DESIGNED BY	---
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SCALE	N/A
DATE TIME	8/21/2024 5:25 PM

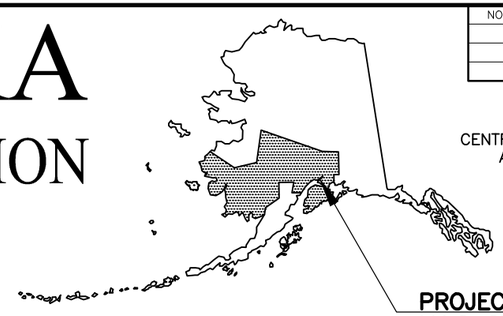
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION		YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~		2024	A1	314
ROUTE ID	135000	MILEPOINT	0.00 - 32.83		
LATITUDE	61.379	LONGITUDE	-149.524		

PIH
9/3/2024

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

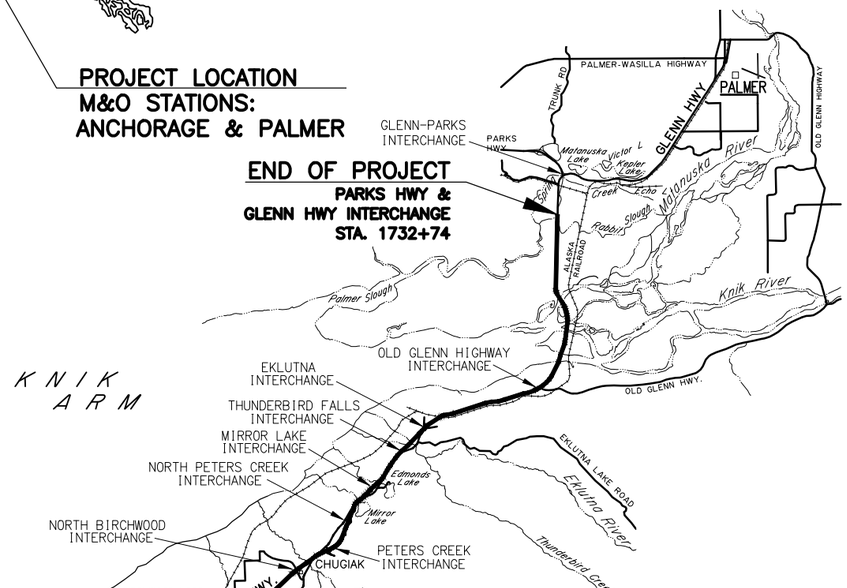


PROPOSED HIGHWAY PROJECT

GLENN HWY: AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

PROJECT NO. 0001656/CFHWY00545

GRADING, DRAINAGE, PATHWAY
ILLUMINATION, PLANING,
PAVING, SIGNING, AND STRIPING



VOLUME 1

VOLUME 2

VOLUME 3

VOLUME 4

VOLUME 4 OF 4

PRELIMINARY

PLANS DEVELOPED BY: KINNEY ENGINEERING LLC, AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
4111 AVIATION AVENUE, ANCHORAGE, AK 99502
(907)269-0590

DESIGN DESIGNATIONS

ROADWAY	FUNCTIONAL CLASS	AADT (2019)	POSTED SPEED (MPH)
GLENN HIGHWAY MP 0.000 (AIRPORT HEIGHTS DR.)	INTERSTATE	49,423	55
GLENN HIGHWAY MP 0.663 (BRAGAW ST. INTERCHANGE)	INTERSTATE	55,818	65
GLENN HIGHWAY MP 1.708 (BONIFACE PKWY. INTERCHANGE)	INTERSTATE	67,082	65
GLENN HIGHWAY MP 2.373 (TURPIN RD. RAMPS)	INTERSTATE	66,091	65
GLENN HIGHWAY MP 3.236 (MULDOON RD. INTERCHANGE)	INTERSTATE	68,088	65
GLENN HIGHWAY MP 4.827 (ARCTIC VALLEY RD RAMPS)	INTERSTATE	64,953	65
GLENN HIGHWAY MP 6.323 (FORT RICHARDSON GATE INTERCHANGE)	INTERSTATE	61,458	65
GLENN HIGHWAY MP 10.324 (HILAND RD. INTERCHANGE)	INTERSTATE	48,287	65
GLENN HIGHWAY MP 12.111 (ARTILLERY RD. INTERCHANGE)	INTERSTATE	41,078	65
GLENN HIGHWAY MP 13.965 (N. EAGLE RIVER INTERCHANGE)	INTERSTATE	44,800	65
GLENN HIGHWAY MP 15.965 (S. BIRCHWOOD LP. INTERCHANGE)	INTERSTATE	40,806	65
GLENN HIGHWAY MP 19.4 (N. BIRCHWOOD LP. INTERCHANGE)	INTERSTATE	37,525	65
GLENN HIGHWAY MP 20.382 (PETERS CREEK INTERCHANGE)	INTERSTATE	36,070	65
GLENN HIGHWAY MP 21.418 (MIRROR LAKE RAMPS)	INTERSTATE	35,218	65
GLENN HIGHWAY MP 24.723 (EKLUTNA INTERCHANGE)	INTERSTATE	33,422	65
GLENN HIGHWAY MP 28.236 (OLD GLENN HIGHWAY INTERCHANGE)	INTERSTATE	30,127	65
GLENN HIGHWAY MP 33.077 (GLENN-PARKS INTERCHANGE)	INTERSTATE		

PROJECT SUMMARY

ROADWAY	WIDTH	LENGTH
GLENN HIGHWAY NB MP 0 - MP 12.64	54 - 55 FEET	12.64 MILES
GLENN HIGHWAY NB MP 12.64 - MP 32.83	36 - 40 FEET	20.19 MILES
GLENN HIGHWAY SB MP 0 - MP 12.07	54 - 55 FEET	12.07 MILES
GLENN HIGHWAY SB MP 12.07 - MP 32.83	36 - 38 FEET	12.76 MILES

MILEPOINT VALUES BASED ON GLENN HIGHWAY NB

INDEX

DRAWING LOCATION
Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_A1_TITLE.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	J1	J7

CROSS CULVERT INSTALLATION TRAFFIC CONTROL SUMMARY

PIPE NO.	STATION	PIPE DIAMETER (IN)	LENGTH (FEET)	ESTIMATED TRENCH DEPTH[1] (FT)	DESCRIPTION	CROSS-CULVERT DESIGNATION	CONSTRUCTION METHODOLOGY	TRAFFIC CONTROL PLAN	MEDIAN CROSS-OVER DETOUR ROUTING				REMARKS
									NORTH BOUND		SOUTH BOUND		
									BEGIN	END	BEGIN	END	
P2-8	57+16	24	70.4	7.8	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	HALF WIDTH DETOUR - SB					
P2-23	74+11	24	94.7	5.8	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER			C2.1	C3.1	
P2-28	79+11	24	95.5	6.5	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER	C3.4	C3.3			
PX-617	92+58	24	53.4	12.1	BONIFACE NB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P3-1	120+83	24	65.2	4.0	MEDIAN CULVERT - NB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER	C3.3	C4.4			
P3-20	158+50	24	118.9	4.1	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER			C4.0	C4.8	
P5-6	240+75	24	82.3	5.3	MEDIAN CULVERT - NB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER	C4.8	C6.0			
PX-619	253+50	24	95.0	3.0	MEDIAN CULVERT - NB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER	C6.0	C6.3			
PX-620	271+23	24	77.9	3.0	MEDIAN CULVERT - NB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER	C6.3	C7.2			
P6-13	276+77	36	128.5	10.2	CROSS-CULVERT	MAINLINE	OPEN TRENCH	SB HALF WIDTH DETOUR					
P6-12	276+81	24	90.9	9.0				NB HALF WIDTH DETOUR					
P7-1	312+56	24	81.9	6.0	CROSS-CULVERT	MAINLINE	OPEN TRENCH	MEDIAN CROSS-OVER	C6.3	C8.4			
P7-3	312+56	24	83.6	5.6				MEDIAN CROSS-OVER			C6.3	C8.4	
P7-15	339+07	36	147.5	11.5	FORT RICHARDSON SB OFF-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P7-19	343+14	36	154.2	8.0	CROSS-CULVERT	MAINLINE	OPEN TRENCH	NB HALF WIDTH DETOUR					
P7-17	343+72	36	109.7	6.3				MEDIAN CROSS-OVER	C8.4	C10.6			
P8-1	375+39	24	61.2	4.2	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER			C8.4	C10.6	
P8-4	377+97	24	82.0	6.0	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER			C8.4	C10.6	
P8-9	391+46	24	78.5	5.6	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER			C8.4	C10.6	
P8-11	392+01	24	78.5	5.7	MEDIAN CULVERT - NB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER	C8.4	C10.6			
P9-3	425+25	24	90.7	6.1	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	HALF WIDTH DETOUR - SB					
P10-1	455+55	36	80.3	6.9	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	HALF WIDTH DETOUR - NB					
P10-3	467+86	24	82.1	5.6	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER			C8.4	C10.6	
P10-9	484+88	24	85.6	5.9	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER			C10.6	C11.5	
P11-1	509+93	24	86.7	6.3	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	HALF WIDTH DETOUR - SB					
P11-3	527+47	36	126.7	7.5	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	HALF WIDTH DETOUR - SB					
P11-5	534+33	24	85.9	4*	MEDIAN CULVERT - NB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER	C10.6	C11.5			
PX-624	556+97	24	85.9	4*	MEDIAN CULVERT - NB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER	C11.5	C11.9			
P13-10	530+36	24	86.9	6*	MEDIAN CULVERT - NB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER	C13.2	C13.6			
P13-21	645+66	24	41.2	5.4	ARTILLERY SB OFF-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P15-7	730+08	24	101.0	5.4	NORTH EAGLE RIVER SB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P15-12	732+50	96	184.9	23.3	NORTH EAGLE RIVER NB OFF-RAMP	RAMP	TRENCHLESS	TRENCHLESS					MP 15.33 CAROL CREEK
P15-15	734+15	84	254.9	16.5	CROSS-CULVERT	MAINLINE	OPEN TRENCH	UTILIZE N. EAGLE RIVER RAMPS					MP 15.34 CAROL CREEK

NOTES:

1. ESTIMATED TRENCH DEPTH = PIPE COVER + CULVERT DIAMETER + 1-FT SUBEXCAVATION.

PRELIMINARY

PIH
9/5/2024

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 Arctic Blvd, Suite 400
ANCHORAGE, AK 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY
REHABILITATION

CROSS CULVERT TRAFFIC
CONTROL TABLE (1 OF 2)

DESIGNED BY ---
CHECKED BY ---
DRAFTED BY ---
SCALE 1" = 1'
DATE TIME 9/5/2024 10:27 AM
DRAWING LOCATION Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_J1-J2_TRAFFIC CONTROL TABLES.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	J2	J7

CROSS CULVERT INSTALLATION TRAFFIC CONTROL SUMMARY

PIPE NO.	STATION	PIPE DIAMETER (IN)	LENGTH (FEET)	ESTIMATED TRENCH DEPTH[1] (FT)	DESCRIPTION	CROSS-CULVERT DESIGNATION	CONSTRUCTION METHODOLOGY	TRAFFIC CONTROL PLAN	MEDIAN CROSS-OVER DETOUR ROUTING				REMARKS
									NORTH BOUND		SOUTH BOUND		
									BEGIN	END	BEGIN	END	
P15-16	737+14	96	339.8	39.1	N. EAGLE RIVER SB OFF-RAMP (INTERSECTION)	RAMP	TRENCHLESS	TRENCHLESS					MP 15.35 CAROL CREEK
P15-21	747+03	36	137.0	15.9	N. EAGLE RIVER NB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P15-24	748+17	108	374.5	30.0	CROSS-CULVERT	MAINLINE	TRENCHLESS	TRENCHLESS					
P15-27	768+82	36	192.0	15.6	CROSS-CULVERT	MAINLINE	OPEN TRENCH	HALF WIDTH DETOUR - NB/SB					
PX-631	842+25	24	49.2	5.9	S. BIRCHWOOD SB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
PX-633	855+16	24	61.4	6.7	S.BIRCHWOOD NB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
PX-634	858+12	24	45.2	4.6	S. BIRCHWOOD NB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P17-44	858+91	24	34.8	4.7	S. BIRCHWOOD SB OFF-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P18-6	879+16	78	196.2	16.1	CROSS-CULVERT	MAINLINE	OPEN TRENCH	HALF WIDTH DETOUR - NB/SB					MP 18.2 UNNAMED CREEK
P18-7	887+72	36	205.6	14.6	CROSS-CULVERT	MAINLINE	OPEN TRENCH	HALF WIDTH DETOUR - NB/SB					
P18-16	900+87	24	164.6	10.3	CROSS-CULVERT	MAINLINE	OPEN TRENCH	HALF WIDTH DETOUR - NB/SB					
P18-19	914+72	72	173.1	11.4	CROSS-CULVERT	MAINLINE	OPEN TRENCH	HALF WIDTH DETOUR - NB/SB					MP 18.9 PARKS CREEK
P19-1	918+71	36	194.3	14.3	CROSS-CULVERT	MAINLINE	OPEN TRENCH	HALF WIDTH DETOUR - NB/SB					
P19-5	922+06	36	200.6	14.4	CROSS-CULVERT	MAINLINE	OPEN TRENCH	HALF WIDTH DETOUR - NB/SB					
P20-5	999+35	36	89.3	9.3	CROSS-CULVERT	MAINLINE	OPEN TRENCH	HALF WIDTH DETOUR - NB					
P20-5X	999+36	36	66.8	9.4				HALF WIDTH DETOUR - SB					
PX-636	1019+61	24	40.0	5.4	N. BIRCHWOOD SB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
PX-637	1031+15	24	40.0	4.3	N. BIRCHWOOD NB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
PX-638	1034+63	24	79.8	4.7	MEDIAN CULVERT - NB	MEDIAN	OPEN TRENCH	HALF WIDTH DETOUR - NB					
P21-35	1075+65	24	48.2	4.7	S. PETERS CREEK NB OFF-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P21-39	1075+84	24	49.4	4.3	S. PETERS CREEK SB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P23-1	1135+08	24	56.9	7.0	N. PETERS CREEK NB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P23-14	1161+84	90	234.4	34.2	CROSS-CULVERT	MAINLINE	TRENCHLESS	TRENCHLESS					23.5 MIRROR LAKE
P24-1	1196+19	24	70.6	12.2	EDMONDS SB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P24-7	1199+01	72	211.8	26.6	CROSS-CULVERT	MAINLINE	TRENCHLESS	TRENCHLESS					MP 24.2 EDMONDS CREEK
P24-8	1199+18	72	78.7	16.4	EDMONDS SB OFF-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					MP 24.21 EDMONDS CREEK
P24-11	1223+31	72	223.1	27.3	CROSS-CULVERT	MAINLINE	TRENCHLESS	TRENCHLESS					MP 24.7 UNNAMED CREEK
P26-4	1301+68	24	93.8	6.1	EKLUTNA SB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P26-12	1308+19	24	50.6	6.6	EKLUTNA NB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P28-1	1410+60	24	69.9	5.3	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER			C26.6	C28.9	
P29-2	1472+20	24	68.0	5.4	GLENN HWY SB ON-RAMP	RAMP	OPEN TRENCH	RAMP DETOUR					
P29-8	1483+56	24	96.0	4.9	MEDIAN CULVERT - SB	MEDIAN	OPEN TRENCH	MEDIAN CROSS-OVER			C29.2	C31.4	
P33-3	1696+07	36	184.3	7.6	CROSS-CULVERT	MAINLINE	OPEN TRENCH	HALF WIDTH DETOUR - NB/SB					

NOTES:

1. ESTIMATED TRENCH DEPTH = PIPE COVER + CULVERT DIAMETER + 1-FT SUBEXCAVATION.

PRELIMINARY

PIH
9/5/2024

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
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(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY
REHABILITATION

CROSS CULVERT TRAFFIC
CONTROL TABLE (2 OF 2)

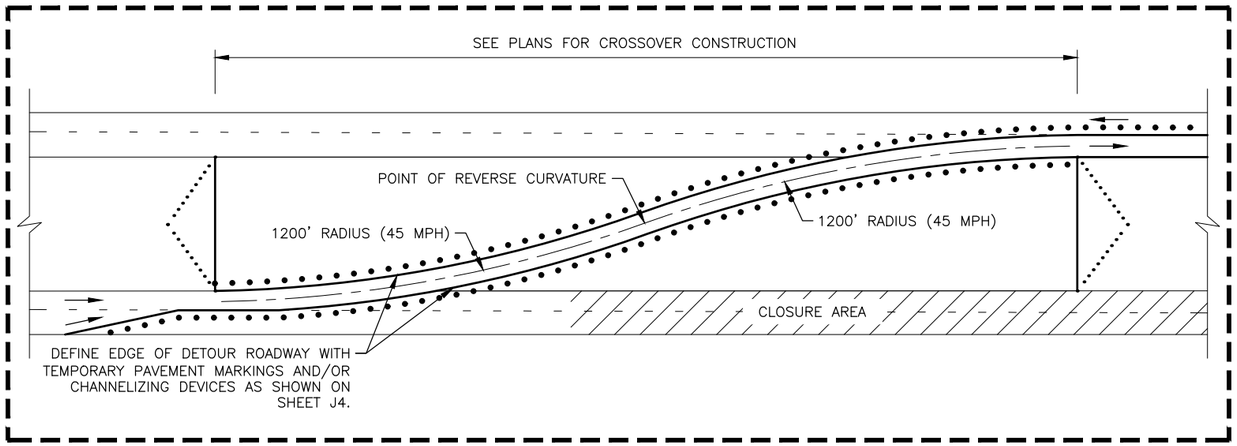
DESIGNED BY ---
CHECKED BY ---
DRAFTED BY ---
SCALE 1" = 1'
DATE TIME 9/5/2024 10:27 AM
DRAWING LOCATION Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_J1-J2_TRAFFIC CONTROL TABLES.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	J3	J7

TRAFFIC MAINTENANCE SETUP NOTES:

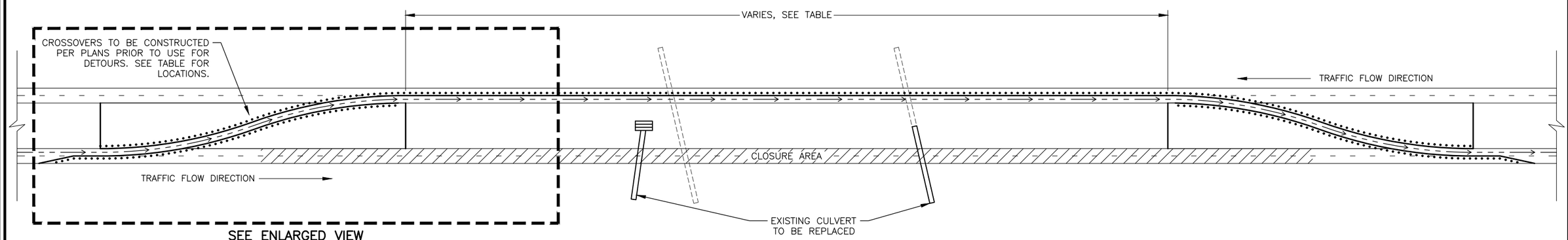
1. THIS DRAWING IS A GRAPHICAL REPRESENTATION ONLY AND NOT ALL DEVICES ARE SHOWN. INSTALL ALL NECESSARY DEVICES ACCORDING TO THE LATEST ATM.
2. CROSSOVER DETOURS SHALL BE DESIGNED TO 45 MPH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



