 1 SHAFT	SMARTSENSOR MATRIX	EXISTING
3	4, 7	STOP BAR	S	3	SIGNAL POLE 3 MAST ARM	SMARTSENSOR MATRIX	
4	2, 5	STOP BAR	N	3	SIGNAL POLE 3 SHAFT	SMARTSENSOR MATRIX	
1A	8	ADVANCE	NE	3	SIGNAL POLE 3 MAST ARM	SMARTSENSOR ADVANCE	
3A	4	ADVANCE	SW	1	SIGNAL POLE 1 MAST ARM	SMARTSENSOR ADVANCE	EXISTING

(#) RADAR DETECTOR NUMBER

REMOVE EXISTING EQUIPMENT SCHEDULE

LOCATION			
STATION	OFFSET	TYPE	NO.
"NB" 274+92	59' RT	JUNCTION BOX	2
"NB" 275+17	77' LT	JUNCTION BOX	3
"NB" 274+99	22' LT	JUNCTION BOX	21
"NB" 274+67	52' RT	JUNCTION BOX	22
"NB" 274+98	76' LT	JUNCTION BOX	25
"NB" 275+15	89' LT	SIGNAL POLE	3
"NB" 275+22	85' LT	SIGNAL POST	7

OPTICOM DETECTOR SCHEDULE

LOCATION	DET. NO.	PHASE CALL	FACING DIR.	PREEMPTOR PRIORITY	REMARKS
ON TOP OF SIGNAL HEAD 43	1	4, 7	S		EXISTING
ON TOP OF SIGNAL HEAD 22	2	2, 5	W		EXISTING
ON TOP OF SIGNAL HEAD 83	3	3, 8	N		
ON TOP OF SIGNAL HEAD 62	4	1, 6	E		EXISTING
ON TOP OF SIGNAL POLE 2	5	1, 6	NE		EXISTING

(#) OPTICOM DETECTOR NUMBER

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

STEESE EXPY & FARMERS LOOP RD SIGNAL SUMMARY

NO.	DATE	REVISION

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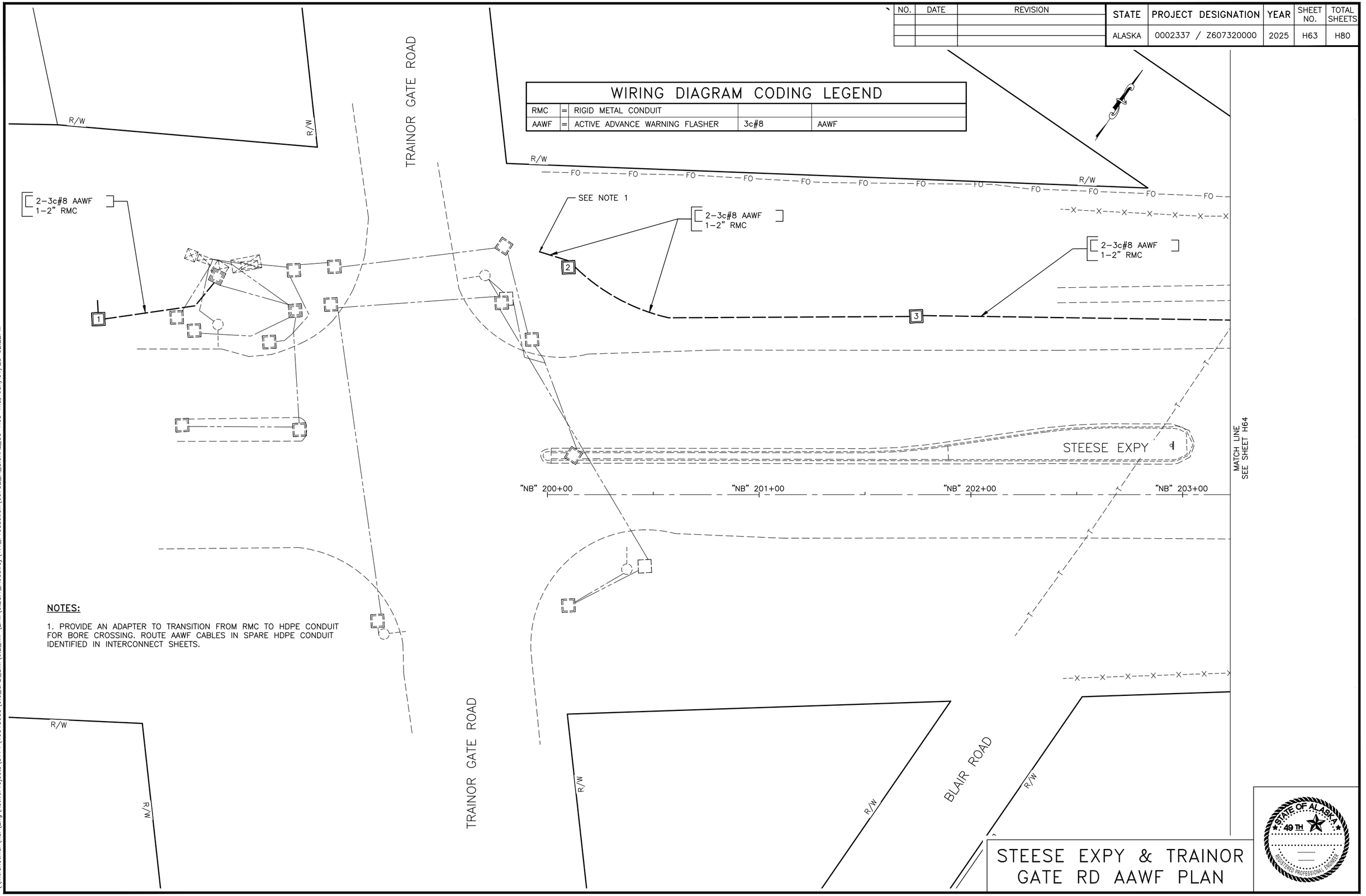
ALASKA	0002337 / Z607320000	2025	H63	H80

WIRING DIAGRAM CODING LEGEND

RMC	=	RIGID METAL CONDUIT		
AAWF	=	ACTIVE ADVANCE WARNING FLASHER	3c#8	AAWF



NOTES:

1. PROVIDE AN ADAPTER TO TRANSITION FROM RMC TO HDPE CONDUIT FOR BORE CROSSING. ROUTE AAWF CABLES IN SPARE HDPE CONDUIT IDENTIFIED IN INTERCONNECT SHEETS.

STEESE EXPY & TRAINOR GATE RD AAWF PLAN

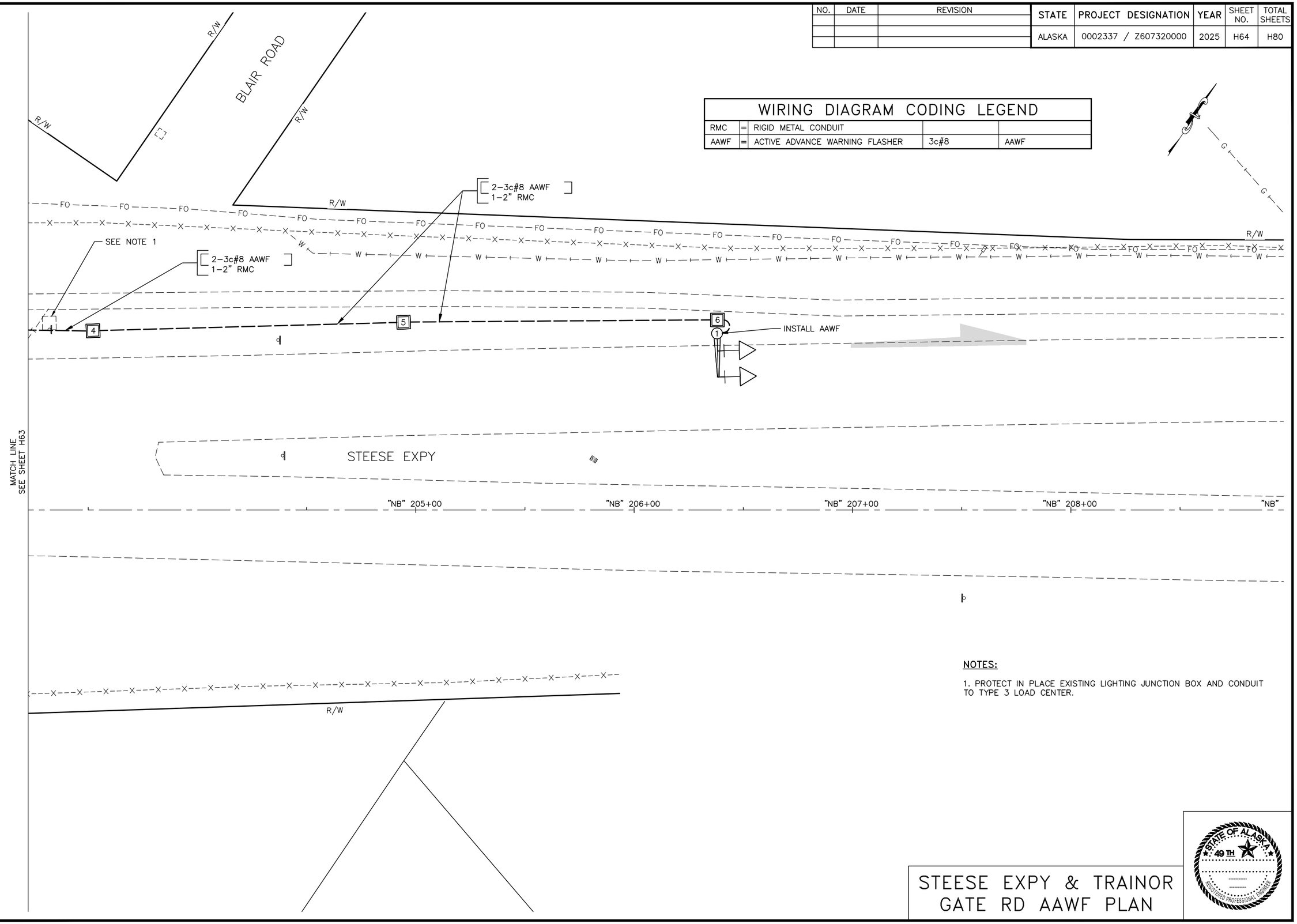
STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H64	H80

WIRING DIAGRAM CODING LEGEND

RMC	=	RIGID METAL CONDUIT		
AAWF	=	ACTIVE ADVANCE WARNING FLASHER	3c#8	AAWF



NOTES:

1. PROTECT IN PLACE EXISTING LIGHTING JUNCTION BOX AND CONDUIT TO TYPE 3 LOAD CENTER.

STEESE EXPY & TRAINOR GATE RD AAWF PLAN

STATE OF ALASKA
49TH
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H65	H80

BASE SCHEDULE

LOCATION		DESCRIPTION		BASE TYPE*			REMARKS
STATION	OFFSET	POLE NO	CONTROLLER	CIDH	P	A	
"NB" 206+38	81' LT	6					AAWF

JUNCTION BOX SCHEDULE

LOCATION		JUNCTION BOX NO	JUNCTION BOX TYPE			
NORTHING	EASTING		IA	II	III	IV
2011166.583	682256.6835	1		X		
STATION	OFFSET					
"NB" 200+10	107' LT	2		X		
"NB" 201+74	84' LT	3		X		
"NB" 203+52	82' LT	4		X		
"NB" 204+94	86' LT	5		X		
"NB" 206+38	87' LT	6		X		

JUNCTION BOX NOTES:

1. LOCATIONS OF JUNCTION BOXES ARE APPROXIMATE. REFER TO SUBSECTION 660-3.04 OF THE SPECIFICATIONS FOR PLACEMENT REQUIREMENTS.

SUMMARY OF EXISTING LOAD CENTER "V"

LOAD CENTER TYPE:	TYPE 1A
SERVING UTILITY:	GOLDEN VALLEY ELECTRIC ASSOCIATION
SERVICE CONDUIT TYPE:	RIGID METAL CONDUIT
LOCATION DATA	
LOAD CENTER:	STEESE AND TRAINOR GATE INTERSECTION
POWER SOURCE:	GOLDEN VALLEY ELECTRIC ASSOCIATION
PHOTOELECTRIC CONTROL:	AT LOAD CENTER
SERVICE VOLTAGE:	240/480VAC, 1-PHASE, 3-WIRE WITH GROUNDED NEUTRAL
PROVIDE METER SOCKET:	YES
MAIN BREAKER A:	480V, 200A, 2-POLE
CONTACTOR:	600V, 12-POLE
AIC RATING:	14 KAIC

PANEL A

POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aø	Bø	POLE KVA	DESCRIPTION	AMP TRIP	POLE
1	15/1	PHOTOCELL	0.1	2.8		2.7	LIGHTING*	20/2	2
3	50/2	SIGNAL**	2.5		5.2	2.7			4
5			2.5	5.2		2.7	LIGHTING*	20/2	6
7	50/2	SPARE			2.7	2.7			8
9							SPARE	20/2	10
11	20/2	SPARE							12
13							SPACE		14
15		SPACE					SPACE		16
17		SPACE					SPACE		18
* THROUGH CONTACTOR ** 5 KVA STEPDOWN TRANSFORMER								TOTAL KVA	15.9
				8.0	7.9			AMPS	33.1

LOAD CENTER NOTES:

1. EXISTING POLE KVA LOAD PER CIRCUITS ARE ESTIMATED BASED ON WORST CASE SCENARIO.
2. ALL CIRCUITS ON LOAD CENTER "V" ARE EXISTING.

ARC FLASH AND SHOCK HAZARD RESULTS - LC "V" MAIN BREAKERS ENCLOSURE

ARC FLASH BOUNDARY	32 INCHES
INCIDENT ENERGY IN CAL/CM^2	3.03 CAL/CM^2
WORKING DISTANCE	18 INCHES
SHOCK HAZARD EXPOSURE	480 VAC
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	5/25/2023

SHORT CIRCUIT CALCULATION - LC "V"

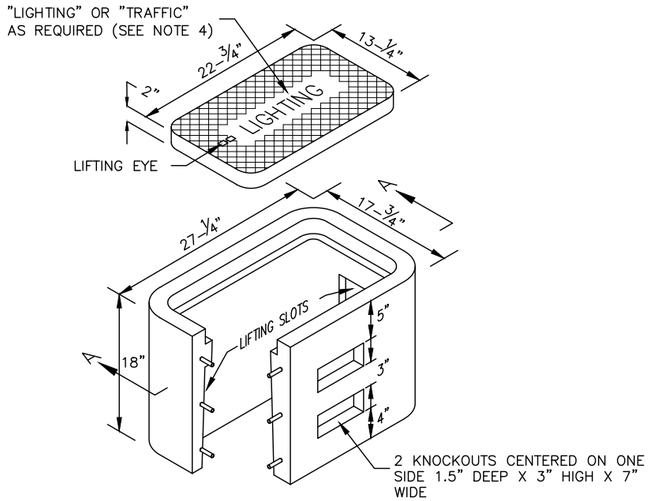
480V, POWER FACTOR = 0.90, SERVICE LATERAL CONSISTS OF ONE ALUMINUM CONDUCTOR PER PHASE IN RMC & PVC.

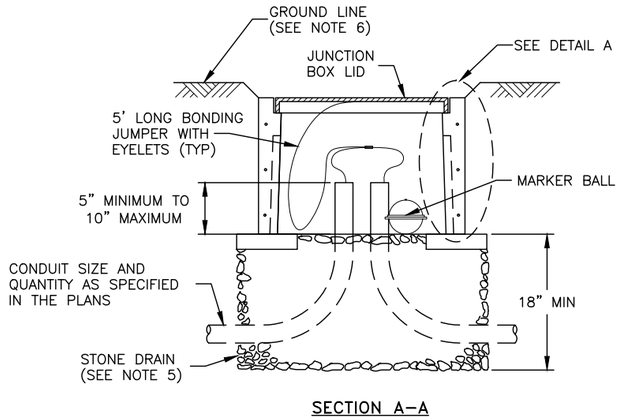
TRANSFORMER RATING	15 kVA MAXIMUM
VOLTAGE	240/480 VAC SECONDARY
TRANSFORMER IMPEDANCE	1.6
TRANSFORMER LET-THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	1953 a
LENGTH TO FAULT	25FT MINIMUM
SERVICE CONDUCTOR SIZE	1/0 AWG AL MAXIMUM
SERVICE CONDUIT	RMC & PVC
CALCULATED AVAILABLE FAULT CURRENT AT LC "V"	1885 A
DATE CALCULATED	5/25/2023

STEESE EXPY & TRAINOR GATE RD AAWF SUMMARY

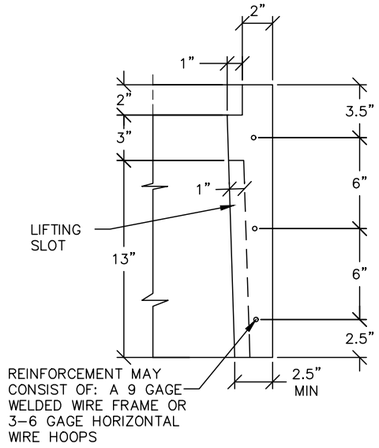
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H66	H80



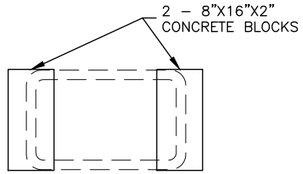


SECTION A–A

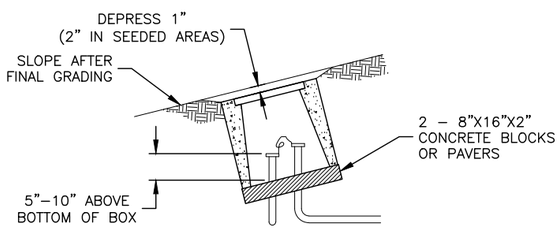


DETAIL A

TYPE IA JUNCTION BOX DETAIL



BASE DETAIL
TYPE 1A JUNCTION BOX

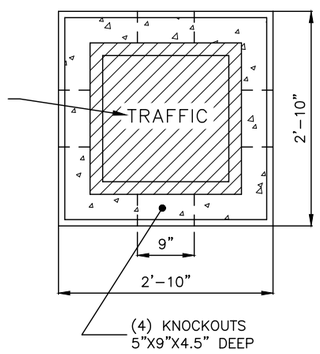


TYPE IA J–BOX INSTALLATION ON SLOPE

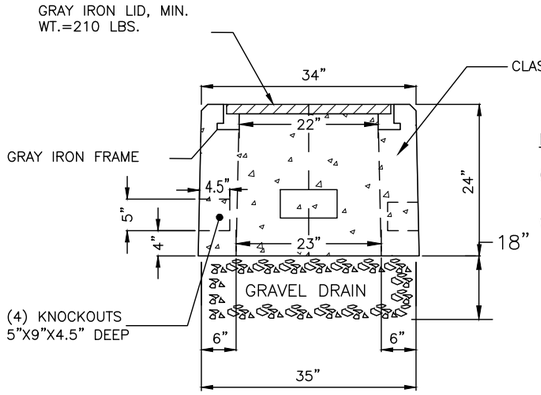
NOTES:

1. AVOID INSTALLING TYPE IA JUNCTION BOXES IN DRIVEWAYS OR IN LOCATIONS SUBJECT TO USE BY HEAVY TRUCKS. INSTALL JUNCTION BOXES ONLY AT THE LATERAL LOCATIONS ALLOWED IN SUBSECTION 660–3.04.
2. FURNISH TYPE II, III AND IV JUNCTION BOXES WITH CAST IRON FRAMES AND LIDS THAT WEIGH A MINIMUM OF 210 POUNDS AND ARE RATED FOR HEAVY TRAFFIC LOADS IN COMPLIANCE WITH AASHTO M306. FURNISH TYPE IA JUNCTION BOXES WITH CAST IRON LIDS THAT WEIGH A MINIMUM OF 50 POUNDS.
3. CONSTRUCT JUNCTION BOXES ACCORDING TO SECTION 501 USING CLASS A CONCRETE. REINFORCE TYPE IA JUNCTION BOXES AS SHOWN. SYNTHETIC STRUCTURAL FIBER–REINFORCED CONCRETE THAT MEETS ASTM C 1116 AND CONTAINS FIBER IN PROPORTIONS AS RECOMMENDED BY THE FIBER MANUFACTURER MAY BE ADDED FOR STRENGTH.
4. FOR JUNCTION BOXES THAT CONTAIN ILLUMINATION CONDUCTORS EXCLUSIVELY, FURNISH LIDS WITH THE WORD "LIGHTING" INSCRIBED INTO THEM. FOR OTHER JUNCTION BOXES, FURNISH LIDS WITH THE WORD "TRAFFIC" INSCRIBED INTO THEM.
5. UNDER JUNCTION BOXES, INSTALL STONE DRAINS THAT CONSIST OF POROUS BACKFILL MATERIAL CONFORMING TO SUBSECTION 703–2.10, AGGREGATE GRADATION A.
6. SET THE TOPS OF JUNCTION BOXES WITH THE FOLLOWING DIMENSIONS BELOW THE FINISHED SURROUNDING SURFACE:
   - 1" IN PAVED MEDIANS AND ADJACENT TO PEDESTRIAN FACILITIES
   - 1/4" IN PEDESTRIAN FACILITIES
   - 2" IN ALL OTHER AREAS
7. INSTALL A 1/2" THICK PREFORMED BITUMINOUS JOINT MATERIAL AROUND JUNCTION BOXES INSTALLED IN PORTLAND CEMENT CONCRETE WALKWAYS.
8. INSTALL AN ELECTRONIC MARKER BALL IN ALL JUNCTION BOXES PER SUBSECTION 660–3.04.
9. PRIOR TO INSTALLATION MARK ALL JUNCTION BOX LOCATIONS WITH A WIRE STAFF VINYL FLAG. THE FLAG SHALL BE RED IN COLOR AND MINIMUM 4–INCHES TALL BY 5–INCHES WIDE. THE WIRE STAFF SHALL BE 21–INCHES IN LENGTH AND CONSTRUCTED OF MINIMUM 15.5 GAUGE STEEL.
10. INSTALL JUNCTION BOX REINFORCING STEEL AS SHOWN ON STANDARD PLAN L–23.02.

STANDARD LETTERING:
'TRAFFIC' OR 'LIGHTING'



PLAN VIEW



ELEVATION VIEW

NOTES:

(4) 1/2" FERRULE INSERTS – LOCATED CENTER OF INSIDE WALLS FOR CABLE HOOKS

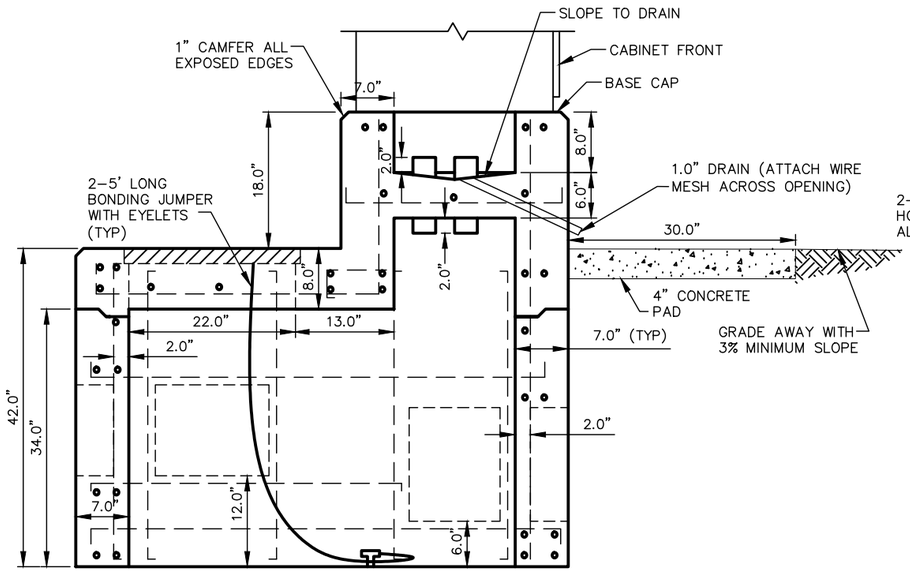
WEIGHT = APPROXIMATELY 1700 LBS. EACH (WITH FRAME & COVER)

TYPE II JUNCTION BOX

SIGNAL DETAILS 1 OF 8

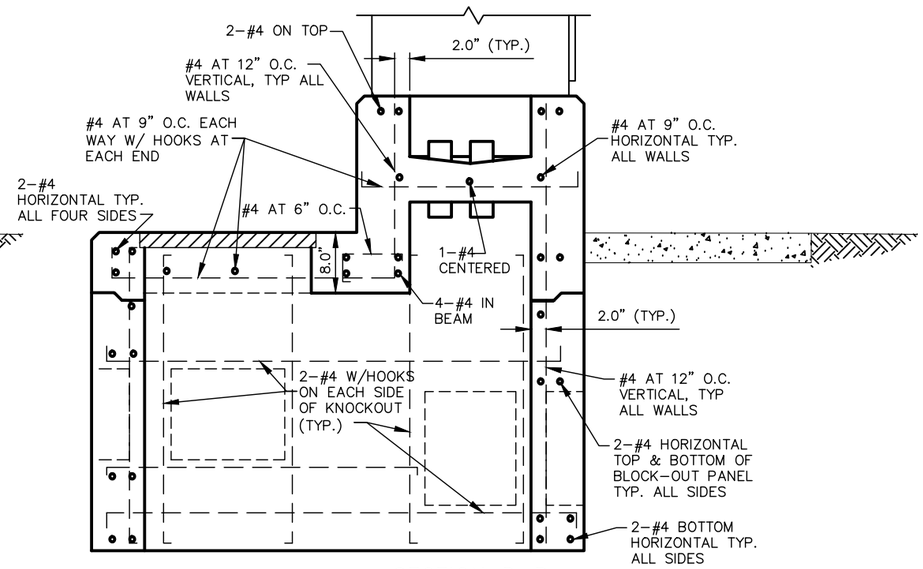
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H67	H80



SECTION A–A

NOTE: SEE SECTION B–B FOR REBAR DETAILS



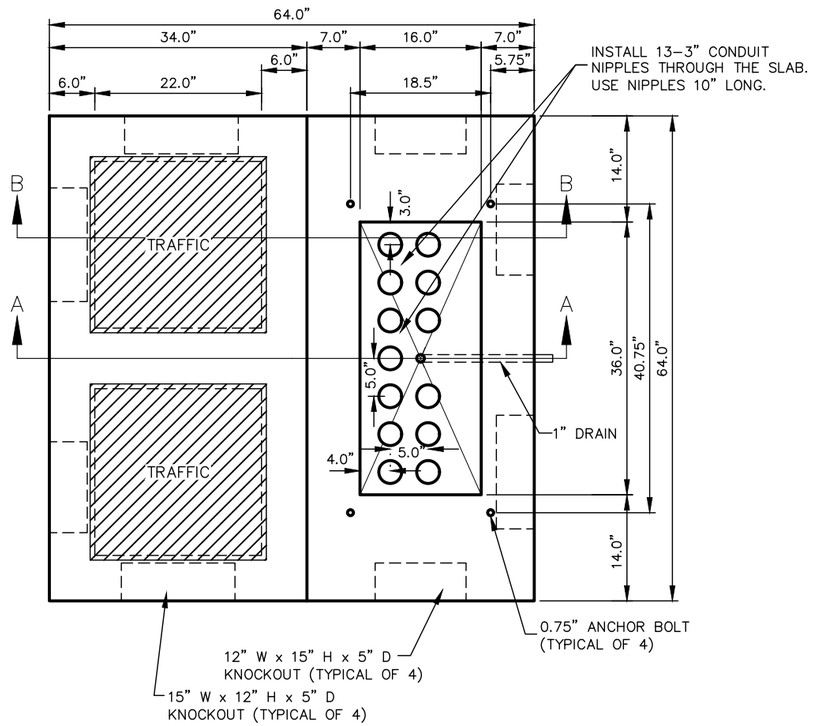
SECTION B–B

NOTE: SEE SECTION A–A FOR DIMENSIONAL DETAILS

NOTES:

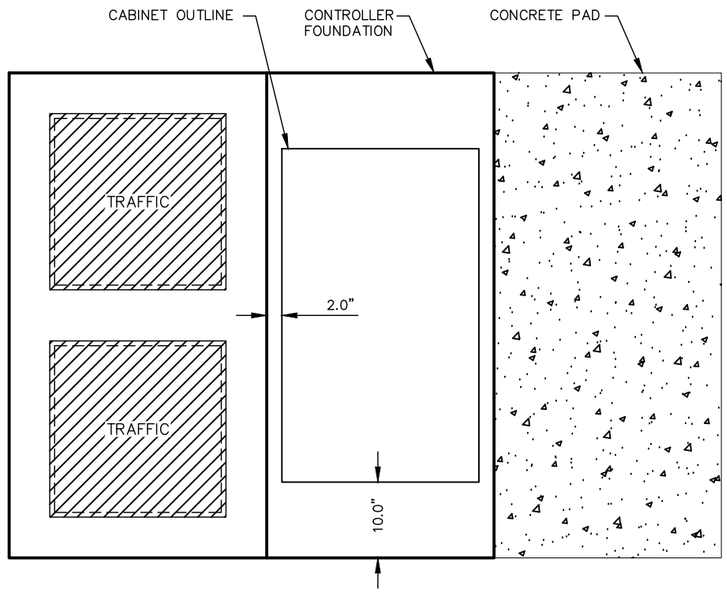
1. ANCHOR BOLTS SHALL NOT PROTRUDE MORE THAN 1.5" ABOVE THE TOP OF THE FOUNDATION. ANCHOR BOLT DIMENSIONS SHALL BE AS SPECIFIED BY THE CABINET MANUFACTURER.
2. SEAL UNUSED CONDUIT STUBS WITH WATERTIGHT CAPS. SEAL STUBS CARRYING CONDUCTORS WITH WATERTIGHT SEALING BUSHINGS DESIGNED TO SEAL AROUND CONDUCTORS AND AGAINST THE CONDUIT WALLS.
3. ROUTE THE FIVE FOOT COPPER GROUNDING JUMPER THROUGH THE 2" PIPE NIPPLE AND ATTACH IT TO THE GROUNDING BUSHING ON THE FEEDER CONDUIT.
4. STOP HORIZONTAL & VERTICAL STEEL AT THE BLOCK-OUT PANELS & THE JOINT USING 90 DEGREE HOOKS. USE 2 EXTRA #4 HORIZONTAL & VERTICAL BARS. ALL SIDES AS SHOWN.
5. INSTALL TRAFFIC CONTROLLER WITHIN 1-DEGREE OF PLUMB.

MATERIAL PROPERTIES		
CONCRETE	CLASS A	F'C = 4000 PSI
REINFORCING STEEL	AASHTO M31 GRADE 60	F_Y = 60 KSI
CONDUIT	RMC	
BONDING JUMPERS	3M-25T BBE6 OR EQUAL	



SIZE 6 OR 7 CONTROLLER CABINET FOUNDATION

NOTE: BOLT SPACING DIMENSIONS SHOWN FOR TS2 CONTROLLER CABINETS.

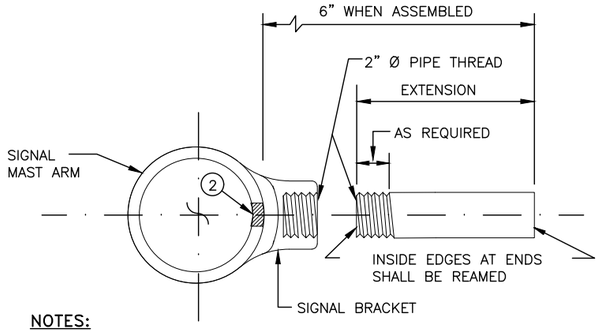


PLAN VIEW

SIGNAL DETAILS 2 OF 8

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H68	H80

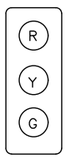


NOTES:

1. THESE DETAILS MODIFY STANDARD PLANS T-52.
2. FIELD DRILL WIRING ACCESS HOLE AS REQUIRED. REAM INSIDE & OUTSIDE AND PAINT WITH SPELTER REPAIR MATERIAL.
3. ONE 2" GALVANIZED SCHEDULE 40 RIGID METAL CONDUIT EXTENSION SHALL BE FURNISHED WITH EACH SIGNAL BRACKET.
4. SIGNAL BRACKETS SHALL BE ASTRO-BRAC AB-3008AK OR APPROVED EQUAL AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER. THE ACTUAL LOCATION OF BRACKETS ON EACH ARM SHALL BE DETERMINED BY THE ENGINEER AFTER THE POLES AND ARMS HAVE BEEN INSTALLED.

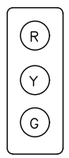
PLUMBIZER SIGNAL MOUNTING DETAIL

(REQUIRED FOR ALL NEW OR RELOCATED PLUMBIZER [MAST ARM] MOUNTED SIGNALS)



11.5 SF

MAST ARM MOUNTED
3 SECTION-12" LENS-8" BACK PLATE
(PLAIN OR ARROW)

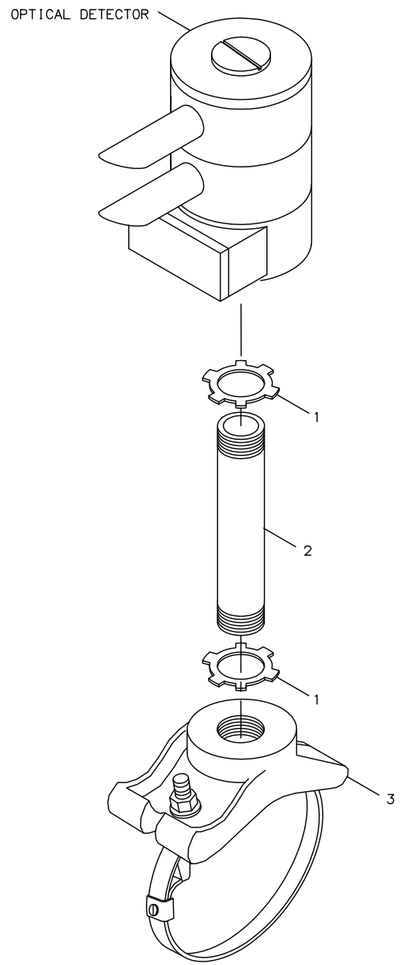


11.5 SF

POLE-SIDE MOUNTED
3 SECTION-12" LENS-5" BACK PLATE
(PLAIN OR ARROW)

NOTE:
AREA OF MAST ARM MOUNTED SIGNALS ARE FOR USE IN CALCULATING WIND LOADS

SIGNAL HEAD CONFIGURATIONS



PARTS LIST FOR EACH GTT OPTICOM DETECTOR INSTALLED

CONFIGURE AS SHOWN FROM PARTS BELOW

PART NO.	PART TYPE	LIGHT KIT QUANTITY
1	3/4" LOCKNUT	2
2	3/4" X 12" NIPPLE	1
3	ASTRO-MINI-BRAC	1

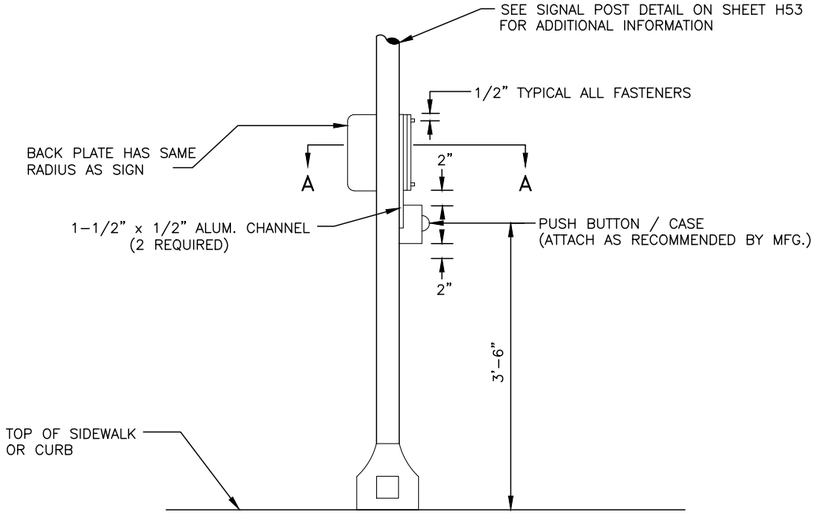
GTT NOTES:

1. SEE THE SIGNAL PLANS FOR THE SIGNAL POLE MAST ARMS SCHEDULED FOR EVP INSTALLATION.
2. FOR EACH EVP INSTALLATION, FURNISH:
   A. A GTT MODEL 711, 721, 722 OPTICOM DETECTOR AS CALLED FOR IN PLANS.
   B. AN ASTRO-MINI-BRAC, MODEL AB-0155-L, AS MANUFACTURED BY PELCO PRODUCTS OR AN APPROVED EQUAL.
3. MOUNT EVP DETECTORS TO HAVE DIRECT, UNOBSTRUCTED LINE-OF-SIGHT OF APPROACHING VEHICLES. DRILL A 1 INCH HOLE IN THE TOP DEAD CENTER OF THE MAST ARM AT THE LOCATION PRE-APPROVED BY THE ENGINEER. ASSEMBLE AND TIGHTEN THE PARTS AND LOCKNUTS AS SHOWN ON THIS SHEET.
4. BEFORE ATTACHING THE MODEL 138 DETECTOR CABLE TO THE OPTICOM DETECTOR, STRIP THE INSULATION FROM THE THREE INSULATED CONDUCTORS AT THE CONTROLLER CABINET AND ATTACH ALL FOUR CONDUCTORS TO GROUND.
5. INSTALL DETECTOR BEHIND SIGNAL HEAD BACKPLATE INDICATED IN PLANS.

SIGNAL DETAILS 3 OF 8

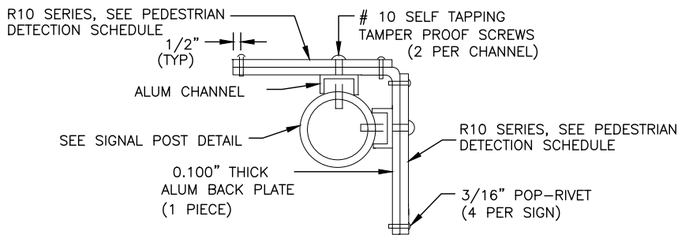
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H69	H80



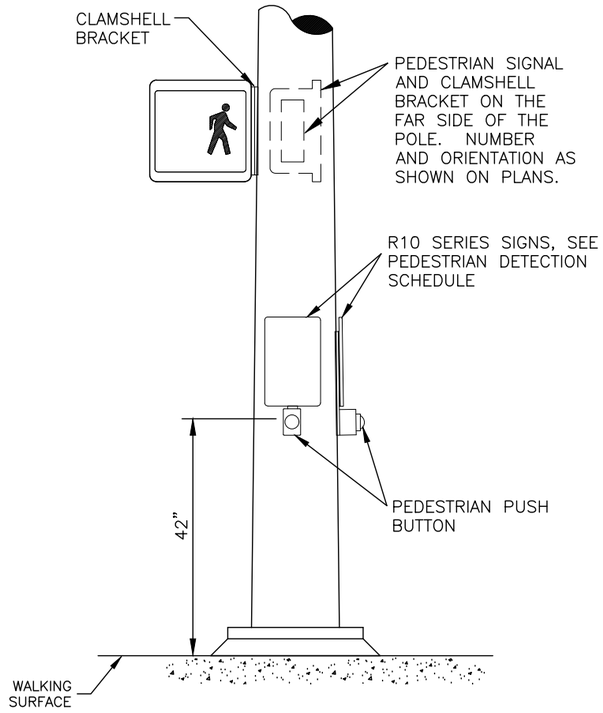
WHEN ONLY ONE SIGN & BUTTON IS REQUIRED THE BACK PLATE SHALL BE THE SAME SIZE AS THE SIGN AND SHALL BE CENTERED ON THE POST AND ALUM. CHANNEL.

SIGNAL POST MOUNTED PEDESTRIAN
HARDWARE & SIGNAGE

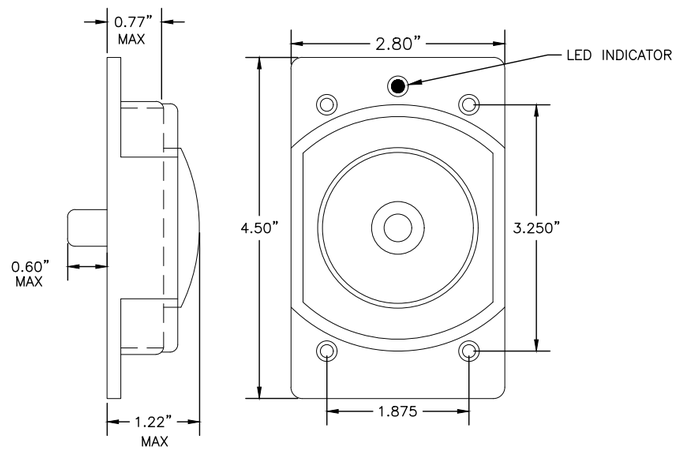


ALIGN ALUMINUM BACKPLATE WITH CROSSWALK AS SHOWN ON SIGNAL PLANS.

SECTION A-A



SIGNAL POLE MOUNTED PEDESTRIAN
HARDWARE & SIGNAGE



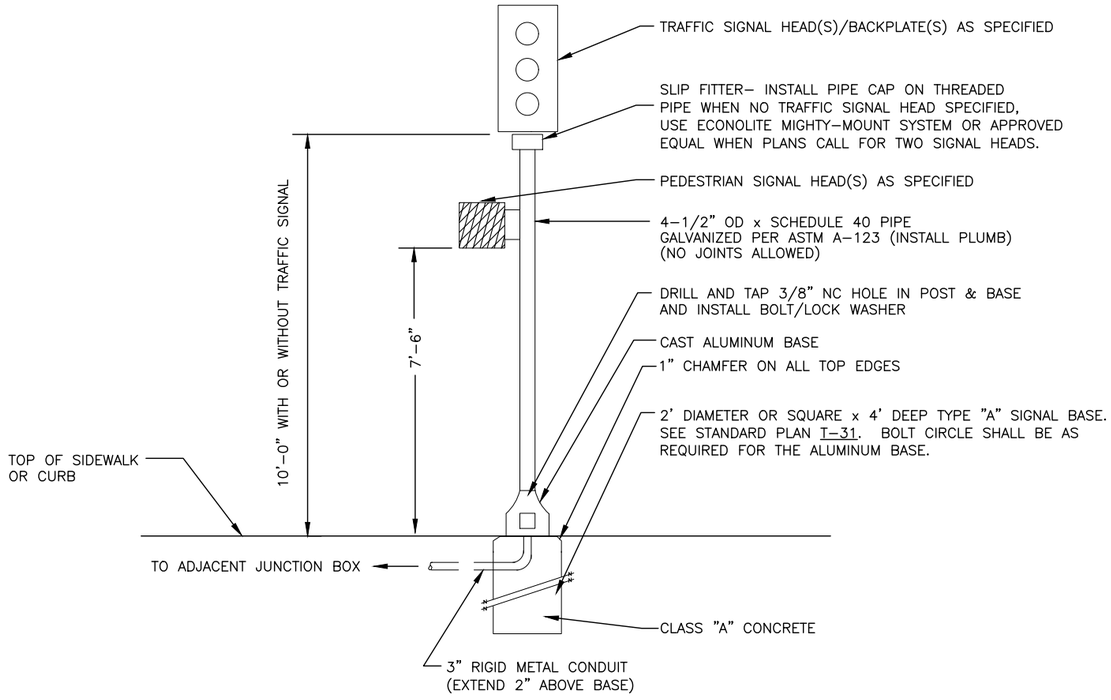
PEDESTRIAN PUSH BUTTON DETAIL

SIGNAL DETAILS 4 OF 8

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H70	H80

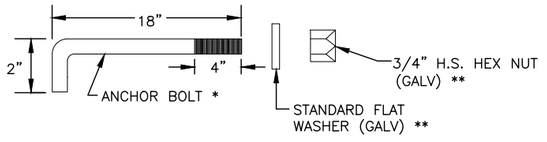
SIGNAL POST DETAIL



MATERIAL LIST *
1 TWO FOOT DIAMETER OR SQUARE x 4' BASE & 4 ANCHOR BOLTS, AND ONE 3" CONDUIT
1– POST TOP SLIP FITTER. (SEE STANDARD PLANS T–30)
1– POST & BREAKAWAY CAST ALUMINUM BASE; VE PED CATALOG #0–SE–5030 OR APPROVED EQUAL.

* MATERIAL LISTED ARE FOR ONE INSTALLATION AND DOES NOT INCLUDE SIGNAL HEADS AND MOUNTING HARDWARE.

ANCHOR BOLTS



* MEETS ASTM A–572 GALVANIZED PER ASTM A–153

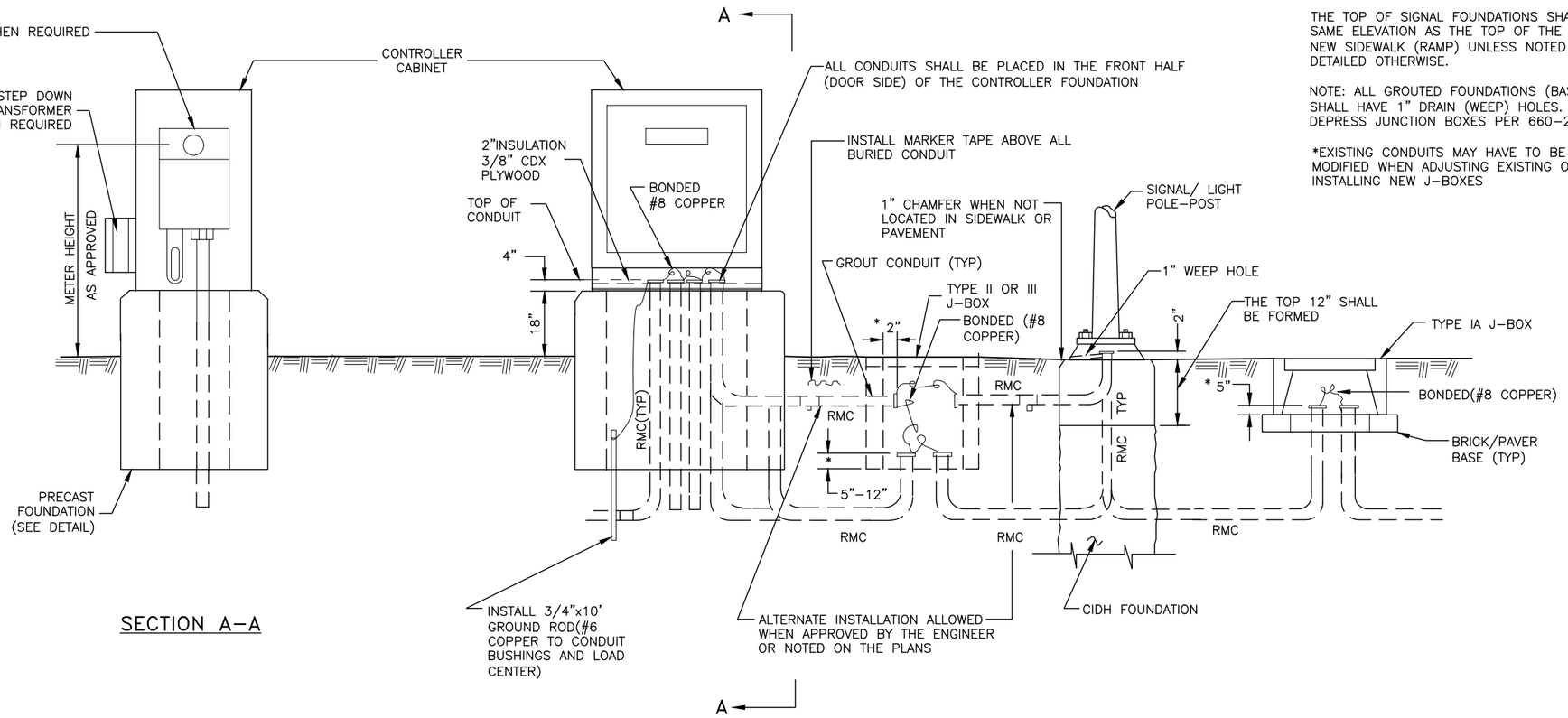
** MEETS ASTM A–325 GALVANIZED PER ASTM A–153

SIGNAL DETAILS 5 OF 8

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H71	H80



SECTION A-A

THE TOP OF SIGNAL FOUNDATIONS SHALL BE THE SAME ELEVATION AS THE TOP OF THE ADJACENT NEW SIDEWALK (RAMP) UNLESS NOTED OR DETAILED OTHERWISE.

NOTE: ALL GROUTED FOUNDATIONS (BASES) SHALL HAVE 1" DRAIN (WEEP) HOLES. DEPRESS JUNCTION BOXES PER 660-2.06

*EXISTING CONDUITS MAY HAVE TO BE MODIFIED WHEN ADJUSTING EXISTING OR INSTALLING NEW J-BOXES

FOUNDATION - CONDUIT - J-BOX DETAILS

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\103180331\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_H_SIGNAL_06-H71 Thu, Jun/01/23 02:23PM

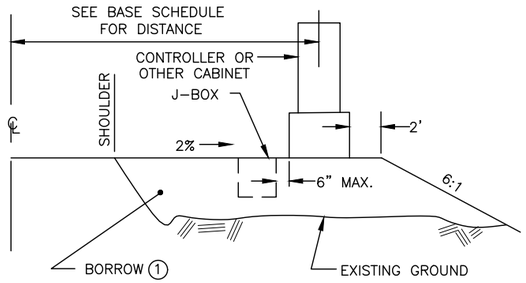
SIGNAL DETAILS 6 OF 8

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

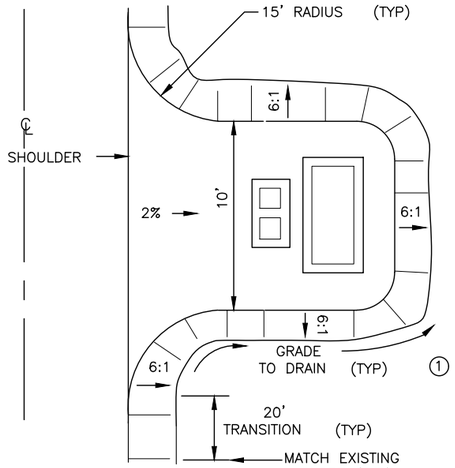
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H72	H80

GRADING DETAILS FOR SIGNAL POLE & CONTROLLER FOUNDATIONS

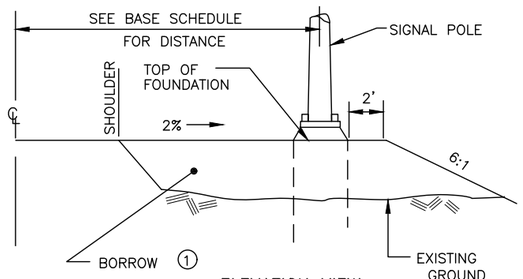


ELEVATION VIEW

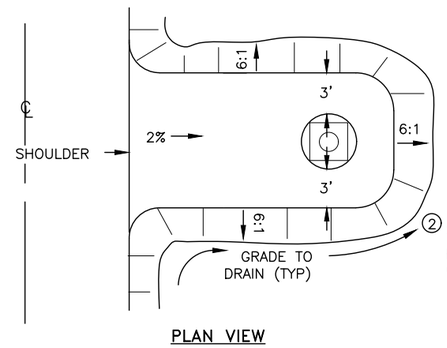


(1) ALL BORROW AND COMPACTION SHALL MEET THE REQUIREMENTS OF SECTION 203 OF THE SPECIFICATIONS

PLAN VIEW



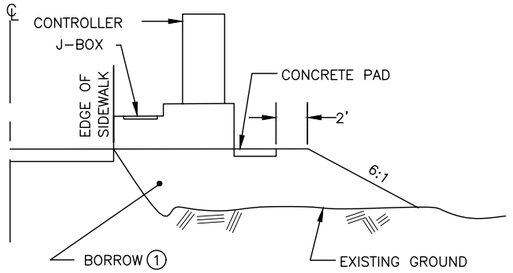
ELEVATION VIEW



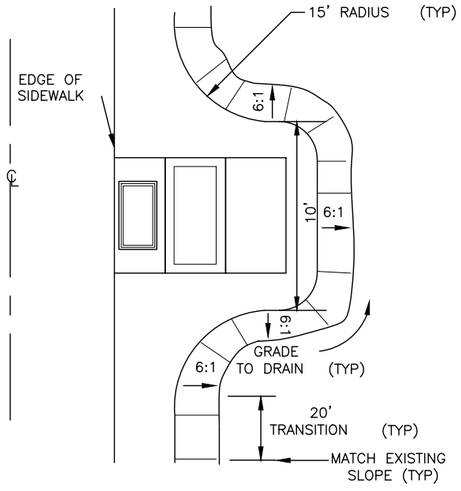
(2) ALL BORROW, COMPACTION AND GRADING SHOWN ON THESE DETAILS SHALL NOT BE MEASURED FOR PAYMENT BUT BE CONSIDERED INCIDENTAL TO EXISTING CONTRACT PAY ITEMS.

PLAN VIEW

GRADING DETAILS FOR SIGNAL POLE & CONTROLLER FOUNDATIONS



ELEVATION VIEW



PLAN VIEW

NOTES:

(1) ALL BORROW AND COMPACTION SHALL MEET THE REQUIREMENTS OF SECTION 203 OF THE SPECIFICATIONS.

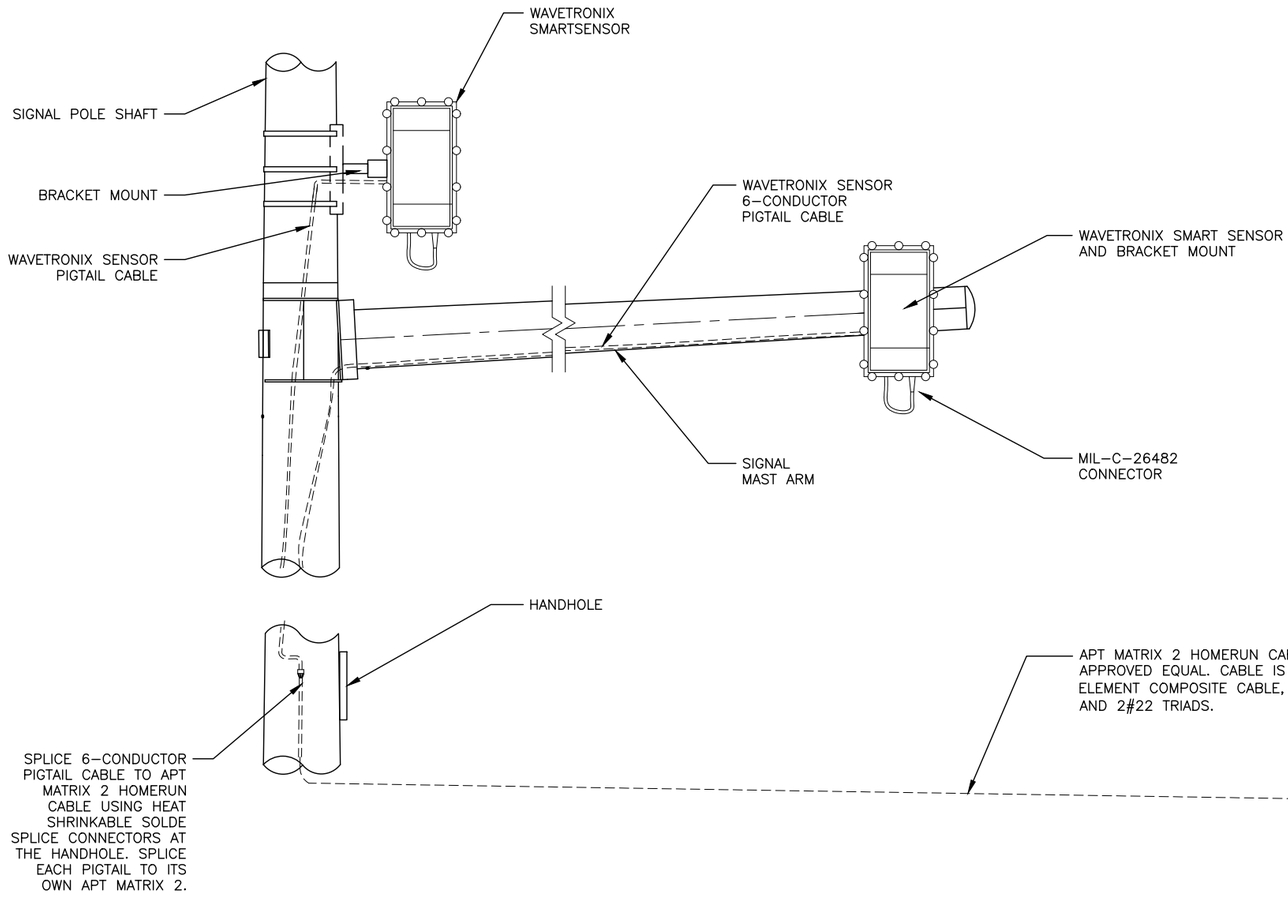
(2) ALL BORROW, COMPACTION AND GRADING SHOWN ON THESE DETAILS SHALL NOT BE MEASURED FOR PAYMENT BUT BE CONSIDERED SUBSIDIARY TO EXISTING PAY ITEMS.

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

SIGNAL DETAILS 7 OF 8

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H73	H80



RADAR INSTALLATION DETAIL

NTS

RADAR INSTALLATION NOTES:

1. PROTECT CABLE ENDS FROM MOISTURE AT ALL TIMES.
2. PULL CABLE IN ACCORDANCE WITH SECTION 660 OF THE SPECIAL PROVISIONS. PULL CABLE SO THAT THERE IS SUFFICIENT LENGTH TO REACH THE TOP OF THE CONTROLLER CABINET. CABLES ARE TO BE PULLED WITHOUT CONNECTORS ATTACHED. WHEN CABLE HAS BEEN PULLED TO FINAL LOCATIONS INSTALL AND MAKE FINAL CONNECTIONS.
3. CABLE RUNS ARE TO BE MADE CONTINUOUS WITHOUT SPLICES.
4. CABLE WITH DAMAGED INSULATION, OR THAT HAS BEEN CRIMPED OR BENT BEYOND THE MINIMUM BEND RADIUS MUST BE REPLACED AT CONTRACTORS EXPENSE.
5. THE MINIMUM BEND RADIUS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS.
6. ENSURE ADEQUATE LENGTH OF EACH CABLE TO ALLOW WORK ON THE ENDS OF THE CABLE IN THE CONTROLLER CABINET, AT THE POLE MOUNT ENCLOSURE AND RADAR MOUNTING LOCATION.
7. MOUNT THE RADAR AT THE LOCATION STATED IN THE PLANS. PLACEMENT MAY BE ADJUSTED BY THE ENGINEER OR BY THE MANUFACTURER'S REPRESENTATIVE TO ALLOW FOR BETTER AIMING OF THE RADAR OR TO AVOID OTHER HAZARDS.
8. INSTALL WATERTIGHT RUBBER GROMMETS WHERE CABLE PASSES THROUGH THE POLE.
9. FURNISH ONLY NEW EQUIPMENT OF THE BRAND AND TYPE LISTED OR ITS APPROVED EQUAL. PROVIDE AT NO ADDITIONAL COST ALL NECESSARY DEVICES, WIRES, BRACKETS/HARDWARE ETC. TO PROVIDE A FULLY FUNCTIONING RADAR DETECTION SYSTEM.

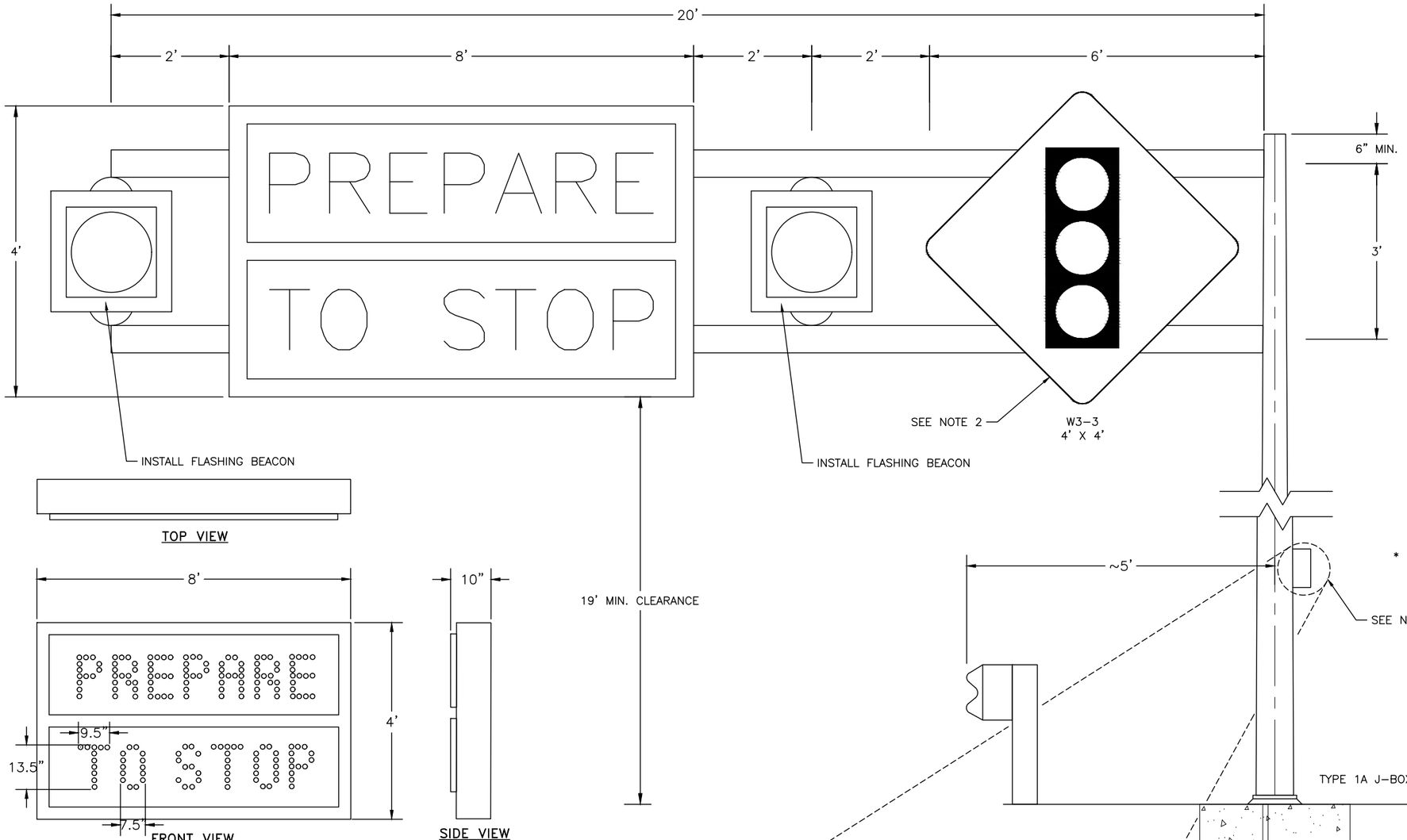
STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

SIGNAL DETAILS 8 OF 8

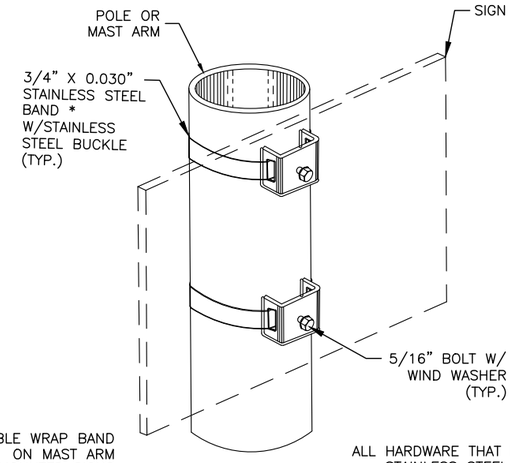
PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_H_SIGNAL_06-H73 Thu, Jun/01/23 02:23PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H74	H80

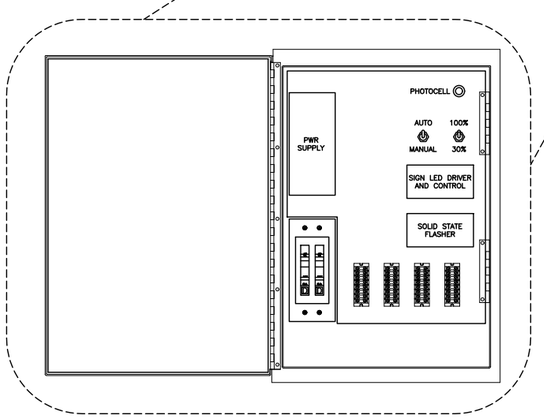


TOP VIEW



* DOUBLE WRAP BAND ON MAST ARM MOUNTED SIGNS

ALL HARDWARE THAT IS NOT STAINLESS STEEL SHALL BE GALVANIZED STEEL.



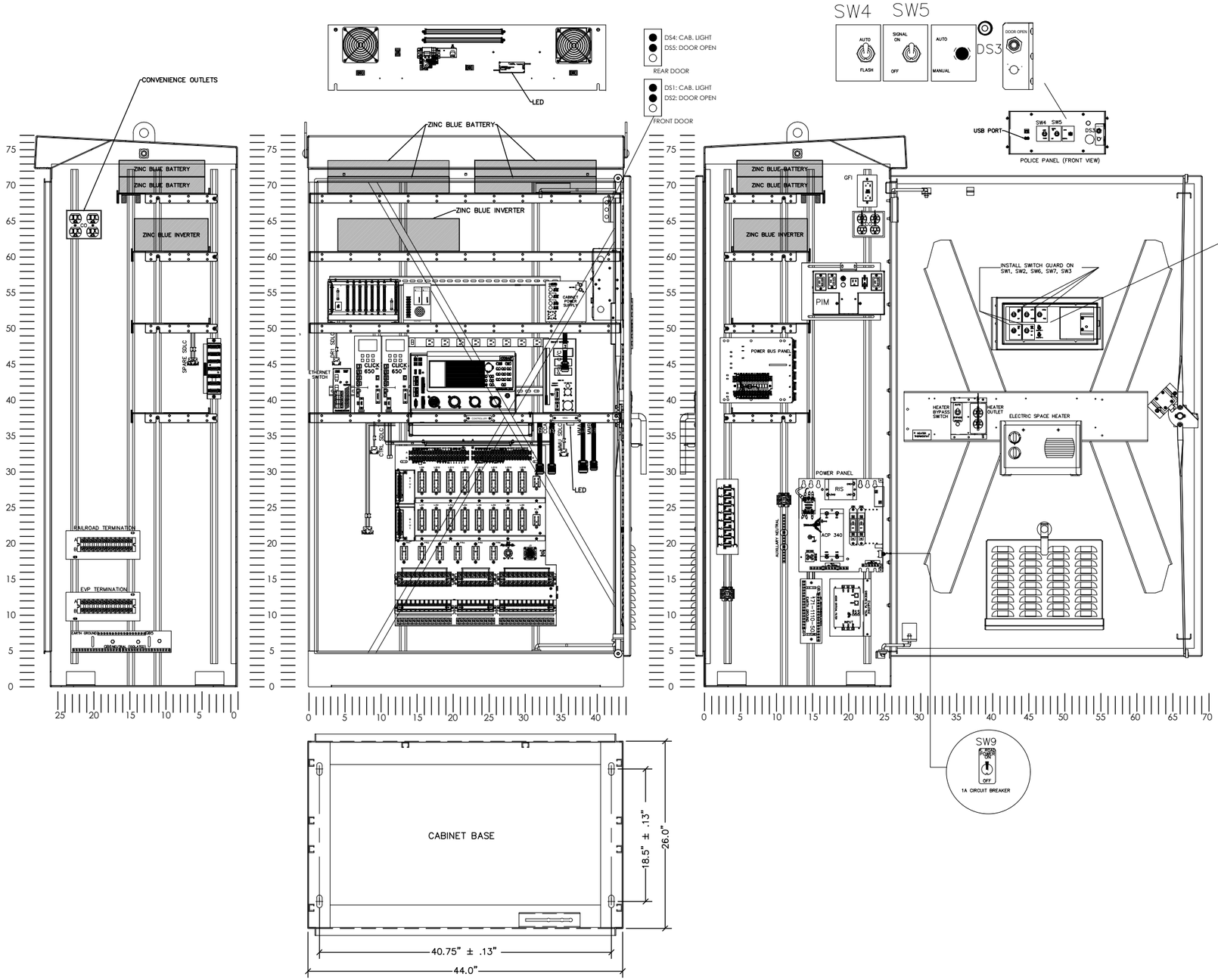
GENERAL NOTES:

1. SEE SECTION 663 OF THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
2. THE W3-3 SIGN PANEL THICKNESS SHALL BE 0.125". ATTACH THE W3-3 SIGNS TO THE ARMS USING SADDLE BRACKETS (ONE PER ARM). SEE THE DETAIL ON THIS SHEET. ATTACH THE SADDLE BRACKETS TO THE ARMS WITH DOUBLE WRAPS OF 3/4" X 0.030" STAINLESS STEEL BANDING MATERIAL. TIGHTEN EACH BAND UNTIL IT STOPS MOVING THROUGH THE BUCKLE. THE W3-3 SIGNS ARE SUBSIDIARY TO ITEM 663.0001.0000.
3. FURNISH FLASHER EQUIPMENT INSTALLED IN AN APPROPRIATELY SIZED NEMA 3R GALVANIZED CABINET. MOUNT CABINET ON THE POLE 5' ABOVE THE GROUND SURFACE.

AAWF DETAIL

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H75	H80



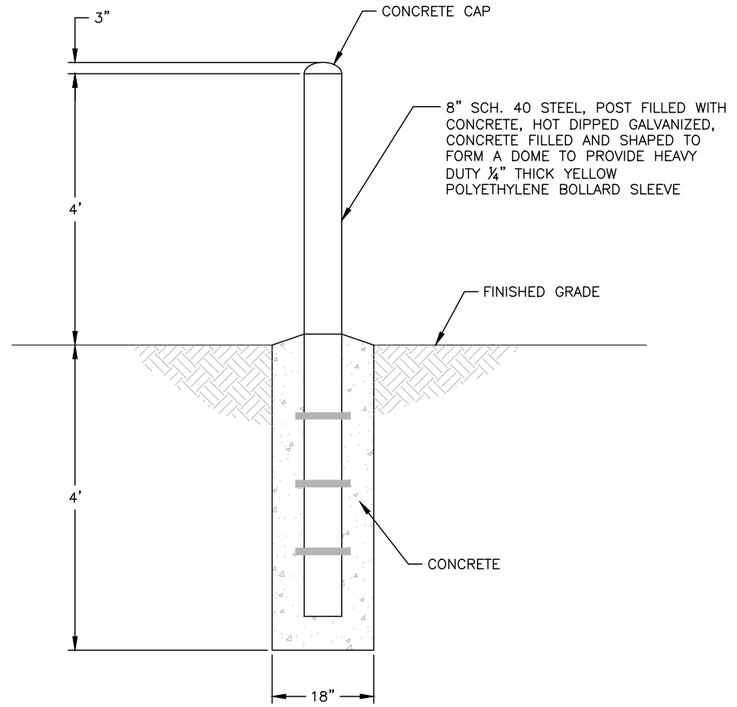
PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\Intranet.hdr\hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_H_SIGNAL_06-H75 Thu, Jun/01/23 02:23PM

CONTROLLER CABINET LAYOUT DETAILS

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H76	H80



BOLLARD DETAIL

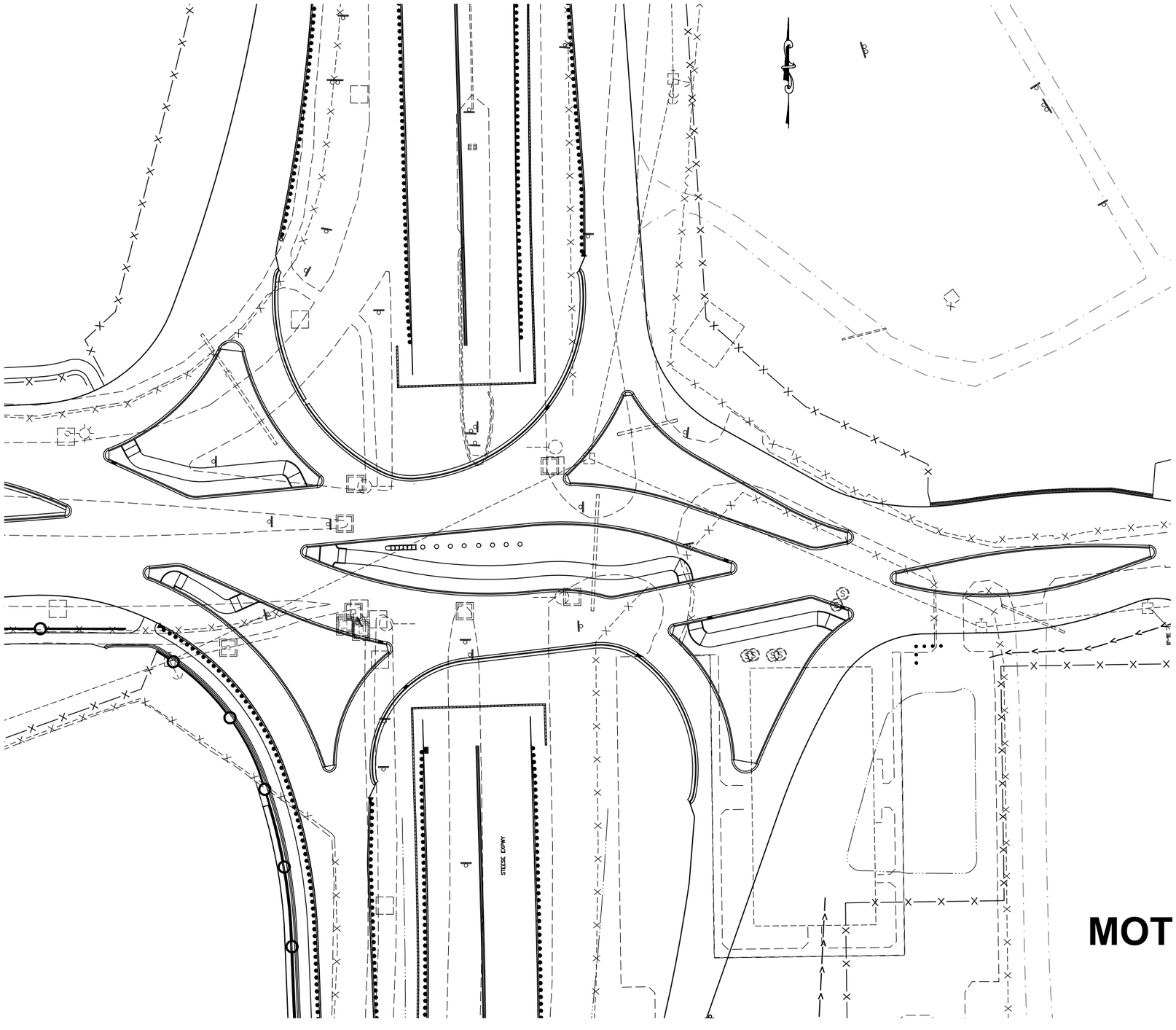
606.2000.0000 BOLLARD

SHEET	ALIGNMENT	STATION	OFFSET	REMARKS
H53	EB	313+29.76	33.45 R	
H53	EB	313+24.53	34.30 R	
H53	EB	313+19.33	35.28 R	
H53	EB	313+14.17	36.37 R	
H53	EB	313+15.16	42.26 R	
H53	EB	313+16.11	48.16 R	
TOTAL	6			

BOLLARD DETAIL

NO.	DATE	REVISION

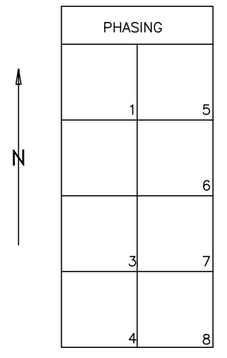
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H77	H80



GENERAL NOTES:

1. THE TEMPORARY SIGNAL SYSTEM SHOWN IS IN THE WINTER CONSTRUCTION PHASE LAYOUT. MODIFICATIONS TO THE TEMPORARY TRAFFIC SIGNAL WILL BE REQUIRED DURING CONSTRUCTION TO ACCOMMODATE VARYING TRAFFIC LANE CONFIGURATIONS AND OPERATIONS.
2. SUBMIT A TEMPORARY TRAFFIC PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO IMPLEMENTING ALTERATIONS TO THE TEMPORARY TRAFFIC SIGNAL.
3. VEHICLE DETECTION WILL BE REQUIRED THROUGHOUT CONSTRUCTION. ADJUST AS NEEDED TO ACCOMODATE CONSTRUCTION WORK. SEE SPECIFICATIONS FOR RADAR VEHICLE DETECTION REQUIREMENTS.
4. DURING CONSTRUCTION, CONTRACTOR SHALL RE–AIM AND/OR RE–POSITION VEHICLE SIGNAL HEADS, OPTICOM, AND RADAR DETECTION AS REQUIRED OR AS DIRECTED BY THE ENGINEER TO ACCOMMODATE THE IMPROVEMENTS OR MIS–ALIGNMENT.
5. USE EXISTING SIGNAL CONTROLLER CABINET AND LOAD CENTER UNTIL NEW ARE INSTALLED AND OPERATIONAL OR PROVIDE TEMPORARY.
6. PROVIDE AND MAINTAIN TEMPORARY SIGNING AND PAVEMENT MARKINGS AS REQUIRED BY THE ALASKA TRAFFIC MANUAL, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PLANS, AND SPECIFICATIONS. REMOVE OR COVER CONFLICTING TRAFFIC SIGNS AND PAVEMENT MARKINGS.
7. MAINTAIN EXISTING PEDESTRIAN AND BICYCLE ACCESS THROUGH THE WORK ZONE AND IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT GUIDELINES, PLANS, AND SPECIFICATIONS.
8. ALL WORK SHALL BE CONTAINED WITHIN THE ROW.
9. OBTAIN THE ENGINEER'S APPROVAL TO DECOMMISSION AND SALVAGE THE TEMPORARY TRAFFIC SIGNAL SYSTEM ONCE THE PERMANENT SIGNAL SYSTEM IS FUNCTIONAL AND ACCEPTED. SEE SPECIFICATIONS FOR DELIVERY REQUIREMENTS.
10. TEMPORARY TRAFFIC SIGNALIZATION WORK AT THIS INTERSECTION SHALL BE PAID FOR UNDER 660.0007.