ENLARGED VIEW

MEDIAN CROSSOVER INVENTORY

NO	MILEPOST	BEGIN STA	END STA	LENGTH	LOCATION DESCRIPTION	REMARKS
C1.3	1.3	10+83	16+62	579	SOUTH OF BRAGAW	
C2.1	2.1	53+93	59+67	574	NORTH OF BRAGAW	
C2.4	2.4	69+77	74+67	490	NORTH OF BONIFACE	
C3.3	3.3	115+32	120+67	535	SOUTH OF BONIFACE	
C4.0	4.0	153+24	158+34	510	SOUTH OF MULDOON	
C4.8	4.8	198+54	203+46	492	NORTH OF MULDOON	
C6.0	6.0	248+75	253+44	469	SOUTH OF ARCTIC VALLEY	
C6.3	6.3	266+14	270+67	453	NORTH OF ARCTIC VALLEY	
C7.2	7.2	308+50	313+47	497	SOUTH OF JBER	
C8.4	8.4	369+94	375+11	517	NORTH OF JBER	
C10.6	10.6	477+76	482+99	523	SOUTH OF WEIGH STATION	
C11.5	11.5	534+43	538+84	441	SOUTH OF HILAND	
C11.9	11.9	557+14	561+92	478	NORTH OF HILAND	
C13.2	13.2	625+90	630+07	417	SOUTH OF S. EAGLE RIVER	
C13.6	13.6	644+34	649+39	505	NORTH OF S. EAGLE RIVER	
C15.0	15.0	709+81	714+18	437	SOUTH OF N. EAGLE RIVER	
C15.8	15.8	753+69	758+29	460	NORTH OF N. EAGLE RIVER	
C16.7	16.7	806+17	811+50	533	SOUTH OF S. BIRCHWOOD	
C18.6	18.6	894+74	900+00	526	NORTH OF S. BIRCHWOOD	
C20.4	20.4	992+84	998+36	552	SOUTH OF N. BIRCHWOOD	
C21.5	21.5	1049+07	1054+93	586	NORTH OF N. BIRCHWOOD	
C22.5	22.5	1105+29	1110+15	486	SOUTH OF N. PETERS CREEK	
C23.2	23.2	1144+26	1150+12	586	NORTH OF N. PETERS CREEK	
C23.7	23.7	1168+07	1173+93	586	SOUTH OF MIRROR LAKE	
C24.7	24.7	1224+57	1230+43	586	NORTH OF MIRROR LAKE	
C25.7	25.7	1275+57	1281+43	586	SOUTH OF EKLUTNA	
C26.6	26.6	1319+57	1325+43	586	NORTH OF EKLUTNA	
C28.9	28.9	1443+68	1450+30	662	SOUTH OF OLD GLENN	
C31.4	31.40	1587+75	1592+75	500	MATANUSKA RIVER	EXISTING
C32.6	32.60	1656+00	1661+00	500	MATANUSKA RIVER	EXISTING
C33.7	33.80	1722+80	1727+80	500		EXISTING
C34.0	34.00	1743+70	1747+40	370	GLENN/PARKS INTERCHANGE	EXISTING



SEE ENLARGED VIEW

MEDIAN CROSSOVER DIVERSION DETAIL

PRELIMINARY

PIH
9/4/2024

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 Arctic Blvd, Suite 400
ANCHORAGE, AK 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

MEDIAN CROSS-OVER DIVERSION (1 OF 2)

DESIGNED BY ---
CHECKED BY ---
DRAFTED BY ---

SCALE 1" = 1'

DATE TIME 9/4/2024 10:06 AM

DRAWING LOCATION
Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_J3-J7_CULVERT TRAFFIC CONTROL.DWG

NO.	DATE	REVISION

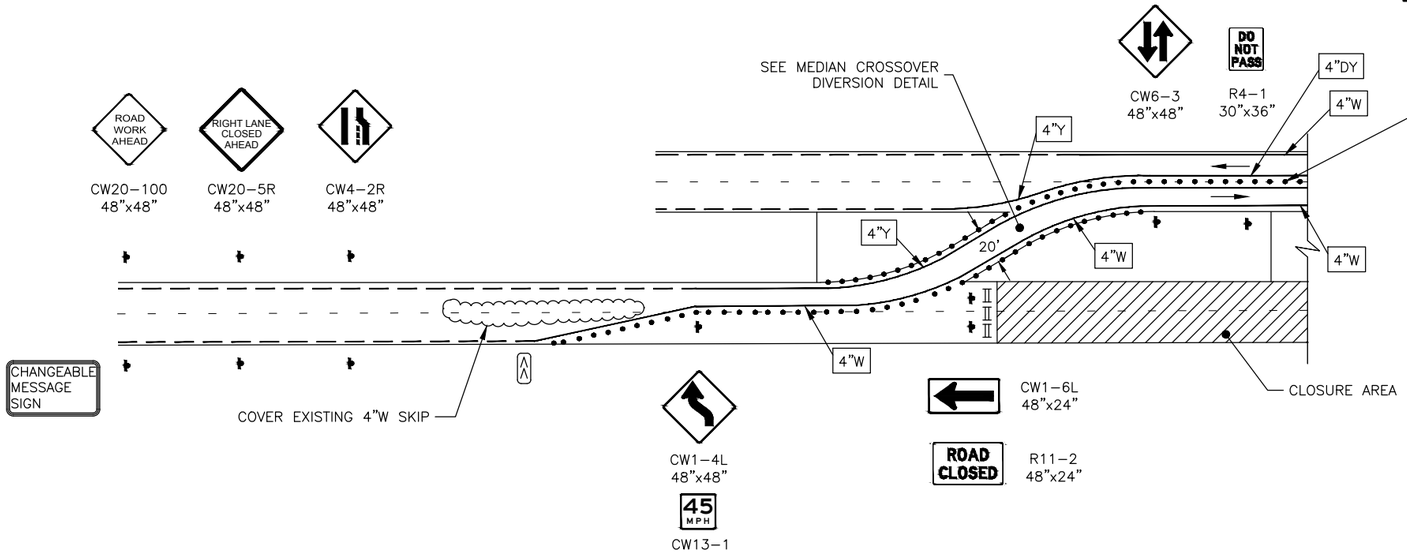
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	J4	J7

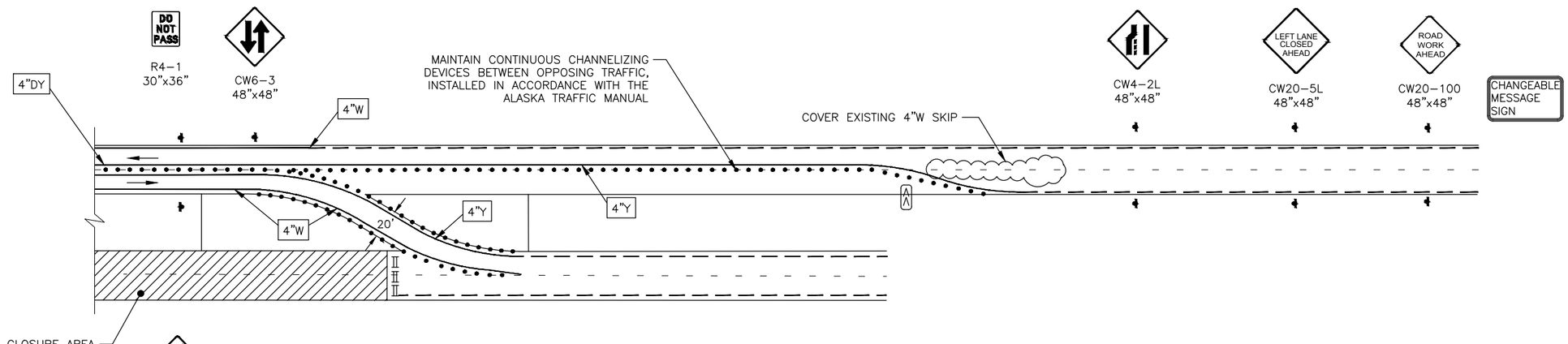
DESIGNED BY ---
CHECKED BY ---
APPROVED BY ---XXX

SCALE 1" = 1'

DATE 9/4/2024 TIME 10:06 AM XXX

DRAWING LOCATION Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_J3-J7_CULVERT TRAFFIC CONTROL.DWG





LEGEND

	SIGN
II	TYPE III BARRICADE
∘	DRUMS OR CHANNELIZING DEVICES AT 45' SPACING FOR 45 MPH AND 35' SPACING FOR 35 MPH. SEE TRAFFIC CONTROL SETUP NOTE 8.
	SEQUENTIAL ARROW PANEL
4"Y	4" YELLOW TEMPORARY PAVEMENT MARKINGS*
4"W	4" WHITE TEMPORARY PAVEMENT MARKINGS*
4"DY	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKINGS*
CHANGEABLE MESSAGE SIGN	PORTABLE CHANGEABLE MESSAGE BOARD SIGN

* MARKINGS CAN BE PREFORMED TAPE, PAINT, OR OTHER TEMPORARY MARKINGS INCLUDING SURFACE MOUNT FLEXIBLE DELINEATORS. CONSIDER MARKING REMOVAL AND REPLACEMENT ONLY AFTER 14 DAYS.

TRAFFIC CONTROL FOR ONE LANE CROSSOVER TO THE SOUTHBOUND ROADWAY PRISM

USE REVERSE OF THIS DETAIL FOR CROSSOVER TO THE NORTHBOUND ROADWAY PRISM

NOTES:

1. INSTALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL (ATM).
2. USE HIGH LEVEL WARNING FLAGS ON ALL SIGNS.
3. REMOVE, PROTECT AND REPLACE SIGNS AS NECESSARY TO PLACE FILL FOR INSTALLATION OF MEDIAN CROSSOVER DIVERSION.
4. COVER CONFLICTING OR NON–APPLICABLE PAVEMENT MARKINGS IF POSSIBLE. CONFLICTING OR NON–APPLICABLE PAVEMENT MARKINGS INCLUDE, BUT ARE NOT LIMITED TO, YELLOW LINES TO THE RIGHT OF TRAFFIC, WHITE SKIP LINES BETWEEN TWO WAY TRAFFIC AND AUXILIARY LANE MARKINGS.
5. USE DRUMS IN TAPERS AND CHANNELIZING DEVICES IN TANGENTS. CHANNELIZING DEVICES PLACED BETWEEN TRAFFIC ON OPPOSING DIRECTIONS SHALL BE AFFIXED TO THE PAVEMENT.
6. PORTIONS OF THE DIVERSION ARE OUTSIDE THE PAVING LIMITS. PREFORMED MARKING TAPE IS REQUIRED FOR TEMPORARY PAVEMENT MARKINGS OUTSIDE OF PAVING LIMITS.

PRELIMINARY

PIH
9/4/2024

PLANS DEVELOPED BY:
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CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY: AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

MEDIAN CROSS–OVER DIVERSION (2 OF 2)

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	J5	J7

DESIGNED BY ---
CHECKED BY ---
DRAFTED BY ---

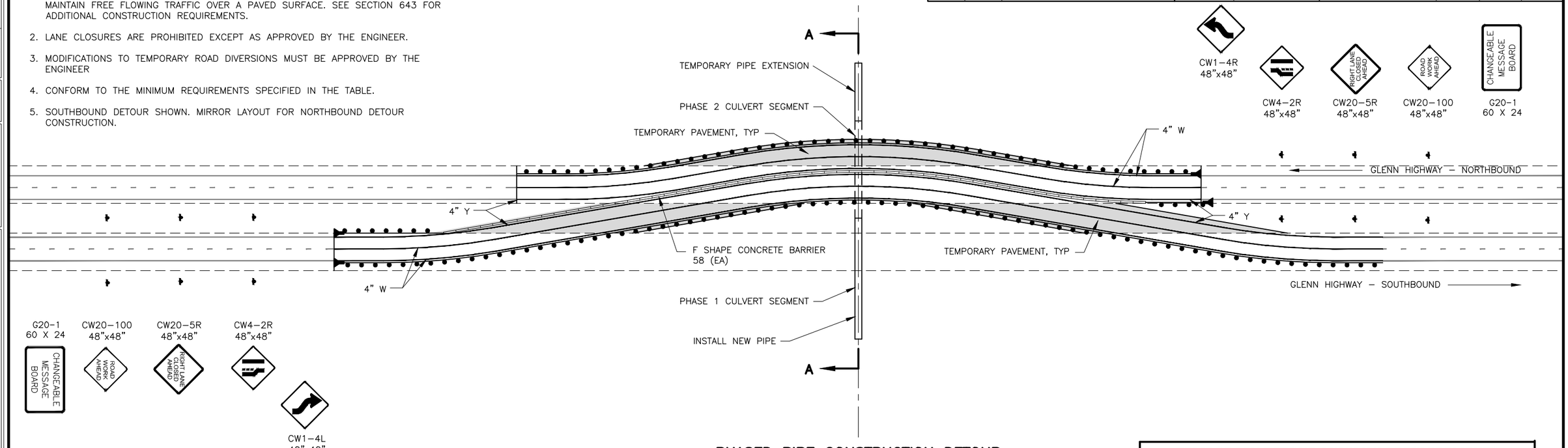
SCALE 1" = 1'

DATE TIME 9/4/2024 10:08 AM

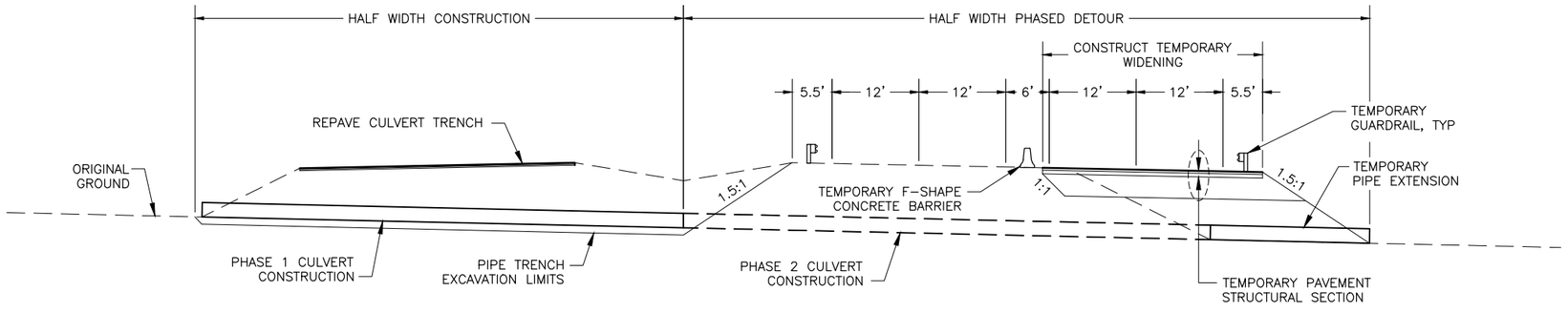
DRAWING LOCATION
Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_J3-J7_CULVERT TRAFFIC CONTROL.DWG

GENERAL NOTES:

1. CONSTRUCT, MAINTAIN, AND REMOVE ENGINEERED ROADWAY DIVERSIONS AS NEEDED TO MAINTAIN FREE FLOWING TRAFFIC OVER A PAVED SURFACE. SEE SECTION 643 FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.
2. LANE CLOSURES ARE PROHIBITED EXCEPT AS APPROVED BY THE ENGINEER.
3. MODIFICATIONS TO TEMPORARY ROAD DIVERSIONS MUST BE APPROVED BY THE ENGINEER
4. CONFORM TO THE MINIMUM REQUIREMENTS SPECIFIED IN THE TABLE.
5. SOUTHBOUND DETOUR SHOWN. MIRROR LAYOUT FOR NORTHBOUND DETOUR CONSTRUCTION.



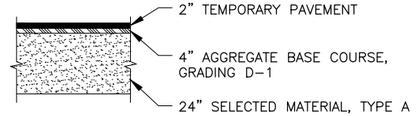
PHASED PIPE CONSTRUCTION DETOUR



SECTION A–A

MIRROR LAYOUT FOR PHASE 2 CONSTRUCTION

TEMPORARY DETOUR MINIMUM REQUIREMENTS		
	UNIT	CRITERIA
DESIGN SPEED	MPH	45
HORIZONTAL CURVATURE RADIUS	FEET	1250
MINIMUM COVER FOR TEMP CULVERTS	FEET	2



TEMPORARY PAVEMENT STRUCTURAL SECTION

643.XXXX.XXXX DETOUR – SUMMARY OF QUANTITIES (EA)		
DESCRIPTION	UNIT	QUANTITY
TEMPORARY PAVING	SY	2180
TEMPORARY GUARDRAIL	LF	1770
BORROW FOR TEMPORARY DETOUR	TON	830
PORTABLE CONCRETE BARRIER	LF	540
TEMPORARY CRASH CUSHION	EA	2
TEMPORARY PAVEMENT MARKINGS	LF	7290
QUANTITY NOTES:		
1. QUANTITIES LISTED ARE APPROXIMATE AND REPRESENT PAY ITEM QUANTITIES FOR A SINGLE DETOUR.		
2. HALFWIDTH CONSTRUCTION OF FULL WIDTH CROSS-CULVERTS REQUIRE PHASED CONSTRUCTION OF TWO DETOURS PER CULVERT.		

PRELIMINARY

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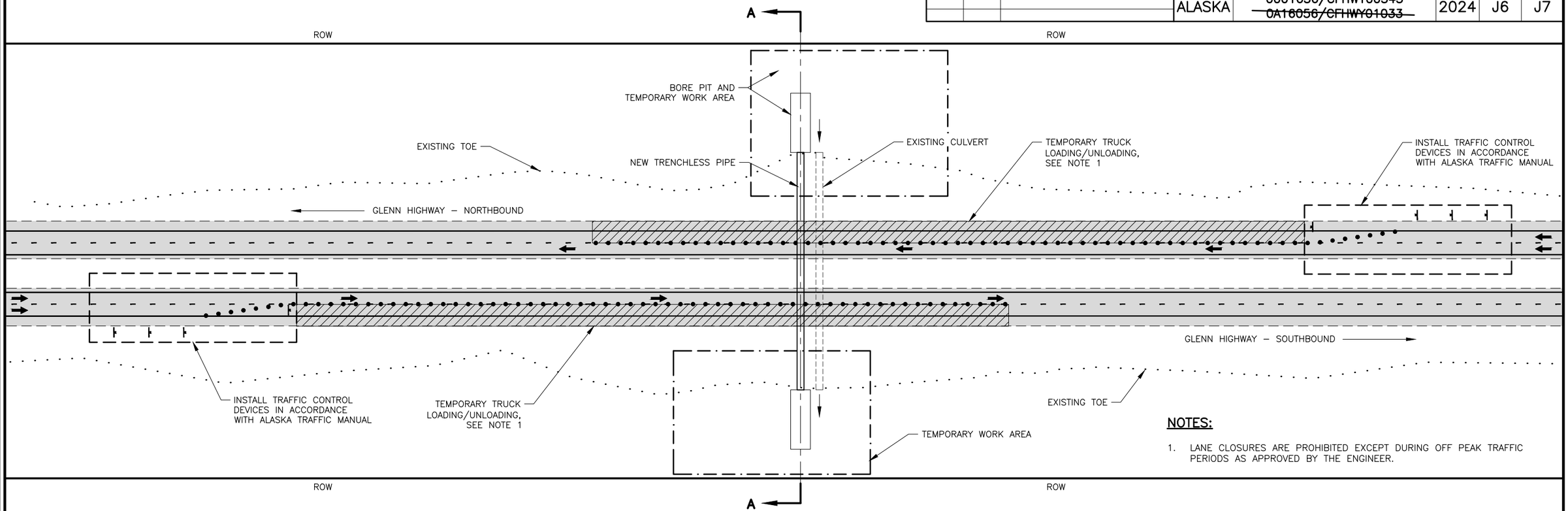
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY: AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

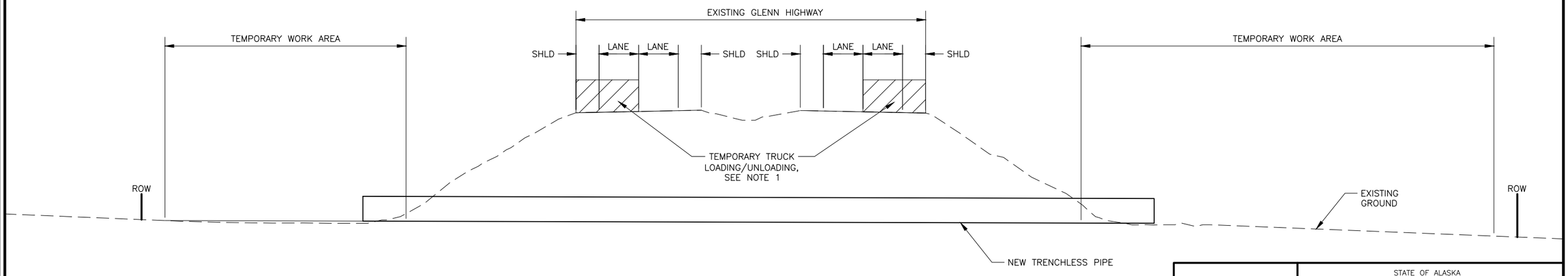
LONG DURATION HALF WIDTH CONSTRUCTION DETOUR

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	J6	J7



TRENCHLESS PIPE TRAFFIC CONTROL



SECTION A–A

NOTES:

1. LANE CLOSURES ARE PROHIBITED EXCEPT DURING OFF PEAK TRAFFIC PERIODS AS APPROVED BY THE ENGINEER.

PRELIMINARY

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9/4/2024

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

TRAFFIC CONTROL FOR TRENCHLESS CONSTRUCTION

DESIGNED BY
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SCALE 1" = 1'

DATE TIME 9/4/2024 10:06 AM

DRAWING LOCATION
Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_J3-J7_CULVERT TRAFFIC CONTROL.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	J7	J7