PHASE SEQUENCE



MOT COORDINATION ONGOING

TEMPORARY SIGNAL PLAN

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

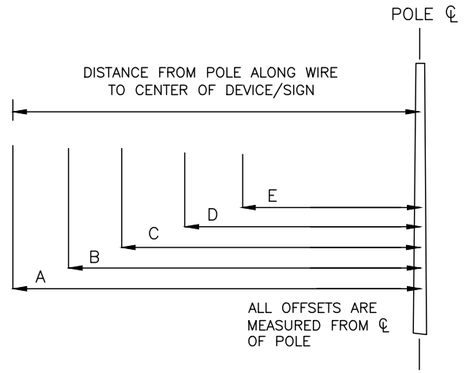
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H78	H80

TEMPORARY POLE–POST DESIGN LOADING SCHEDULE

TEMP POLE NO.	CORNER		A	B	C	D	E	F	G	REMARKS

TEMPORARY POLE–POST DESIGN LOADING SCHEDULE NOTES:

1. ADJUST SIGNAL HEADS TO CENTER OF APPROACHING LANES AS NEEDED WHEN LANE CONFIGURATION CHANGES.



VEHICULAR SIGNAL HEAD SCHEDULE

POLE/ POST NO	FACE NO	INDICATIONS						MOUNTING				REMARKS
		12" BALL			12" ARROW			MAST ARM		SIDE MTNG TYPE	TOP OF POST	
		R	Y	G	R	Y	G	LOC OFFSET	ELEV PLUMB			

PED SIGNAL HEAD SCHEDULE

POLE/POST NO	FACE NO	MOUNTING TYPE	REMARKS

PEDESTRIAN DETECTION SCHEDULE

POLE	PUSH BUTTON	PHASE	REMARKS

PEDESTRIAN DETECTION NOTES:

1. INSTALL AN R10–3EL SIGN WITH PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO TEMPORARY SIGNAL PAY ITEMS.

2. INSTALL AN R10–3ER SIGN WITH PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO TEMPORARY SIGNAL PAY ITEMS.

RADAR DETECTION SCHEDULE

DET. NO.	PHASE CALL	TYPE	FACING DIR.	POLE NO.	LOCATION	RADAR TYPE

(#) RADAR DETECTOR NUMBER

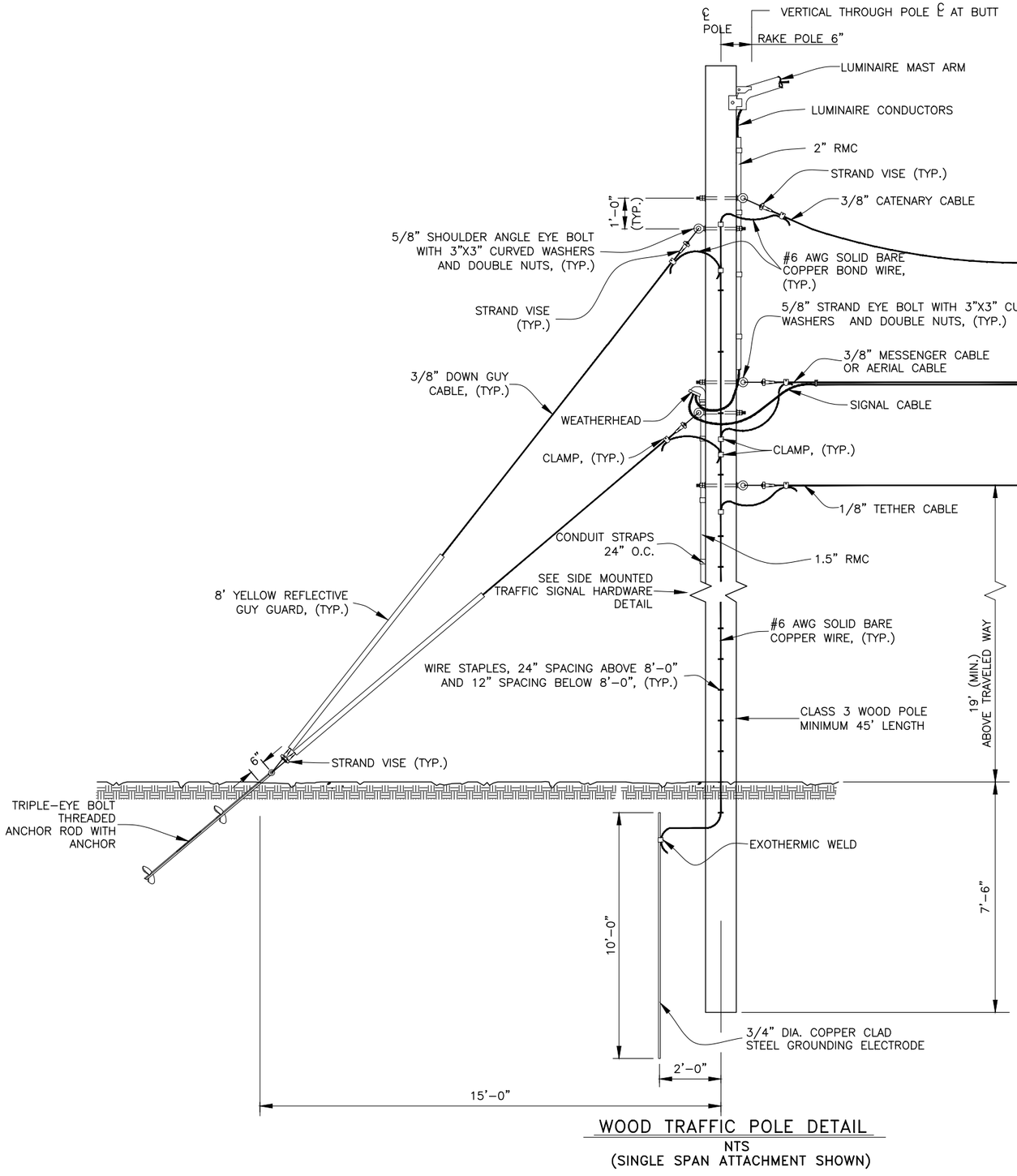
MOT COORDINATION ONGOING

TEMPORARY SIGNAL SUMMARY

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

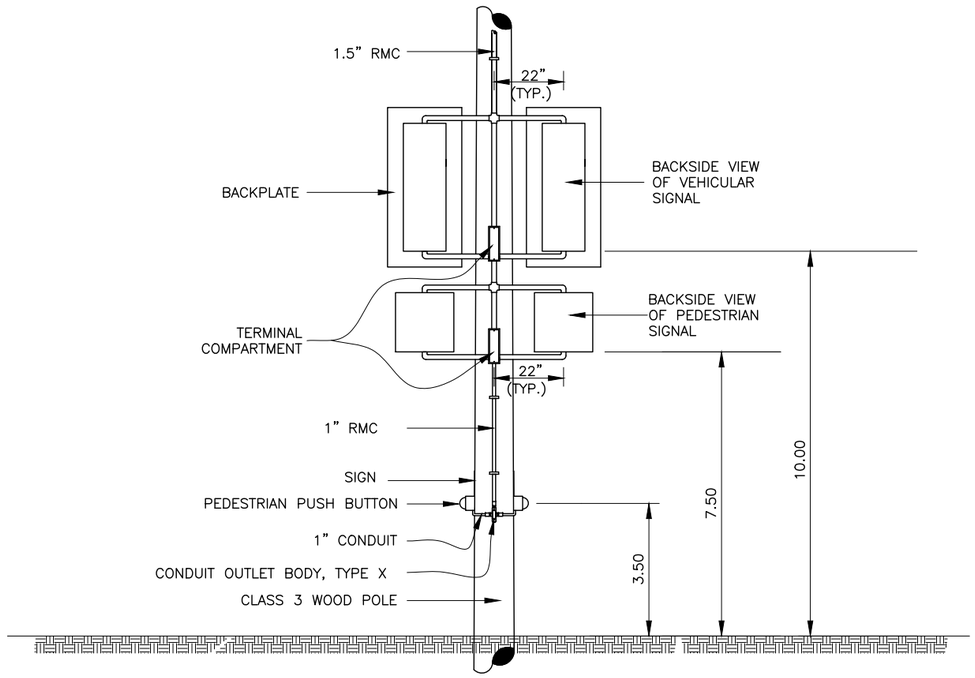
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H79	H80



WOOD TRAFFIC POLE DETAIL

NTS

(SINGLE SPAN ATTACHMENT SHOWN)



SIDE MOUNTED TRAFFIC SIGNAL HARDWARE

NTS

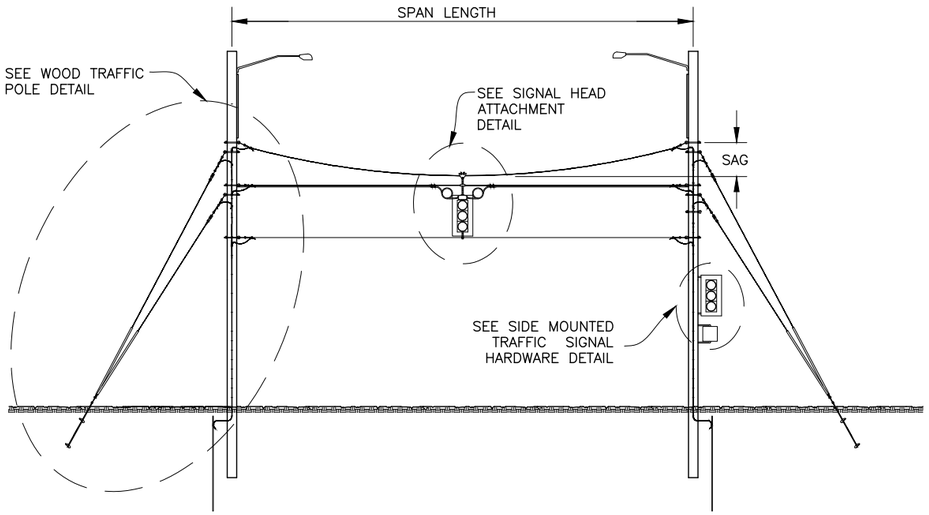
GENERAL NOTES:

1. USE SIGNAL FRAMES WITH TERMINAL COMPARTMENTS TO INSTALL THE VEHICULAR AND PEDESTRIAN SIGNAL HEADS ON THE SIDES OF THE WOOD POLES.
2. SECURELY ATTACH THE TERMINAL COMPARTMENTS TO THE WOOD POLES AT THE LOCATIONS SHOWN ON STANDARD PLANS T-30.12 OR THE SIGNAL HARDWARE DETAIL SHEET IN PLANS.
3. THE VERTICAL CLEARANCES SHOWN ARE FROM THE WALKING SURFACE FOR THE PEDESTRIAN GEAR AND THE TRAVELED WAY FOR THE VEHICULAR SIGNALS.
4. TERMINATE POLES WITH NO LUMINAIRE A MINIMUM OF 2 FEET ABOVE THE CATENARY CABLE CONNECTION.
5. SEE STANDARD PLANS T-30.12 OR THE SIGNAL HARDWARE DETAIL SHEET IN PLANS FOR ADDITIONAL TRAFFIC SIGNAL HARDWARE DETAILS.

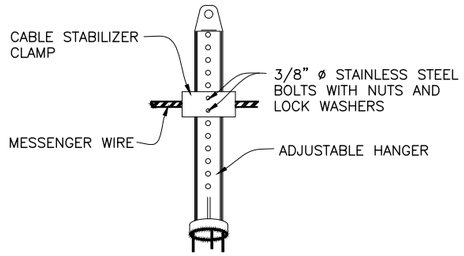
TEMPORARY SIGNAL DETAILS

NO.	DATE	REVISION

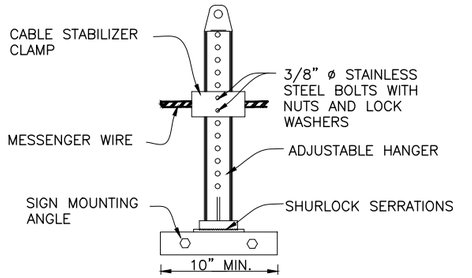
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	H80	H80



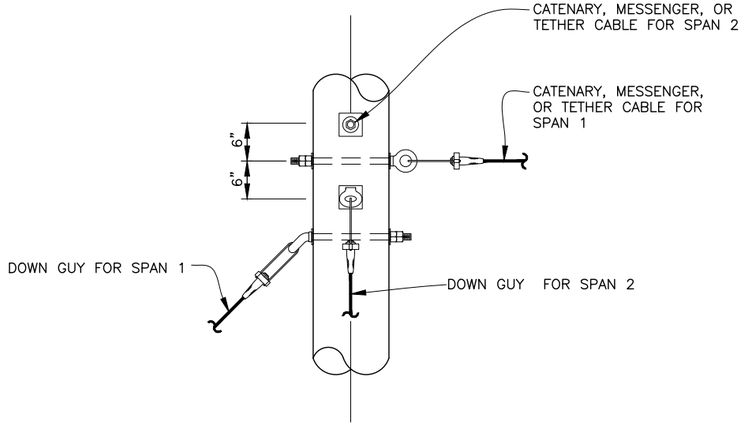
SPAN ELEVATION
NTS



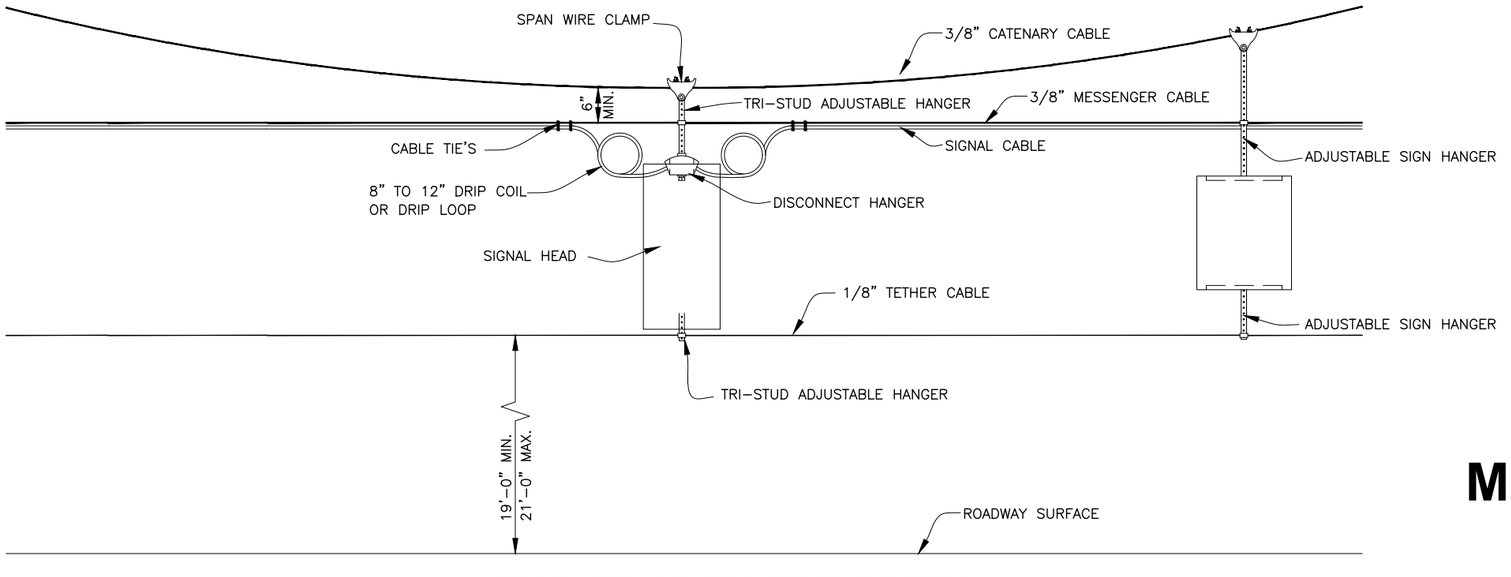
TRI–STUD ADJUSTABLE HANGER
NTS



ADJUSTABLE HANGER FOR SIGN MOUNTING
NTS



MULTIPLE SPAN ATTACHMENT DETAIL
NTC



SIGNAL HEAD AND SIGN ATTACHMENT DETAIL
N.T.S.

GENERAL NOTES:

1. ATTACH ADJUSTABLE HANGERS TO THE MESSENGER AND TETHER CABLES WITH CABLE STABILIZER CLAMPS.
2. ATTACH SIGNAL CABLES TO MESSENGER CABLE EVERY 1' USING HEAVY DUTY BLACK CABLE TIES, 3M OR APPROVED EQUAL. CABLE TIES SHALL BE WEATHER RESISTANT BLACK NYLON GREATER THAN 0.065" THICK, HAVE A TENSILE STRENGTH GREATER THAN 110LBS, AND HAVE A TEMPERATURE RANGE BETTER THAN –35°F TO 180°F. USE TWO TIES BEFORE/AFTER DRIP LOOPS. CABLE TIES SHALL BE ATTACHED "SNUG TIGHT", DO NOT OVER TIGHTEN.
3. INSTALL SIGNS SO THAT THE BOTTOM EDGES ARE AT APPROXIMATELY THE SAME ELEVATION.
4. SAG=4% TO 5% OF SPAN LENGTH.

MOT COORDINATION ONGOING

TEMPORARY SIGNAL DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H100	H130

ALIGNMENT DESIGNATION

"SBB"	STEESE EXPRESSWAY ℄
"NB", "SB"	NORTHBOUND, SOUTHBOUND, STEESE EXPRESSWAY ℄
"EBB"	JOHANSEN EXPRESSWAY ℄
"EB", "WB"	EASTBOUND, WESTBOUND JOHANSEN EXPRESSWAY ℄

BEGINNING OF PROJECT
STEESE EXPRESSWAY
STA "B" 120+00
N = 200147.9164
E = 681019.3009

STA "EBB" 300+00.00 =
STA "EB" 300+00.00
N = 203819.1608
E = 683422.1375

BEGIN STEESE EXPRESSWAY
SOUTHBOUND ALIGNMENT
STA "SB" 300+00
N = 201252.2231
E = 682453.0039

BEGIN STEESE EXPRESSWAY
NORTHBOUND ALIGNMENT
STA "NB" 200+00
N = 201215.7064
E = 682477.5501

STA "SBB" 47+88.22 =
STA "SB" 300+00.00
N = 201252.2231
E = 682453.0039

STA "SB" 334+70.08 =
STA "EB" 309+73.76
N = 203838.7621
E = 684393.95898

STA "SB" 333+86.36 =
STA "WB" 210+00.30
N = 203754.4223
E = 684395.2782

END OF PROJECT
STEESE EXPRESSWAY
STA "SB" 377+00
N = 207851.1876
E = 685173.8905

INTERCONNECT NOTES:

1. PROVIDE TRAFFIC CONTROL AND MAINTENANCE, VACUUM TRUCK (CAPABLE OF 20–FT DEEP POTHOLES), LABOR, MATERIALS, AND EQUIPMENT AS NEEDED TO POTHOLE ALL UTILITY CROSSINGS ALONG BORES AND AS DIRECTED BY THE ENGINEER. WHERE A CONTINGENT SUM PAY ITEM IS NOT PROVIDED FOR THE PROJECT POTHOLES APPLICABLE TO SECTION 662 WORK ARE SUBSIDIARY TO PAY ITEM 662.2005.0000 FIBER OPTIC INTERCONNECT LUMP SUM.
2. PROVIDE CONTAINMENT AND DISPOSAL OF APPROXIMATELY 50 CY PER BORING OF INJECTED WASTE FLUIDS AND SPOILS. THIS WORK SHALL BE SUBSIDIARY TO PAY ITEM 662.2005.0000 FIBER OPTIC INTERCONNECT LUMP SUM. DISPOSAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND APPLICABLE STATE AND FEDERAL REGULATIONS: TESTING THESE MATERIALS PRIOR TO DISPOSAL MAY BE WAIVED BY THE ENGINEER CONTINGENT ON DISPOSAL METHOD WHEN SUPPORTED WITH ENVIRONMENTAL DOCUMENTATION OF ANY CONTAMINANTS.
3. INTERCONNECT WORK DEMOLISHES EXISTING UNDERGROUND 1–18PR#19 COPPER INTERCONNECT AND ABANDONS 2" PVC CONDUIT BETWEEN COLLEGE ROAD AND TRAINOR GATE ROAD. ALL LABOR, MATERIALS, LOCATING DEVICES AND OTHER EQUIPMENT ARE SUBSIDIARY TO PAY ITEM 662.2005.0000 FIBER OPTIC INTERCONNECT LUMP SUM.

INTERCONNECT NOTES (CONT.):

4. UNLESS OTHERWISE NOTED IN THESE PLANS THE CONTRACTOR IS RESPONSIBLE FOR:
   A. PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. ALL ADJUSTMENTS, RELOCATIONS, REMOVALS, RECONSTRUCTIONS, AND SALVAGING OF CURB & GUTTER, PAVEMENT, SIDEWALK, STRUCTURES & OBSTRUCTIONS, MANHOLES, JUNCTION BOXES, STORM DRAIN INLETS, FENCING, GUARDRAIL, CURB RAMPS, SIGNS, VALVE BOXES, HYDRANTS, AND OTHER ROADWAY IMPROVEMENTS WILL BE MEASURED AND PAID FOR BY OLD STEESE HIGHWAY RECONSTRUCTION UNDER THEIR RESPECTIVE BID ITEMS.
   B. LOCATING AND PROTECTING UTILITIES FROM DAMAGE. ALL UTILITIES WITHIN, UNDER, AND OVER THE PROJECT SHALL REMAIN IN PLACE AND IN SERVICE DURING CONSTRUCTION. BEFORE COMMENCING GROUND DISTURBING ACTIVITIES, CONTRACTOR SHALL CONTACT 811 ALASKA DIGLINE AT 1–800–478–3121. NOT ALL AREA UTILITIES ARE MEMBERS OF 811 ALASKA DIGLINE AND THE CONTRACTOR SHALL CONTACT INDIVIDUAL NON–MEMBER UTILITIES DIRECTLY, INCLUDING THE CITY OF FAIRBANKS, DOT&PF, AND GVEA. ANY UTILITY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
5. WHEN DIRECTED BY THE ENGINEER, ADJUST INTERCONNECT CONDUIT AND VAULTS AS NECESSARY TO FACILITATE INSTALLATION. INSTALLATION OF THE CONDUIT AND VAULTS SHALL BE COMPLETED BEFORE PLACING FINAL HMA LIFT, SIDEWALK, AND C&G.
6. RESTORE ALL DISTURBED AREAS DUE TO CONTRACTOR'S ACTIVITIES OUTSIDE THE PROJECT SLOPE LIMITS IN ACCORDANCE WITH THE PLANS AND AS DIRECTED BY THE ENGINEER.
7. NO WASTE MATERIAL, EXCESS MATERIAL, OR STOCKPILED AGGREGATE BASE OR SURFACE COURSE SHALL BE DISPOSED OF WITHIN THE R/W, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
8. ALL CONSTRUCTION ACTIVITIES SHALL BE CONTAINED WITHIN THE R/W.
9. INTERCONNECT WORK SHALL UTILIZE AN INSULATED CONTINUOUS DETECTION WIRE ROUTED INSIDE CONDUIT BUT OUTSIDE FLEXIBLE INNERDUCT BETWEEN MANHOLES AND VAULTS.
10. SUBMIT FOR APPROVAL METHOD OF ELECTROFUSION BETWEEN DISSIMILAR PIPE DIAMETERS AND CELL CLASS OF HDPE WITH MANUFACTURER GUIDANCE. MATCH INNER DIAMETER OF ALL CONDUIT WITH WATERTIGHT FITTINGS TO ASSIST PULL OF FLEXIBLE INNERDUCT AND DETECTION WIRE.
11. MEASUREMENTS OF BORES AND CONDUIT RUNS ARE HORIZONTAL PLAN LENGTH FROM CONDUIT CONNECTION TO CONDUIT CONNECTION AND CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

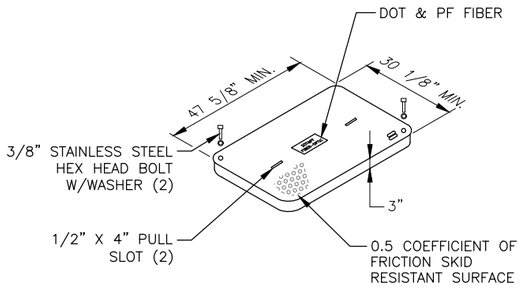
INTERCONNECT SHEET LAYOUT AND NOTES

REVIEW PS&E
5/25/2023

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00714_STEESE_JOHANSEN INTERCHANGE SIGNAL INTERCONNECT\DWGS\C\SHEETS\60732_H100_LAYT PLOT DATE: 5/25/23

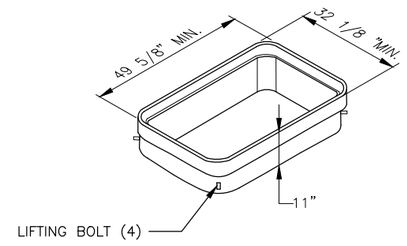
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H101	H130



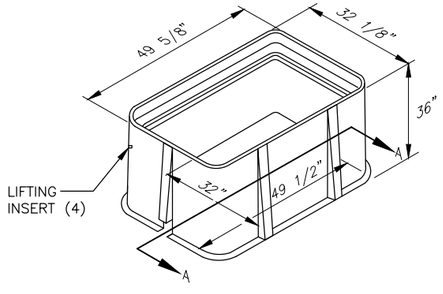
COVER

HUBBELL QUAZITE NO. PG3048HH00
OR APPROVED EQUIVALENT



TOP EXTENSION

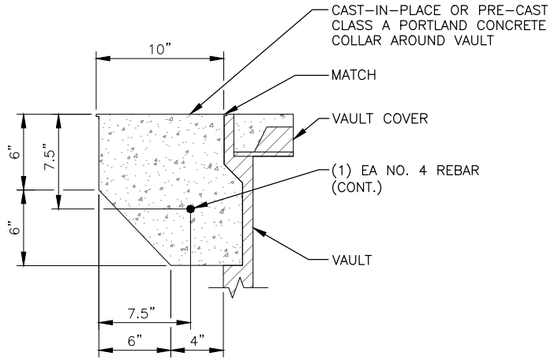
HUBBELL QUAZITE NO. PG3048EA11
OR APPROVED EQUIVALENT



BOTTOM

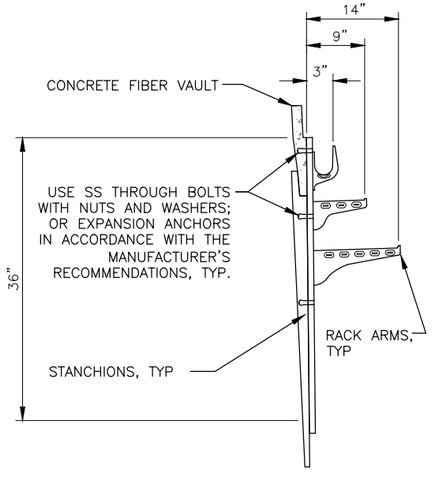
PG TYPE JUNCTION BOX

HUBBELL QUAZITE NO. PG3048BA36 OR APPROVED EQUIVALENT



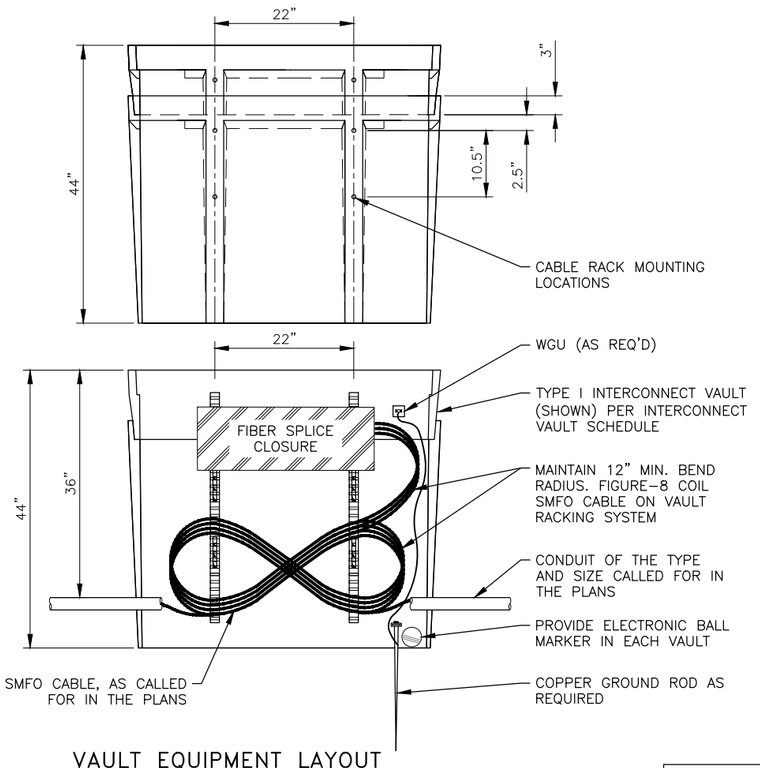
CONCRETE COLLAR DETAIL

NTS



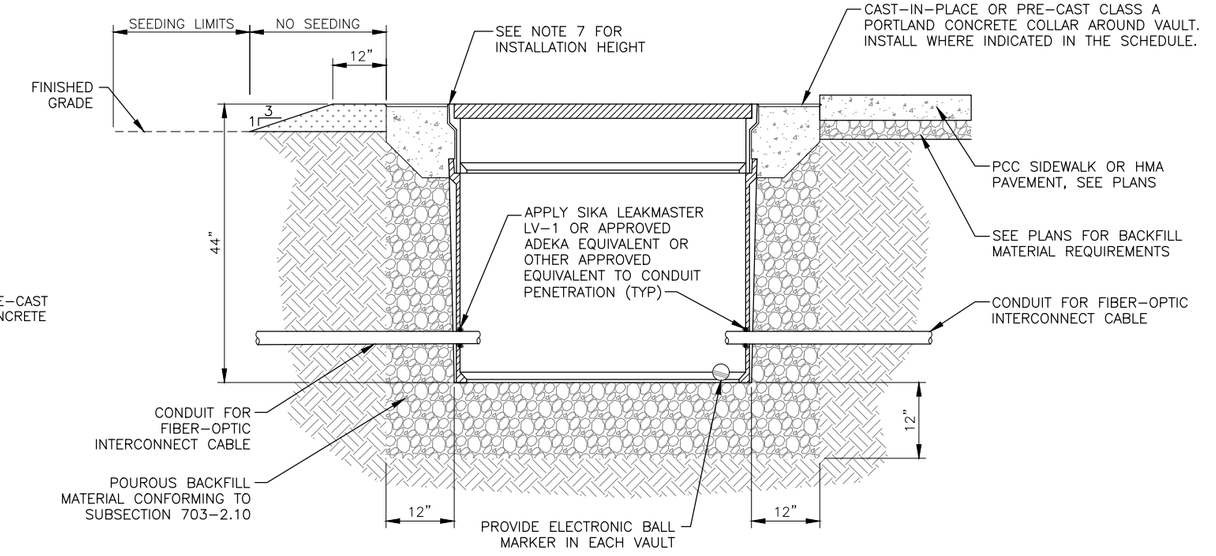
TYPICAL CABLE RACK

NTS



VAULT EQUIPMENT LAYOUT

NTS



SECTION A-A

NOTES:

1. INTERCONNECT VAULTS SHALL BE PRECAST, POLYMER CONCRETE, OPEN BOTTOM, W/FLARED BASE UNLESS OTHERWISE NOTED IN THE PLANS AND CONTRACT SPECIFICATIONS.
2. THE STANDARD INTERCONNECT VAULT NOMINAL DIMENSIONS SHALL BE AS SHOWN.
3. THE DESIGN/TEST LOAD STRENGTH OF THE BOX SHALL BE MINIMUM OF 22,500/33,750 LBS.
4. THE STANDARD COVER (LID) SHALL HAVE NOMINAL DIMENSIONS OF 30 1/8 in. WIDE X 47 5/8 in. LONG X 3 in. DEEP.
5. THE DESIGN/TEST LOAD STRENGTH OF THE COVER SHALL BE A MINIMUM OF 22,500/33,750 LBS.
6. THE COVER SHALL BE CAPABLE OF BEING SECURED TO THE BOX WITH TWO BOLTS, AND EMBOSSED WITH: "DOT&PF FIBER".
7. U.O.N. INTERCONNECT VAULTS SHALL BE INSTALLED 3/16" BELOW FINISHED GRADE WHEN INSTALLED IN/OR IMMEDIATELY ADJACENT TO SIDEWALK, PATHWAY, DRIVEWAY, ROADWAY, OR PARKING LOT. 4" TO 6" ABOVE FINISHED GRADE IN UNIMPROVED AREAS, AWAY FROM HARDSCAPED SURFACES, OR AS DIRECTED BY THE ENGINEER. DO NOT PLACE IN BOTTOM OF DRAINAGE COLLECTION AREAS.
8. FIBER-OPTIC VAULTS SHALL NOT INCLUDE ELECTRICAL CONDUCTORS.
9. COMPLY WITH SECTIONS 501, 503, 662, AND ANY SECTION OF THE SPECIFICATIONS CALLED OUT THERE-IN.

INTERCONNECT TYPE 1 VAULT DETAILS

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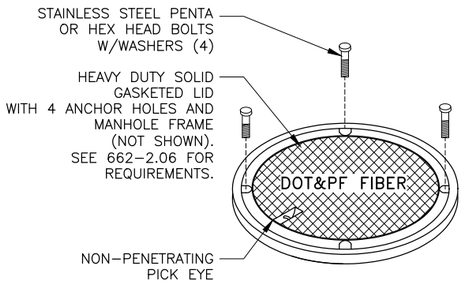
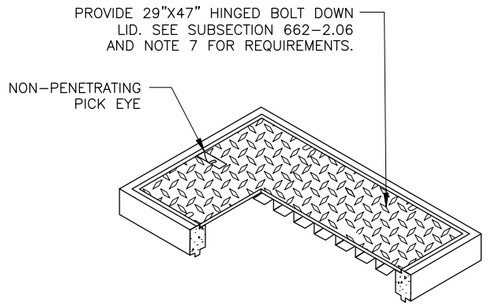
Z:\PROJECTS\00714_STEESE_JOHANSEN INTERCHANGE SIGNAL INTERCONNECT\DWGS\C\SHEETS\60732_H101_FO VULT DETL PLOT DATE: 5/25/23

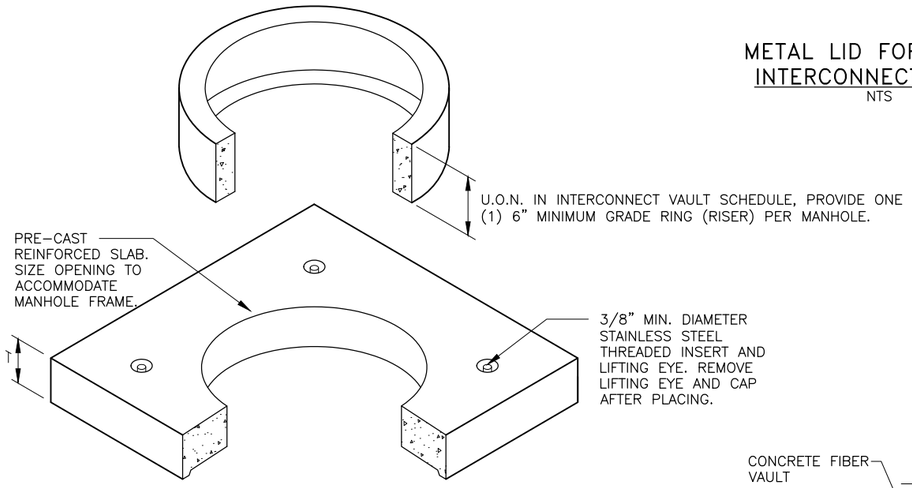
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H102	H130

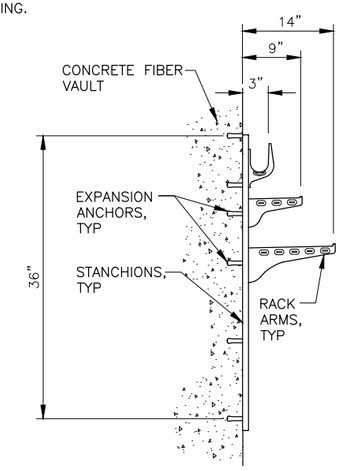




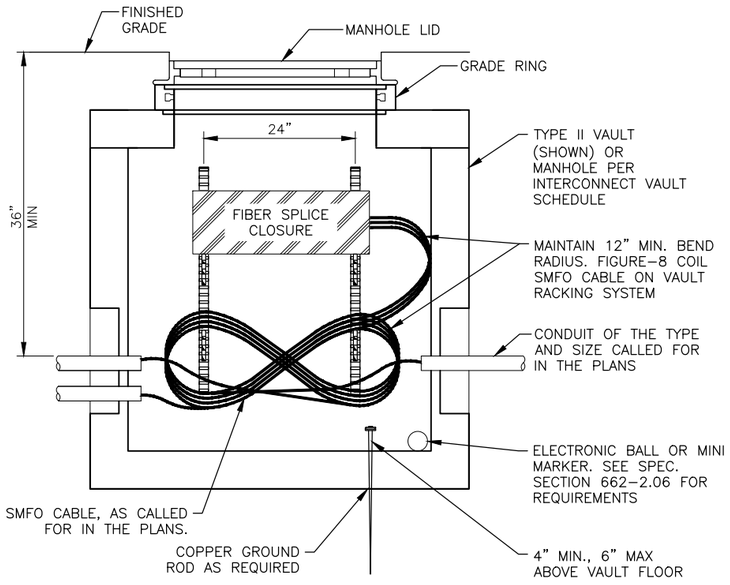
METAL LID FOR TYPE II INTERCONNECT VAULT
NTS



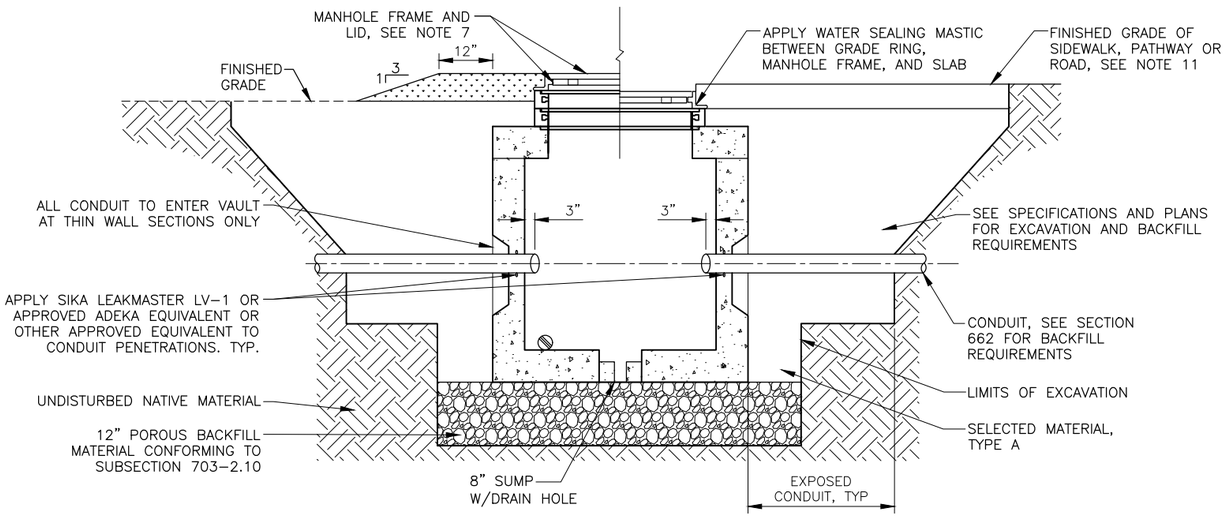
INTERCONNECT MANHOLE WITH MANHOLE LID
(TYPE II INTERCONNECT VAULT SIMILAR)
NTS



TYPICAL CABLE RACK
NTS



VAULT EQUIPMENT LAYOUT
NTS



SECTION
NTS

MANHOLE/VAULT DIMENSIONS					
TYPE	"L" INCH	'W' INCH	"H" INCH	"T" INCH	LID
TYPE II VAULT	30	48	48	6 MIN	HINGED METAL
MANHOLE	48	48	48	6 MIN	MANHOLE

NOTES:

1. SUPPLY TYPE II INTERCONNECT VAULTS WITH BOLT DOWN HINGED METAL LID. SUPPLY VAULTS, LIDS, AND COVERS RATED FOR AASHTO HS-20-44 LOADING.
2. SUPPLY ALL LIDS WITH WITH A HOLE OR SLOT FOR REMOVAL WITH A LEVER OR HOOK.
3. SUPPLY VAULTS AND MANHOLES WITH A PERMANENT INTERNAL LADDER. COMPLY WITH OSHA REQUIREMENTS.
4. PROVIDE VAULT AND MANHOLE LIDS MARKED, "DOT&PF FIBER" OR SIMILAR WORDING APPROVED BY THE ENGINEER.
5. PROVIDE MANHOLES AND VAULTS WITH A HEAVY-DUTY NON-METALLIC CABLE STORAGE RACK SYSTEM. PROVIDE RACK ARMS OR STANCHIONS CAPABLE OF SUPPORTING A MINIMUM OF 250 LBS. INCLUDE A MINIMUM OF 36 INCH RACK STANCHIONS AND 4 RACK ARMS.
6. ENTER CONDUITS INTO VAULT AT THINWALL SECTIONS ONLY. CORE DRILL IN THE THINWALL SECTION TO CONDUIT SIZE PLUS 1/4 INCH ALL AROUND. DO NOT "KNOCK OUT" THE THINWALL SECTION.
7. BOND AND GROUND ALL METALLIC COMPONENTS OF VAULT, INCLUDING RACK, FRAME AND LIDS PER STANDARD SPECIFICATION 660-3.06.
8. INSTALL CONDUIT PLUGS PER SECTIONS 660 AND 662.
9. EXTEND GROUND ROD A MINIMUM OF 4 INCHES AND A MAXIMUM OF 6 INCHES ABOVE BOTTOM OF VAULT.
10. USE A SPLIT BOLT CONNECTOR TO ATTACH GROUND WIRES TO GROUND ROD. ATTACH NOT MORE THAN TWO WIRES PER BOLT.
11. UNLESS OTHERWISE NOTED, TOP OF INTERCONNECT VAULT / MANHOLE LIDS SHALL BE INSTALLED 0"-3/16" BELOW FINISHED GRADE WHEN IN SIDEWALK OR PATHWAY; 3/8" BELOW FINISHED GRADE WHEN LOCATED IN PAVED PARKING LOT; AND U.O.N., 4"-8" ABOVE FINISHED GRADE IN UNIMPROVED AREAS, AWAY FROM HARDSCAPED SURFACES; OR AS DIRECTED BY THE ENGINEER. DO NOT PLACE IN BOTTOM OF DRAINAGE COLLECTION AREAS.

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KINNEY ENGINEERING, LLC

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INTERCONNECT TYPE 2 VAULT & MANHOLE DETAILS

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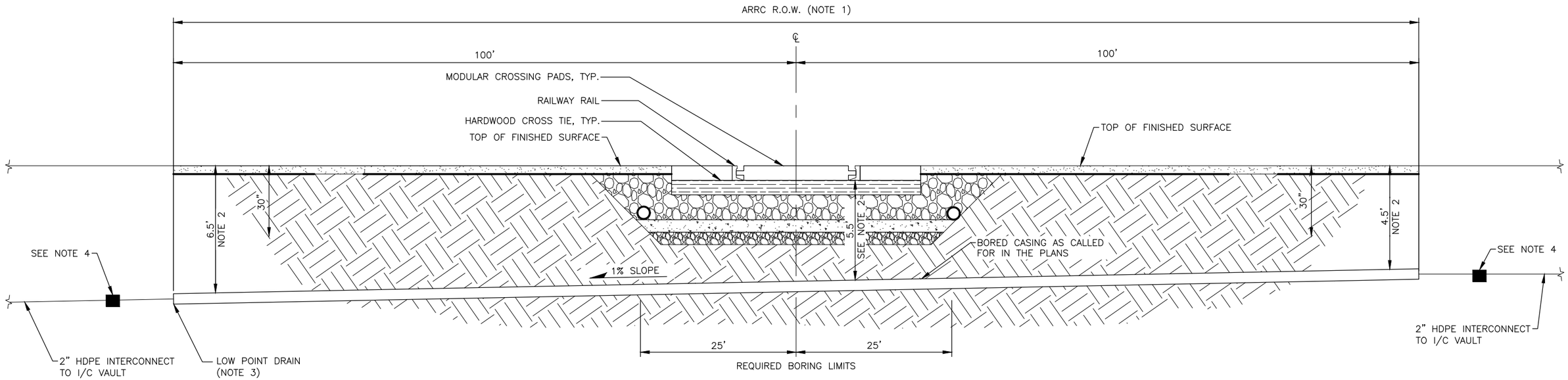
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H103	H130



RAILROAD CROSSING DETAIL
NTS

NOTES:

1. OBTAIN A TEMPORARY CONSTRUCTION PERMIT (TCP) FROM THE ARRC AS REQUIRED BEFORE COMMENCEMENT OF ANY WORK WITHIN THE RAILROAD ROW. ALL CONSTRUCTION WITHIN THE RAILROAD ROW SHALL ALSO COMPLY WITH THE ARRC STANDARD SPECIFICATIONS FOR WORK ON RAILROAD PROPERTY, AS CONTAINED IN THE PROJECT SPECIAL CONDITIONS.
2. CONDUIT INSTALLED UNDER RAILROAD TRACKS SHALL BE NOT LESS THAN 5.5 FEET FROM BASE OF RAILROAD TRACK RAIL TO TOP OF CONDUIT AT ITS CLOSEST POINT. WITHIN RAILROAD ROW WHERE CASING IS NOT DIRECTLY BENEATH ANY TRACK, THE DEPTH FROM GROUND SURFACE TO TOP OF CASING SHALL BE NOT LESS THAN 4 FEET.
3. PROVIDE CONDUIT DRAINS AND GRAVEL SUMP IN ACCORDANCE WITH SECTION 660 AS REQUIRED AT LOW END OF CASING PIPE.
4. PROVIDE AN APPROVED COUPLING TO TRANSITION FROM RMC TO HDPE CONDUIT.
5. ADJUST THE HORIZONTAL POSITION OF THE BORE TO AVOID CONFLICTS WITH UTILITIES AND AKRRC SIGNAL EQUIPMENT.
6. THE CONTRACTOR SHALL SUBMIT AN ACCESS NOTIFICATION FORM TO THE ARRC.
7. PRIOR TO ANY WORK ON ARRC PROPERTY THE CONTRACTOR SHALL OBTAIN INSURANCE AS REQUIRED IN SECTION 4 OF THE MOST CURRENT VERSION OF ARRC STANDARD SPECIFICATIONS FOR WORK ON RAILROAD PROPERTY AND PROVIDE A CERTIFICATE OF INSURANCE TO ARRC.
8. ALL WORK SHALL BE DONE IN CONFORMANCE WITH OF THE MOST CURRENT VERSION OF ARRC STANDARD SPECIFICATIONS FOR WORK ON RAILROAD PROPERTY.
9. ARRC TRACK PROTECTION IS REQUIRED FOR ANY WORK WITHIN TWENTY (20) FEET OF THE TRACKS. ARRC WILL PROVIDE RAILROAD FLAG PROTECTION AT THE DEPARTMENTS EXPENSE.
10. BEFORE ANY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS BEGIN PROVIDE ARRC WITH A FINAL SET OF PLANS AND SPECIFICATIONS CERTIFIED FOR CONSTRUCTION.
11. SIGNED ASBUILTS SHALL BE DELIVERED TO THE ARRC WITHIN (30) DAYS OF PROJECT COMPLETION.

RAILROAD CROSSING DETAIL

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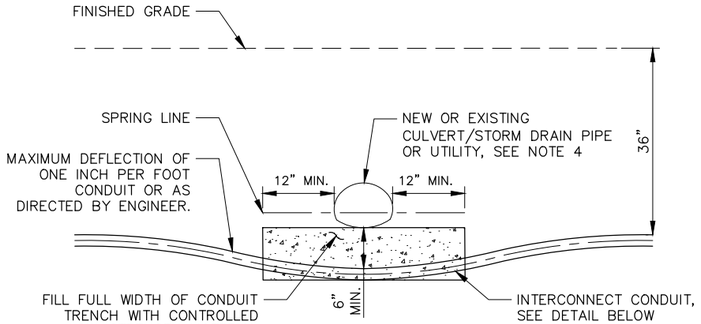
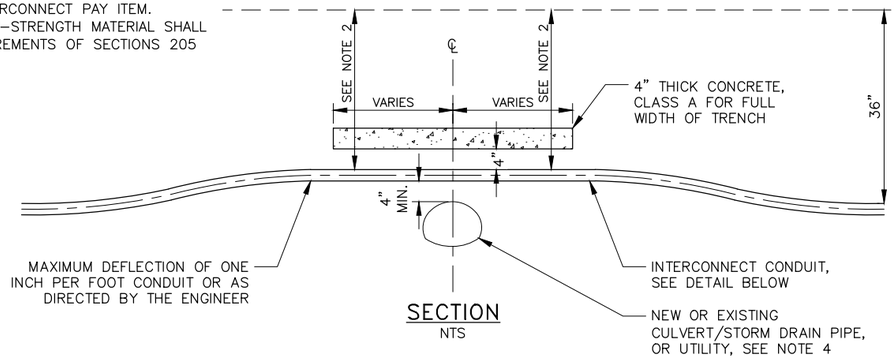
CONDUIT–CULVERT/UTILITY CROSSING NOTES:

1. UNLESS DIRECTED OTHERWISE BY THE ENGINEER, USE THIS DETAIL WHENEVER INTERCONNECT CONDUIT BURIAL DEPTH IS LESS THAN 30".
2. MINIMUM INTERCONNECT CONDUIT COVER REQUIREMENTS:
   - 2.1. 24" UNDER ROADWAYS, DRIVEWAYS, PARKING LOTS, AND PATHWAYS.
   - 2.2. 18" UNDER ALL OTHER AREAS.
3. ENSURE THAT THE INTERCONNECT CONDUIT IS PROPERLY POSITIONED AND ANCHORED BEFORE BACKFILLING WITH CONTROLLED LOW–STRENGTH MATERIAL.
4. U.O.N. OR DIRECTED BY THE ENGINEER, USE THIS DETAIL WHEN UNDER GROUND UTILITY CROSSINGS ARE ENCOUNTERED. DO NOT ENCASE UTILITY IN CONTROLLED LOW–STRENGTH MATERIAL OR CONCRETE UNLESS OTHERWISE DIRECTED. POTHOLING IS REQUIRED WHEN CROSSING BENEATH DUCTBANKS.
5. CONCRETE AND LOW–STRENGTH FLOWABLE FILL MATERIALS AND WORK ARE SUBSIDIARY TO THE FIBER OPTIC INTERCONNECT PAY ITEM. CONTROLLED LOW–STRENGTH MATERIAL SHALL MEET THE REQUIREMENTS OF SECTIONS 205 AND 721.



SECTION
NTS



SECTION
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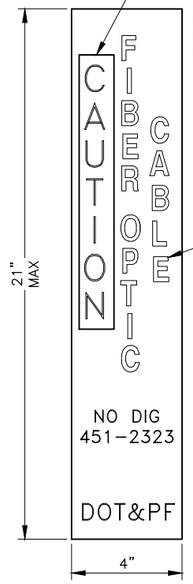
INTERCONNECT CONDUIT–CULVERT/UTILITY CROSSING DETAIL
NTS



DECAL
NTS

ELEVATION

FIBER OPTIC ROUTE MARKER DETAIL
NTS

FIBER OPTIC ROUTE MARKER NOTES:

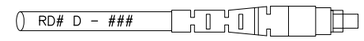
1. PROVIDE FIBER OPTIC ROUTE MARKERS IN ACCORDANCE WITH SECTION 662 OF THE PROJECT SPECIAL PROVISIONS.
2. THIS WORK AND MATERIALS IS SUBSIDIARY TO THE FIBER OPTIC INTERCONNECT PAY ITEM.

TRANSMIT DIRECTION	ABBREVIATION	
	TRANSMIT	RECEIVE
SOUTH TO NORTH	TX(a)	RX(a)
NORTH TO SOUTH	TX(b)	RX(b)
WEST TO EAST	TX(a)	RX(a)
EAST TO WEST	TX(b)	RX(b)

TX/RX TRANSMIT DIRECTION ABBREVIATION PER TRANSMIT DIRECTION TABLE
P LETTER P FOR PATCH CORD
FIBER POSITION NUMBER

LABEL BOTH ENDS OF THE PATCH PANEL CORD

LABELING FOR FIBER PATCH CORDS



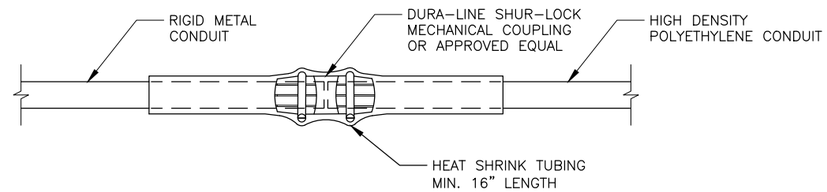
RD# ROADWAY THE CABLE IS ROUTED FROM THE PATCH PANEL

3RD	= 3RD STREET	FLR	= FARMERS LOOP RD
AD	= ALUMNI DR	JE	= JOHANSEN EXPY
AW	= AIRPORT WAY	PR	= PEGER RD
BR	= BALLAINE RD	TD	= NORTH TANANA DR
CR	= COLLEGE RD	UA	= UNIVERSITY AVE
LA	= LATHROP ST	SC	= S CUSHMAN ST
PH	= PARKS HWY	ME	= MITCHELL EXPY

D DIRECTION THE CABLE IS ROUTED FROM THE PATCH PANEL
N = NORTH E = EAST
S = SOUTH W = WEST

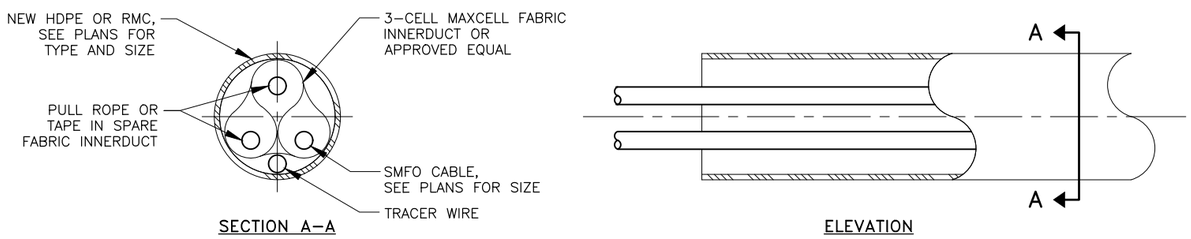
NUMBER OF OPTICAL FIBERS PER EIA 359–A–1

LABELING FOR MAINLINE FIBER CABLES



EXCEPTION:
USE ELECTROFUSION COUPLINGS PER THE HDPE MANUFACTURER'S REQUIREMENTS, WHEN JOINING HDPE TO HDPE.

RMC TO HDPE CONDUIT CONNECTION DETAIL
NTS



TYPICAL INTERCONNECT (NEW) CONDUIT DETAIL
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INTERCONNECT DETAILS

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ALASKA	0002337/Z607320000	2025	H105	H130

INTERCONNECT VAULT SCHEDULE

I/C VAULT NO.	LOCATION			TYPE	REMARKS
	ALIGNMENT	STATION	OFFSET		
SE10	"SBB"	30+22	73.9' LT	MANHOLE	PRESERVE EXISTING
SE11	"SBB"	31+70	80.0' LT	MANHOLE	PRESERVE EXISTING
S1	"SBB"	38+69	41.1' LT	MANHOLE	
S2	"SBB"	45+59	43.9' LT	MANHOLE	
S3	"SB"	300+25	60.3' LT	MANHOLE	
S4	"SB"	307+00	40.0' LT	MANHOLE	
S5	"SB"	317+00	56.0' LT	MANHOLE	
S6	"SB"	324+90	73.0' LT	MANHOLE	
J7	"EBB"	294+63	65.4' RT	MANHOLE	PRESERVE EXISTING SEE NOTE 5
J8	"EBB"	295+47	46.9' RT	TYPE 1	PRESERVE EXISTING SEE NOTES 6 & 7
J9	"EB"	308+43	76.1' RT	TYPE 2	REMOVE, SEE SHEET H119, NOTE 7
S7	"EB"	301+50	40.1' RT	MANHOLE	
S8	"EB"	307+17	53.6' RT	MANHOLE	SEE NOTES 8, 9
S9	"EB"	311+33	45.2' RT	MANHOLE	SEE NOTES 8, 9
S10	"SB"	340+85	132.0' RT	MANHOLE	
S11	"SB"	349+85	112.0' RT	MANHOLE	
S12	"SB"	358+00	115.0' RT	MANHOLE	
S13	"SB"	365+64	104.0' RT	MANHOLE	
S14	"SB"	374+50	117.0' RT	MANHOLE	

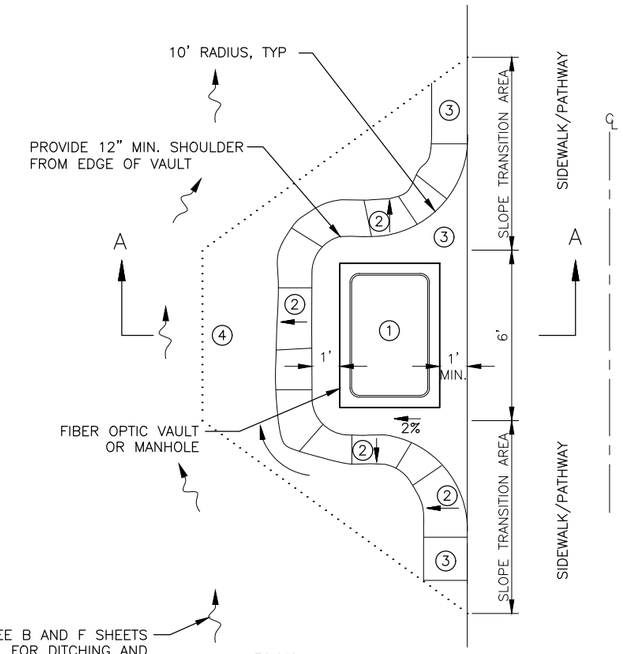
NOTE: SEE SHEET H207 FOR SPLICE DIAGRAM.

662.2005.0000 FIBER OPTIC INTERCONNECT–LUMP SUM

2020 SSHC PAY ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
202	REMOVE 1–18pr#19 & ABANDON 2 INCH PVC	LF	1570
202	REMOVE 2 INCH HDPE (REMOVE 1540 LF 1–12 SMFO)	LF	734
202	REMOVE VAULT #J9	EA	1
301	AGGREGATE BASE COURSE, GRADING D–1	TON	14
401	ASPHALT, SIDEWALKS AND PATHS	TON	7
618	SEEDING	LB	5
660	BEDDING AND BACKFILL	TON	42
660	BORE SLIPLINES, 2 INCH HDPE (4–2" SCH40)	LINEAR FOOT	980
660	BORED CASING, 6 INCH MINIMUM DIAMETER STEEL (1–6" SCH40)	LINEAR FOOT	210
662	TOTAL TRENCHING	LINEAR FOOT	9979
	SHARED TRENCH (LIGHTING, SIGNALS, AAWF)	LINEAR FOOT	4330
	RMC TO HDPE CONDUIT CONNECTION	EACH	0
	3 INCH HDPE	LINEAR FOOT	400
	2 INCH HDPE	LINEAR FOOT	9229
	2 INCH RMC	LINEAR FOOT	350
	SOLID PLUG CAPS PER 662–2.02.8	EACH	36–2", 2–3"
	3–CELL INNERDUCT	LINEAR FOOT	10602
	48 FIBER SMFO CABLE N–S (INCLUDES CABLE SLACK 16 STRUCTURES)	LINEAR FOOT	10568
	48 FIBER SMFO CABLE E–W (INCLUDES CABLE SLACK 5 STRUCTURES)	LINEAR FOOT	2047
	DETECTION WIRE	LINEAR FOOT	10867
	DETECTABLE WARNING TAPE	LINEAR FOOT	9979
	PULL ROPE OR TAPE	LINEAR FOOT	10602
	DROP CABLE (LENGTH PER INTERSECTION SUMMARIES)	EACH	7
	END TO END SPLICES (SEE NOTE 7)	EACH	2
	DROP FIBER SPLICES	EACH	8
	SPLICE CLOSURES	EACH	6
	FIBER OPTIC VAULT, TYPE 1	EACH	0
	FIBER OPTIC MANHOLE	EACH	14
	ELECTRONIC BALL MARKER	EACH	14
	SWELLABLE PLUGS PER 662–2.02.9	EACH	36–2", 2–3"
	LC–LC UPC SMFO PATCH CABLE	EACH	8
	SC–LC UPC SMFO PATCH CABLE W/ REMOVEABLE END CAPS	EACH	40
	FIBER OPTIC ROUTE MARKER	EACH	50

NOTES:

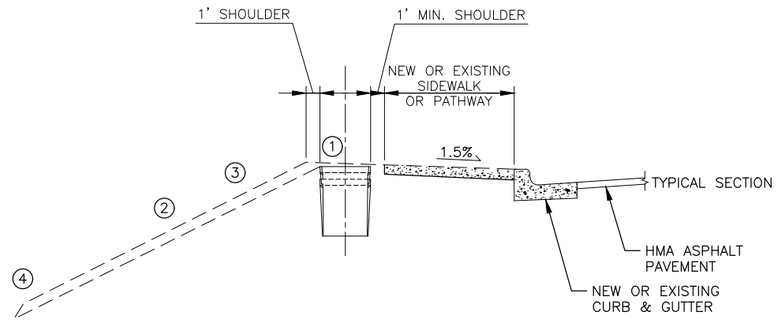
1. WHEN INTERCONNECT VAULT IS LOCATED WITHIN OR ADJACENT TO A SIDEWALK OR PATHWAY DEPRESS VAULT 0"–1" BELOW SIDEWALK GRADE. SO THAT THE TOP OF VAULT WILL NOT OBSTRUCT SIDEWALK / PATHWAY SNOW REMOVAL OPERATIONS.
2. UNLESS OTHERWISE NOTED ON B AND F SHEETS, USE 2H:1V FILL SLOPES.
3. SEED DISTURBED AREAS AS DIRECTED BY THE ENGINEER.
4. STEEPEN SLOPES AS NECESSARY TO CONTAIN SLOPE LIMITS WITHIN THE R/W.
5. SEE PROJECT NO. 0672005 / Z62487000 OLD STEESE HIGHWAY RECONSTRUCTION (2024) FOR ADDITIONAL INFORMATION
6. SEE PROJECT NO. EAP–0668(15) / 63917 JOHANSEN EXPRESSWAY RESURFACING (2014), SHEET H94 FOR ADDITIONAL INFORMATION.
7. EXISTING JOHANSEN EXPRESSWAY LINK AT OLD STEESE HIGHWAY AND JOHANSEN EXPRESSWAY WILL USE PATCH PANEL MIDSPAN FOR FIBERS 1 THRU 6, END–TO–END REMAINING FIBERS 7 THRU 12, AND CAP FIBERS 13–48 AT EXISTING VAULT
8. DUCT SEALS ARE FOR 2" NOMINAL CONDUIT, AT VAULTS #S8 AND #S9 PROVIDE ONE EACH 3" TEMPORARY AND PERMANENT DUCT SEALS.
9. COORDINATE W/ PRECAST MANUFACTURERS FOR BOWCO OR APPROVED EQUAL CONDUIT ENTRANCES SIZED TO SELECTED CONDUIT. AT VAULTS #S8 AND #S9 A 3" MINIMUM CONDUIT ENTRANCE WILL BE REQUIRED.



PLAN

VAULT GRADING ADJACENT TO SIDEWALK OR PATHWAY

NTS



SECTION

VAULT GRADING ADJACENT TO SIDEWALK OR PATHWAY

NTS

INTERCONNECT VAULT SCHEDULE AND GRADING

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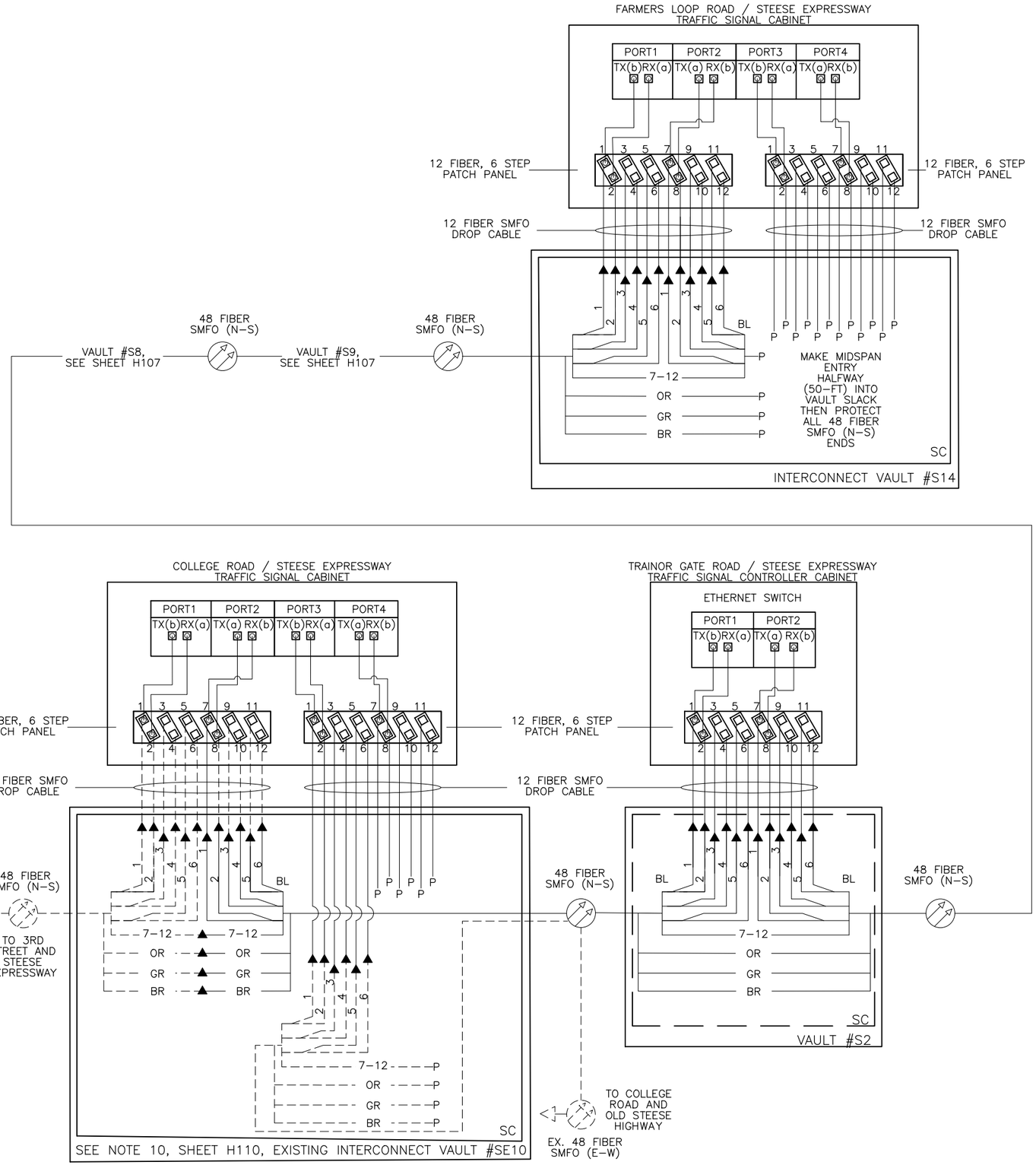
ALASKA	0002337/Z607320000	2025	H106	H130



LEGEND

- FIBER SPLICE
- FIBER STRAND / BUFFER TUBE
- LC CONNECTOR
- LC PORT
- JUMPER OR PATCH CHORD
- EXISTING FIBER STRAND / BUFFER TUBE
- EXISTING FIBER OPTIC CABLE
- FIBER OPTIC CABLE
- FIBER OPTIC CABLE & EXISTING FIBER OPTIC CABLE SHARING RACEWAY

SC SPLICE CLOSURE
SMFO SINGLE MODE FIBER OPTIC CABLE
P PROTECT FIBER END

TRANSMIT DIRECTION	ABBREVIATION	
	TRANSMIT	RECEIVE
SOUTH TO NORTH	TX(a)	RX(a)
NORTH TO SOUTH	TX(b)	RX(b)
WEST TO EAST	TX(a)	RX(a)
EAST TO WEST	TX(b)	RX(b)

NOTES:

1. REFER TO PLANS FOR CABLE ROUTING TO/FROM TRAFFIC SIGNAL CONTROLLER CABINETS.
2. ALL ETHERNET SWITCHES, ARE SINGLE MODE, OPERATING AT 1310 nm, UNLESS OTHERWISE SPECIFIED.
3. ETHERNET SWITCHES AND TERMINAL SERVERS SHALL INCLUDE POWER ADAPTERS CONVERTING 120 VAC TO APPROPRIATE OPERATING VOLTAGES.
4. ALL SPLICE TRAYS SHALL BE CONTAINED WITHIN ONE CLOSURE PER VAULT.
5. DROP CABLES SHALL BE PRECONNECTORIZED IN THE FACTORY. CONNECTORS INSTALLED IN THE FIELD WILL NOT BE ALLOWED.
6. COMMUNICATION COMPONENTS ARE SHOWN SCHEMATICALLY. VERIFY TX–RX FIBER PORTS PRIOR TO MAKING FINAL CONNECTIONS.
7. CONNECT ETHERNET SWITCH TO EACH PATCH PANEL WITH TWO SINGLE MODE FIBER PATCH CABLES. THE CABLES SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR MOVING OF THE ETHERNET SWITCH TO ANY SHELF LOCATION IN THE CABINET ONCE THE PATCH PANEL HAS BEEN INSTALLED. LABEL EACH PATCH CABLE ACCORDING TO THE TRANSMISSION DIRECTION TABLE.
8. PROVIDE THREE (EACH) ETHERNET CABLES OF SIX FOOT LENGTH FOR EACH CABINET RECEIVING AN ETHERNET SWITCH, TO BE CONNECTED TO CABINET COMPONENTS ACCORDING TO THE SWITCH COMMUNICATIONS WIRING DIAGRAM.
9. NO SPLICES ARE PERMITTED EXCEPT WHERE SPECIFICALLY INDICATED IN THE FIBER OPTIC SPLICE DIAGRAM. SPLICE CLOSURES MUST CONFORM TO SUBSECTION 662–3.10 OF THE SPECIFICATIONS.
10. MOUNT PATCH PANEL TO CABINET WALL AND IN A LOCATION AS TO NOT INTERFERE WITH OTHER EQUIPMENT AND SUCH THAT IT IS READILY ACCESSIBLE. PROVIDE SUFFICIENT SLACK CABLE IN CABINET TO ALLOW THE PATCH CABLE TO BE RELOCATED AT ANY LOCATION IN THE CABINET.
11. GEL–FILLED BUFFER TUBES OR SPLICE CLOSURES SHALL NOT BE USED, REFER TO SUBSECTIONS 662–2.03–1 & 662–3.09.
12. PATCH PANELS FOR DROP CABLES SHALL HAVE A MATED PAIR RELATIVE REFLECTANCE OF –40dB OR LESS WHEN TESTED IN ACCORDANCE W/ SUBSECTION 662–3.04 (OTDR). PATCH PANELS SHALL HAVE UPC FINISH AND CONTAIN LC DUPLEX PORTS.

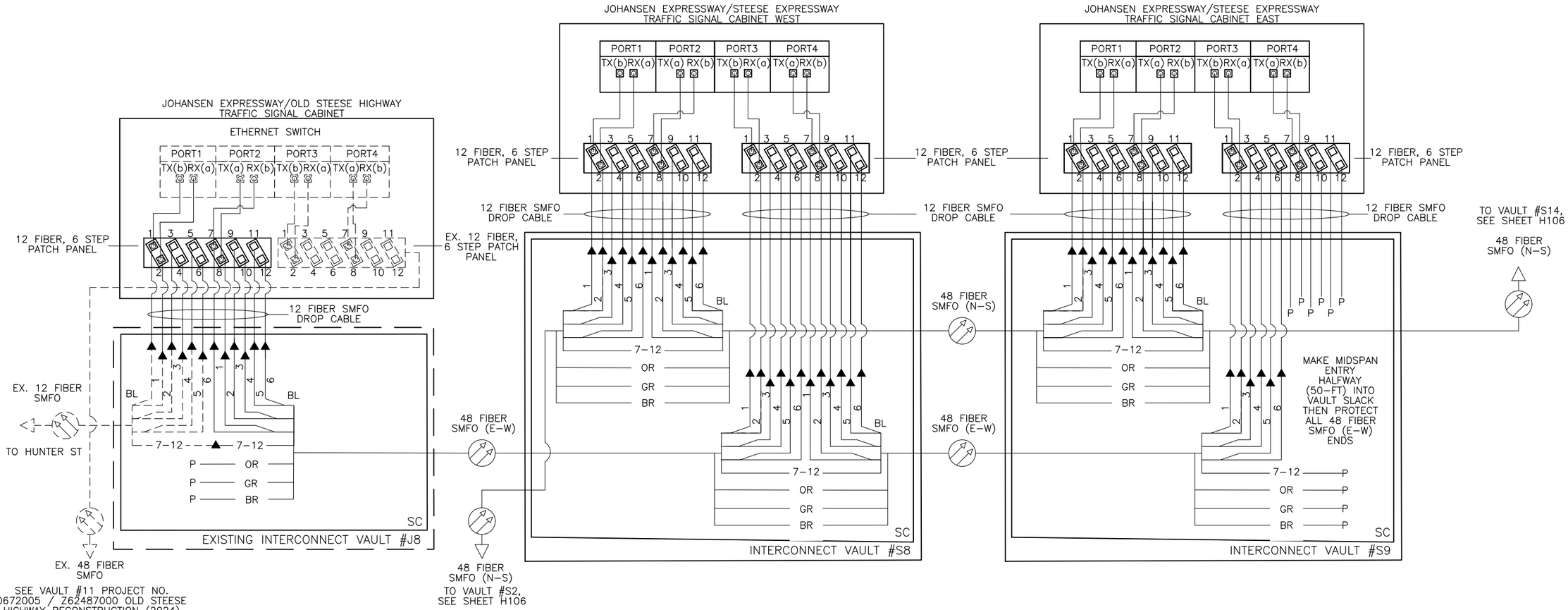
INTERCONNECT FIBER OPTIC SPLICE DIAGRAM (N–S)

REVIEW PS&E 5/25/2023

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346–2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00714_STEESE_JOHANSEN INTERCHANGE SIGNAL INTERCONNECT\DWGS\C\SHEETS\60732_H106–H107_FIBER OPTIC SPLICE DETAILS PLOT DATE: 5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H107	H130



LEGEND

- ▲ FIBER SPLICE
- FIBER STRAND / BUFFER TUBE
- ○ LC CONNECTOR
- □ LC PORT
- JUMPER OR PATCH CHORD
- EXISTING FIBER STRAND / BUFFER TUBE
- EXISTING FIBER OPTIC CABLE
- FIBER OPTIC CABLE
- FIBER OPTIC CABLE & EXISTING FIBER OPTIC CABLE SHARING RACEWAY

SC SPLICE CLOSURE
SMFO SINGLE MODE FIBER OPTIC CABLE
P PROTECT FIBER END

TRANSMIT DIRECTION	ABBREVIATION	
	TRANSMIT	RECEIVE
SOUTH TO NORTH	TX(a)	RX(a)
NORTH TO SOUTH	TX(b)	RX(b)
WEST TO EAST	TX(a)	RX(a)
EAST TO WEST	TX(b)	RX(b)

INTERCONNECT FIBER OPTIC SPLICE DIAGRAM (E–W)

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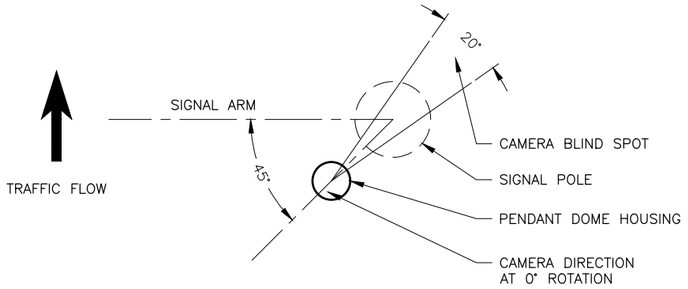
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H108	H130



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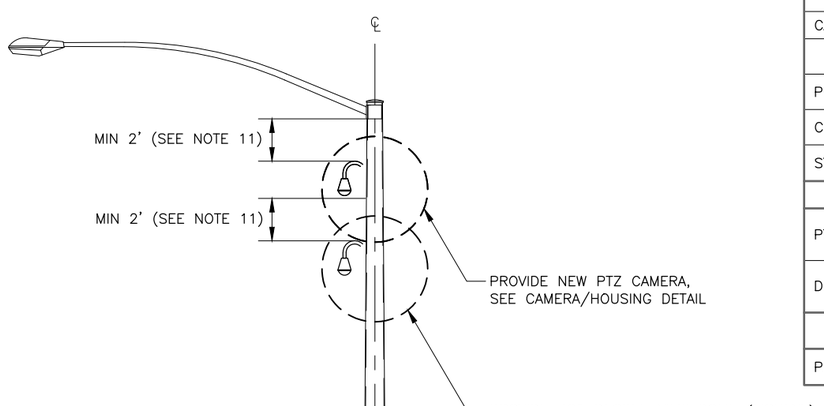
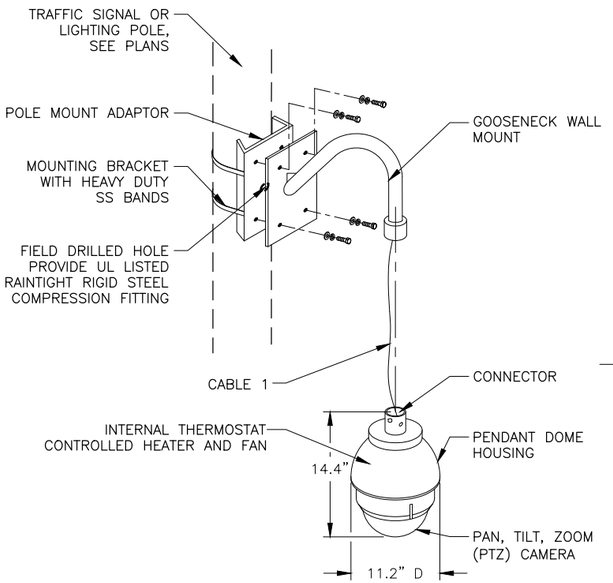


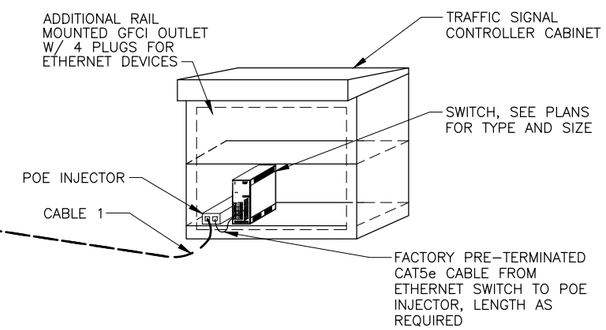
ELEVATION

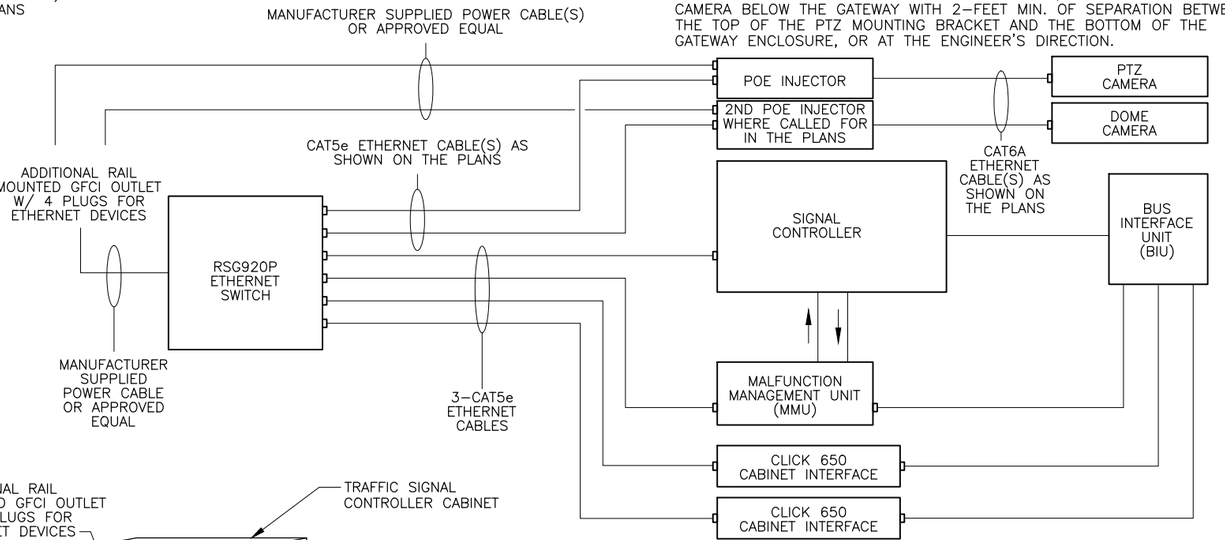


CAMERA/HOUSING DETAIL

MATERIAL REQUIREMENTS

ALL ASSEMBLIES	
MOUNTING BRACKET	SUBMIT FOR APPROVAL MOUNTING SOLUTION WHEN NOT USING MANUFACTURER MOUNTING HARDWARE BELOW.
POLE MOUNT ADAPTOR	AXIS T91B57 OR APPROVED EQUAL (16" MAX. BANDS)
GOOSENECK WALL MOUNT	AXIS T91G61 OR APPROVED EQUAL
SCREWS	AXIS T91G61/T91L61 SCREW KIT OR APPROVED EQUAL
CABLE 1	CAT-6a, SHIELDED
POWER SUPPLY	AXIS T8134 60W OR APPROVED EQUAL
CONNECTOR	ENVIRONMENTALLY HARDENED RJ-45
STRAIN RELIEF	REMKE 2201-013 OR APPROVED EQUAL
CAMERA	
PTZ CAMERA	UNLESS OTHERWISE NOTED, PROVIDE AXIS Q6315-LE OR APPROVED EQUAL
DOME (FISHEYE) CAMERA	UNLESS OTHERWISE NOTED, PROVIDE MIOVISION SMARTVIEW 360 OR APPROVED EQUAL
HOUSING	
PENDANT DOME HOUSING	OUTDOOR, INTEGRATED WITH CAMERA OR APPROVED EQUAL





SWITCH COMMUNICATIONS WIRING DIAGRAM

NOTES:

1. PROTECT CABLE ENDS FROM MOISTURE AT ALL TIMES.
2. PULL CABLE IN ACCORDANCE WITH SECTION 660 OF THE SPECIAL PROVISIONS. PULL CABLE SO THAT THERE IS SUFFICIENT LENGTH TO REACH THE TOP OF THE CONTROLLER CABINET. CABLES ARE TO BE PULLED WITHOUT CONNECTORS ATTACHED. WHEN CABLE HAS BEEN PULLED TO FINAL LOCATIONS INSTALL AND MAKE FINAL CONNECTIONS.
3. CABLE RUNS ARE TO BE MADE CONTINUOUS WITHOUT SPLICES EXCEPT FOR IN LOCATION SHOWN IN SPICE DETAIL WITH SPECIFIED CONNECTOR.
4. CABLE WITH DAMAGED INSULATION, OR THAT HAS BEEN CRIMPED OR BENT BEYOND THE MINIMUM BEND RADIUS MUST BE REPLACED AT NO ADDITIONAL COST.
5. THE MIN BEND RADIUS SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS.
6. ENSURE ADEQUATE LENGTH OF EACH CABLE TO ALLOW WORK ON THE ENDS OF THE CABLE IN THE CONTROLLER CABINET AND THE CAMERA MOUNTING LOCATION.
7. MOUNT THE PENDENT DOME HOUSING AT A 45° ANGLE AT THE REQUIRED HEIGHT. ANGLE AND HEIGHT MAY BE ADJUSTED BY THE ENGINEER TO AVOID WELDS, APPENDICES AND TO APPROVE SITE DISTANCE.
8. ADJUST CAMERA INSIDE THE PENDENT DOME HOUSING AS SHOWN. ENSURE THAT THE CAMERA IS MOUNTED AT A 0° TILT ANGLE.
9. INSTALL WATERTIGHT THREADED RIGID COMPRESSION CONNECTOR WHERE CABLE PASSES THROUGH THE POLE.
10. AT SPLICE LOCATION PROVIDE A SECURE CONNECTION USING CONNECTOR PARTS SPECIFIED. AFTER CONNECTION IS MADE COVER SPLICE WITH HEAT SHRINK. PROVIDE A STRAIN RELIEF CABLE AS NECESSARY.
11. CAT6a TOTAL CABLE LENGTH SHALL NOT EXCEED 325 FEET FROM THE ETHERNET SWITCH TO THE PTZ CAMERA. WHEN MOUNTED ON THE SAME POLE WITH WIRELESS LIGHTING CONTROL GATEWAY, MOUNT THE PTZ CAMERA BELOW THE GATEWAY WITH 2-FEET MIN. OF SEPARATION BETWEEN THE TOP OF THE PTZ MOUNTING BRACKET AND THE BOTTOM OF THE GATEWAY ENCLOSURE, OR AT THE ENGINEER'S DIRECTION.