RAMP DETOUR TABLE

RAMP LOCATION	STATION	DETOUR ROUTE
JBER/FORT RICHARDSON SB ON-RAMP	325+00	COORDINATE WITH JBER FOR WEEKEND GATE CLOSURE
JBER/FORT RICHARDSON NB ON-RAMP	342+00	COORDINATE WITH JBER FOR WEEKEND GATE CLOSURE
JBER/FORT RICHARDSON SB OFF-RAMP	345+00	COORDINATE WITH JBER FOR WEEKEND GATE CLOSURE; ARCTIC VALLEY ACCESS VIA TURNAROUND AT MULDOON INTERCHANGE
HILAND ROAD INTERCHANGE NB OFF-RAMP	535+00	DETOUR VIA ARTILLERY ROAD INTERCHANGE, SOUTH ON EAGLE RIVER ROAD, SOUTH ON VFW ROAD TO EAST EAGLE RIVER LOOP RD
HILAND ROAD INTERCHANGE NB ON-RAMP	556+00	DETOUR VIA VFW ROAD, EAGLE RIVER ROAD, TO THE ARTILLERY ROAD INTERCHANGE
ARTILLERY ROAD INTERCHANGE NB OFF-RAMP	632+00	DETOUR VIA HILAND ROAD INTERCHANGE, NORTH ON VFW ROAD, NORTH ON EAGLE RIVER ROAD, TO OLD GLENN HWY
ARTILLERY ROAD INTERCHANGE NB ON-RAMP	639+00	DETOUR VIA OLD GLENN HWY TO NORTH EAGLE RIVER ACCESS ROAD INTERCHANGE
N. EAGLE RIVER ACCESS ROAD SB ON-RAMP	726+00	DETOUR VIA NORTH EAGLE RIVER ACCESS ROAD, SOUTH ON THE OLD GLENN TO THE ARTILLERY ROAD INTERCHANGE
N. EAGLE RIVER ACCESS ROAD NB ON-RAMP	755+00	DETOUR VIA NORTH EAGLE RIVER ACCESS ROAD, NORTH ON THE OLD GLENN TO THE S BIRCHWOOD INTERCHANGE
S. BIRCHWOOD LOOP ROAD SB ON-RAMP	828+00	DETOUR VIA SOUTH BIRCHWOOD, SOUTH ON OLD GLENN TO THE NORTH EAGLE RIVER ACCESS ROAD INTERCHANGE
S. BIRCHWOOD LOOP ROAD NB ON-RAMP	861+00	DETOUR VIA SOUTH BIRCHWOOD, NORTH ON OLD GLENN TO THE NORTH BIRCHWOOD ROAD INTERCHANGE
S. BIRCHWOOD LOOP ROAD SB OFF-RAMP	861+00	DETOUR VIA NORTH BIRCHWOOD ROAD INTERCHANGE, SOUTH ON OLD GLENN HWY, TO SOUTH BIRCHWOOD LOOP ROAD
N. BIRCHWOOD LOOP ROAD SB ON-RAMP	1015+00	DETOUR VIA NORTH BIRCHWOOD, SOUTH ON OLD GLENN TO THE SOUTH BIRCHWOOD ROAD INTERCHANGE
N. BIRCHWOOD LOOP ROAD NB ON-RAMP	1034+00	DETOUR VIA NORTH BIRCHWOOD, NORTH ON OLD GLENN TO THE SOUTH PETERS CREEK INTERCHANGE
S. PETERS CREEK INTERCHANGE NB OFF-RAMP	1068+00	DETOUR VIA NORTH BIRCHWOOD INTERCHANGE, BIRCHWOOD LOOP ROAD, NORTH ON OLD GLENN TO SKI ROAD
S. PETERS CREEK INTERCHANGE SB ON-RAMP	1068+00	DETOUR VIA SKI ROAD, SOUTH ON OLD GLENN TO NORTH BIRCHWOOD ROAD INTERCHANGE
S. PETERS CREEK INTERCHANGE NB ON-RAMP	1087+00	DETOUR VIA SKI ROAD, SOUTH ON OLD GLENN TO NORTH BIRCHWOOD ROAD INTERCHANGE
N. PETERS CREEK INTERCHANGE SB ON-RAMP	1122+00	DETOUR VIA LAKE HILL DRIVE, SOUTH ON OLD GLENN TO S. PETERS CREEK INTERCHANGE
N. PETERS CREEK INTERCHANGE NB ON-RAMP	1138+00	DETOUR VIA LAKE HILL DRIVE, SOUTH ON OLD GLENN TO S. PETERS CREEK INTERCHANGE
MIRROR LANE INTERCHANGE SB ON-RAMP	1185+00	DETOUR VIA NB OLD GLENN HIGHWAY, NORTH ON GLENN HIGHWAY, TURN AROUND AT EKLUTNA VILLAGE ROAD INTERCHANGE
MIRROR LANE INTERCHANGE SB OFF-RAMP	1208+00	DETOUR VIA SB GLENN HWY, TURNAROUND AT N. PETERS CREEK INTERCHANGE, NB GLENN TO MIRROR LAKE SPUR EXIT, NB OLD GLENN TO PARADIS LANE
EKLUTNA VILLAGE ROAD INTERCHANGE SB ON-RAMP	1301+00	TEMPORARY RAMP FROM EKLUTNA VILLAGE ROAD TO NB TRAFFIC
EKLUTNA VILLAGE ROAD INTERCHANGE NB ON-RAMP	1311+00	DETOUR VIA SB OLD GLENN HIGHWAY TO THUNDERBIRD FALLS ON-RAMP
OLD GLENN INTERCHANGE SB ON-RAMP	1470+00	DETOUR VIA NB GLENN TO TURN AROUND AT KNIK INTERCHANGE

PRELIMINARY

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9/4/2024

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY
REHABILITATION

RAMP DETOUR TABLE

DESIGNED BY ---
CHECKED BY ---
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SCALE 1" = 1'

DATE TIME 9/4/2024 10:06 AM

DRAWING LOCATION
Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_J3-J7_CULVERT TRAFFIC CONTROL.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K1	K11

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SCALE 1" = 1'

DATE TIME
8/29/2024 9:25 PM

DRAWING LOCATION
Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_K1_SITE PLAN.DWG

LABELS

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.

ALL WIRE PAIRS SHALL BE LABELED AT THE TERMINAL BLOCK AND AT ANY LOOSE ENDS.

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 SPACED 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.

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 SUFFIX FOR ROAD DESIGNATION
- L LANE*
- R RAMP**
- SR SPUR RAMP**
- LP LOOP**
- LR LOOP RAMP**
- * ROADS AND HIGHWAYS
- ** INTERCHANGES

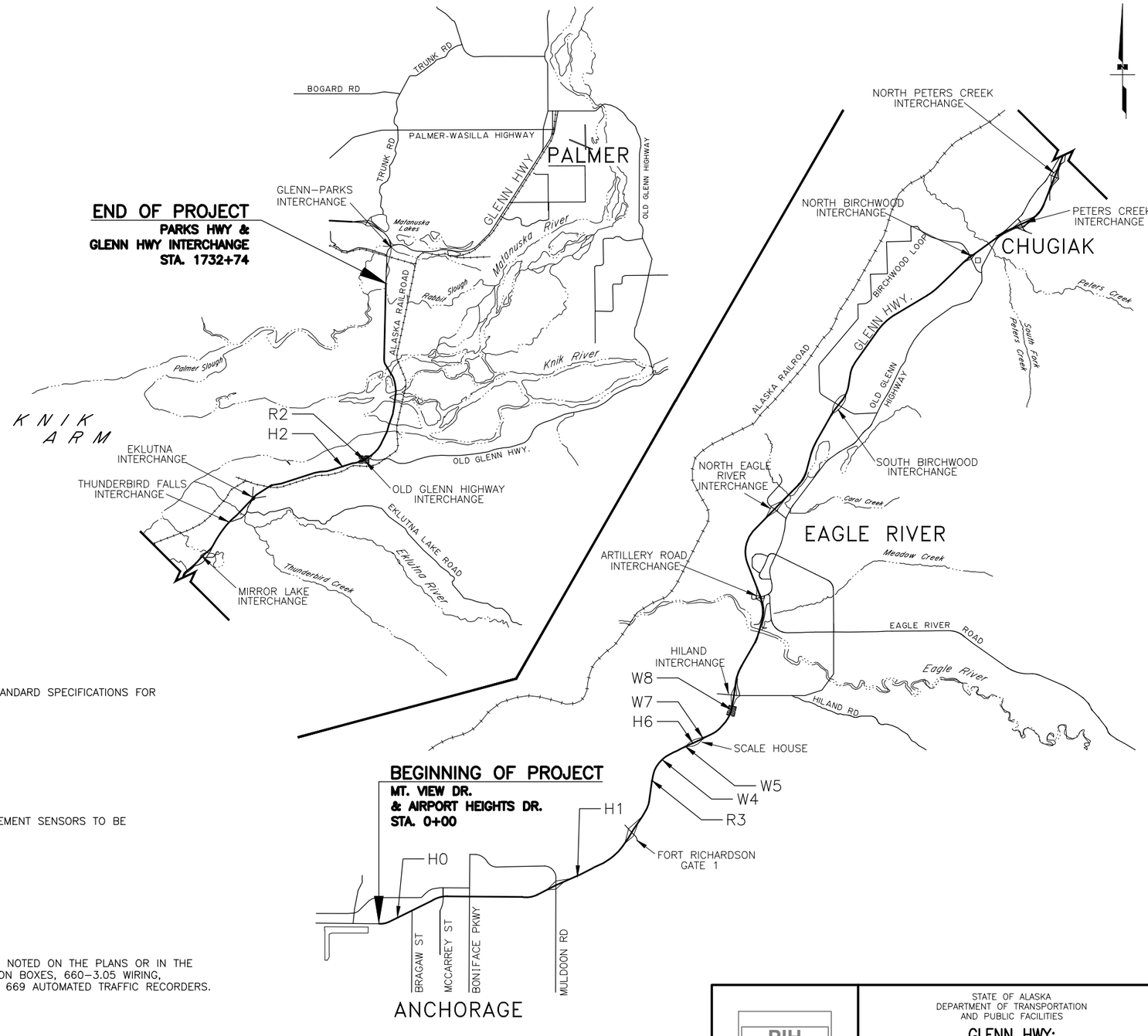
c IS THE SUFFIX FOR LANE DESIGNATION (A, B, C, D)

NOTES:

1. WORK AND MATERIALS SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, ALASKA DOT & PF STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND LOCAL AMENDMENTS.
2. THE CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS AND DIMENSIONS.
3. USE ONLY RMC OR IMC CONDUIT FOR SENSOR TAILS AND LEAD-INS.
4. OFFSET DIMENSIONS ARE APPROXIMATE AND TO BE DETERMINED BY ENGINEER.
5. REMOVE COAX CABLES CONNECTED TO SENSORS REMOVED BY PLANING OPERATIONS.
6. LOCATION COORDINATES ARE APPROXIMATE TO IDENTIFY GENERAL LOCATION OF ATR SITES. ALL PAVEMENT SENSORS TO BE INSTALLED PER PLAN SHEET DIAGRAMS AND DIMENSIONS WITHIN RIGHT-OF-WAY AS SHOWN.

REFERENCE SPECIFICATIONS:

CONSTRUCT WIRING ACCORDING TO SPECIFICATION SECTION 660 SIGNALS AND LIGHTING, EXCEPT WHERE NOTED ON THE PLANS OR IN THE SPECIAL PROVISIONS. CONFORM TO SPECIFICATION SUBSECTIONS 660-3.03 CONDUIT, 660-3.04 JUNCTION BOXES, 660-3.05 WIRING, 660-3.06 BONDING AND GROUNDING, AND 660-3.01.7 FIELD TESTS. EXCEPT AS MODIFIED BY SECTION 669 AUTOMATED TRAFFIC RECORDERS.



SOUTH VICINITY MAP

PRELIMINARY

PIH
8/29/2024

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

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

ATR, RWIS AND WIM SITE PLAN

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K2	K11

TRAFFIC DATA SENSOR ASSEMBLIES SCHEDULE

CONSTRUCTION SITE NO.	SITE LOCATION (SEE NOTE)	COUNT SITE NO.	PAVEMENT	NO. OF LANES	NO. OF NEW PRESENCE LOOPS	NO. OF PIEZO SENSORS	J BOX AND CONDUIT	CONTROL CABINET	ELECTRICAL LOAD CENTER	TEMPERATURE PROBE AND SENSORS	REMARKS
H0	POLE MOUNTED SPEED AND VOLUME STATION STA "G1" 21+60, 108' RT	11500420	PLANE AND OVERLAY	7	0 (14 ABANDONED IN PLACE)	0 (14 ABANDONED IN PLACE)	N.I.C.	N.I.C.	N.I.C.		LOOPS AND PIEZOS NOTED AS ABANDONED IN PROJECT CFHWY00179 GLENN HIGHWAY: AIRPORT HEIGHTS DRIVE TO HILAND ROAD PAVEMENT PRESERVATION (2017), SHEET K2
H1	SPEED STATION SOUTHBOUND GLENN HIGHWAY NEAR MULDOON STA.202+00	52421000	PLANE AND OVERLAY	3	0	0	N.I.C.	N.I.C.	N.I.C.		LOOPS EMBEDDED IN BASE COURSE
R3	RWIS SITE NORTHBOUND GLENN HIGHWAY 1 MILE SOUTH OF WEIGH STATION STA. 442+00	10100001	PLANE AND OVERLAY	1	0	0	N.I.C.	N.I.C.	N.I.C.	2	RE-INSTALLATION TO BE COMPLETED BY OTHERS
W4	WIM NORTHBOUND 1 NORTHBOUND GLENN HIGHWAY ADVANCE LOCATION ARRAY STA. 484+52	10100001	PLANE AND OVERLAY	3	0	3	EXISTING	EXISTING	EXISTING		SEE SHEET K6
W5	WIM SOUTHBOUND 2 NORTHBOUND GLENN HIGHWAY COMPLIANCE LOCATION ARRAY STA. 484+25	10100001	PLANE AND OVERLAY	4	0	8	EXISTING	EXISTING	EXISTING		SEE SHEET K7
H6	ATR NORTHBOUND AND SOUTHBOUND GLENN HIGHWAY AT WEIGH STATION STA.493+00	10100042	PLANE AND OVERLAY	8	0	0	N.I.C.	N.I.C.	N.I.C.		LOOPS EMBEDDED IN BASE COURSE
W7	WIM SOUTHBOUND 1 SOUTHBOUND GLENN HIGHWAY ADVANCE LOCATION ARRAY STA. 501+00	101000001	PLANE AND OVERLAY	4	0	8	EXISTING	EXISTING	EXISTING		SEE SHEET K8
W8	WIM SOUTHBOUND 2 SOUTHBOUND GLENN HIGHWAY ADVANCE LOCATION ARRAY STA. 536+25	10100001	PLANE AND OVERLAY	1	0	2	EXISTING	EXISTING	EXISTING		SEE SHEET K9
H2	EKLUTNA AVC GLENN HIGHWAY MP 29 CDS ROUTE NO.135000, STA. 1445+25	525250001252	PLANE AND OVERLAY	4	0	2	EXISTING	EXISTING	EXISTING		SEE SHEETS K10 AND K11
R2	RWIS SITE GLENN HIGHWAY MP 31.1 AT 2ND KNIK RIVER BRIDGE SOUTHBOUND RIGHT LANE AT RPU		PLANE AND OVERLAY	1	-	-	N.I.C.	N.I.C.	N.I.C.	2	RE-INSTALLATION TO BE COMPLETED BY OTHERS (FOR INFORMATIONAL USE ONLY)

PRELIMINARY

PIH
8/29/2024

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY
REHABILITATION

PAVEMENT SENSOR SUMMARY

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CHECKED BY ---
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SCALE 1" = 1'
DATE TIME 8/29/2024 9:25 PM
DRAWING LOCATION Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_K2_PAVEMENT SENSOR SUMMARY.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K3	K11

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DATE TIME 8/29/2024 9:26 PM

DRAWING LOCATION
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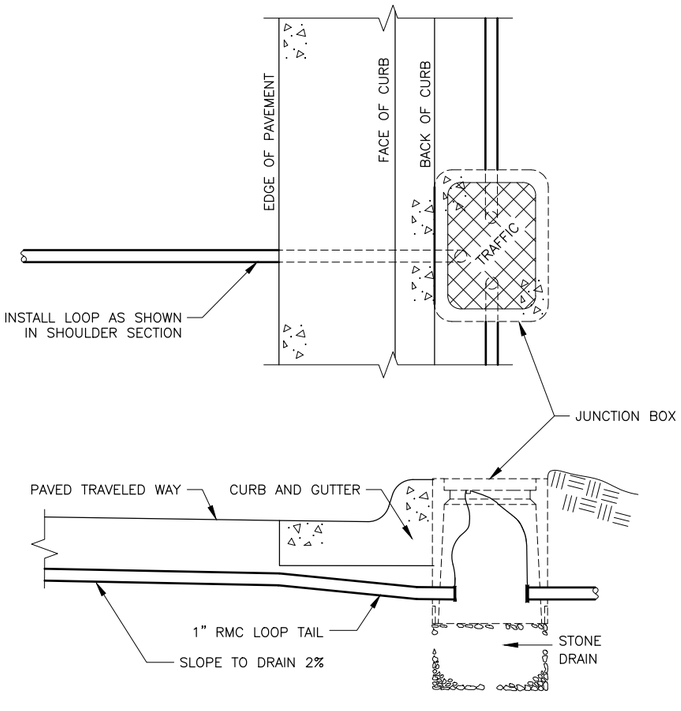
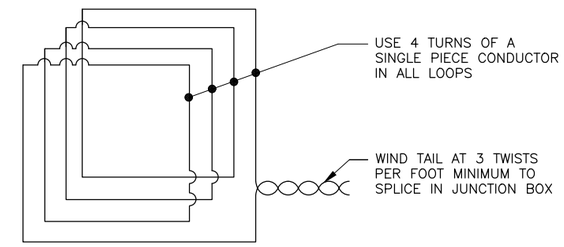
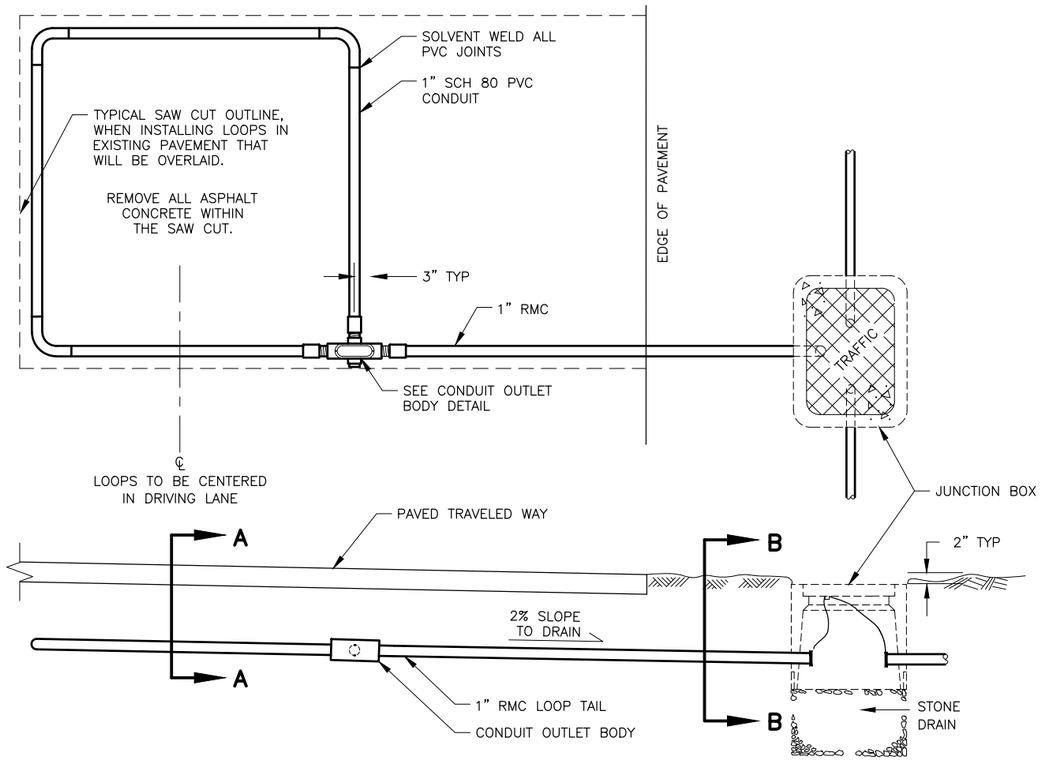


CURB SECTION



LOOP WIRING DETAIL



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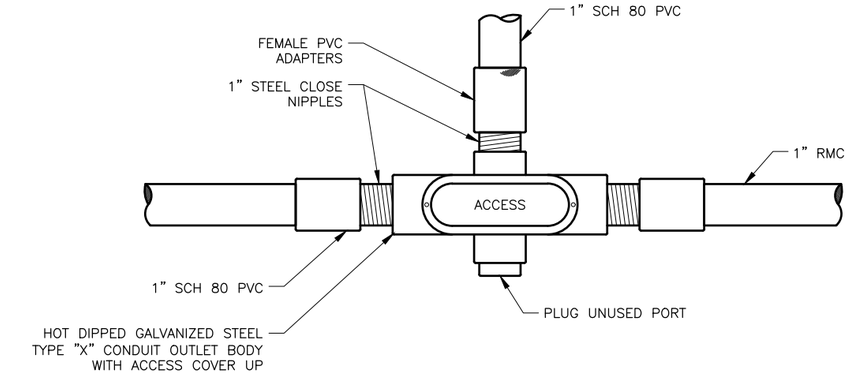
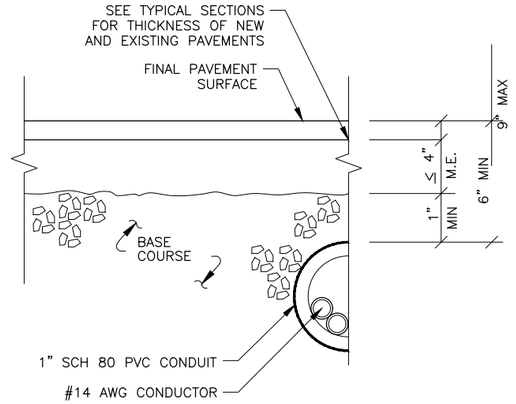
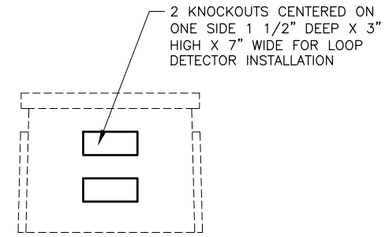


CONDUIT OUTLET BODY DETAIL



SECTION A–A



SECTION B–B

NOTES:

1. EACH LOOP DETECTOR SHALL CONSIST OF A SINGLE PIECE OF INSULATED #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 THE 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 OR PLANING THE EXISTING PAVEMENT OR PAVING THE NEW ROADWAY.
4. INSTALL THE LOOP DETECTORS SLOPED TO DRAIN INTO THE JUNCTION BOX THE LOOP TAIL ENTERS. IF THE CONTRACTOR CANNOT INSTALL THE LOOP TO DRAIN INTO THE J–BOX, DRILL FIVE 1/4" WEEP HOLES ON 1 FOOT ON CENTERS IN THE UNDERSIDE OF THE CONDUIT AT THE LOW SPOT.
5. CONTRACTOR MAY INSTALL LOOP TAILS 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 TEST AS REQUIRED IN SECTION 660–3.01(7) OF THE STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION.