PAN, TILT, ZOOM (PTZ) CAMERA DETAILS

REVIEW PS&E 5/25/2023

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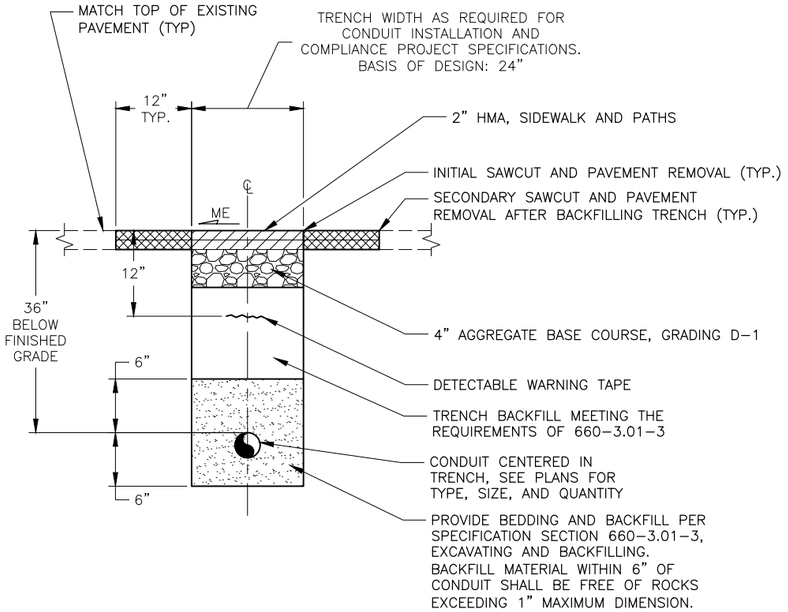
NO.	DATE	REVISION

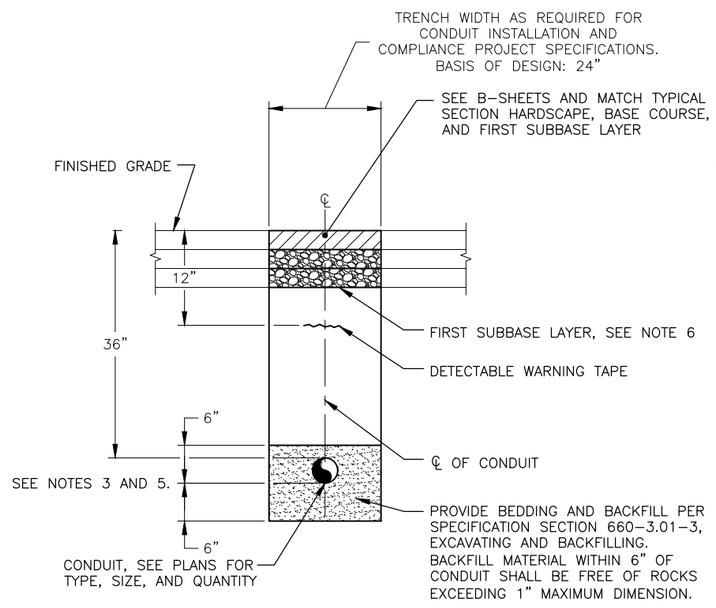
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H109	H130



TRANVERSE INTERCONNECT TRENCH UNDER ASPHALT PATHWAY

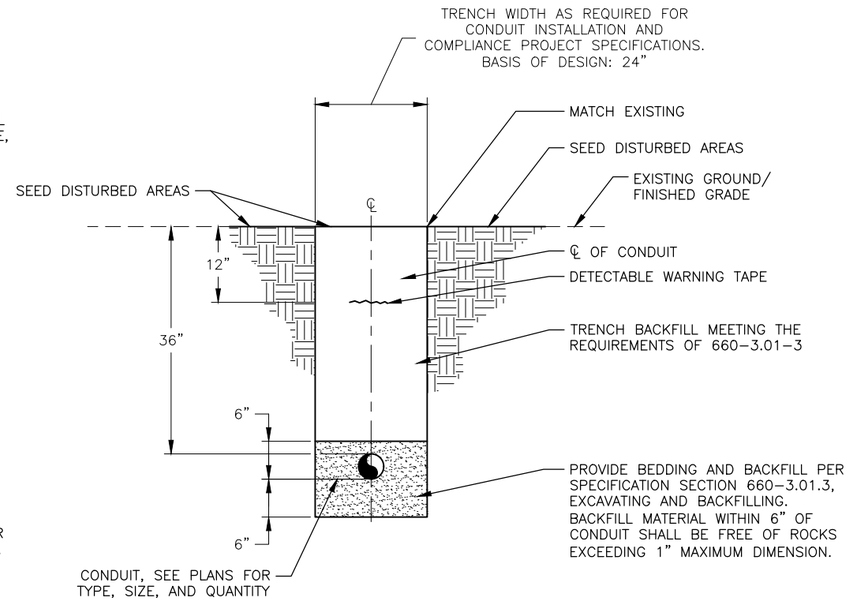
STA "SBB" 31+84 LT TO STA "SBB" 31+98 LT (SEE NOTE 4)
STA "SBB" 46+20 LT TO STA "SBB" 46+33 LT (SEE NOTE 4)
STA "SB" 300+26 LT TO STA "SB" 300+76 LT (SEE NOTE 4)

NTS



INTERCONNECT TRENCH UNDER PROPOSED PATHWAYS, SIDEWALKS, AND PAVEMENT

NTS



INTERCONNECT TRENCH ADJACENT TO ROADWAYS AND GRASSY MEDIANS

NTS

NOTES:

1. ALL ASPHALT PAVEMENT, CURB & GUTTER, OR CONCRETE SIDEWALK SHALL BE SAWCUT PRIOR TO REMOVAL. EXCEPTION: WHERE APPLICABLE, CONCRETE SIDEWALK AND CURB & GUTTER SHALL BE REMOVED TO THE NEAREST CONSTRUCTION JOINT.
2. ALL CONDUIT TRENCH AND EXCAVATION BENEATH ASPHALT PAVEMENT, SIDEWALK, AND CURB AND GUTTER SHALL BE COMPLETED BEFORE FINAL PAVING.
3. SEE SPECIAL PROVISIONS SUBSECTION 660-3.01. BACKFILL EXCAVATIONS ACCORDING TO SECTION 204. BACKFILL AROUND POLYETHYLENE CONDUIT WITH TWO 6" LIFTS OF MATERIAL FREE OF ROCKS EXCEEDING A 1" MAXIMUM DIMENSION.
4. SPREAD APPROXIMATELY 10 CUBIC YARDS EXCESS EXCAVATION OBTAINED FROM PLACEMENT OF ADDITIONAL 4" AGGREGATE BASE COURSE, D-1 AT EXISTING GRADE. PLACE EXCAVATION ON DISTURBED TRENCHES AND SCARIFIED SURFACES AS DIRECTED BY THE ENGINEER. ENSURE PLACED EXCAVATION MEETS 5% MINIMUM SLOPES DRAINING CONTINUOUSLY TOWARD SCHEDULED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE DEVICES (BMPS). SEED AFTER TRENCH COMPACTION.
5. PAYMENT FOR THE 12" BEDDING AND BACKFILL REQUIREMENT IS SUBSIDIARY TO 662.2005.0000 FIBER OPTIC INTERCONNECT LUMP SUM. THIS PAYMENT SHALL INCLUDE DISPOSAL OF ANY EXCESS EXCAVATION NOT RE-USED.
6. WHEN CONDUIT SHARES TRENCH W/ AAWF, LIGHTING, SIGNAL OR OTHER CONDUIT AS SHOWN ON THE PLANS, PLACE FIBER OPTIC INTERCONNECT CONDUIT IN SAME TRENCH AND PROVIDE BEDDING AND BACKFILL THAT MEETS THE REQUIREMENTS OF SUBSECTION 660-3.01-3.

TRENCH DETAIL

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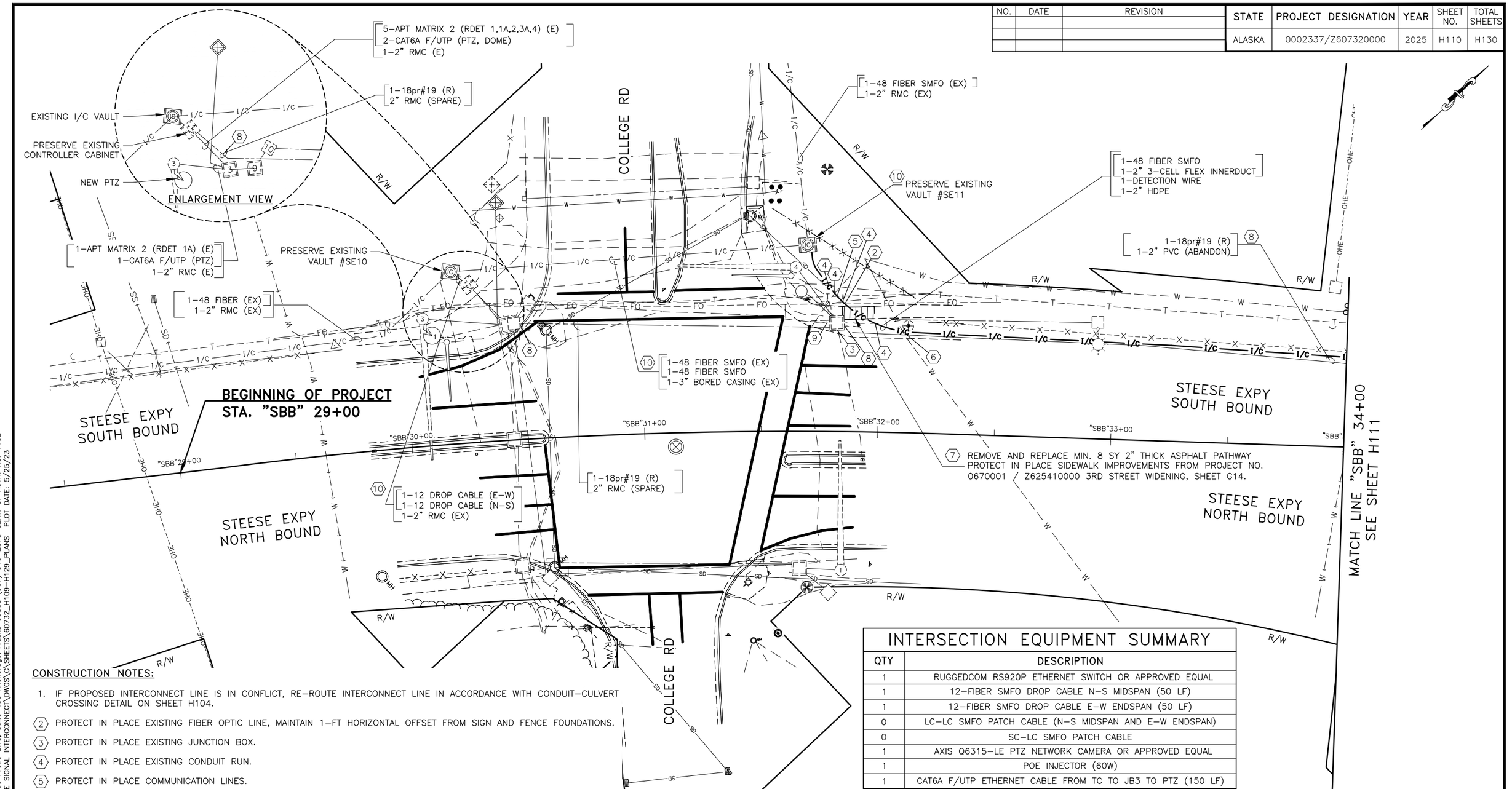
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H110	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE–ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT–CULVERT CROSSING DETAIL ON SHEET H104.

(2) PROTECT IN PLACE EXISTING FIBER OPTIC LINE, MAINTAIN 1–FT HORIZONTAL OFFSET FROM SIGN AND FENCE FOUNDATIONS.

(3) PROTECT IN PLACE EXISTING JUNCTION BOX.

(4) PROTECT IN PLACE EXISTING CONDUIT RUN.

(5) PROTECT IN PLACE COMMUNICATION LINES.

(6) PROTECT IN PLACE EXISTING WATER LINE.

(7) PROVIDE TCP AND IMPLEMENT TRAFFIC CONTROL FOR 48–HR RIGHT TURN LANE CLOSURE FOR ASPHALT REMOVAL, TRENCH, CONDUIT PLACEMENT, AND BACKFILL OPERATIONS.

(8) REMOVE 1–18pr#19 FROM COLLEGE ROAD AND STEESE EXPRESSWAY TO TRAINOR GATE ROAD AND STEESE EXPRESSWAY. ABANDON CONDUIT IN PLACE PER 660–3.01.6 (EX. 2" PVC). SEE PROJECT NO. RF–ALF062425 FAIRBANKS EXPRESSWAY NORTH, SHEETS 97–100.

(9) VERIFY EXISTING COPPER INTERCONNECT (1–18pr#19) IS CONNECTED AT TRAFFIC CABINET AND IS NOT ROUTED IN CONDUIT ALONGSIDE SIGNALIZATION CONDUCTORS. IF PRESENT ALONGSIDE NON–DETECTOR SIGNALIZATION CONDUCTORS PROVIDE 24–HR FLAGGING AND TCP FOR COLLEGE ROAD AND STEESE EXPRESSWAY INTERSECTION DURING REMOVAL AND REPULL OPERATIONS. REMOVE 1–18pr#19 FROM EX. CONDUIT AND REPULL/RETERMINATE ALL OTHER EX. CONDUCTORS AS NEEDED TO MATCH EXISTING CONDITION W/ APPROVED TCP. COORDINATE DISCONNECT W/ WORK SHEET H113.

INTERSECTION EQUIPMENT SUMMARY

QTY	DESCRIPTION
1	RUGGEDCOM RS920P ETHERNET SWITCH OR APPROVED EQUAL
1	12–FIBER SMFO DROP CABLE N–S MIDSPAN (50 LF)
1	12–FIBER SMFO DROP CABLE E–W ENDSPAN (50 LF)
0	LC–LC SMFO PATCH CABLE (N–S MIDSPAN AND E–W ENDSPAN)
0	SC–LC SMFO PATCH CABLE
1	AXIS Q6315–LE PTZ NETWORK CAMERA OR APPROVED EQUAL
1	POE INJECTOR (60W)
1	CAT6A F/UTP ETHERNET CABLE FROM TC TO JB3 TO PTZ (150 LF)

CONSTRUCTION NOTES (CONTINUED):

(10) REFER TO PROJECT NO. 0002505 / NFHWY00578 STEESE EXPRESSWAY SIGNAL INTERCONNECT – AIRPORT WAY TO COLLEGE ROAD (SHEET H25) AND PROJECT NO. 0002(471) / NFHWY00345 ILLINOIS STREET AND COLLEGE ROAD SIGNAL INTERCONNECT (SHEET H57) FOR EXISTING BORE. VERIFY VAULT #SE10 HAS EXISTING E–W ENDSPAN CONNECTORIZED, #SE11 HAS EXISTING N–S MIDSPAN CONNECTERIZED AND ENDSPAN PREPARED IN VAULT #SE11. IF THIS IS THE CASE PROVIDE SPLICE CLOSURE MEETING SUBSECTION 662–3.09, CLEAVE ENDS IF NEEDED, AND PROVIDE END TO END FUSION SPLICE FOR 48 FIBERS PER SUBSECTION 662–3.08 IN VAULT #SE11. WHEN THESE CONDITIONS ARE VERIFIED CLEAVING, REPULLING AND SPLICING AS DETAILED ON THIS SHEET AND SHEET H107 NEED NOT BE PERFORMED AND SHALL BE CONSIDERED EXISTING.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 29+00 TO STA 34+00

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5/25/23	REVIEW PS&E 5/25/2023
	5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346–2373 CERT. OF AUTH. NO. 1102
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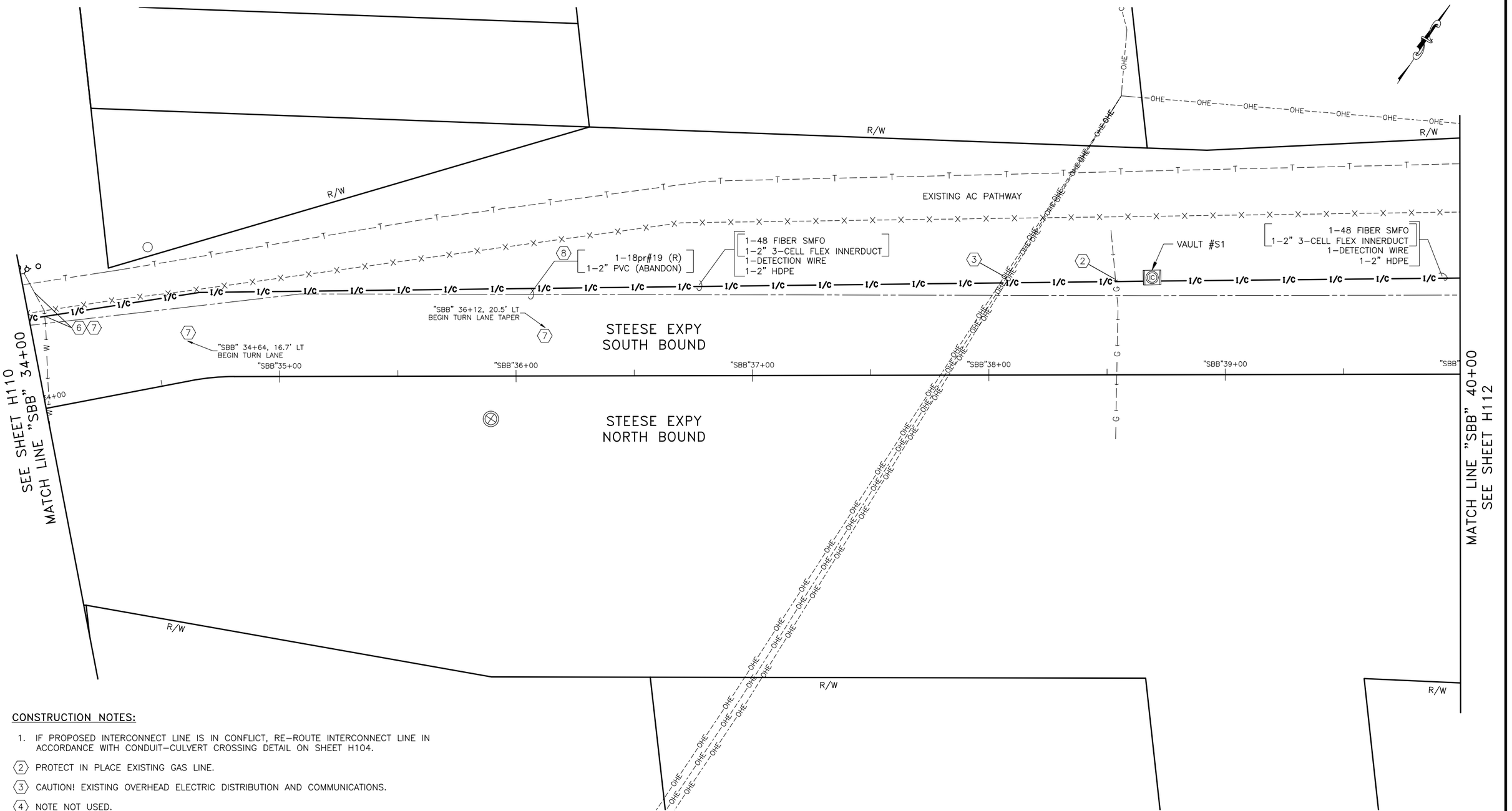
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H111	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) PROTECT IN PLACE EXISTING GAS LINE.

(3) CAUTION! EXISTING OVERHEAD ELECTRIC DISTRIBUTION AND COMMUNICATIONS.

(4) NOTE NOT USED.

(5) NOTE NOT USED.

(6) ROUTE INTERCONNECT OVER WATER LINE, PROTECT IN PLACE, SEE NOTE 1.

(7) PROVIDE TCP AND TRAFFIC CONTROL FOR 48-HR RIGHT TURN LANE CLOSURE FOR ASPHALT REMOVAL, TRENCH, CONDUIT PLACEMENT, AND BACKFILL OPERATIONS.

(8) REMOVE 1-18pr#19 FROM COLLEGE ROAD AND STEESE EXPRESSWAY TO TRAINOR GATE ROAD AND STEESE EXPRESSWAY. ABANDON 2" PVC CONDUIT IN PLACE PER 660-3.01.6. SEE PROJECT NO. RF-ALF062425 FAIRBANKS EXPRESSWAY NORTH, SHEETS 97-100.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 29+00 TO STA 34+00

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
5/25/23

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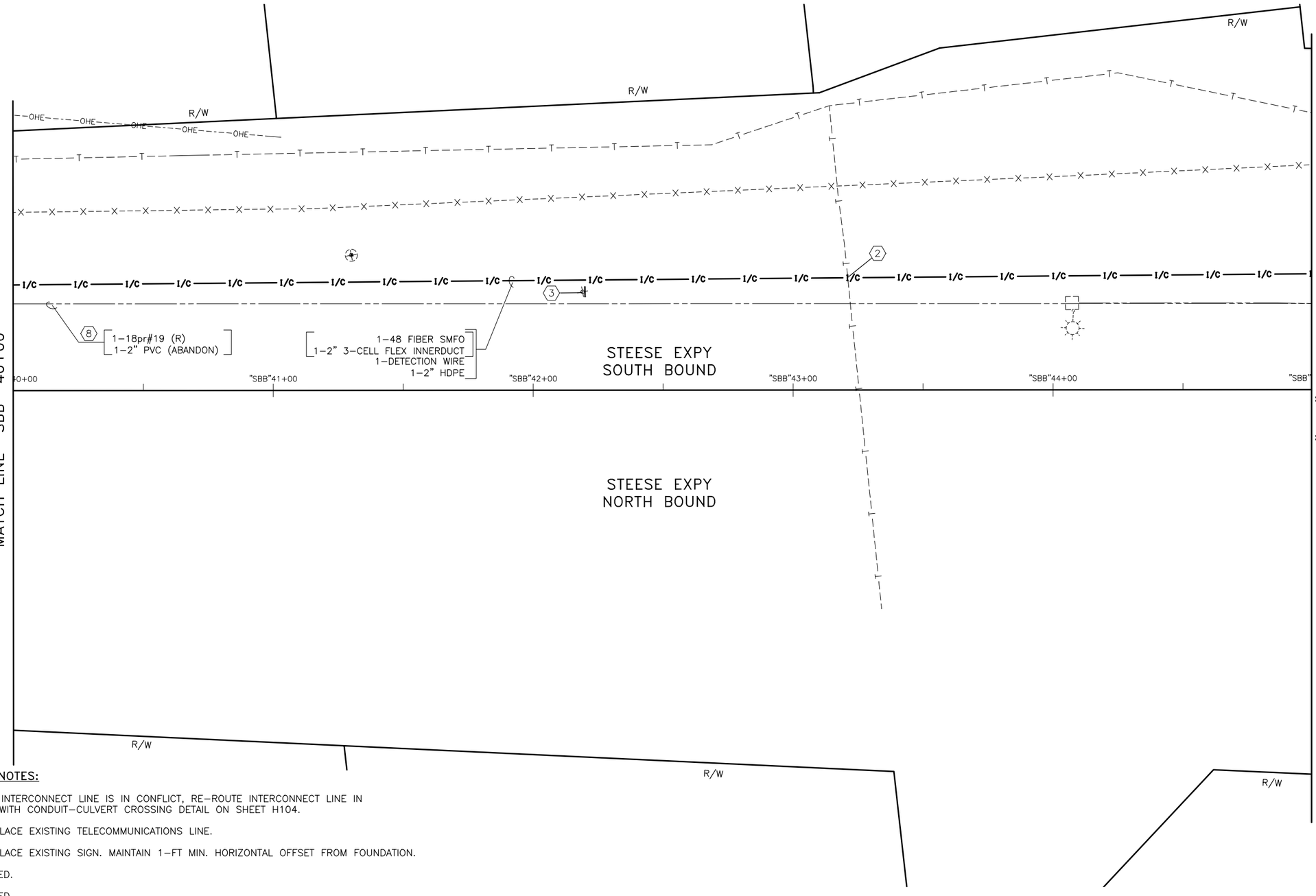
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H112	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) PROTECT IN PLACE EXISTING TELECOMMUNICATIONS LINE.

(3) PROTECT IN PLACE EXISTING SIGN. MAINTAIN 1-FT MIN. HORIZONTAL OFFSET FROM FOUNDATION.

(4) NOTE NOT USED.

(5) NOTE NOT USED.

(6) NOTE NOT USED.

(7) NOTE NOT USED.

(8) REMOVE 1-18pr#19 FROM COLLEGE ROAD AND STEESE EXPRESSWAY TO TRAINOR GATE ROAD AND STEESE EXPRESSWAY. ABANDON 2" PVC CONDUIT IN PLACE PER 660-3.01.6. SEE PROJECT NO. RF-ALF062425 FAIRBANKS EXPRESSWAY NORTH, SHEETS 97-100.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 34+00 TO STA 40+00

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
5/25/23

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
REVIEW PS&E
5/25/2023
5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H113	H130

7 1–12 FIBER SMFO
1–2" RMC
(BOND BUSHING TO GROUND ROD AT TC)

PRESERVE EXIST TRAFFIC SIGNAL CABINET

6–APT MATRIX 2 (RDET 1,1A,2,3,3A,4) (E)
2–CAT6A F/UTP (PTZ, DOME)
1–2" RMC (E)

ENLARGEMENT VIEW

2–APT MATRIX 2 (RDET 1,4) (E)
2–CAT6A F/UTP (PTZ)
1–2" RMC (E)

5–APT MATRIX 2 (RDET 1,1A,2,3A,4) (E)
2–CAT6A F/UTP (PTZ)
1–2" RMC (E)

ENLARGEMENT VIEW

TRAINOR GATE RD

R/W

EXISTING AC PATHWAY

"SBB" 45+77, 47.3' LT
BEGIN BORE

VAULT #S2

"SBB" 47+85, 70.3' LT
BEGIN BORE

VAULT #S3

8 1–48 FIBER SMFO
1–2" 3–CELL FLEX INNERDUCT
1–DETECTION WIRE
1–2" HDPE

EXISTING AC PATHWAY

STEESE EXPY
SOUTH BOUND

STEESE EXPY
SOUTH BOUND

"SBB"45+00 "SBB"46+00 "SBB"47+00 "SBB"47+88 "SB"300+00 "SB"301+00 "SB"302+00 "SB"303+00

SEE SHEET H112
MATCH LINE "SBB" 45+00

MATCH LINE "SB" 303+00
SEE SHEET H114

STEESE EXPY
NORTH BOUND

1–48 FIBER SMFO
1–2" 3–CELL FLEX INNERDUCT
1–DETECTION WIRE
1–2" HDPE
3–2" HDPE (SPARE)
1–6" MIN. STEEL BORED CASING

ARRC RAILROAD

"NB"199+99.96 BP

"NB"200+00 "NB"201+00 "NB"202+00

STEESE EXPY
NORTH BOUND

W TRAINOR GATE RD

CONSTRUCTION NOTES:

1. PROTECT IN PLACE ARRC AND ADOT&PF SIGNALIZATION EQUIPMENT (FOUNDATIONS, RMC/PVC). SEE PROJECT NO. 000S714 / Z634810000 FAIRBANKS AREA SIGNAL UPGRADES (2019).
2. PROTECT IN PLACE EXISTING JUNCTION BOX.
3. INSTALL PULL ROPES AND CAP SPARE CONDUITS PER 660–3.01.13. AT BOTH ENDS EXTEND 10–FT PAST BORE STATIONS INDICATED AND PLACE MARKER BALL MEETING 662–2.06.1.
4. VERIFY EXISTING 1–18PR#19 AT TRAFFIC CABINET AND COORDINATE DISCONNECT W/ WORK SHEET H110. REMOVE FROM CONDUITS LINKING COLLEGE ROAD AND STEESE EXPRESSWAY W/ TRAINOR GATE ROAD AND STEESE EXPRESSWAY, ABANDON CONDUITS IN PLACE PER 660–3.01.6.SEE PROJECT NO. RF–ALF062425 FAIRBANKS EXPRESSWAY NORTH, SHEETS 97–100.
5. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE–ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT–CULVERT CROSSING DETAIL ON SHEET H104.
6. CAUTION! EXISTING OVERHEAD POWER LINE.
7. REMOVE AND REPLACE 13 SY OF 2" THICK ASPHALT PATHWAY (ENLARGEMENT VIEW TOP LEFT).
8. REMOVE AND REPLACE 41 SY OF 2" THICK ASPHALT PATHWAY.
9. ROUTE I/C IN SAME TRENCH AS PROPOSED AAWF CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF JUNCTION BOXES "SB 300+75 TO "SB" 303+00 PROJECT LT.

INTERSECTION EQUIPMENT SUMMARY

QTY	DESCRIPTION
1	RUGGEDCOM RS940G ETHERNET SWITCH OR APPROVED EQUAL
1	12–FIBER SMFO DROP CABLE N–S MIDSPAN (100 LF)
1	LC–LC SMFO PATCH CABLE (N–S MIDSPAN)
5	SC–LC SMFO PATCH CABLE
2	AXIS Q6315–LE PTZ NETWORK CAMERA OR APPROVED EQUAL
2	POE INJECTOR (60W)
2	CAT6A F/UTP ETHERNET CABLE FROM TC TO JB9 TO PTZ (250 LF PER EA)

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 40+00 TO STA 45+00

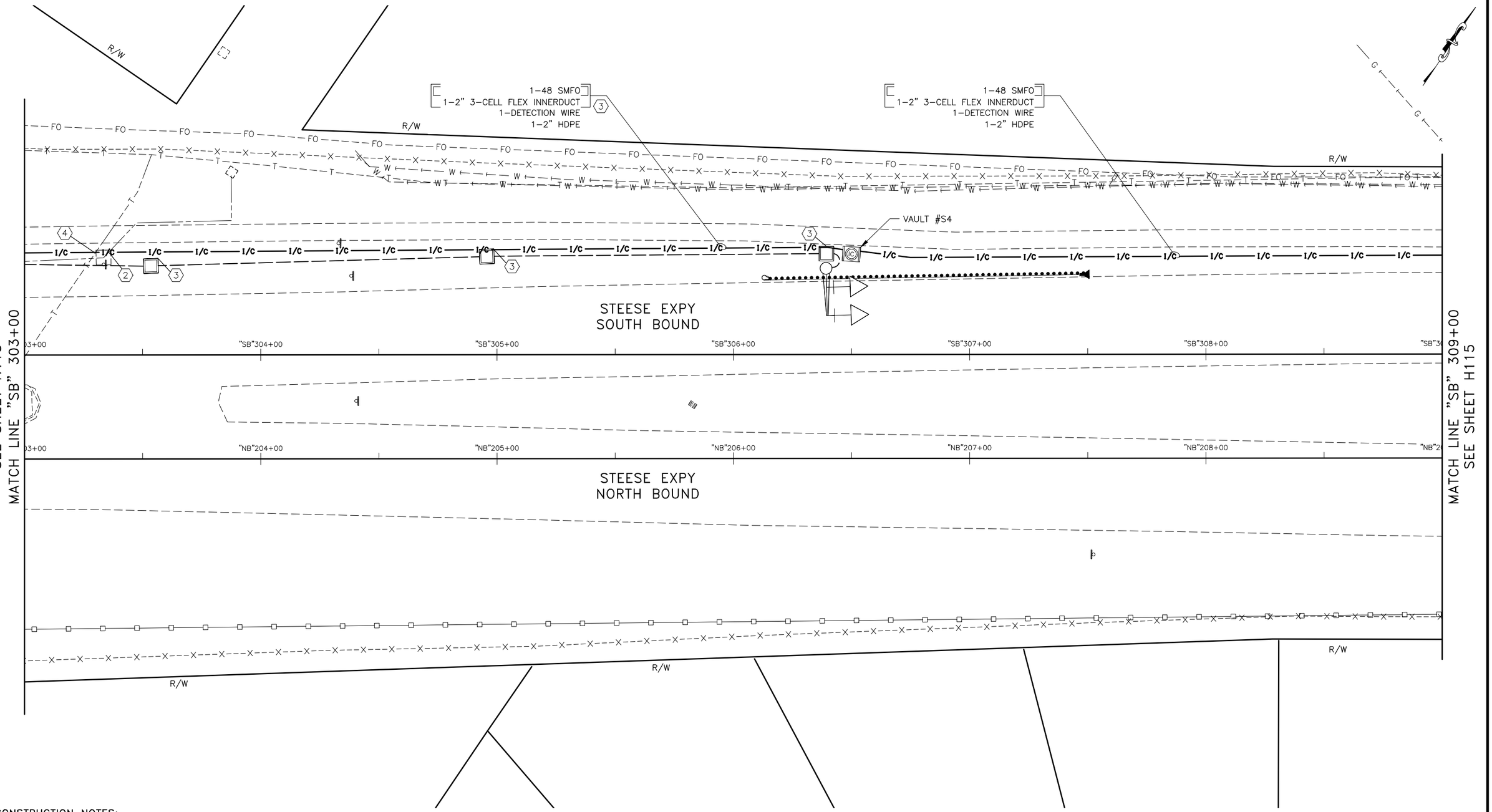
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
REVIEW PS&E
5/25/2023
5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346–2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00714_STEESE_JOHANSEN INTERCHANGE SIGNAL INTERCONNECT\DWGS\C\SHEETS\60732_H109–H129_PLANS PLOT DATE: 5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H114	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) PROTECT IN PLACE EX. LIGHTING JUNCTION BOX AND CONDUIT TO TYPE 3 LOAD CENTER.

(3) ROUTE I/C IN SAME TRENCH AS PROPOSED AAWF CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF JUNCTION BOXES "SB" 303+00 TO "SB" 306+50 PROJECT LT.

(4) ROUTE OVER TELECOMMUNICATIONS LINE, PROTECT IN PLACE.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN SBB STA 45+00 TO SB STA 303+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23	REVIEW PS&E 5/25/2023
	5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H115	H130

1-48 SMFO
1-2" 3-CELL FLEX INNERDUCT
1-DETECTION WIRE
1-2" HDPE

SEE SHEET H114
MATCH LINE "SB" 309+00

MATCH LINE "SB" 315+00
SEE SHEET H116

STEESE EXPY
SOUTH BOUND

STEESE EXPY
NORTH BOUND

"SB"310+00 "SB"311+00 "SB"312+00 "SB"313+00 "SB"314+00

"NB"210+00 "NB"211+00 "NB"212+00 "NB"213+00 "NB"214+00

"NB"213+13.60 TS

R/W

SD

I/C

2

CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) ROUTE OVER EXISTING STORM DRAIN, PROTECT IN PLACE.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 303+00 TO STA 309+00

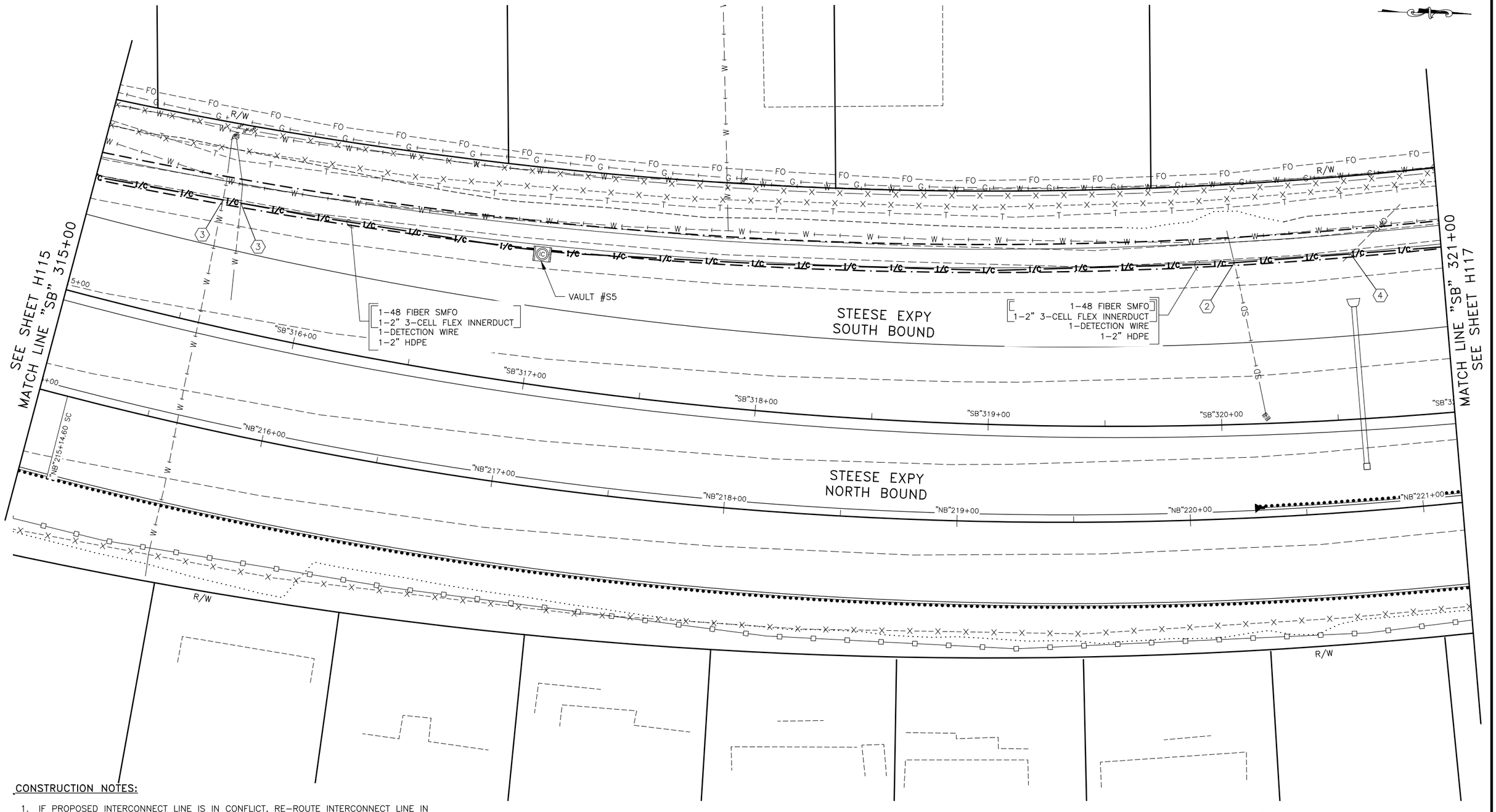
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
5/25/23

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
REVIEW PS&E
5/25/2023
5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00714_STEESE_JOHANSEN INTERCHANGE SIGNAL INTERCONNECT\DWGS\C\SHEETS\60732_H109-H129_PLANS PLOT DATE: 5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H116	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.
2. ROUTE OVER EXISTING STORM DRAIN, PROTECT IN PLACE, SEE NOTE 1.
3. ROUTE OVER EXISTING WATER LINE, PROTECT IN PLACE, SEE NOTE 1.
4. HAND DIG OR VACUUM TRUCK TO EXPOSE UNKNOWN UTILITY CROSSING LINE AND ROUTE AS DIRECTED BY THE ENGINEER, PROTECT IN PLACE.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 309+00 TO STA 315+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23	REVIEW PS&E 5/25/2023
	5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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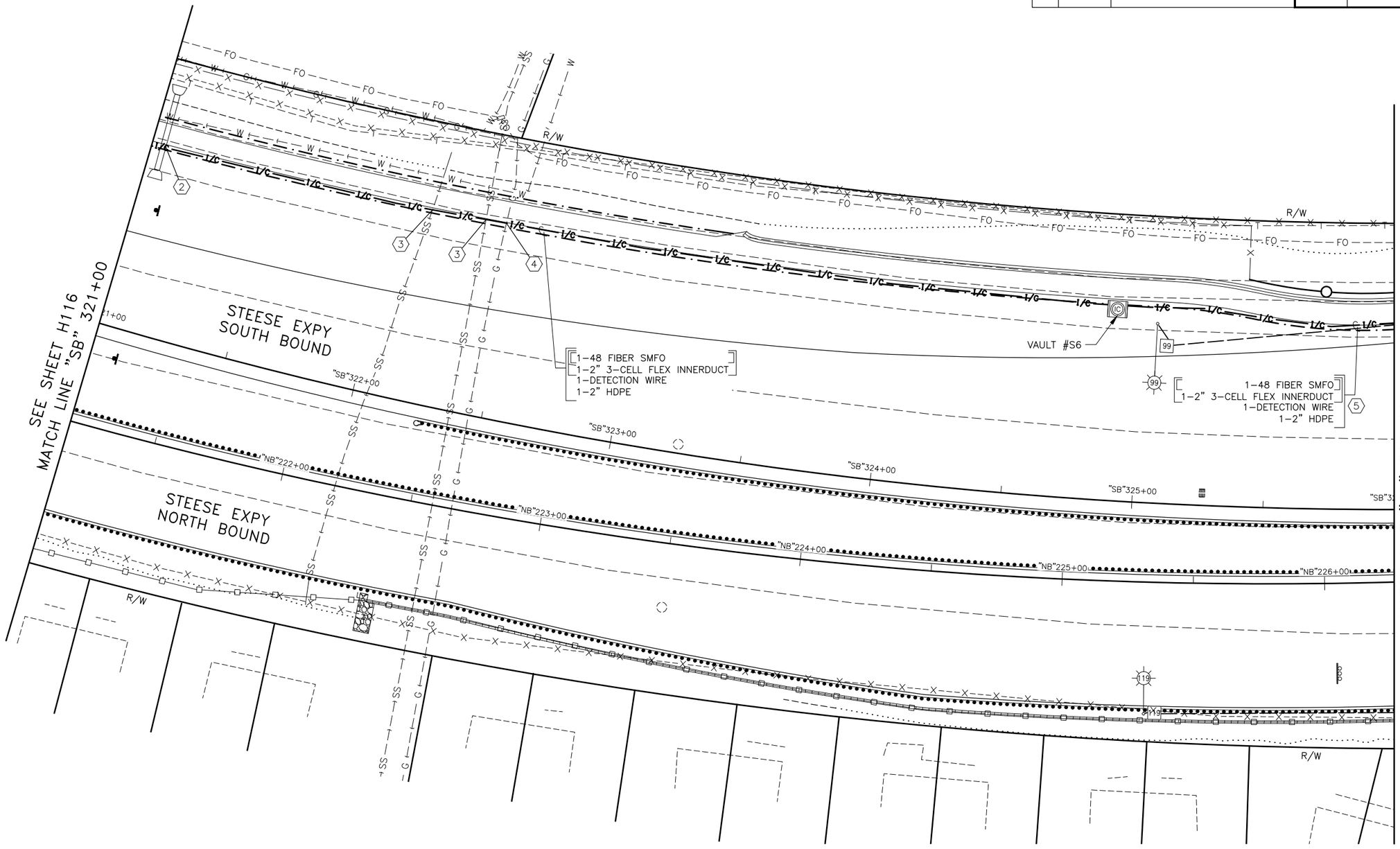
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H117	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) ROUTE OVER PROPOSED STORM DRAIN, PROTECT IN PLACE, SEE NOTE 1.

(3) ROUTE OVER EXISTING SEWER LINE, PROTECT IN PLACE, SEE NOTE 1.

(4) ROUTE OVER EXISTING GAS LINE, PROTECT IN PLACE, SEE NOTE 1.

(5) ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF JUNCTION BOXES FROM "SB" 325+75 TO "SB" 326+00 PROJECT LT.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 315+00 TO STA 321+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
	REVIEW PS&E 5/25/2023
5/25/23	5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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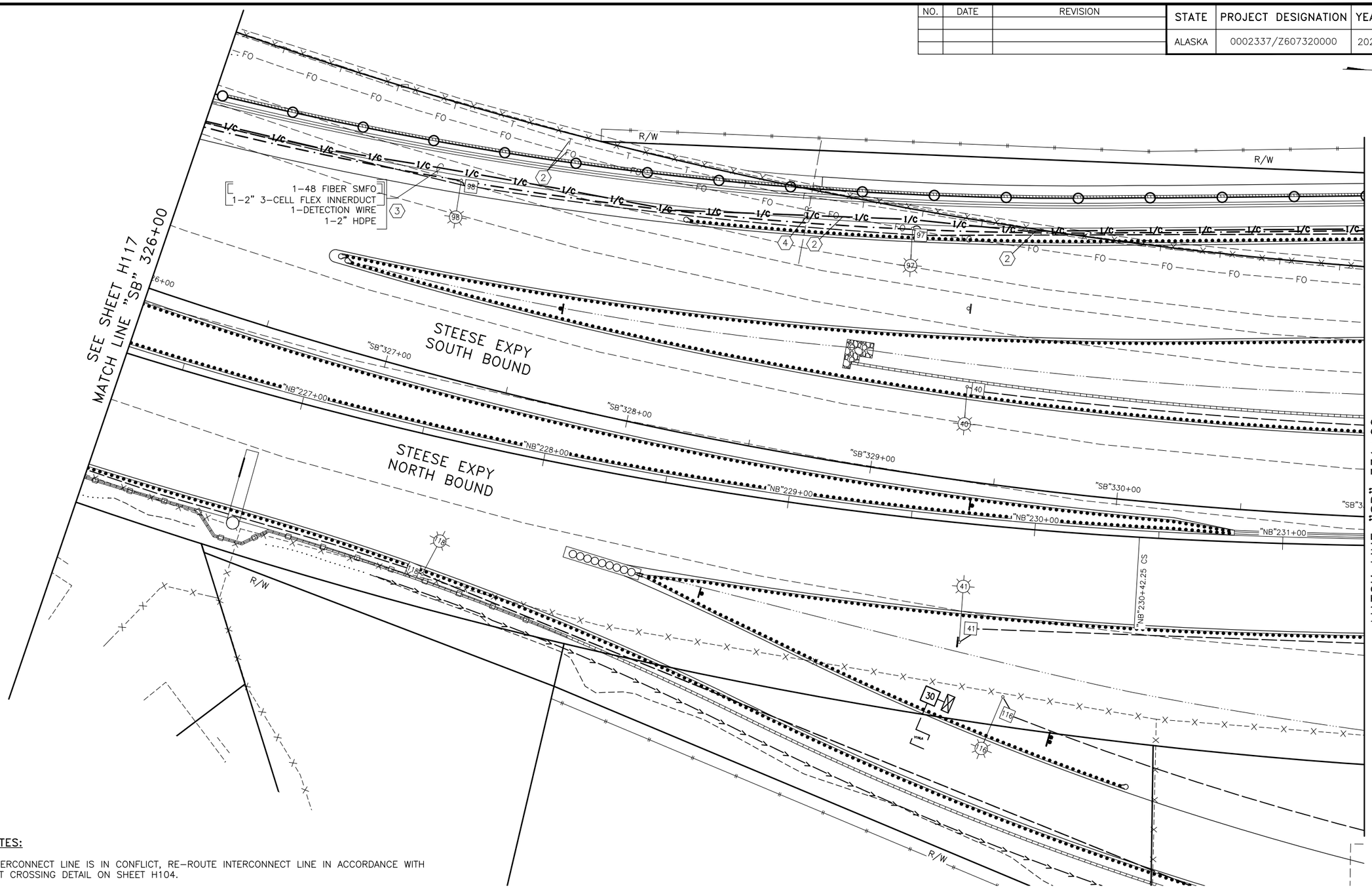
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H118	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) HAND DIG OR VACUUM TRUCK TO EXPOSE TOP OF COMMUNICATIONS DUCTBANK(S) AND ROUTE OVER IN COMBINED TRENCH. REDUCE COMPACTIVE EFFORT AS DIRECTED BY THE ENGINEER FOR THE COMBINED LIGHTING AND INTERCONNECT TRENCH FROM STA "SB" 327+50 TO "SB" 330+00 PROJECT LT.

(3) ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF JUNCTION BOXES AND 24" MIN. OFFSET FROM EDGE OF LIGHTPOLE FOUNDATIONS FROM "SB" 326+00 TO "SB" 326+50 & "SB" 329+50 TO "SB" 331+00 PROJECT LT.

(4) HAND DIG OR VACUUM TRUCK TO EXPOSE UNKNOWN UTILITY CROSSING LINE AND ROUTE AS DIRECTED BY THE ENGINEER, PROTECT IN PLACE.

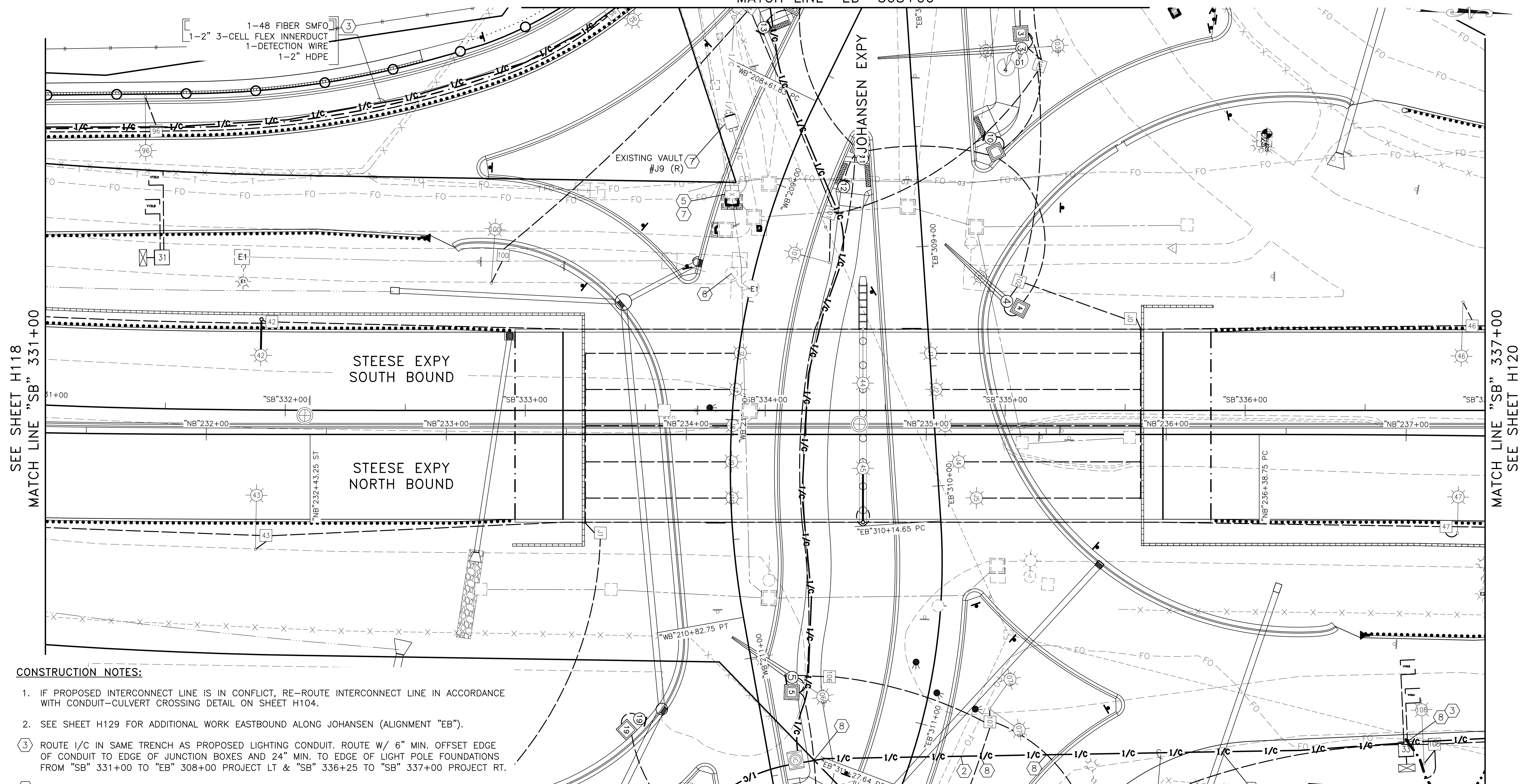
40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 321+00 TO STA 326+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23	REVIEW PS&E 5/25/2023
	5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H119	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.
2. SEE SHEET H129 FOR ADDITIONAL WORK EASTBOUND ALONG JOHANSEN (ALIGNMENT "EB").
3. ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF JUNCTION BOXES AND 24" MIN. TO EDGE OF LIGHT POLE FOUNDATIONS FROM "SB" 331+00 TO "EB" 308+00 PROJECT LT & "SB" 336+25 TO "SB" 337+00 PROJECT RT.
4. ROUTE OVER PROPOSED STORM DRAIN, PROTECT IN PLACE, SEE NOTE 1.
5. SALVAGE EXISTING RUGGEDOM RSG920P ROUTER AND CONNECTED CABLING (PATCH, ETHERNET, POWER). CONTACT AND ARRANGE DELIVERY TO MAINTENANCE AND OPERATIONS 907-451-2323.
6. SALVAGE EXISTING AXIS 6155-E PTZ CAMERA AND MOUNTING HARDWARE. SALVAGE ETHERNET CABLE AND ONE RJ45 ON PULL-OUT. CONTACT AND ARRANGE DELIVERY TO MAINTENANCE AND OPERATIONS 907-451-2323.
7. CLEAVE AND SALVAGE GATOR PATCH PIGTAILS AND PULL FROM EXISTING VAULT #J9 AND PULL TO EX. TRAFFIC CONTROLLER THEN REMOVE VAULT. PROVIDE TWO OTDR TRACE RESULTS OF LC LAUNCH CABLE, LC-LC ADAPTOR, EX. LC-LC PATCH CABLES 1 & 2, AND EX. GATOR PATCH. USE UPC CONTACTS. CONTACT AND ARRANGE DELIVERY TO MAINTENANCE AND OPERATIONS 907-451-2323.
8. ROUTE UNDER PROPOSED SIGNAL CONDUIT.

GENERAL NOTES:

1. SEE SHEET H129 FOR REMOVAL ITEMS. SALVAGE OF ITEMS DESCRIBED IN CONSTRUCTION NOTES 5, 6, AND 7 IS SUBSIDIARY TO 662.2005.0000 FIBER OPTIC INTERCONNECT.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 326+00 TO STA 331+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
REVIEW PS&E 5/25/2023
5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd. Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H120	H130

SEE SHEET H119
MATCH LINE "SB" 337+00

MATCH LINE "SB" 343+00
SEE SHEET H121

STEESE EXPY
SOUTH BOUND

STEESE EXPY
NORTH BOUND

"SB"338+00 "SB"339+00 "SB"340+00 "SB"341+00 "SB"342+00

"NB"238+00 "NB"239+00 "NB"240+00 "NB"241+00 "NB"242+00 "NB"243+00

"NB"237+57.79 PT

R/W

FO SS 1/C

3 1-48 FIBER SMFO
1-2" 3-CELL FLEX INNERDUCT
1-DETECTION WIRE
1-2" HDPE

VAULT #S10

CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) NOTE NOT USED.

(3) ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF JUNCTION BOXES 24" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF AND LIGHT POLE FOUNDATIONS FROM "SB" 337+00 TO "SB" 340+00 PROJECT RT. ROUTE UNDER PROPOSED LIGHTING CONDUIT RUN AS NEEDED.

(4) NOTE NOT USED.

CONSTRUCTION NOTES (CONTINUED):

(5) ROUTE OVER EXISTING FIBER OPTIC LINE, PROTECT IN PLACE.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 331+00 TO STA 337+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23	REVIEW PS&E 5/25/2023
	5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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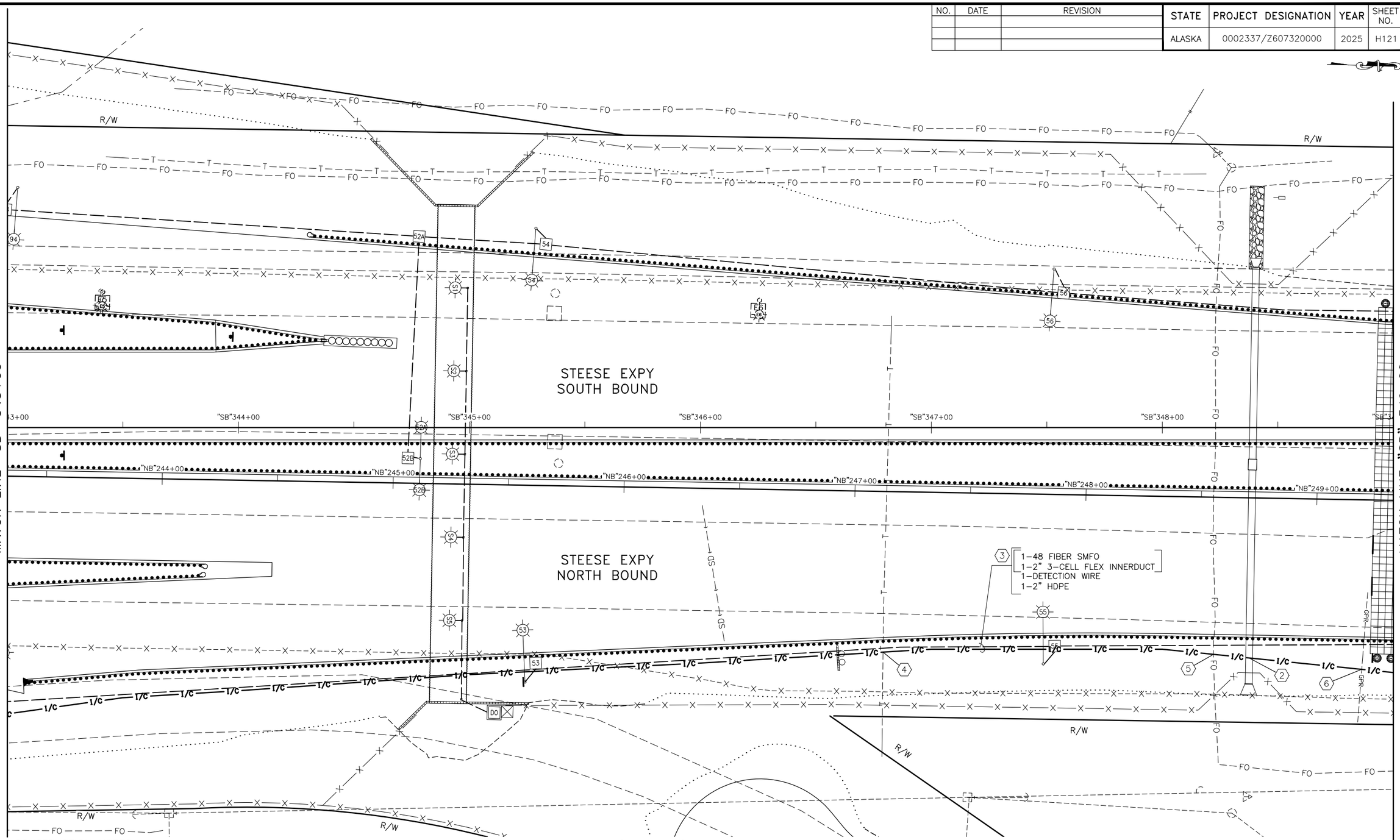
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H121	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) ROUTE OVER PROPOSED STORM DRAIN, PROTECT IN PLACE, SEE NOTE 1.

(3) ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF JUNCTION BOXES AND 24" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF LIGHT POLE FOUNDATIONS FROM "SB" 343+50 TO "SB" 348+00 PROJECT RT. ROUTE UNDER PROPOSED LIGHTING CONDUIT RUN AS NEEDED.

(4) ROUTE OVER EXISTING TELECOMMUNICATIONS LINE, PROTECT IN PLACE.

CONSTRUCTION NOTES (CONTINUED):

(5) ROUTE OVER EXISTING FIBER OPTICS LINE, PROTECT IN PLACE.

(6) UNKNOWN UTILITY LOCATED BY GROUND PENETRATING RADAR AND EXTENDED TO EAST TO REFLECT MOST PROBABLE CROSSING, ROUTE AS DIRECTED BY THE ENGINEER, PROTECT IN PLACE.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 337+00 TO STA 343+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23	REVIEW PS&E 5/25/2023
	5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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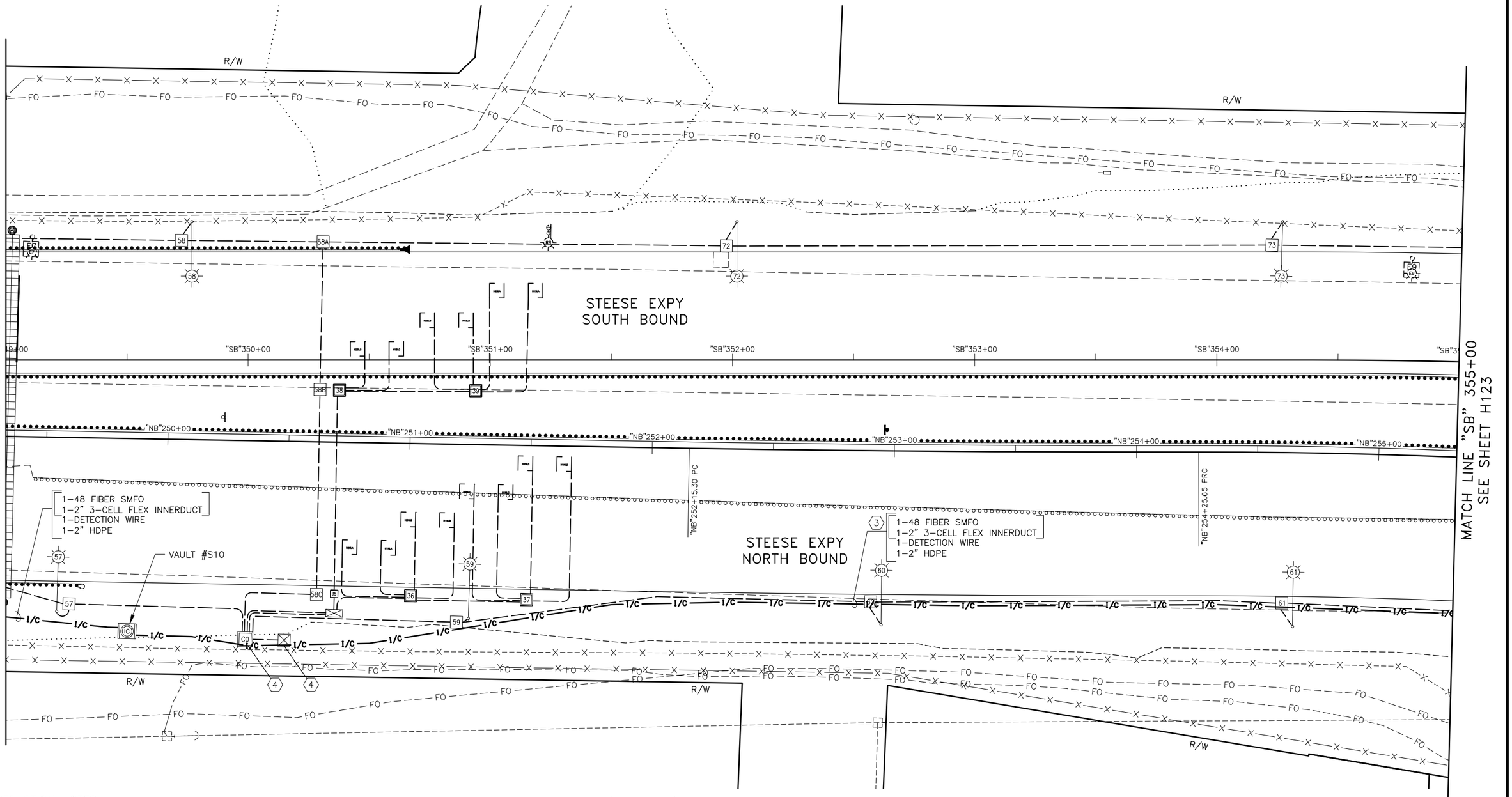
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H122	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) ROUTE OVER PROPOSED COUNT STATION POWER.

(3) ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF JUNCTION BOXES AND 24" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF LIGHT POLE FOUNDATIONS FROM "SB" 351+00 TO "SB" 355+00 PROJECT RT. ROUTE UNDER LIGHTING CONDUIT AS NEEDED.

CONSTRUCTION NOTES (CONTINUED):

(4) ROUTE INTERCONNECT EAST OF JUNCTION BOX AND LOAD CENTER W/ 6" MIN. OFFSET FROM EDGE OF JUNCTION BOX AND 24" MIN. OFFSET FROM LOAD CENTER FOUNDATION TO EDGE OF CONDUIT. WHERE GVEA SUPPLIES SERVICE W/ UNDERGROUND LATERAL: LOWER I/C CONDUIT AND ROUTE TRANVERSE TO SERVICE LATERAL MIN. 12" EDGE OF CONDUIT TO EDGE OF LOWERED I/C CONDUIT AND BUILD UP CROSSING TRENCH TYPICAL PER GVEA STANDARDS.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 343+00 TO STA 349+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
	REVIEW PS&E 5/25/2023
5/25/23	5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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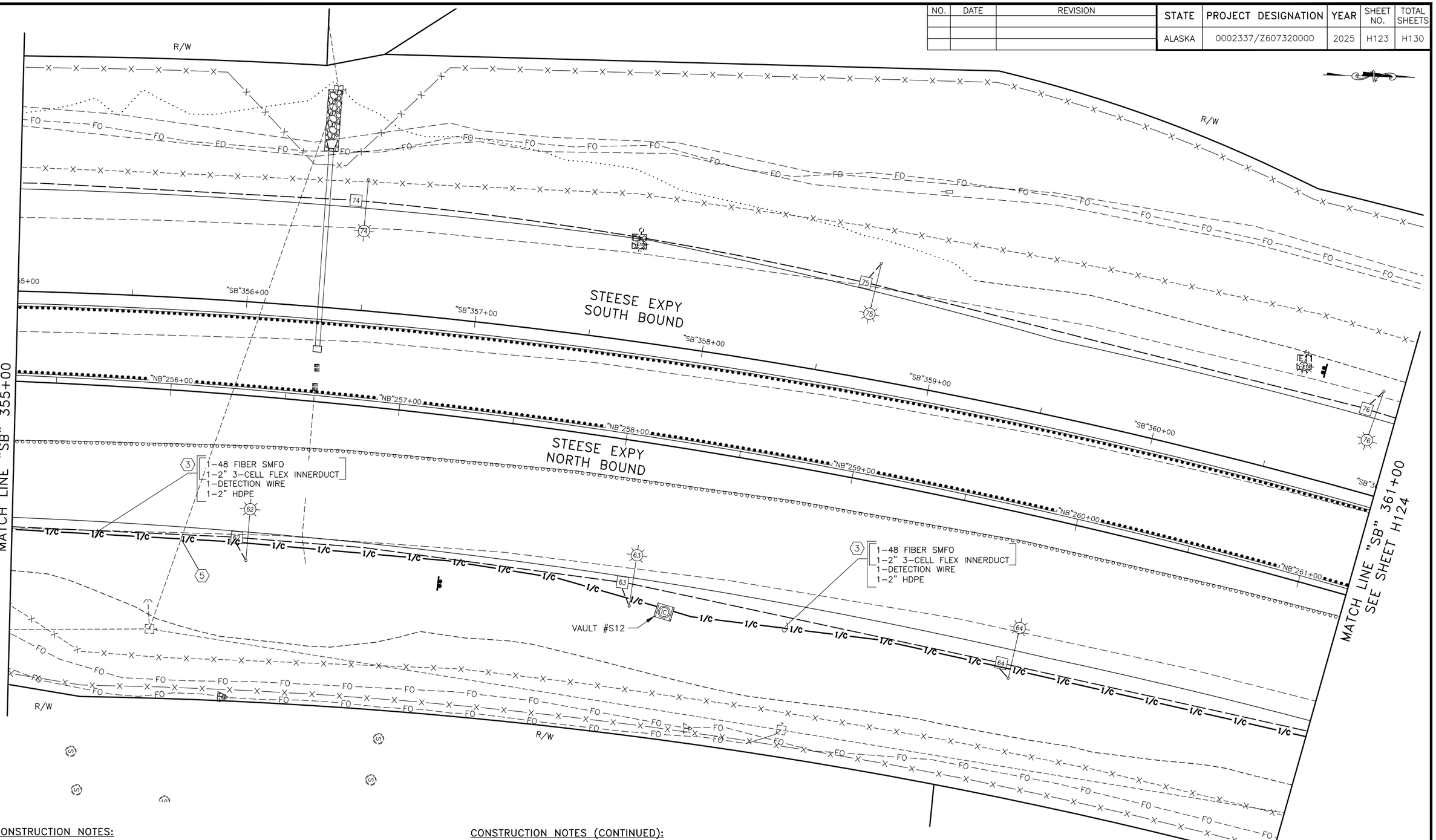
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H123	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

〈2〉 NOTE NOT USED.

〈3〉 ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF JUNCTION BOXES AND 24" MIN. OFFSET FROM EDGE OF LIGHTPOLE FOUNDATION TO EDGE OF CONDUIT FROM "SB" 355+00 TO "SB" 357+00 & "SB" 359+00 TO "SB" 361+00" PROJECT RT.

〈4〉 NOTE NOT USED.

CONSTRUCTION NOTES (CONTINUED):

〈5〉 USE CAUTION! EXISTING OVERHEAD POWER LINE.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 349+00 TO STA 355+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23	REVIEW PS&E 5/25/2023
	5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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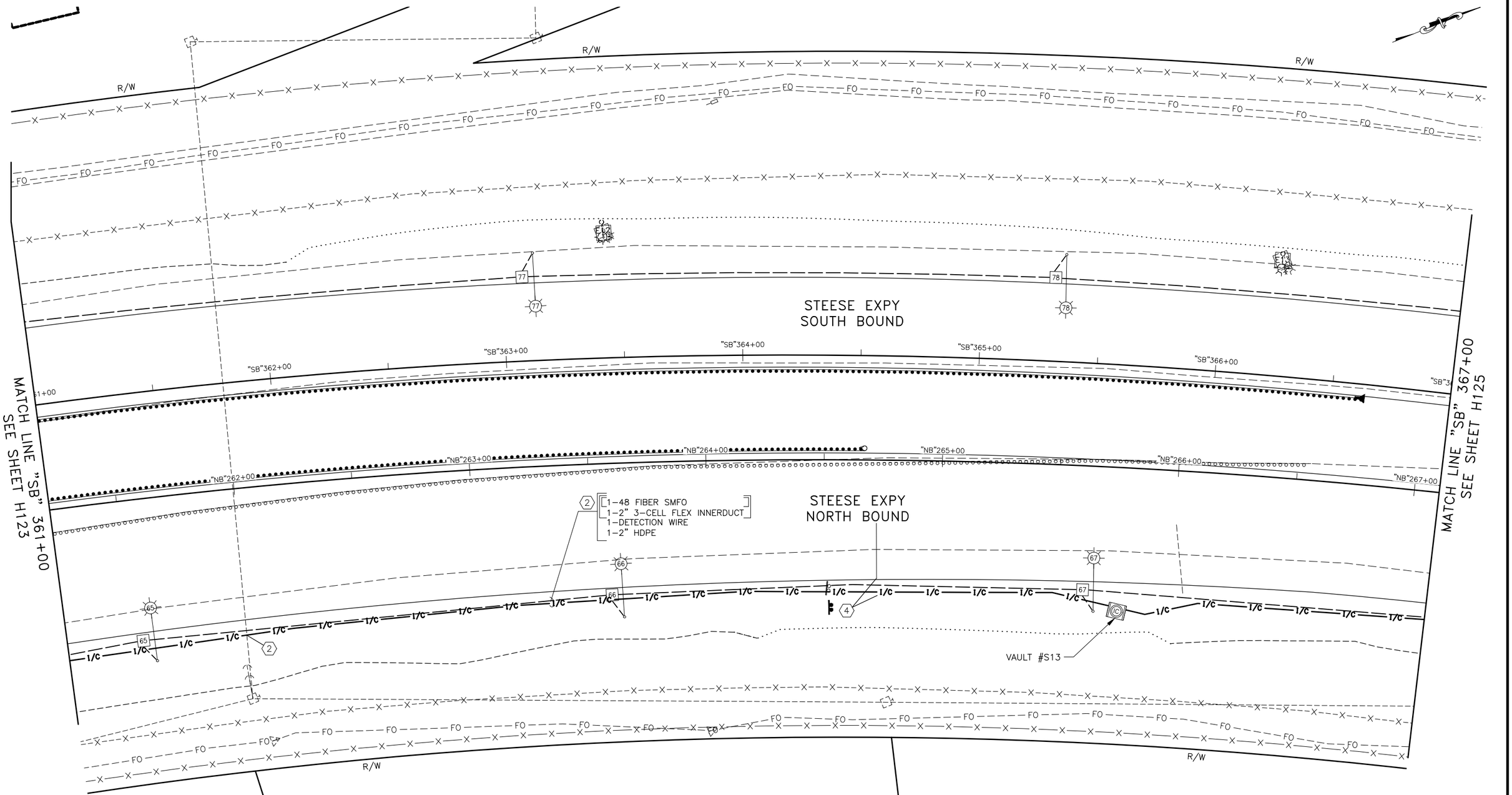
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H124	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) USE CAUTION! EXISTING OVERHEAD POWER LINE.

(3) ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF JUNCTION BOXES AND 24" MIN. OFFSET FROM EDGE OF LIGHTPOLE FOUNDATION TO EDGE OF CONDUIT FROM "SB" 361+00 TO "SB" 367+00 PROJECT RT.

(4) HAND DIG OR VACUUM TRUCK TO EXPOSE UNKNOWN UTILITY CROSSING LINE AND ROUTE AS DIRECTED BY THE ENGINEER, PROTECT IN PLACE.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 355+00 TO STA 361+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23	REVIEW PS&E 5/25/2023
	5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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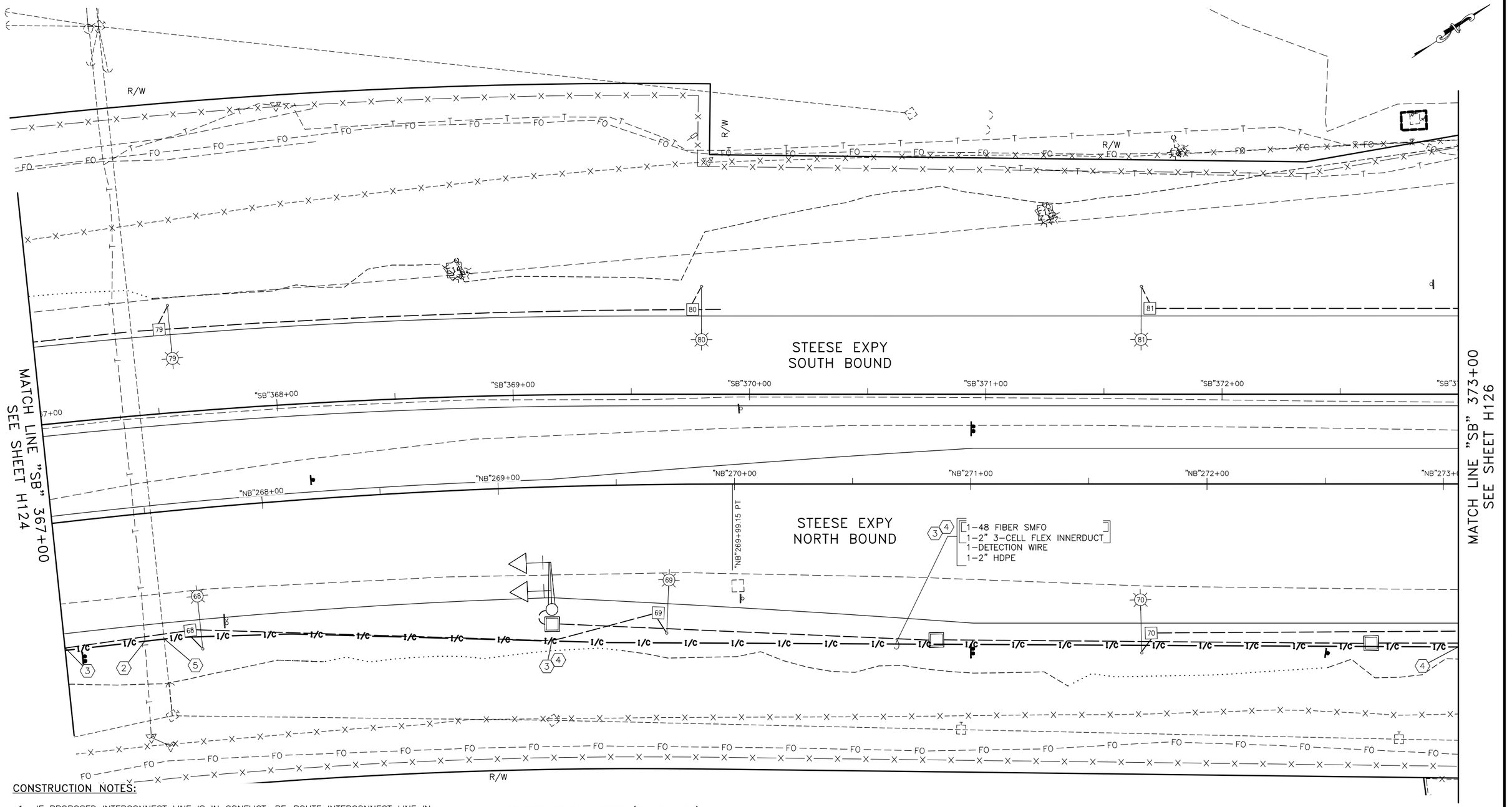
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H125	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) ROUTE OVER TELECOMMUNICATIONS LINE, PROTECT IN PLACE.

(3) ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT THEN AAWF CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF JUNCTION BOXES AND 24" MIN. OFFSET FROM EDGE OF LIGHTPOLE FOUNDATION TO EDGE OF CONDUIT FROM "SB" 367+00 TO "SB" 369+00 (LIGHTING) & "SB" 370+50 TO "SB" 373+00 (AAWF) PROJECT RT.

(4) ROUTE I/C IN SAME TRENCH AS PROPOSED AAWF CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF CONDUIT TO EDGE OF JUNCTION BOXES FROM "SB" 369+50 TO "SB" 373+00 PROJECT RT.

CONSTRUCTION NOTES (CONTINUED):

(5) USE CAUTION! EXISTING OVERHEAD POWER LINE.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 361+00 TO STA 367+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
REVIEW PS&E
5/25/2023
5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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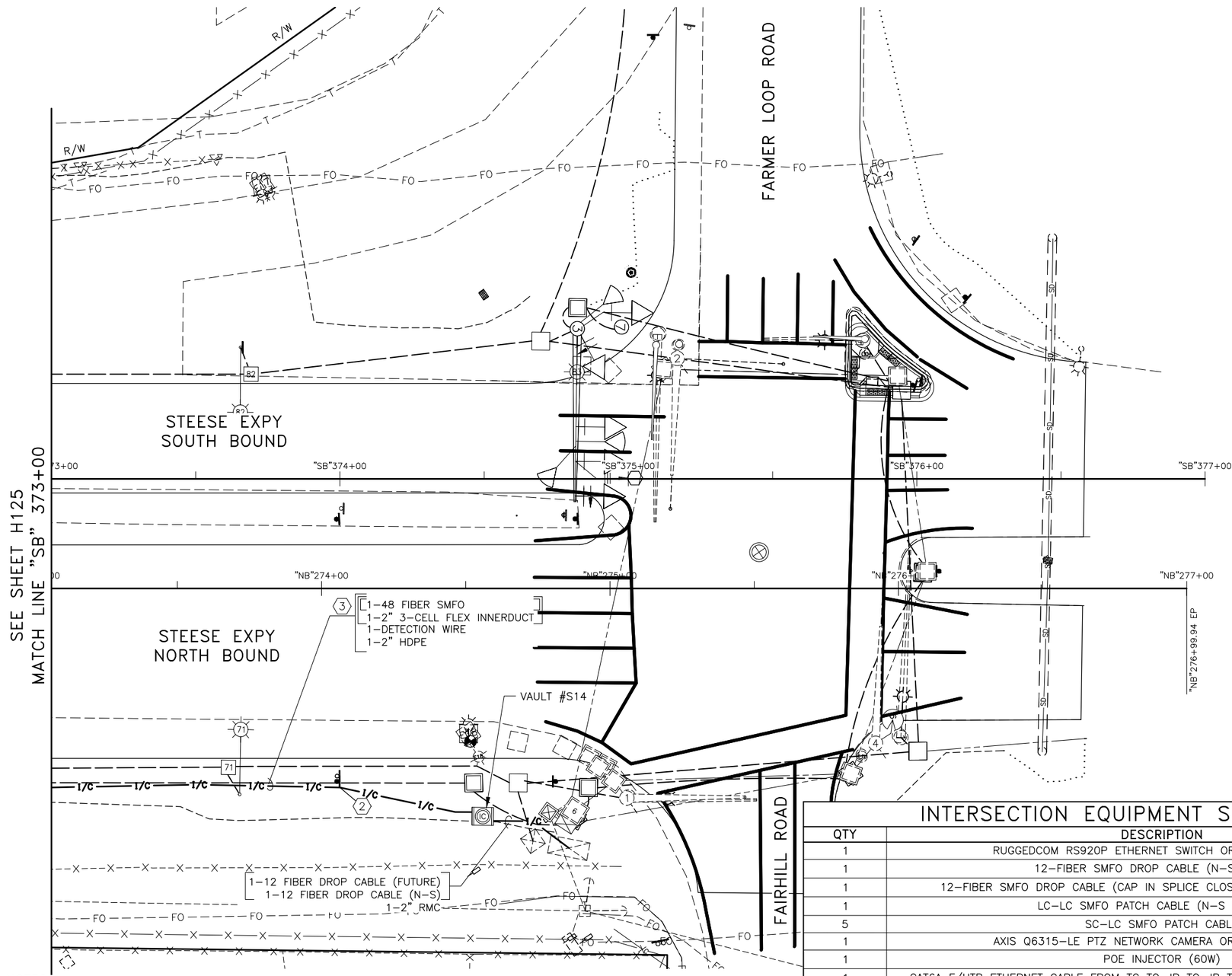
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H126	H130



INTERSECTION EQUIPMENT SUMMARY

QTY	DESCRIPTION
1	RUGGEDCOM RS920P ETHERNET SWITCH OR APPROVED EQUAL
1	12-FIBER SMFO DROP CABLE (N-S) (50 LF)
1	12-FIBER SMFO DROP CABLE (CAP IN SPLICE CLOSURE VAULT #S14) (50 LF)
1	LC-LC SMFO PATCH CABLE (N-S ENDSPAN)
5	SC-LC SMFO PATCH CABLE
1	AXIS Q6315-LE PTZ NETWORK CAMERA OR APPROVED EQUAL
1	POE INJECTOR (60W)
1	CAT6A F/UTP ETHERNET CABLE FROM TC TO JB TO JB TO NE QUADRANT POLE (200 LF)

CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) MAINTAIN 24" EDGE OF INTERCONNECT CONDUIT TO EDGE OF SIGN POST FOUNDATION.

(3) ROUTE I/C IN SAME TRENCH AS PROPOSED AAWF CONDUIT. ROUTE W/ 6" MIN. OFFSET EDGE OF JUNCTION BOXES TO EDGE OF CONDUIT FROM "SB" 373+00 TO "SB" 374+00 PROJECT RT.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 367+00 TO STA 373+00

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
5/25/23

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
REVIEW PS&E
5/25/2023
5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H127	H130

HUNTER ST

R/W

"WB"200+

"WB"199+99.96 BP

JOHANSEN EXPRESSWAY WESTBOUND

PRESERVE EXISTING VAULT #J11 SEE PROJECT NO. 0672005 / Z624870000
OLD STEESE HIGHWAY RECONSTRUCTION (2024), SHEET H220.

PRESERVE EXISTING VAULT #J13 SEE PROJECT NO. EAP-0668(15) / 63917
JOHANSEN EXPRESSWAY RESURFACING (2014), SHEET H97.

1-12 FIBER SFMO (R)
1-48 FIBER SMFO
1-2" 3-CELL FLEX INNERDUCT
1-DETECTION WIRE
1-2" HDPE (EX)

"EBB"294+18

"EBB"295+00

"EBB"296+00

"EBB"297+00

"EBB"298+00

"EBB"299+00

"EBB"3

"EB 3

"EBB"294+17.68 BP

JOHANSEN EXPRESSWAY EASTBOUND

MATCH LINE "EBB" 300+00
SEE SHEET H128

1-12 FIBER DROP CABLE (R)
1-12 FIBER DROP CABLE
1-DETECTION WIRE
1-2" HDPE (E)

HUNTER ST

R/W

CONSTRUCTION NOTES:

1. IN EX. VAULT #J14 PHOTOGRAPH SPLICES, PROVIDE TESTING PER 662-3.04 ALONG EX. LINK FROM STEESE EXPRESSWAY AND JOHANSEN EXPRESSWAY EXISTING TRAFFIC CONTROLLER PATCH PANEL TO COLLEGE ROAD AND JOHANSEN EXPRESSWAY EXISTING TRAFFIC CONTROLLER PATCH PANEL ALONG THE EXISTING 12 FIBER SMFO.

2. IN EX. VAULT #J14 AFTER TESTING CUT 1-12 FIBER SMFO MAINLINE PRIOR TO EX. SPLICE. RESPLICE NEW PATCH PANEL AND PIGTAIL MEETING SUBSECTION 662-2.04 TO NEW 1-48 FIBER SMFO. PROVIDE NEW SPLICE ENCLOSURE FOR SPLICING MEETING SUBSECTIONS 662-3.08 AND 662-3.09.

3. REPLACE EXISTING ROUTE MARKER W/ ROUTE MARKER PER DETAIL SHEET H104. INSTALL ADDITIONAL FIBER OPTIC ROUTE MARKERS IN ACCORDANCE WITH SUBSECTION 662-2.02.10.