DETAIL IS FOR SITE W8 BETWEEN SOUTHBOUND HILAND ON RAMP AND EX SENSOR POLE STA 526+00, 90' LT.

PRELIMINARY

PIH
8/29/2024

PLANS DEVELOPED BY:
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AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

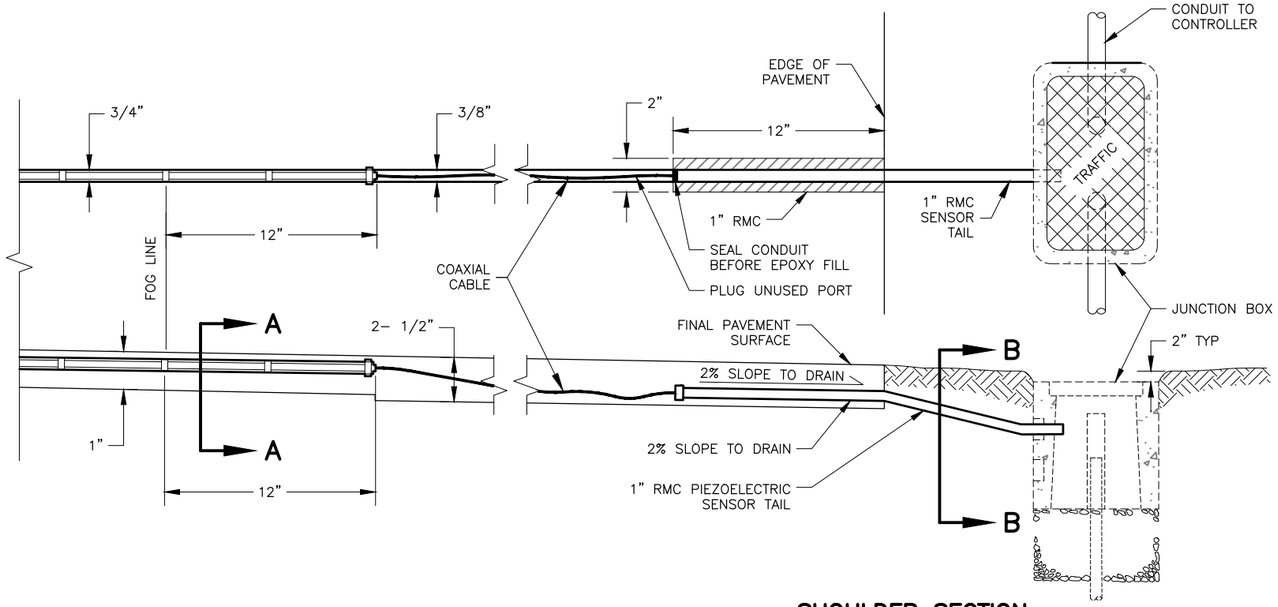
ATR DETAILS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K4	K11

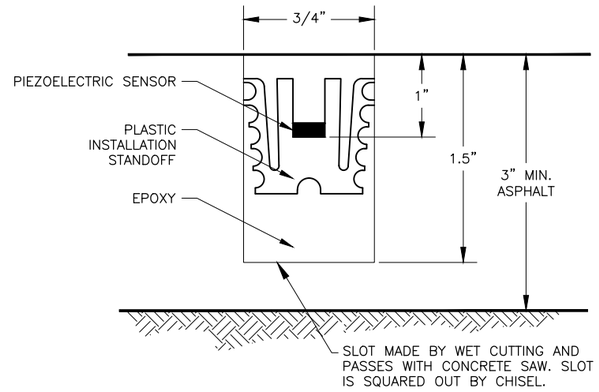
NOTES:

1. CONTRACTOR SHALL VERIFY THAT THE PASSIVE CABLE LENGTH IS ENOUGH TO REACH THE CABINET.
2. THE PASSIVE CABLE LENGTH SHOULD NOT EXCEED 300' WITHOUT CONSULTING THE MANUFACTURER.
3. SPLICES SHOULD BE AVOIDED WHERE POSSIBLE. HOWEVER, IF SPLICES ARE NEEDED, ONLY SIMILAR GRADE OF RG-58 CABLE SHOULD BE USED, THE SPLICES MUST BE SOLDERED, AND AN APPROVED SPLICE KIT USED TO WATERPROOF THE SPLICE.
4. THE CONTRACTOR SHALL REMEDY (AT THEIR EXPENSE) ANY PROBLEMS ARISING FROM SPICING THE CABLE INCLUDING INSUFFICIENT WAVEFORM OUTPUT.

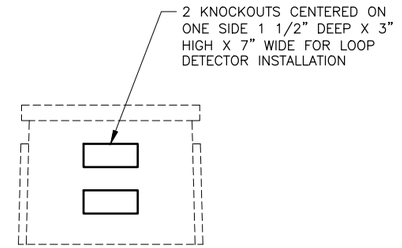


SHOULDER SECTION

NTS



SECTION A-A



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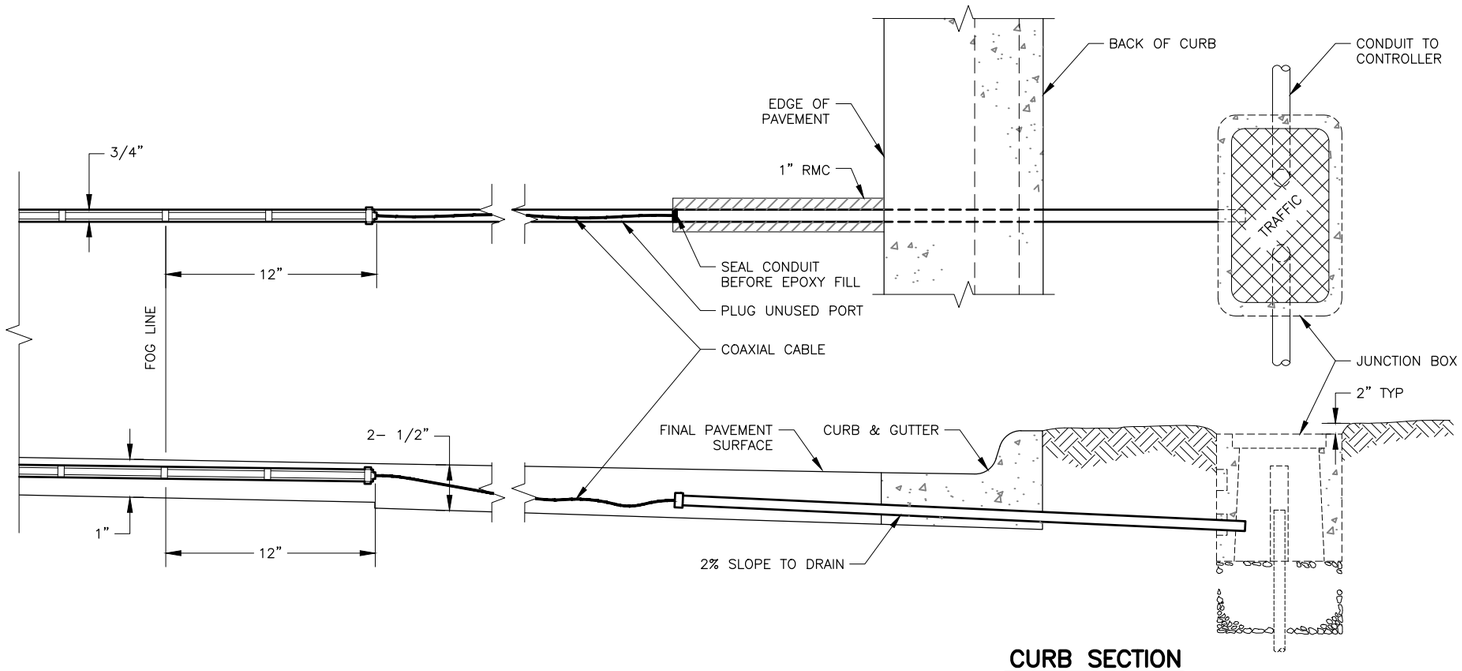


CURB SECTION

TYPICAL PIEZOELECTRIC SENSOR DETAILS

NTS

PRELIMINARY

PIH
8/29/2024

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 Arctic Blvd, Suite 400
ANCHORAGE, AK 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

ATR DETAILS

DESIGNED BY ---
CHECKED BY ---
DRAFTED BY ---

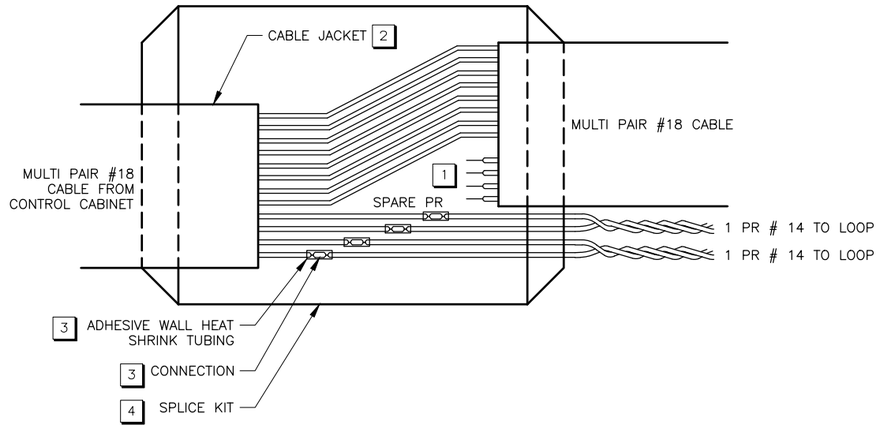
SCALE 1" = 1'

DATE TIME 8/29/2024 9:26 PM

DRAWING LOCATION
Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_K3-K5_DETAILS.DWG

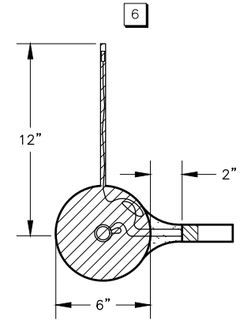
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K5	K11



TYPICAL LOOP SPLICE DETAIL

NTS



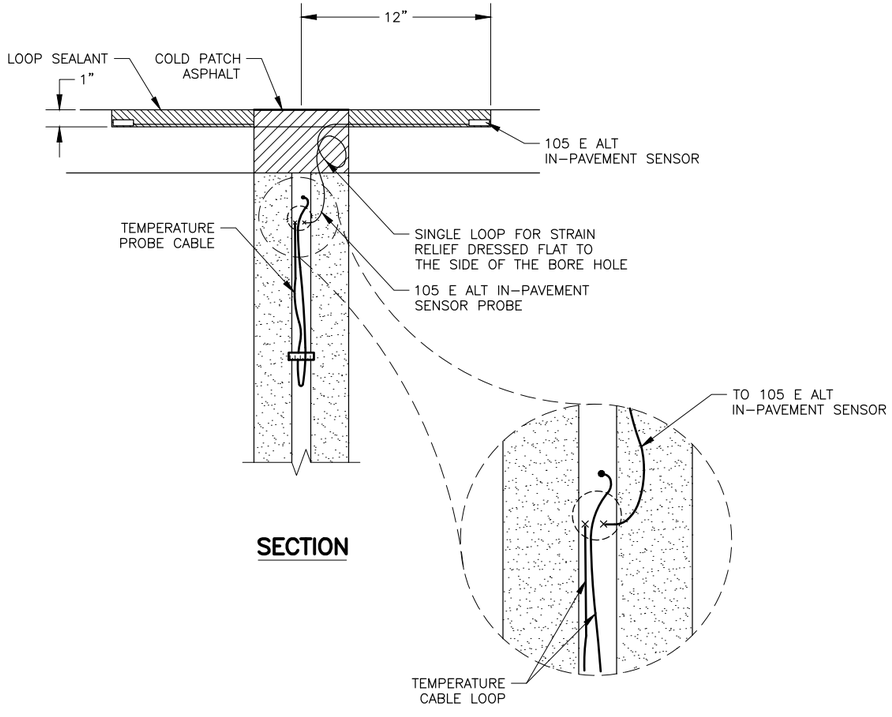
PLAN VIEW

TEMPERATURE SENSOR DETAIL

NTS

NOTES:

1. TERMINATE SPARES WITHIN THE SPLICE BODY.
2. SPLICE BODY TO ENCLOSE CABLE JACKETS.
3. STAGGER SPLICE POINTS. USE MULTILINK CONNECTOR #ML56-16 CONNECTOR.
4. USE A NON-REENTERABLE, WET LOCATION, COMMERCIAL SPLICE KIT 3M TYPE 82-F1 OR EQUIVALENT AS APPROVED BY THE ENGINEER.
5. SEAL END OF CONDUIT WITH 3M TYPE LOOP SEALANT OR EQUIVALENT AS APPROVED BY THE ENGINEER.
6. SLOT FOR IN-PAVEMENT SENSORS PARALLEL TO TRAVELED ROADWAY.
7. RUN GROUND TEMPERATURE SENSOR CABLE UNSPLICED TO CBA2 CABINET FOR CONNECTION TO DATA LOGGER.



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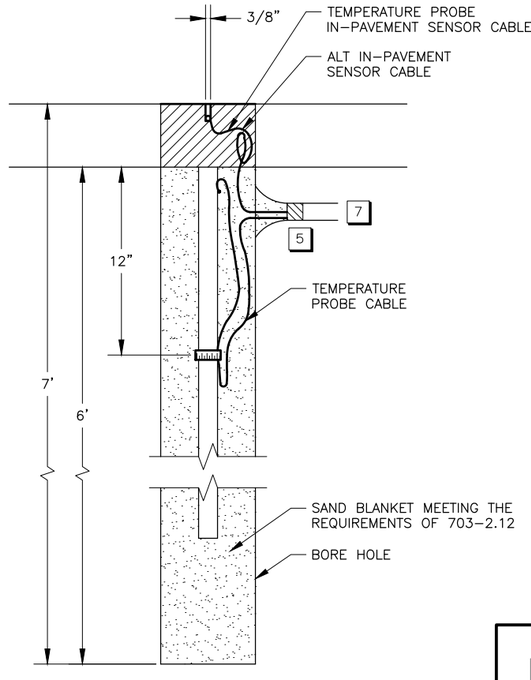

SECTION

TEMPERATURE SENSOR DETAILS

NTS

PRELIMINARY

PIH
8/29/2024

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

GLENN HWY: AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

ATR DETAILS

DESIGNED BY
CHECKED BY
DRAFTED BY

SCALE 1" = 1'

DATE TIME 8/29/2024 9:26 PM

DRAWING LOCATION
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K6	K11

DESIGNED BY
CHECKED BY
DRAFTED BY

SCALE 1" = 1'

DATE TIME 8/29/2024 9:26 PM

DRAWING LOCATION
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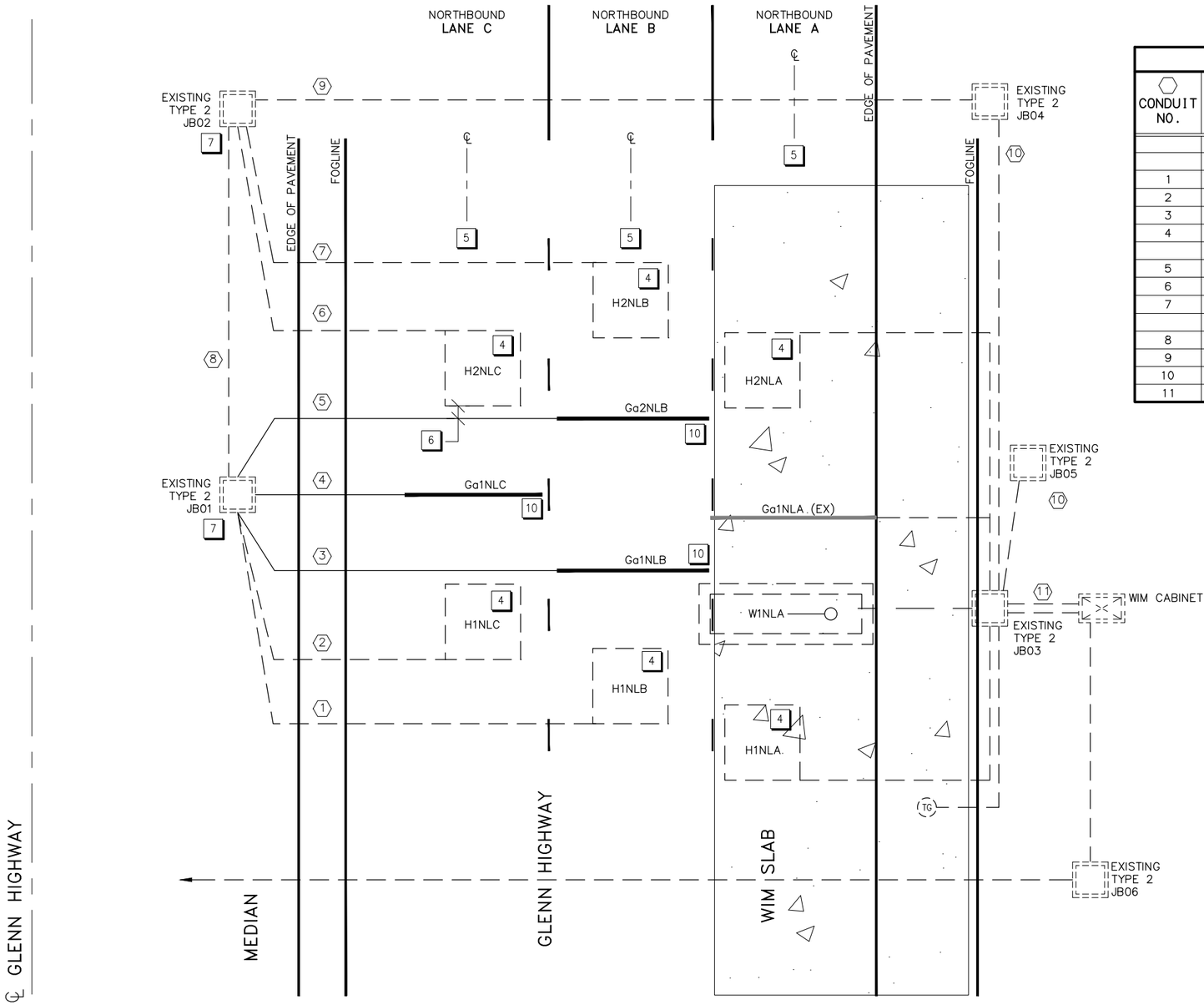

SENSOR AND J-BOX LAYOUT

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT NO.	SIZE (INCHES)	FROM	TO	CABLE			
				QTY.	TYPE	NUMBER	EX. LABEL
1	1	JB01	H1NLB	1 (EX.)	1PR. #14	R01	L411
2	1	JB01	H2NLC	1 (EX.)	1PR. #14	R02	L413
3	1	JB01	Ga1NLB	1	RG59 COAX	C01	
4	1	JB01	Ga1NLC	1	RG59 COAX	C02	
5	1	JB01	Ga2NLB	1	RG59 COAX	C03	
6	1	JB02	H2NLC	1 (EX.)	1PR. #14	R03	L414
7	1	JB02	H2NLB	1 (EX.)	1PR. #14	R04	L412
8	2	JB01	JB02	3	RG59 COAX	C01,C02,C03	
9	2	JB02	JB04	3	RG59 COAX	C01,C02,C03	
10	2	JB04	JB03	3	RG59 COAX	C01,C02,C03	
11	2	JB03	WIM	3	RG59 COAX	C01,C02,C03	

NOTES:

1. ALL PVC CONDUIT AND FITTINGS SHALL BE 1 INCH SCHEDULE 80.
2. INSTALL 1/2 INCH PREFORMED BITUMINOUS JOINT MATERIAL BETWEEN JBOX AND PAVEMENT WHEN JBOXES ARE LOCATED IMMEDIATLEY ADJACENT TO A SIDEWALK OR ROAD SURFACE.
3. PROVIDE GROUNDING BUSHINGS ON ALL CONDUITS. GROUND WITH A MINIMUM #6 BARE CU.