40 20 0 20 40
SCALE: 1" = 20

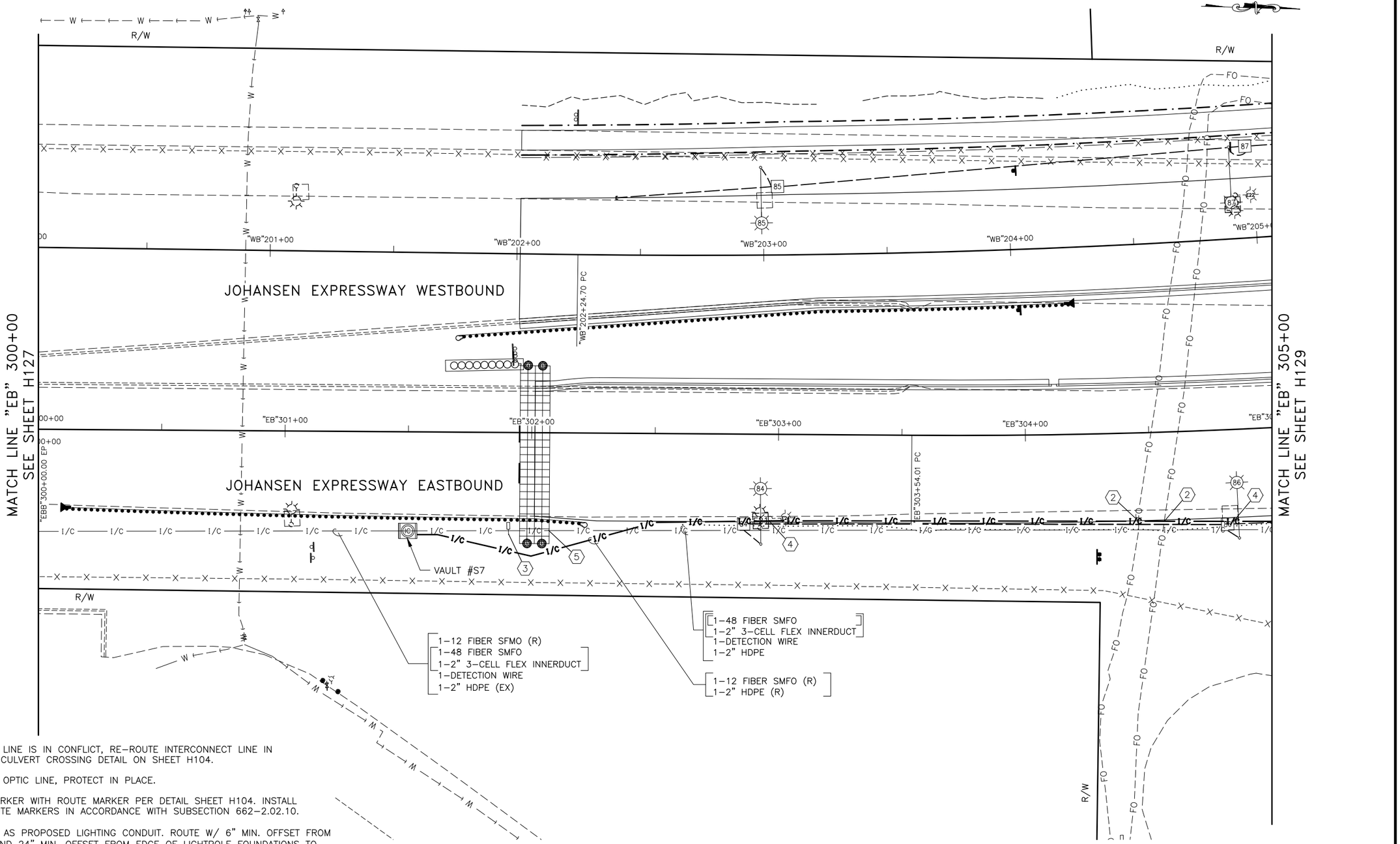
INTERCONNECT PLAN
STA 373+00 TO STA 377+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
	REVIEW PS&E 5/25/2023
5/25/23	5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00714_STEESE_JOHANSEN INTERCHANGE SIGNAL INTERCONNECT\DWGS\C\SHEETS\60732_H109-H129_PLANS PLOT DATE: 5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H128	H130



CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) ROUTE OVER EXISTING FIBER OPTIC LINE, PROTECT IN PLACE.

(3) REPLACE EXISTING ROUTE MARKER WITH ROUTE MARKER PER DETAIL SHEET H104. INSTALL ADDITIONAL FIBER OPTIC ROUTE MARKERS IN ACCORDANCE WITH SUBSECTION 662-2.02.10.

(4) ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET FROM EDGE OF JUNCTION BOXES AND 24" MIN. OFFSET FROM EDGE OF LIGHTPOLE FOUNDATIONS TO EDGE OF CONDUIT FROM "EB" 303+00 TO "EB" 305+00 PROJECT RT.

(5) PULL AVAILABLE SLACK AWAY FROM PROPOSED AAWF FOUNDATIONS IF STAGING AAWF WORK PRIOR TO I/C CUTOVER. WHERE SUFFICIENT CONDUIT SLACK DOES NOT EXIST EITHER CUT AND PROVIDE FUSION SPLICE TO 1-12 FIBER W/ CONDUIT EXTENSION OR PROVIDE APPROVED WATERPROOF CONDUIT AND COUPLINGS W/ LENGTHWISE ENTRY TO MAINTAIN 1-12 FIBER SMFO I/C PRIOR TO I/C CUTOVER. LIMIT INTERCONNECT DOWN-TIME FOR THE PEGER TO JOHANSEN LINK TO 1-WEEK OR AS DIRECTED BY THE ENGINEER.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 294+18 TO STA 300+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23	REVIEW PS&E 5/25/2023
	5/25/23

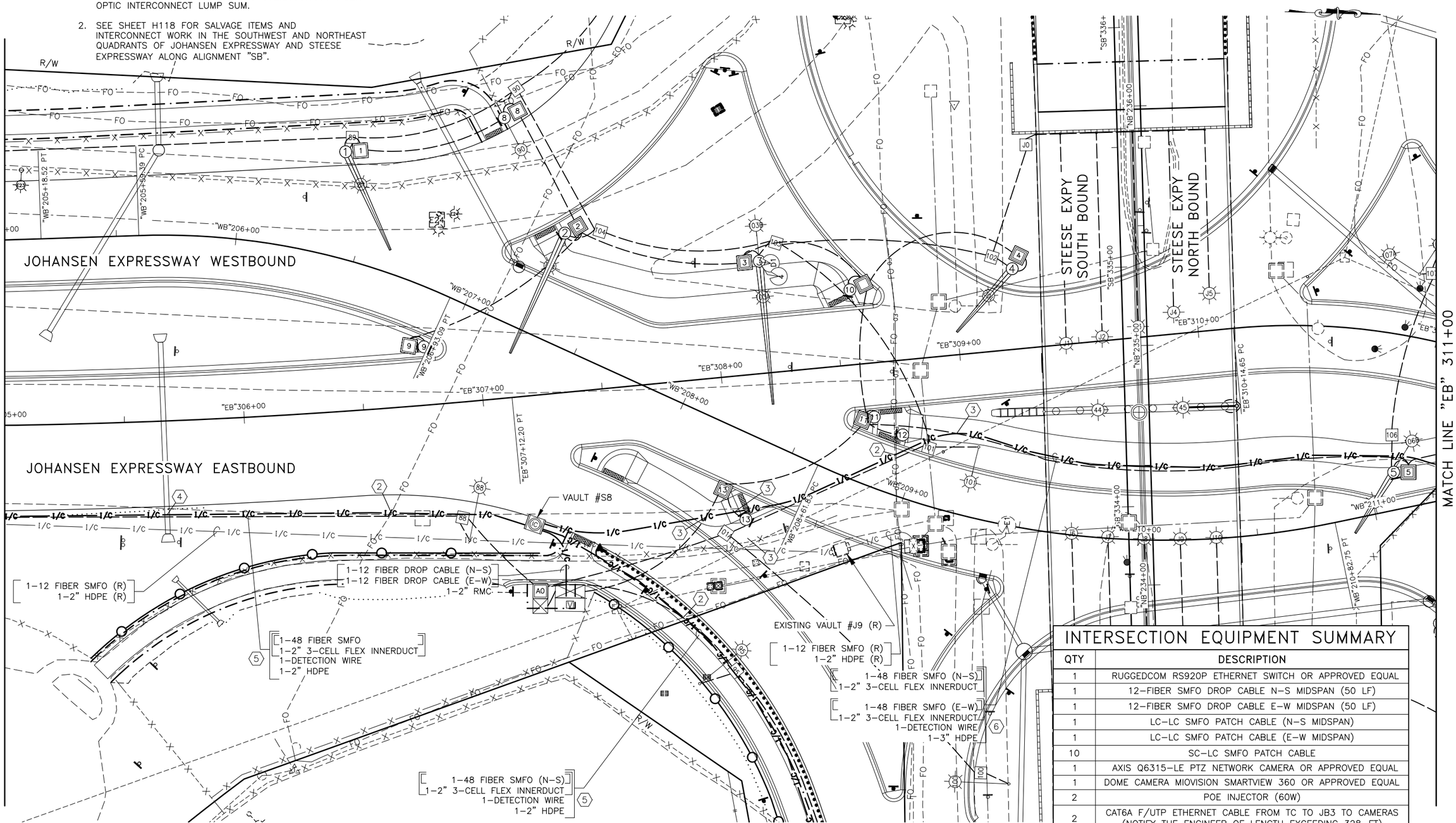
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00714_STEESE_JOHANSEN INTERCHANGE SIGNAL INTERCONNECT\DWGS\C\SHEETS\60732_H109-H129_PLANS PLOT DATE: 5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H129	H130

GENERAL NOTES:

1. REMOVAL OF VAULT #J9, 2" HDPE (385 LF), AND 12-FIBER SMFO IS SUBSIDIARY TO 662.2005.0000 FIBER OPTIC INTERCONNECT LUMP SUM.
2. SEE SHEET H118 FOR SALVAGE ITEMS AND INTERCONNECT WORK IN THE SOUTHWEST AND NORTHEAST QUADRANTS OF JOHANSEN EXPRESSWAY AND STEESE EXPRESSWAY ALONG ALIGNMENT "SB".



INTERSECTION EQUIPMENT SUMMARY

QTY	DESCRIPTION
1	RUGGEDCOM RS920P ETHERNET SWITCH OR APPROVED EQUAL
1	12-FIBER SMFO DROP CABLE N-S MIDSPAN (50 LF)
1	12-FIBER SMFO DROP CABLE E-W MIDSPAN (50 LF)
1	LC-LC SMFO PATCH CABLE (N-S MIDSPAN)
1	LC-LC SMFO PATCH CABLE (E-W MIDSPAN)
10	SC-LC SMFO PATCH CABLE
1	AXIS Q6315-LE PTZ NETWORK CAMERA OR APPROVED EQUAL
1	DOME CAMERA MIOVISION SMARTVIEW 360 OR APPROVED EQUAL
2	POE INJECTOR (60W)
2	CAT6A F/UTP ETHERNET CABLE FROM TC TO JB3 TO CAMERAS (NOTIFY THE ENGINEER OF LENGTH EXCEEDING 328-FT)

CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

(2) ROUTE OVER FIBER OPTIC LINE, PROTECT IN PLACE.

(3) ROUTE UNDER PROPOSED TRAFFIC CONDUIT.

(4) ROUTE OVER PROPOSED STORM DRAIN, PROTECT IN PLACE, SEE CONSTRUCTION NOTE 1.

CONSTRUCTION NOTES CONTINUED:

(5) ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET FROM EDGE OF JUNCTION BOXES AND 24" MIN. OFFSET FROM EDGE OF LIGHTPOLE FOUNDATIONS TO EDGE OF CONDUIT FROM "SB" 332+75 TO "SB" 333+50 PROJECT LT.

(6) ROUTE I/C IN SAME TRENCH AS PROPOSED LIGHTING CONDUIT. ROUTE W/ 6" MIN. OFFSET FROM EDGE OF JUNCTION BOXES AND 24" MIN. OFFSET FROM EDGE OF LIGHTPOLE FOUNDATIONS TO EDGE OF CONDUIT FROM "EB" 305+00 TO "EB" 307+00 & "EB" 308+75 TO "EB" 308+75 & "EB" 309+00 TO "EB" 311+00 PROJECT RT.

40 20 0 20 40
SCALE: 1" = 20

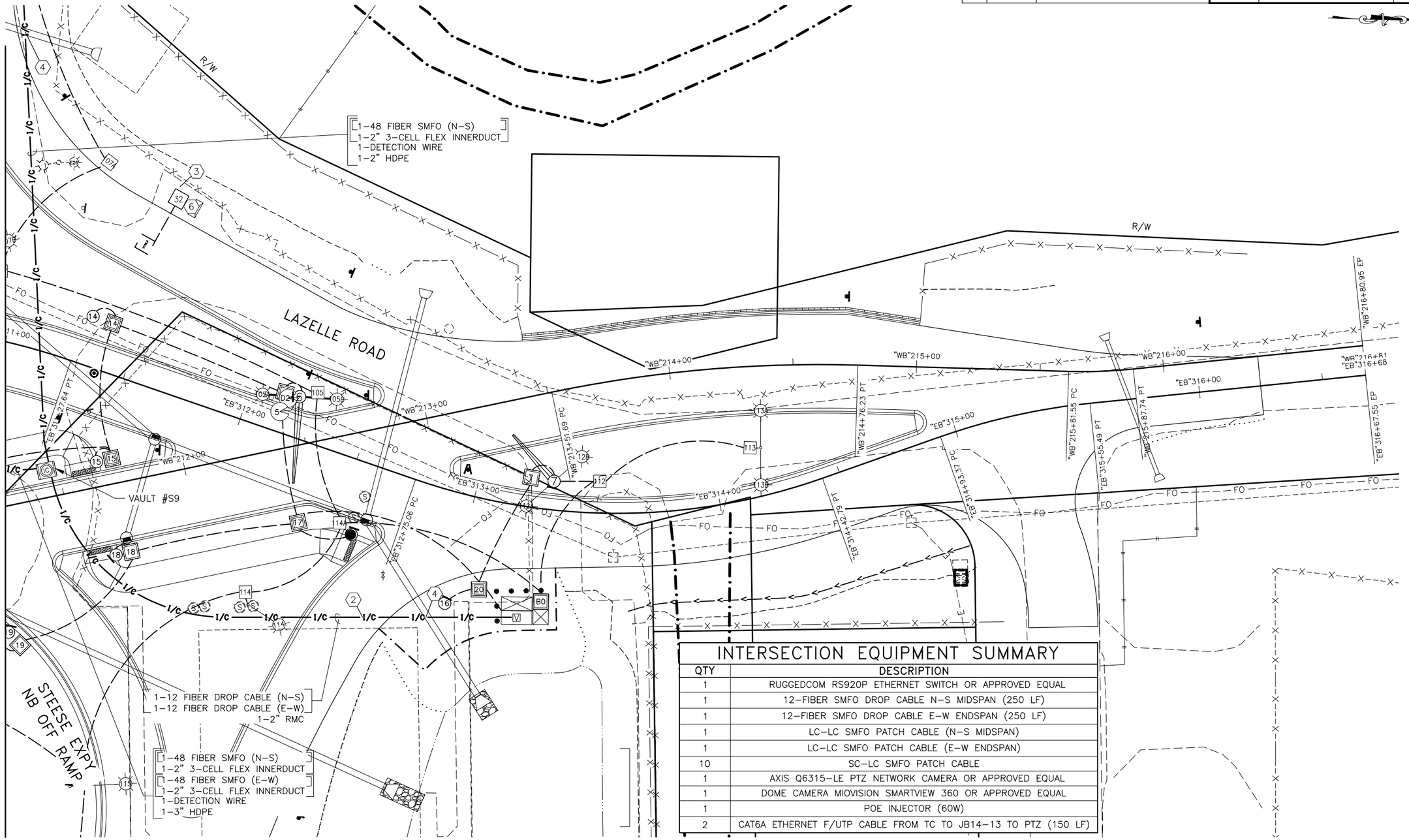
INTERCONNECT PLAN
STA 300+00 TO STA 305+00

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
5/25/23	REVIEW PS&E 5/25/2023
	5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00714_STEESE_JOHANSEN INTERCHANGE SIGNAL INTERCONNECT\DWGS\C\SHEETS\60732_H109-H129_PLANS PLOT DATE: 5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337/Z607320000	2025	H130	H130



INTERSECTION EQUIPMENT SUMMARY	
QTY	**DESCRIPTION**
1	RUGGEDCOM RS920P ETHERNET SWITCH OR APPROVED EQUAL
1	12-FIBER SMFO DROP CABLE N-S MIDSPAN (250 LF)
1	12-FIBER SMFO DROP CABLE E-W ENDSPAN (250 LF)
1	LC-LC SMFO PATCH CABLE (N-S MIDSPAN)
1	LC-LC SMFO PATCH CABLE (E-W ENDSPAN)
10	SC-LC SMFO PATCH CABLE
1	AXIS Q6315-LE PTZ NETWORK CAMERA OR APPROVED EQUAL
1	DOME CAMERA MIOVISION SMARTVIEW 360 OR APPROVED EQUAL
1	POE INJECTOR (60W)
2	CAT6A ETHERNET F/UTP CABLE FROM TC TO JB14-13 TO PTZ (150 LF)

CONSTRUCTION NOTES:

1. IF PROPOSED INTERCONNECT LINE IS IN CONFLICT, RE-ROUTE INTERCONNECT LINE IN ACCORDANCE WITH CONDUIT-CULVERT CROSSING DETAIL ON SHEET H104.

⟨2⟩ ROUTE OVER FIBER OPTIC LINE, PROTECT IN PLACE.

⟨3⟩ ROUTE OVER PROPOSED LIGHTING CONDUIT.

⟨4⟩ ROUTE OVER PROPOSED STORM DRAIN, PROTECT IN PLACE, SEE NOTE 1.

⟨5⟩ NOTE NOT USED.

CONSTRUCTION NOTES (CONTINUED):

⟨6⟩ NOTE NOT USED.

40 20 0 20 40
SCALE: 1" = 20

INTERCONNECT PLAN
STA 305+00 TO STA 311+00

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

5/25/23

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

REVIEW PS&E
5/25/2023

5/25/23

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00714_STEESE_JOHANSEN INTERCHANGE SIGNAL INTERCONNECT\DWGS\C\SHEETS\60732_H109-H129_PLANS PLOT DATE: 5/25/23

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K1	K11

GENERAL NOTES:

1. FURNISH AND INSTALL CABINET HARDWARE INCLUDING TERMINAL BLOCKS AND ALL OTHER NECESSARY ELECTRICAL COMPONENTS, REFER TO SECTION 669 OF THE PROJECT SPECIFICATION, TRAFFIC CABINET EQUIPMENT SCHEDULE, ATR CBA1 CABINET AND SPLICE DETAILS AND CBA2 CABINET DETAILS.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND COORDINATE FINAL SITE INSTALLATION WITH THE ENGINEER. THE ENGINEER SHALL APPROVE ALL MODIFICATIONS TO THE INSTALLATION.
3. COORDINATE AND PROVIDE CELLULAR SERVICE TO THE SITE AS REQUIRED.
4. INSTALLATION OF EQUIPMENT AND MATERIALS SHALL CONFORM TO APPLICABLE REQUIREMENTS OF THE CURRENT NATIONAL ELECTRIC CODE, ALASKA DOT&PF STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, THE PROJECT SPECIAL PROVISIONS, AND THE PLANS.
5. PROVIDE AS–BUILT PLANS, REFER TO SUBSECTION 669–1.04 OF THE PROJECT SPECIFICATION.
6. ALL ROW LINES ARE OUTSIDE THE VIEWFRAME OF EACH SITE UNLESS OTHERWISE NOTED.

LAYOUT NOTES:

1. INSTALL 1/2 INCH PREFORMED BITUMINOUS JOINT MATERIAL BETWEEN JUNCTION BOX AND PAVEMENT WHEN JUNCTION BOXES ARE LOCATED IMMEDIATELY ADJACENT TO A SIDEWALK OR ROAD SURFACE.
2. INSTALL PLASTIC SLEEVED GROUNDING BUSHING ON ALL CONDUITS BEFORE PULLING ANY WIRE. GROUND WITH A MINIMUM #6 BARE COPPER.
3. INSTALL AND TEST ALL LOOP DETECTORS PRIOR TO OVERLAYING PAVEMENT.
4. THE MINIMUM CLEARANCE BETWEEN A DETECTION LOOP AND THE TAIL OF ANOTHER DETECTION LOOP SHALL NOT BE LESS THAN 12 INCHES. LOOP TAILS SHALL NOT CROSS EACH OTHER, BUT HAVE NO MINIMUM CLEARANCE.
5. JUNCTION BOX STATION AND OFFSET ARE TO CENTER OF STRUCTURE.

DRAWING SHEET INDEX

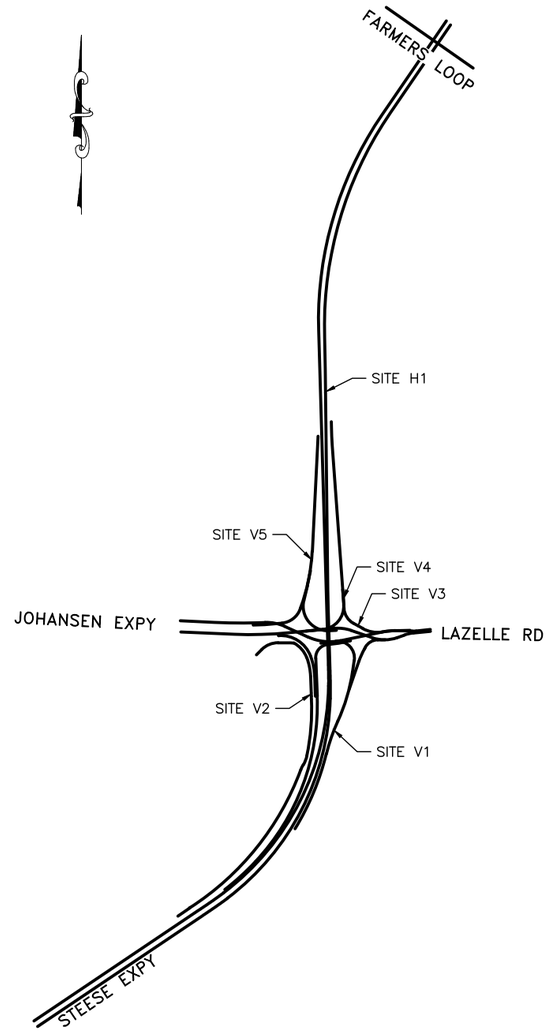
SHEET NUMBER	DESCRIPTION
K02	V1 AND V2 SITE PLAN
K03	V3 AND V4 SITE PLAN
K04	V5 SITE PLAN
K05	H1 SITE PLAN NORTHBOUND
K06	H1 SITE PLAN SOUTHBOUND
K07	H1 WIRING DIAGRAM AND CONDUIT SCHEDULE
K08	CBA1 CABINET AND SPLICE DETAILS
K09	LOOP DETECTOR DETAILS
K10	TYPE II JUNCTION BOX DETAILS
K11	CBA2 CABINET DETAILS

JUNCTION BOX SCHEDULE

SHEET	NUMBER	TYPE	ALIGNMENT	STATION	OFFSET
K02	30	IA	NBR	708+33	12 LT
K02	31	IA	EBR	10+17	27 LT
K03	32	IA	WBR	402+73	29 RT
K03	33	IA	WBR	404+71	28 RT
K04	34	IA	SBR	509+03	40 RT
K05	35	IA	NB	250+69	61 RT
K05	36	II	NB	251+01	62 RT
K05	37	II	NB	251+49	62 RT
K06	38	II	NB	250+70	23 LT
K06	39	II	NB	251+26	24 LT

ATR ASSEMBLIES SCHEDULE

SITE NUMBER	ALIGNMENT	CABINET STATION	CABINET OFFSET	LOAD CENTER	JUNCTION BOX TYPE	JUNCTION BOX COUNT	NUMBER OF LANES	NUMBER OF INDUCTIVE LOOPS
V1	NBR	708+41	12' LT	C	IA	1	1	1
V2	EBR	10+25	27' LT	C	IA	1	2	2
V3	WBR	402+65	29' RT	C	IA	1	1	1
V4	WBR	404+71	36' RT	C	IA	1	2	2
V5	SBR	509+11	40' RT	C	IA	1	2	2
H1	NB	250+70	62' RT	C	IA, II	1, 4	7	14



ATR SITE KEY MAP

LABELS

1. ALL CABLES SHALL BE LABELED AT BOTH ENDS AND AT EVERY JUNCTION BOX THROUGH WHICH THE CABLES PASS, PER SPECIFICATION SECTION 660–3.05.13.

2. ALL WIRE PAIRS SHALL BE LABELED AT THE TERMINAL BLOCK AND AT ANY LOOSE ENDS.

3. THE FOLLOWING CONVENTIONS SHALL APPLY TO DESIGNATING AND LABELING CABLES AND WIRE PAIRS:

   LANES: TRAFFIC LANES AND THEIR RESPECTIVE LOOPS AND SENSORS SHALL BE LABELED FROM THE OUTSIDE EDGE OF THE ROAD TOWARD THE CENTER AS FOLLOWS:

A	B	C	D		D	C	B	A

   TERMINAL BLOCKS: WIRES FROM SENSORS PLACED IN LANES WHICH ARE CLOSEST TO THE CONTROL BOX SHALL BE PLACED AT THE LEFT OR AT THE TOP OF THE TERMINAL BLOCK, DEPENDING ON ORIENTATION OF THE ROAD.

4. WIRES FOR INDUCTIVE LOOPS, SENSORS AND RESERVES ARE LABELED AS FOLLOWS:

   PnDLc

   WHERE:

   P IS THE PREFIX:
   - V TRAFFIC VOLUME LOOP
   - H VEHICLE CLASSIFICATION / SPEED LOOP
   - GL AUTOMATIC VEHICLE CLASSIFICATION (AVC) SENSOR
   - Ga AUTOMATIC VEHICLE CLASSIFICATION PIEZO

   n NUMBER SUFFIX FOR MULTIPLE LOOPS IN THE SAME LANE

   D DIRECTION (N, S, E, W, NE, SE, SW, NW)

   L IS THE PREFIX FOR ROAD DESIGNATION
   - L LANE*
   - R RAMP**
   - SR SPUR RAMP**
   - LP LOOP**
   - LR LOOP RAMP**
   - * ROADS AND HIGHWAYS
   - ** INTERCHANGES

   c IS THE SUFFIX FOR LANE DESIGNATION (A, B, C, D)

SYMBOL LEGEND AND ABBREVIATIONS:

- RMC RIGID METAL CONDUIT, GALVANIZED
- IMC INTERMEDIATE METAL CONDUIT
- (TG) GROUND TEMPERATURE PROBE
- (TA) AMBIENT AIR TEMPERATURE SENSOR
- DATALOGGER – SEE NOTE 5. ADOT WILL INSTALL.
- ⟨#⟩ CONDUIT REFERENCE NUMBER
- [#] NOTE REFERENCE NUMBER
- H1SLC INDUCTIVE LOOP SENSOR

TRAFFIC CABINET EQUIPMENT SCHEDULE
(SEE GENERAL NOTES AND DETAILS FOR ADDITIONAL HARDWARE NOT LISTED IN THIS SCHEDULE)

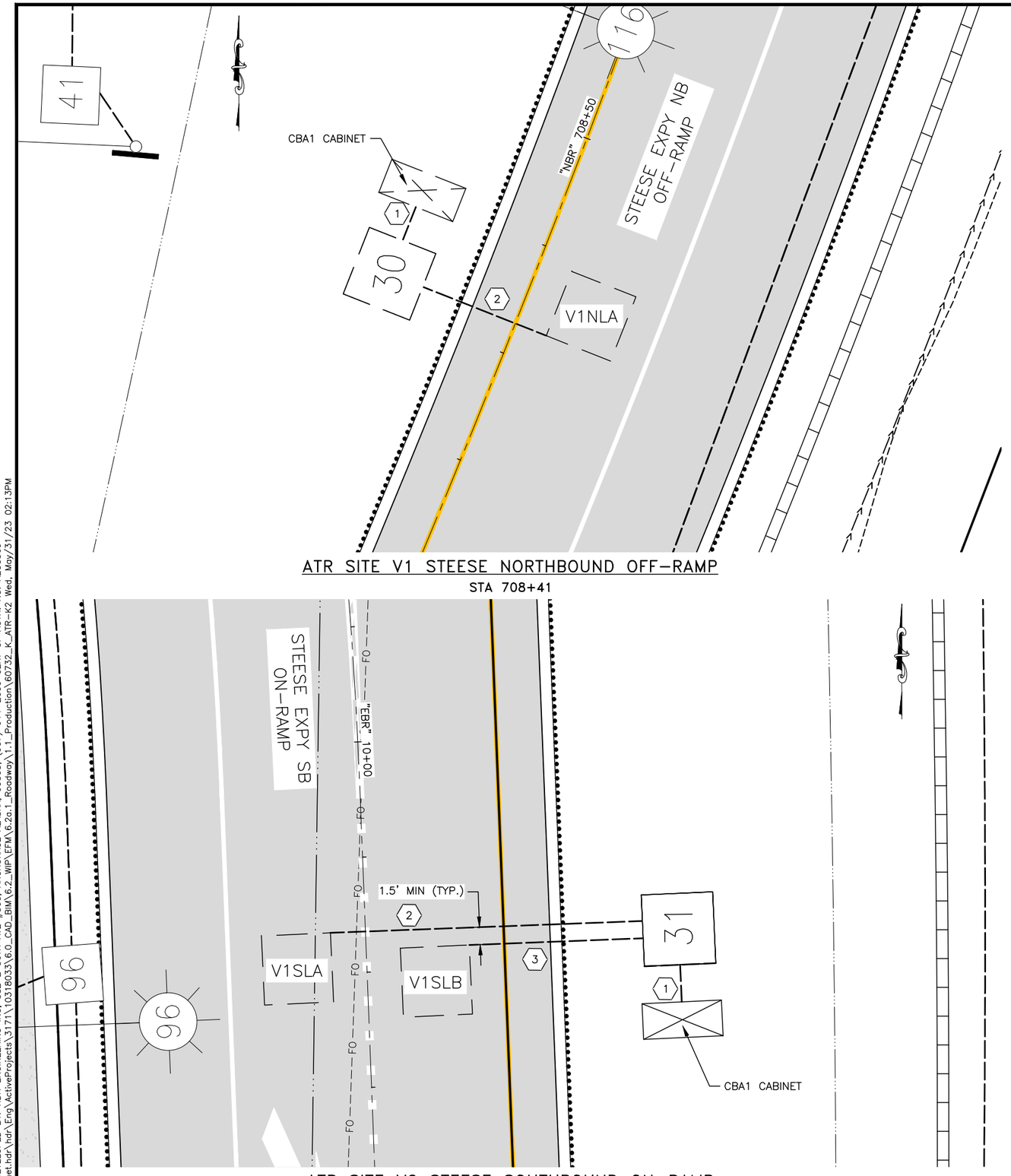
INSTALL AMBIENT AIR AND PAVEMENT TEMPERATURE SENSORS	FURNISH DATA LOGGER	INSTALL TELEPHONE SERVICE	INSTALL CELLULAR MODEM WITH EXTERNAL ANTENNA, INCLUDE TWO (2) 6–9–INCH DIPOLE ANTENNA AS SPARES	INSTALL REMOTELY SERIAL SWITCH	INSTALL SERVICE PANELBOARD WITH TRANSIENT VOLTAGE SURGE PROTECTION	INSTALL RECEPTACLES AND PLUG STRIP RECEPTACLES	INSTALL INTERIOR LED LIGHT	INSTALL COOLING FAN	INSTALL HEATER	INSTALL THERMOSTAT	INSTALL INTERIOR POWER CIRCUITS	INSTALL TERMINAL BLOCK	INSTALL AVC COUNTER
				X	X	X	X	X	X	X	X	X	X

ATR GENERAL NOTES

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K2	K11



ATR SITE V1 STEESE NORTHBOUND OFF-RAMP

STA 708+41

ATR SITE V2 STEESE SOUTHBOUND ON-RAMP

STA 10+25

V1 CBA1 CABINET

LOOP SENSOR TERMINAL BLOCK	
PIN NO.	ASSIGNMENTS
1 2	V1NLA
3 4	

JUNCTION BOX 30

R01 — V1NLA

CONDUIT AND CONDUCTOR SCHEDULE

SITE	CONDUIT (#)	CONDUIT QTY	CONDUIT SIZE (INCH)	FROM	TO	CABLE QTY	CABLE TYPE	CABLE NUMBER
V1	1	1	2	CBA1	JB30	1	6 PR#18	R01
	2	1	1	JB30	V1NLA	1	1 PR#14	
V2	1	1	2	CBA1	JB31	1	6 PR#18	R01
	2	1	1	JB31	V1SLA	1	1 PR#14	
	3	1	1	JB31	V1SLB	1	1 PR#14	

V2 CBA1 CABINET

LOOP SENSOR TERMINAL BLOCK	
PIN NO.	ASSIGNMENTS
1 2	V1SLA
3 4	V1SLB

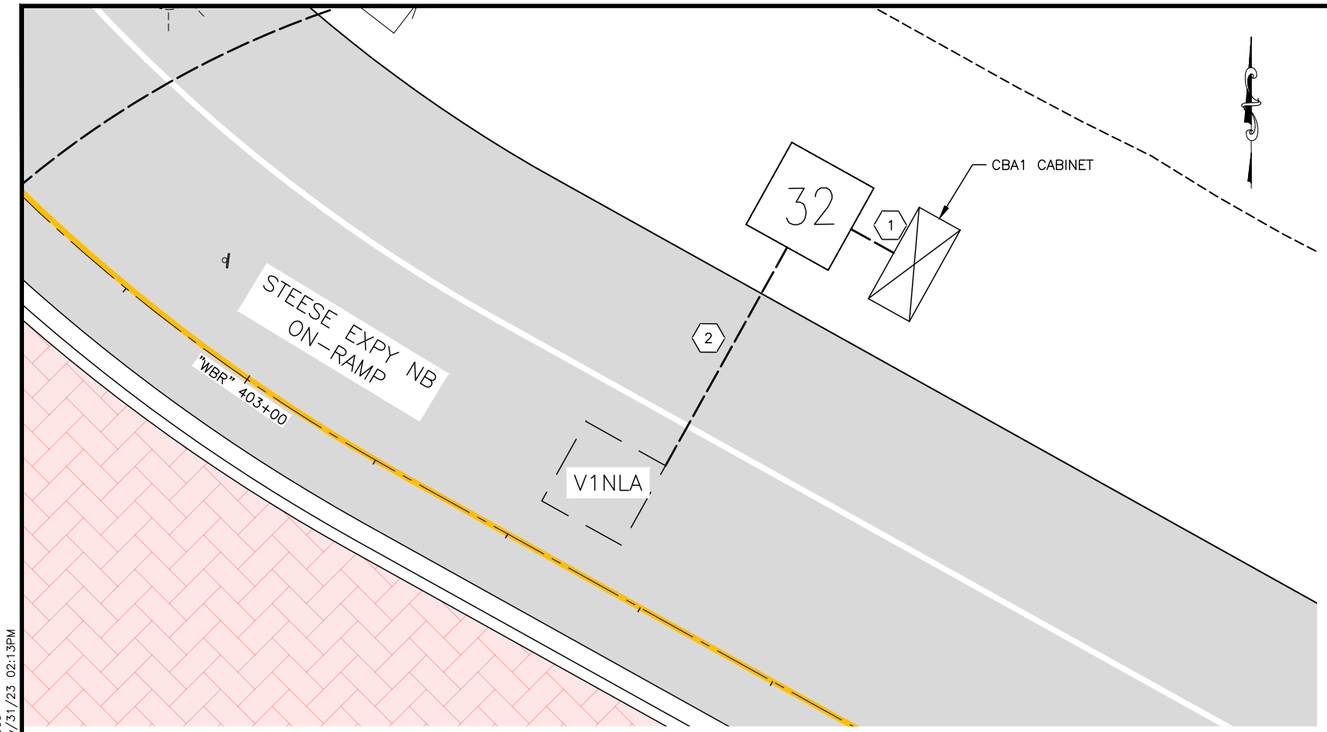
JUNCTION BOX 31

R01 — V1SLA, V1SLB

PASSIVE LOOP DETECTORS

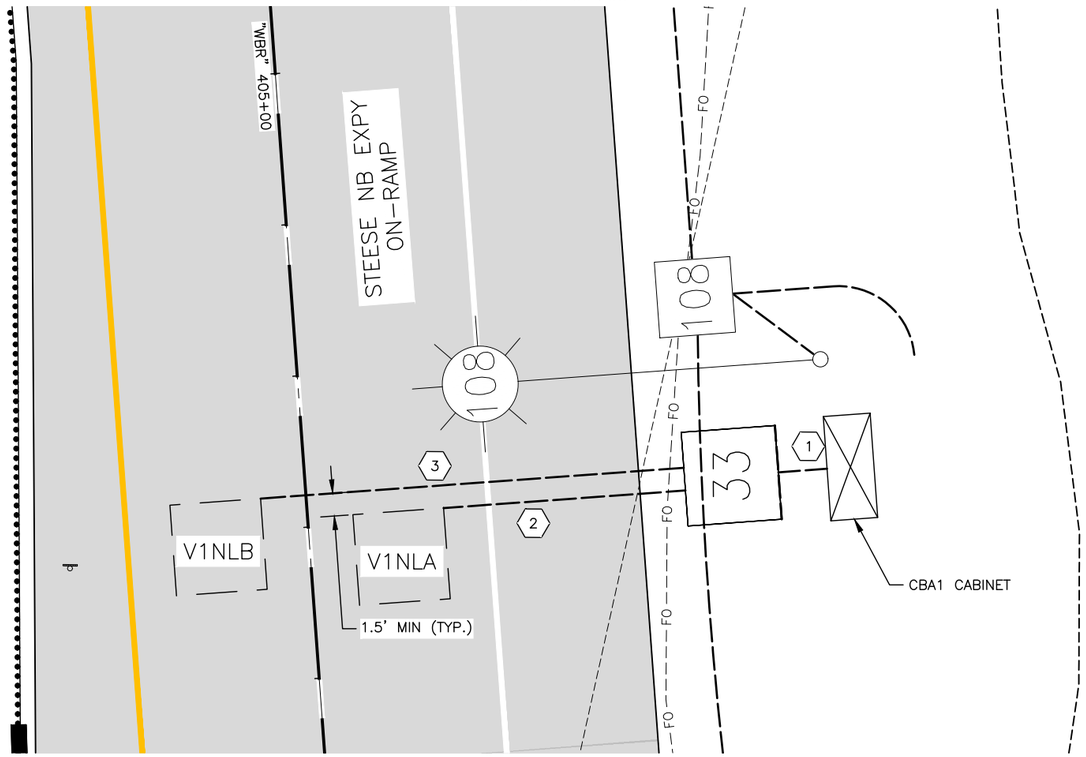
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K3	K11



ATR SITE V3 STEESE NORTHBOUND ON-RAMP

STA 402+65



ATR SITE V4 STEESE NORTHBOUND ON-RAMP

STA 404+71

V3 CBA1 CABINET

LOOP SENSOR TERMINAL BLOCK	
PIN NO.	ASSIGNMENTS
1 2	V1NLA
3 4	

R01 — V1NLA

JUNCTION BOX 32

V4 CBA1 CABINET

LOOP SENSOR TERMINAL BLOCK	
PIN NO.	ASSIGNMENTS
1 2	V1NLA
3 4	V1NLB

R01 — V1NLA, V1NLB

JUNCTION BOX 33

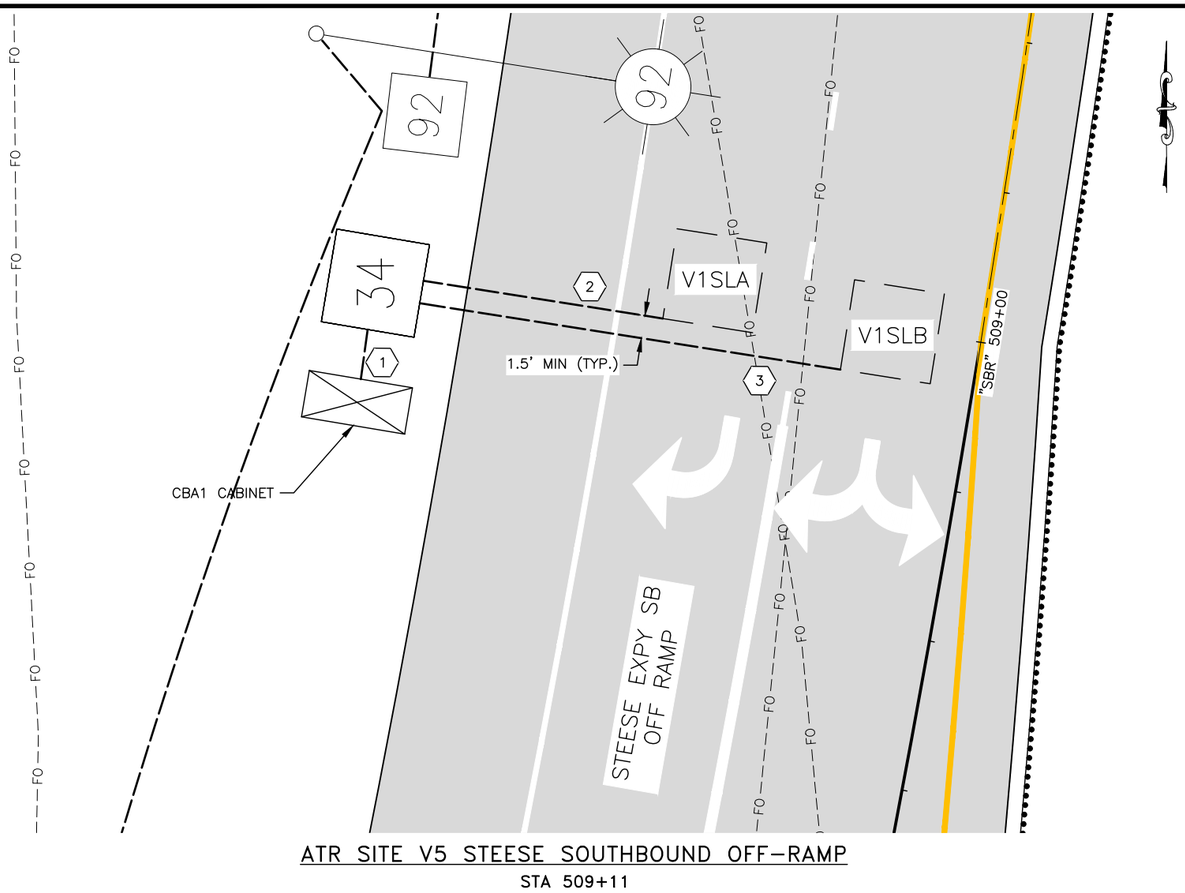
CONDUIT AND CONDUCTOR SCHEDULE

SITE	CONDUIT ⟨#⟩	CONDUIT QTY	CONDUIT SIZE (INCH)	FROM	TO	CABLE QTY	CABLE TYPE	CABLE NUMBER
V3	1	1	2	CBA1	JB32	1	6 PR#18	RO1
	2	1	1	JB32	V1NLA	1	1 PR#14	
V4	1	1	2	CBA1	JB33	1	6 PR#18	RO1
	2	1	1	JB33	V1NLA	1	1 PR#14	
	3	1	1	JB33	V1NLB	1	1 PR#14	

PASSIVE LOOP DETECTORS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K4	K11



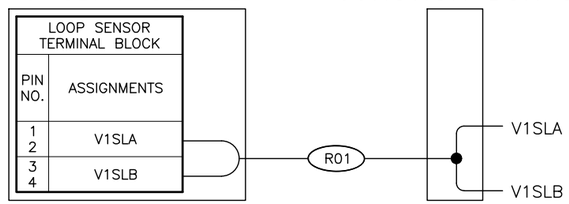
ATR SITE V5 STEESE SOUTHBOUND OFF-RAMP

STA 509+11

V5 CBA1 CABINET

LOOP SENSOR TERMINAL BLOCK	
PIN NO.	ASSIGNMENTS
1 2	V1SLA
3 4	V1SLB

JUNCTION BOX 34



CONDUIT AND CONDUCTOR SCHEDULE

SITE	CONDUIT #	CONDUIT QTY	CONDUIT SIZE (INCH)	FROM	TO	CABLE QTY	CABLE TYPE	CABLE NUMBER
V5	1	1	2	CBA1	JB34	1	6 PR#18	R01
	2	1	1	JB34	V1SLA	1	1 PR#14	
	3	1	1	JB34	V1SLB	1	1 PR#14	

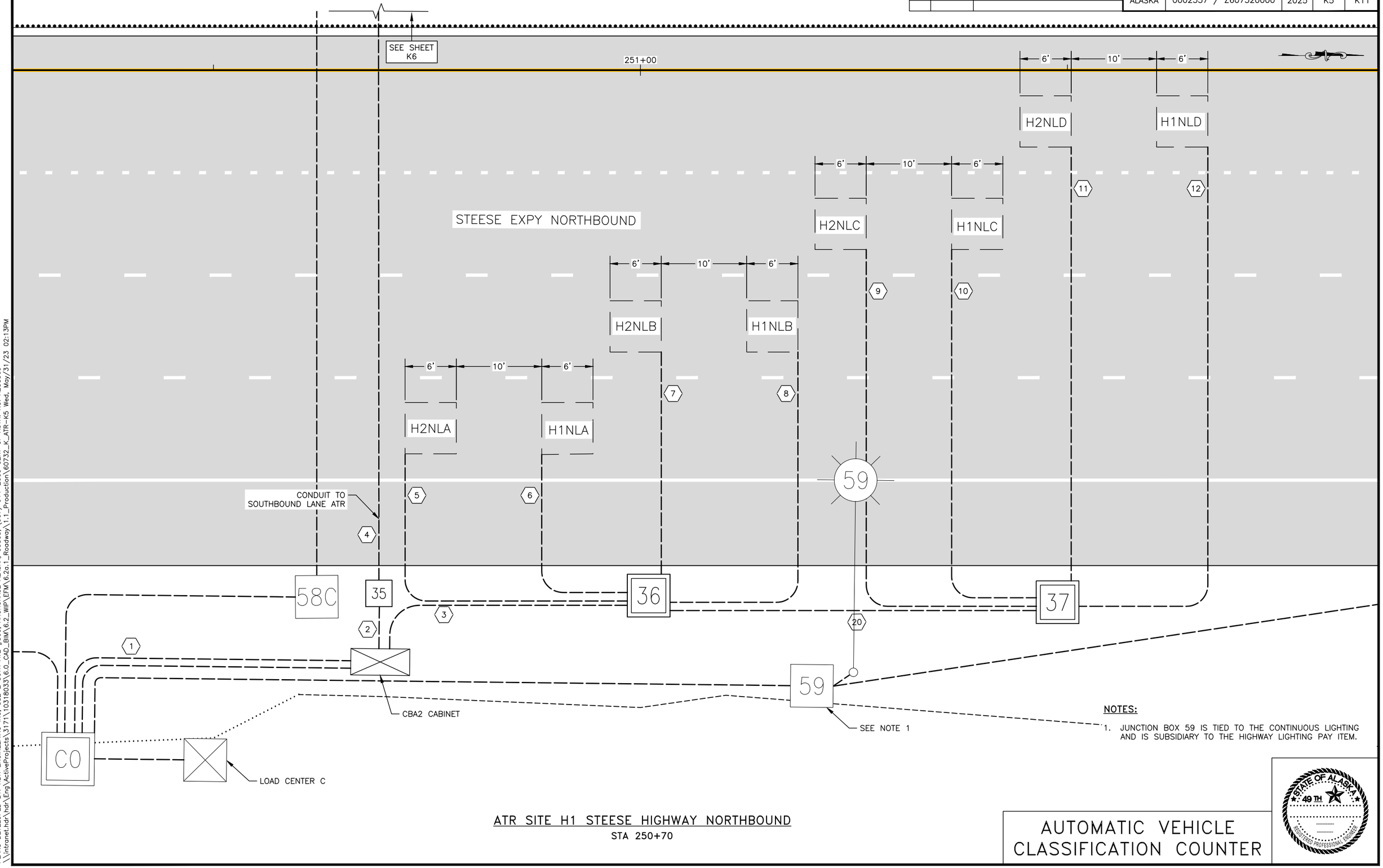
PASSIVE LOOP DETECTORS

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_K_ATR-K4 Wed, May/31/23 02:13PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K5	K11



NOTES:

1. JUNCTION BOX 59 IS TIED TO THE CONTINUOUS LIGHTING AND IS SUBSIDIARY TO THE HIGHWAY LIGHTING PAY ITEM.

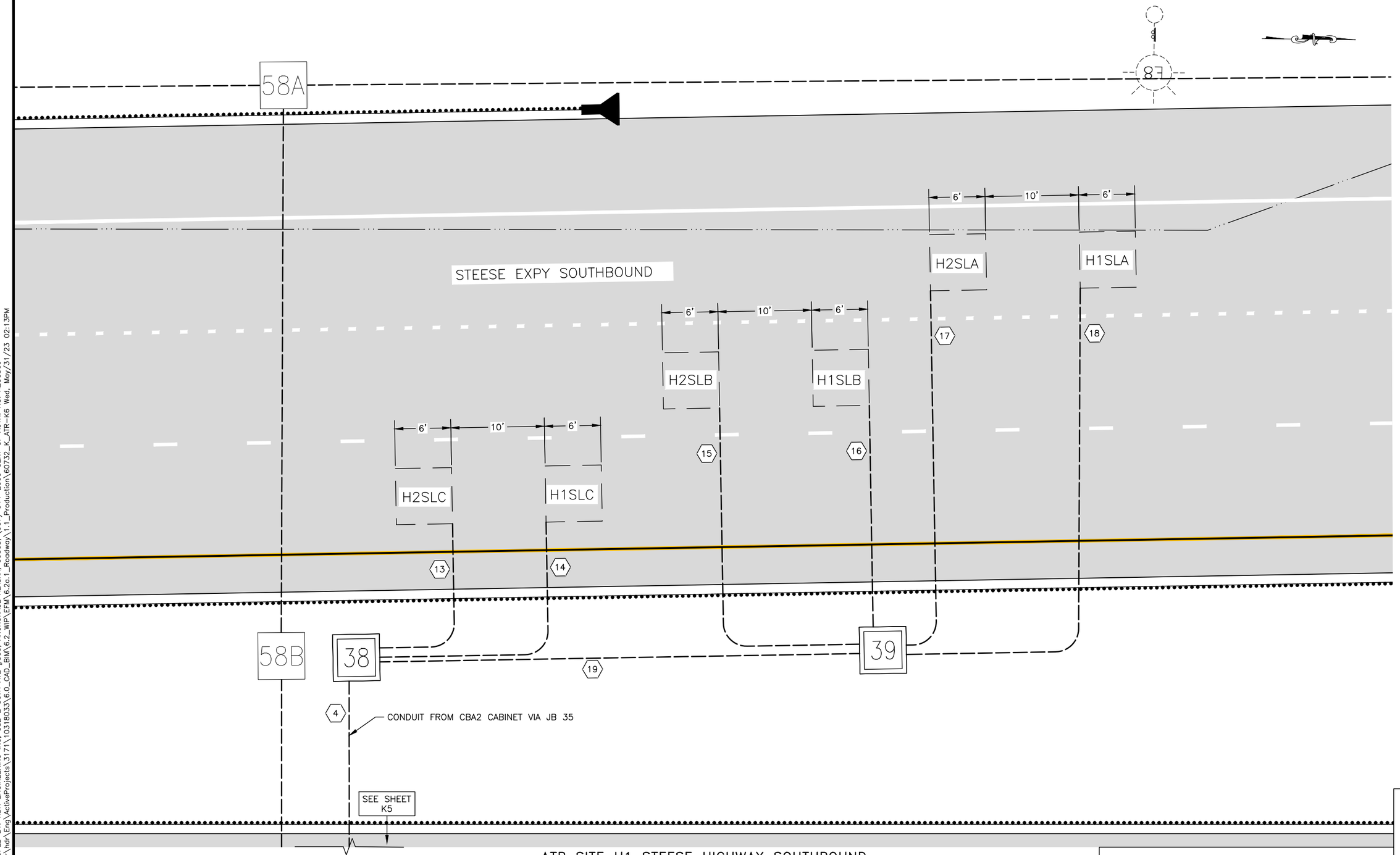
ATR SITE H1 STEESE HIGHWAY NORTHBOUND
STA 250+70

AUTOMATIC VEHICLE CLASSIFICATION COUNTER

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K6	K11



ATR SITE H1 STEESE HIGHWAY SOUTHBOUND

STA 250+70

AUTOMATIC VEHICLE CLASSIFICATION COUNTER

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K7	K11

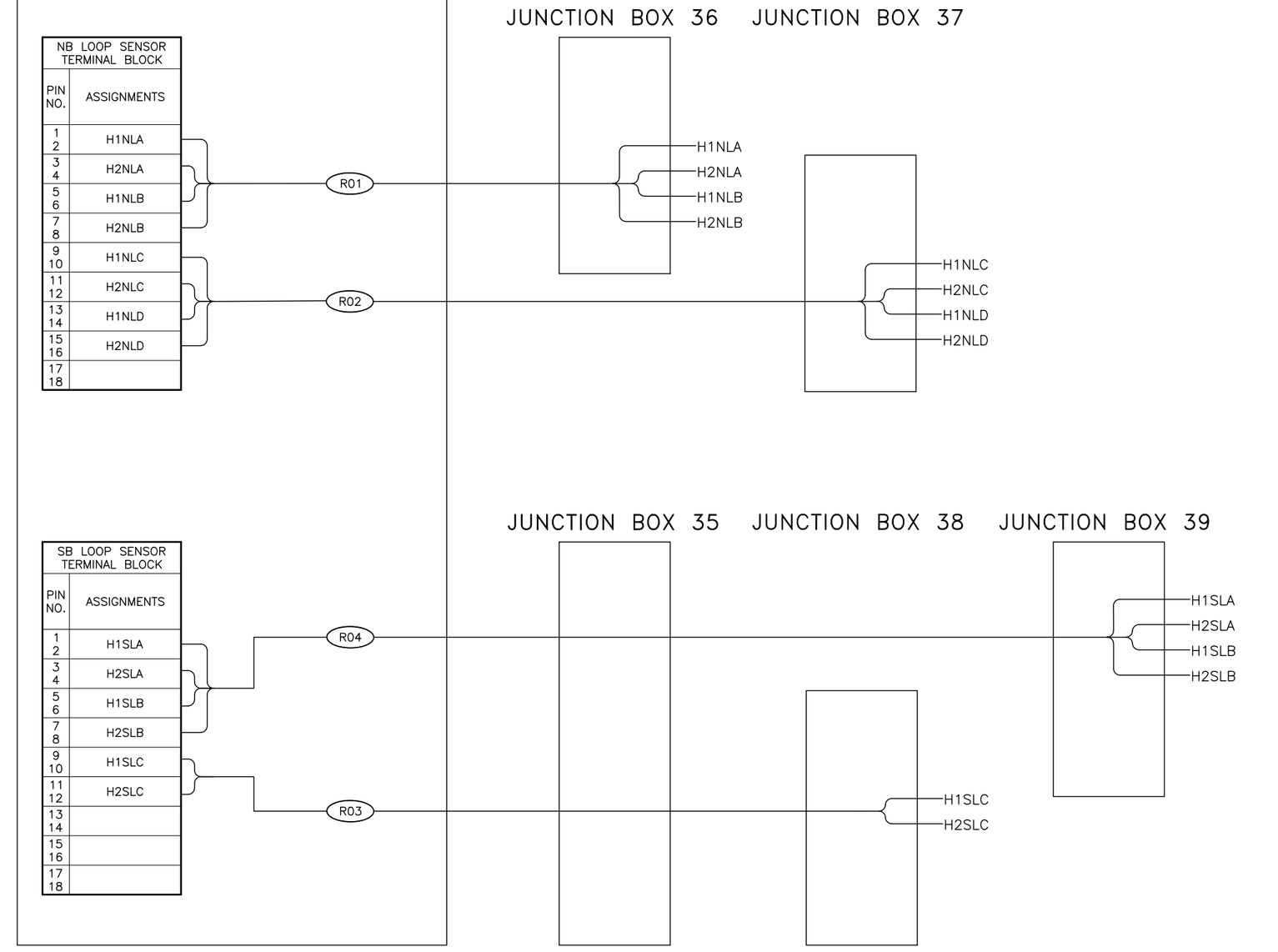
CONDUIT AND CONDUCTOR SCHEDULE

SITE	CONDUIT #	CONDUIT QTY	CONDUIT SIZE (INCH)	FROM	TO	CABLE QTY	CABLE TYPE	CABLE NUMBER
H1	1	2	3	LC	CBA2	4	6 PR#18	R01, R02, R03, R04
	2	1	2	CBA2	JB 35	1	3 PR#18	R03
						1	6 PR#18	R04
	3	1	2	CBA2	JB 36	2	6 PR#18	R01, R02
	4	1	2	JB 35	JB 38	1	3 PR#18	R03
						1	6 PR#18	R04
		1	2	JB 35	JB 38	SPARE	SPARE	
	5	1	1	JB 36	H2NLA	1	1 PR#14	
	6	1	1	JB 36	H1NLA	1	1 PR#14	
	7	1	1	JB 36	H2NLB	1	1 PR#14	
	8	1	1	JB 36	H1NLB	1	1 PR#14	
	9	1	1	JB 37	H2NLC	1	1 PR#14	
	10	1	1	JB 37	H1NLC	1	1 PR#14	
	11	1	1	JB 37	H2NLD	1	1 PR#14	
	12	1	1	JB 37	H1NLD	1	1 PR#14	
	13	1	1	JB 38	H2SLC	1	1 PR#14	
	14	1	1	JB 38	H1SLC	1	1 PR#14	
	15	1	1	JB 39	H2SLB	1	1 PR#14	
	16	1	1	JB 39	H1SLB	1	1 PR#14	
	17	1	1	JB 39	H2SLA	1	1 PR#14	
	18	1	1	JB 39	H1SLA	1	1 PR#14	
	19	1	2	JB 38	JB 39	1	6 PR#18	R04
	20	1	2	JB 36	JB 37	1	6 PR#18	R02

H1 CBA2 CABINET

NB LOOP SENSOR TERMINAL BLOCK	
PIN NO.	ASSIGNMENTS
1 2	H1NLA
3 4	H2NLA
5 6	H1NLB
7 8	H2NLB
9 10	H1NLC
11 12	H2NLC
13 14	H1NLD
15 16	H2NLD
17 18	

SB LOOP SENSOR TERMINAL BLOCK	
PIN NO.	ASSIGNMENTS
1 2	H1SLA
3 4	H2SLA
5 6	H1SLB
7 8	H2SLB
9 10	H1SLC
11 12	H2SLC
13 14	
15 16	
17 18	



TYPICAL AVC NOTES:

1. ALL PVC CONDUIT AND FITTINGS SHALL BE ONE INCH SCHEDULE 80.
2. INSTALL 1/2 INCH PREFORMED BITUMINOUS JOINT MATERIAL BETWEEN JBOX AND PAVEMENT WHEN JBOXES ARE LOCATED IMMEDIATELY ADJACENT TO A SIDEWALK OR ROAD SURFACE.
3. INSTALL PLASTIC SLEEVED GROUNDING BUSHINGS ON ALL CONDUITS BEFORE PULLING ANY WIRE. GROUND WITH A MINIMUM #6 BARE COPPER.
4. INSTALL AND TEST ALL LOOP DETECTORS PRIOR TO OVERLAYING PAVEMENT.
5. MINIMUM SPACING BETWEEN TAIL AND LOOP OR PIEZO IS ONE FOOT. SENSOR TAILS SHALL NOT CROSS EACH OTHER.
6. SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE WET LOCATION SPLICE.
7. COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO "F" CONNECTOR AT TERMINAL BLOCK CABINET.
8. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE MAKING MODIFICATIONS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

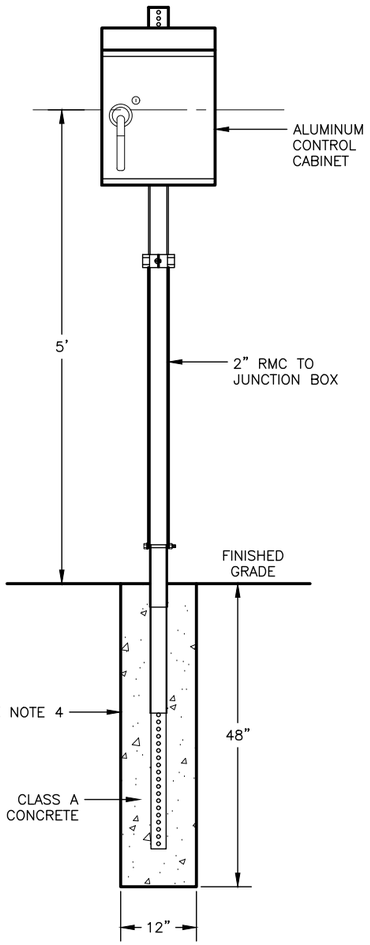
H1 SITE WIRING DIAGRAM AND CONDUIT SCHEDULE

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

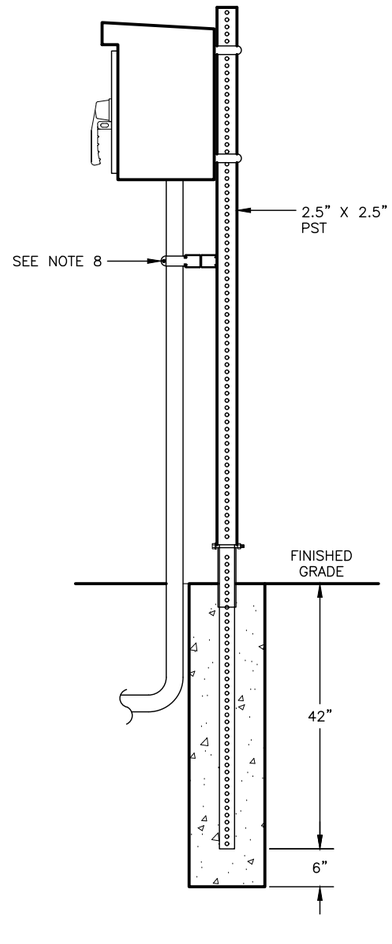
PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\10318033\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_K_ATR-K7 Wed, May/31/23 02:13PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K8	K11

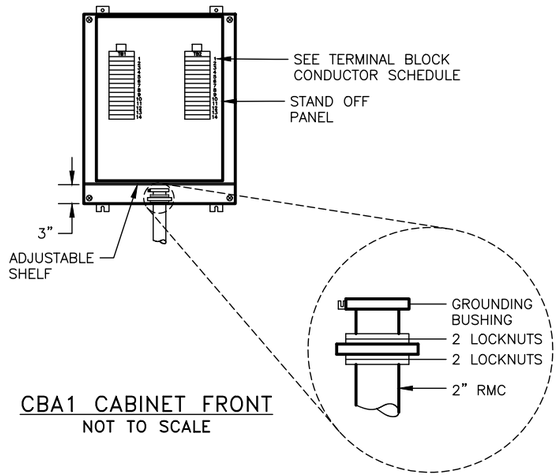


FRONT ELEVATION



SIDE ELEVATION

CABINET TYPE CBA1
NOT TO SCALE

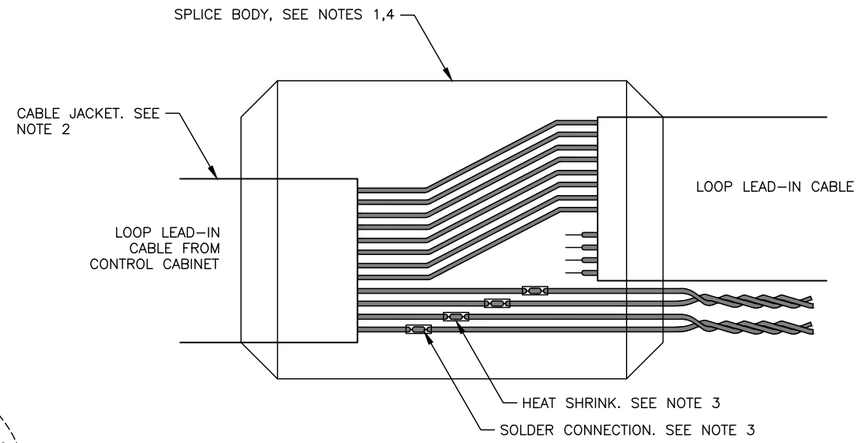


CBA1 CABINET FRONT
NOT TO SCALE

TERMINAL BLOCK CONDUCTOR SCHEDULE		
PIN NUMBER	**CONDUCTOR COLOR**	**LOOP DESIGNATION**
1	RED	LOOP 1 OR A
2	BLACK	
3	WHITE	LOOP 2 OR B
4	BLACK	
5	GREEN	LOOP 3 OR C
6	BLACK	
7	BLUE	LOOP 4 OR D
8	BLACK	

CBA1 NOTES:

1. CONTROLLER CABINET DOOR TO OPEN AWAY FROM THE ROADWAY.
2. INSTALL FOUNDATION IN SELECT MATERIAL, TYPE A. EXCAVATE 2 FEET BELOW AND SURROUNDING THE FOUNDATION AND BACKFILL WITH AGGREGATE BASE COURSE, GRADING D–1.
3. CABINET TO BE SINGLE–DOOR, LOCKABLE, CONTINUOUS HINGE ENCLOSURE (WITH CLAMPS), WITH TYPE 3R ENVIRONMENTAL RATING (26" X 17" X 16"), OR APPROVED EQUAL, COMPLETE WITH MOUNTING PANEL, DIN RAILS, AND TERMINAL BLOCKS AS REQUIRED.
4. USE SLEEVE TYPE CONCRETE FOUNDATION. SEE ALASKA STANDARD PLAN S–30, PERFORATED STEEL TUBE (PST) POST.
5. TERMINATE ALL CONDUCTORS TO TERMINAL BLOCKS. TERMINATE ALL CONDUCTORS WITH CRIMPED AND SOLDERED SPADE TYPE TERMINALS.
6. TY–RAPS TO PROVIDE STRAIN RELIEF FOR INCOMING CONDUCTORS.
7. LABEL SENSOR LEADS:
   USE THE INDUCTIVE LOOP DESIGNATION FOR IDENTIFICATION, SUCH AS "V1SLA".
8. SECURE AND SUPPORT RMC PER NEC 344.30.



TYPICAL SPLICE DETAIL
NOT TO SCALE

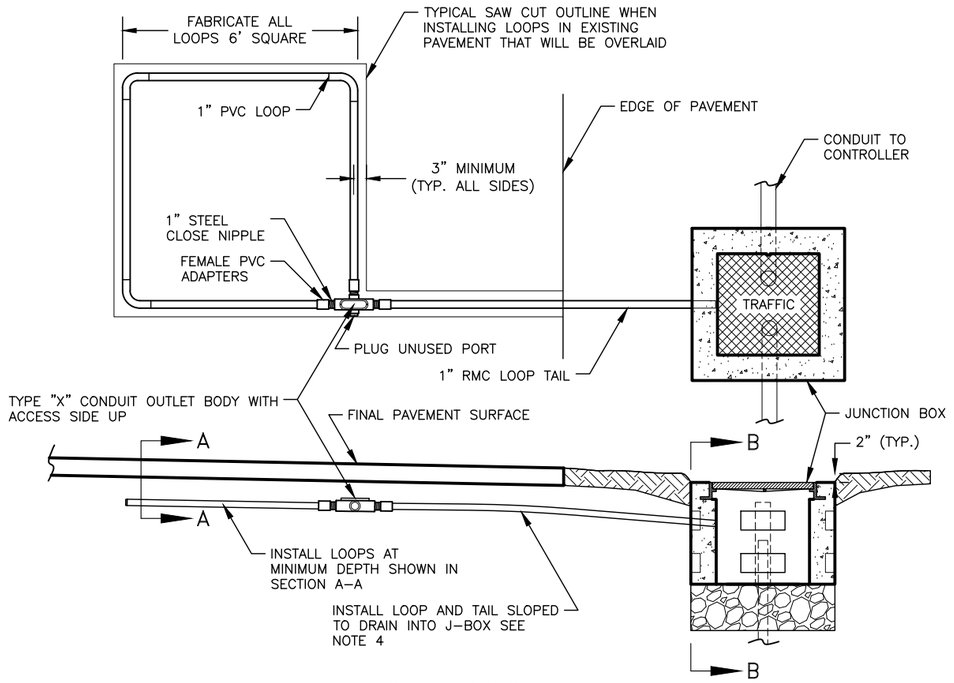
SPLICE NOTES:

1. TERMINATE ALL SPARES WITHIN THE SPLICE BODY.
2. SPLICE BODY TO ENCLOSE ALL CABLE JACKETS.
3. STAGGER SPLICE POINTS. SOLDER CONNECTIONS, ENCLOSE EXPOSED CONDUCTORS IN ADHESIVE WALL HEAT SHRINK TUBING.
4. USE A NON–REENTERABLE, WET LOCATION, COMMERCIAL SPLICE KIT 3M TYPE 82–F1 OR EQUIVALENT AS APPROVED BY THE ENGINEER.
5. SOLDER CONNECTIONS. DO NOT USE COMPRESSION CONNECTIONS. WARP CONDUCTORS OVER EACH OTHER BEFORE SOLDERING.

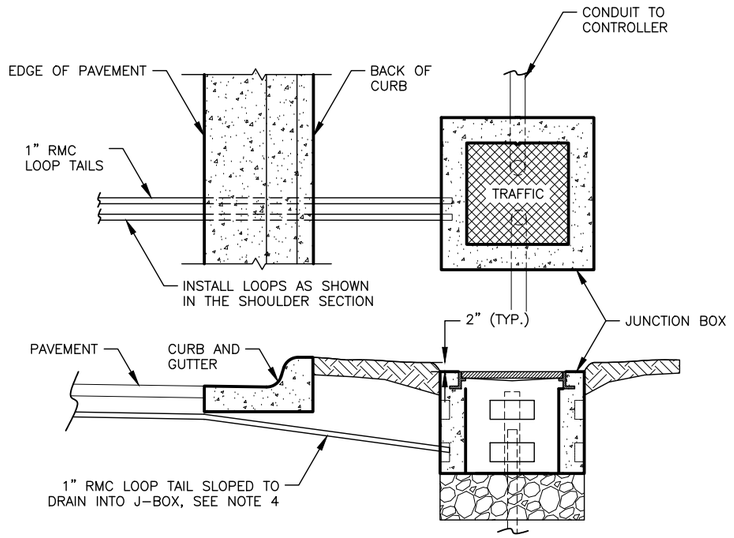
ATR CBA1 CABINET AND SPLICE DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K9	K11



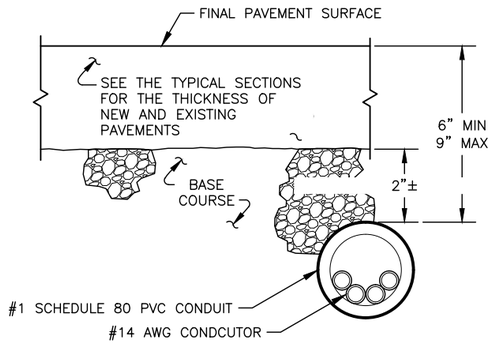
SHOULDER SECTION



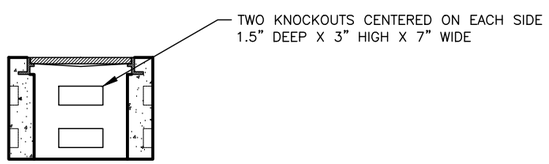
CURB SECTION

NOTES:

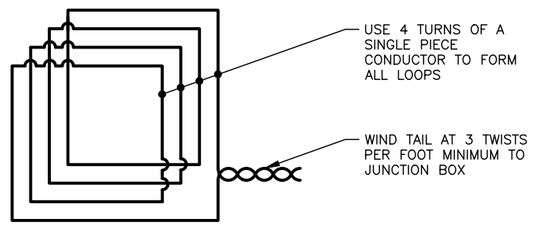
1. EACH LOOP DETECTOR SHALL CONSIST OF A SINGLE PIECE OF #14 AWG CONDUCTOR INSTALLED IN ONE INCH SCHEDULE 80 PVC CONDUIT. BUILD ALL LOOPS 6.0 FEET SQUARE, UNLESS OTHERWISE NOTED, BY SOLVENT WELDING ALL PVC TO PVC JOINTS. USE TYPE X OUTLET BODIES MADE OF HOT DIP GALVANIZED STEEL TO JOIN THE LOOPS AND TAILS.
2. INSTALL 4 TURNS OF CONDUCTOR IN ALL LOOPS AND PROVIDE TAILS THAT EXTEND TO THE JUNCTION BOX SPECIFIED ON THE PLANS. USE #14 AWG CONDUCTOR IN A POLYETHYLENE TUBE CONFORMING TO IMSA SPECIFICATION 51-5. WIND THE TAIL CONDUCTORS TOGETHER AT A RATE OF 3 TWISTS PER FOOT.
3. INSTALL ALL LOOP DETECTORS BEFORE OVERLAYING THE EXISTING PAVEMENT OR PAVING THE NEW ROADWAY.
4. INSTALL ALL LOOP DETECTORS SLOPED TO DRAIN INTO THE JUNCTION BOX THE LOOP TAIL ENTERS. IF CONTRACTOR CANNOT INSTALL THE LOOP TO DRAIN INTO THE J-BOX, DRILL FIVE 1/4" WEEP HOLES ON 1 FOOT CENTERS IN THE UNDERSIDE OF THE CONDUIT AT THE LOW SPOT.
5. CONTRACTOR MAY INSTALL A LOOP TAIL IMMEDIATELY ADJACENT TO A LOOP AND OTHER LOOP TAILS. LOOP TAILS SHALL NOT CROSS LOOP CONDUITS.
6. TEST ALL LOOP DETECTORS FOR CONTINUITY AND INSULATION INTEGRITY BEFORE SEALING THE LOOPS UNDER THE FINAL LIFT OF ASPHALT. PROVIDE THE ENGINEER A WRITTEN RECORD OF FIELD TESTING TO INCLUDE; CONTINUITY, INSULATION RESISTANCE AND INDUCTANCE TESTS AS REQUIRED IN SECTION 660-3.01(7) OF THE STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION.



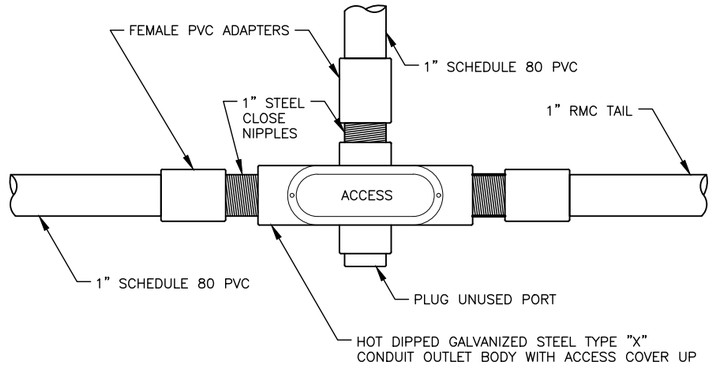
SECTION A-A



SECTION B-B



6'X6' LOOP WIRING DETAIL



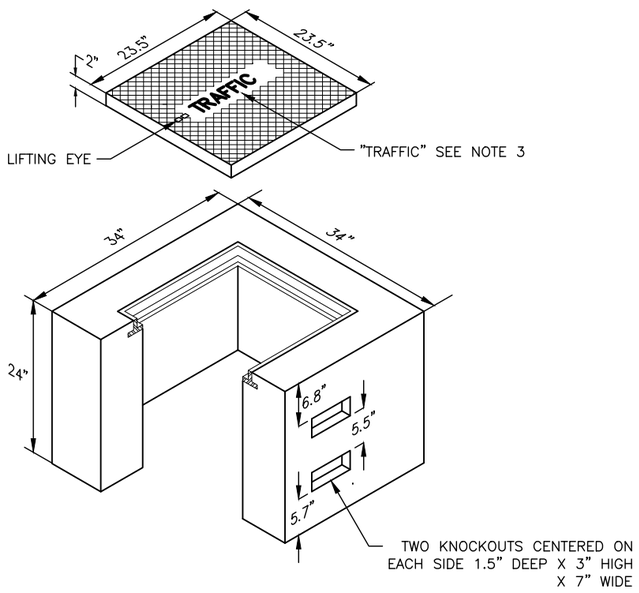
"X" BODY DETAIL
NOT TO SCALE

TYPICAL PVC CONDUIT ENCASED LOOP DETECTOR INSTALLATION
NOT TO SCALE

ATR LOOP DETECTOR DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K10	K11



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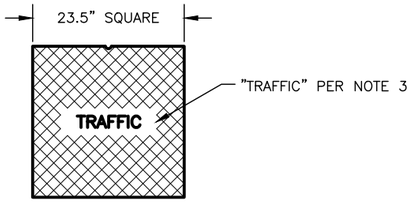
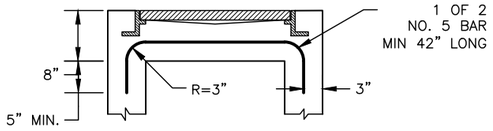


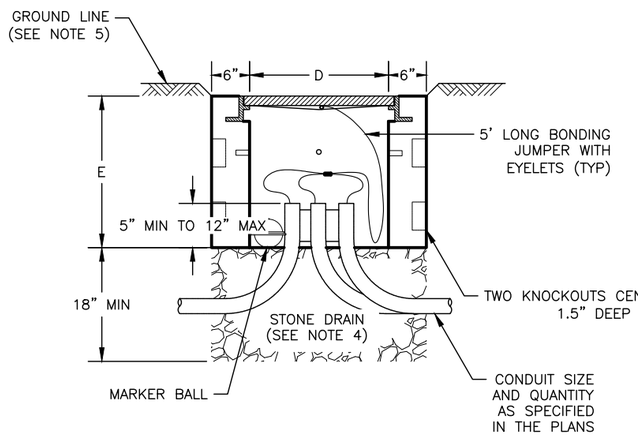
LID FOR TYPE II J–BOXES



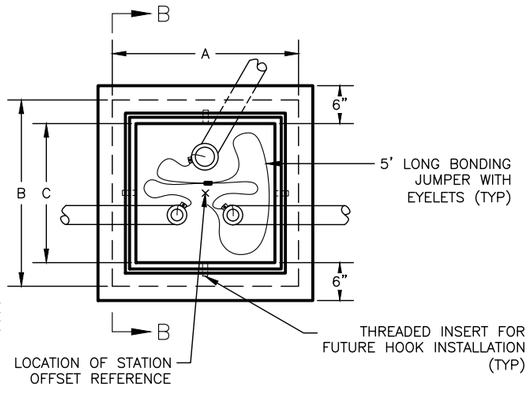
SECTION B–B

NOTES:

1. FURNISH TYPE II, III AND IV JUNCTION BOXES WITH CAST IRON FRAMES AND LIDS THAT WEIGH A MINIMUM OF 210 POUNDS AND ARE RATED FOR HEAVY TRAFFIC LOADS IN COMPLIANCE WITH AASHTO M306.
2. CONSTRUCT JUNCTION BOXES ACCORDING TO SECTION 501 USING CLASS A CONCRETE. REINFORCE TYPE IA JUNCTION BOXES AS SHOWN. SYNTHETIC STRUCTURAL FIBER–REINFORCED CONCRETE THAT MEETS ASTM C 1116 AND CONTAINS FIBER IN PROPORTIONS AS RECOMMENDED BY THE FIBER MANUFACTURER MAY BE ADDED FOR STRENGTH.
3. FURNISH LIDS WITH THE WORD "TRAFFIC" INSCRIBED INTO THEM.
4. UNDER JUNCTION BOXES, INSTALL STONE DRAINS THAT CONSIST OF POROUS BACKFILL MATERIAL CONFORMING TO SUBSECTION 703–2.10.
5. SET THE TOPS OF JUNCTION BOXES WITH THE FOLLOWING DIMENSIONS BELOW THE FINISHED SURROUNDING SURFACE:
   - 1" IN PAVED MEDIANS AND ADJACENT TO PEDESTRIAN FACILITIES
   - 1/4" IN PEDESTRIAN FACILITIES
   - 2" IN ALL OTHER AREAS
6. BOND JUNCTION BOX LIDS TO THE SYSTEM OF EQUIPMENT GROUNDING CONDUCTORS ACCORDING TO SUBSECTION 660–3.06. ATTACH BONDING JUMPERS TO THE JUNCTION BOX LIDS WITH BRASS OR STAINLESS STEEL HARDWARE.
7. INSTALL LOOP DETECTOR TAILS THROUGH THE TOP KNOCKOUT OF TYPE II JUNCTION BOXES. AFTER SETTING THE BOXES TO GRADE, INSTALL GROUT IN THE GAPS THAT REMAIN IN THE KNOCKOUT.
8. INSTALL A 1/2" THICK PREFORMED BITUMINOUS JOINT MATERIAL AROUND JUNCTION BOXES INSTALLED IN PORTLAND CEMENT CONCRETE WALKWAYS.
9. INSTALL AN ELECTRONIC MARKER BALL IN ALL JUNCTION BOXES PER SUBSECTION 660–3.04.
10. PRIOR TO INSTALLATION MARK ALL JUNCTION BOX LOCATIONS WITH A WIRE STAFF VINYL FLAG. THE FLAG SHALL BE RED IN COLOR AND MINIMUM 4–INCHES TALL BY 5–INCHES WIDE. THE WIRE STAFF SHALL BE 21–INCHES IN LENGTH AND CONSTRUCTED OF MINIMUM 15.5 GAUGE STEEL.