4. PRESERVE EXISTING LOOPS. IF NOTED OTHERWISE, PROVIDE AND INSTALL LOOPS PRIOR TO OVERLAYING PAVEMENT.
5. LOOPS TO BE CENTERED IN LANE.
6. MINIMUM SPACING BETWEEN TAIL AND LOOP OR PIEZO IS 1 FOOT. SENSOR TAILS SHALL NOT CROSS EACH OTHER.
7. SPLICE LOOP WIRING IN JBOX TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL 1 ON SHEET K5.
8. LOCATE SHOULDERED LANE PIEZO SENSORS WITH ONE END EXTENDED 1 FOOT BEYOND FOG LINE. LOCATE PIEZO SENSORS IN LANES WITHOUT SHOULDERS IN THE CENTER OF THE TRAVELED LANE.
9. COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO JBOX WITH ENOUGH SLACK TO REACH CABINET PLUS AN ADDITIONAL 8 FEET OF CABLE.
10. REMOVE AND INSTALL NEW PIEZO SENSORS AND 1" RMC TAILS.

PRELIMINARY

PIH
8/29/2024

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 Arctic Blvd, Suite 400
ANCHORAGE, AK 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY REHABILITATION
W4 LAYOUT
CONDUIT AND CONDUCTOR SCHEDULE AND WIRING DIAGRAM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K7	K11

DESIGNED BY ---
CHECKED BY ---
DRAFTED BY ---

SCALE 1" = 1'

DATE TIME 8/29/2024 9:26 PM

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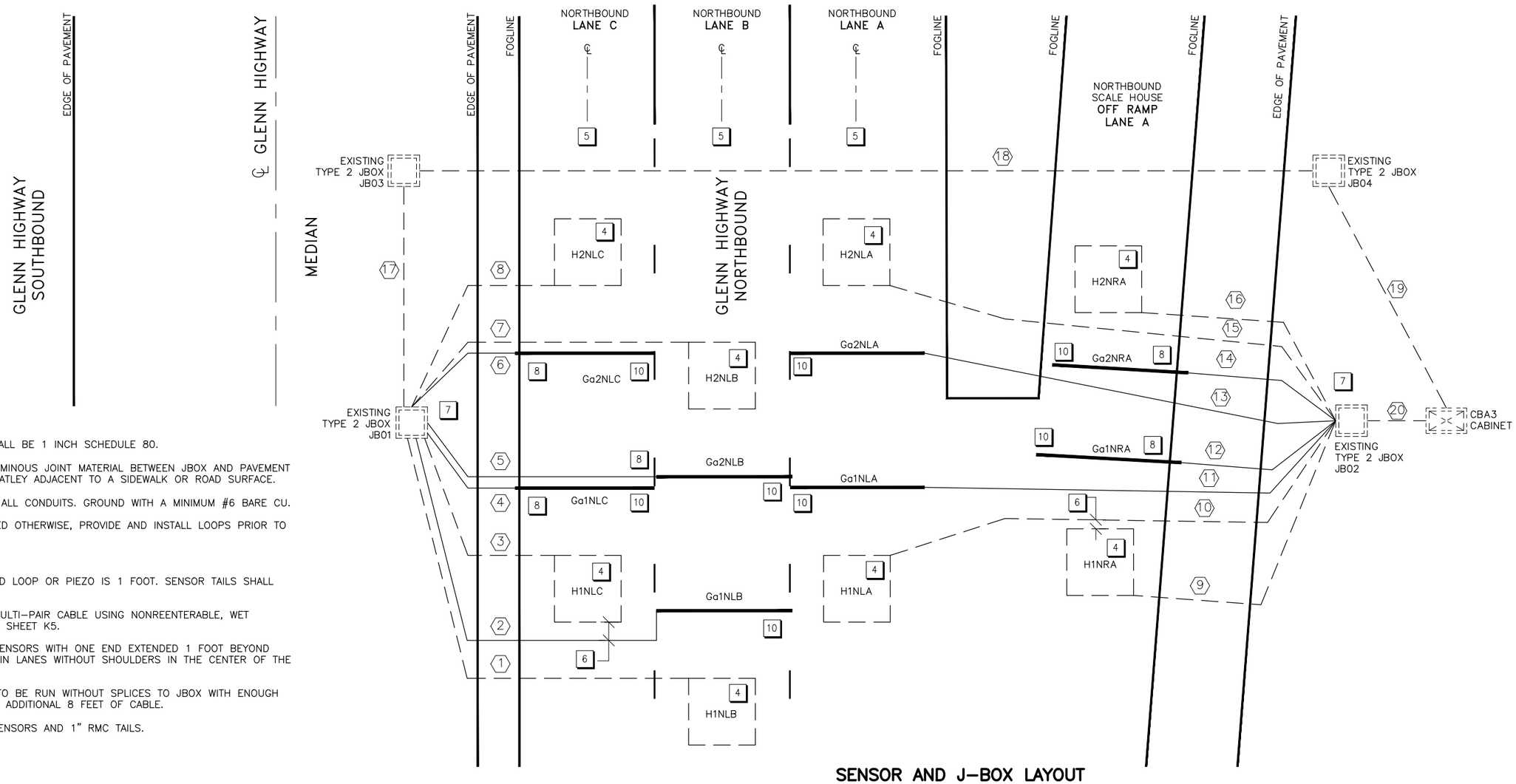

SENSOR AND J-BOX LAYOUT

NOTES:

1. ALL PVC CONDUIT AND FITTINGS SHALL BE 1 INCH SCHEDULE 80.
2. INSTALL 1/2 INCH PREFORMED BITUMINOUS JOINT MATERIAL BETWEEN JBOX AND PAVEMENT WHEN JBOXES ARE LOCATED IMMEDIATLEY ADJACENT TO A SIDEWALK OR ROAD SURFACE.
3. PROVIDE GROUNDING BUSHINGS ON ALL CONDUITS. GROUND WITH A MINIMUM #6 BARE CU.

[4] PRESERVE EXISTING LOOPS. IF NOTED OTHERWISE, PROVIDE AND INSTALL LOOPS PRIOR TO OVERLAYING PAVEMENT.

[5] LOOPS TO BE CENTERED IN LANE.

[6] MINIMUM SPACING BETWEEN TAIL AND LOOP OR PIEZO IS 1 FOOT. SENSOR TAILS SHALL NOT CROSS EACH OTHER.

[7] SPLICE LOOP WIRING IN JBOX TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL 1 ON SHEET K5.

[8] LOCATE SHOULDERED LANE PIEZO SENSORS WITH ONE END EXTENDED 1 FOOT BEYOND FOG LINE. LOCATE PIEZO SENSORS IN LANES WITHOUT SHOULDERS IN THE CENTER OF THE TRAVELED LANE.

[9] COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO JBOX WITH ENOUGH SLACK TO REACH CABINET PLUS AN ADDITIONAL 8 FEET OF CABLE.

[10] REMOVE AND INSTALL NEW PIEZO SENSORS AND 1" RMC TAILS.

CONDUIT AND CONDUCTOR SCHEDULE

⬡ CONDUIT NO.	SIZE (INCHES)	FROM	TO	CABLE QTY.	CABLE TYPE	CABLE NUMBER	EX. LABEL
1	1	JB01	H1NLB	1(EX.)	1PR. #14	R01	L510
2	1	JB01	Ga1NLB	1	RG58 COAX	C01	
3	1	JB01	H1NLC	1(EX.)	1PR. #14	C02	L521
4	1	JB01	Ga1NLC	1	RG58 COAX	C02	
5	1	JB01	Ga2NLB	1	RG58 COAX	C03	
6	1	JB01	Ga2NLC	1	RG58 COAX	C04	
7	1	JB01	H2NLB	1(EX.)	1PR. #14	R03	L520
8	1	JB01	H2NLC	1(EX.)	1PR. #14	R04	L522
9	1	JB02	H1NBA	1(EX.)	1PR. #14	R05	L515
10	1	JB02	H1NLB	1(EX.)	1PR. #14	R06	L517

CONDUIT AND CONDUCTOR SCHEDULE

⬡ CONDUIT NO.	SIZE (INCHES)	FROM	TO	CABLE QTY.	CABLE TYPE	CABLE NUMBER	EX. LABEL
11	1	JB02	Ga1NLA	1	RG58 COAX	C05	
12	1	JB02	Ga2NRA	1	RG58 COAX	C06	
13	1	JB02	Ga2NLA	1	RG58 COAX	C07	
14	1	JB02	Ga2NLA	1	RG58 COAX	C08	
15	1	JB02	H2NLA	1(EX.)	1PR. #14	R07	L518
16	1	JB02	H2NRA	1(EX.)	1PR. #14	R08	L516
17	2	JB02	JB03	4	RG58 COAX		
18	2	JB03	JB04	4	RG58 COAX		
19	2	JB04	CBA3	4	RG58 COAX		
20	2	JB02	CBA3	4	RG58 COAX		

PRELIMINARY

PIH
8/29/2024

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
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ANCHORAGE, AK 99503
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CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

GLENN HWY: AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

W5 LAYOUT CONDUIT AND CONDUCTOR SCHEDULE AND WIRING DIAGRAM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K8	K11

DESIGNED BY	---
CHECKED BY	---
DRAFTED BY	---
SCALE	1" =1'
DATE TIME	9/5/2024 10:34 AM

DRAWING LOCATION
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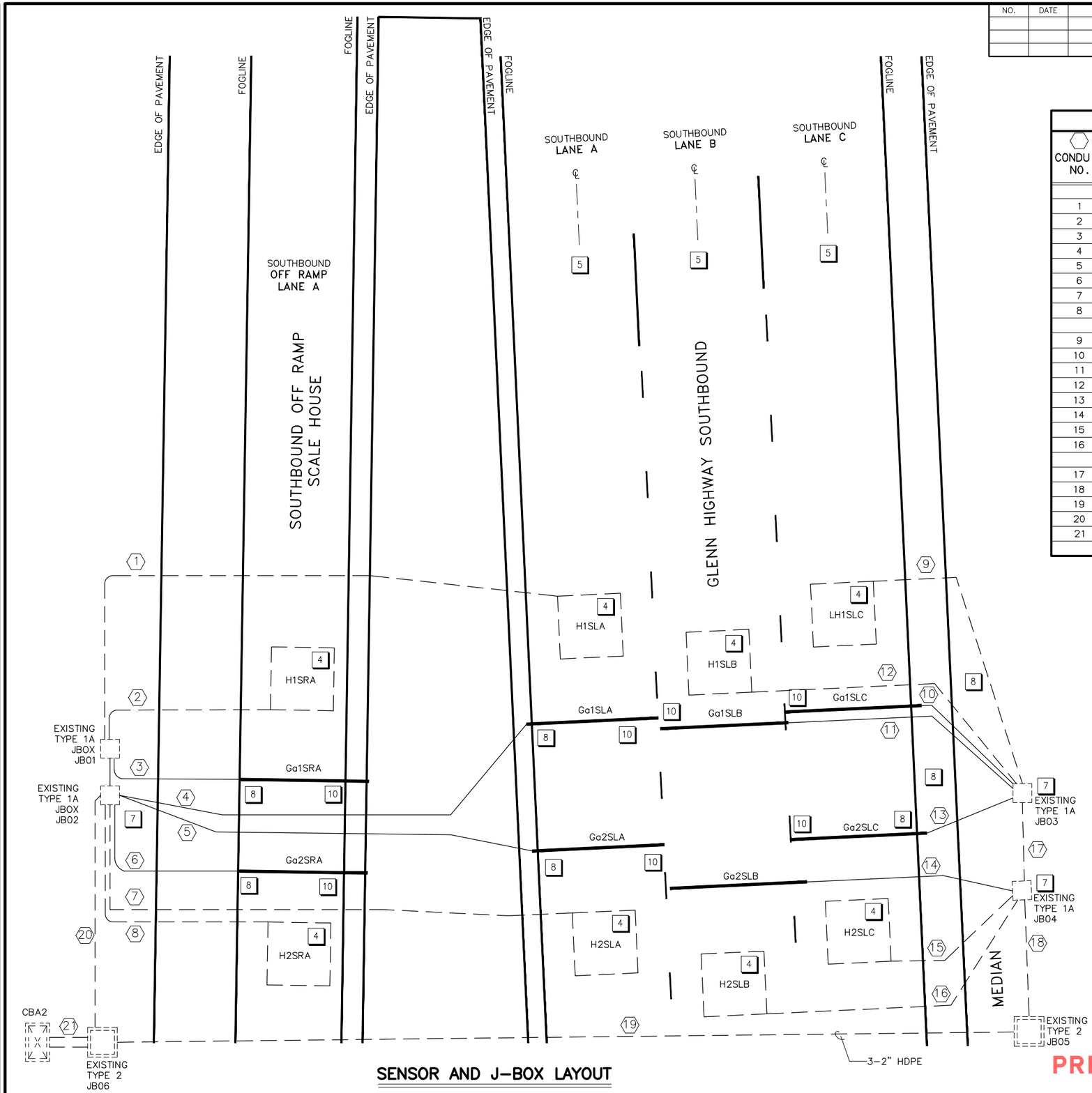

SENSOR AND J-BOX LAYOUT

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT NO.	SIZE (INCHES)	FROM	TO	CABLE QTY.	CABLE TYPE	CABLE NUMBER	EX. LABEL
1	1	JB01	H1SLA	1(EX.)	1PR. #14	R01	L748
2	1	JB01	H1SRA	1(EX.)	1PR. #14	R01	L750
3	1	JB01	Ga1SRA	1	RG58 COAX	C01	
4	1	JB02	Ga1SLA	1	RG58 COAX	C02	
5	1	JB02	Ga2SLA	1	RG58 COAX	C03	
6	1	JB02	Ga2SRA	1	RG58 COAX	C04	
7	1	JB02	H2SLA	1(EX.)	1PR. #14	R02	L747
8	1	JB02	H2SRA	1(EX.)	1PR. #14	R02	L749
9	1	JB03	H1SLC	1(EX.)	1PR. #14	R03	L746
10	1	JB03	Ga1SLC	1	RG58 COAX	R03	
11	1	JB03	Ga1SLB	1	RG58 COAX	C05	
12	1	JB04	H1SLB	1(EX.)	1PR. #14	C06	P717
13	1	JB04	Ga2SLC	1	RG58 COAX	C07	
14	1	JB04	Ga2SLB	1	RG58 COAX	C08	
15	1	JB04	H2SLC	1(EX.)	1PR. #14	R04	L746
16	1	JB04	H2SLB	1(EX.)	1PR. #14	R04	L745
17	2	JB03	JB04	3	RG58 COAX		
18	2	JB04	JB05	4	RG58 COAX		
19	2	JB05	JB06	4	RG58 COAX		
20	2	JB02	JB06	4	RG58 COAX		
21	2	JB06	CBA2	8	RG58 COAX		

NOTES:

1. ALL PVC CONDUIT AND FITTINGS SHALL BE 1 INCH SCHEDULE 80.
2. INSTALL 1/2 INCH PREFORMED BITUMINOUS JOINT MATERIAL BETWEEN JBOX AND PAVEMENT WHEN JBOXES ARE LOCATED IMMEDIATLEY ADJACENT TO A SIDEWALK OR ROAD SURFACE.
3. PROVIDE GROUNDING BUSHINGS ON ALL CONDUITS. GROUND WITH A MINIMUM #6 BARE CU.

[4] PRESERVE EXISTING LOOPS. IF NOTED OTHERWISE, PROVIDE AND INSTALL LOOPS PRIOR TO OVERLAYING PAVEMENT.

[5] LOOPS TO BE CENTERED IN LANE.

[6] MINIMUM SPACING BETWEEN TAIL AND LOOP OR PIEZO IS 1 FOOT. SENSOR TAILS SHALL NOT CROSS EACH OTHER.

[7] SPLICE LOOP WIRING IN JBOX TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL 1 ON SHEET K5.

[8] LOCATE SHOULDERED LANE PIEZO SENSORS WITH ONE END EXTENDED 1 FOOT BEYOND FOG LINE. LOCATE PIEZO SENSORS IN LANES WITHOUT SHOULDERS IN THE CENTER OF THE TRAVELED LANE.

[9] COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO JBOX WITH ENOUGH SLACK TO REACH CABINET PLUS AN ADDITIONAL 8 FEET OF CABLE.

[10] REMOVE AND INSTALL NEW PIEZO SENSORS AND 1" RMC TAILS.

PRELIMINARY

PIH
9/5/2024

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
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ANCHORAGE, AK 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

GLENN HWY: AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

W7 LAYOUT CONDUIT AND CONDUCTOR SCHEDULE AND WIRING DIAGRAM

NO.	DATE	REVISION

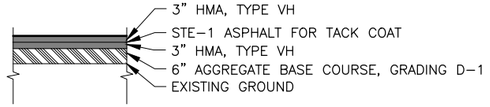
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K9	K11

DESIGNED BY
CHECKED BY
DRAFTED BY

SCALE 1" = 1'

DATE TIME 8/29/2024 9:26 PM

DRAWING LOCATION Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_K6-K11_WIRE DIAGRAMS.DWG



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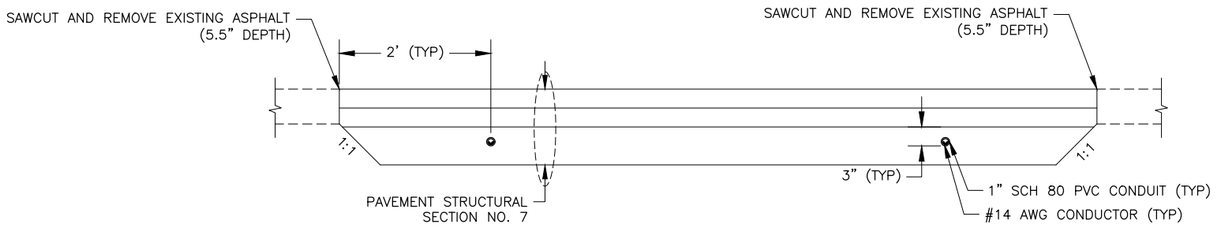
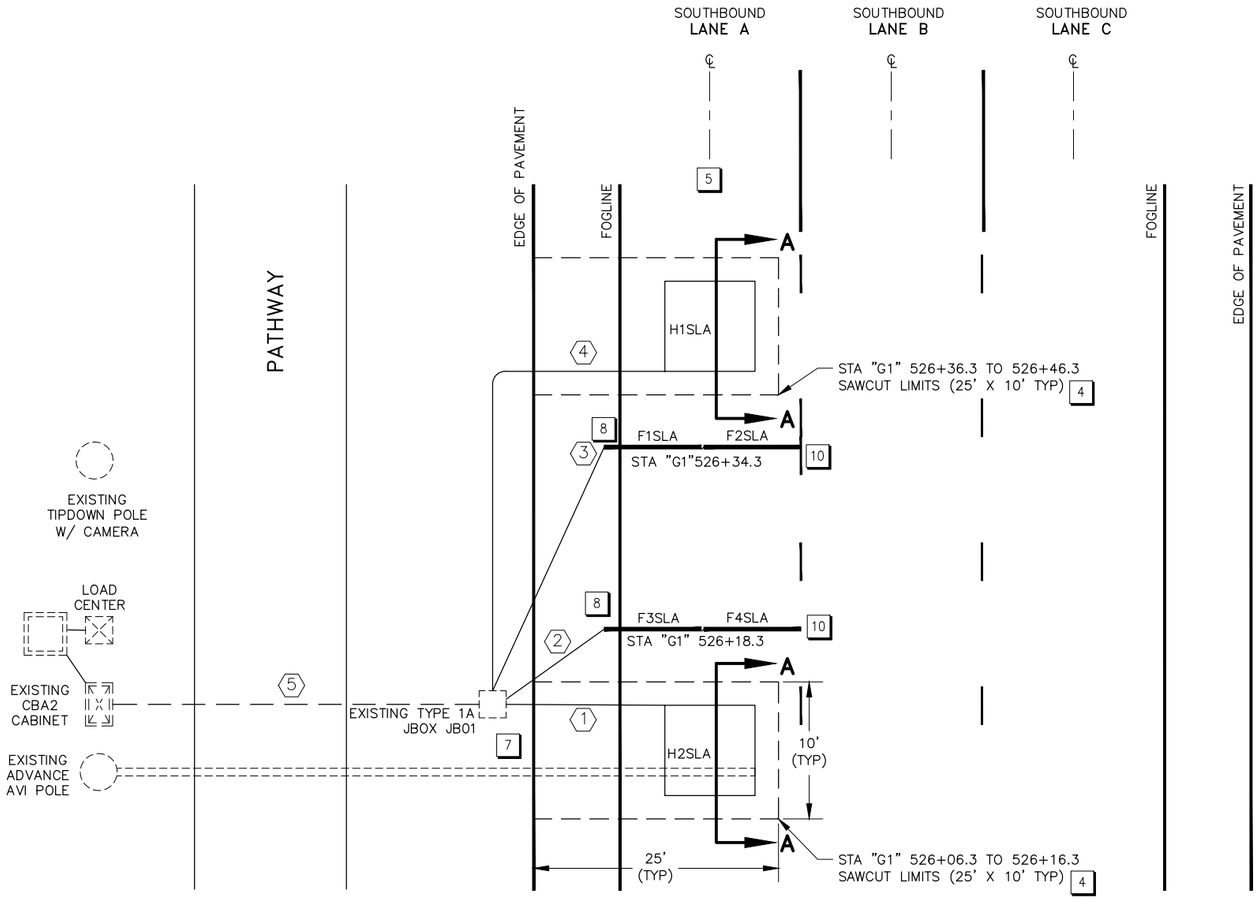


SECTION A-A

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT NO.	SIZE (INCHES)	FROM	TO	CABLE QTY.	CABLE TYPE	CABLE NUMBER	LABEL
1	1	JB01	H2SLA	1	#14		L802
2	1	JB01	F3SLA, F4SLA	1	2-COAX		F803-F804
3	1	JB01	F1SLA, F2SLA	1	2-COAX		F801-F802
4	1	JB01	H1SLA	1	#14		L801
5	2	JB01	CBA2	3	2-COAX, 2-COAX, 6PR#18		F801-F804, L800



SENSOR J-BOX AND CABINET LAYOUT

NOTES:

1. EXCAVATE AND INSTALL ALL CONDUIT AND FITTINGS THEN APPLY TEMPORARY HMA LAYER FLUSH W/ EXISTING PAVEMENT PRIOR TO PLANING. ALL PVC CONDUIT SHALL BE 1 INCH SCHEDULE 80; ALL TAIL CONDUITS SHALL BE 1" RMC.
2. INSTALL 1/2 INCH PREFORMED BITUMINOUS JOINT MATERIAL BETWEEN JBOX AND PAVEMENT WHEN JBOXES ARE LOCATED IMMEDIATLEY ADJACENT TO A SIDEWALK OR ROAD SURFACE.
3. PROVIDE GROUNDING BUSHINGS ON ALL CONDUITS. GROUND WITH A MINIMUM #6 BARE CU.

[4] SAWCUT, EXCAVATE, PLACE 1" SCH80 PVC W/ #14 AWG LOOPS & FITTINGS, BACKFILL AND COMPACT W/ MATERIAL MEETING AGGREGATE BASE COURSE, GRADING D-1, AND PLACE AND COMPACT HMA, TYPE VH IN TWO LIFTS AS SHOWN IN SECTION A-A THIS SHEET PRIOR TO PLANING OPERATIONS. ALL WORK AND MATERIALS SUBSIDIARY TO PAY ITEM 660.0003.0000 AUTOMATED TRAFFIC RECORDER W8.

[5] LOOPS TO BE CENTERED IN LANE.

[6] MINIMUM SPACING BETWEEN TAIL AND LOOP OR FORCE SENSOR IS 1 FOOT. SENSOR TAILS SHALL NOT CROSS EACH OTHER.

[7] MULTI-MODE FIBER EXISTS IN CABINET AND JUNCTION BOXES HEADED TO NEARBY POLE MOUNT CAMERAS AND WEIGH STATION. CONFIRM MANUFACTURER BEND RADIUS FOR EX 6 STRAND MULTIMODE FIBER OPTICS PRIOR TO WORK AND DO NOT EXCEED WHILE PERFORMING WORK. SPLICE COPPER LOOP WIRING IN JBOX TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL 1 ON SHEET K5.

[8] LOCATE SHOULDER LANE FORCE SENSORS WITH ONE END EXTENDED 1 FOOT BEYOND FOG LINE.

[9] COAX CABLE FOR FORCE SENSORS TO BE RUN WITHOUT SPLICES TO JBOX WITH ENOUGH SLACK TO REACH CABINET PLUS AN ADDITIONAL 8 FEET OF CABLE.

[10] REMOVE EX PIEZOELECTRIC SENSORS AND INSTALL NEW FORCE SENSORS AND 1" RMC TAILS. SEE SPECIFICATION 669-2.01.8.

PRELIMINARY

PIH
8/29/2024

PLANS DEVELOPED BY:
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CERT. OF AUTH. NO. AECL 1102

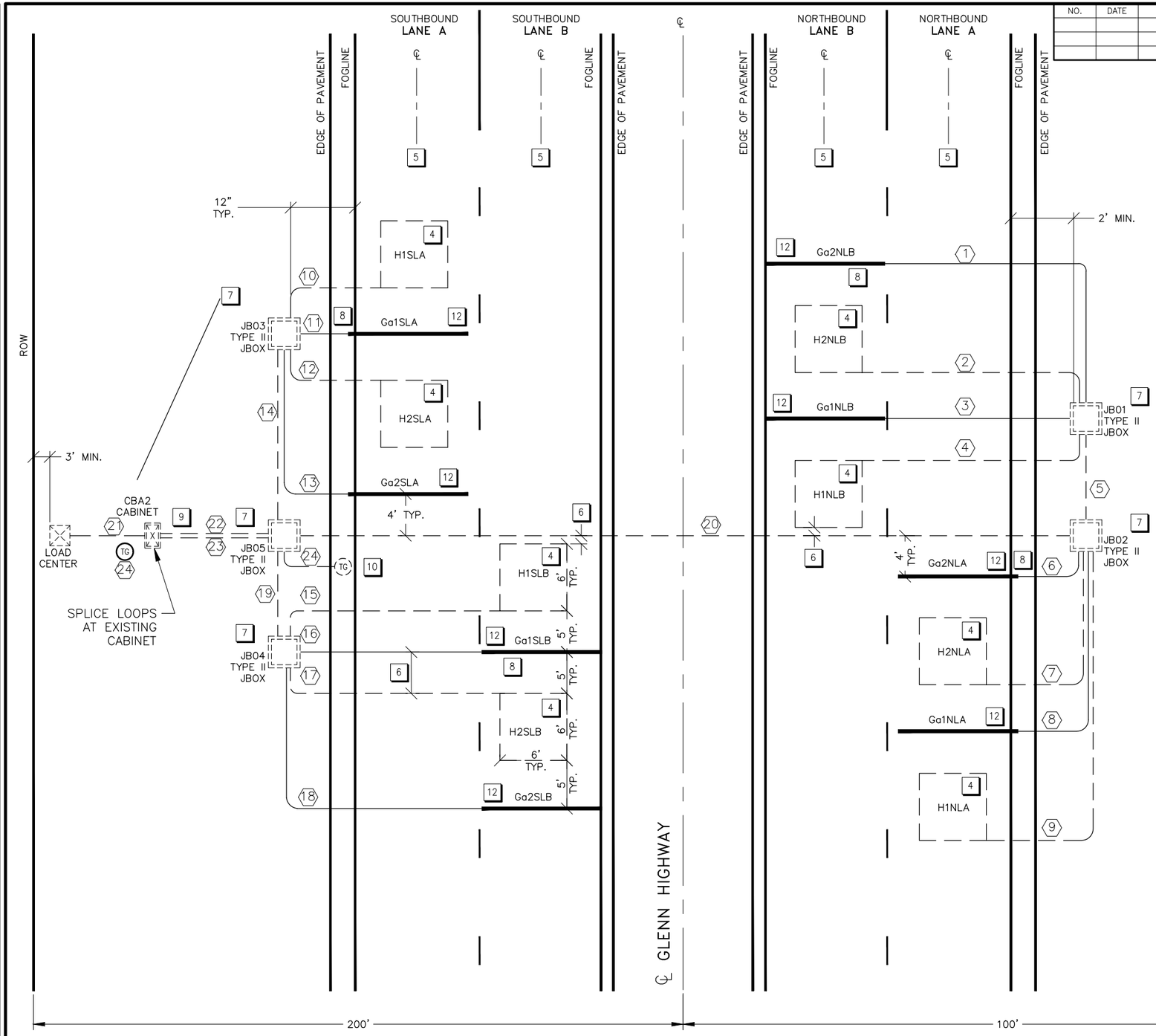
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY: AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

W8 LAYOUT
CONDUIT AND CONDUCTOR SCHEDULE AND WIRING DIAGRAM

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K10	K11



SENSOR, J-BOX, AND CABINET LAYOUT

NOTES:

1. ALL PVC CONDUIT AND FITTINGS SHALL BE 1 INCH SCHEDULE 80.
2. INSTALL 1/2 INCH PREFORMED BITUMINOUS JOINT MATERIAL BETWEEN JBOX AND PAVEMENT WHEN JBOXES ARE LOCATED IMMEDIATLEY ADJACENT TO A SIDEWALK OR ROAD SURFACE.
3. PROVIDE GROUNDING BUSHINGS ON ALL CONDUITS. GROUND WITH A MINIMUM #6 BARE CU.

4 PRESERVE EXISTING LOOPS. IF NOTED OTHERWISE, PROVIDE AND INSTALL LOOPS PRIOR TO OVERLAYING PAVEMENT.

5 LOOPS TO BE CENTERED IN LANE.

6 MINIMUM SPACING BETWEEN TAIL AND LOOP OR PIEZO IS 1 FOOT. SENSOR TAILS SHALL NOT CROSS EACH OTHER.

7 SPLICE LOOP WIRING IN JBOX TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL 1 ON SHEET K5.

8 LOCATE SHOULDERED LANE PIEZO SENSORS WITH ONE END EXTENDED 1 FOOT BEYOND FOG LINE. LOCATE PIEZO SENSORS IN LANES WITHOUT SHOULDERS IN THE CENTER OF THE TRAVELED LANE.

9 COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO JBOX WITH ENOUGH SLACK TO REACH CABINET PLUS AN ADDITIONAL 8 FEET OF CABLE.

10 CENTER TEMPERATURE PROBE IN SHOULDER PAVEMENT. SEE DETAIL ON SHEET K5

11 ALL WORK TO BE COMPLETED WITHIN RIGHT-OF-WAY.

12 SUPPLY AND INSTALL EIGHT PIEZOELECTRIC SENSORS. USE EXISTING JUNCTION BOXES AND CONNECTING CONDUIT.

13. INSTALL PIEZOELECTRIC SENSORS IN THE SURFACE OF THE NEW PAVEMENT BY SAW CUTTING METHOD.
14. UNLESS OTHERWISE NOTED, PRESERVE EXISTING PRESENCE LOOPS.

PRELIMINARY

PIH
8/29/2024

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 Arctic Blvd, Suite 400
ANCHORAGE, AK 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY
REHABILITATION

TYPICAL SITE LAYOUT,
H2 SITE,
CONDUIT & CONDUCTOR SCHEDULE

DESIGNED BY
CHECKED BY
DRAFTED BY

SCALE 1" = 1'

DATE TIME 8/29/2024 9:26 PM

DRAWING LOCATION
Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_K6-K11_WIRE DIAGRAMS.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545 ~~0A16056/CFHWY01033~~	2024	K11	K11

DESIGNED BY
CHECKED BY
DRAFTED BY

SCALE 1" = 1'

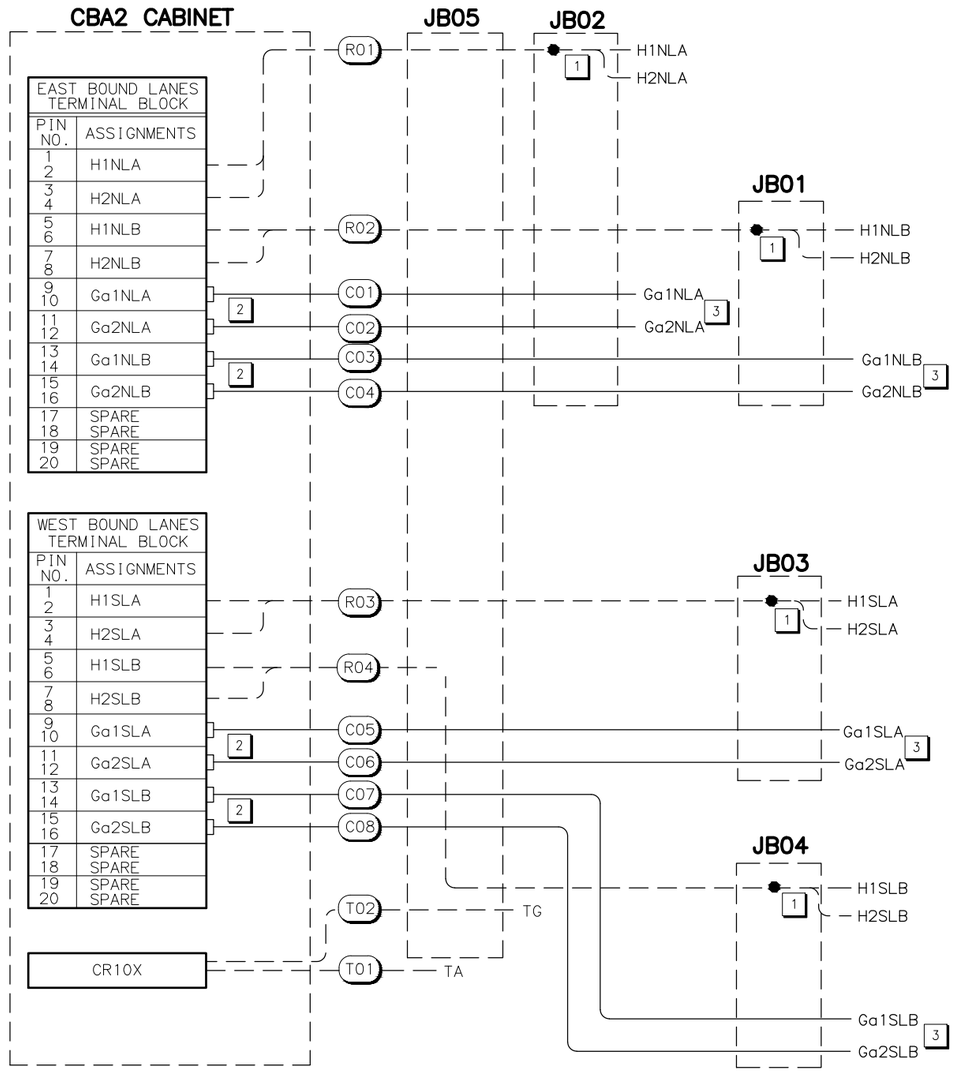
DATE TIME 8/29/2024 9:26 PM

DRAWING LOCATION
Z:\PROJECTS\00577 GLENN HWY AIRPORT HTS TO PARKS\DWGS\C\SHEETS\00545_K6-K11_WIRE DIAGRAMS.DWG

H8 CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT NO.	SIZE (INCHES)	FROM	TO	CABLE QTY.	CABLE TYPE	CABLE EX. LABEL	
1	1	JB01	Ga2NLB	1	RG58 COAX		3
2	1	JB01	H2NLB	ex	1 PR. #14		
3	1	JB01	Ga1NLB	1	RG58 COAX		3
4	1	JB01	H1NLB	ex	1 PR. #14		
5	2	JB02	JB01	ex	3 PR. #18	R02	
				2	RG58 COAX		3
6	1	JB02	Ga2NLA	1	RG58 COAX		3
7	1	JB02	H2NLA	ex	1 PR. #14		
8	1	JB02	Ga1NLA	1	RG58 COAX		3
9	1	JB02	H1NLA	ex	1 PR. #14		
10	1	JB03	H1SLA	ex	1 PR. #14		
11	1	JB03	Ga1SLA	1	RG58 COAX		3
12	1	JB03	H2SLA	ex	1 PR. #14		
13	1	JB03	Ga2SLA	1	RG58 COAX		3
14	2	JB05	JB03	ex	3 PR. #18	R03	
				2	RG58 COAX		3
15	1	JB04	H1SLB		1 PR. #14		
16	1	JB04	Ga1SLB	1	RG58 COAX		3
17	1	JB04	H2SLB	ex	1 PR. #14		
18	1	JB04	Ga2SLB	1	RG58 COAX		3
19	2	JB05	JB04	ex	3 PR. #18	R04	
				2	RG58 COAX		3
20	2	JB05	JB02	ex	3 PR. #18	R01,R02	
				4	RG58 COAX		3
21	2	CBA2	LCA	ex	1-3c #10*		
22	2	CBA2	JB05	ex	3 PR. #18	R01,R02	
				4	RG58 COAX		3
23	2	CBA2	JB05	ex	3 PR. #18	R03,R04	
				4	RG58 COAX		3
				ex	1 PR. #18	T02	
24	1	JB03	TG	ex	1 PR. #18	T02	
25	1/2	CBA2	TA	ex	1 PR. #18	T01	

× TYPE MC ARMORED CABLE



WIRING DIAGRAM

NOTES:

1. SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE' SEE DETAIL
2. RUN COAX CABLE FOR PEIZO SENSORS WITHOUT SPLICES TO "F" CONNECTOR AT TERMINAL BLOCK IN CABINET.
3. REMOVE AND INSTALL NEW PIEZO SENSORS

PRELIMINARY

PIH
8/29/2024

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 Arctic Blvd, Suite 400
ANCHORAGE, AK 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HWY:
AIRPORT HEIGHTS TO PARKS HWY REHABILITATION

H1 – CONDUIT AND CONDUCTOR SCHEDULE, AND WIRING DIAGRAM

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N1	TtlShts

BRIDGE BASIS OF ESTIMATE

ITEM NO.	ITEM	PAY UNIT	ESTIMATING UNIT	SHIP CREEK #534	EKLUTNA RIVER NB #1230	GLENN HWY OVERHEAD NB #1266	PETERS CREEK SB #1344	PETERS CREEK UC NB #1367	EDMONDS LAKE UC NB #1369	SOUTH BIRCHWOOD UC NB #1378	EKLUTNA RIVER SB #1864	PETERS CREEK UC SB #1867	EDMONDS LAKE UC SB #1868	SOUTH BIRCHWOOD UC SB #1869	KNIK RIVER OVERFLOW NB #1888	EAGLE RIVER NB #2303	EAGLE RIVER SB #2304	TOTAL QUANTITY
501.2001.0000	Spall Repair	SF	SF	60	---	---	5	---	---	---	20	---	---	---	---	---	---	85
507.2000.0000	Steel Bridge Railing Replacement, 2-Tube	LF	LF	---	232	376	---	284	232	250	232	284	232	250	---	---	---	2,372
508.0001.0000	Waterproofing Membrane, Spray-Applied	LS	SF	---	---	---	---	---	---	---	---	---	---	---	10,112	---	---	10,112
516.0001.0000	Expansion Joint, Silicone	LF	LF	---	---	---	---	---	---	---	---	---	---	---	---	139	139	278
606.0016.0000	Transition Rail	EA	EA	---	4	4	---	4	4	4	4	4	4	4	---	---	---	36
610.0001.0000	Ditch Lining	CY	CY	---	---	---	---	---	20	---	---	---	20	---	---	---	---	40
611.0001.0002	Riprap, Class II	CY	CY	---	150	---	---	---	---	---	50	---	---	---	---	---	---	200

PRELIMINARY PLAN

GENERAL NOTES

DESIGN:..... LRFD Design Specifications, 2020 Edition, with latest interim specifications.

REINFORCEMENT:..... ASTM A706, Grade 60, Fy = 60,000 psi. Space bars evenly unless shown otherwise

CONCRETE:..... Class A Concrete unless otherwise noted, f'c = 4,000 psi.

STRUCTURAL STEEL:..... Use ASTM A709, Grade 50T3. Fy = 50,000 psi. unless otherwise noted. Galvanize in accordance with AASHTO M111 and M232 unless otherwise noted.

Existing dimensions are based on as-built plans, and those plans may not show existing dimensions and conditions. Where dimensions of the proposed work depend on the existing bridge dimensions, field-verify the controlling dimensions and adjust proposed dimensions of the work to fit existing conditions.