PROFILE



PLAN

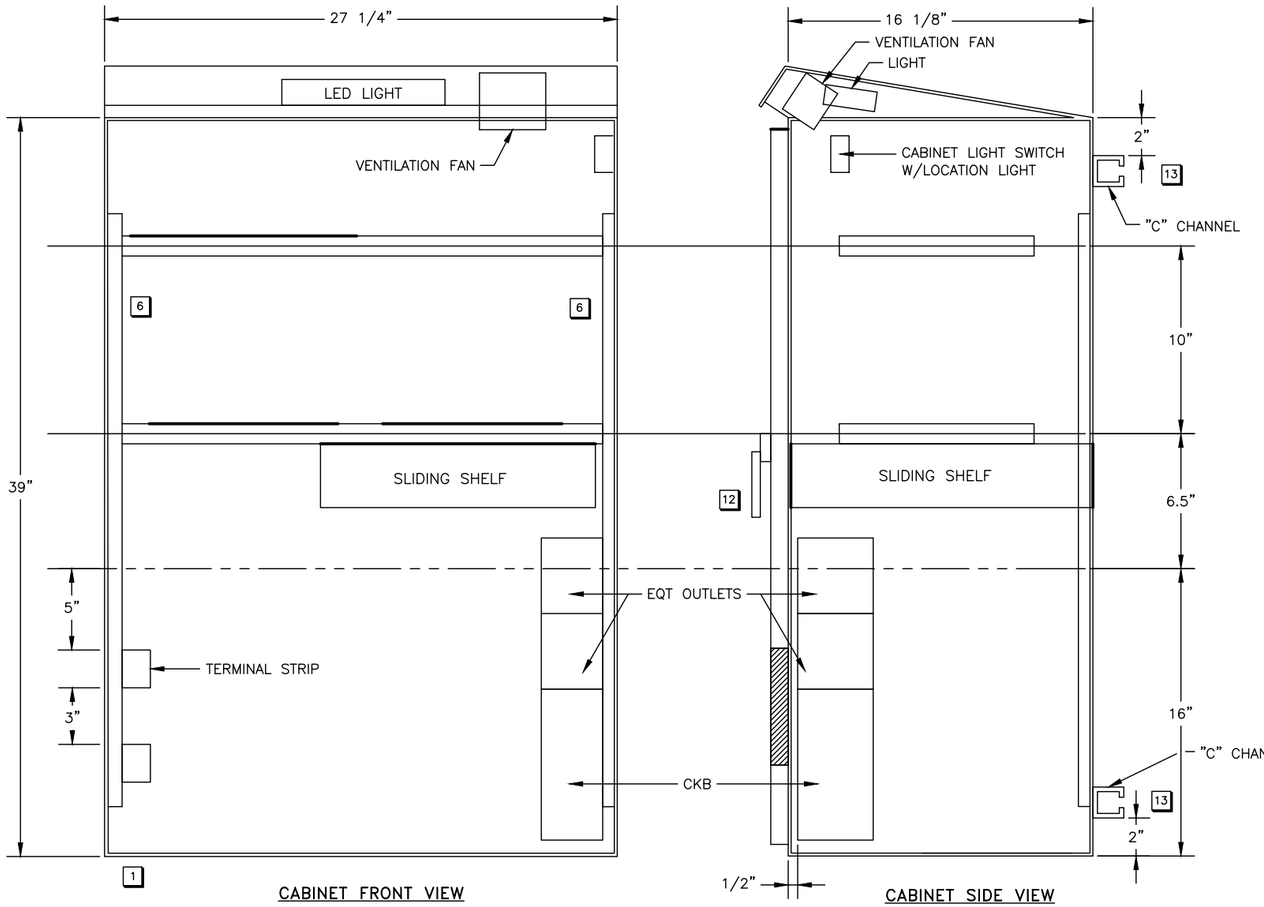
J–BOX DIMENSIONS					
J–BOX TYPE	**A (MAX.)**	**B (MAX.)**	**C (MIN.)**	**D (MIN.)**	**E (MIN.)**
II	29.5"	29.5"	22"	22"	24"

TYPE II JUNCTION BOX

TYPE II JUNCTION BOX DETAILS

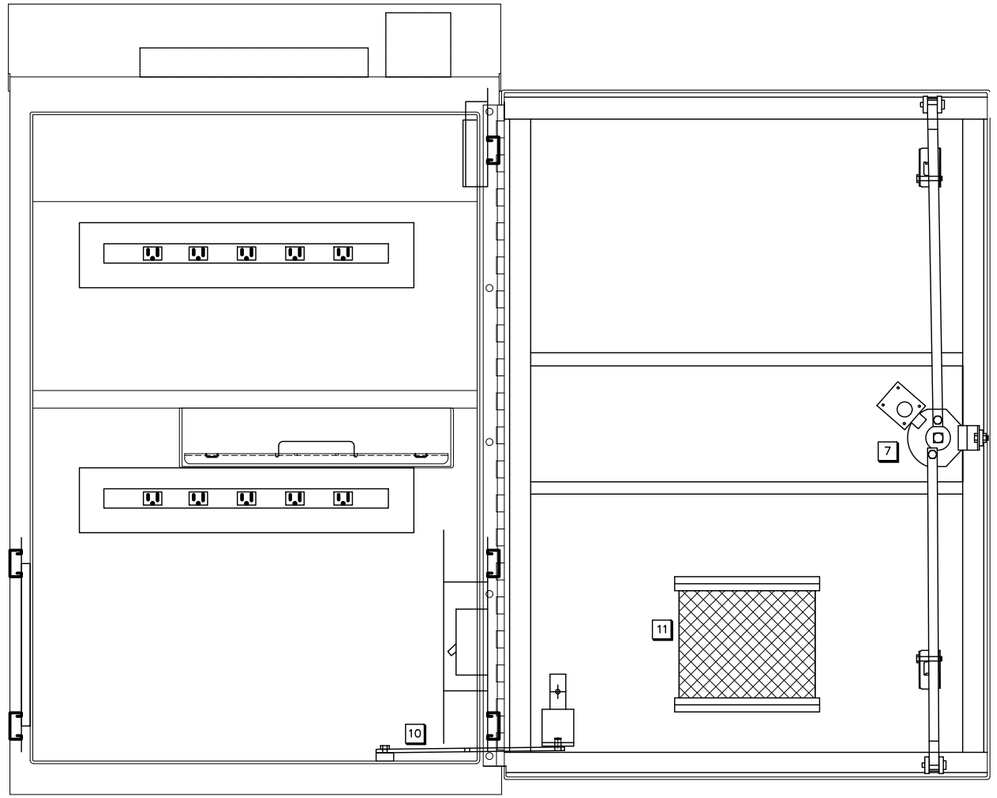
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	K11	K11



CABINET FRONT VIEW

CABINET SIDE VIEW



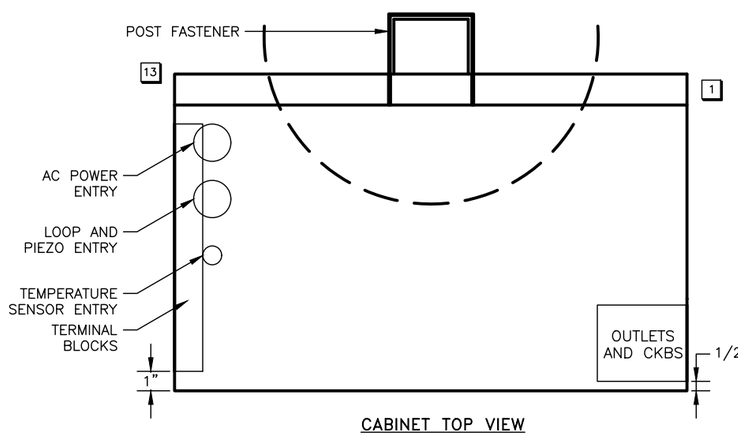
CABINET DOOR

NOTES:

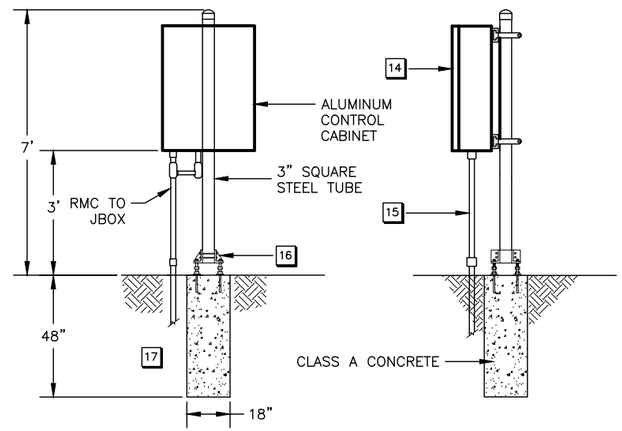
1. USE CONDUIT HUBS IN BOTTOM OF CABINET. USE TYPE CHT WITH NEOPRENE SEAL AND INSULATED THROAT FOR NON-POWER CONDUITS WITH DETECTOR LEAD-IN CABLES AND TELEPHONE SERVICE. USE TYPE CHN FOR SERVICE ENTRANCE CONDUIT AND CONNECT FLEXIBLE METAL CONDUIT TO CB PANEL INSIDE CABINET.
2. PROVIDE VOLTAGE SURGE PROTECTION IN CB PANEL.
3. INSTALL 120V WIRING (INCLUDING THAT FOR PANELBOARD, LIGHT, FAN, AND THERMOSTATS) IN FLEXIBLE METAL CONDUIT WITH EXCEPTION OF CORD CONNECTED ELECTRONIC EQUIPMENT.
4. CABINETS SHALL BE CERTIFIED BY NATIONALLY RECOGNIZED INDEPENDENT THIRD PARTY TESTING AGENCY (UL, CSA, FM, ETC.).
5. FASTEN EQUIPMENT INSIDE CABINET TO RAILS WITH NO SCREW PENETRATIONS OF THE CABINET SURFACE.
6. INSTALL SIDE RAILS TO PERMIT HORIZONTAL ADJUSTMENT OF VERTICAL RAILS.
7. 3 POINT DRAW ROLLER TYPE LATCHING MECHANISM.
8. USE FACTORY 90° ELBOWS TO/FROM J-BOXES ON CONDUITS LARGER THAN 1 INCH.
9. INSTALL RMC UNLESS NOTED OTHERWISE. SEE CONDUIT SCHEDULE FOR SIZE.
10. DOOR CATCH MECHANISM.
11. AIR FILTER MOUNTED TO DOOR INTERIOR.
12. LOCKS SHALL BE CORBIN NO. 2, AND SHALL BE COMPATIBLE WITH EXISTING LOCKS.
13. C-CHANNEL SHALL BE FACTORY-WELDED TO BACK OF CABINET.
14. CONTROLLER CABINET DOORS SHALL OPEN AWAY FROM THE ROADWAY.
15. NOT ALL CONDUITS SHOWN IN DETAIL. ADD OTHERS AS REQUIRED.
16. PROVIDE FLANGE, FRANGIBLE COUPLING AND FOUNDATION ACCORDING TO DOT STANDARD DETAIL S-31.01.
17. INSTALL FOUNDATION IN SELECT MATERIAL, TYPE A. EXCAVATE AND BACKFILL WITH GRAVEL 2 FEET BELOW AND SURROUNDING FOUNDATION.

CBA2 CABINET DETAILS

NOT TO SCALE



CABINET TOP VIEW



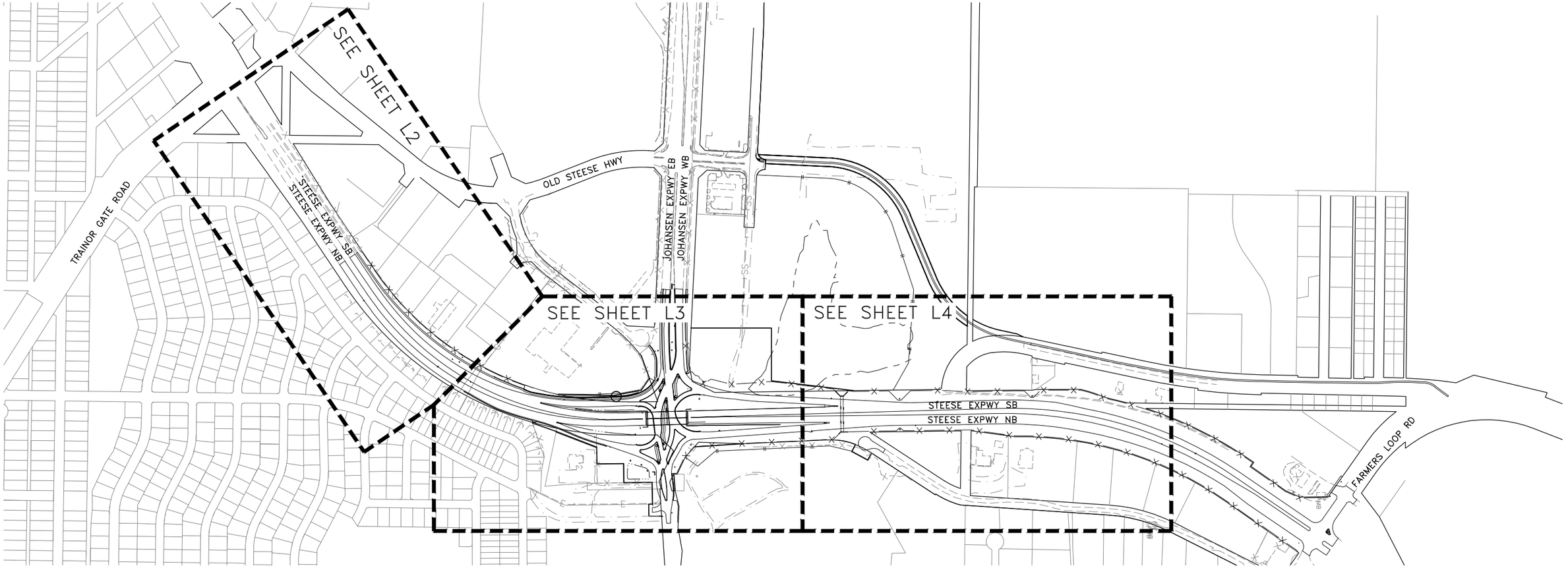
PROFILE AND FOUNDATION DETAILS

CBA2 CABINET DETAILS

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
\\intranet.hdr\hdr\Eng\ActiveProjects\3171\103180331\6.0_CAD_BIM\6.2_WIP\EFM\6.2a.1_Roadway\1.1_Production\60732_K_ATR-K11 Wed, May/31/23 02:14PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	L1	L6



1 / L1 LANDSCAPE LAYOUT PLAN

LANDSCAPE NOTES:

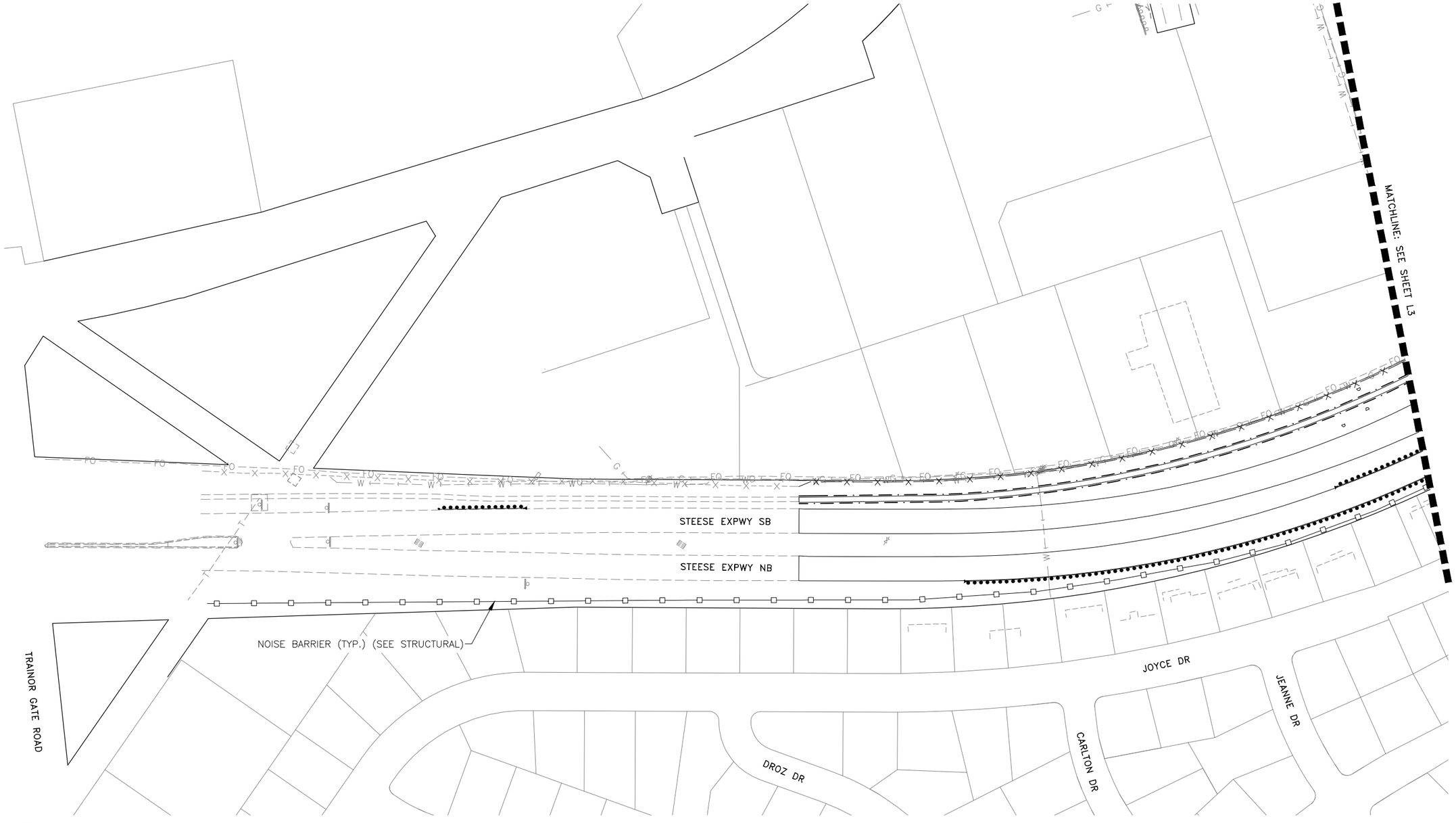
1. IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES IN THE PLANS OR ON THE SITE. MODIFICATIONS IN THE FIELD SHALL NOT BE MADE UNTIL APPROVAL HAS BEEN GRANTED BY THE ENGINEER.
2. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDERS AND VERIFY LOCATION OF UTILITIES PRIOR TO CONSTRUCTION.

LANDSCAPE PLAN

PLANS DEVELOPED BY: BETTISWORTH NORTH ARCHITECTS AND PLANNERS, 2600 DENALI STREET, SUITE 710, ANCHORGE, AK 99503, (907) 561-5780, CORPORATE NO.: AECC219
P:\22-116 Steese Johansen Expy Interchange\2-CAD\Drawings\LA\SteeseJoh_LL_PLAN-L1 Tue, Jun/06/23 04:05pm

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	L2	L6



1 / L2 LANDSCAPE ENLARGEMENT

LANDSCAPE LEGEND

SYMBOL	DESCRIPTION
	DECORATIVE PEDESTRIAN RAILING
	DECORATIVE FORM FINISH AT M.S.E. WALL
	NOISE BARRIER (SEE STRUCTURAL)

0 80 160 FEET

LANDSCAPE ENLARGEMENT

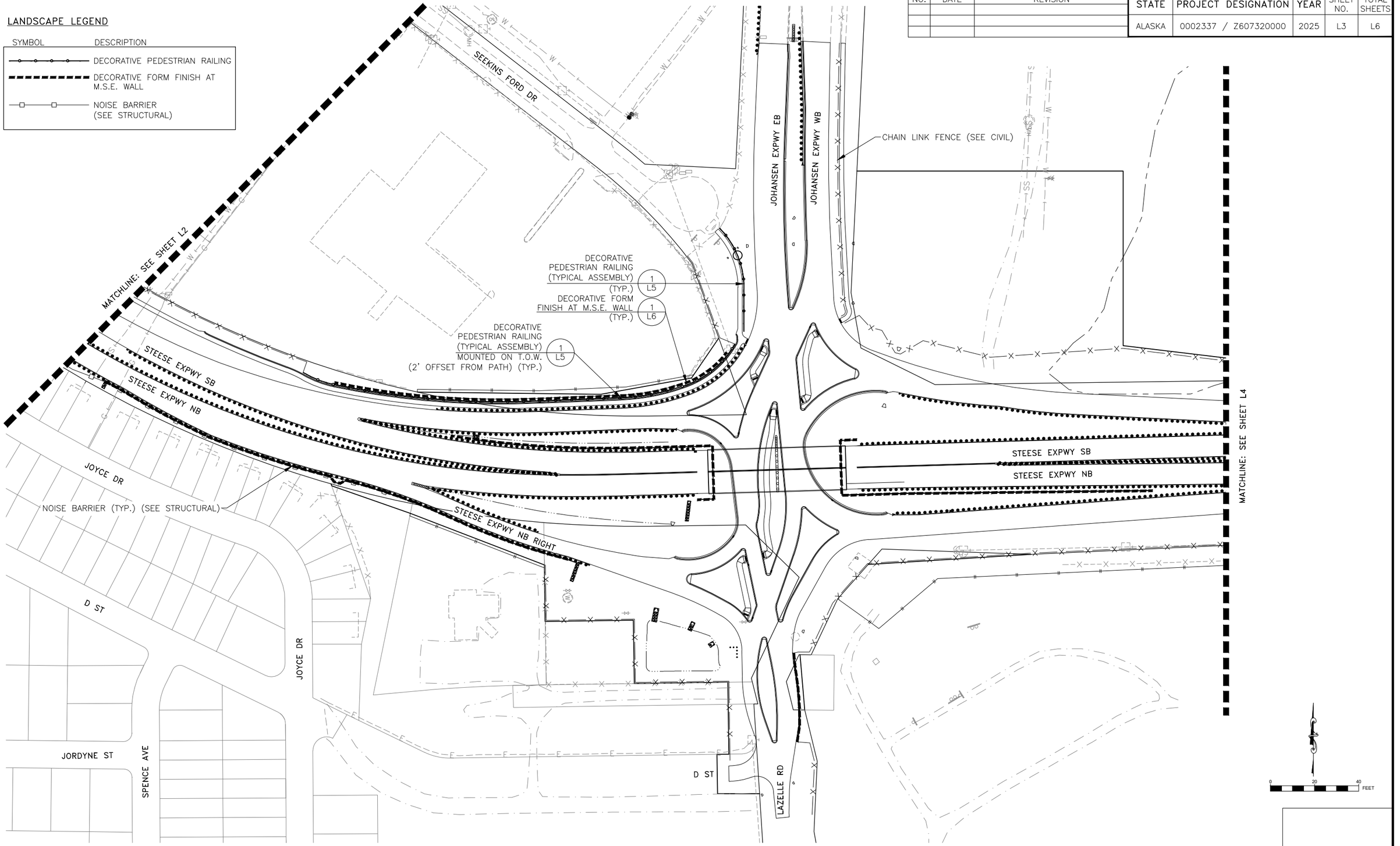
PLANS DEVELOPED BY: BETTISWORTH NORTH ARCHITECTS AND PLANNERS, 2600 DENALI STREET, SUITE 710, ANCHORAGE, AK 99503, (907) 561-5780, CORPORATE NO.: AECC219
P:\22-116 Steese Johansen Expy Interchange\2-CAD\Drawings\LA\Steese\oh_L_PLAN-L2 Tue, Jun/06/23 04:05pm

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	L3	L6

LANDSCAPE LEGEND

SYMBOL	DESCRIPTION
	DECORATIVE PEDESTRIAN RAILING
	DECORATIVE FORM FINISH AT M.S.E. WALL
	NOISE BARRIER (SEE STRUCTURAL)



1 / L3 LANDSCAPE ENLARGEMENT

LANDSCAPE ENLARGEMENT

PLANS DEVELOPED BY: BETTISWORTH NORTH ARCHITECTS AND PLANNERS, 2600 DENALI STREET, SUITE 710, ANCHORGE, AK 99503, (907) 561-5780, CORPORATE NO.: AECC219
P:\22-116 Steese Johansen Expy Interchange\2-CAD\Drawings\LA\SteeseJoh_LL_PLAN-L3 Tue, Jun/06/23 04:05pm

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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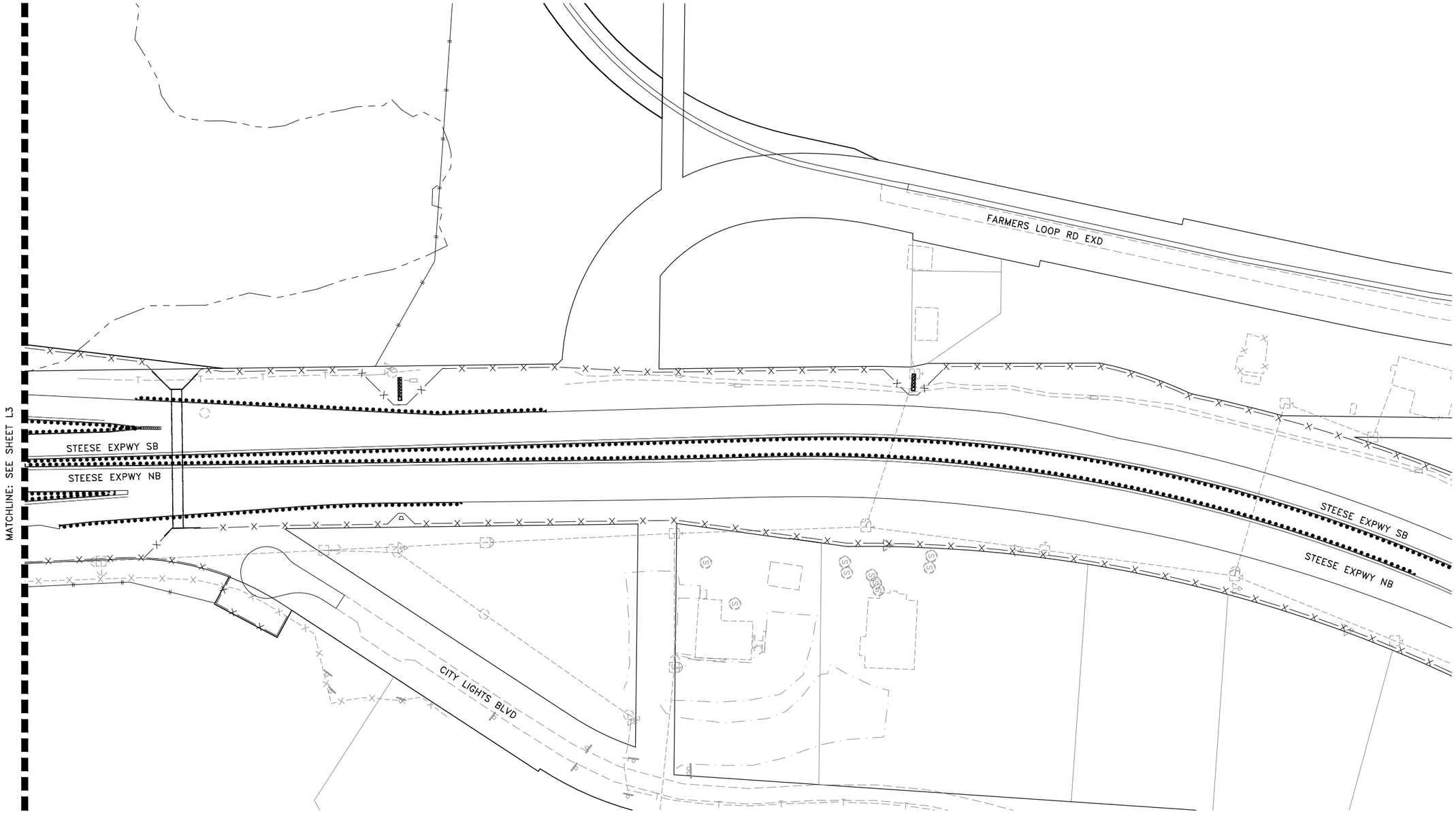

1/L3 LANDSCAPE ENLARGEMENT

0 20 40 FEET

LANDSCAPE LEGEND

SYMBOL	DESCRIPTION
	DECORATIVE PEDESTRIAN RAILING
	DECORATIVE FORM FINISH AT M.S.E. WALL
	NOISE BARRIER (SEE STRUCTURAL)

LANDSCAPE ENLARGEMENT

PLANS DEVELOPED BY: BETTISWORTH NORTH ARCHITECTS AND PLANNERS, 2600 DENALI STREET, SUITE 710, ANCHORGE, AK 99503, (907) 561-5780, CORPORATE NO.: AECC219
P:\22-116 Steese Johansen Expy Interchange\2-CAD\Drawings\LA\SteeseJoh_L_PLAN-L4 Tue, Jun/06/23 04:05pm

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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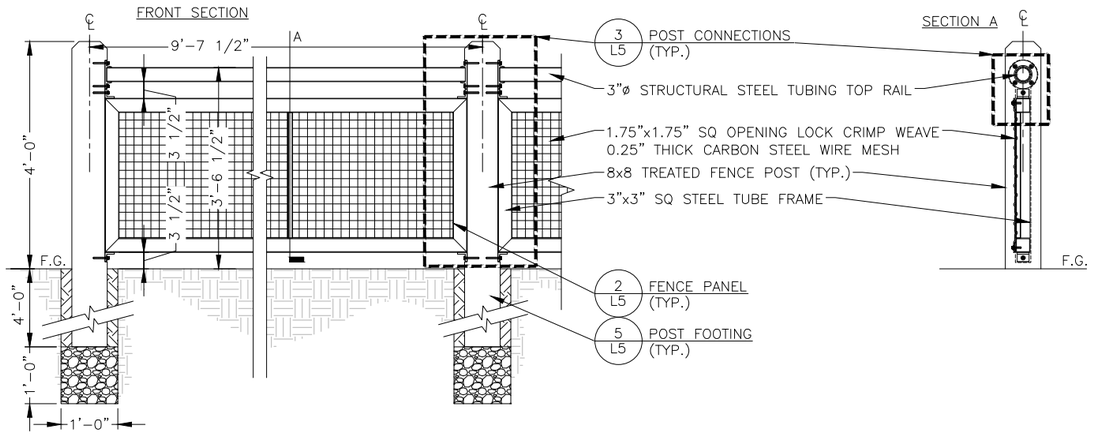
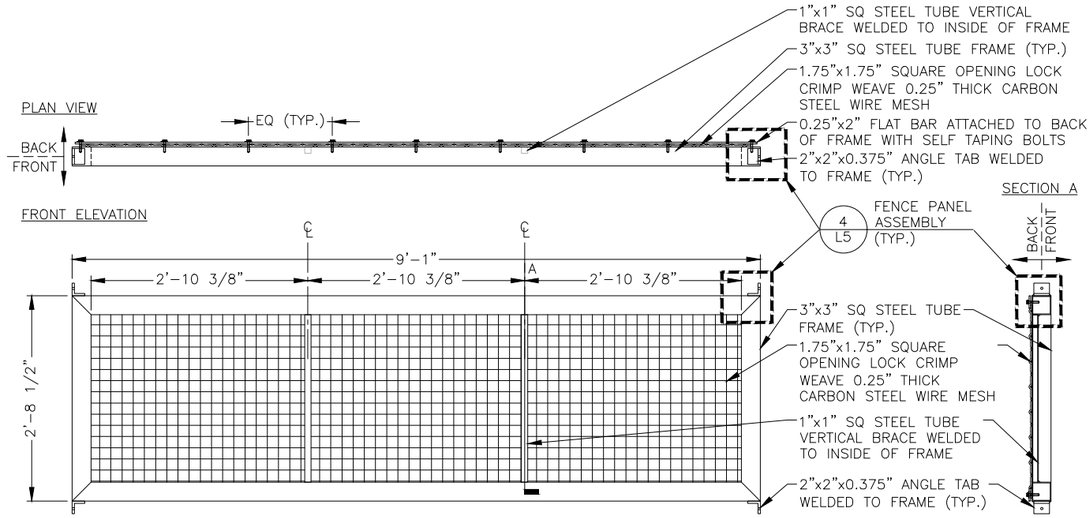
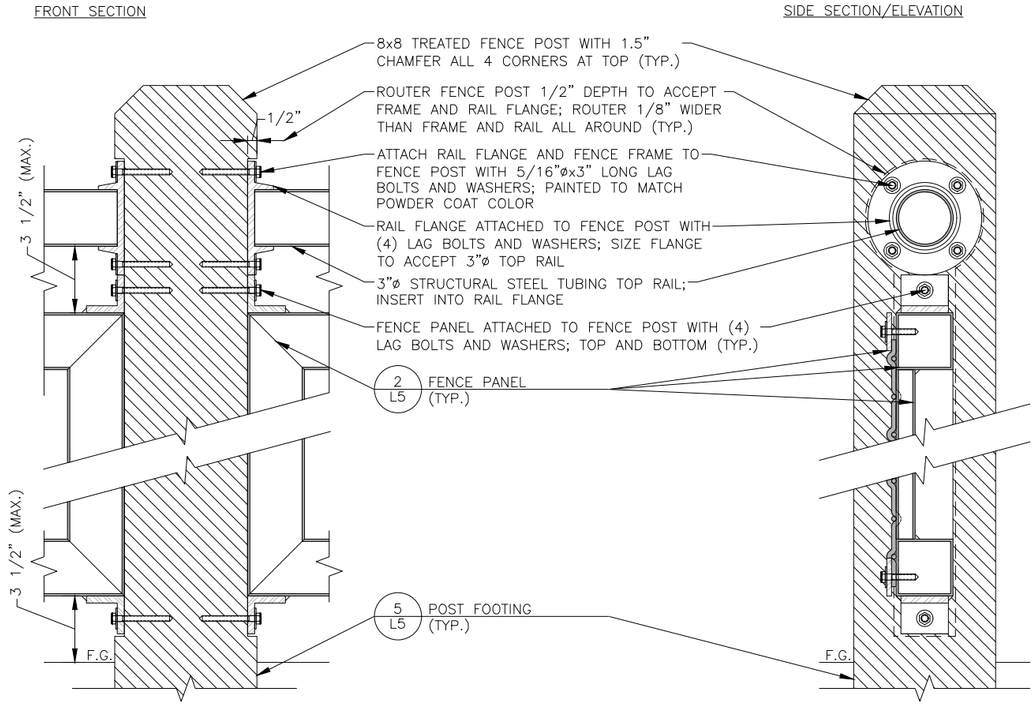


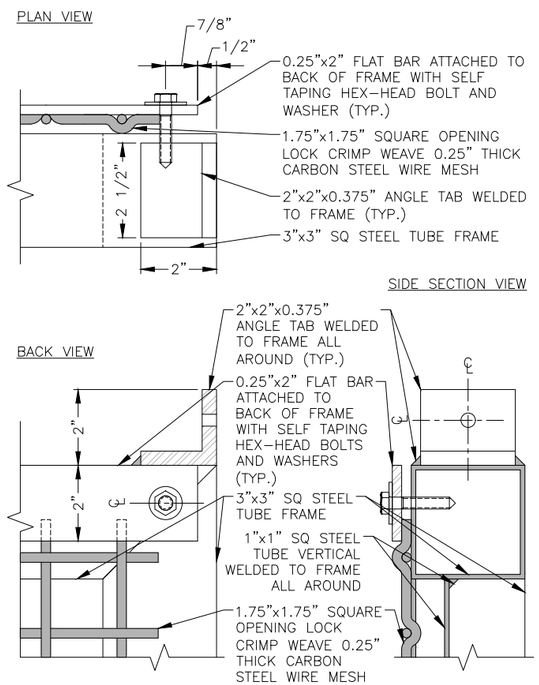
1 L5 DECORATIVE PEDESTRIAN RAILING (TYPICAL ASSEMBLY)
NTS



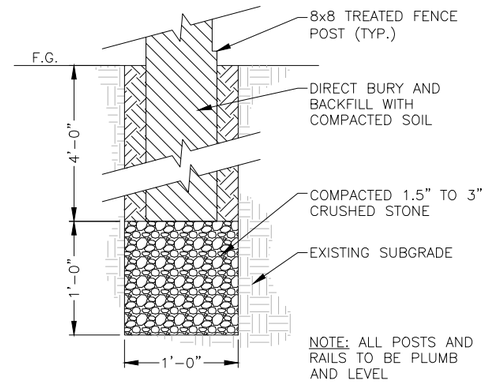
2 L5 FENCE PANEL
NTS



3 L5 POST CONNECTIONS
NTS



4 L5 FENCE PANEL ASSEMBLY
NTS



5 L5 POST FOOTING
NTS

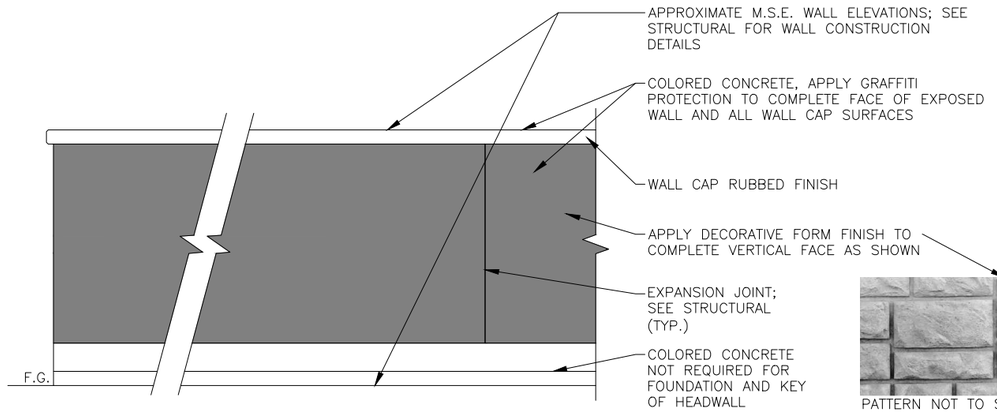
NOTES:
1. ALL DIMENSIONS TO BE FIELD VERIFIED PRIOR TO FABRICATION.
2. GRIND SMOOTH ALL EDGES AND CORNERS.
3. WELD AND GRIND SMOOTH ALL JOINTS UNLESS OTHERWISE NOTED.
4. FENCE PANEL TO BE POWDER COATED AS SPECIFIED AFTER ASSEMBLY AS A SINGLE UNIT. COLOR: TBD.
5. SET ALL POSTS AND INSTALL FENCE PANEL FRAME AND RAILS PLUMB AND LEVEL.

PEDESTRIAN RAILING DETAILS

PLANS DEVELOPED BY: BETTISWORTH NORTH ARCHITECTS AND PLANNERS, 2600 DENALI STREET, SUITE 710, ANCHORAGE, AK 99503, (907) 561-5780, CORPORATE NO.: AECC219
P:\22-116 Steese Johansen Expy Interchange\2-CAD\Drawings\LA\Steese\oh_L_DETAILS-L5 Tue, Jun/06/23 04:06pm

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	L6	L6

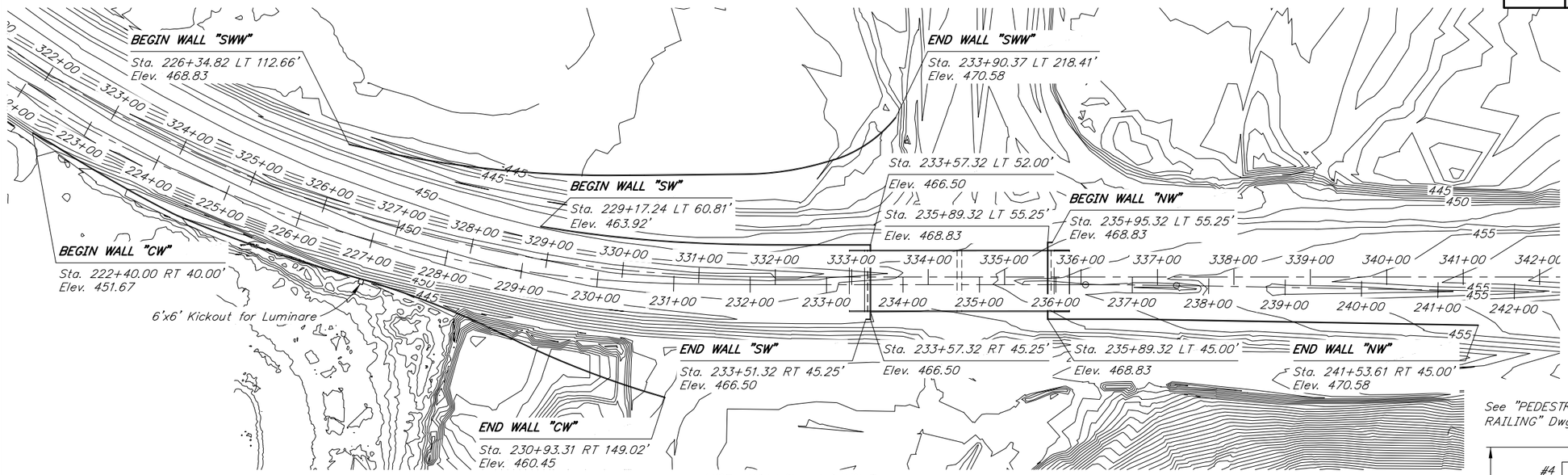


1 / L6 DECORATIVE FORM FINISH AT M.S.E. WALL
NTS

FORMLINER DETAILS

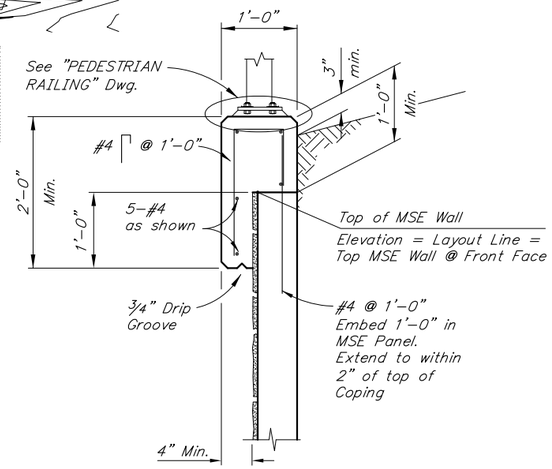
PLANS DEVELOPED BY: BETTISWORTH NORTH ARCHITECTS AND PLANNERS, 2600 DENALI STREET, SUITE 710, ANCHORGE, AK 99503, (907) 561-5780, CORPORATE NO.: AECC219
P:\22-116 Steese Johansen Expy Interchange\2-CAD\Drawings\LA\SteeseJoh_L_DETAILS-L6 Tue, Jun/06/23 04:06pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	M1	TtlShts



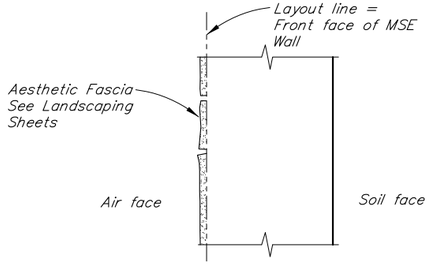
MSE WALLS - LAYOUT

20 0 80 160
Feet



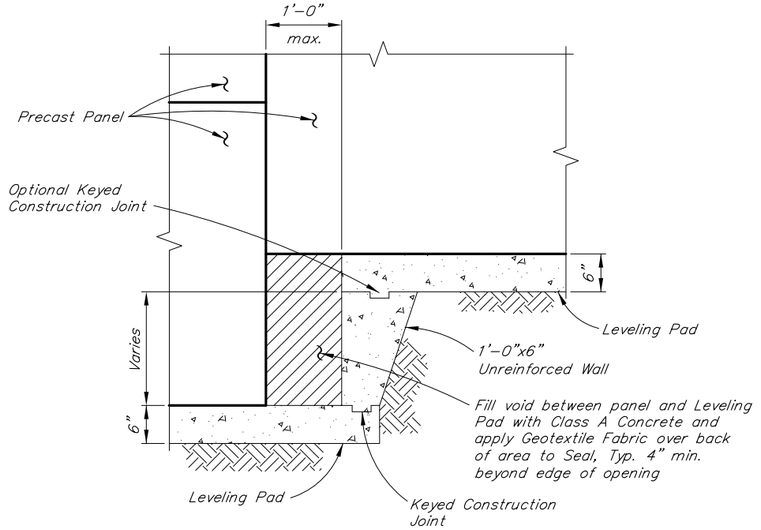
C.I.P. COPING DETAIL

12 6 0 1 2
In. Feet



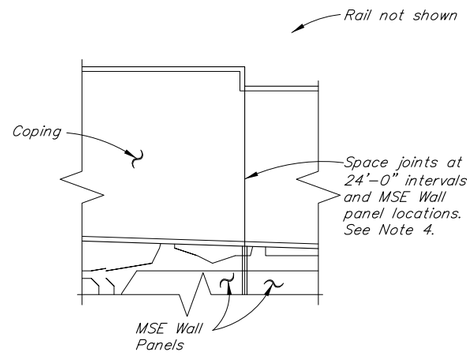
PARTIAL MSE WALL SECTION

No Scale



LEVELING PAD STEP DETAIL

12 6 0 1 2
In. Feet



CRACK CONTROL JOINT

12 6 0 1 2
In. Feet

NOTES:

1. See "CONCRETE STAIRS" Dwg. for coping at stairs.
2. See Approach Slab drawings for coping at approach slabs.
3. Cover all joints at wingwalls on back side of walls with geotextile fabric. Apply adhesive coating on concrete only and not on geotextile fabric. Do not apply adhesive within 2" of joints.
4. See "WEAKENED PLANE JOINT" on "SHEET PILE WALL DETAILS" Dwg for joint detail. Install on exposed surfaces only.
5. Maintain Layout Line under approach slabs. See "SIDEWALK AND BARRIER DETAILS".
6. All stations based on ℄ "S NB ETW".

DESIGNED BY: Designed	CHECKED: Engineer		
DRAWN BY: Drafter	CHECKED: Engineer		
QUANTITIES BY: Engineer	CHECKED: Engineer		

PRELIMINARY PLAN

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

STEESE/JOHANSON RETAINING WALLS

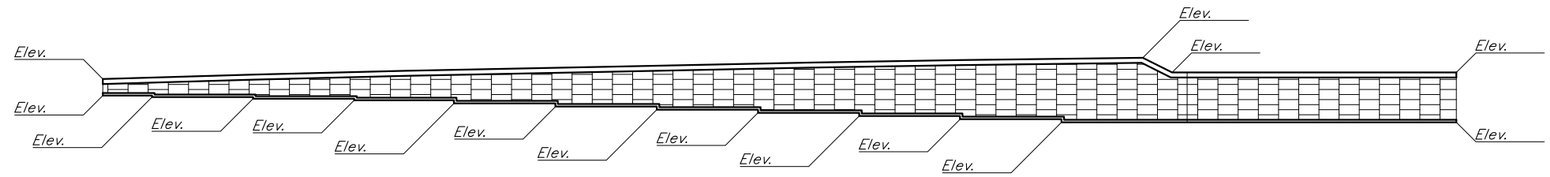
STEESE HIGHWAY

MSE WALL GENERAL LAYOUT

BRIDGE NO.

DWG. NO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	M2	TtlShts



WALL "SW" ELEVATION

30 20 10 0 30 60
Feet

BEGIN WALL "SW"
Sta. 229+17.24 LT 60.81'
Elev. 463.92'

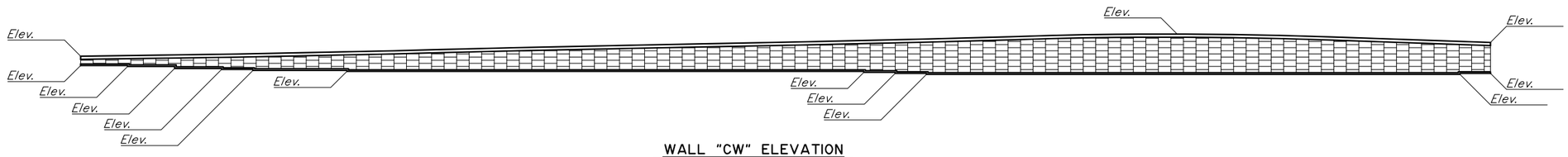
Sta. 233+57.32 LT 52.00'
Elev. 466.50

END WALL "SW"
Sta. 233+51.32 RT 45.25'
Elev. 466.50

Sta. 233+57.32 RT 45.25'
Elev. 466.50

WALL "SW" PLAN

30 20 10 0 30 60
Feet



WALL "CW" ELEVATION

30 20 10 0 30 60
Feet

BEGIN WALL "CW"
Sta. 222+40.00 RT 40.00'
Elev. 451.67

END WALL "CW"
Sta. 230+93.31 RT 149.02'
Elev. 460.45

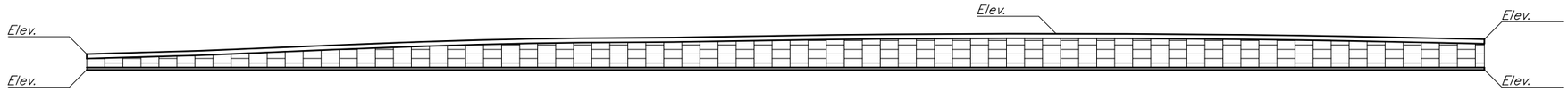
WALL "CW" PLAN

30 20 10 0 30 60
Feet

DESIGNED BY: *Designed*	CHECKED: *Engineer*	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975		**STEESE/JOHANSON RETAINING WALLS** STEESE HIGHWAY **MSE WALL DETAILS**
DRAWN BY: *Drafter*	CHECKED: *Engineer*				BRIDGE NO. DWG. NO.
QUANTITIES BY: *Engineer*	CHECKED: *Engineer*				

C:\Users\jadeleon\AppData\Local\Temp\AcPublish_9816\Retaining Walls-MSE LAYOUT 1 Thu, Jun/01/23 08:10am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	M3	TtlShts



WALL "SWW" ELEVATION

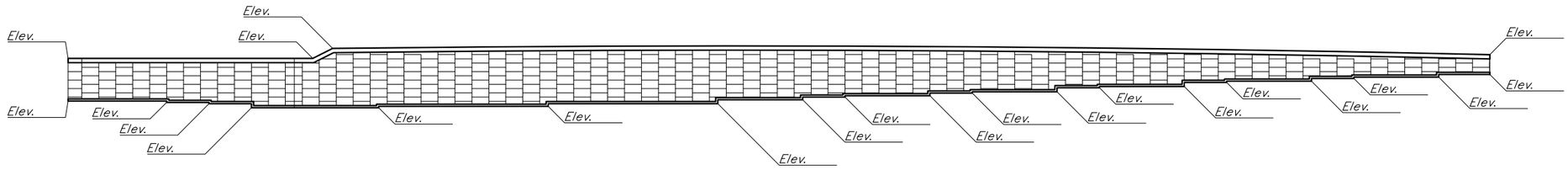
30 20 10 0 30 60
Feet

BEGIN WALL "SWW"
Sta. 226+34.82 LT 112.66'
Elev. 468.83

END WALL "SWW"
Sta. 233+90.37 LT 218.41'
Elev. 470.58

WALL "SSW" ELEVATION

30 20 10 0 30 60
Feet



WALL "NW" ELEVATION

10 0 40 80
Feet

Sta. 235+89.32 LT 55.25'
Elev. 468.83

BEGIN WALL "NW"
Sta. 235+95.32 LT 55.25'
Elev. 468.83

Sta. 235+89.32 LT 45.00'
Elev. 468.83

END WALL "NW"
Sta. 241+53.61 RT 45.00'
Elev. 470.58

WALL "NW" ELEVATION

30 20 10 0 30 60
Feet

DESIGNED BY: *Designed*	CHECKED: *Engineer*		
DRAWN BY: *Drafter*	CHECKED: *Engineer*	**PRELIMINARY PLAN**	
QUANTITIES BY: *Engineer*	CHECKED: *Engineer*		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

STEESE/JOHANSON RETAINING WALLS

STEESE HIGHWAY

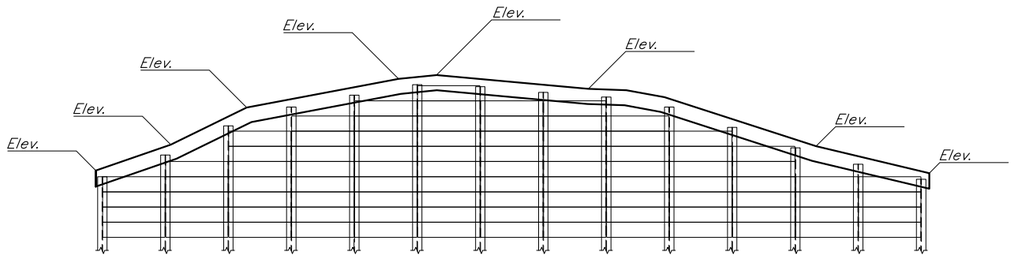
MSE WALL DETAILS

BRIDGE NO.

DWG. NO.

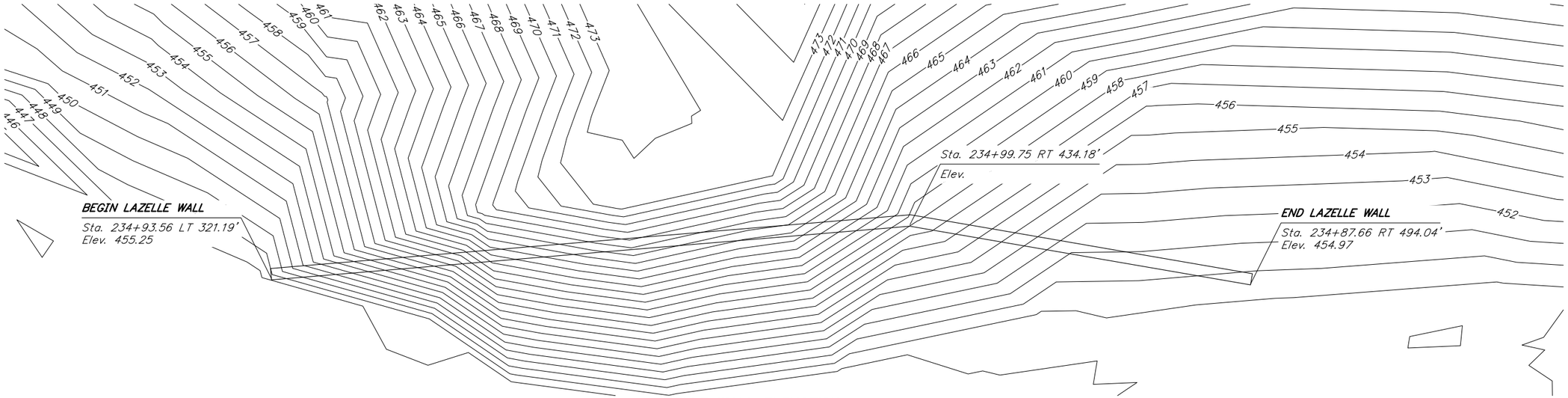
C:\Users\jadeleon\AppData\Local\Temp\AcPublish_9816\Retaining Walls-MSE LAYOUT 2 Thu, Jun/01/23 08:10am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	M4	TtlShts



LAZELLE WALL ELEVATION

10 5 0 10 20
Feet



LAZELLE WALL ELEVATION

10 5 0 10 20
Feet

DESIGNED BY: *Designed*	CHECKED: *Engineer*	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: *Drafter*	CHECKED: *Engineer*		
QUANTITIES BY: *Engineer*	CHECKED: *Engineer*		

STEESE/JOHANSON RETAINING WALLS

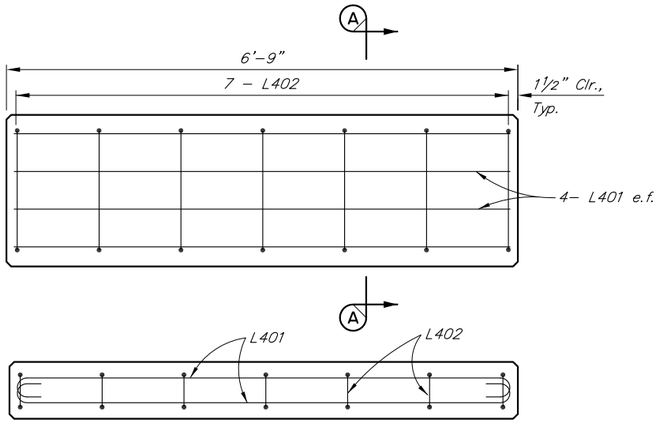
STEESE HIGHWAY

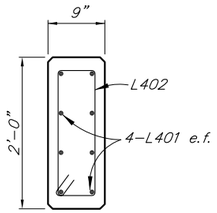
SOLDIER PILE WALL LAYOUT

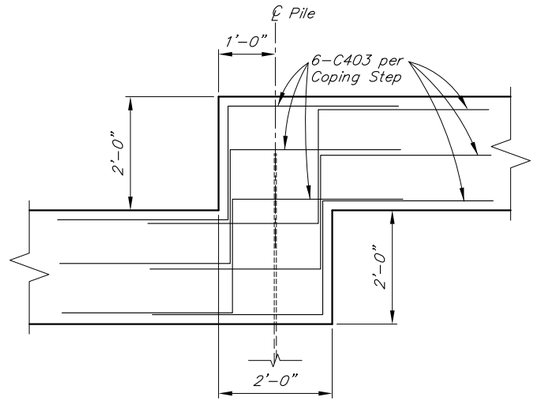
BRIDGE NO.

DWG. NO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	M5	TtlShts

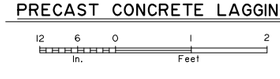


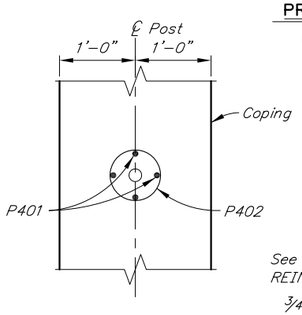




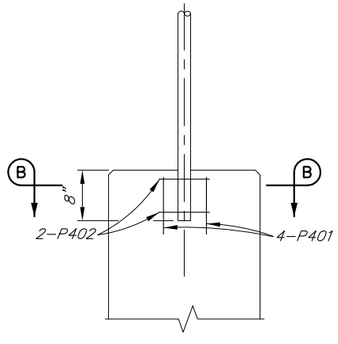
REINFORCING AT COPING STEP

PRECAST CONCRETE LAGGING





SECTION B-B
No Scale



POST REINFORCING
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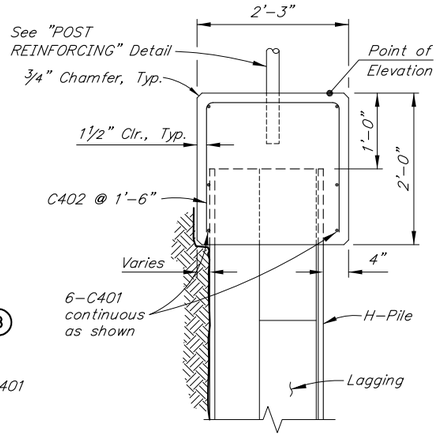

C.I.P. COPING DETAIL
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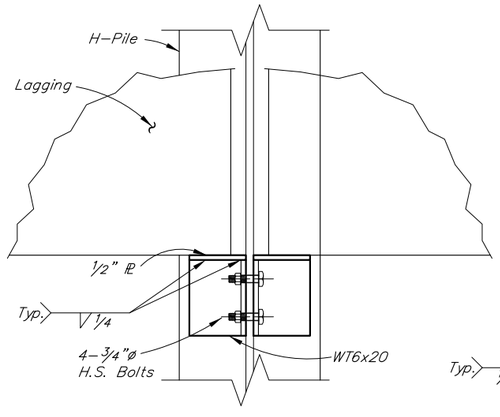
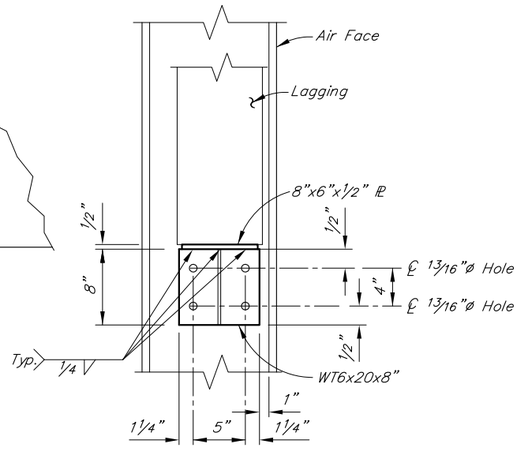
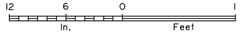


SECTION



ELEVATION

LAGGING STOP DETAILS



DESIGNED BY: Designed	CHECKED: Engineer
DRAWN BY: Drafter	CHECKED: Engineer
QUANTITIES BY: Engineer	CHECKED: Engineer

PRELIMINARY PLAN

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

STEESE/JOHANSON RETAINING WALLS

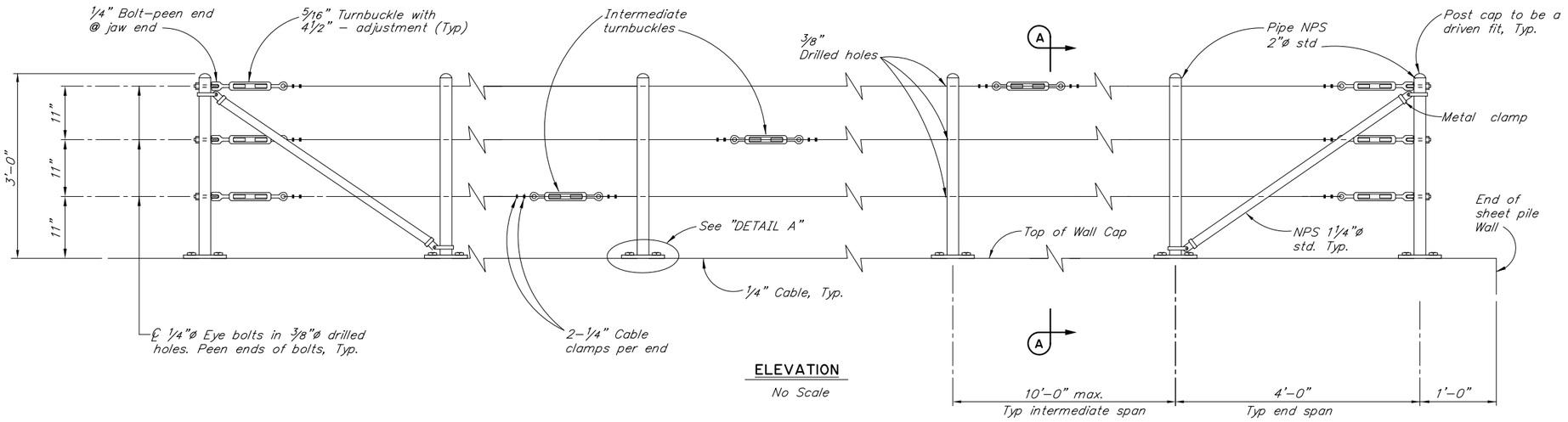
STEESE HIGHWAY

SOLDIER PILE WALL DETAILS

BRIDGE NO.

DWG. NO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	M6	TtlShts

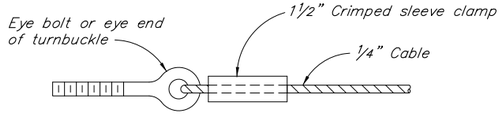


ELEVATION

No Scale

NOTES:

1. Place intermediate turnbuckles in adjacent spans.
2. Do not splice cable between intermediate turnbuckles and end posts.
3. Galvanize all posts, cable and hardware.
4. Make all posts plumb.
5. Alignment of holes in posts may vary to conform to slope of top of sheet pile wall.
6. Brace posts with diagonal braces at each end, each change in direction and at each change in slope.
7. Provide thimbles at all cable loops.
8. Center posts on top of sheet pile cap.



ALTERNATIVE CABLE CONNECTION

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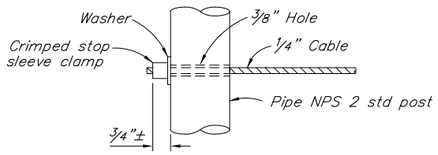
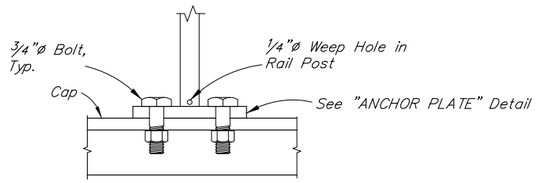


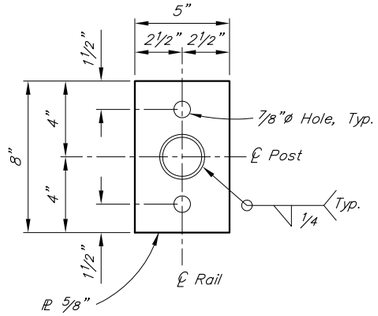
ALTERNATIVE DEAD END ANCHORAGE

No Scale



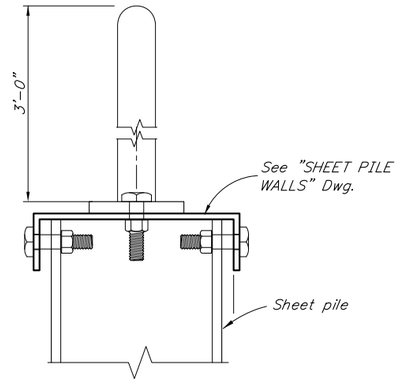
DETAIL A

No Scale



ANCHOR PLATE

No Scale



SECTION A-A

No Scale

DESIGNED BY: Designed	CHECKED: Engineer	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Drafter	CHECKED: Engineer		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STEESE/JOHANSON RETAINING WALLS

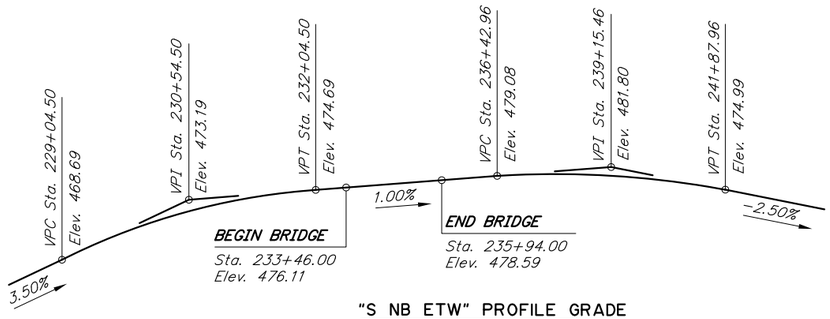
STEESE HIGHWAY

CABLE SAFETY RAILING

BRIDGE NO.

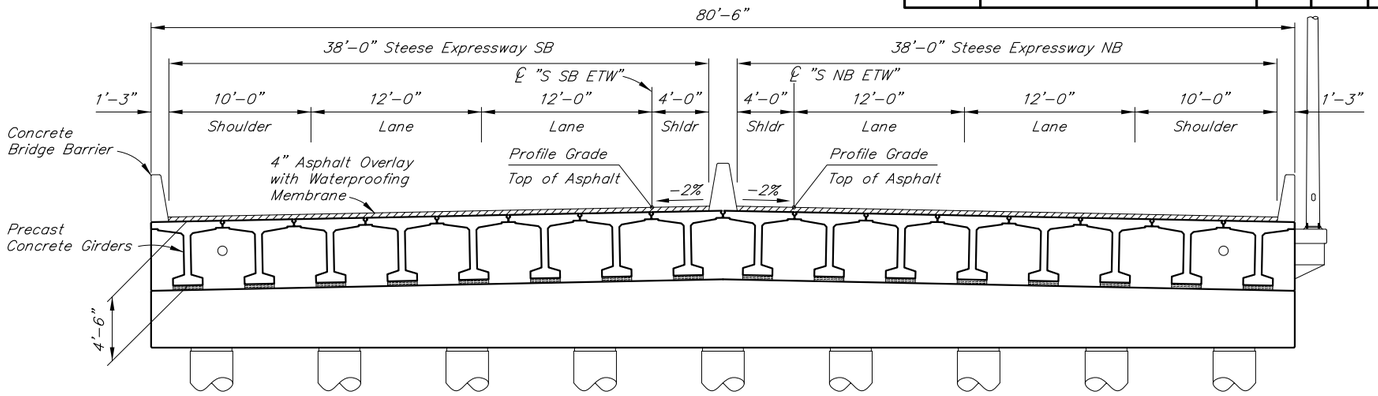
DWG. NO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts

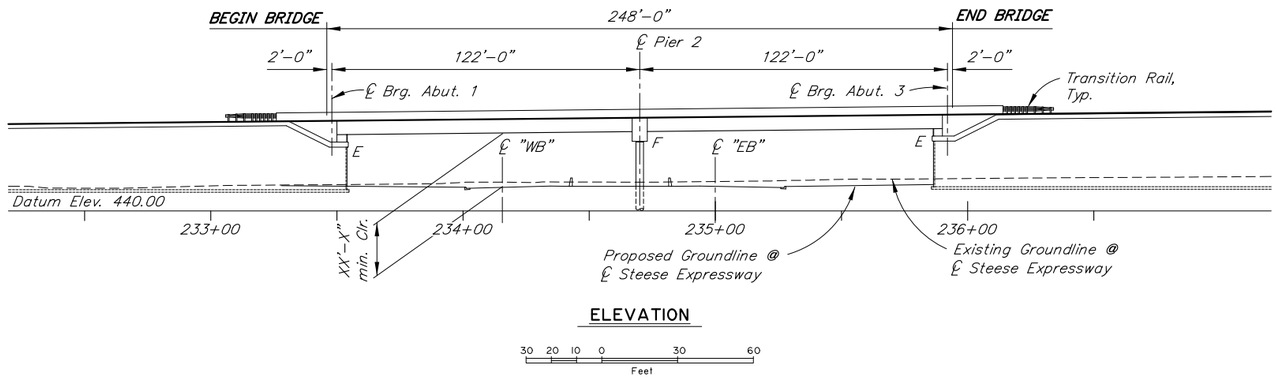


"S NB ETW" PROFILE GRADE

No Scale

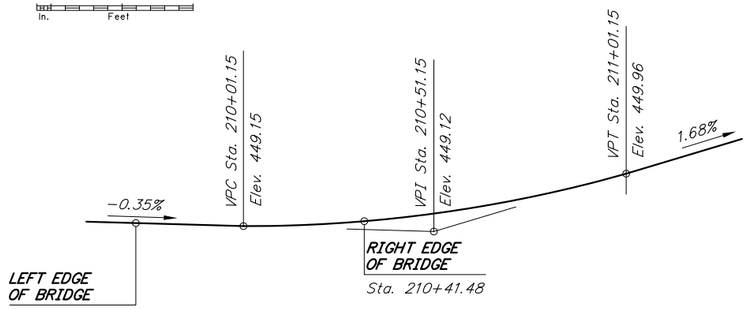


TYPICAL SECTION



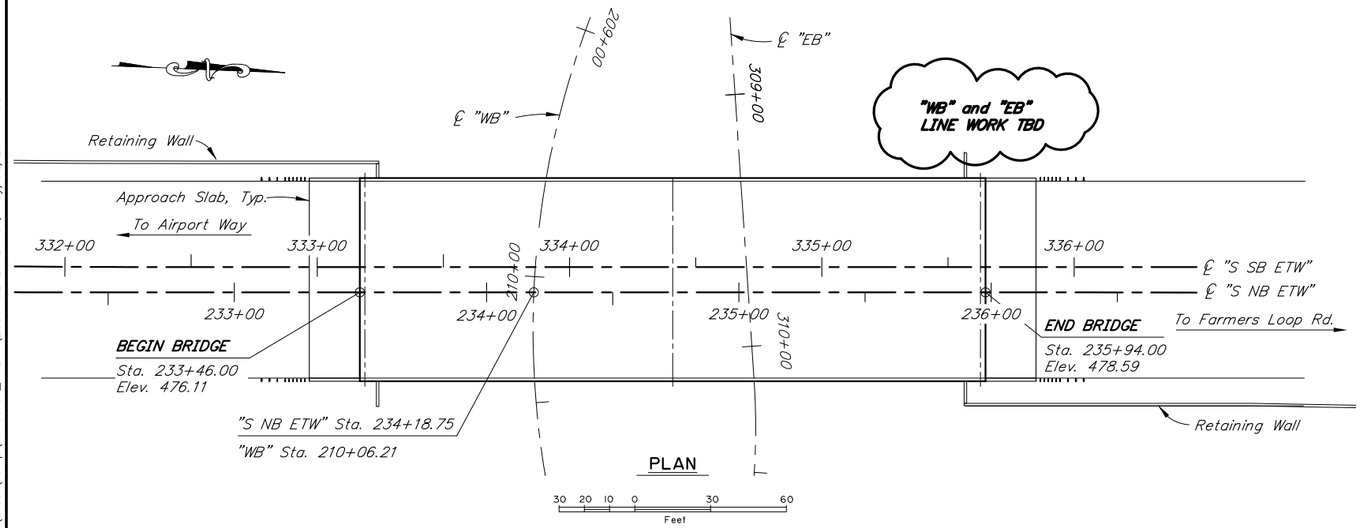
ELEVATION

30 20 10 0 30 60
Feet



"WB" PROFILE GRADE

No Scale



PLAN

30 20 10 0 30 60
Feet

BRIDGE DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
ABUTMENT 1	3
ABUTMENT 3	4
ABUTMENT DETAILS	5
WINGWALLS	6
PIER 2	7
PIER DETAILS	8
CORBEL DETAILS	9
FRAMING PLAN AND TYPICAL SECTION	10
GIRDER	11
GIRDER DETAILS	12
APPROACH SLABS	13
CONCRETE BRIDGE BARRIER	14
THRIE BEAM TRANSITION	15
TEST HOLE & PENETROMETER LOCATIONS	TBD
TEST HOLE & PENETROMETER LEGEND	TBD
TEST HOLE & PENETROMETER LOGS	TBD

NOTES:

1. Denotes location of bridge number plate.
2. = Point of Minimum Vertical Clearance

All bridge stations and elevations based on ℄ "S NB ETW"

DESIGNED BY: Designer	CHECKED: Checker	LAYOUT BY: Designer	CHECKED BY: Checker	
DRAWN BY: Drafter	CHECKED: Designer	SPECIFICATIONS BY: Designer	P S & E COMPARED: Checker	
QUANTITIES BY: Designer	CHECKED: Checker	APPROVAL RECOMMENDED BY: Leslie Daugherty		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

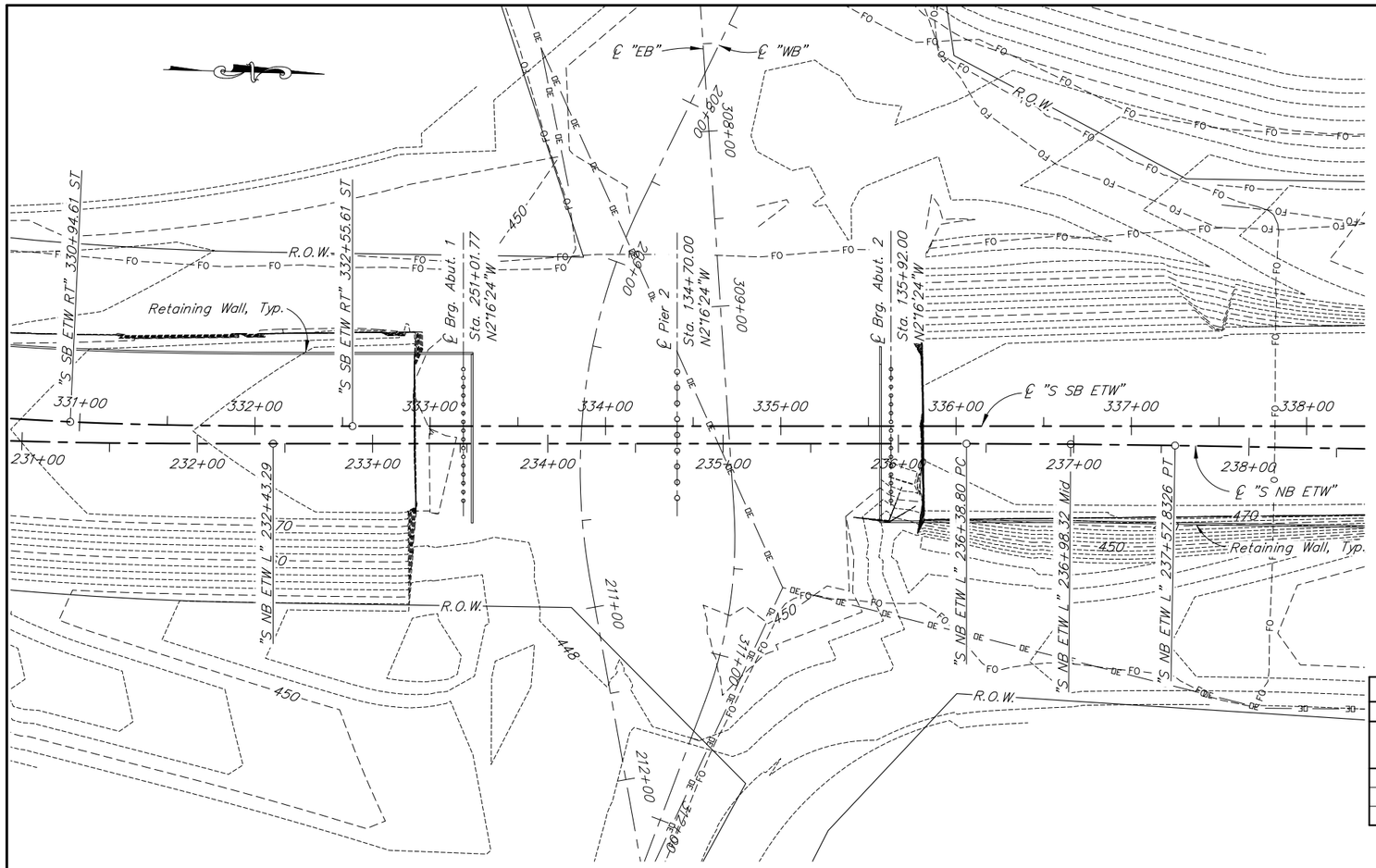
STEESE/JOHANSEN INTERCHANGE

STEESE EXPRESSWAY

GENERAL LAYOUT

BRIDGE NO. 2339

DWG. NO. 1



SITE PLAN

10 0 40 80
Feet

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2022	N2	TtlShts

GENERAL NOTES

DESIGN: AASHTO LRFD Bridge Design Specifications, 2020 Edition, with latest interim specifications.

Seismic design per AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2011 with latest interim revisions.

LIVE LOAD: HL–93

DEAD LOAD: Includes 50 psf for all wearing surfaces.

SEISMIC PARAMETERS: PGA = 0.27
Ss = 0.645
S1 = 0.20
Site Class = C
Liquefaction Potential = Low
AASHTO 7% probability of exceedance in 75 years.

REINFORCEMENT: ASTM A706, Grade 60, Fy = 60,000 psi
ASTM A970 Headed bars, Class HA.
Space reinforcement evenly unless otherwise noted.

PRESTRESSED CONCRETE: See "GIRDERS" Dwg.

CONCRETE: Class A Concrete unless otherwise noted, f'c = 4,000 psi

STRUCTURAL STEEL: ASTM A709, Grade 36T3, Fy = 36,000 psi
Galvanize structural steel in accordance with AASHTO M111 unless noted otherwise.

STRUCTURAL STEEL PILING: API 5L X52 PSL2, Fy = 52,000 psi. or
ASTM A709, GR50T3, Fy = 50,000 psi.
Pile Tip reinforcing is required.

PILE DATA TABLE

LOCATION	PILE TYPE	DRIVING CRITERIA: MINIMUM PENETRATION (ft)	DRIVING CRITERIA: ESTIMATED PILE TIP ELEVATION (ft)	DRIVING CRITERIA: DRIVING RESISTANCE (K)	DESIGN DATA: STRENGTH I FACTORED LOAD (K)	DESIGN DATA: NOMINAL RESISTANCE (K)	DESIGN DATA: RESISTANCE FACTOR, Φ
Abutment 1	2'–0"Øx½" Pipe						0.65
Pier 2	3'–0"Øx¾" Pipe						0.65
Abutment 3	2'–0"Øx½" Pipe						0.65

Difficult driving conditions are expected. Pilot bore hole required for each pile.

BRIDGE BASIS OF ESTIMATE

ITEM NO.	ITEM	PAY UNIT	ESTIMATING UNIT	SUBST.	SUPERST.	TOTAL QUANTITY
205.0006.0000	Structural Fill	CY	CY	2,383	---	2,383
501.0001.0000	Class A Concrete	LS	CY	496.5	299.9	796.4
501.0007.0000	Precast Concrete Member, 122'–0" Decked Bulb–Tee	EA	EA	---	32	32
503.0001.0000	Reinforcing Steel	LS	LBS	114,960	---	114,960
503.0002.0000	Epoxy–Coated Reinforcing Steel	LS	LBS	---	32,420	32,420
505.0005.0000	Furnish Structural Steel Pipe Piles, 2'–0" Dia. x ½"	LF	LF	1,600	---	1,600
505.0005.0000	Furnish Structural Steel Pipe Piles, 3'–0" Dia. x ¾"	LF	LF	900	---	900
505.0006.0000	Drive Structural Steel Pipe Piles, 2'–0" Dia. x ½"	EA	EA	32	---	32
505.0006.0000	Drive Structural Steel Pipe Piles, 3'–0" Dia. x ¾"	EA	EA	9	---	9
507.0004.0000	Concrete Bridge Barrier	LF	LF	---	576	576
507.0004.0000	Concrete Bridge Barrier, Median Barrier	LF	LF	---	288	288
508.0001.0000	Waterproofing Membrane, Spray–Applied	LS	SF	---	21,888	21,888
606.0016.0000	Transition Rail	EA	EA	---	4	4

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

ABBREVIATIONS:

℄	= centerline	e.f.	= each face	max.	= maximum
℔	= plate	e.w.	= each way	min.	= minimum
&	= and	Ext.	= exterior	MSE	= mechanically stabilized earth
@	= at	F	= fixed	n.f.	= near face
ø	= diameter	f.f.	= front/air face	No.	= number
±	= approximate	f'c	= specified concrete compressive strength	o.c.	= on center
Abut.	= abutment			O.H.W.	= ordinary high water
Approx.	= approximate	f'ci	= specified concrete compressive strength at release	—— OE ——	= overhead electrical lines
b.f.	= back/dirt face			pcf	= pounds per cubic foot
bot.	= bottom			psf	= pounds per square foot
Br.	= bridge	---FO---	= fiber optic line	psi	= pounds per square inch
btwn.	= between	Ft.	= feet	R	= radius
Brg.	= bearings	Fy	= yield stress	R.O.W.	= right of way
C.G.	= center of gravity	Galv.	= galvanize	RT.	= right
C.I.P.	= cast in place	H.S.	= high strength	Rd.	= road
CJP	= complete joint penetration	Hwy.	= highway	spcs.	= space, spaces
Clr.	= clear, clearance	ID	= internal diameter	Sta.	= station
CMP	= corrugated metal pipe	Int.	= interior	SF	= square feet
CY	= cubic yard	Jt.	= joint	SY	= square yard
D.H.W.	= design high water	K	= kips	Std.	= standard
Dia.	= diameter	ksf	= 1000 pounds per square foot	Symm.	= symmetric
Dwg.	= drawing	ksi	= 1000 pounds per square inch	Typ.	= typical
E	= expansion	LBS or lb	= pounds	UT	= ultrasonic testing
(E)	= existing	LF	= linear foot	V.P.C.	= point of vertical curve
EA	= each	LS	= lump sum	V.P.I.	= point of vertical intersection
Elev.	= elevation	LT.	= left	V.P.T.	= point of vertical tangent
				w/	= with

DESIGNED BY: Designer	CHECKED: Checker	FOUNDATIONS REVIEWED BY: Engineer	
DRAWN BY: Drafter	CHECKED: Designer	**PRELIMINARY PLAN**	
QUANTITIES BY: Designer	CHECKED: Checker		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907–465–2975

STEESE/JOHANSEN INTERCHANGE

STEESE EXPRESSWAY

SITE PLAN

BRIDGE NO. 2339

DWG. NO. 2

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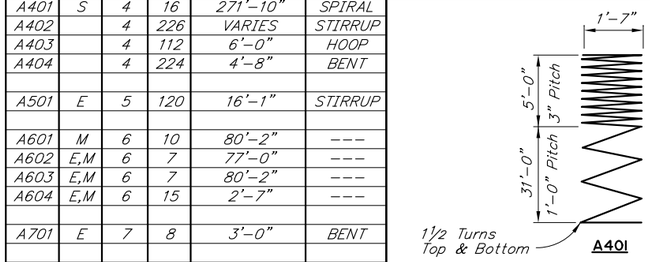
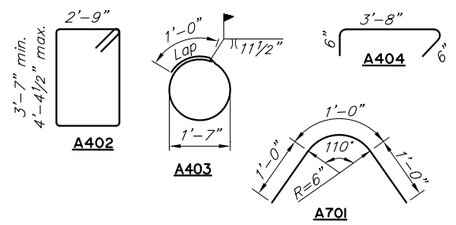
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts

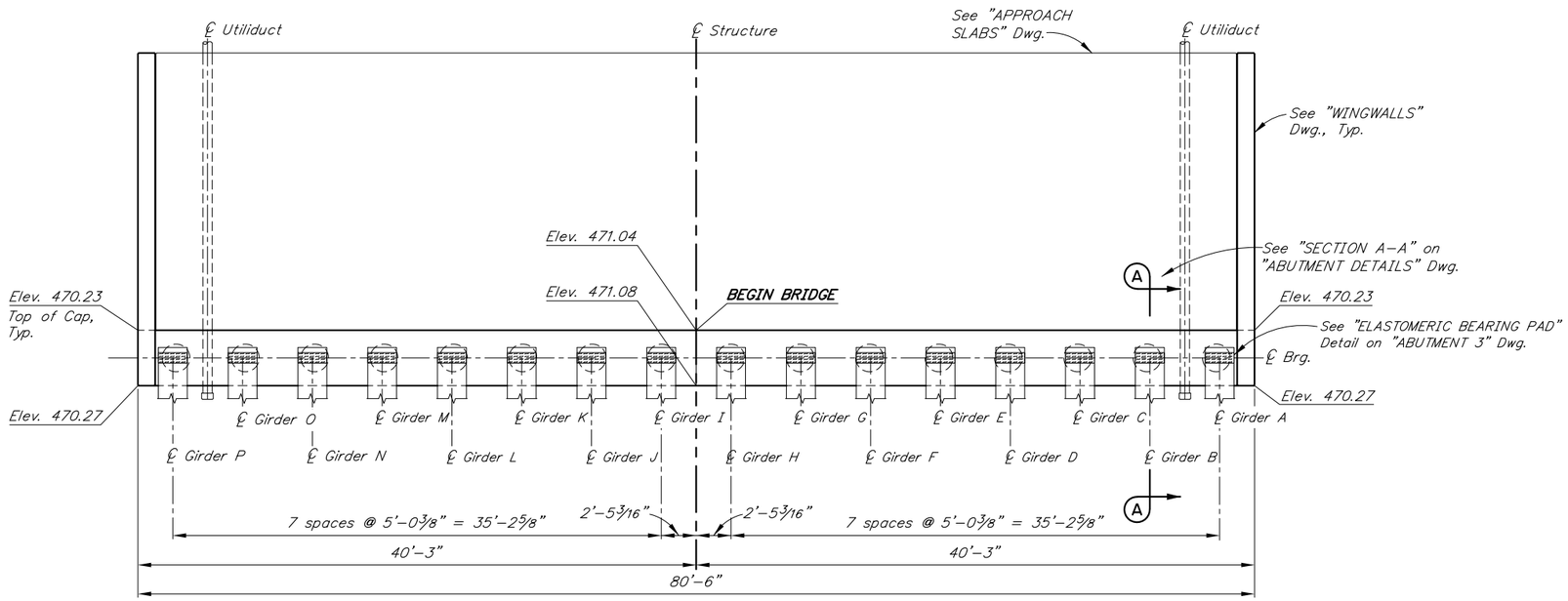
REINFORCING STEEL - ABUTMENT I

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
A401	S	4	16	271'-10"	SPIRAL	
A402		4	226	VARIES	STIRRUP	
A403		4	112	6'-0"	HOOP	
A404		4	224	4'-8"	BENT	
A501	E	5	120	16'-1"	STIRRUP	
A601	M	6	10	80'-2"	---	
A602	E,M	6	7	77'-0"	---	
A603	E,M	6	7	80'-2"	---	
A604	E,M	6	15	2'-7"	---	
A701	E	7	8	3'-0"	BENT	
A801		8	128	40'-0"	---	
A1001	H,M	10	14	80'-2"	HEADED	



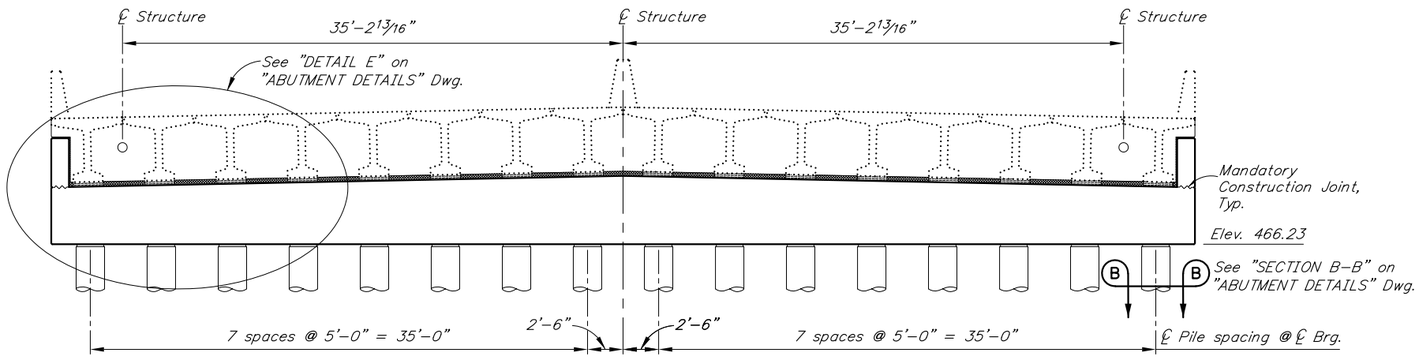


E – Epoxy-Coated
H – Headed reinforcing steel
M – Field adjust to match cross slope
S – Length does not include splices



PLAN

12 0 4 8
In. Feet



ELEVATION

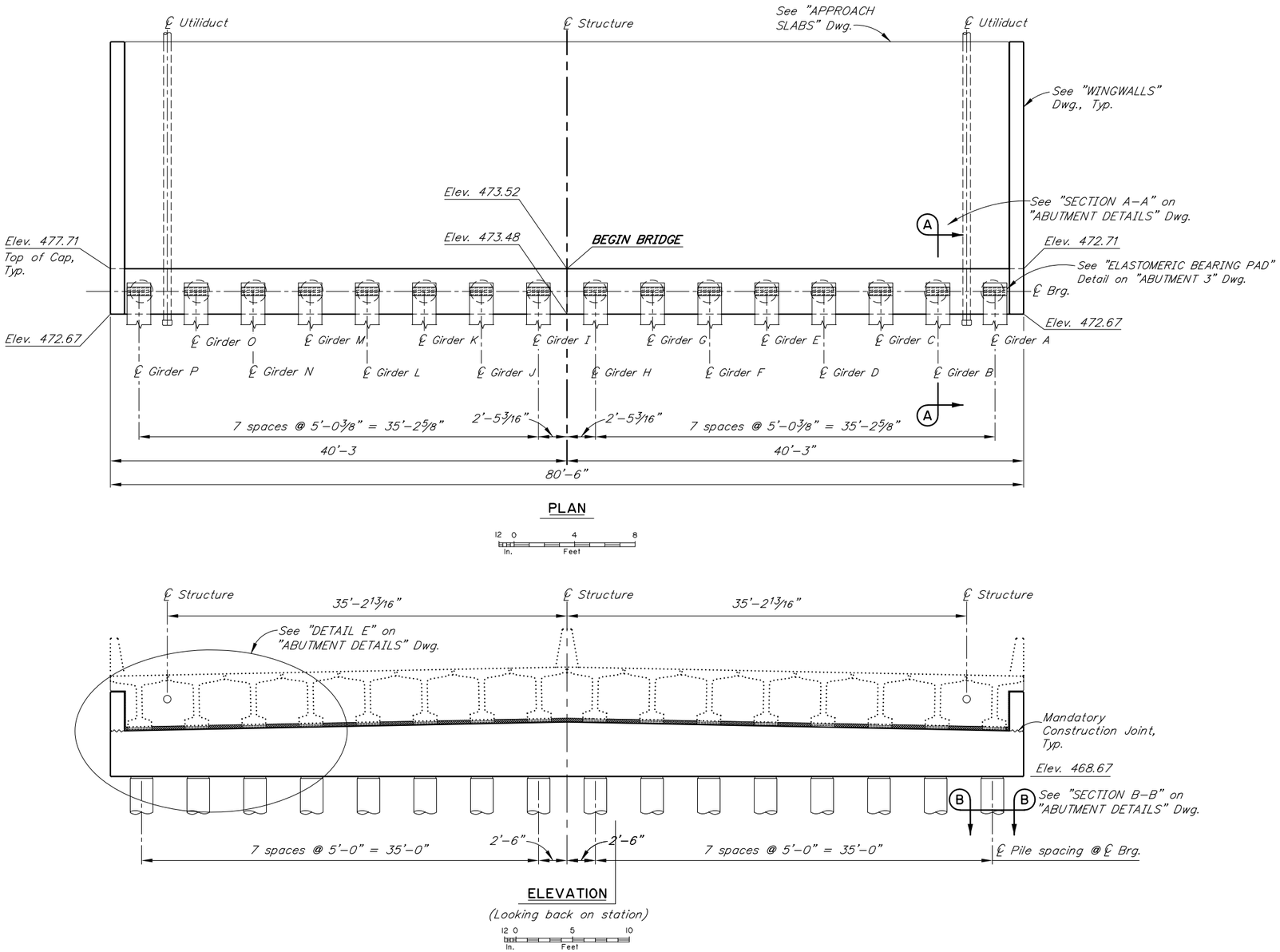
(Looking back on station)

12 0 5 10
In. Feet

DESIGNED BY: Designed	CHECKED: Engineer	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975	**STEESE/JOHANSON INTERCHANGE** STEESE EXPRESSWAY **ABUTMENT 1**
DRAWN BY: Drafter	CHECKED: Engineer		BRIDGE NO. 2339 DWG. NO. 3
QUANTITIES BY: Engineer	CHECKED: Engineer		

R:\cad\2339\2339-1-ABUT 1 Mon, May/08/23 11:49am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts



PLAN

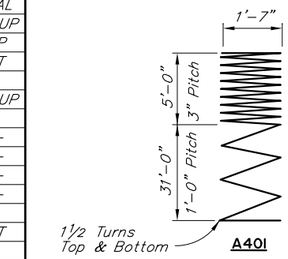
12 0 4 8
In. Feet

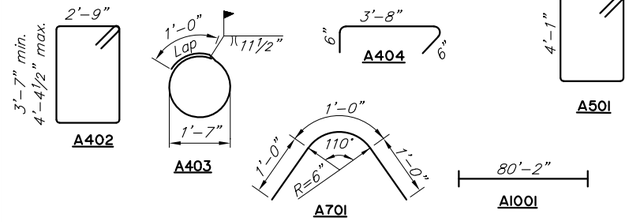
ELEVATION
(Looking back on station)

12 0 5 10
In. Feet

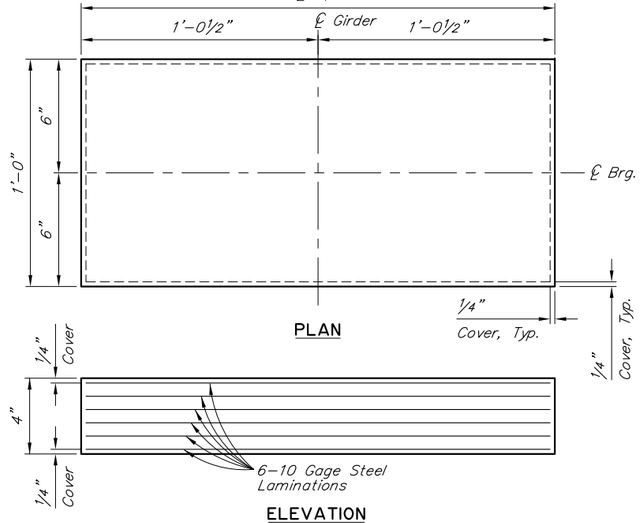
REINFORCING STEEL - ABUTMENT I

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
A401	S	4	16	271'–10"	SPIRAL	
A402		4	226	VARIES	STIRRUP	
A403		4	112	6'–0"	HOOP	
A404		4	224	4'–8"	BENT	
A501	E	5	120	16'–1"	STIRRUP	
A601	M	6	10	80'–2"	---	
A602	E,M	6	7	77'–0"	---	
A603	E,M	6	7	80'–2"	---	
A604	E,M	6	15	2'–7"	---	
A701	E	7	8	3'–0"	BENT	
A801		8	128	40'–0"	---	
A1001	H,M	10	14	80'–2"	HEADED	





E – Epoxy–Coated
H – Headed reinforcing steel
M – Field adjust to match cross slope
S – Length does not include splices



ELEVATION

ELASTOMERIC BEARING PAD

Grade 5
Dead Load = 92 k
Live Load = 70 k
Shear Modulus = 115 psi

6 3 0 1
In. Feet

DESIGNED BY: Designed	CHECKED: Engineer		
DRAWN BY: Drafter	CHECKED: Engineer		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907–465–2975

STEESE/JOHANSON INTERCHANGE

STEESE EXPRESSWAY

ABUTMENT 3

BRIDGE NO. 2339

DWG. NO.

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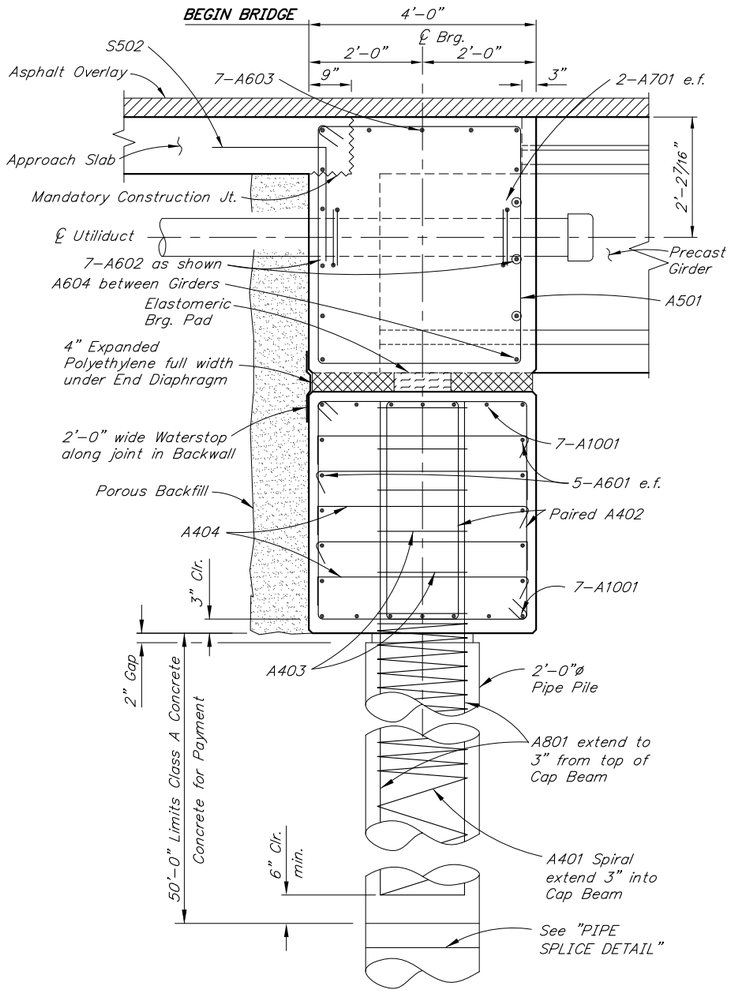
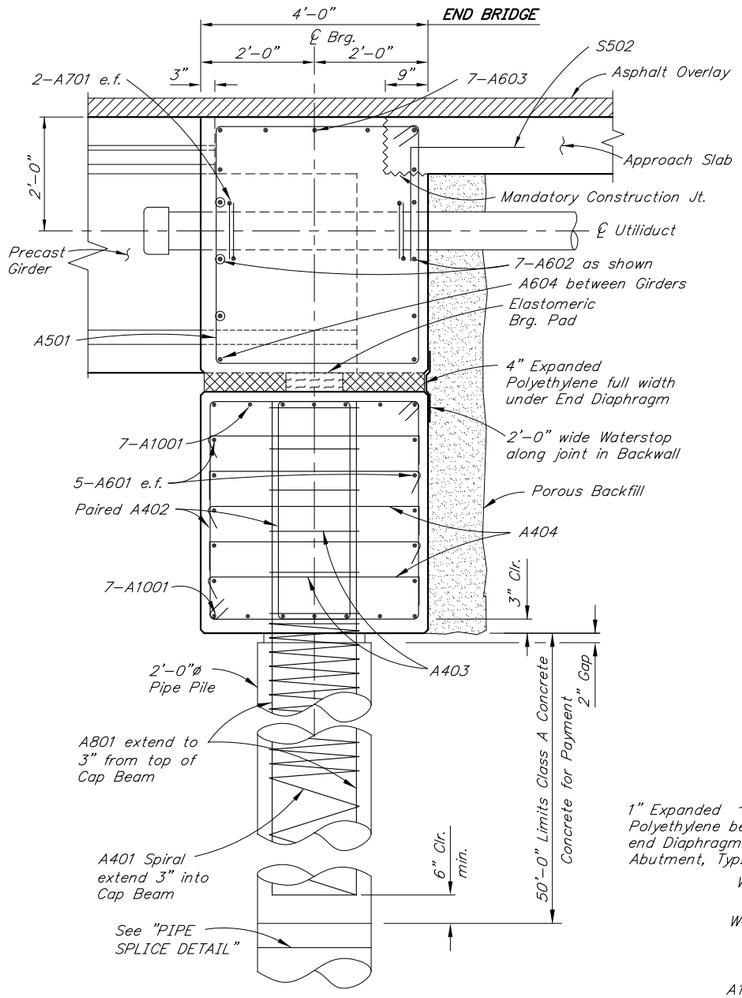
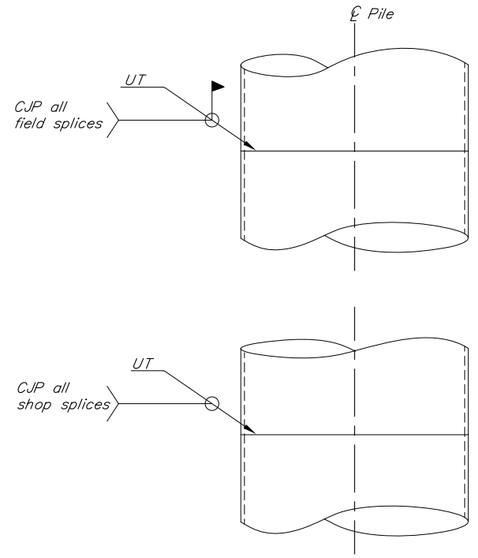
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts

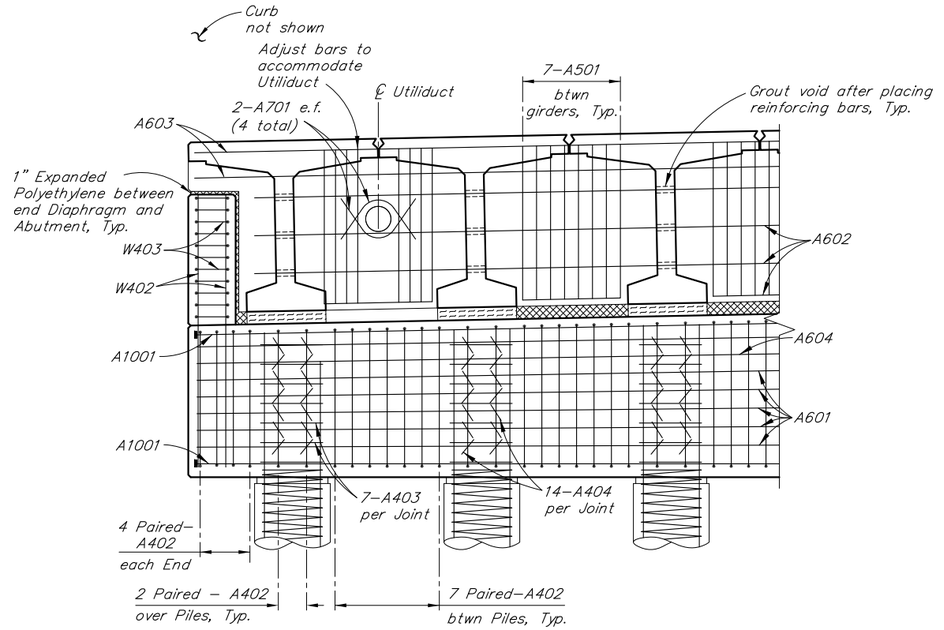




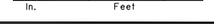


PIPE SPLICE DETAIL

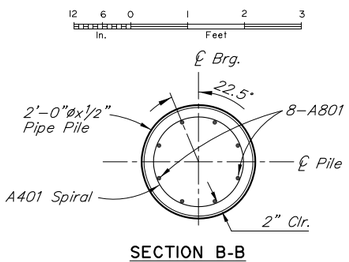
No Scale



DETAIL E

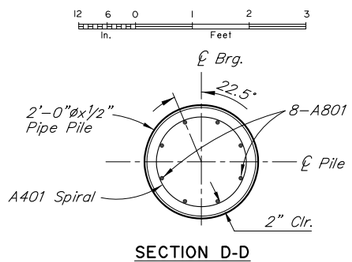


SECTION A-A



SECTION B-B

SECTION C-C



SECTION D-D

DESIGNED BY: *Designed*	CHECKED: *Engineer*		
DRAWN BY: *Drafter*	CHECKED: *Engineer*		
QUANTITIES BY: *Engineer*	CHECKED: *Engineer*		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

STEESE/JOHANSON INTERCHANGE

STEESE EXPRESSWAY

ABUTMENT DETAILS

BRIDGE NO. 2339

DWG. NO.

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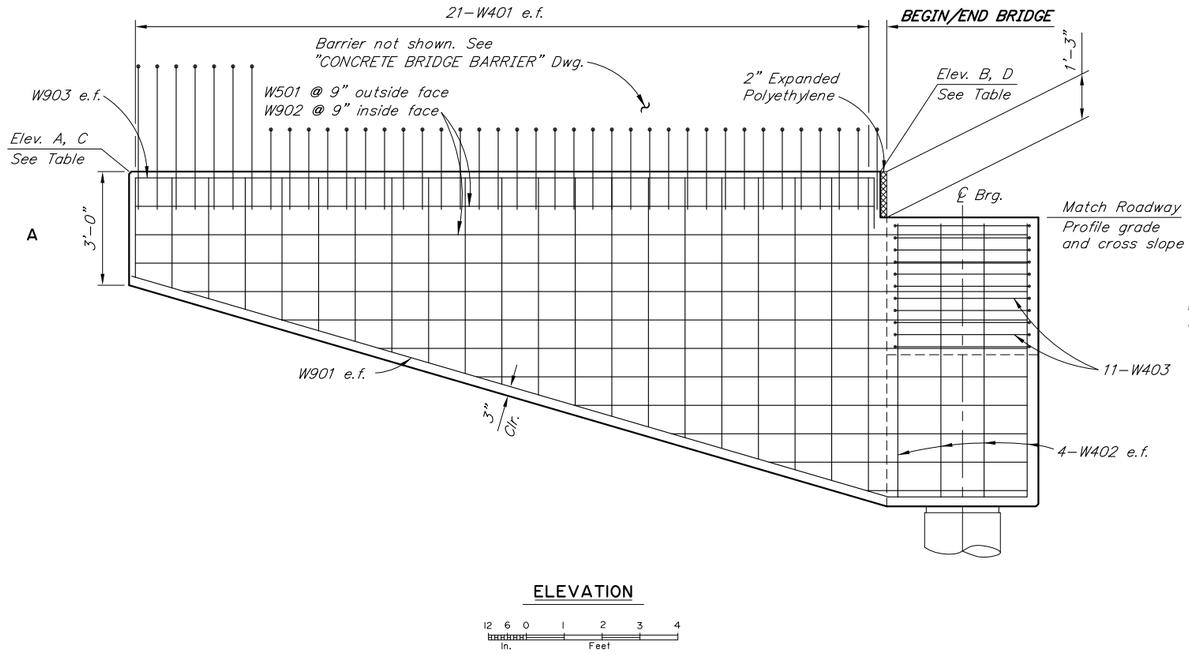
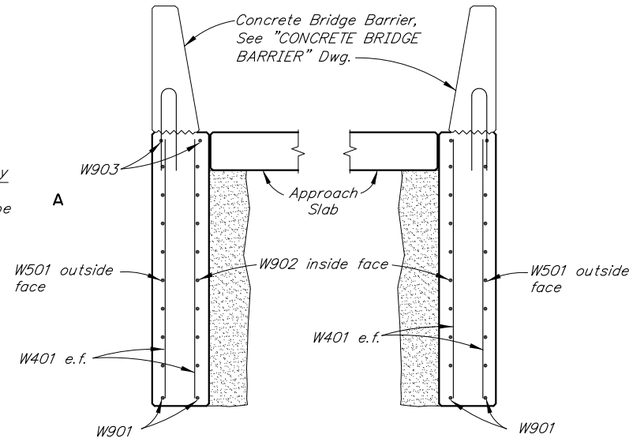


ELEVATION



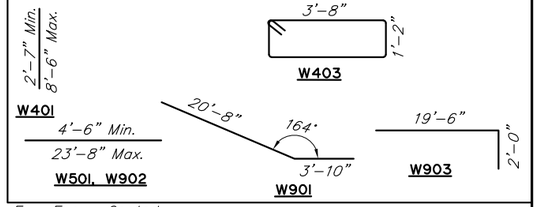
SECTION B-B

SECTION C-C

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts

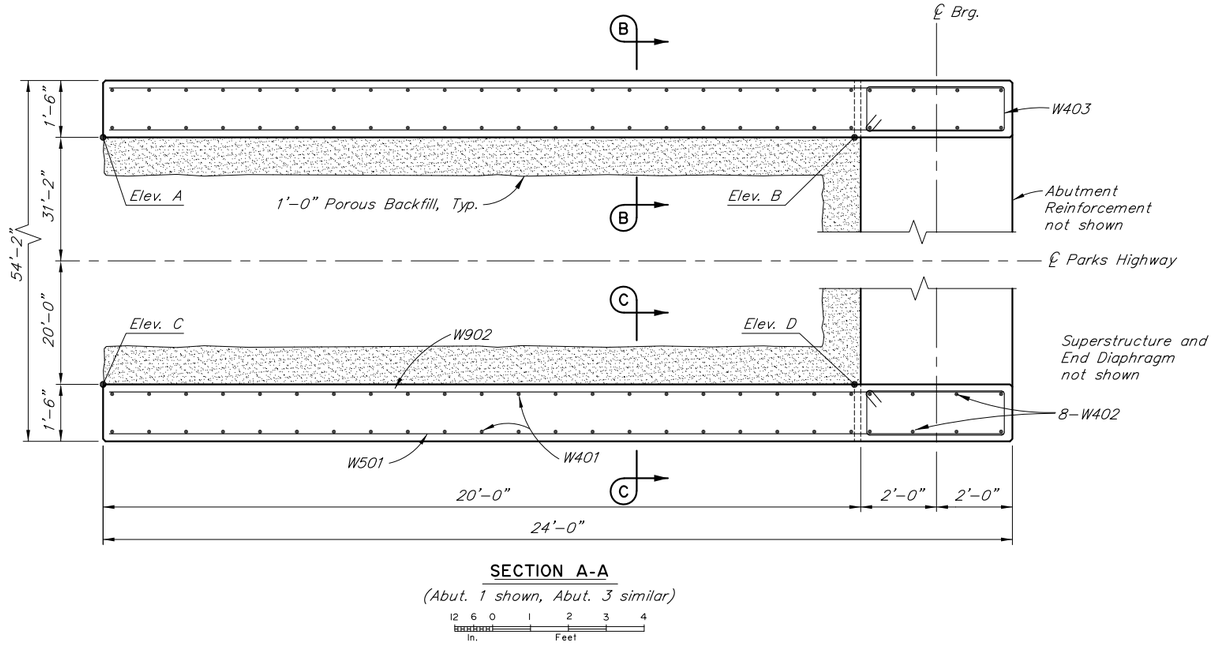
REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W401		4	84	VARIES	---	
W402		4	16	7'–2"	---	
W403		4	22	10'–5"	STIRRUP	
W501		5	22	VARIES	---	
W901		9	4	24'–6"	BENT	
W902		9	22	VARIES	---	
W903		9	4	21'–6"	BENT	



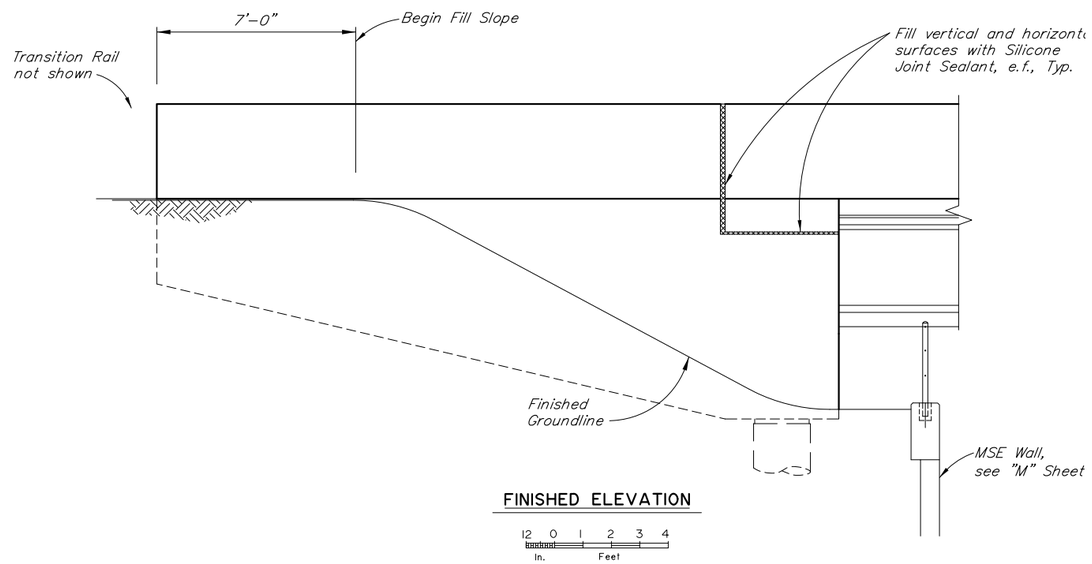
E – Epoxy-Coated

TOP OF WINGWALL ELEVATION TABLE (FT)				
LOCATION	A LEFT	B LEFT	C RIGHT	D RIGHT
ABUTMENT 1	475.23	475.43	475.23	475.43
ABUTMENT 3	477.91	478.11	477.91	478.11



SECTION A-A

(Abut. 1 shown, Abut. 3 similar)

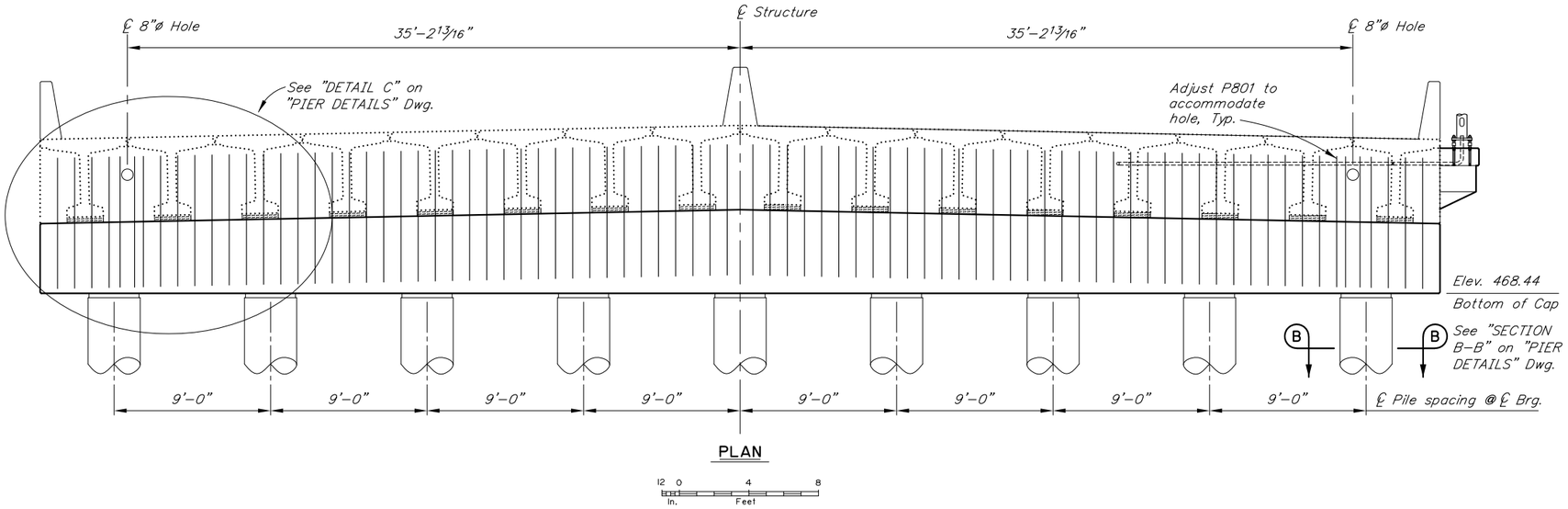


FINISHED ELEVATION

DESIGNED BY: Designed	CHECKED: Engineer	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975	STEESE/JOHANSON INTERCHANGE STEESE EXPRESSWAY WINGWALLS
DRAWN BY: Drafter	CHECKED: Engineer		BRIDGE NO. 2339 DWG. NO.
QUANTITIES BY: Engineer	CHECKED: Engineer		

R:\cad\2339\2339-1-WINGWALLS Mon, May/08/23 11:50am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts

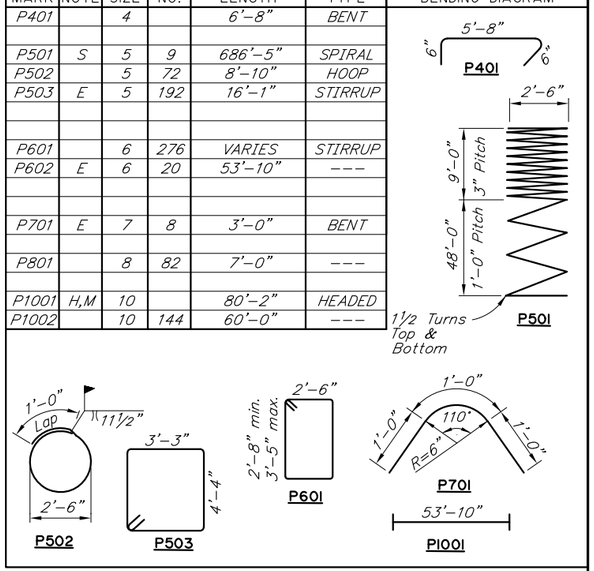


PLAN

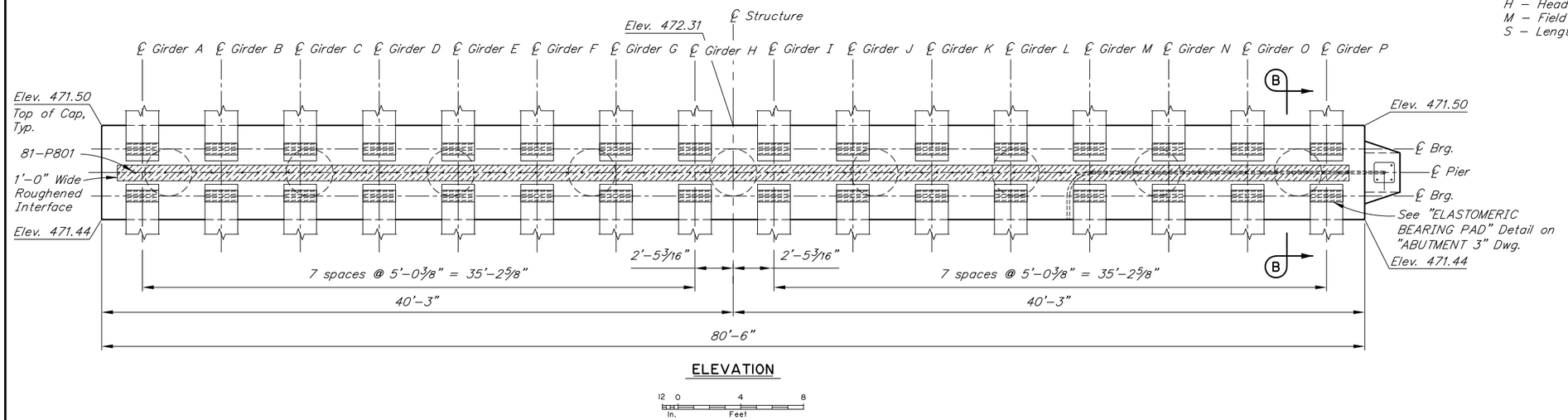
12 0 4 8
In. Feet

REINFORCING STEEL - PIER 2

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
P401		4		6'-8"	BENT	
P501	S	5	9	686'-5"	SPIRAL	
P502		5	72	8'-10"	HOOP	
P503	E	5	192	16'-1"	STIRRUP	
P601		6	276	VARIES	STIRRUP	
P602	E	6	20	53'-10"	---	
P701	E	7	8	3'-0"	BENT	
P801		8	82	7'-0"	---	
P1001	H,M	10		80'-2"	HEADED	
P1002		10	144	60'-0"	---	



E – Epoxy-Coated
H – Headed reinforcing steel
M – Field adjust to match crown
S – Length does not include splices



ELEVATION

12 0 4 8
In. Feet

DESIGNED BY: Designed	CHECKED: Engineer		
DRAWN BY: Drafter	CHECKED: Engineer		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

STEESE/JOHANSON INTERCHANGE

STEESE EXPRESSWAY

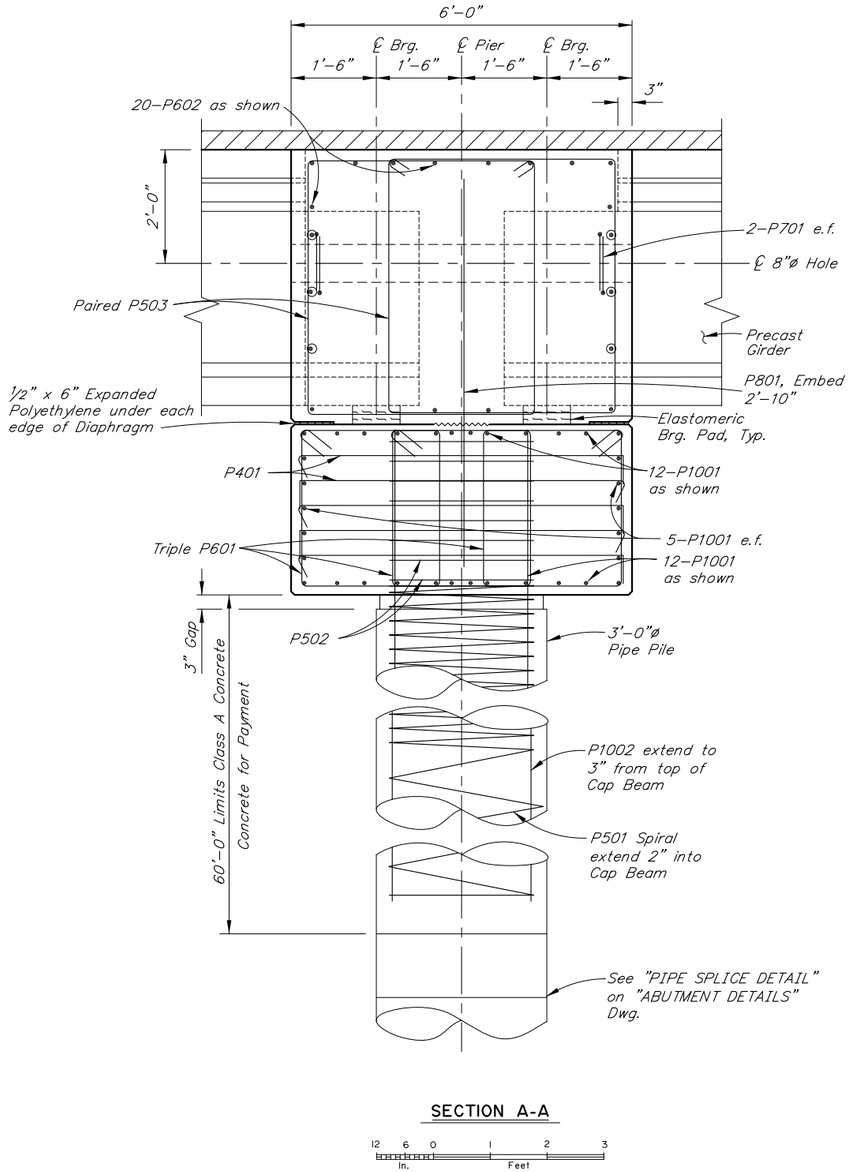
PIER 2

BRIDGE NO. 2339

DWG. NO.

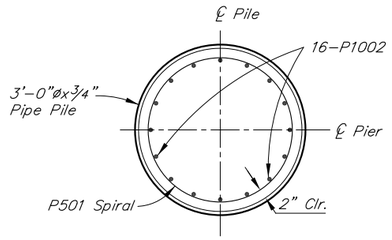
R:\cad\2339\2339-1-PIER 2 Mon, May/08/23 11:50am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts



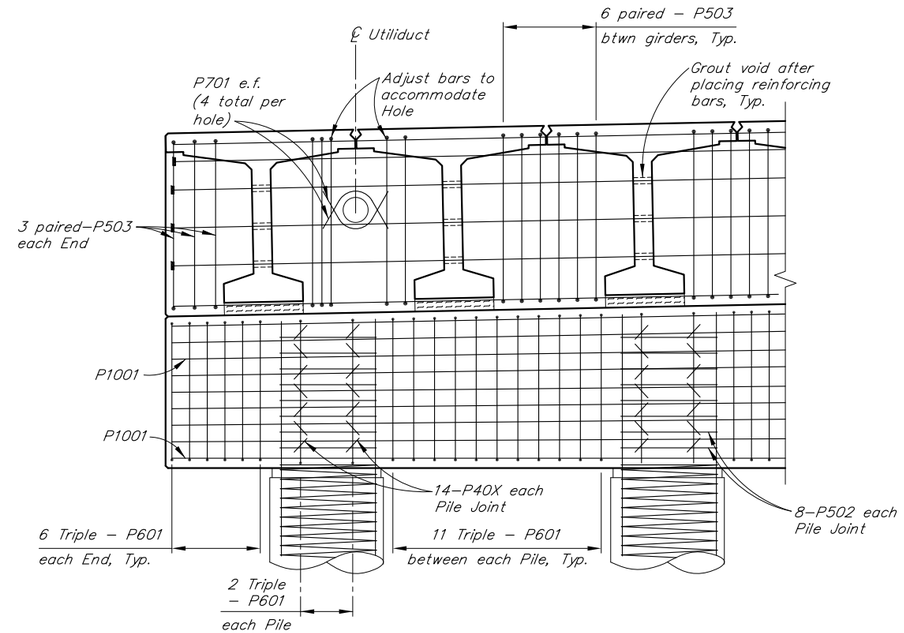
SECTION A-A

12 6 0 1 2 3
In. Feet



SECTION B-B

12 6 0 1 2 3
In. Feet



DETAIL C

12 6 0 1 2 3 4
In. Feet

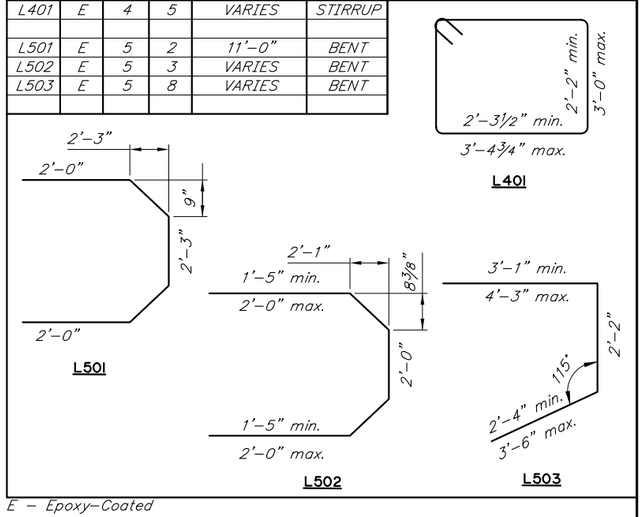
DESIGNED BY: Designed	CHECKED: Engineer	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975	**STEESE/JOHANSON INTERCHANGE** STEESE EXPRESSWAY **PIER DETAILS**
DRAWN BY: Drafter	CHECKED: Engineer		BRIDGE NO. 2339 DWG. NO.
QUANTITIES BY: Engineer	CHECKED: Engineer		

R:\cad\2339\2339-1-PIER DET Mon, May/08/23 11:50am

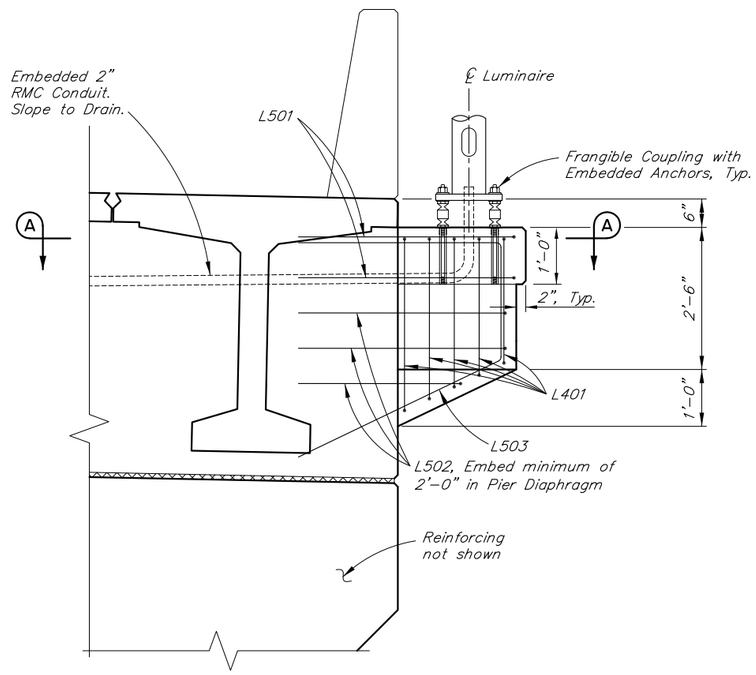
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts

REINFORCING STEEL - ONE CORBEL

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
L401	E	4	5	VARIES	STIRRUP	
L501	E	5	2	11'-0"	BENT	
L502	E	5	3	VARIES	BENT	
L503	E	5	8	VARIES	BENT	

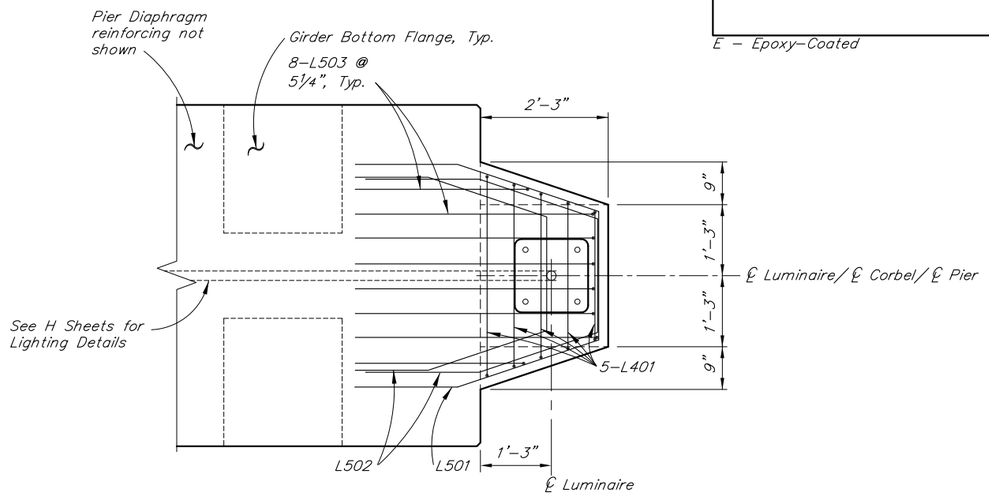


E = Epoxy-Coated



CORBEL ELEVATION

12 6 0 1 2 3
In. Feet



SECTION A-A

12 6 0 1 2 3
In. Feet

DESIGNED BY: *Designed*	CHECKED: *Engineer*		
DRAWN BY: *Drafter*	CHECKED: *Engineer*		
QUANTITIES BY: *Engineer*	CHECKED: *Engineer*		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

STEESE/JOHANSON INTERCHANGE

STEESE EXPRESSWAY

PIER DETAILS

BRIDGE NO. 2339

DWG. NO.

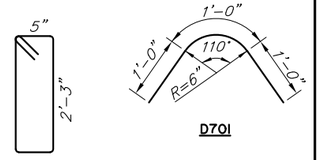
R:\cad\2339\2339-1-CORBEL Mon, May/08/23 11:50am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts

REINFORCING STEEL - ONE DIAPHRAGM

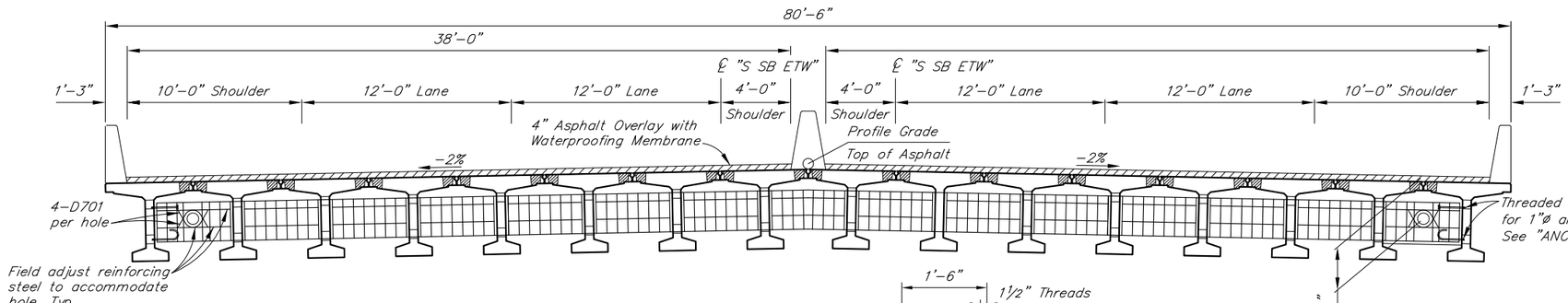
MARK	NOTE	SIZE	NO.	LENGTH	TYPE
D401	E	4		6'-1"	STIRRUP
D501	E	5		4'-2"	---
D601	E,M,S	6		74'-7½"	---
D701	E	7		3'-0"	BENT

BENDING DIAGRAM



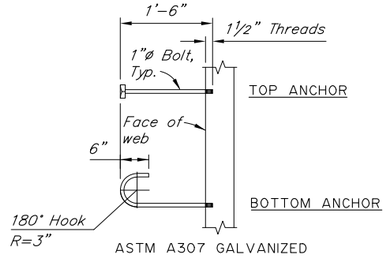
D401 D701

E – Epoxy-Coated
M – Field adjust to match crown
S – Length does not included splices



TYPICAL SECTION

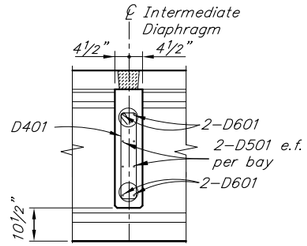
12 0 4 8
In. Feet



ASTM A307 GALVANIZED

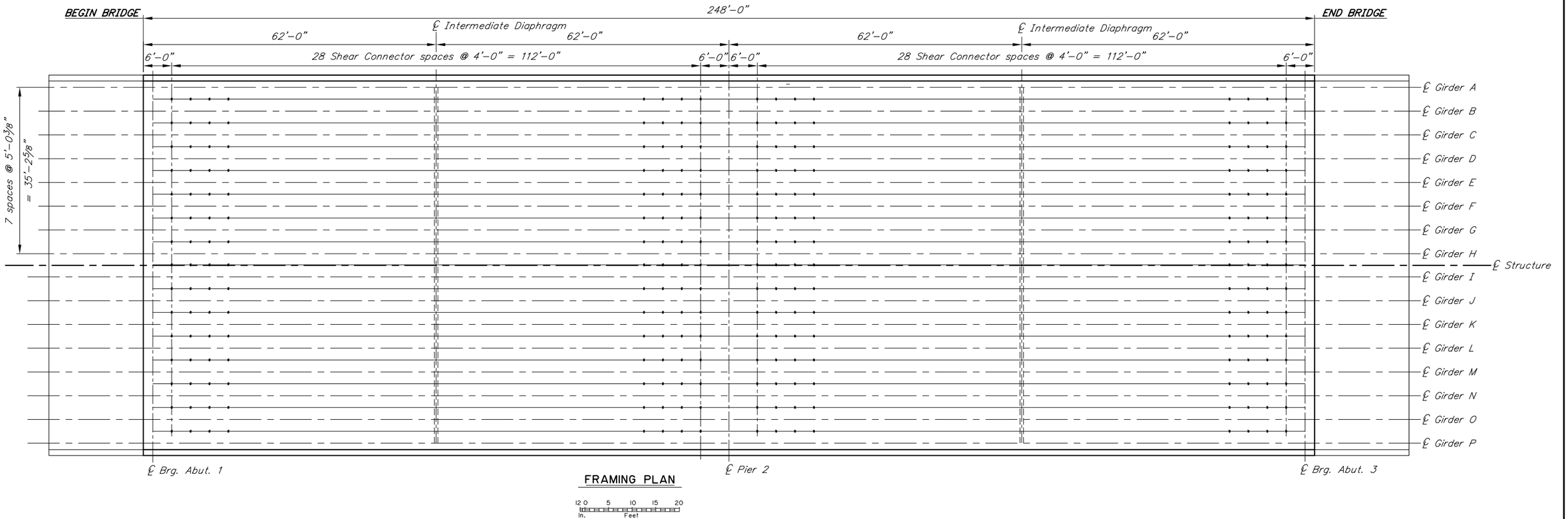
ANCHOR DETAIL

12 6 0 1 2 3
In. Feet



SECTION A-A

12 6 0 1 2 3 4
In. Feet



FRAMING PLAN

12 0 5 10 15 20
In. Feet

DESIGNED BY: Designed	CHECKED: Engineer		
DRAWN BY: Drafter	CHECKED: Engineer		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

STEESE/JOHANSON INTERCHANGE

STEESE EXPRESSWAY

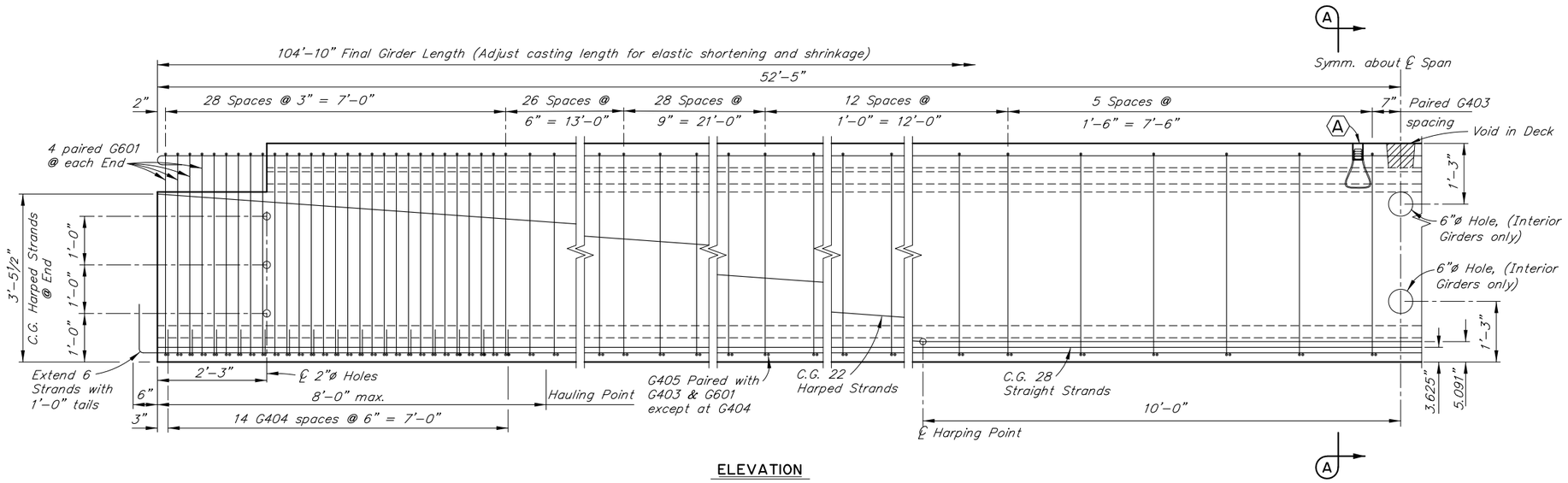
FRAMING PLAN AND TYPICAL SECTION

BRIDGE NO. 2339

DWG. NO.

R:\cad\2339\2339-1-FRAMING Mon, May/08/23 11:50am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts



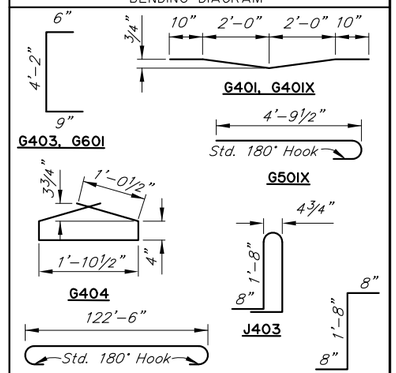
ELEVATION

12 6 0 1 2 3
In. Feet

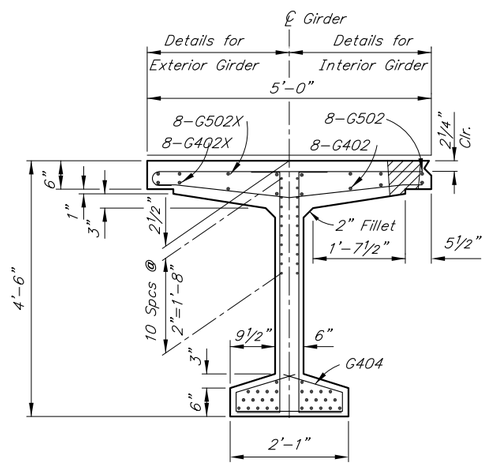
REINFORCING STEEL-ONE GIRDER

MARK	NOTE	SIZE	NO.	LENGTH	TYPE
G401	E	4	177	4'-9½"	BENT
G401X	E	4	202	4'-9½"	BENT
G402	E,S	4	8	117'-9"	---
G402X	E,S	4	8	117'-9"	---
G403	E	4	384	5'-5"	BENT
G404	E	4	30	4'-7½"	BENT
G405	E	4	162	1'-10"	---
G501	E	5	177	4'-7½"	---
G501X	E	5	202	5'-3½"	BENT
G502	E,S	5	8	123'-8"	BENT
G502X	E,S	5	8	123'-8"	BENT
G601	E	6	16	5'-5"	BENT
J403	E	4	77	4'-9"	BENT
J410	E	4	225	3'-0"	BENT

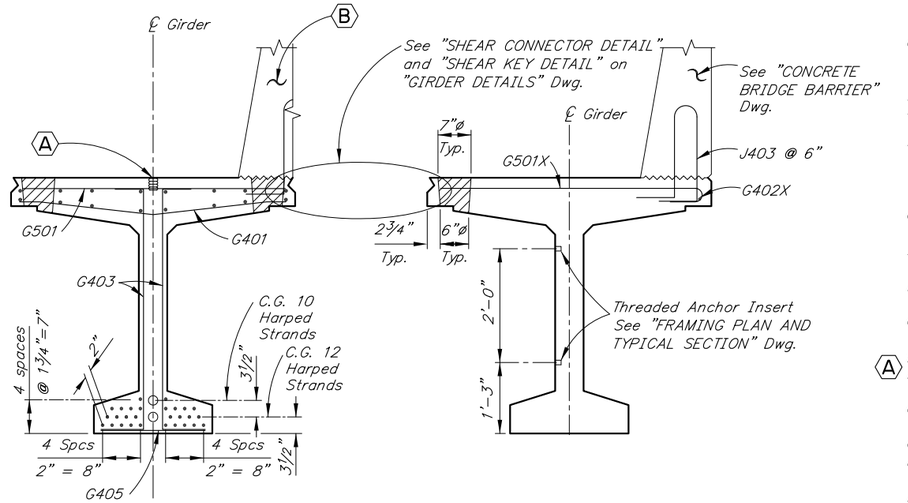
BENDING DIAGRAM



E – Epoxy-Coated
L – Ship 6 loose for diaphragms
S – Splices permitted. Length does not include splices. Minimum lap splice length for splices shall be 2'-0" for #4 bars and 2'-6" for #5 bars
X – Exterior Girders only



END VIEW



SECTION A-A

EXTERIOR GIRDER NEAR MID SPAN
(Unrelated Reinforcement not shown)

GIRDER NOTES:

Class P Concrete: at Stress Transfer.....f'ci = 6,750 psi
at 28 Days.....f'c = 8,000 psi

½"ø low-relaxation prestressing strands with an ultimate strength of 270 ksi and a cross sectional area of 0.153 in².

Steel stresses: Pretensioning – Jacking Stress 189 ksi
After initial losses 170 ksi
After all losses 141 ksi

One inch clear cover on reinforcing steel unless otherwise noted.

See "FRAMING PLAN AND TYPICAL SECTION" Dwg. for Shear Connector spacing.

Deflect forms to compensate for camber and roadway profile grade.

Galvanize structural steel embedded in girders except for shear connectors.

(A) 1"X1'-0" Coil Anchor Insert for vertical adjustment of girders. Recess 2". Prevent concrete from filling hole.

Omit Shear Key, Shear Key Connector and Deck Void in exterior face of exterior girders.

Cast ends of girders plumb with respect to roadway grade. Install web holes and web anchor inserts parallel to ℄ bearing.

Finish top flange with heavy broom finish. Roughen the surface under the Curb.

(B) See "CONCRETE BRIDGE BARRIER" Dwg. for concrete barrier, reinforcing, and embedment.

DESIGNED BY: Designed	CHECKED: Engineer		
DRAWN BY: Drafter	CHECKED: Engineer		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

STEESE/JOHANSON INTERCHANGE

STEESE EXPRESSWAY

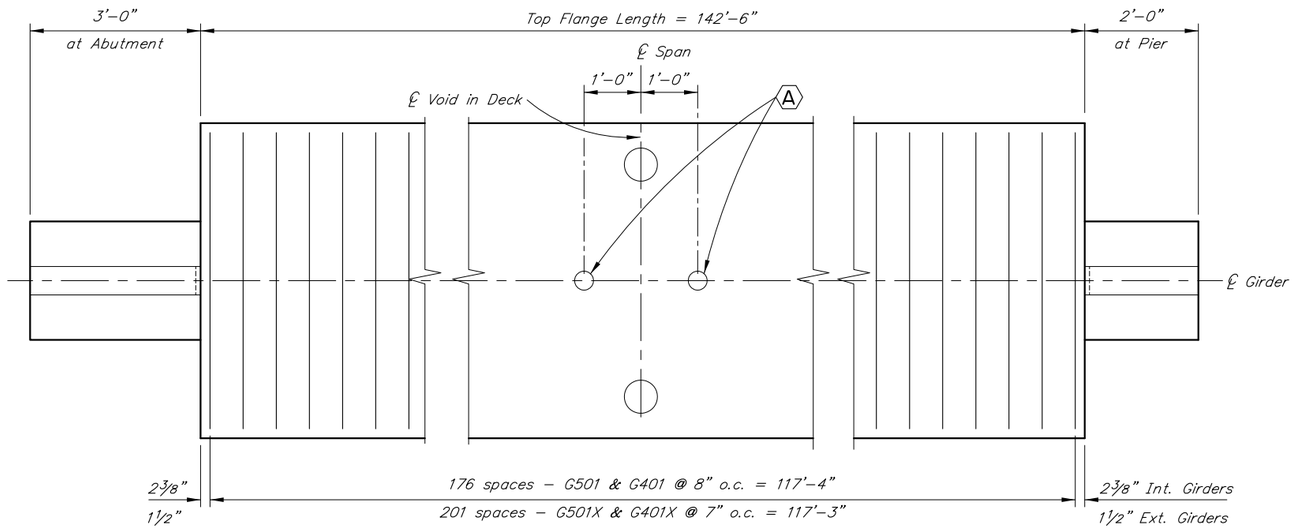
GIRDER

BRIDGE NO. 2339

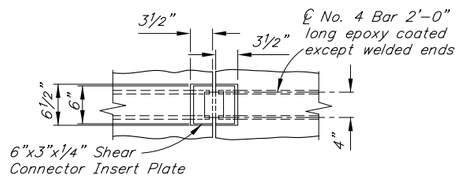
DWG. NO.

R:\cad\2339\2339-1-Girder Mon, May/08/23 11:50am

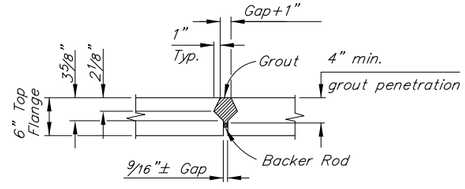
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts



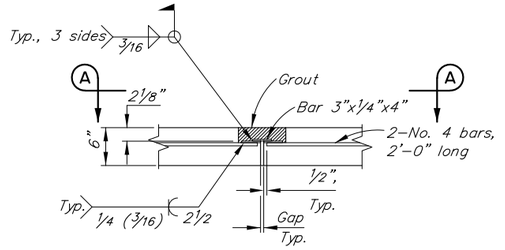
PLAN
No Scale



VIEW A-A



SHEAR KEY DETAIL



SHEAR CONNECTOR DETAIL

DESIGNED BY: *Designed*	CHECKED: *Engineer*	
DRAWN BY: *Drafter*	CHECKED: *Engineer*	
QUANTITIES BY: *Engineer*	CHECKED: *Engineer*	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

STEESE/JOHANSON INTERCHANGE

STEESE EXPRESSWAY

GIRDER DETAILS

BRIDGE NO. 2339

DWG. NO.

R:\cad\2339\2339-1-Girder Det Mon, May/08/23 11:50am

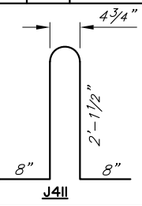
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts

REINFORCING STEEL - ONE APPROACH SLAB

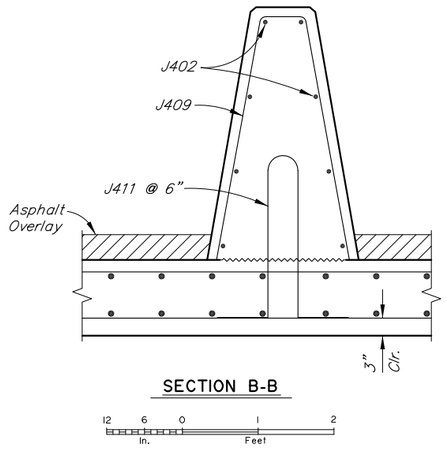
MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
S401	E,M,S	4		77'-6"	---	
S501	E	5		20'-5"	---	
S502	E	5		5'-0"	BENT	
S801	E	8		20'-5"	---	
J411	E	4		5'-11¾"	BENT	

S502

J411

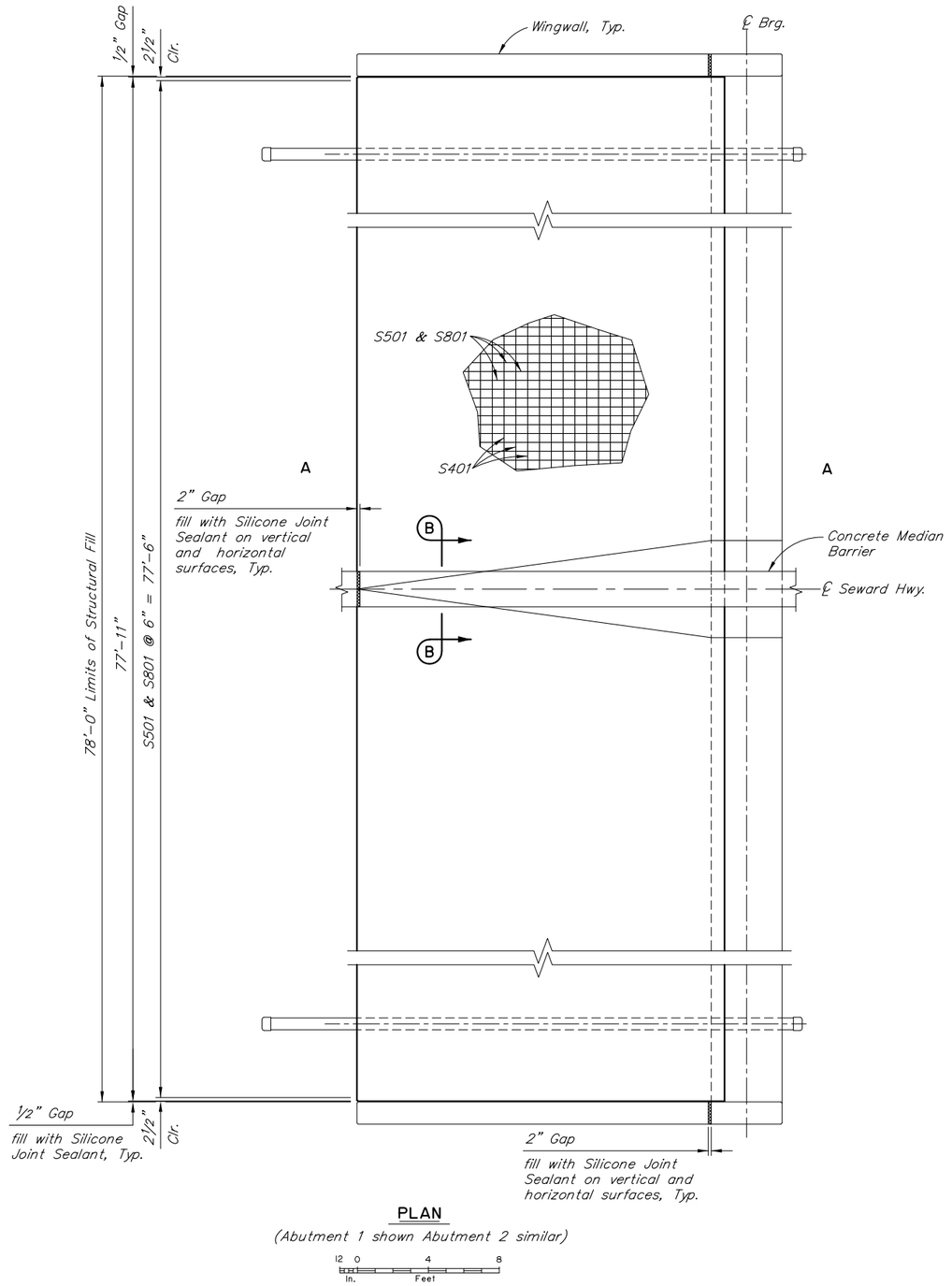


E – Epoxy-Coated
M – Match roadway cross slope
S – Length does not include splices



SECTION B-B

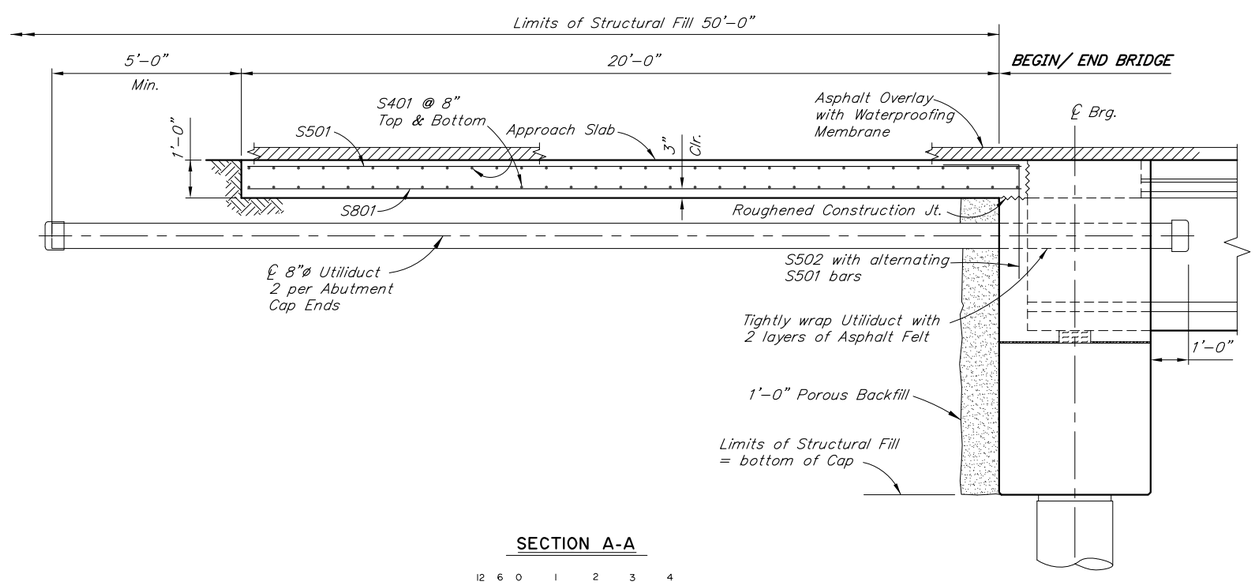
12 6 0 1 2
In. Feet



PLAN

(Abutment 1 shown Abutment 2 similar)

12 0 4 8
In. Feet



SECTION A-A

12 6 0 1 2 3 4
In. Feet

DESIGNED BY: Designed	CHECKED: Engineer	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975	# STEESE/JOHANSON INTERCHANGE STEESE EXPRESSWAY ## APPROACH SLABS
DRAWN BY: Drafter	CHECKED: Engineer		
QUANTITIES BY: Engineer	CHECKED: Engineer		BRIDGE NO. 2339 DWG. NO.

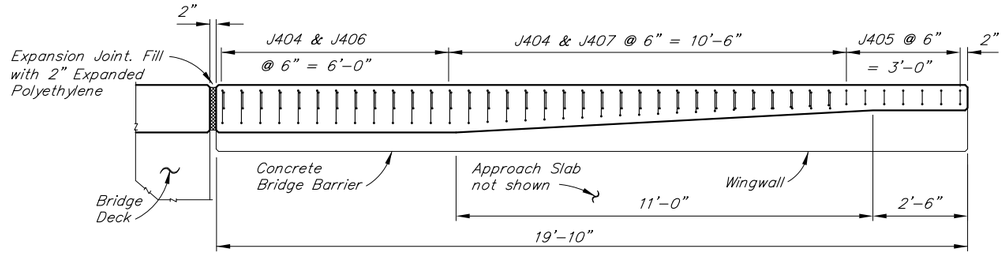
R:\cad\2339\2339-1-APPROACH Mon, May/08/23 11:50am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts

REINFORCING STEEL - ALL BARRIERS

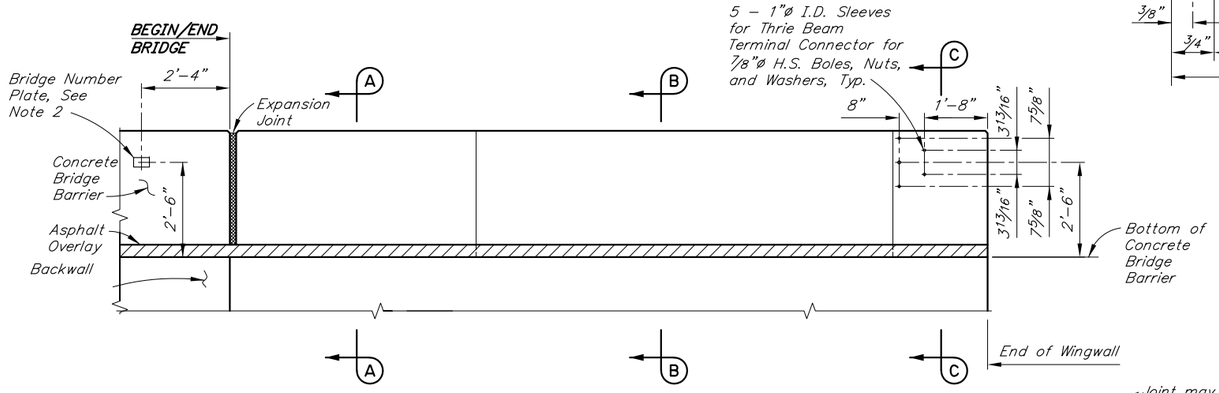
MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
J401	E	4	24	247'-8"	---	
J402	E	4	48	19'-6"	---	
J404	E	4	132	4'-8"	BENT	
J405	E	4	28	8'-8¾"	BENT	
J406	E	4		6'-3½"	BENT	
J407	E	4	80	6'-3"	BENT	
J409	E	4		7'-1"	BENT	

E – Epoxy-Coated
L – Ship 6 loose
S – Length does not include splices



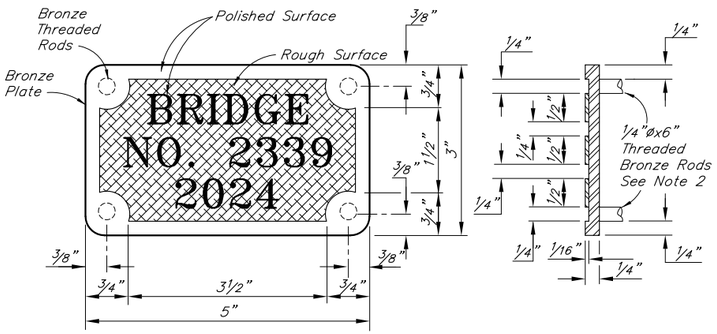
CONCRETE BRIDGE BARRIER TRANSITION - PLAN

12 6 0 1 2 3 4 In. Feet



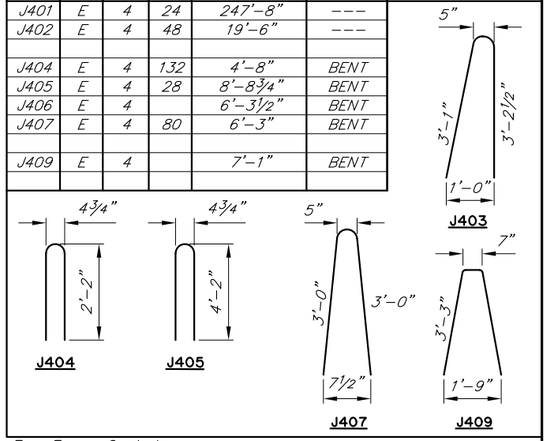
CONCRETE BRIDGE BARRIER TRANSITION - ELEVATION

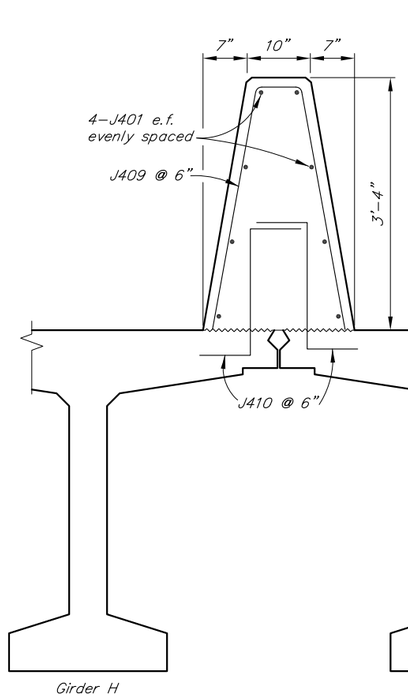
12 6 0 1 2 3 4 In. Feet

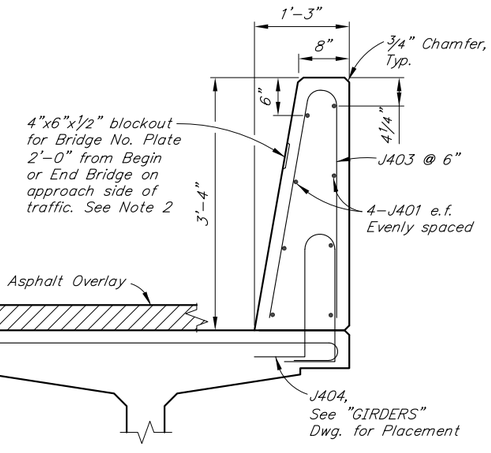


BRONZE BRIDGE NO. PLATE

No Scale

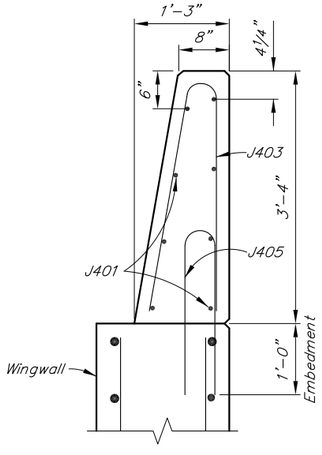






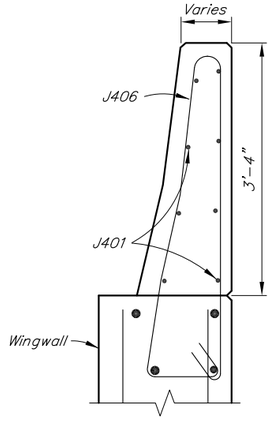
CONCRETE BRIDGE BARRIER

12 6 0 1 2 In. Feet



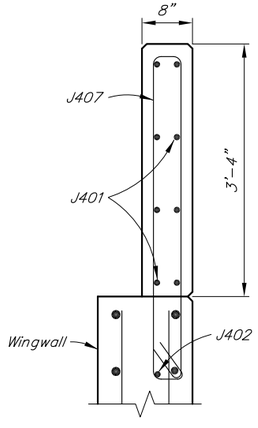
SECTION A-A

12 6 0 1 2 In. Feet



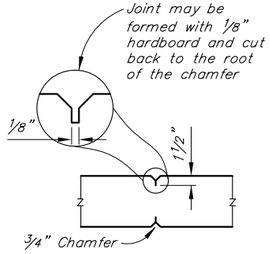
SECTION B-B

12 6 0 1 2 In. Feet



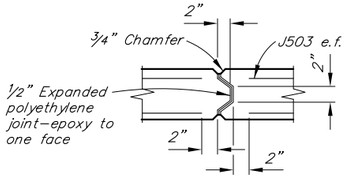
SECTION C-C

12 6 0 1 2 In. Feet



WEAKENED PLANE JOINT

Locate at ¼ Span
No Scale



MIDSPAN EXPANSION JOINT

Locate at Midspan
No Scale

MEDIAN BARRIER

12 6 0 1 2 In. Feet

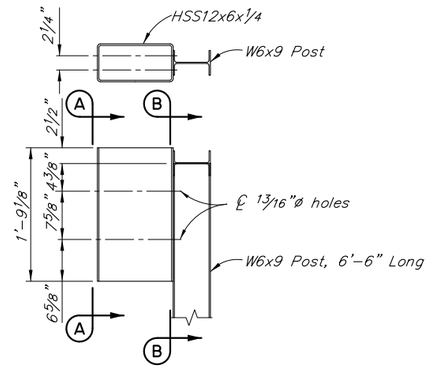
NOTES

1. Construct concrete bridge barrier plumb.
2. Furnish and install two bronze bridge number plates. Use "CENTURY" type style. Studs to be ¼"ø bronze threaded rods brazed to back of plate. Epoxy bond rods into ⅜"ø holes in concrete bridge barrier blockout. Use epoxy suitable for exterior application and compatible with materials to be bonded. Follow epoxy manufacturer's instructions.