ABBREVIATIONS:

℄	= centerline	Elev.	= elevation	MSE	= mechanically stabilized earth
ℙ	= plate	e.a.	= each face	NB	= northbound
&	= and	e.w.	= each way	n.f.	= near face
@	= at	Ext.	= exterior	No.	= number
ø	= diameter	F	= fixed	o.c.	= on center
±	= approximate	f.f.	= front/air face	O.H.W.	= ordinary high water
Abut.	= abutment	f'c	= specified concrete compressive strength	pcf	= pounds per cubic foot
Approx.	= approximate			psf	= pounds per square foot
Alt.	= alternating	f'ci	= specified concrete compressive strength at release	psi	= pounds per square inch
b.f.	= back/dirt face			R	= radius
bot.	= bottom			R.O.W.	= right of way
Br.	= bridge	Ft.	= feet	RT.	= right
btwn.	= between	Fy	= yield stress	Rd.	= road
Brg.	= bearing	Galv.	= galvanize	SB	= southbound
C.G.	= center of gravity	H.A.	= high strength	S.I.P.	= stay-in-place
C.I.P.	= cast in place	Hwy.	= highway	spcs.	= space, spaces
CJP	= complete joint penetration	ID	= internal diameter	Sta.	= station
Clr.	= clear, clearance	Int.	= interior	SF	= square feet
CMP	= corrugated metal pipe	Jt.	= joint	SY	= square yard
CF	= cubic feet	K	= kips	Std.	= standard
CY	= cubic yard	ksf	= 1000 pounds per square foot	Symm.	= symmetric
D.H.W.	= design high water	ksi	= 1000 pounds per square inch	Typ.	= typical
Dia.	= diameter	LBS or lb	= pounds	UT	= ultrasonic testing
Dr.	= drive	LF	= linear foot	V.P.C.	= point of vertical curve
Dwg.	= drawing	LS	= lump sum	V.P.I.	= point of vertical intersection
E	= expansion	LT.	= left	V.P.T.	= point of vertical tangent
(E)	= existing	max.	= maximum	w/	= with
EA	= each	min.	= minimum		

DESIGNED BY:	Andrew Wells	CHECKED:	Checker	LAYOUT BY:	Andrew Wells	CHECKED BY:	Checker
DRAWN BY:	Javier De Leon	CHECKED:	Andrew Wells	SPECIFICATIONS BY:	Andrew Wells	P S & E COMPARED:	Checker
QUANTITIES BY:	Andrew Wells	CHECKED:	Checker	APPROVAL RECOMMENDED BY:		Leslie Daugherty	

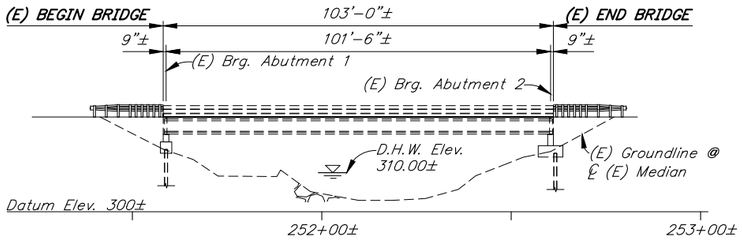
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

GLENN HWY: AIRPORT HEIGHTS TO PARKS HIGHWAY
PRELIMINARY GLENN HIGHWAY
GENERAL NOTES

BRIDGE NO.
DWG. NO.

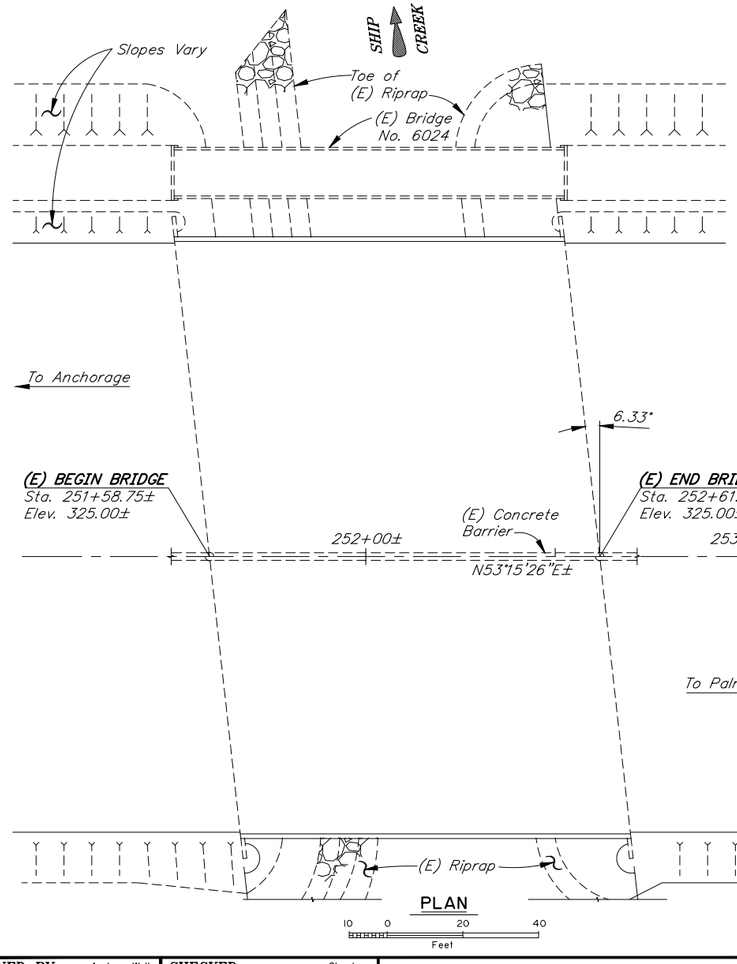
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-EST Fri, Jul/12/24 02:13pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N2	TtlShts



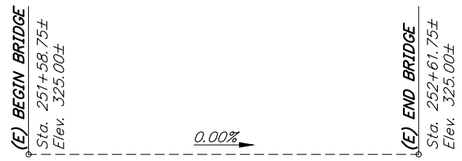
PLAN

10 0 20 40
Feet



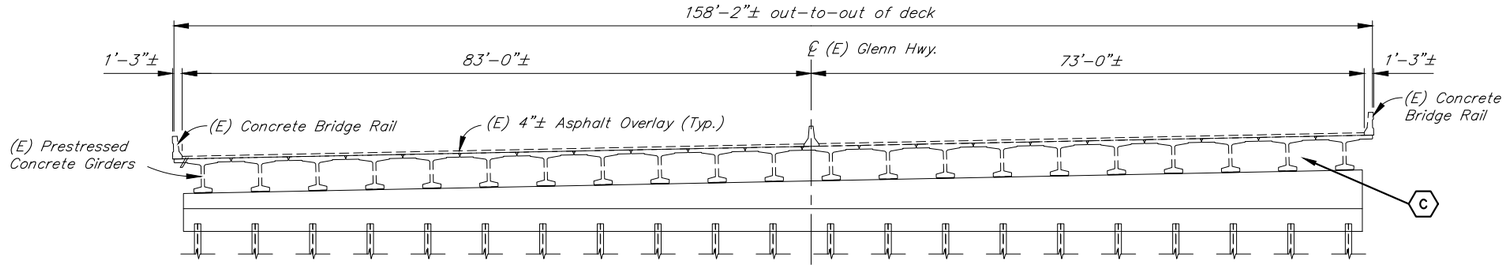
PLAN

10 0 20 40
Feet



PROFILE GRADE DATA

No Scale



EXISTING PROPOSED

TYPICAL SECTION

10 5 0 10 20
Feet

PRELIMINARY PLAN

LEGEND
(C) – Patch Spalled Concrete

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
ABUTMENTS	2
SPALL REPAIR DETAILS	3

NOTES:

(E) = Existing
- - - - - = Existing
——— = Proposed

1. Bridge stations and elevations are based on 1988 as-built drawings.
2. Verify controlling field dimensions before ordering or fabricating any material

DESIGNED BY: Andrew Wells	CHECKED: Checker	REHABILITATION	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

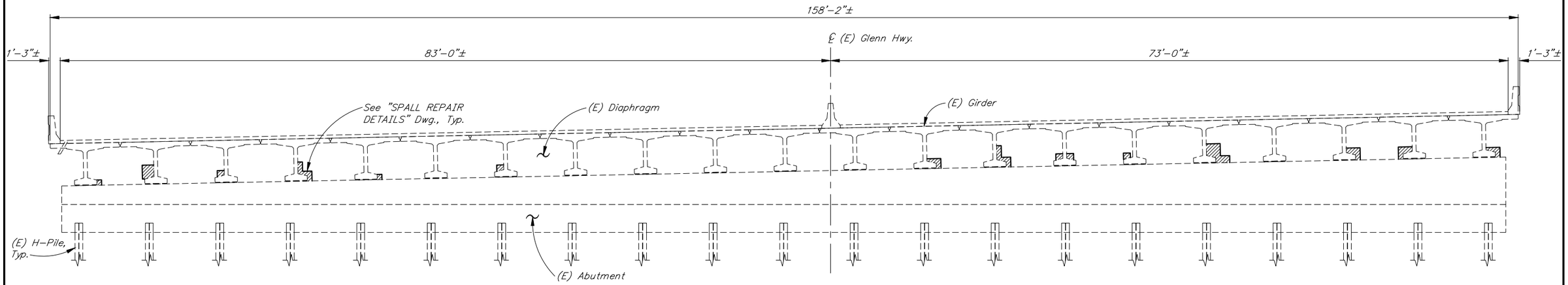
PRELIMINARY

SHIP CREEK
GLENN HIGHWAY
GENERAL LAYOUT

BRIDGE NO. 534
DWG. NO. 1

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-534 GEN Fri, Jul/12/24 02:13pm

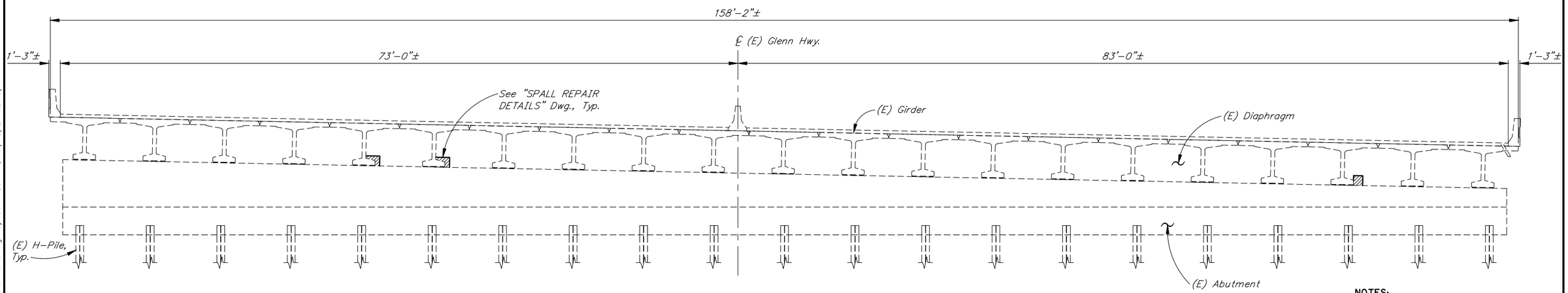
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N3	TtlShts



ABUTMENT 1

(Looking back at Station)

12 0 5 10
In. Feet



ABUTMENT 2

(Looking ahead on Station)

12 0 5 10
In. Feet

NOTES:

▨ = Unsound Concrete
(E) = Existing
- - - - - = Existing
——— = Proposed

1. Locations and sizes are for illustration purposes only.
2. Duplicate diaphragm repair details at the abutments.
3. Allow 2" clearance for sawcut adjacent to girder.
4. Depth of concrete removal varies. Chip to limits of sound concrete. Chip to ¾" below exposed rebar.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

PRELIMINARY

SHIP CREEK
GLENN HIGHWAY
ABUTMENTS

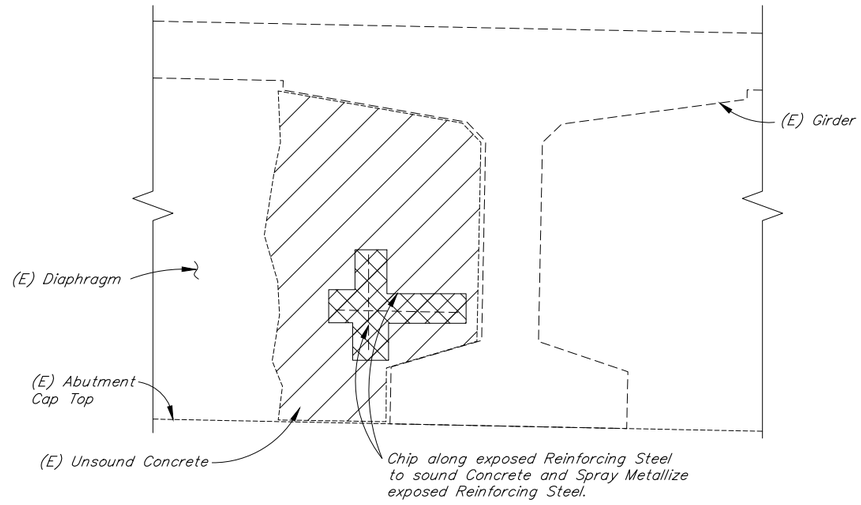
BRIDGE NO. 534
DWG. NO. 2

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-534 ABUT Fri, Jul/12/24 02:13pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N4	TtlShts

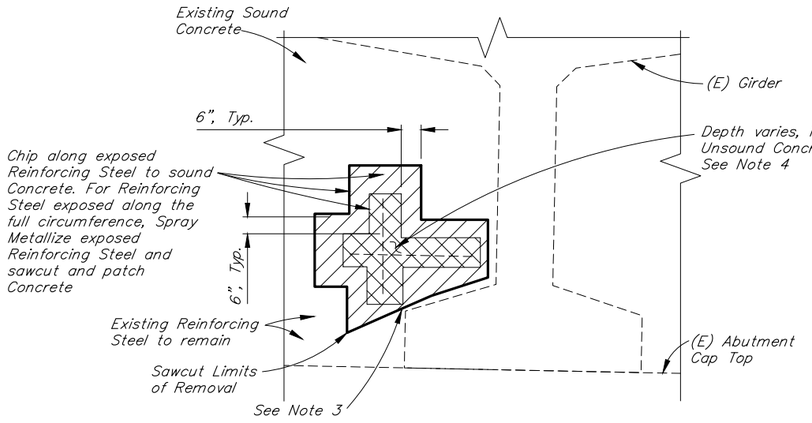
ABUTMENT 1 BAY 14 SPALL

No Scale



DETAIL A - SPRAY METALIZE REPAIR

12 6 0 1
In. Feet



DETAIL B - ALTERNATE CONCRETE DIAPHRAGM PATCH REPAIR

12 6 0 1
In. Feet

NOTES:

▨ = Unsound Concrete
(E) = Existing
- - - - - = Existing
——— = Proposed

1. *Locations and sizes are for illustration purposes only.*
2. *Allow 2" clearance for sawcut adjacent to girder.*
3. *Depth of concrete removal varies. Chip to limits of sound concrete. Chip to ¾" below exposed rebar.*

PRELIMINARY PLAN

DESIGNED BY: *Andrew Wells*	CHECKED: *Checker*
DRAWN BY: *Javier De Leon*	CHECKED: *Andrew Wells*
QUANTITIES BY: *Andrew Wells*	CHECKED: *Checker*

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

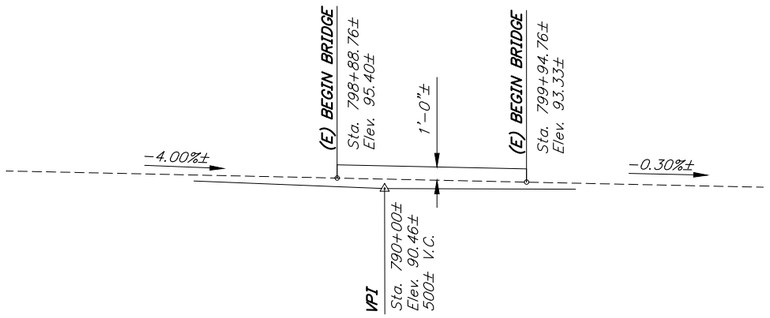
PRELIMINARY

SHIP CREEK
GLENN HIGHWAY
SPALL REPAIR DETAILS

BRIDGE NO. 534
DWG. NO. 2

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-534 SPALL Fri, Jul/12/24 02:13pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N5	TtlShts



PROFILE GRADE DATA

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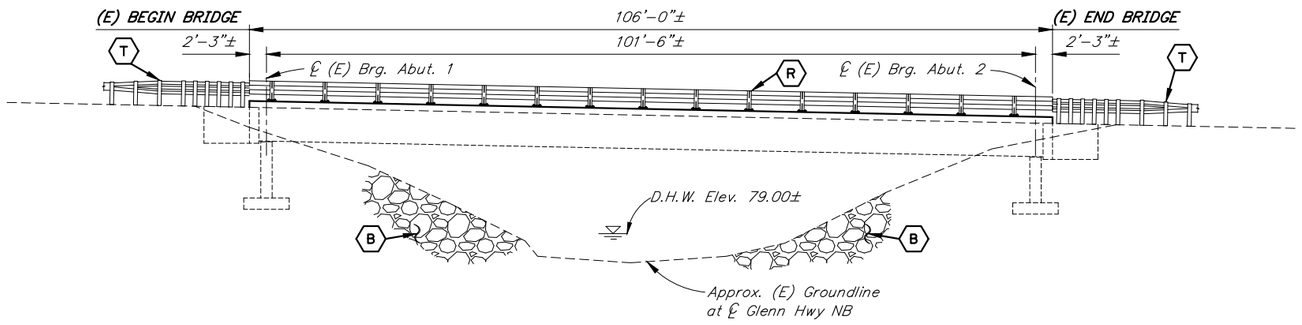
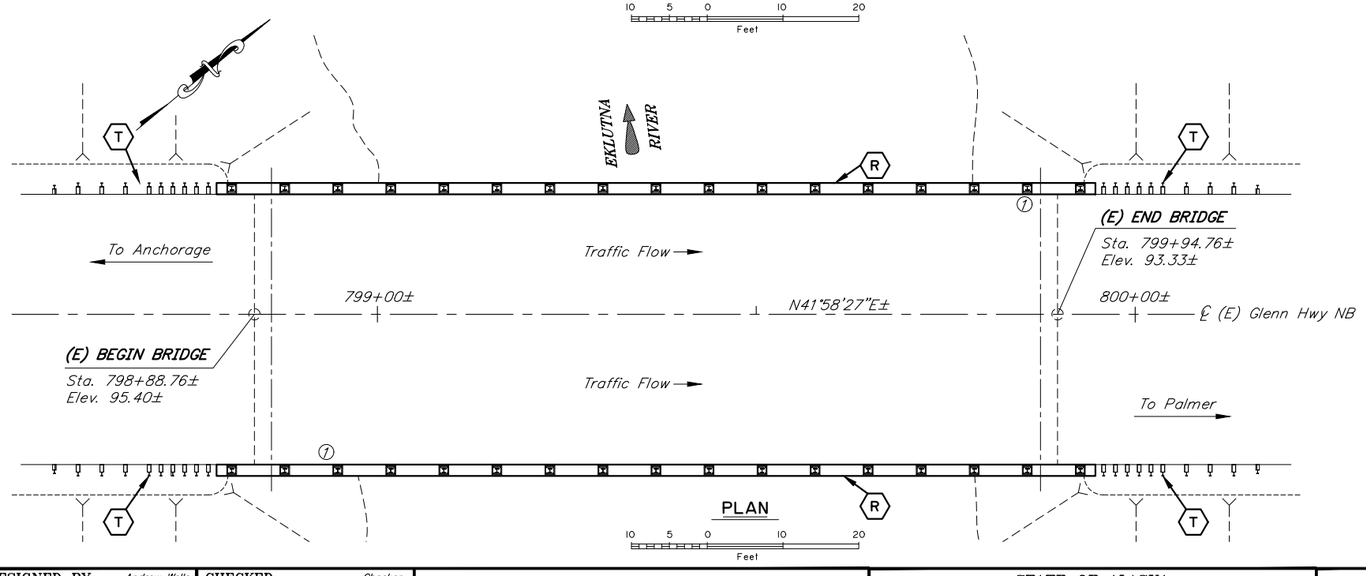


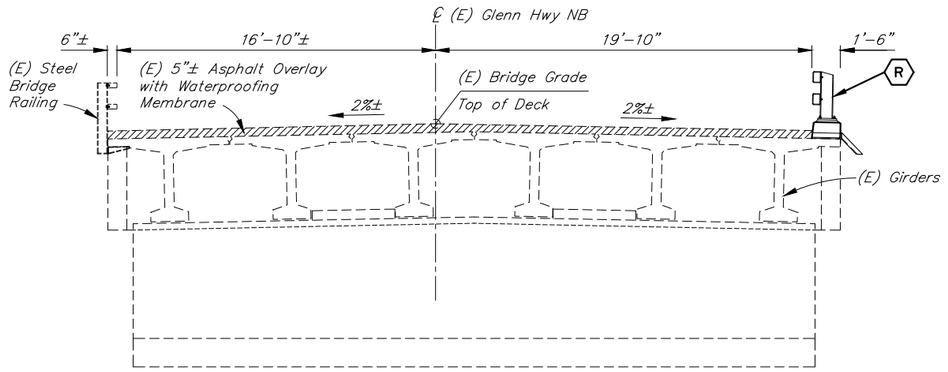
ELEVATION

10 5 0 10 20
Feet



PLAN

10 5 0 10 20
Feet



EXISTING PROPOSED

TYPICAL SECTION

12 0 4 8
In. Feet

PRELIMINARY PLAN

LEGEND	
B	– Install Bank Protection Improvements
R	– Replace Steel Bridge Railing
T	– Replace Transition Railing

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
WINGWALL DETAILS	2
BRIDGE RAILING	3
BRIDGE RAILING DETAILS	4

NOTES:

(E) = Existing

----- = Existing

——— = Proposed

① = Approximate location of Bridge Number Plate.