DESIGNED BY: Designed	CHECKED: Engineer	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975	STEESE/JOHANSON INTERCHANGE STEESE EXPRESSWAY CONCRETE BRIDGE BARRIER
DRAWN BY: Drafter	CHECKED: Engineer		BRIDGE NO. 2339 DWG. NO.
QUANTITIES BY: Engineer	CHECKED: Engineer		

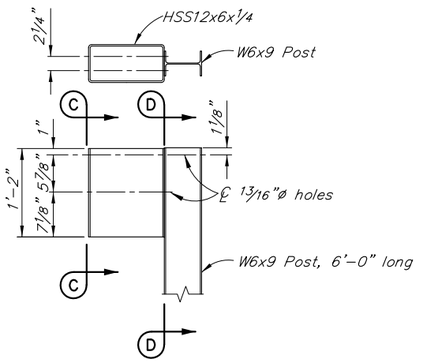
R:\cad\2339\2339-1-CONCRETE BRIDGE BARRIER Mon, May/08/23 11:50am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z607320000	2024	N	TtlShts



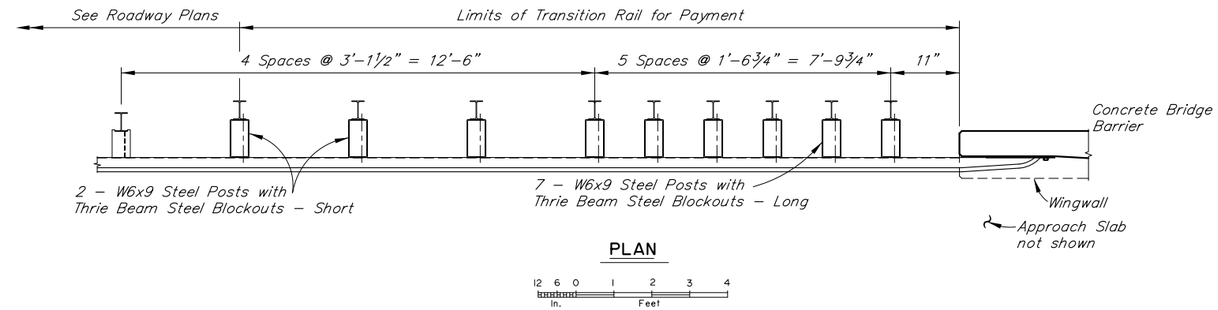
THRIE BEAM STEEL BLOCKOUT - LONG

12 6 0 1 2
In. Feet



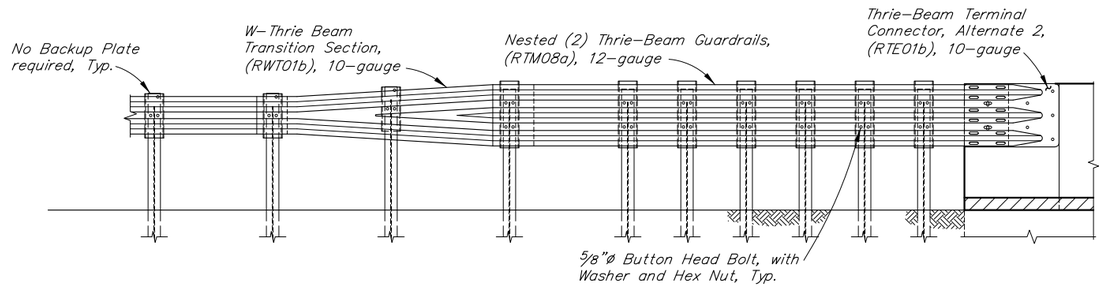
THRIE BEAM STEEL BLOCKOUT - SHORT

12 6 0 1 2
In. Feet



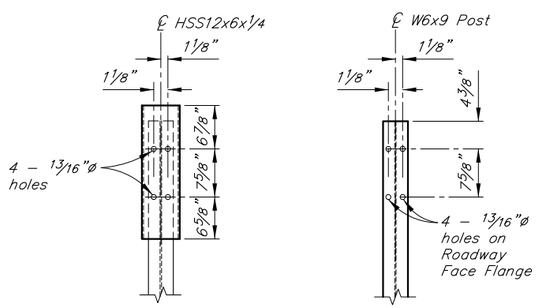
PLAN

12 6 0 1 2 3 4
In. Feet



THRIE BEAM TRANSITION - ELEVATION

12 6 0 1 2 3 4
In. Feet

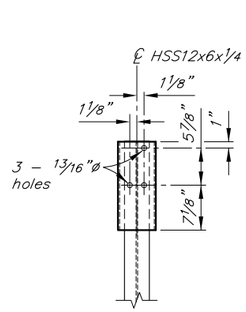


VIEW A-A

12 6 0 1 2
In. Feet

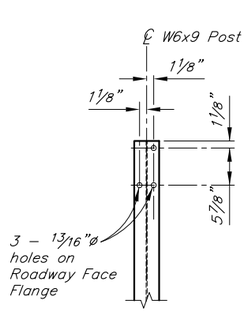
SECTION B-B

12 6 0 1 2
In. Feet



VIEW C-C

12 6 0 1 2
In. Feet



SECTION D-D

12 6 0 1 2
In. Feet

NOTES:

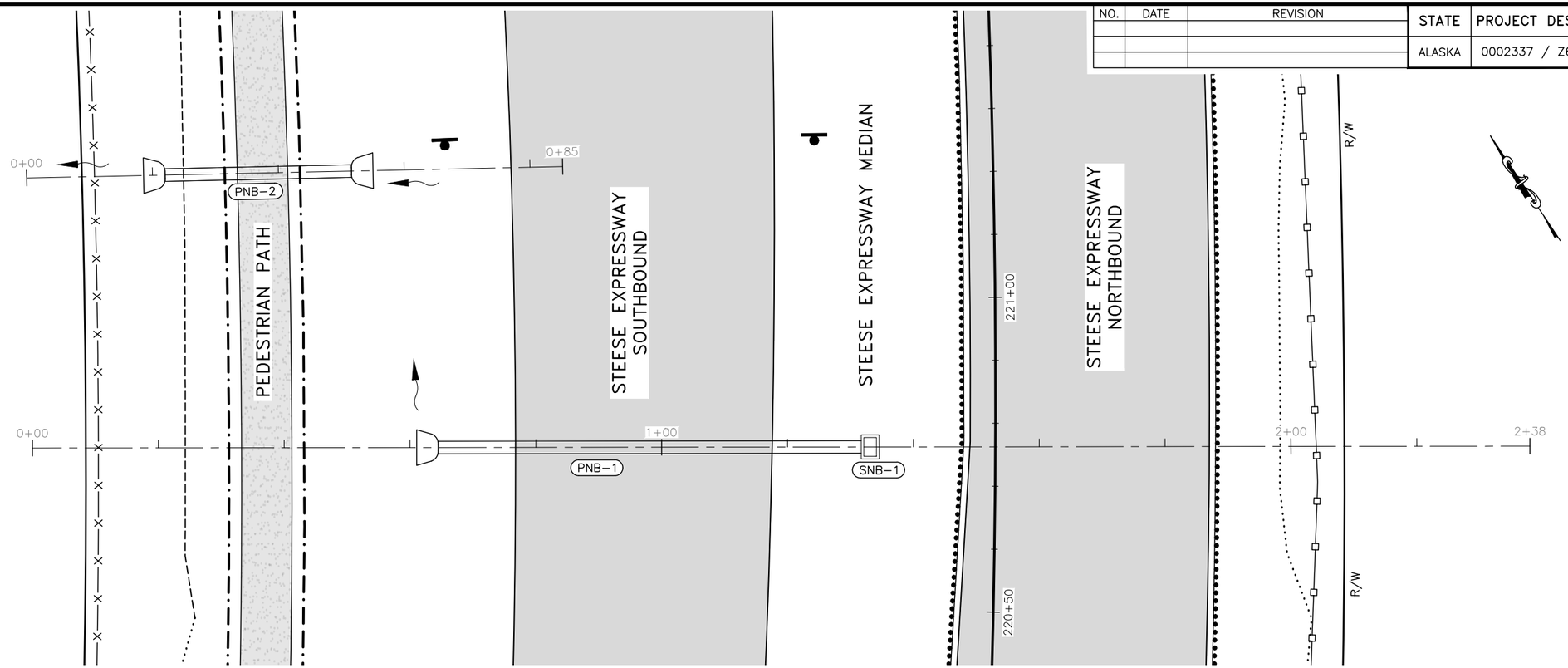
1. *Conform to G-00, G-05, and G-10 of the Standard Plans for all Thrie Beam Transition details not shown.*
2. *Thrie Beam Transition part numbers are listed in parentheses () and referenced in the "Task Force 13 Guide to Standardize Roadside Hardware."*

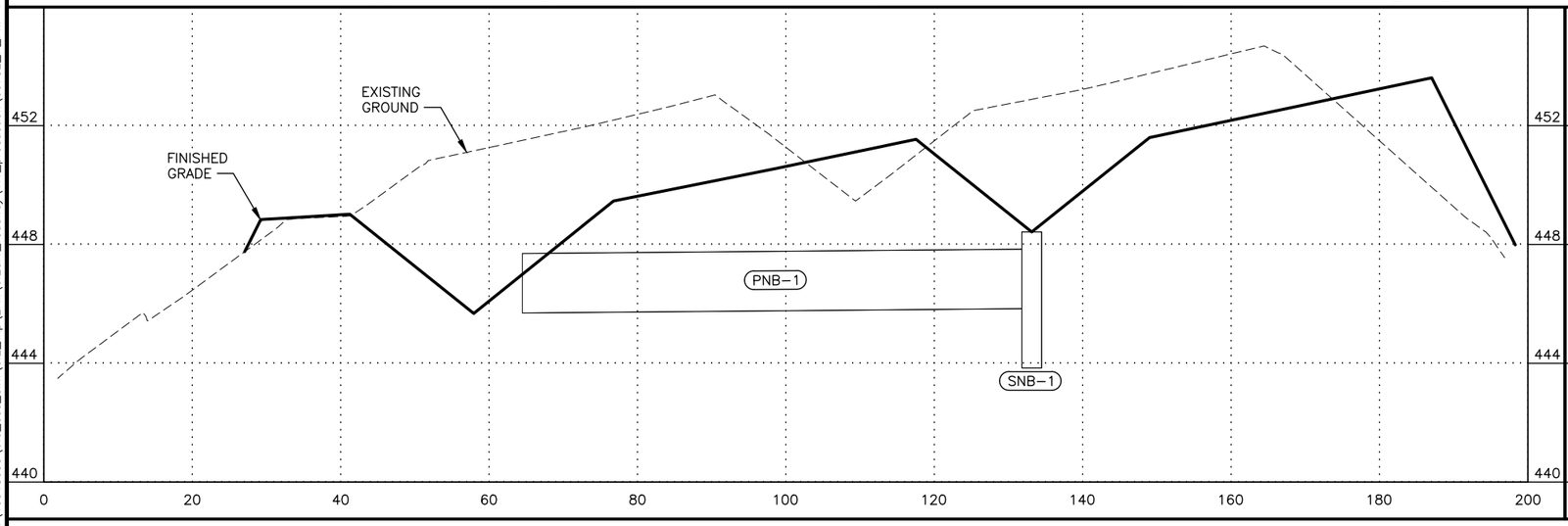
DESIGNED BY: Designed	CHECKED: Engineer	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975	**STEESE/JOHANSON INTERCHANGE** STEESE EXPRESSWAY **THRIE BEAM TRANSITION**
DRAWN BY: Drafter	CHECKED: Engineer		
QUANTITIES BY: Engineer	CHECKED: Engineer		BRIDGE NO. 2339 DWG. NO.

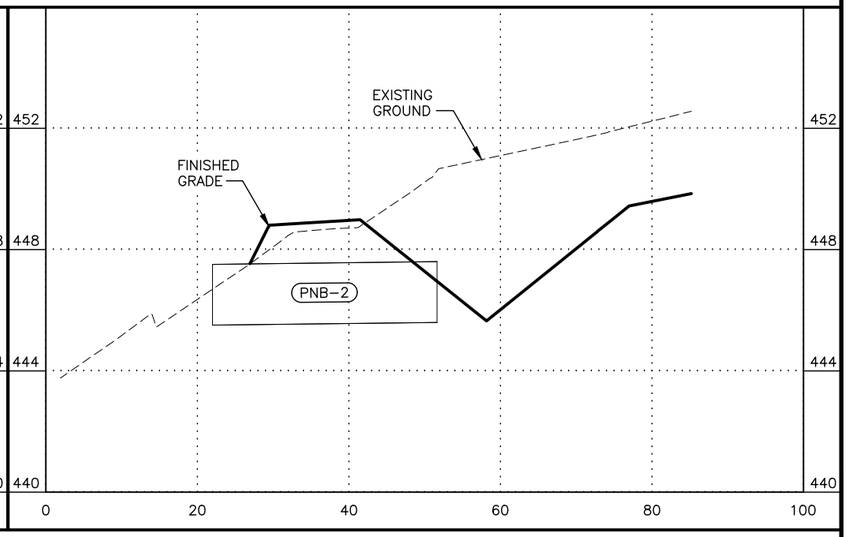
R:\cad\2339\2339-1-TRANSITION Mon, May/08/23 11:50am

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P1	P15







PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PNB–1	"NB" 220+76.1	19.89 LT	445.84	"NB" 220+75.7	88.54 LT	445.69	24"	68.7'	0.21%	CSP 24 INCH
PNB–2	"NB" 221+22.3	101.95 LT	445.60	"NB" 221+22.3	131.58 LT	445.51	24"	29.6'	0.30%	CSP 24 INCH

STRUCTURE SUMMARY

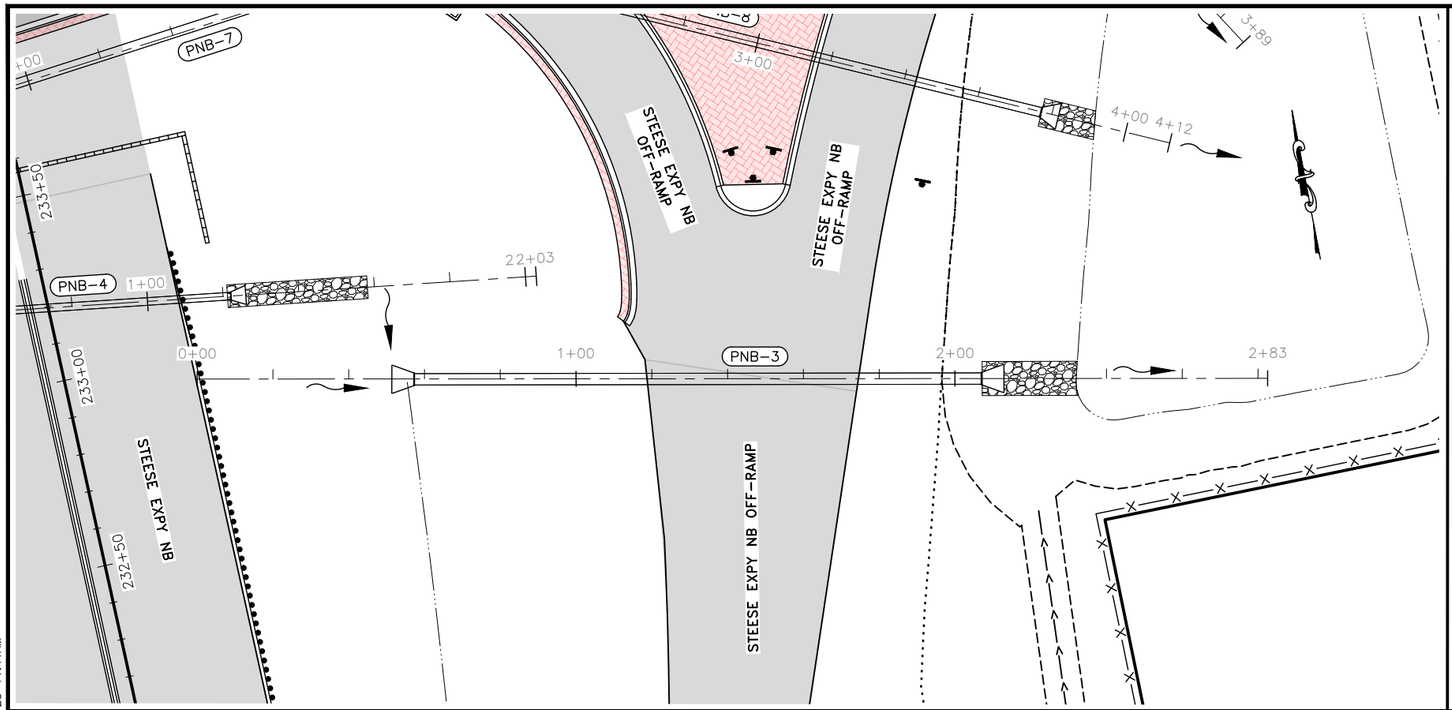
NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SNB–1	"NB" 220+76.1	19.89 LT	448.42	INLET, TYPE A

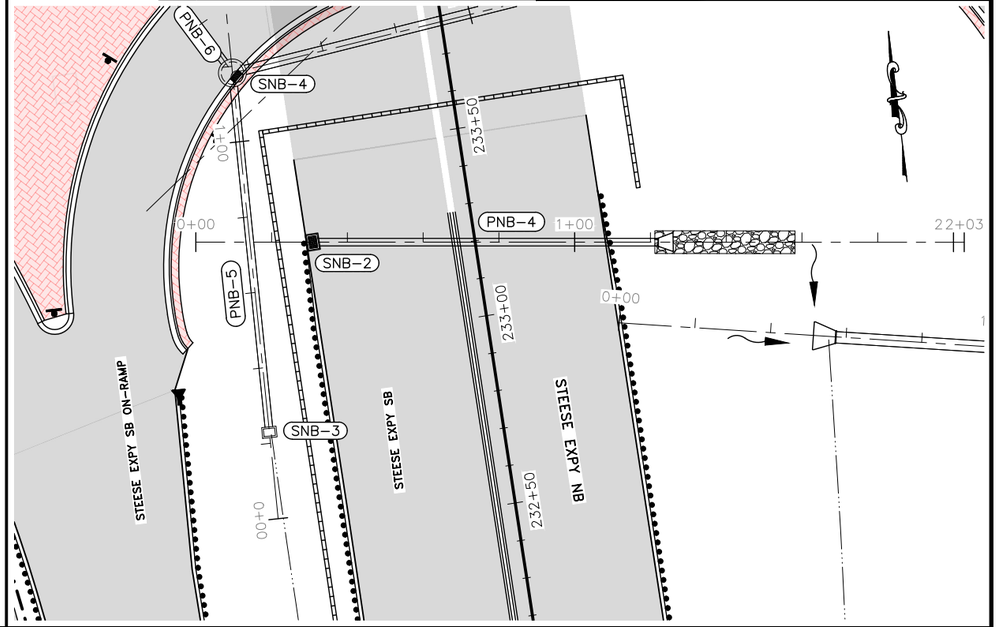
STORM SEWER NETWORK

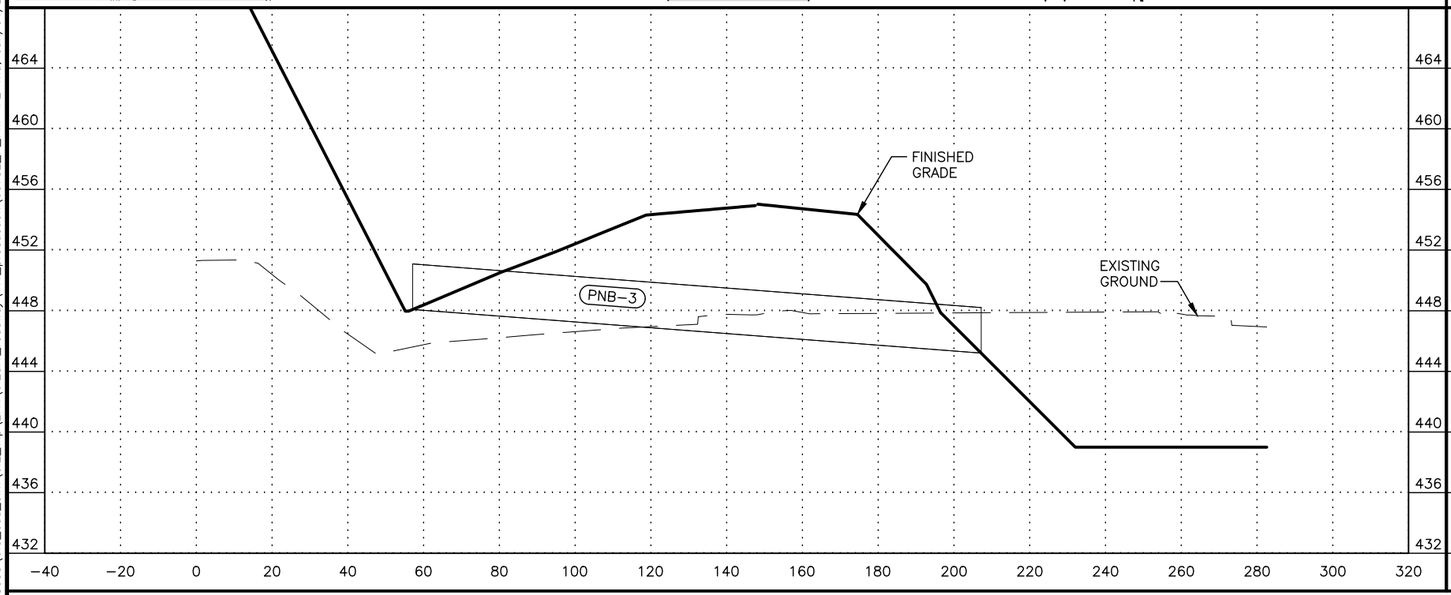
STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

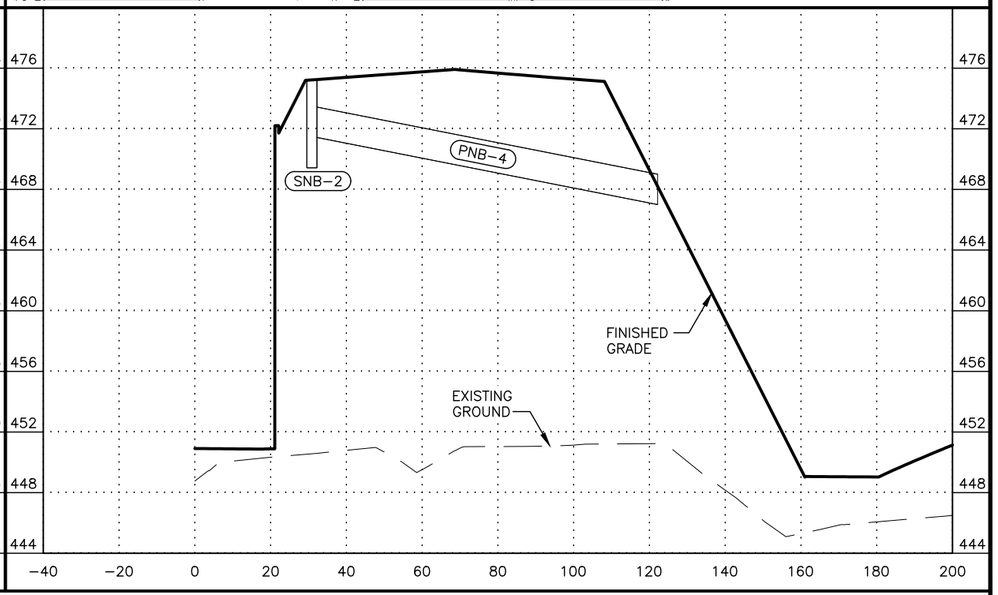
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P2	P15









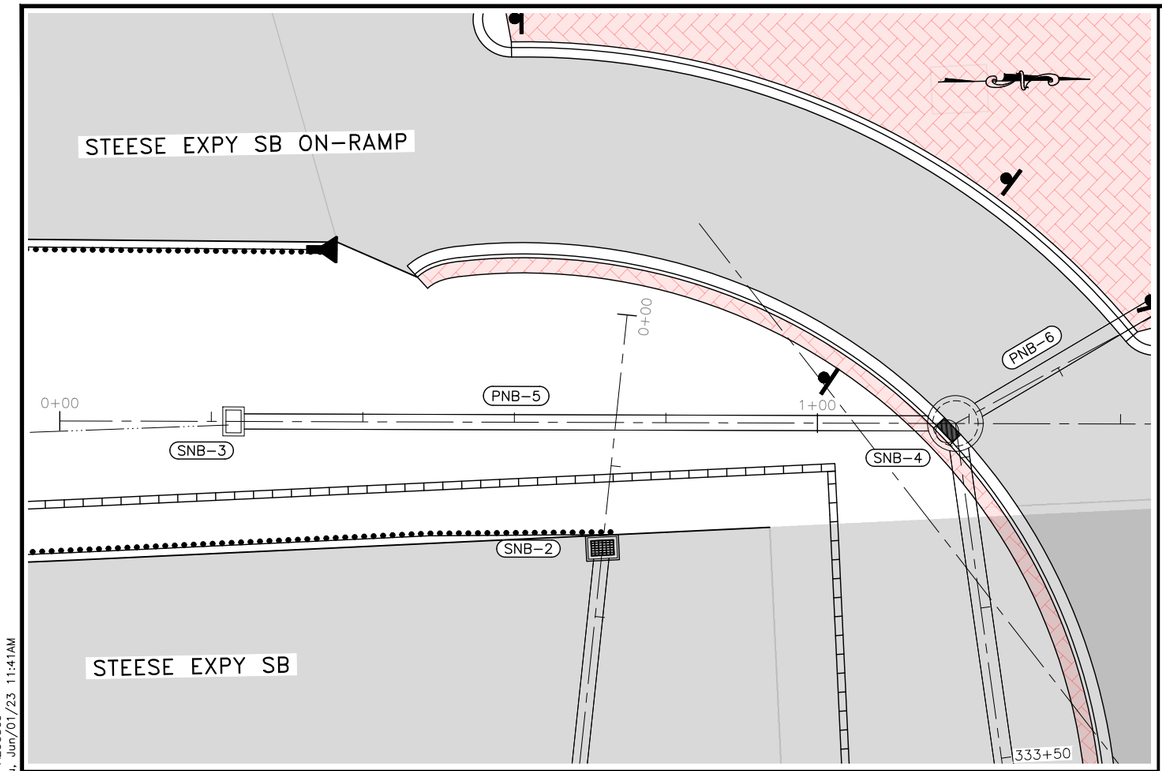
PIPE SUMMARY

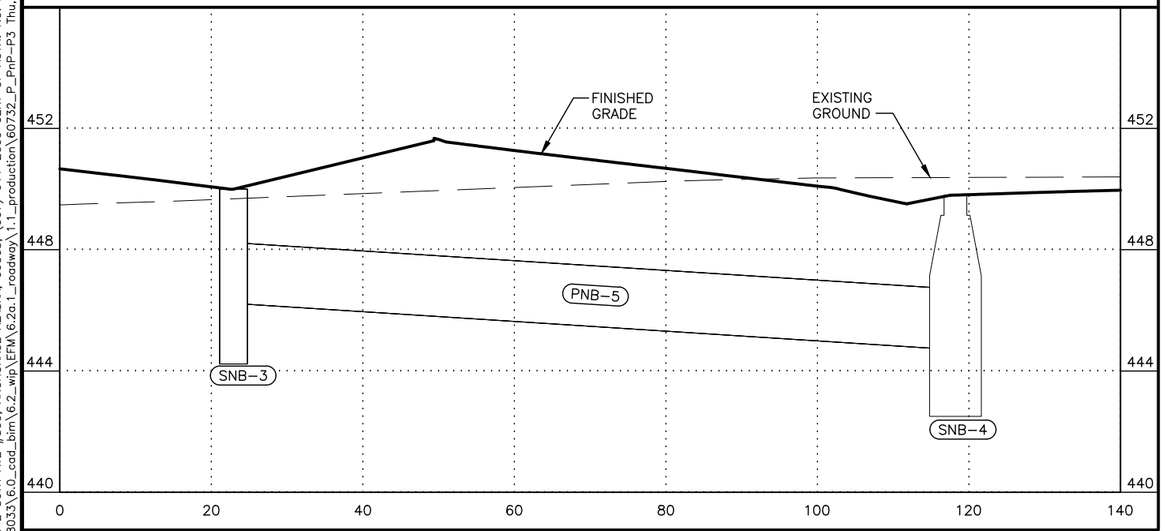
PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PNB−3	"NB" 232+80.4	90.12 RT	448.09	"NB" 232+48.2	236.71 RT	445.21	36"	150.1'	1.92%	CSP 36 INCH
PNB−4	"NB" 233+26.2	42.33 LT	471.50	"NB" 233+12.3	47.87 RT	467.01	24"	91.3'	4.92%	CSP 24 INCH

STRUCTURE SUMMARY

NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SNB−2	"NB" 233+26.2	42.33 LT	475.23	INLET, TYPE A

STORM SEWER NETWORK





NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P3	P15

PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PNB-5	"NB" 232+78.3	61.30 LT	446.23	"NB" 233+73.5	56.52 LT	444.70	24"	95.3'	1.61%	CSP 24 INCH

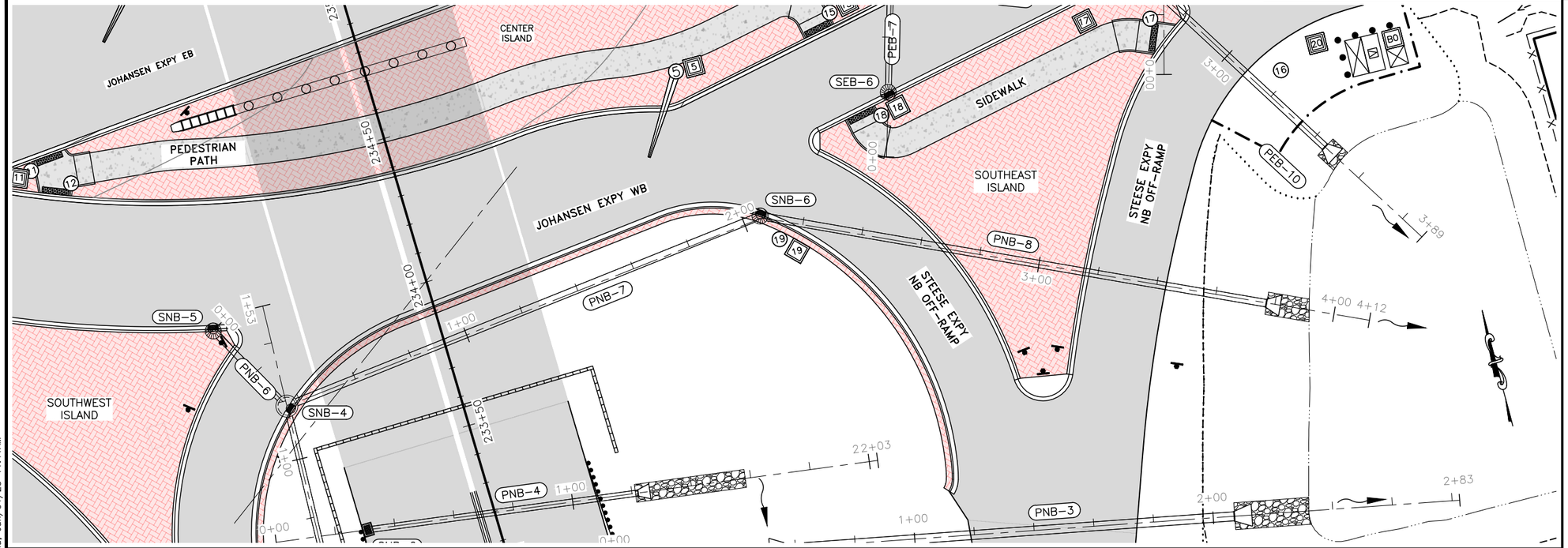
STRUCTURE SUMMARY

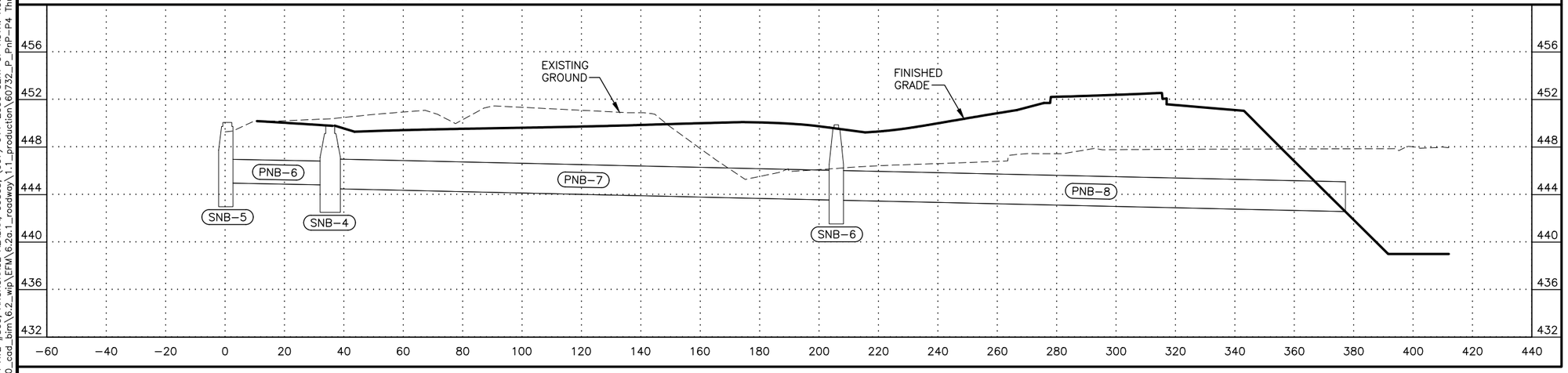
NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SNB-3	"NB" 232+78.3	61.30 LT	450.00	INLET, TYPE A
SNB-4	"NB" 233+73.5	56.52 LT	449.80	STORM SEWER MANHOLE, TYPE II WITH MOUNTABLE CURB INLET

STORM SEWER NETWORK

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P4	P15





PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PNB-6	"NB" 234+04.5	72.99 LT	444.98	"NB" 233+73.5	56.52 LT	444.80	24"	35.2'	0.50%	CSP 24 INCH
PNB-7	"NB" 233+73.5	56.52 LT	444.50	"NB" 233+89.5	113.13 RT	443.53	30"	170.4'	0.57%	CSP 30 INCH
PNB-8	"NB" 233+89.5	113.13 RT	443.53	"NB" 233+13.5	267.17 RT	442.57	30"	171.8'	0.56%	CSP 30 INCH

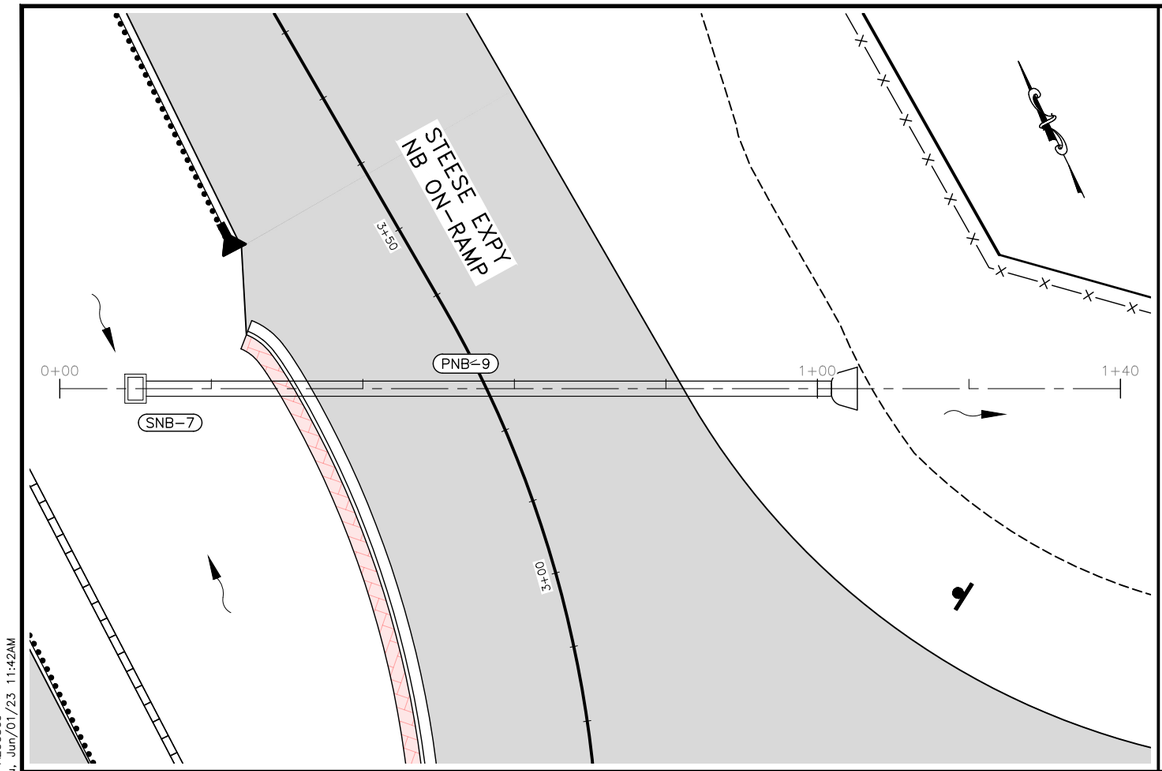
STRUCTURE SUMMARY

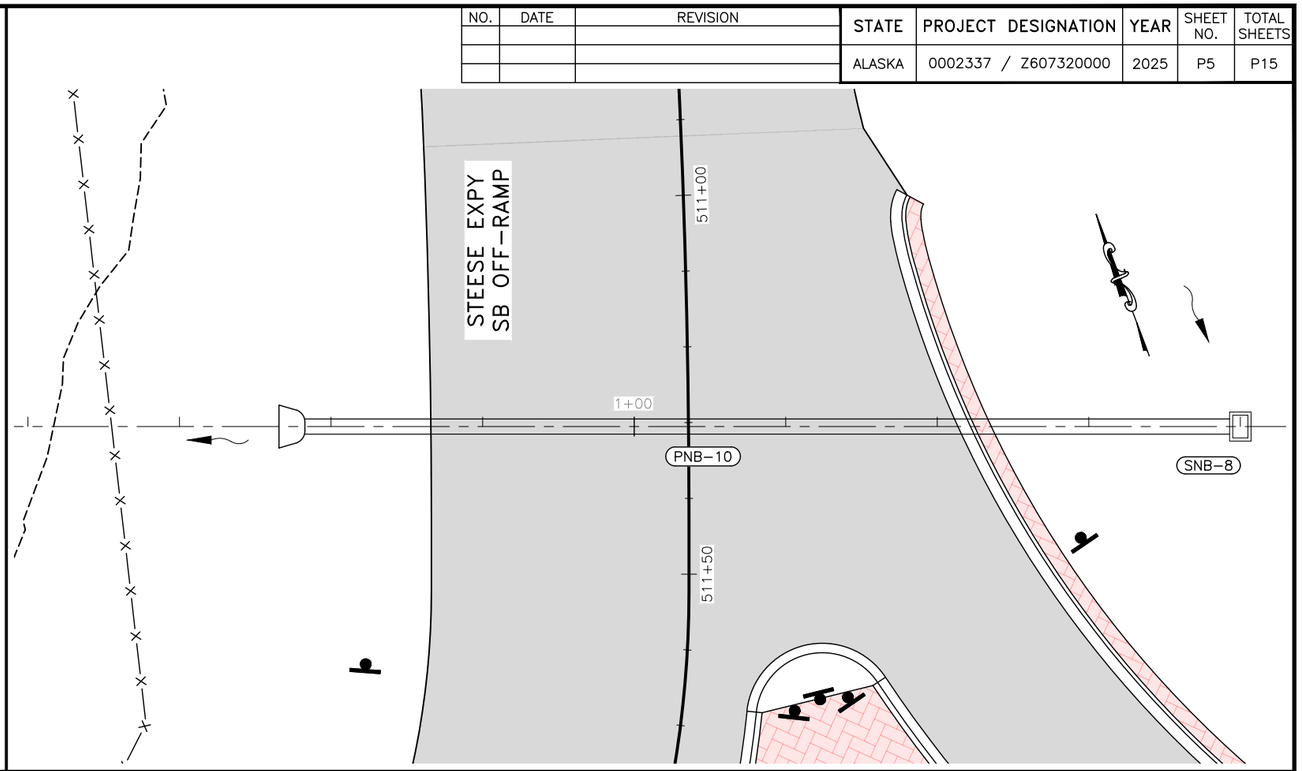
NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SNB-4	"NB" 233+73.5	56.52 LT	449.80	STORM SEWER MANHOLE, TYPE II WITH MOUNTABLE CURB INLET
SNB-5	"NB" 234+04.5	72.99 LT	450.07	STORM SEWER MANHOLE, TYPE I WITH EXPRESSWAY CURB INLET
SNB-6	"NB" 233+89.5	113.13 RT	449.87	STORM SEWER MANHOLE, TYPE I WITH MOUNTABLE CURB INLET

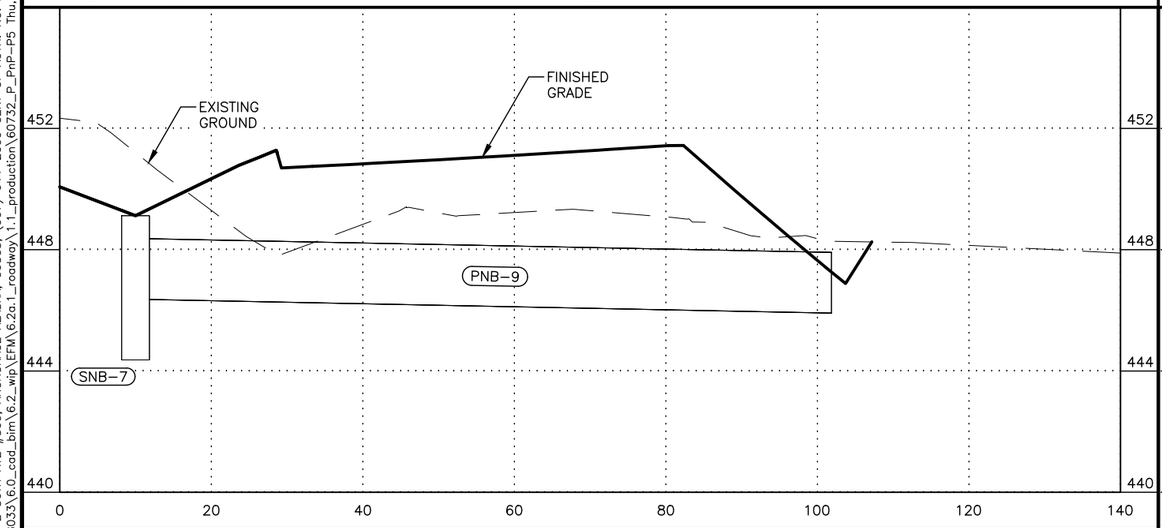
STORM SEWER NETWORK

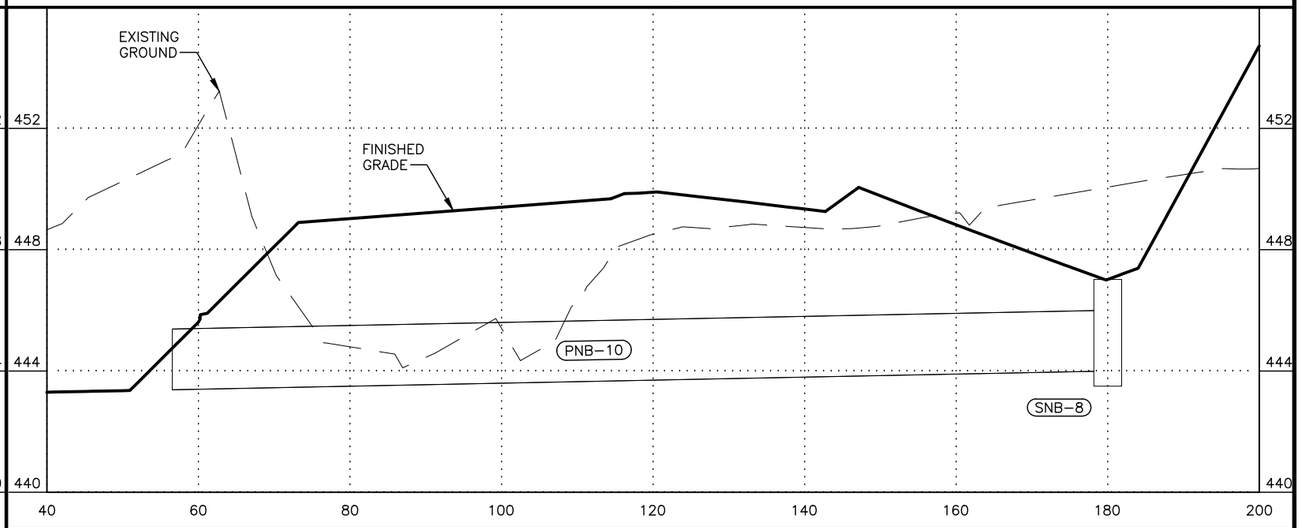
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P5	P15









PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PNB-9	"NB" 236+70.7	62.23 RT	446.37	"NB" 236+28.0	143.77 RT	445.91	24"	91.9'	0.50%	CSP 24 INCH
PNB-10	"NB" 236+31.9	109.43 LT	444.00	"NB" 236+77.3	223.85 LT	443.38	24"	123.4'	0.50%	CSP 24 INCH

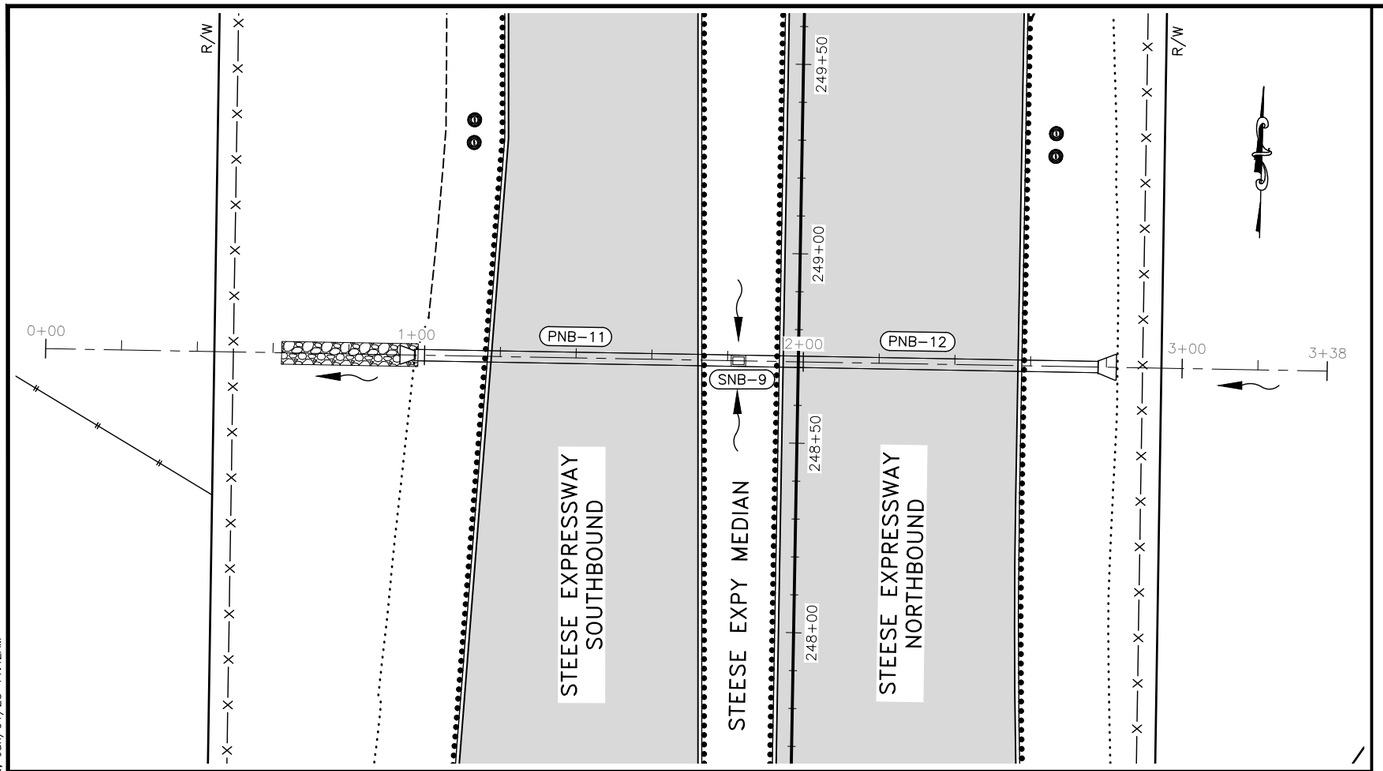
STRUCTURE SUMMARY

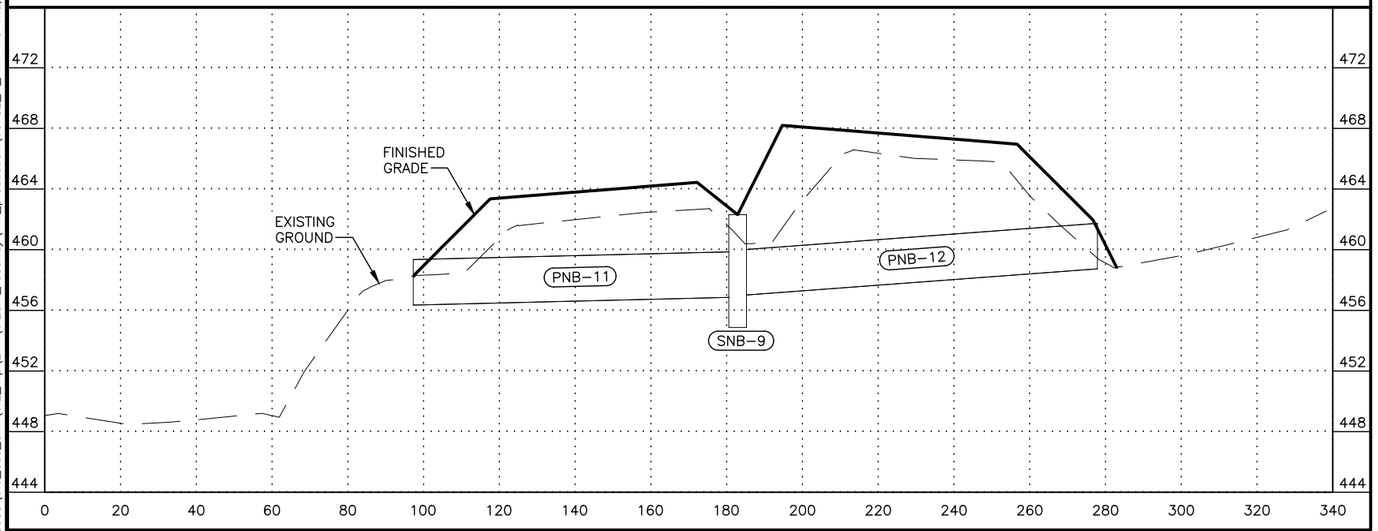
NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SNB-7	"NB" 236+70.7	62.23 RT	449.12	INLET, TYPE A WITH FIELD INLET
SNB-8	"NB" 236+31.9	109.43 LT	447.02	INLET, TYPE A

STORM SEWER NETWORK

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P6	P15





PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PNB–11	"NB" 248+71.5	15.79 LT	456.87	"NB" 248+71.5	101.39 LT	456.35	36"	85.6'	0.61%	CSP 36 INCH
PNB–12	"NB" 248+71.5	79.18 RT	458.74	"NB" 248+71.5	15.79 LT	456.97	36"	95.0'	1.86%	CSP 36 INCH

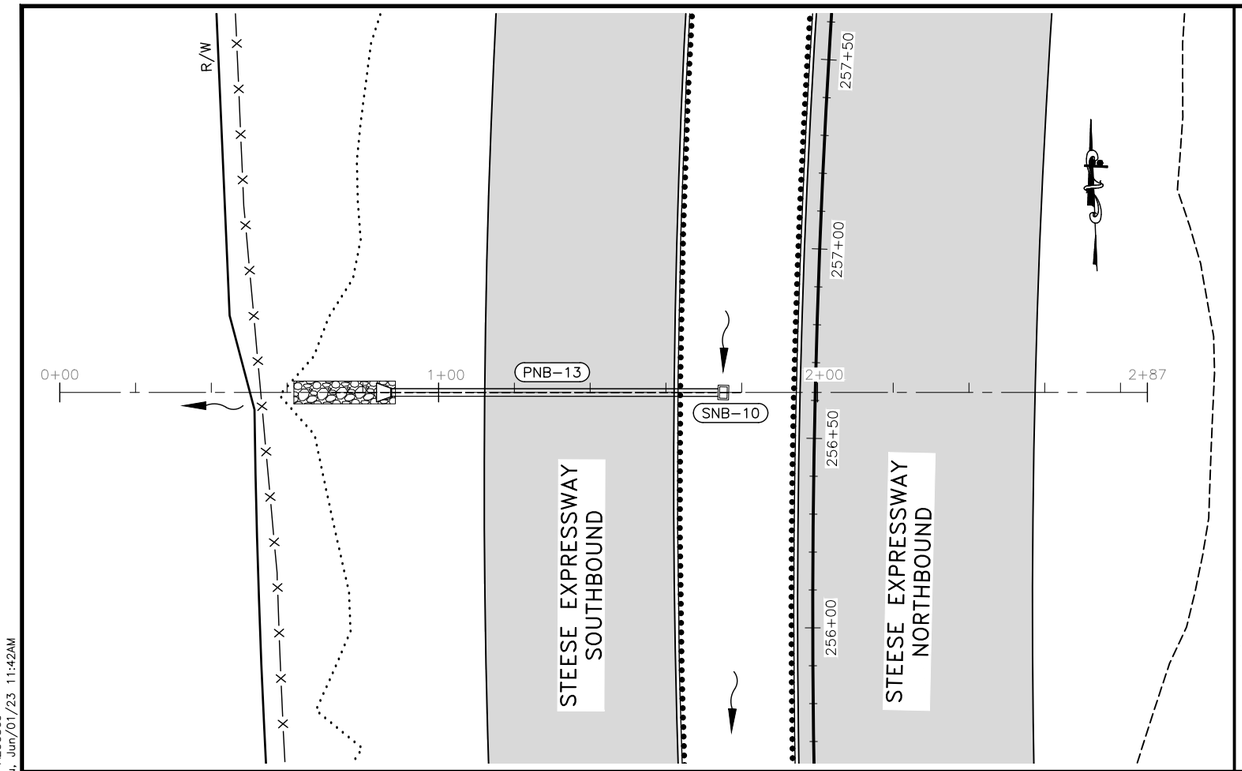
STRUCTURE SUMMARY

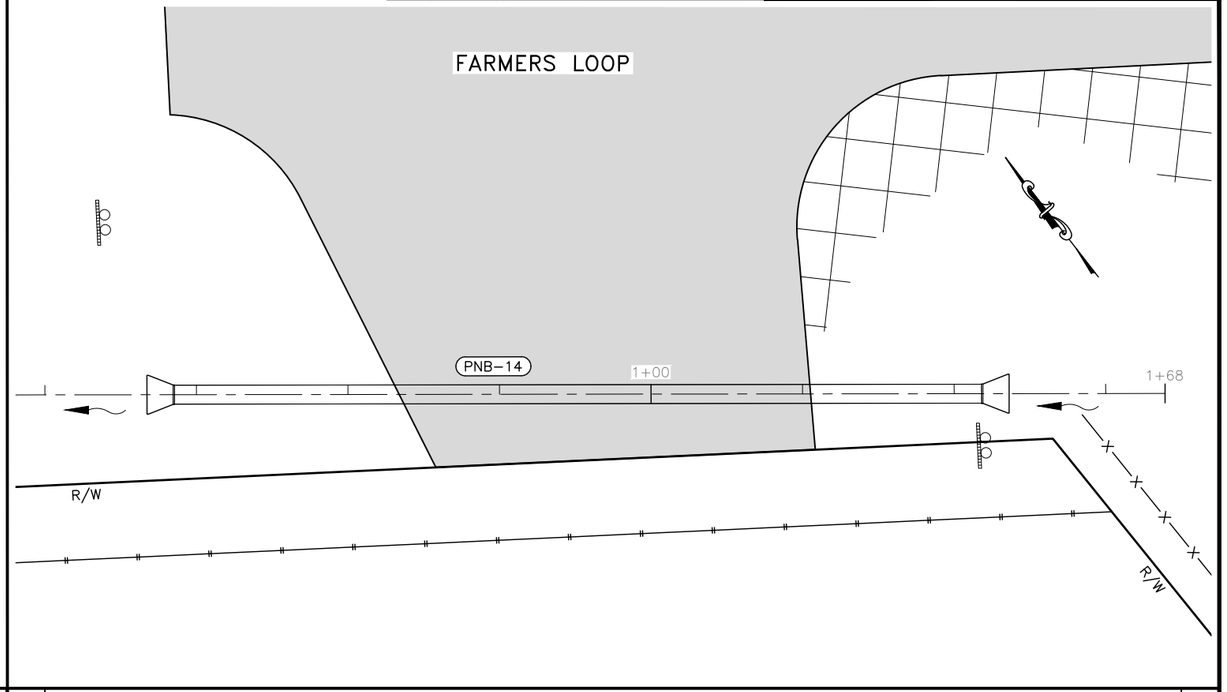
NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SNB–9	"NB" 248+71.5	15.79 LT	462.31	STORM SEWER MANHOLE, TYPE I WITH FIELD INLET

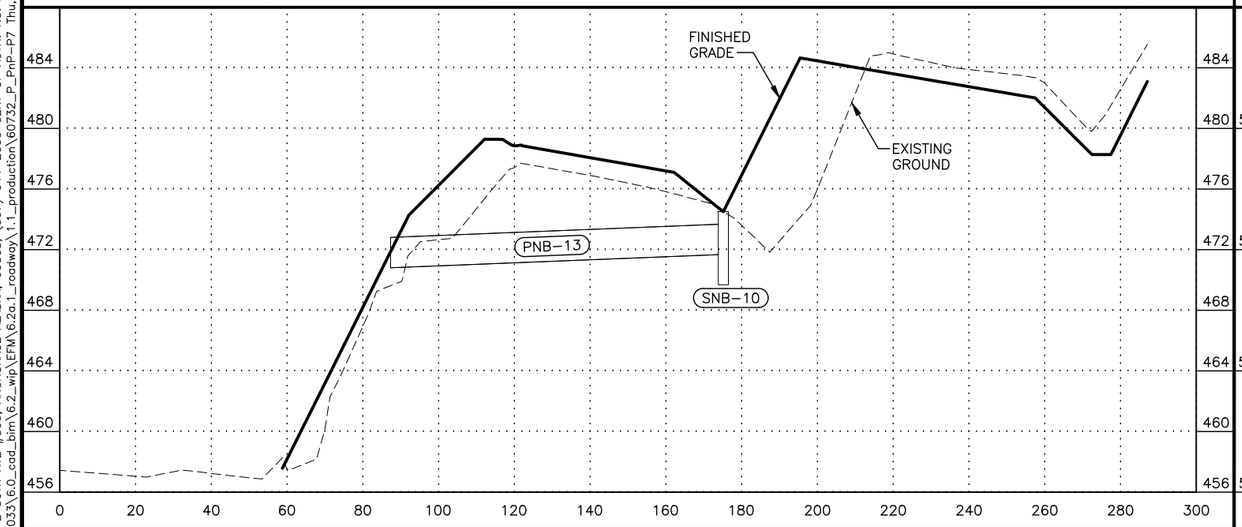
STORM SEWER NETWORK

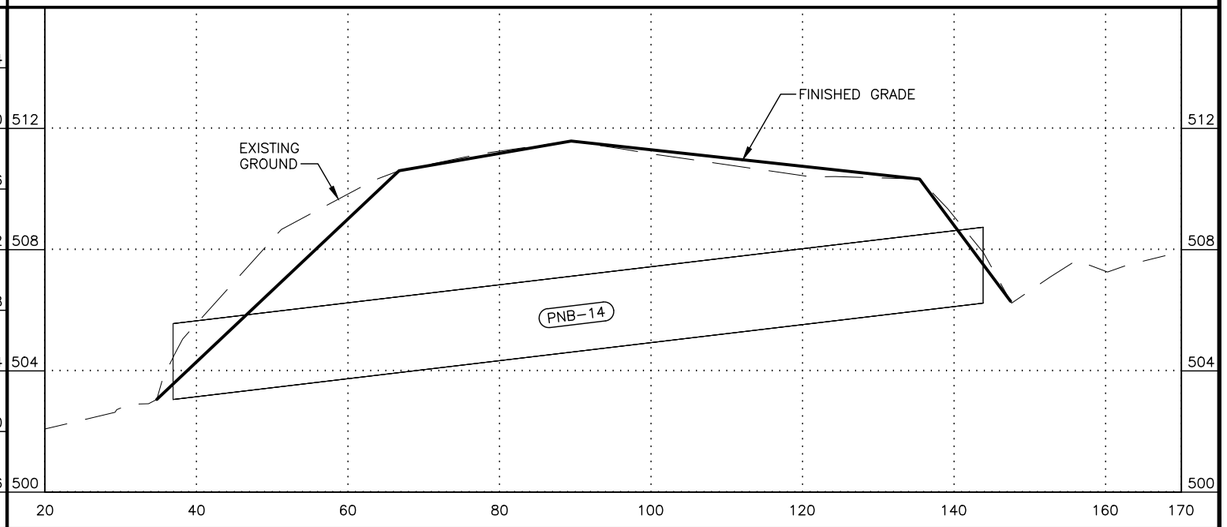
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P7	P15









PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PNB–13	"NB" 256+61.5	24.25 LT	471.69	"NB" 256+59.7	112.05 LT	470.81	24"	87.8'	1.00%	CSP 24 INCH
PNB–14	"NB" 274+86.7	367.95 LT	503.06	"NB" 274+80.4	261.22 LT	506.24	30"	106.9'	–2.97%	CSP 30 INCH

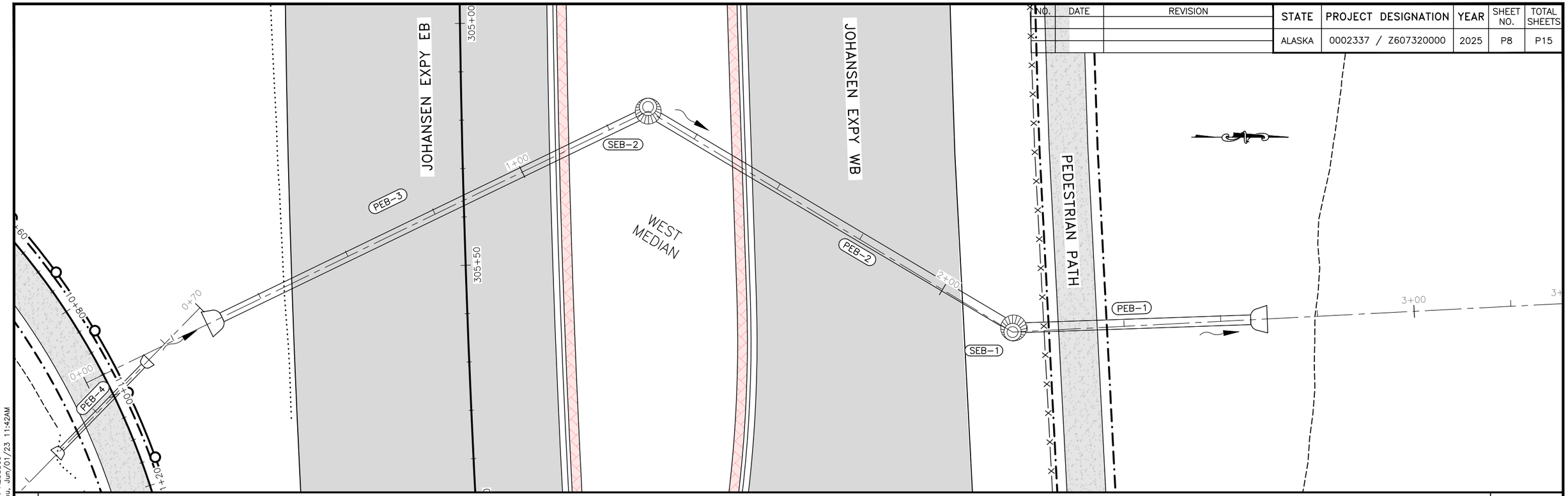
STRUCTURE SUMMARY

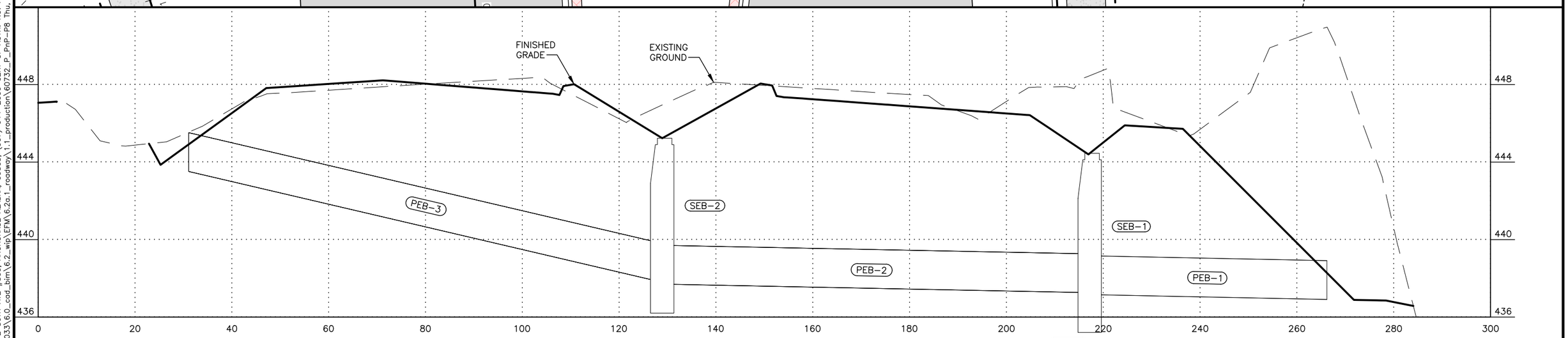
NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SNB–10	"NB" 256+61.5	24.25 LT	474.51	INLET, TYPE A

STORM SEWER NETWORK

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P8	P15





PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PEB–1	"EB" 305+67.5	112.65 LT	437.16	"EB" 305+67.7	161.65 LT	436.91	24"	49.0'	0.51%	CSP 24 INCH
PEB–2	"EB" 305+19.0	38.57 LT	437.70	"EB" 305+67.5	112.65 LT	437.26	24"	87.8'	0.50%	CSP 24 INCH
PEB–3	"EB" 305+58.9	50.67 RT	443.52	"EB" 305+19.0	38.57 LT	437.80	24"	97.8'	5.85%	CSP 24 INCH

STRUCTURE SUMMARY

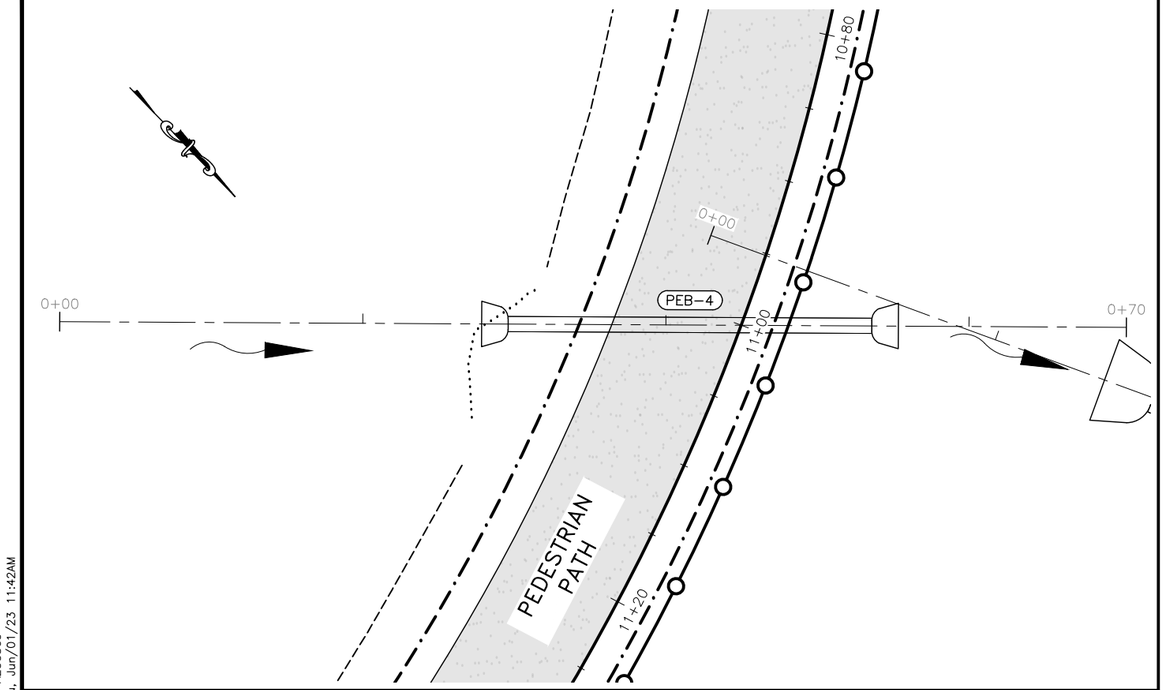
NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SEB–1	"EB" 305+67.5	112.65 LT	444.45	STORM SEWER MANHOLE, TYPE I WITH FIELD INLET
SEB–2	"EB" 305+19.0	38.57 LT	445.24	STORM SEWER MANHOLE, TYPE 1 WITH EXPRESSWAY CURB INLET

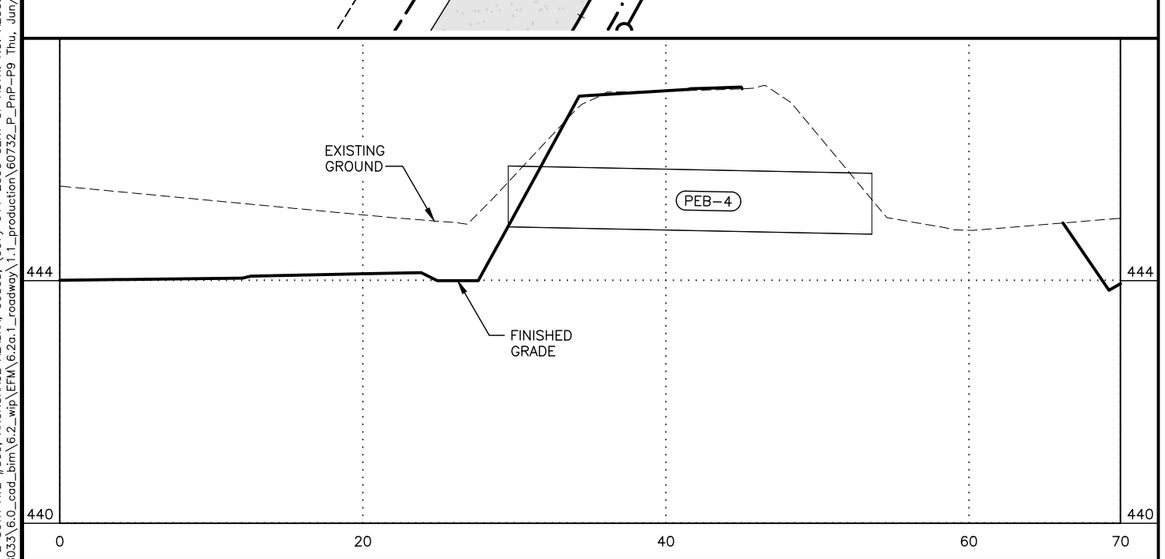
STORM SEWER NETWORK

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P9	P15





PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PEB–4	"EB" 305+84.1	84.84 RT	444.89	"EB" 305+68.1	67.36 RT	444.77	12"	24.0'	0.50%	CSP 12 INCH

STORM SEWER NETWORK

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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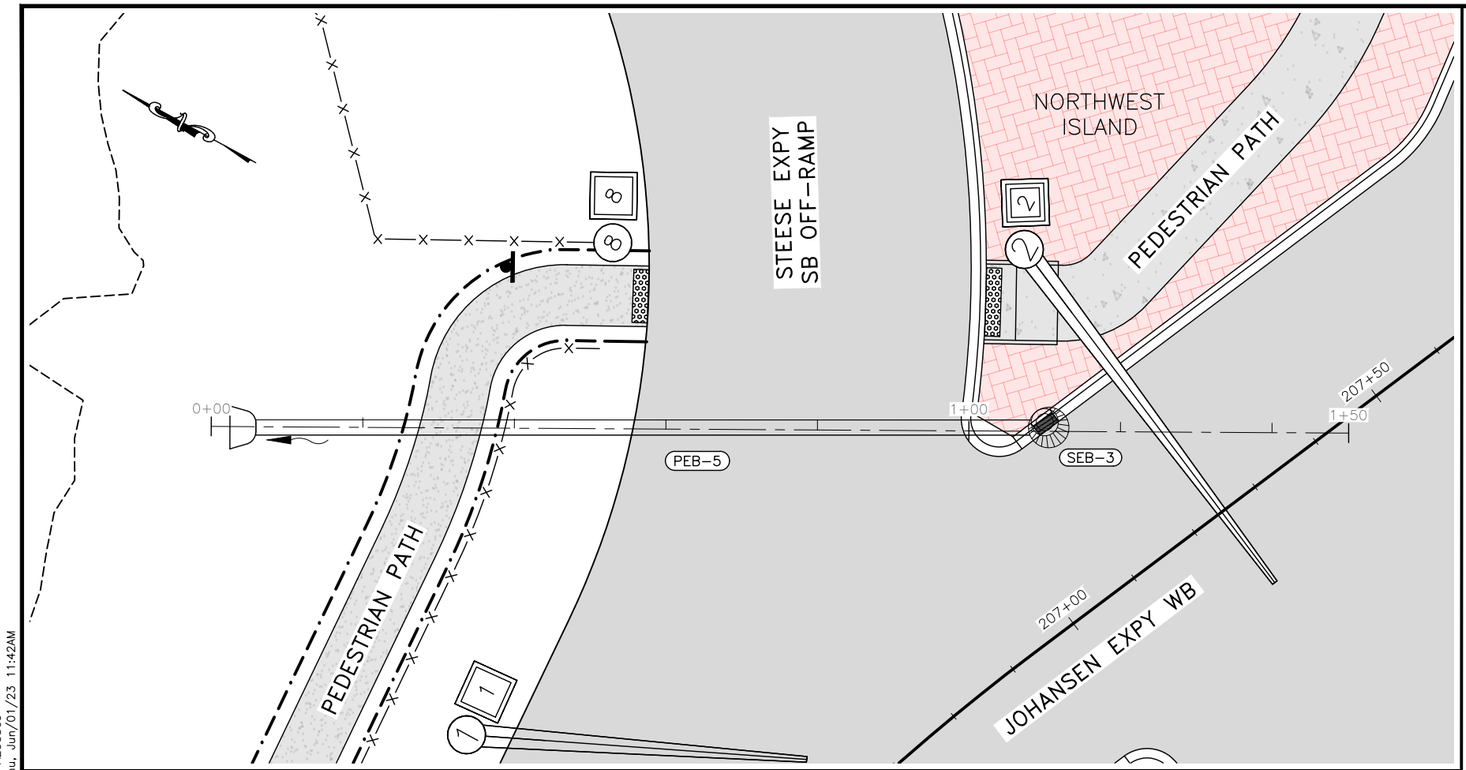
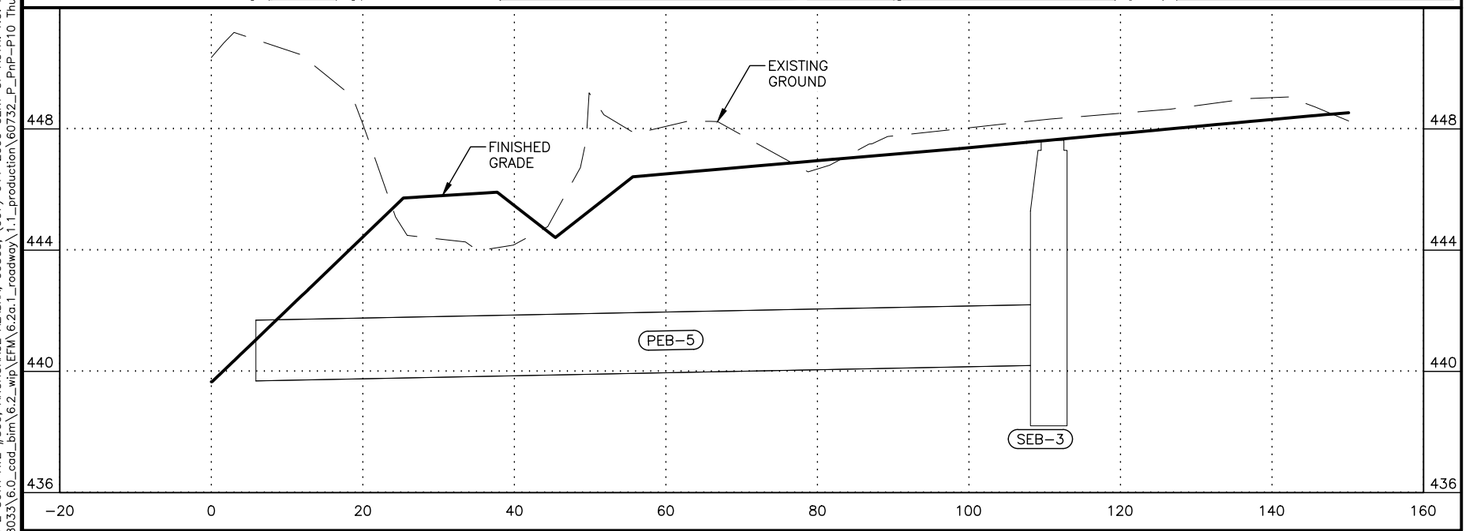




NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P10	P15

PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PEB-5	"EB" 307+18.9	53.71 LT	440.21	"EB" 306+75.8	149.72 LT	439.69	24"	104.7'	−0.50%	CSP 24 INCH

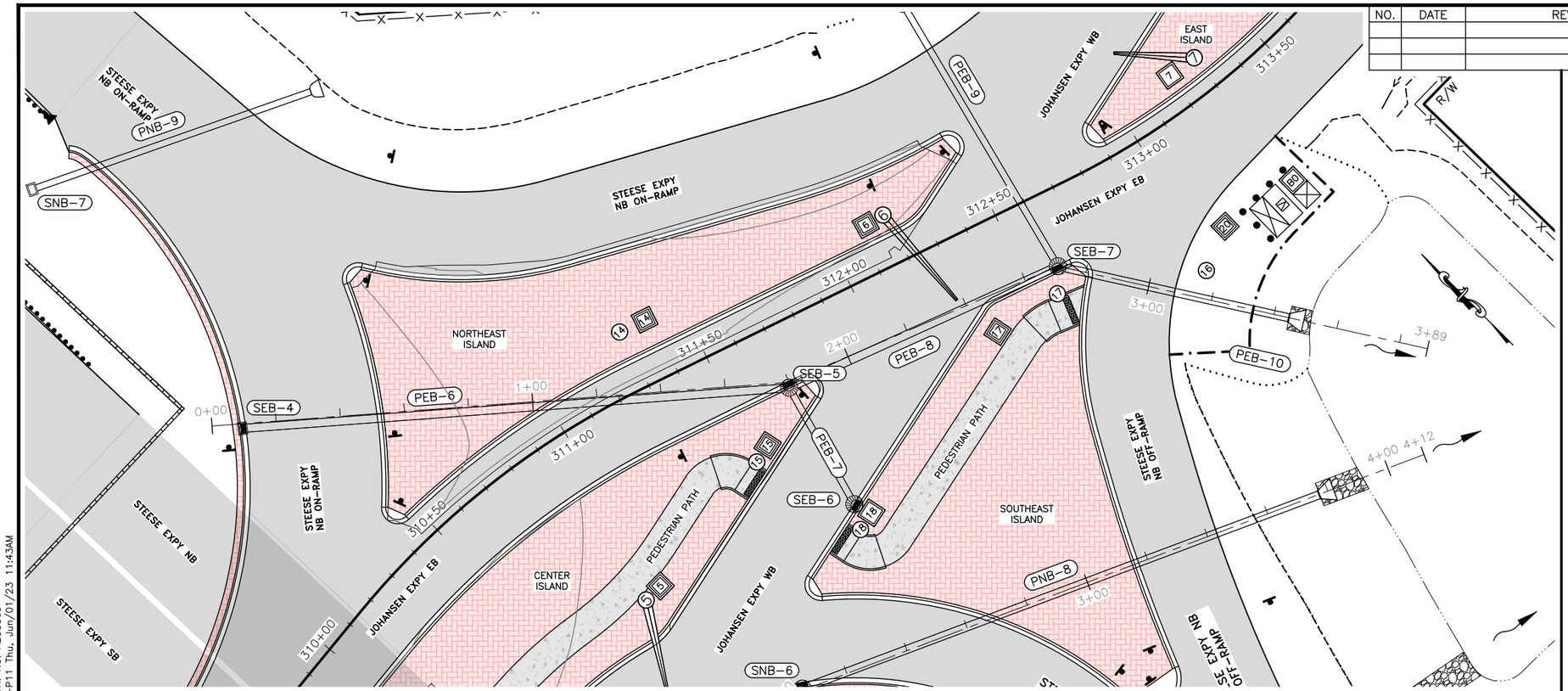
STRUCTURE SUMMARY

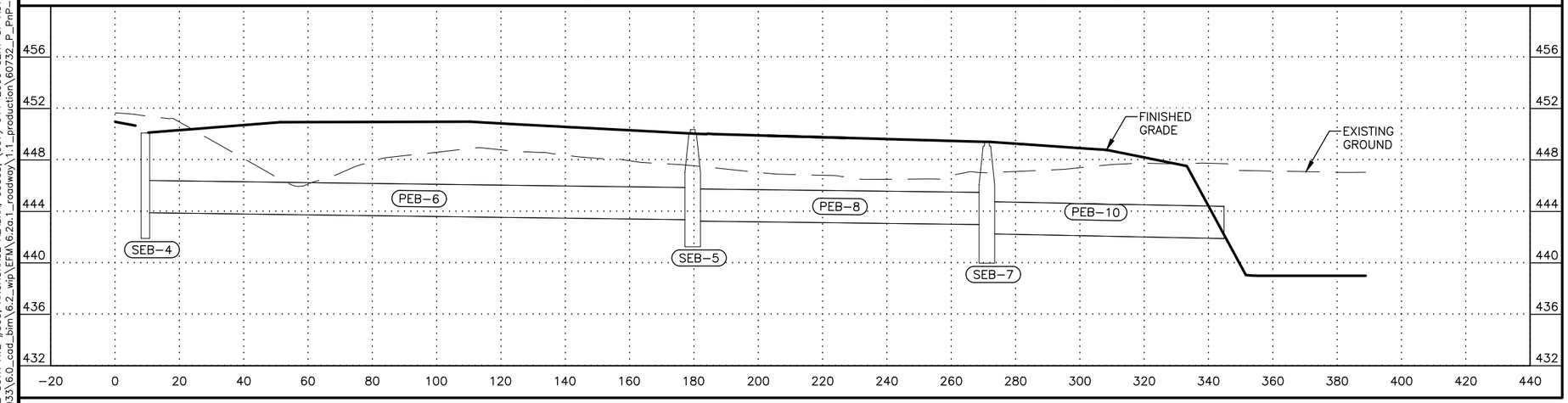
NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SEB-3	"EB" 307+18.9	53.71 LT	447.62	STORM SEWER MANHOLE, TYPE 1 WITH EXPRESSWAY CURB INLET

STORM SEWER NETWORK

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P11	P15





PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PEB−6	"EB" 311+68.9	19.85 RT	443.35	"EB" 310+31.7	65.18 LT	443.90	30"	170.5'	−0.32%	CSP 30 INCH
PEB−8	"EB" 312+60.6	22.74 RT	442.98	"EB" 311+68.9	19.85 RT	443.25	30"	91.7'	−0.30%	CSP 30 INCH
PEB−10	"EB" 313+08.6	71.72 RT	441.89	"EB" 312+60.6	22.74 RT	442.26	30"	73.7'	−0.50%	CSP 30 INCH

STRUCTURE SUMMARY

NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SEB−4	"EB" 310+31.7	65.18 LT	450.11	INLET, TYPE A WITH STANDARD CURB INLET
SEB−5	"EB" 311+68.9	19.85 RT	450.37	STORM SEWER MANHOLE, TYPE I WITH EXPRESSWAY CURB INLET
SEB−7	"EB" 312+60.6	22.74 RT	449.41	STORM SEWER MANHOLE, TYPE I WITH EXPRESSWAY CURB INLET

STORM SEWER NETWORK

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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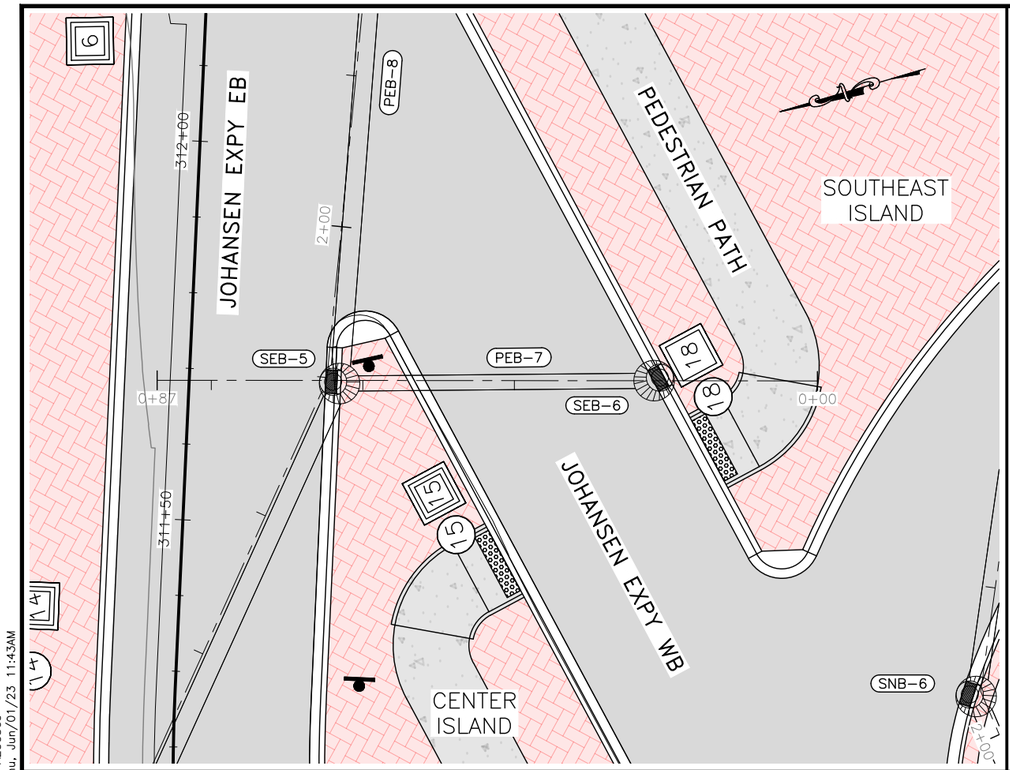
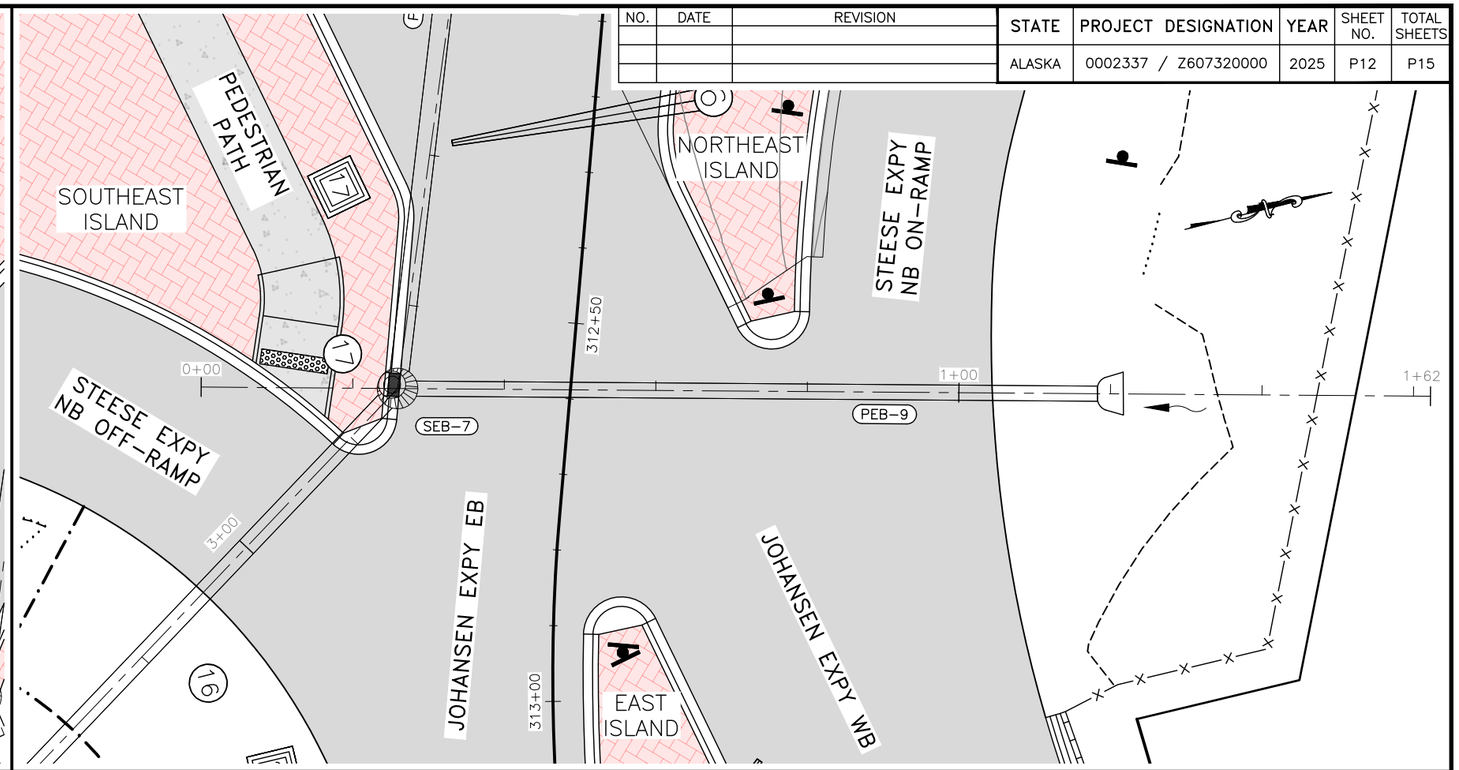
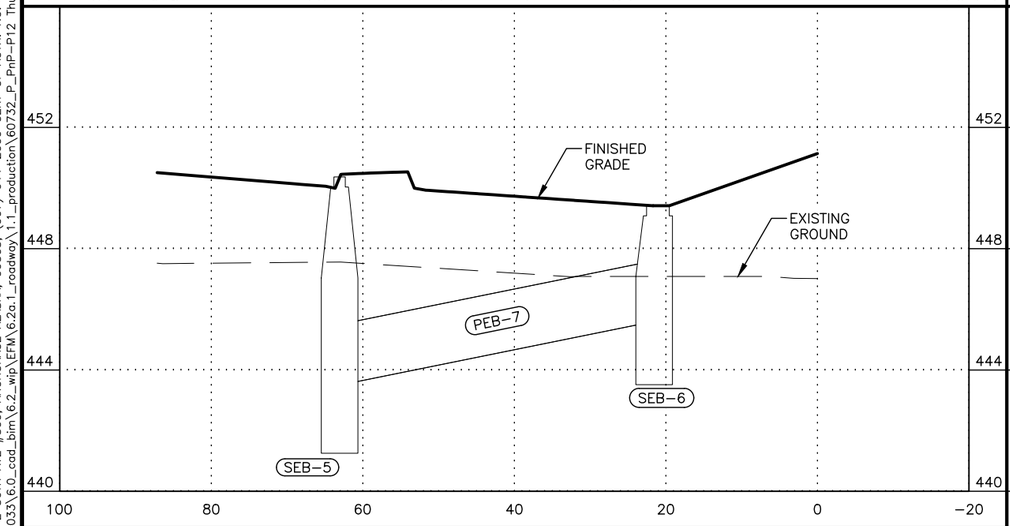
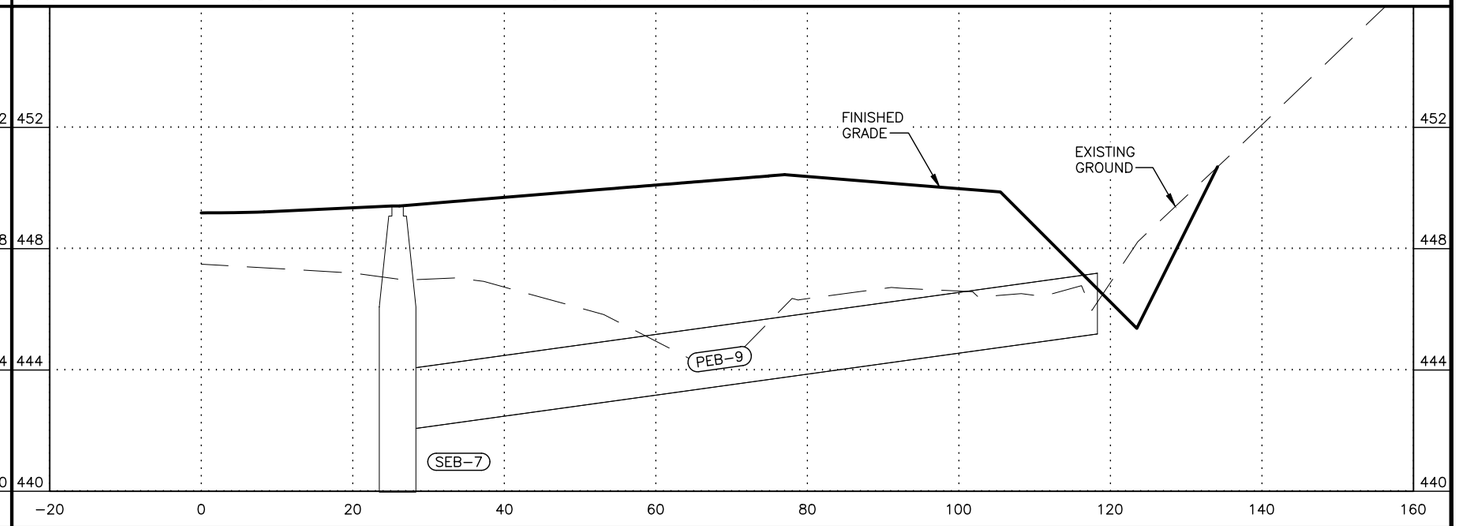
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P12	P15









PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PEB-7	"EB" 311+71.2	61.31 RT	445.60	"EB" 311+68.9	19.85 RT	443.50	24"	41.5'	5.06%	CSP 24 INCH
PEB-9	"EB" 312+53.3	69.34 LT	445.19	"EB" 312+60.6	22.74 RT	441.99	24"	92.4'	3.46%	CSP 24 INCH

STRUCTURE SUMMARY

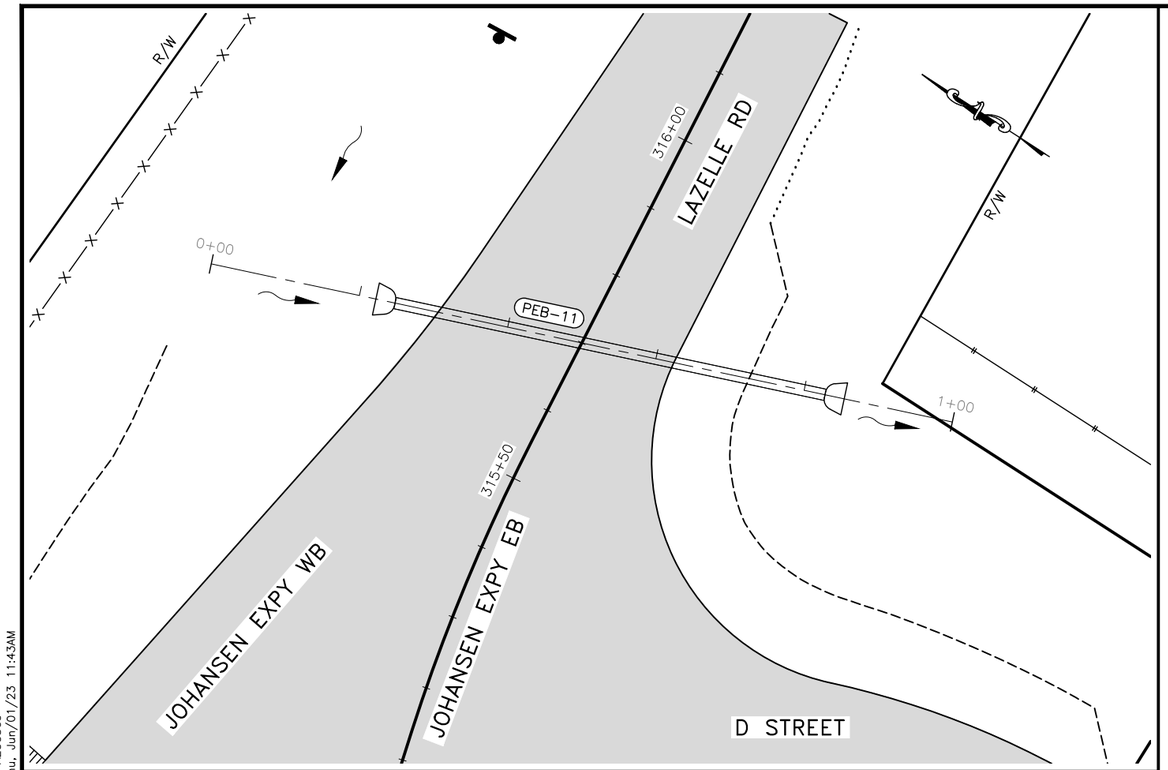
NAME	STATION	OFFSET	RIM ELEV.	DESCRIPTION
SEB-5	"EB" 311+68.9	19.85 RT	450.37	STORM SEWER MANHOLE, TYPE I WITH EXPRESSWAY CURB INLET
SEB-6	"EB" 311+71.2	61.31 RT	449.42	STORM SEWER MANHOLE, TYPE I WITH EXPRESSWAY CURB INLET
SEB-7	"EB" 312+60.6	22.74 RT	449.41	STORM SEWER MANHOLE, TYPE I WITH EXPRESSWAY CURB INLET

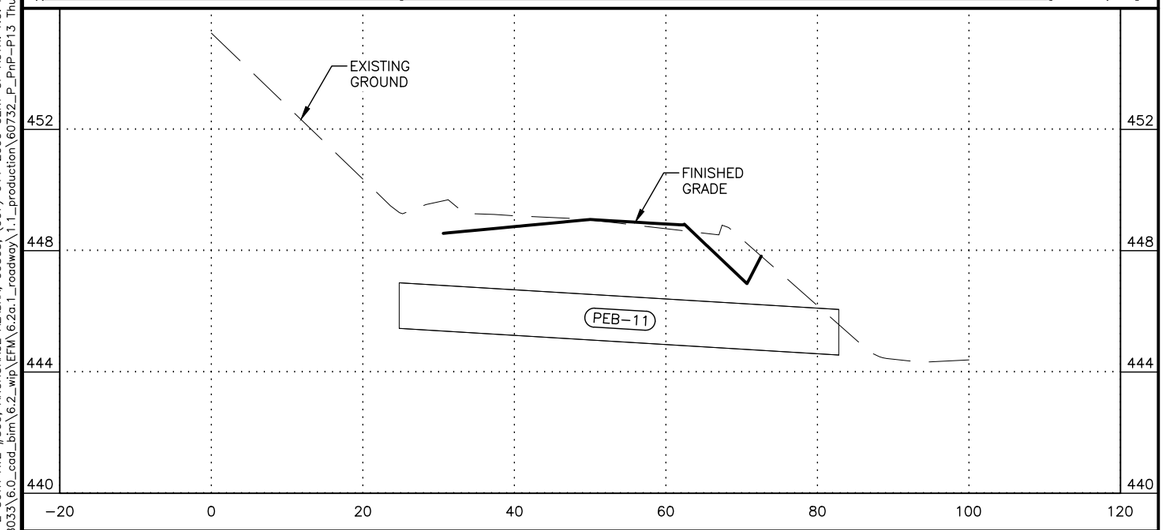
STORM SEWER NETWORK

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P13	P15





PIPE SUMMARY

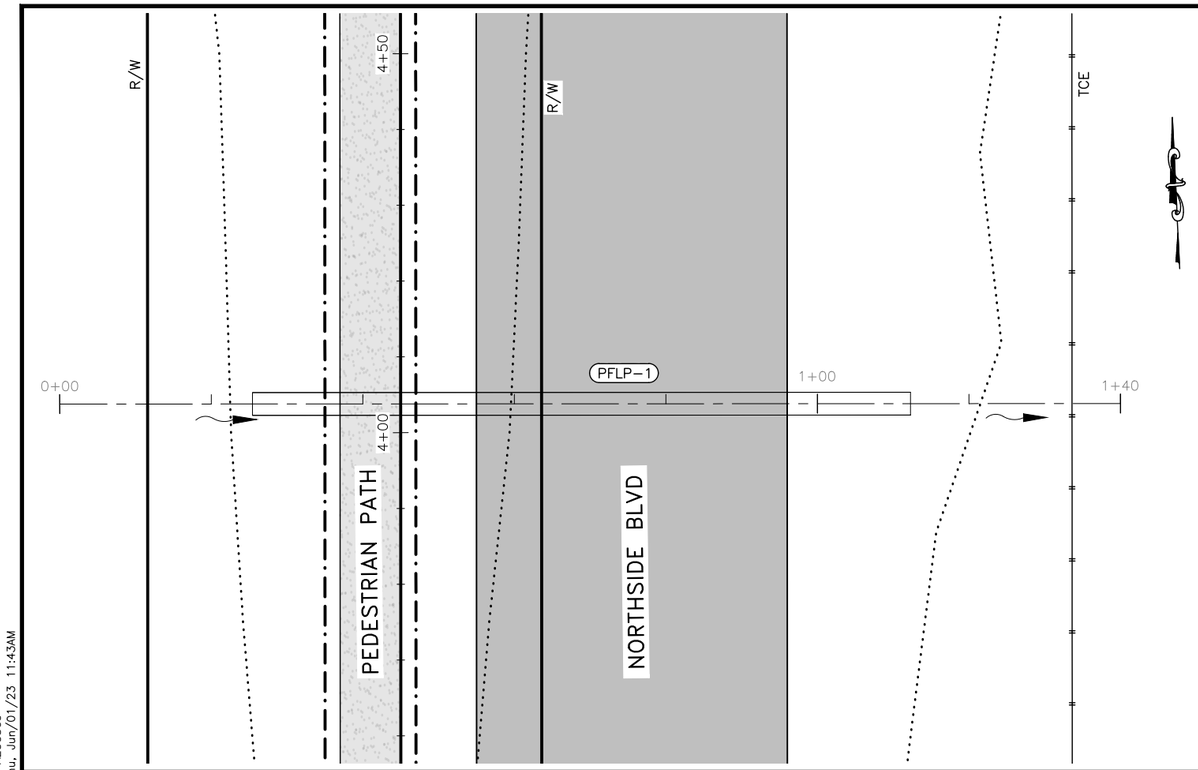
PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PEB–11	"EB" 315+63.5	24.34 LT	445.44	"EB" 315+78.5	31.70 RT	444.56	18"	58.0'	1.52%	CSP 18 INCH

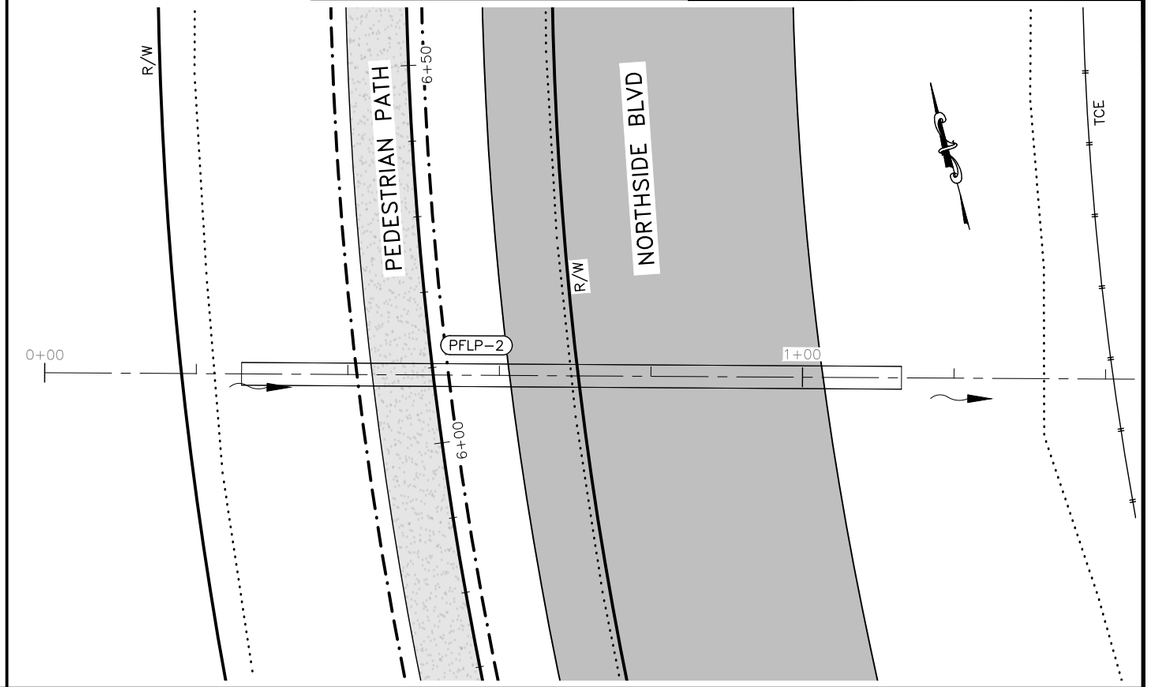
STORM SEWER NETWORK

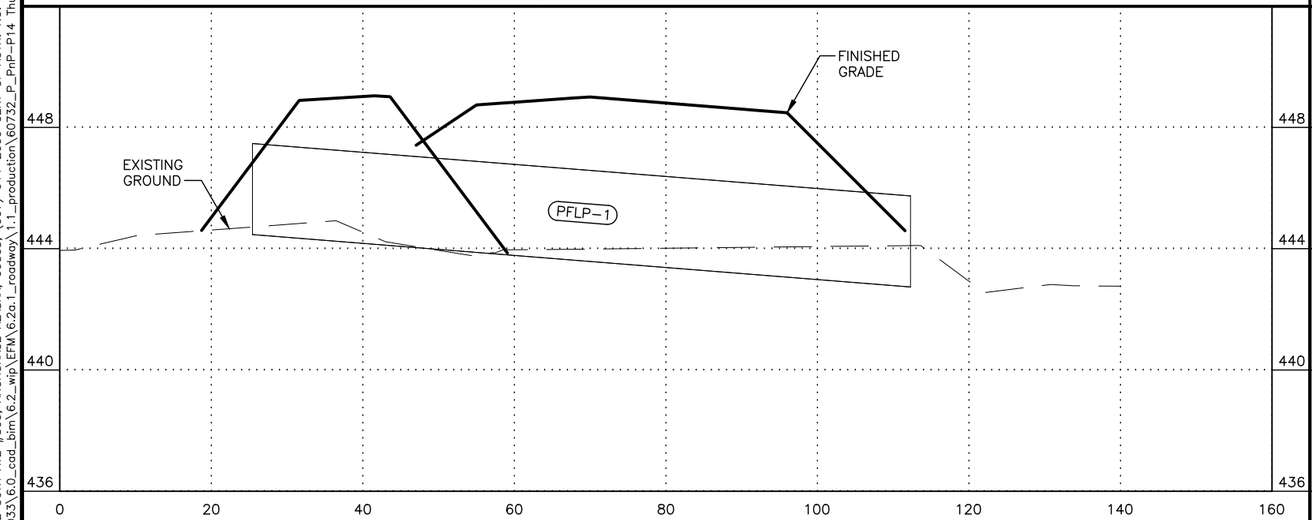
STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

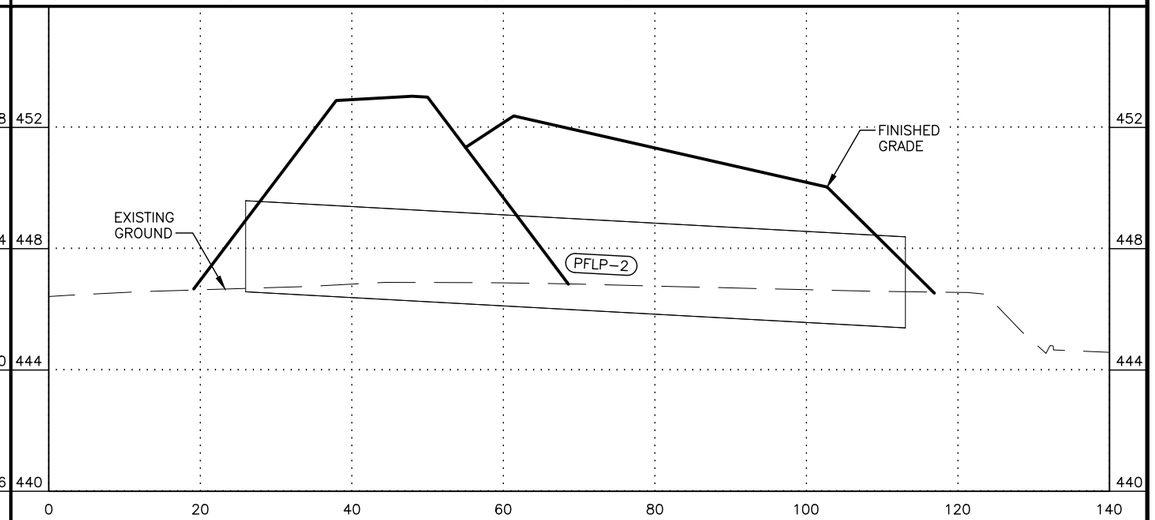
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P14	P15









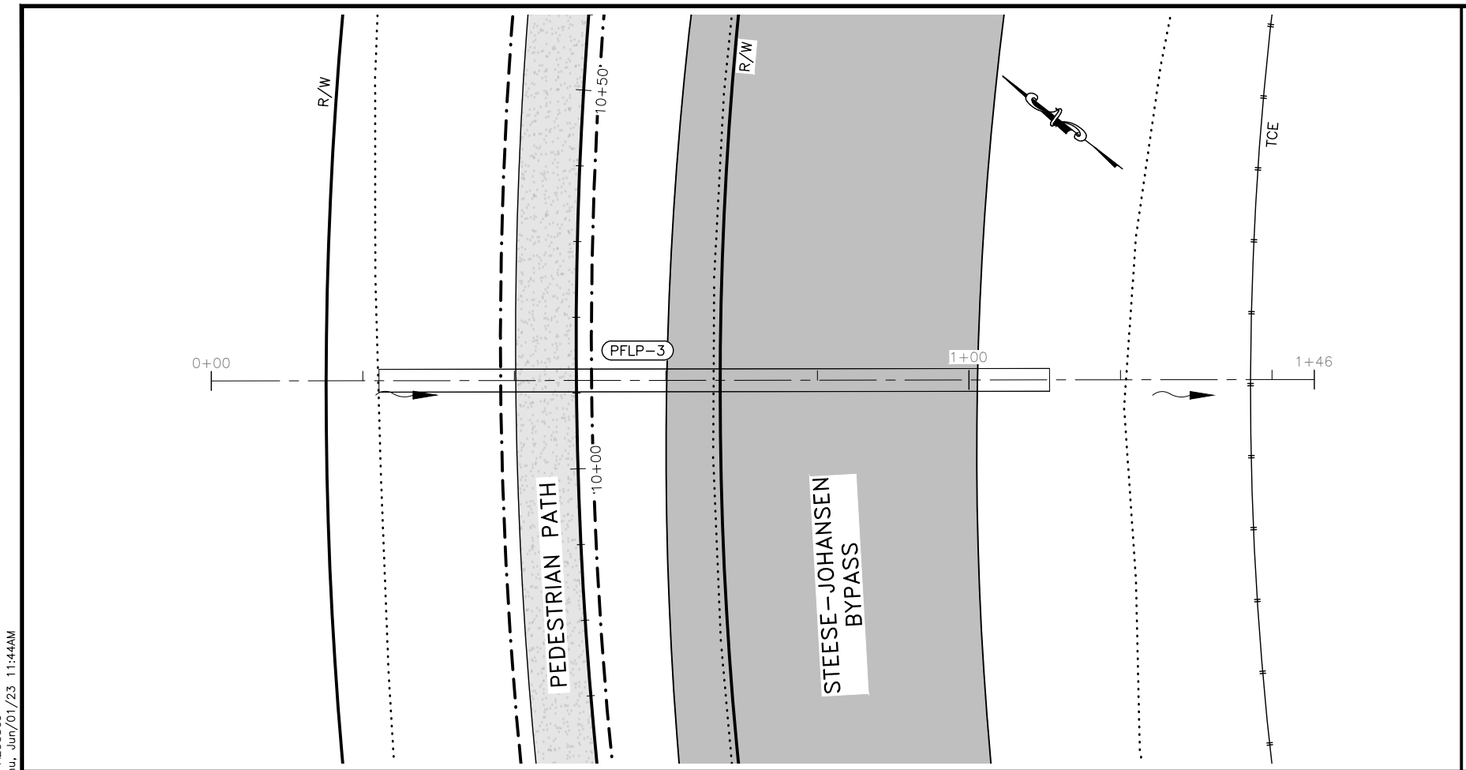
PIPE SUMMARY

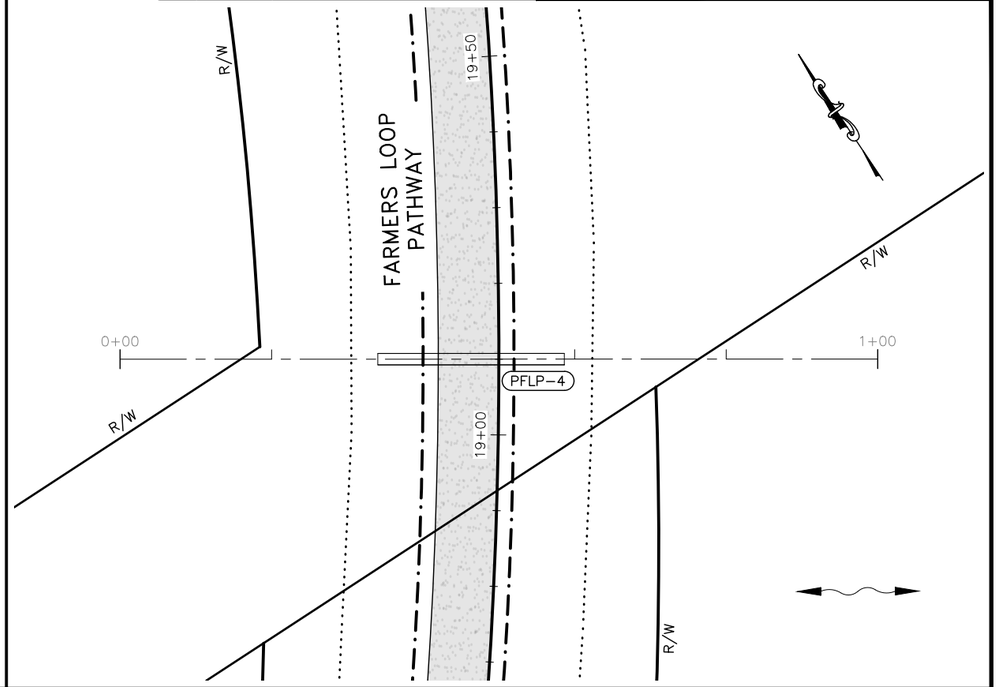
PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PFLP–1	"FLP" 4+03.8	19.56 LT	444.47	"FLP" 4+03.8	67.28 RT	442.74	36"	86.8'	1.99%	CSP 36 INCH
PFLP–2	"FLP" 6+12.0	25.10 LT	446.58	"FLP" 6+00.2	61.25 RT	445.39	36"	87.1'	1.37%	CSP 36 INCH

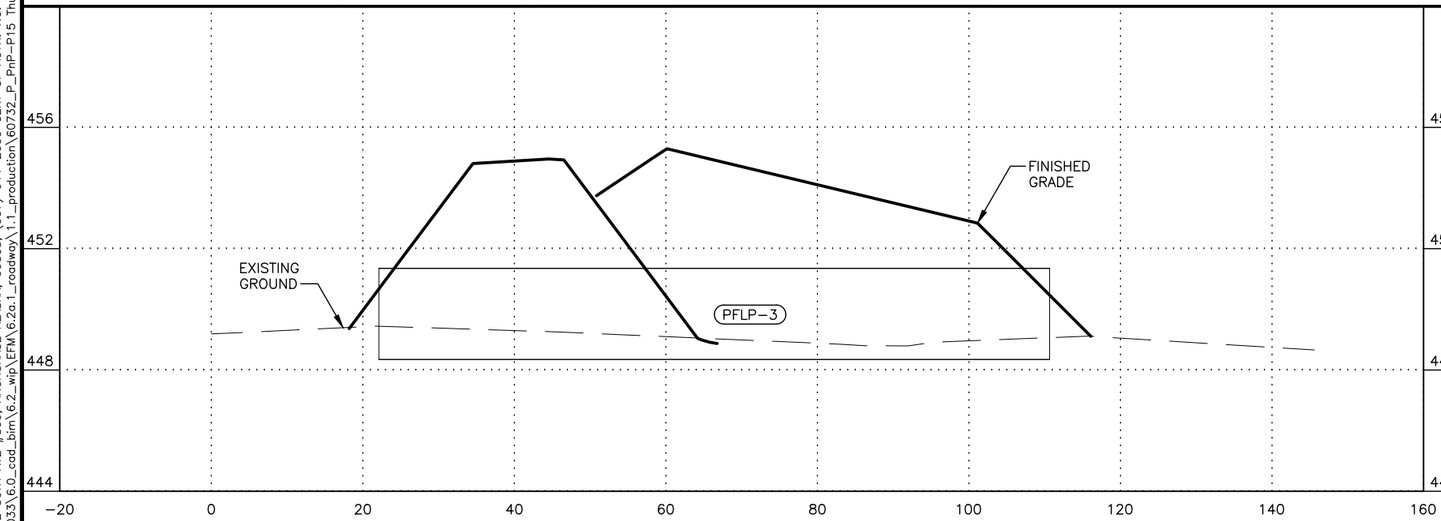
STORM SEWER NETWORK

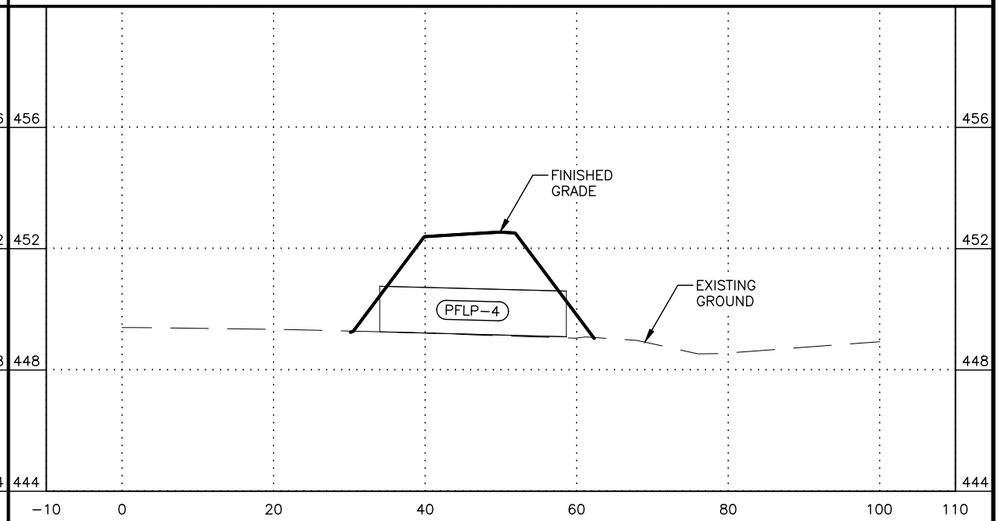
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	P15	P15









PIPE SUMMARY

PIPE	INLET STA.	OFFSET	INLET INV.	OUTLET STA.	OFFSET	OUTLET INV.	SIZE	LENGTH	SLOPE	MATERIAL
PFLP–3	"FLP" 10+11.9	26.04 LT	448.35	"FLP" 10+11.1	62.46 RT	448.35	36"	88.5'	0.00%	CSP 36 INCH
PFLP–4	"FLP" 19+10.0	15.98 LT	449.26	"FLP" 19+10.0	8.64 RT	449.10	18"	24.6'	0.65%	CSP 18 INCH

STORM SEWER NETWORK

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q1	Q15

ENVIRONMENTAL INFORMATION

1. RECEIVING WATERS: CHENA RIVER
2. IMPAIRED WATERS: NONE
3. TOTAL MAXIMUM DAILY LOADS (TMDL): NONE PUBLISHED AT TIME OF DELIVERABLE.
4. STORM SEWER/DRAINAGE SYSTEMS: NOT PRESENT WITHIN PROJECT LIMITS.
5. THREATENED AND ENDANGERED SPECIES: NONE
6. HISTORICAL & CULTURAL RESOURCES PRESENCE: NONE
7. FISH & WILDLIFE HABITAT PRESENCE: NONE
8. WETLANDS: LARGE WETLAND IN NW QUADRANT OF PROJECT SITE
9. EXISTING PUBLIC WATER SYSTEM (PWS) DRINKING WATER PROTECTION AREAS:
   - PWSID: AK2314938
   - WATER SYSTEM NAME: FAIRHILL CHRISTIAN SCHOOL
   - PWS CONTACT INFORMATION:
     - NAME: DAWNN MACPHEE
     - PHONE: 907-457-2167
     - EMAIL: FAIRHILLOFFICE@GMAIL.COM
     - ADDRESS: 101 CITY LIGHTS BLVD, FAIRBANKS, AK 99712
10. DEWATERING OF GROUND AND/OR STORMWATER THAT ACCUMULATES IN AN EXCAVATION AREA WITHIN 1,500 FT OF A DEC-IDENTIFIED CONTAMINATED SITE REQUIRED AN EXCAVATION DEWATERING PERMIT FROM DEC. AN EXCAVATION DEWATERING PERMIT FROM DEC IS REQUIRED FOR THIS PROJECT.
11. THE FOLLOWING DEC IDENTIFIED CONTAMINATED SITES ARE LOCATED WITHIN 1,500 FEET OF THE PROJECT AREA:
    - HAZARD ID 2328 – SEEKINS FORD INJECTION WELL, ACTIVE
    - HAZARD ID 24445- SEEKINS FORD LINCOLN MERCURY, ACTIVE
    - HAZARD ID 27719- SOURDOUGH FUEL FARMERS LOOP GAS STATION, ACTIVE
    - HAZARD ID 1956 – FORT WAINWRIGHT FARMERS LOOP, ACTIVE
    - HAZARD ID 4214 – FORT WAINWRIGHT (OU-5) BIRCH HILL TANK FARM LEAD FTWW-096, ACTIVE
    - HAZARD ID 1685 – FORT WAINWRIGHT (OU-3) BIRCH HILL TANK FARM FTWW-055, ACTIVE
    - HAZARD ID 26618- CANOL PIPELINE SITEWIDE INVESTIGATION (FUDS), ACTIVE
    - HAZARD ID 3685 – BENTLEY TRUST PROPERTY TAX LOT 201, ACTIVE
    - HAZARD ID 3680 – NC MACHINERY STEESE HWY UHOT, ACTIVE
    - HAZARD ID 24295- NC MACHINERY COMPANY, ACTIVE
    - HAZARD ID 26324- COMMERCIAL PROPERTY – 530 OLD STEESE HIGHWAY
    - HAZARD ID 4033 – BENTLEY MALL EAST SATELLITE
    - HAZARD ID 26275- VIP CLEANERS
    - HAZARD ID 24954- GREAT LAND REALTY
    - HAZARD ID 24254- ADAK AVENUE RESIDENCE

SITE INFORMATION

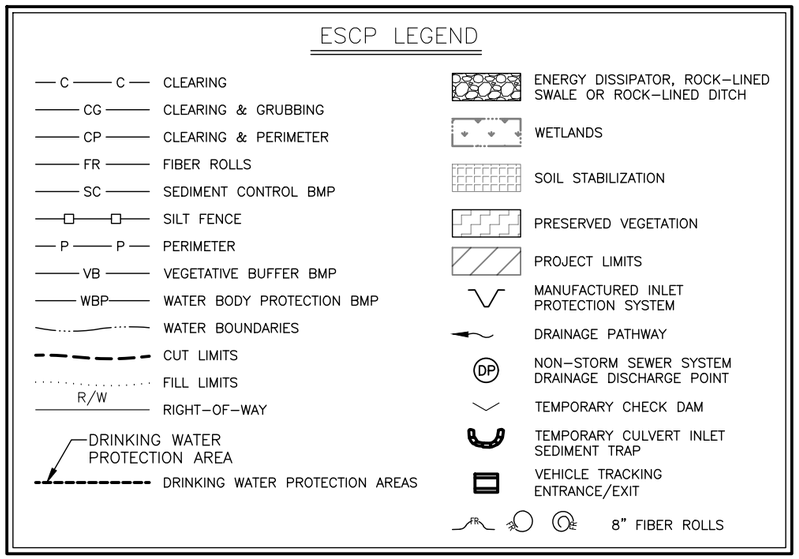
1. FOR GENERAL LOCATION MAP SEE VICINITY MAP ON SHEET A1, Q1, AND USGS FAIRBANKS (D-2) SE QUADRANGLE, TXS, RXW, SECTION 11/14, FAIRBANKS MERIDIAN.
2. SITE FUNCTION: ROAD
3. AVERAGE ANNUAL PRECIPITATION: 13.01 INCHES (SOURCE: HTTP://WWW.WRCC.DRI.EDU/SUMMARY/CLIMSMAK.HTML)
4. 2-YEAR, 24-HOUR RAINFALL EVENT: 1.09 INCHES (SOURCE: HTTP://HDSC.NWS.NOAA.GOV/HDSC/PFDS/PFDS_MAP_AK.HTML)
5. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATIONS FOR STOCKPILING MATERIAL AND STAGING AND STORING EQUIPMENT. STAGING AND STOCKPILE AREAS MUST COMPLY WITH CGP, SWPPP, SECTION 641, AND ALL PERMITS.
6. PROJECT AREAS ARE LISTED BELOW (MATERIAL SITES NOT INCLUDED):

PROJECT INFORMATION TABLE	
PROJECT AREA (ROW to ROW)	85.7 ACRES
DISTURBED AREA	66.1 ACRES
PRE-CONSTRUCTION IMPERVIOUS AREA	20.9 ACRES
POST-CONSTRUCTION IMPERVIOUS AREA	47.2 ACRES
PRE-CONSTRUCTION RUNOFF COEFFICIENT	0.33
POST-CONSTRUCTION RUNOFF COEFFICIENT	0.71

7. LANDSCAPE TOPOGRAPHY: FLAT AND URBANIZED WITH RESIDENTIAL AND COMMERCIAL DEVELOPMENTS SURROUNDING THE PROJECT INTERSECTION.
8. DRAINAGE PATTERNS: SURFACE DRAINAGE AND PIPED STORM DRAINS FLOW TO CHENA RIVER.
9. SOILS: ALLUVIAL SAND AND GRAVEL OVERLAIN BY SILT AND ORGANIC SILT.
10. EXISTING VEGETATION: MIX OF LANDSCAPED AND NON-LANDSCAPED GRASS, TREES, AND SHRUBS.
11. APPROXIMATE GROWING SEASON: MAY 3 THROUGH OCTOBER 3 (SOURCE: USACE WETLANDS DELINEATION MANUAL: ALASKA REGION (VERSION2)) ECOREGION NO. 104, INTERIOR FORESTED LOWLAND AND UPLANDS.

ESCP NOTES:

1. THIS PROJECT WILL RESULT IN GROUND DISTURBANCE GREATER THAN 1 ACRE. THIS PROJECT WILL REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), A NOTICE OF INTENT TO DISCHARGE (NOI) TO APPLY FOR COVERAGE UNDER THE ALASKA POLLUTANT DISCHARGE ELMINATION SYSTEM (APDES) CONSTRUCTION GENERAL PERMIT (CGP).
2. THIS EROSION & SEDIMENT CONTROL PLAN (ESCP) IS GENERAL IN NATURE AND IS PROVIDED AS GUIDANCE TO THE CONTRACTOR FOR DEVELOPMENT OF THE SWPPP.
3. SEE THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (ADEC) STORM WATER WEBPAGE HTTP://DEC.ALASKA.GOV/WATER/WASTEWATER/STORMWATER/ FOR THE CONSTRUCTION SITE STORM WATER PLAN REVIEW INSPECTION REQUIREMENTS APPLICABLE TO THIS PROJECT. THIS PROJECT IS PUBLICLY-FUNDED AND PURSUANT TO SECTION 2.1.4.3 OF THE CGP, A COPY OF THE SWPPP MUST BE SUBMITTED TO THE ADEC FOR REVIEW.
4. INLET PROTECTION SHALL BE PROVIDED AT ALL CATCH BASIN INLETS RECEIVING STORM WATER RUNOFF FROM THE PROJECT SITE. INLET PROTECTION FOR FIELD INLETS SHALL CONSIST OF A FILTER BAG PLACED UNDER THE INLET GRATE. INLET PROTECTION FOR OPEN-CURB STYLE INLETS SHALL CONSIST OF A FILTER BAG WITH A CURB INSERT DEFLECTOR. OUTLET PROTECTION MAY ALSO BE NEEDED AT THE OUTFALL LOCATIONS TO CONTROL EROSION. SPECIFIC CONTROL DEVICES AND LOCATIONS SHALL BE ELECTED BY THE SWPPP PREPARER OR CONTRACTOR. CONTRACTOR TO ENSURE BMPS ARE IN GOOD WORKING CONDITION AND ARE MAINTAINED PER ADEC CGP AND MANUFACTURER'S REQUIREMENTS.
5. INLET AND OUTLET PROTECTION SHALL BE PROVIDED AT ALL CULVERT LOCATIONS RECEIVING STORM WATER RUNOFF FROM THE PROJECT SITE. INLET PROTECTION FOR CULVERTS SHALL BE DESIGNED TO CONTROL SEDIMENT FROM ENTERING THE PIPE. OUTLET PROTECTION FOR CULVERTS SHALL BE DESIGNED TO CONTROL EROSION AT THE OUTLET BY REDUCING FLOW VELOCITY AND ENERGY. SPECIFIC CONTROL DEVICES SHALL BE SELECTED BY THE CONTRACTOR.
6. STREET SURFACES ADJACENT TO THE WORK AREA SHALL BE SWEPT DAILY TO PREVENT ANY SEDIMENT OR OTHER CONSTRUCTION DEBRIS FROM BEING TRACKED OFFSITE.
7. PROVIDE CONSTRUCTION FENCING OR CONES AROUND WORK AREA TO LIMIT POTENTIAL FOR VEHICLES TO DRIVE THROUGH AND TRACK SEDIMENT ONTO THE STREET SURFACE.
8. THE CONTRACTOR SHALL DESIGNATE A CONCRETE WASHOUT AREA ONSITE AS NECESSARY TO CONTAIN THE WASHOUT WATER AND RESIDUAL DURING CONCRETE WORK ON THE PROJECT.
9. SURFACE RUNOFF DIRECTIONS SHOWN REPRESENT GRADE OF INTERCHANGE ROAD SURFACES. ROADWAY CROSS SLOPE PURSUANT TO B SHEET TYPICAL SECTIONS.



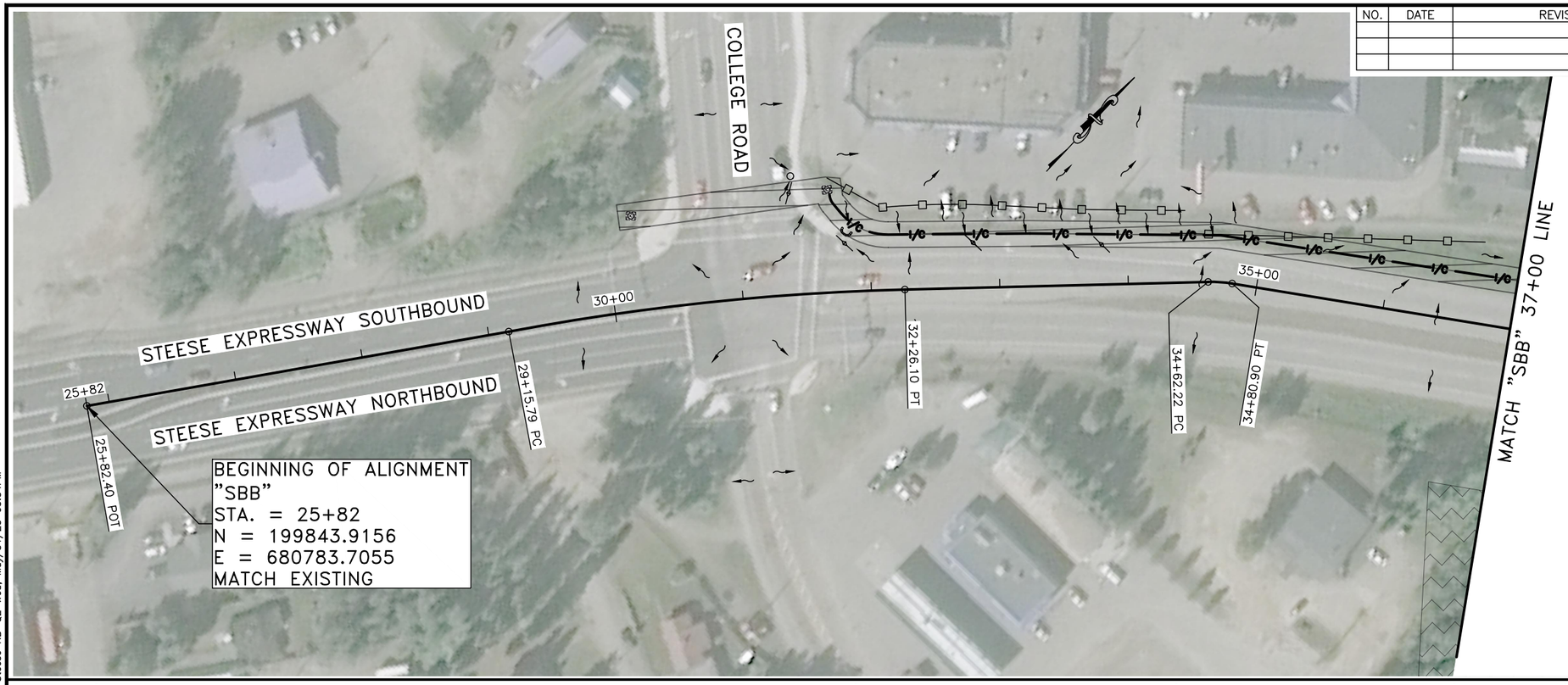
Q-SHEET NOTES:

1. INLET PROTECTION
2. PERMANENT SEEDING (ALL CUT/FILL SECTIONS)
3. OUTLET PROTECTION

EROSION AND SEDIMENT CONTROL PLAN

NO.	DATE	REVISION

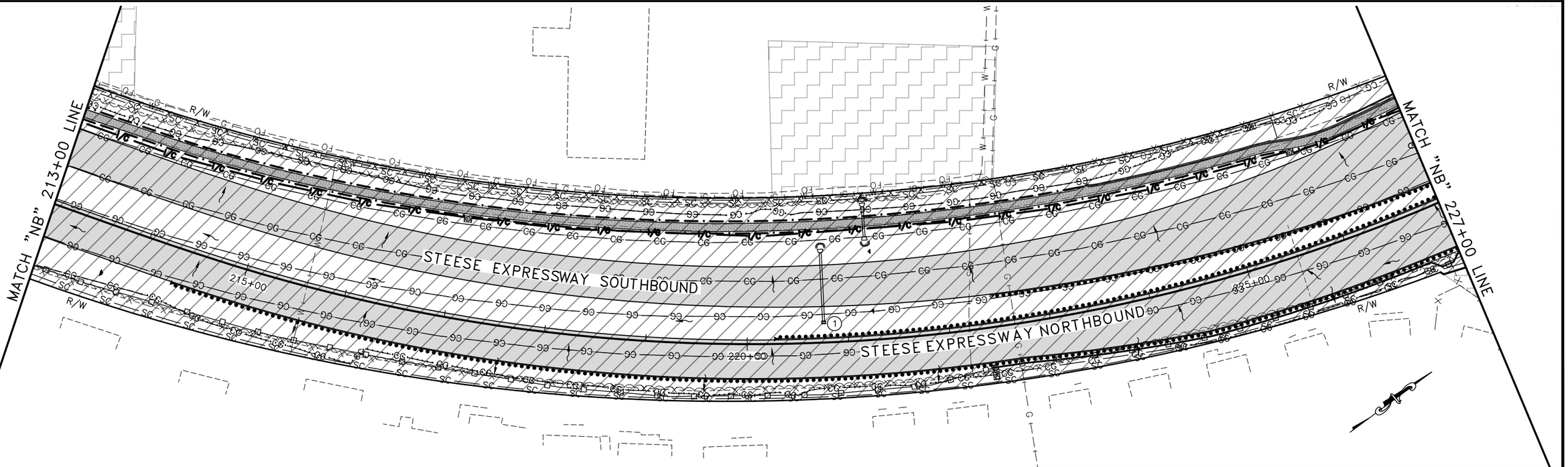
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q2	Q15



EROSION AND SEDIMENT CONTROL PLAN

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q3	Q15



EROSION AND SEDIMENT CONTROL PLAN

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q4	Q15

MATCH "NB" 227+00 LINE

STEESE EXPY SB ON-RAMP

STEESE EXPRESSWAY NORTHBOUND

STEESE EXPY NB OFF-RAMP

STEESE EXPY SB OFF-RAMP

STEESE EXPRESSWAY SOUTHBOUND

STEESE EXPY NB ON-RAMP

MATCH "NB" 241+00 LINE

230+00

235+00

240+00

MATCH "NB" 241+00 LINE

STEESE EXPY SB OFF-RAMP

STEESE EXPRESSWAY SOUTHBOUND

STEESE EXPRESSWAY NORTHBOUND

STEESE EXPY NB ON-RAMP

245+00

250+00

CITY LIGHTS BLVD

MATCH "NB" 255+00 LINE

EROSION AND SEDIMENT CONTROL PLAN

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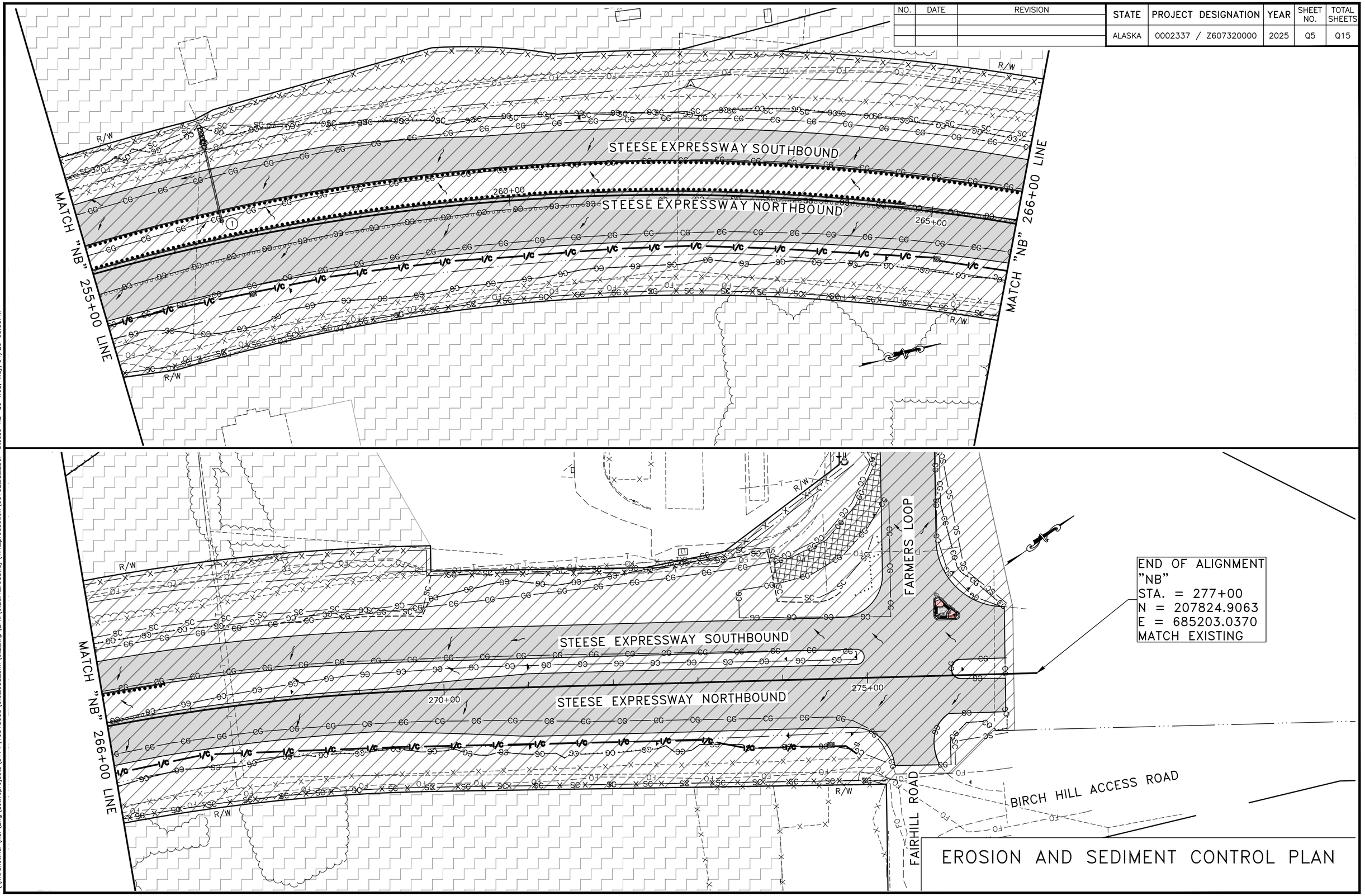
\\intranet.hdr\hdr\Eng\activeprojects\31711\10318033\6.0_cad_bim\6.2_wip\EFW\6.2a.1_roadway\1.1_production\60732_0_ESCP Steese NB-Q4 Wed, May/31/23 03:35PM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q5	Q15



EROSION AND SEDIMENT CONTROL PLAN

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E 36TH AVE #500, ANCHORAGE ALASKA, 99503, (907) 644-2000 CERT OF AUTH. NO. AECC569
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q6	Q15

R/W

JOHANSEN EXPRESSWAY WESTBOUND

JOHANSEN EXPRESSWAY EASTBOUND

301+00 302+00 303+00 304+00 305+00

MATCH "EB" 306+00 LINE

EROSION AND SEDIMENT CONROL PLAN

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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q7	Q15

MATCH "EB" 306+00 LINE

JOHANSEN EXPY WB

STEESE EXPY SB OFF-RAMP

STEESE EXPY SB ON-RAMP

JOHANSEN EXPRESSWAY EASTBOUND

JOHANSEN EXPRESSWAY WESTBOUND

STEESE EXPY NB ON-RAMP

STEESE EXPY NB OFF-RAMP

MATCH "EB" 311+80 LINE

307+00

308+00

309+00

310+00

311+00

R/W

EROSION AND SEDIMENT CONROL PLAN

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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q8	Q15

MATCH "EB" 311+80 LINE

312+00

313+00

314+00

315+00

316+00

316+68

LAZELLE ROAD

JOHANSEN EXPRESSWAY WESTBOUND

JOHANSEN EXPRESSWAY EASTBOUND

STEESE EXPY NB OFF-RAMP

D STREET

R/W

EROSION AND SEDIMENT CONROL PLAN

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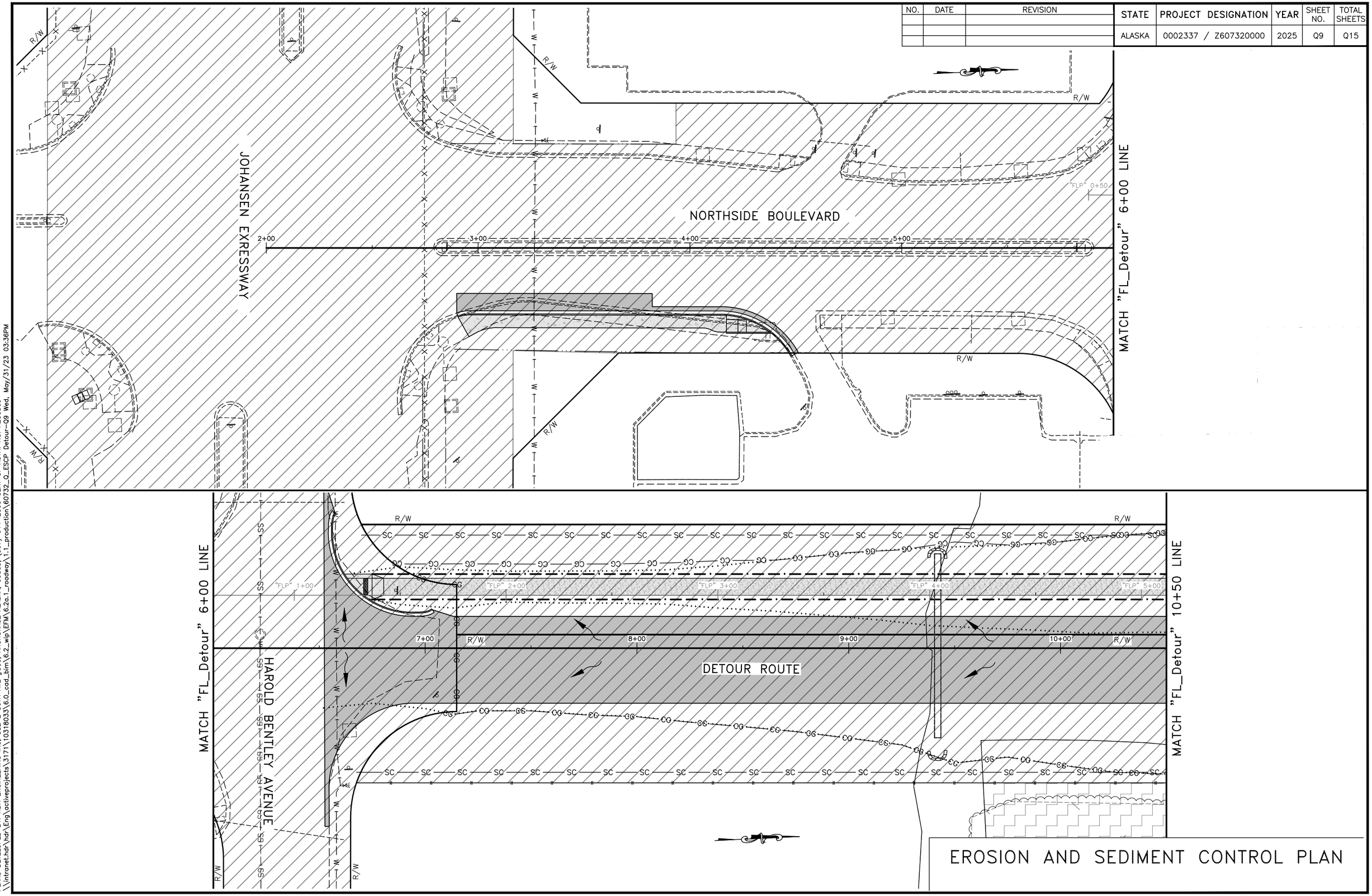
NO.	DATE	REVISION

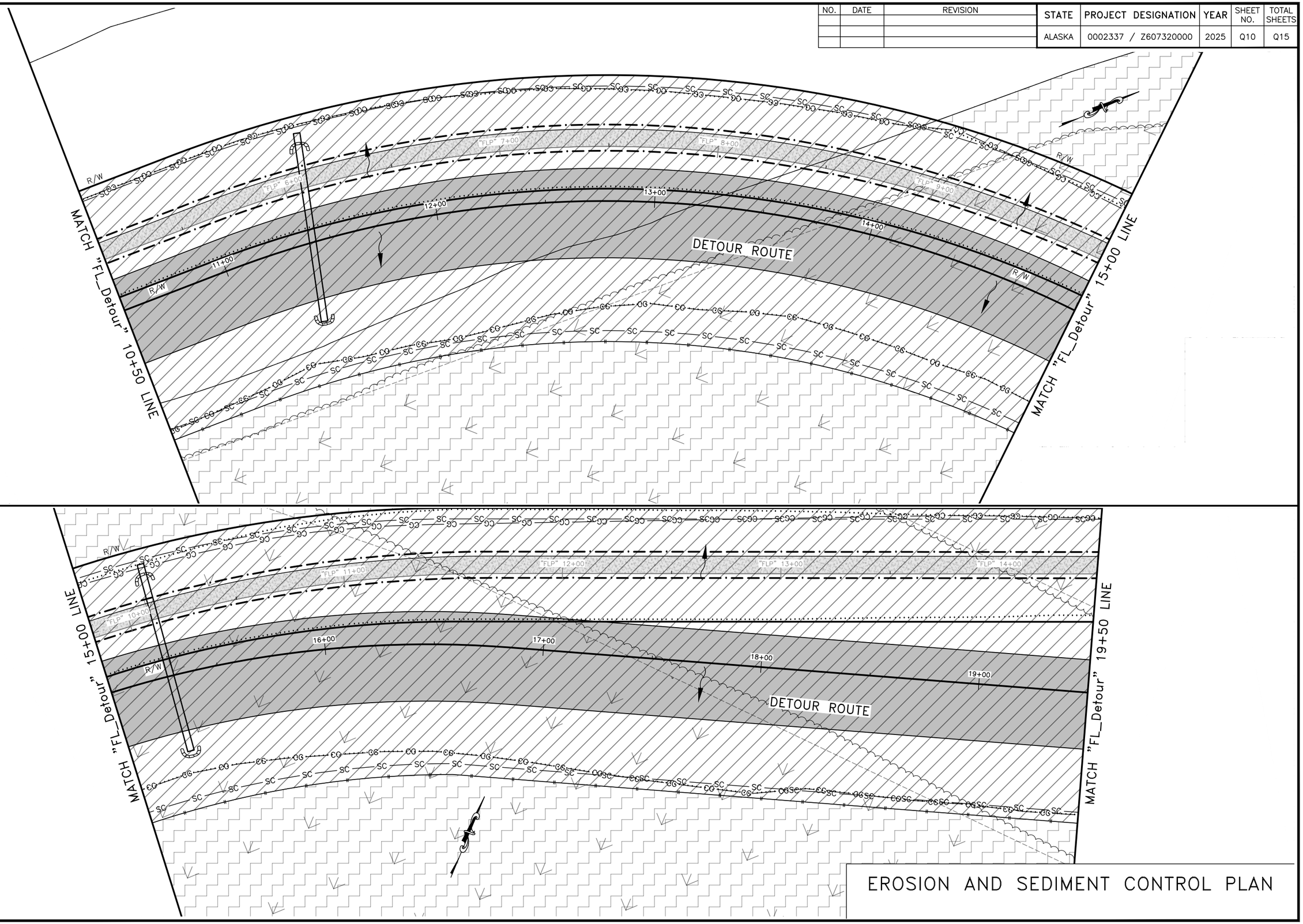
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q9	Q15



EROSION AND SEDIMENT CONTROL PLAN

NO.	DATE	REVISION

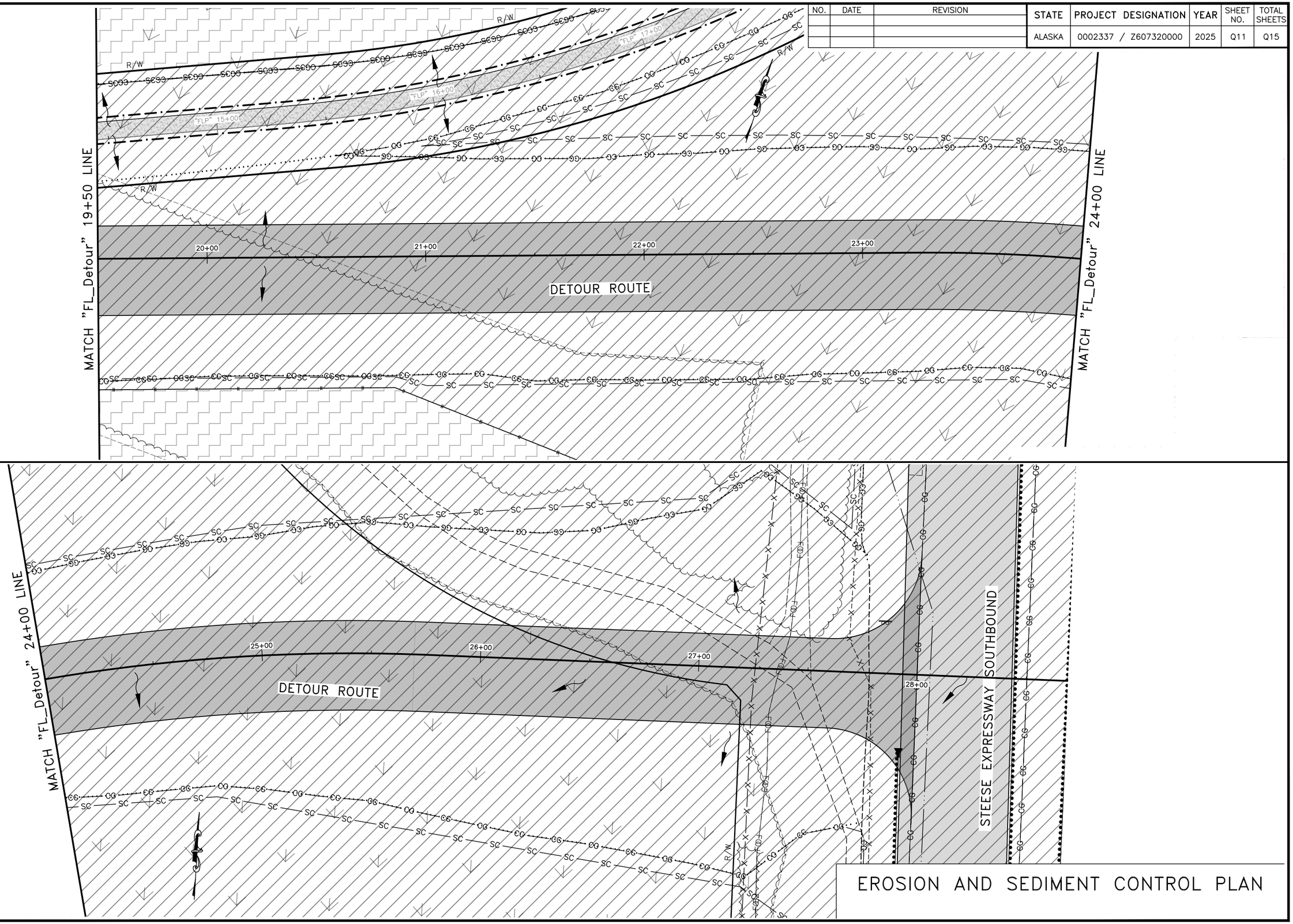
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q10	Q15



EROSION AND SEDIMENT CONTROL PLAN

NO.	DATE	REVISION

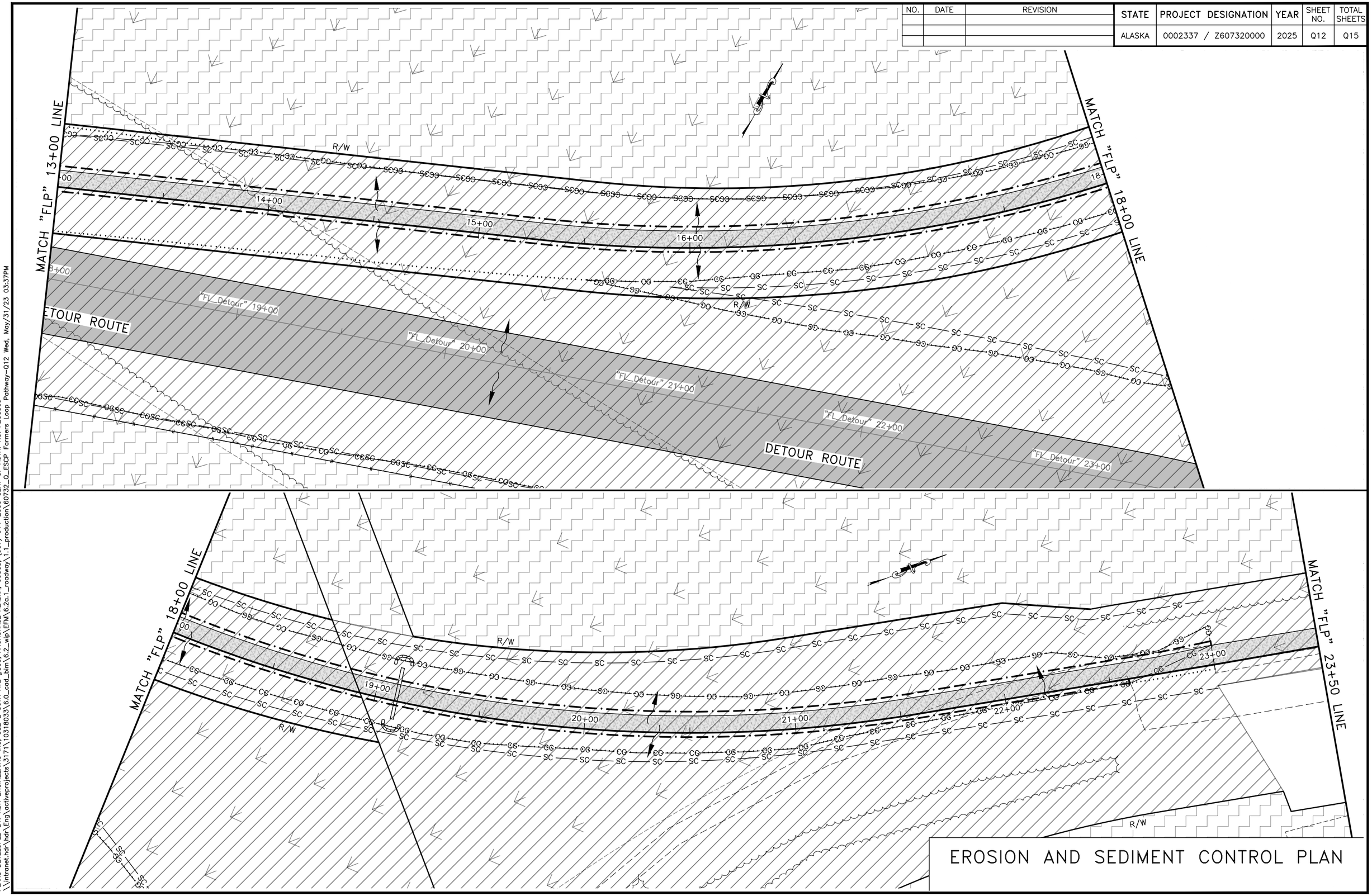
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q11	Q15



EROSION AND SEDIMENT CONTROL PLAN

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q12	Q15



EROSION AND SEDIMENT CONTROL PLAN

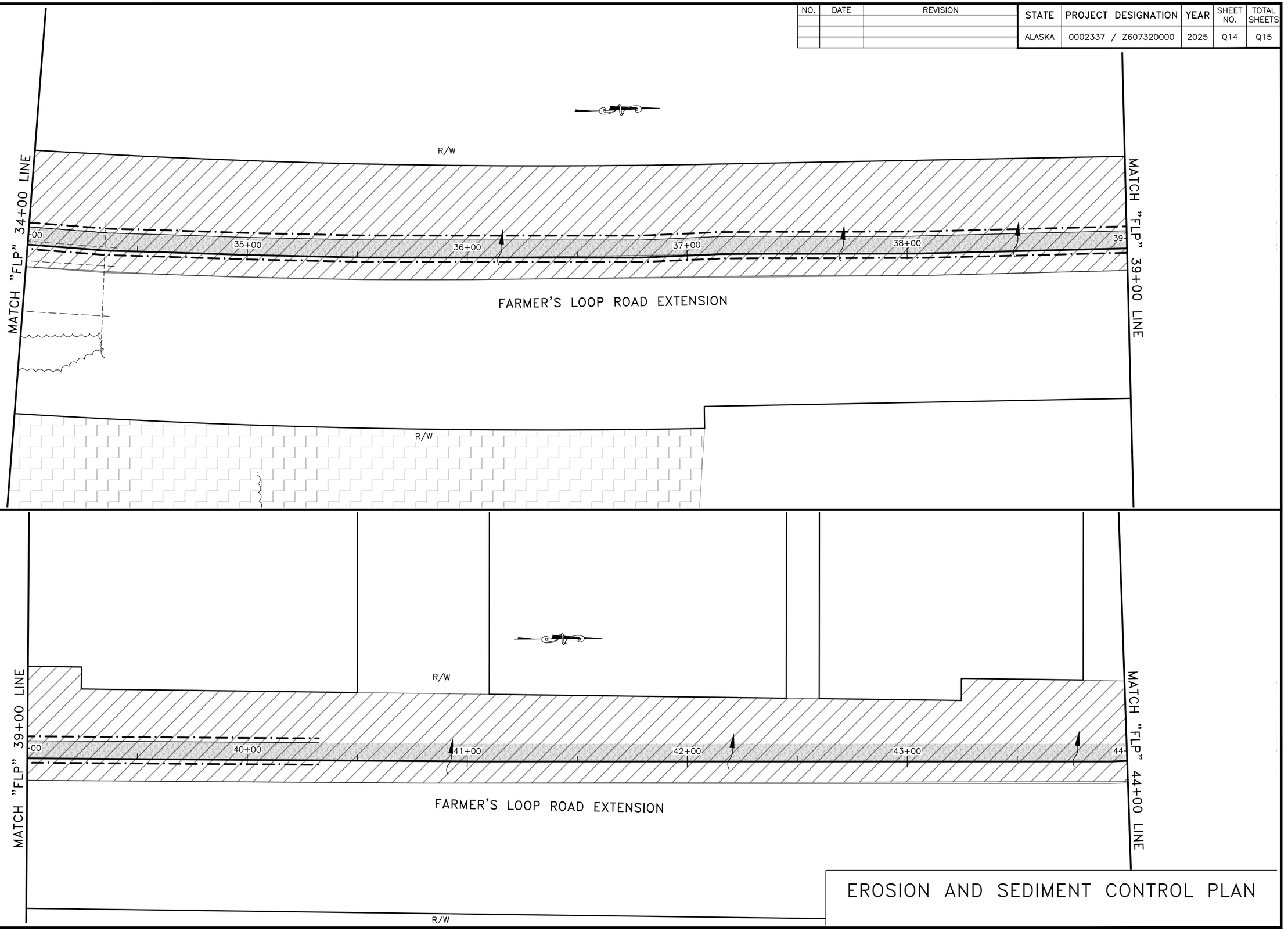
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q13	Q15

EROSION AND SEDIMENT CONTROL PLAN

NO.	DATE	REVISION

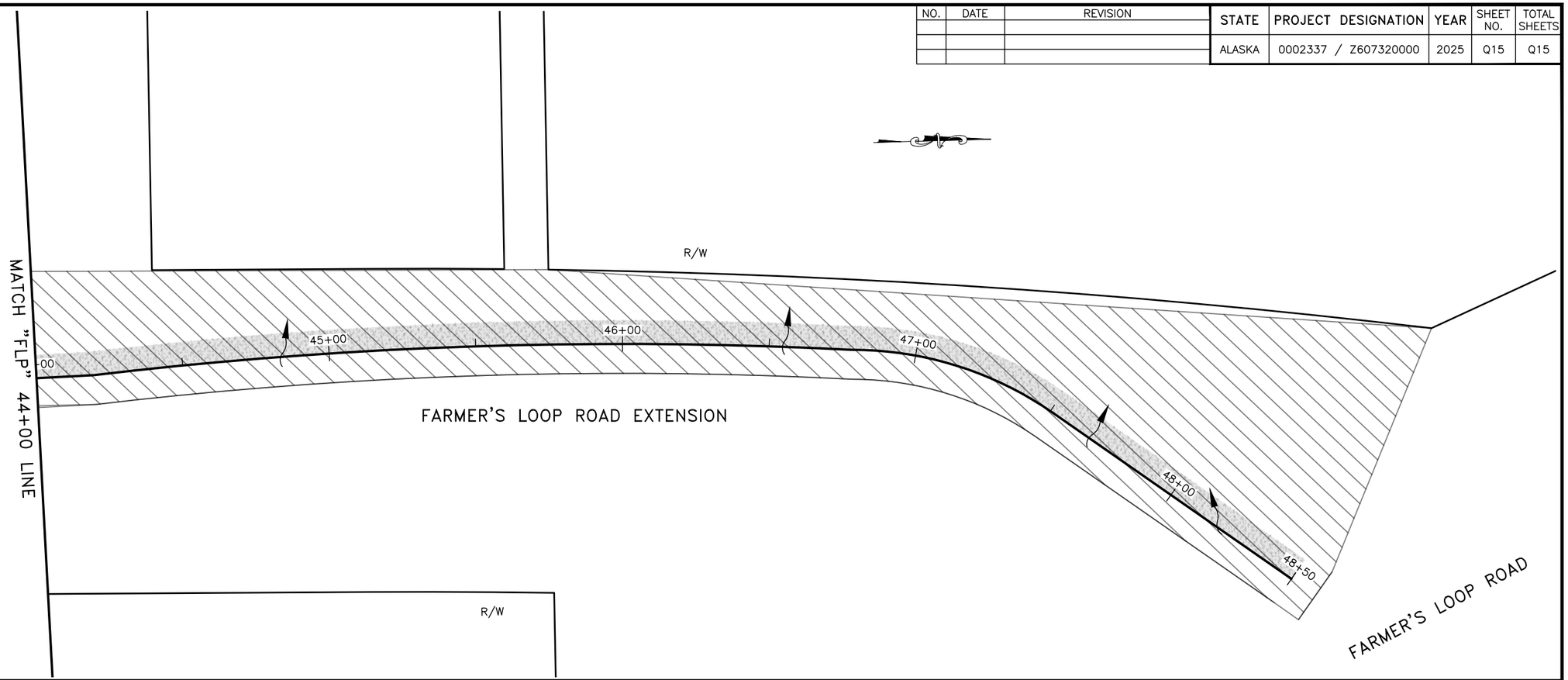
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q14	Q15



EROSION AND SEDIMENT CONTROL PLAN

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002337 / Z607320000	2025	Q15	Q15



EROSION AND SEDIMENT CONTROL PLAN

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\\intranet.hdr\Eng\activeprojects\3171\10318033\6.0_cad_bim\6.2_wip\EFM\6.2a.1_roadway\1.1_production\60732_Q_ESCP Farmers Loop Pathway-Q15 Wed, May/31/23 03:38PM