2. Bridge stations and elevations are based on 1976 as-built drawings.

3. Verify controlling field dimensions before ordering or fabricating any material

DESIGNED BY: Andrew Wells	CHECKED: Checker	REHABILITATION	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

PRELIMINARY

EKLUTNA RIVER BRIDGE NB

GLENN HIGHWAY

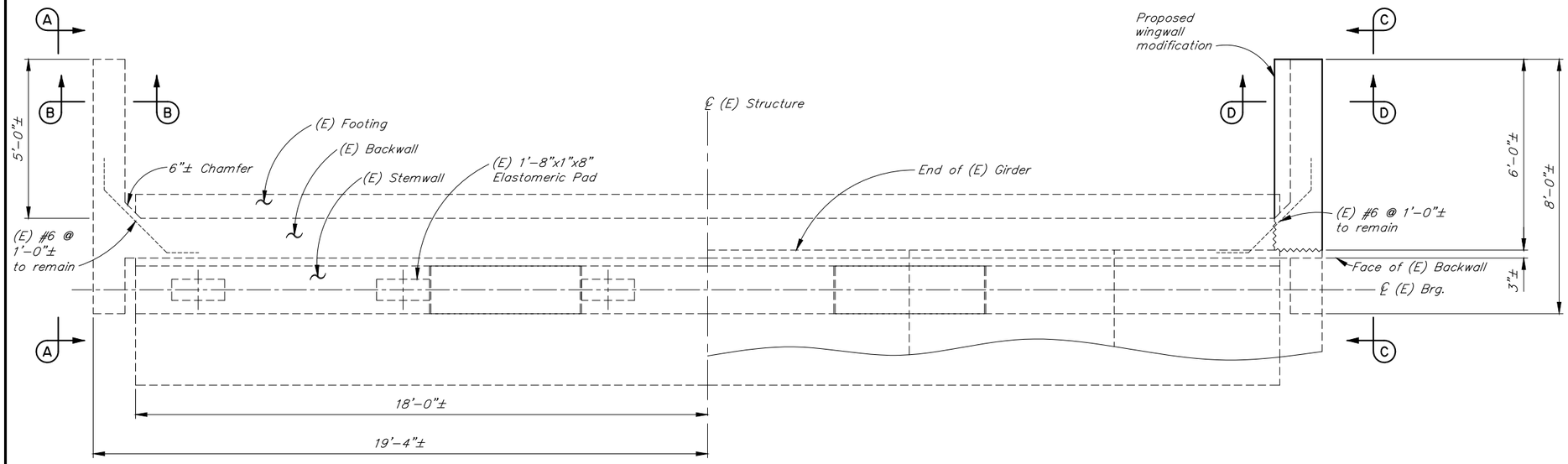
GENERAL LAYOUT

BRIDGE NO. 1230

DWG. NO. 1

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1230 GEN Fri, Jul/12/24 02:13pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N6	TtlShts

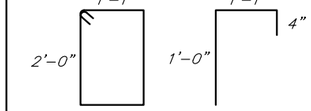


EXISTING PROPOSED

REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE
W501	E	5	12	5'-8"	---
W502		5	20	3'-0"	---
W901	E	9	4	5'-8"	---
C401	E	4	10	6'-11"	STIRRUP
C402	E	4	106	2'-5"	BENT
C501	E	5	4	115'-8"	---

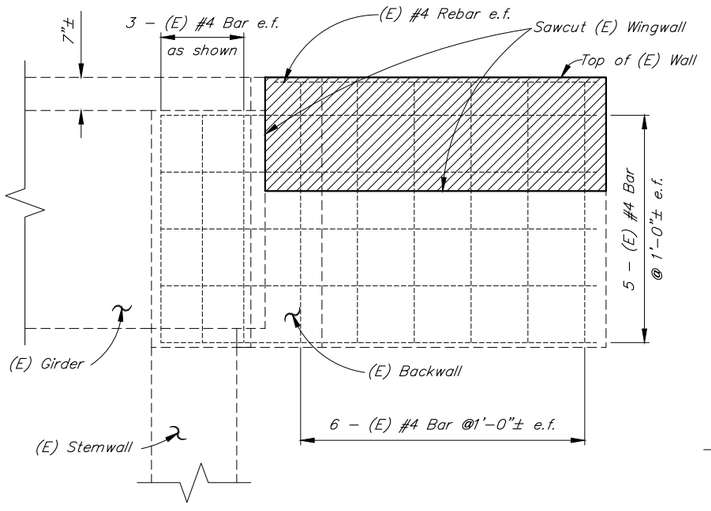
BENDING DIAGRAM



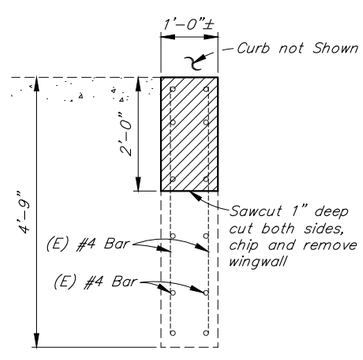
E – Epoxy-Coated

PLAN

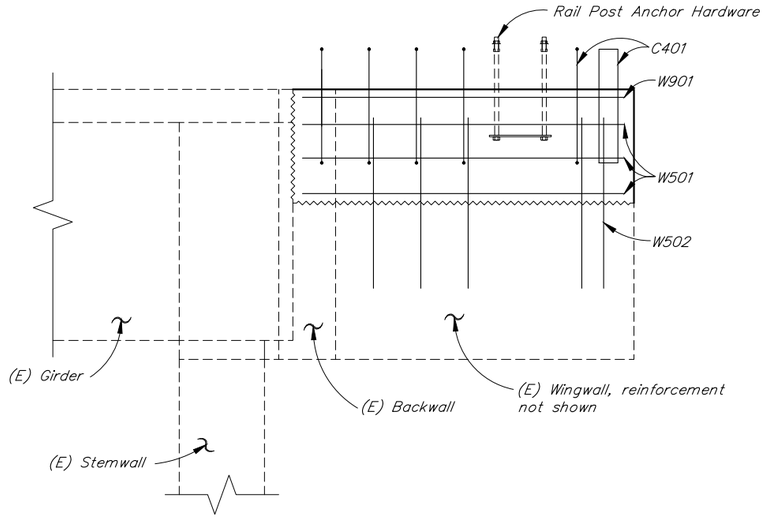
12 6 0 1 2 3 4
In. Feet



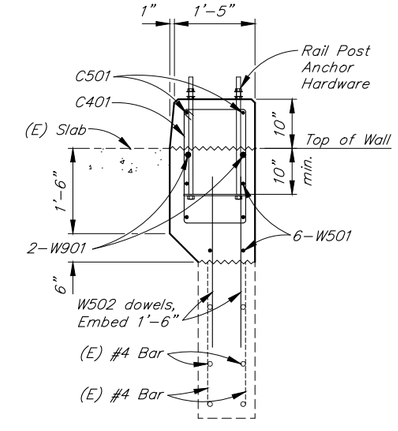
EXISTING VIEW A-A & C-C
(C-C Shown, A-A Similar)
12 6 0 1 2 3
In. Feet



EXISTING SECTION B-B & D-D
(D-D Shown, B-B Similar)
12 6 0 1 2 3
In. Feet



PROPOSED VIEW A-A & C-C
(C-C Shown, A-A Similar)
12 6 0 1 2 3
In. Feet



PROPOSED SECTION B-B & D-D
(D-D Shown, B-B Similar)
12 6 0 1 2 3
In. Feet

NOTES:

- = Concrete to be removed
- (E) = Existing
- ------ = Existing
- ——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

EKLUTNA RIVER BRIDGE NB

PRELIMINARY

GLENN HIGHWAY

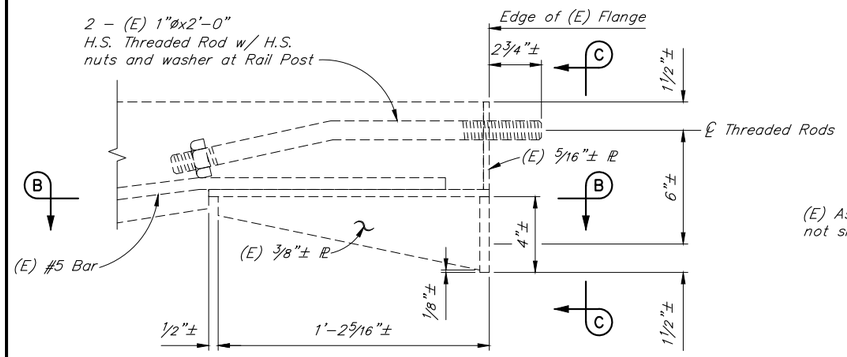
WINGWALL DETAILS

BRIDGE NO. 1230

DWG. NO. 2

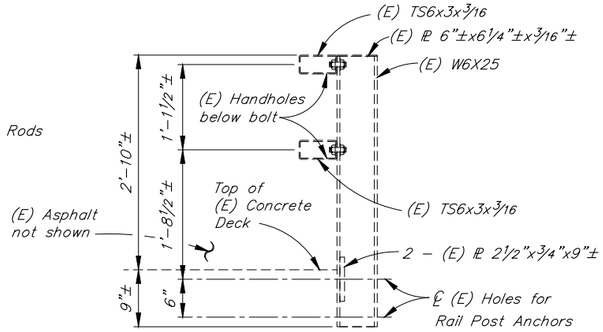
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1230 WING Fri, Jul/12/24 02:13pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N7	TtlShts



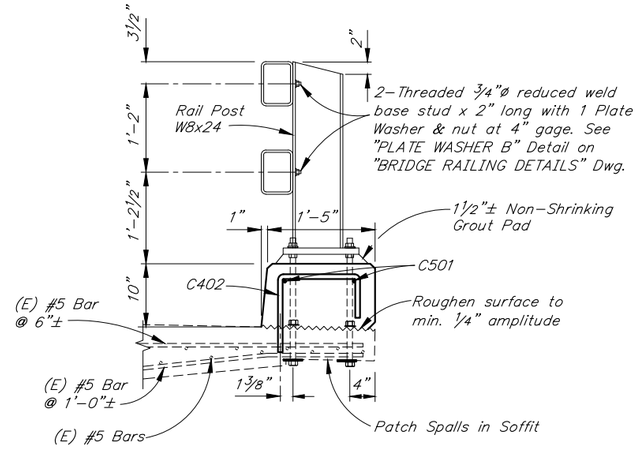
EXISTING RAIL POST ANCHOR

6 3 0 1 In. Feet



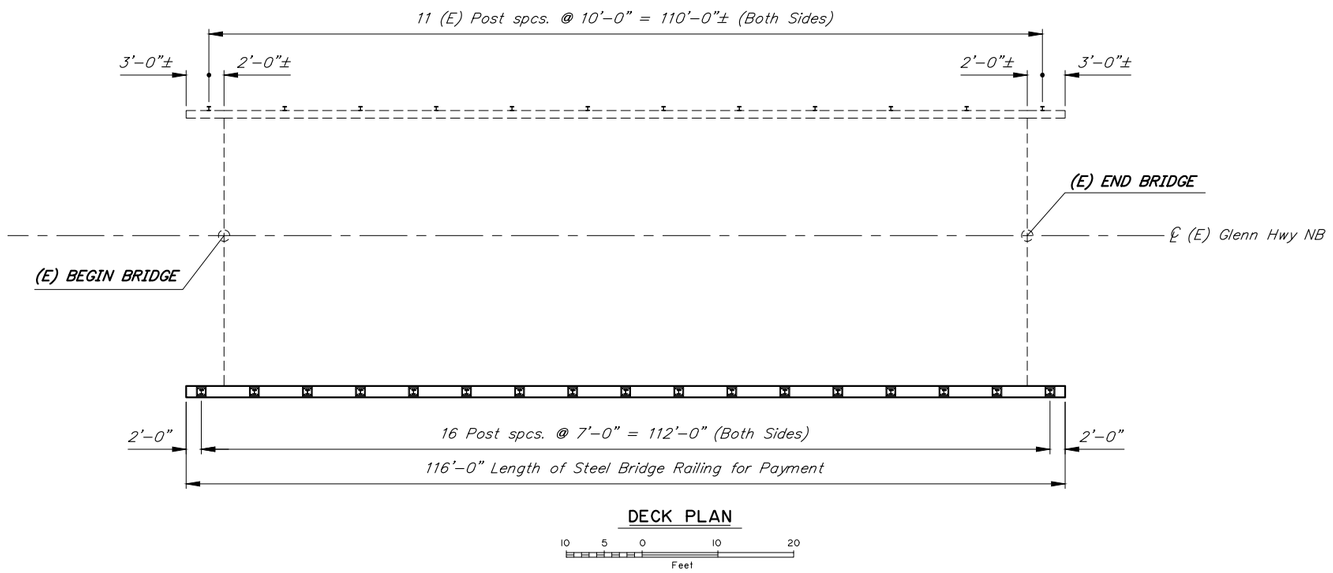
EXISTING RAIL SECTION

12 6 0 1 2 In. Feet



PROPOSED RAIL SECTION

12 6 0 1 2 In. Feet



DECK PLAN

10 5 0 10 20 Feet

NOTES:

(E) = Existing

– – – – – = Existing

——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907–465–2975

EKLUTNA RIVER BRIDGE NB

PRELIMINARY GLENN HIGHWAY

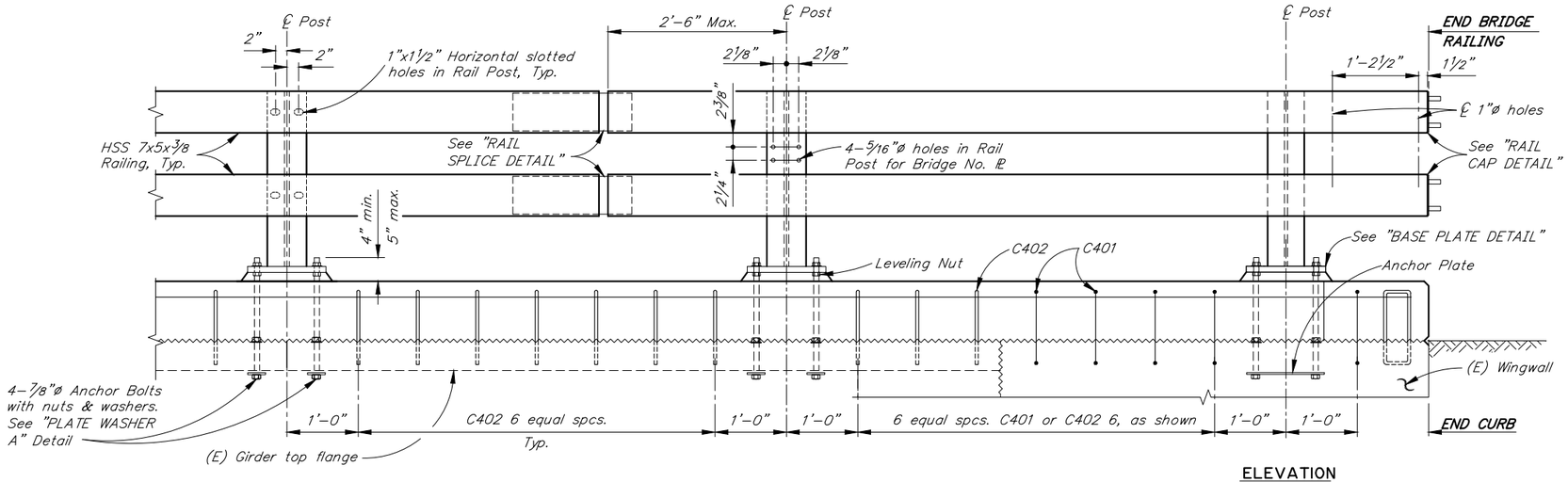
BRIDGE RAILING

BRIDGE NO. 1230

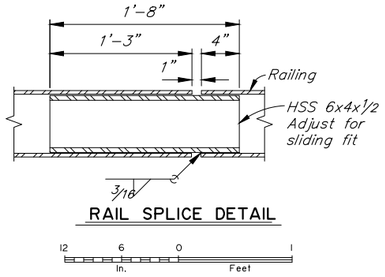
DWG. NO. 3

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1230 (E) RAIL Fri, Jul/12/24 02:14pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N8	TtlShts

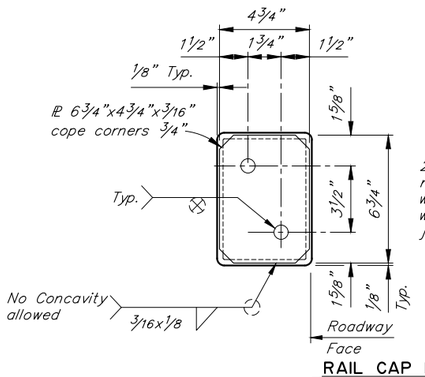


TYPICAL POST ELEVATION



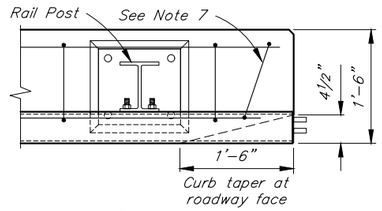
RAIL SPLICE DETAIL

EXPANSION JOINT

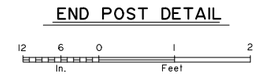


RAIL CAP DETAIL

ELEVATION



PLAN



END POST DETAIL

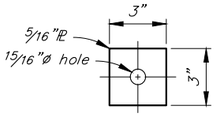
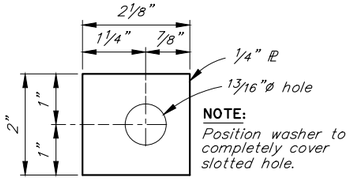


PLATE WASHER A

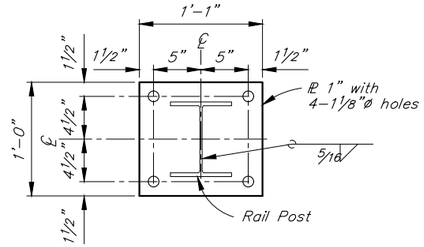
No Scale



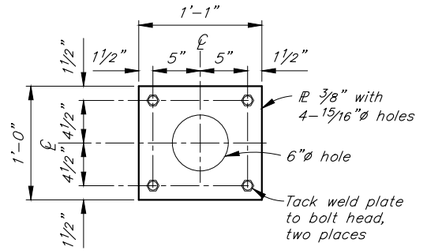
NOTE:
Position washer to completely cover slotted hole.

PLATE WASHER B

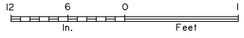
No Scale



BASE PLATE DETAIL

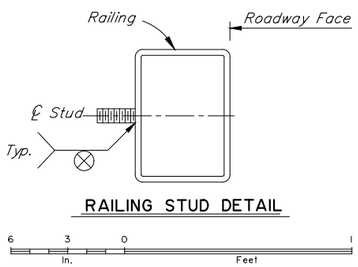


ANCHOR PLATE DETAIL

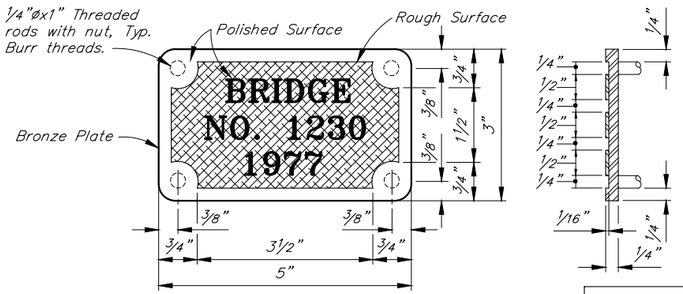


NOTES:

1. Remove existing bridge number plates. Install bridge number plates onto new steel bridge railing posts. Use studs and nuts that conform to UNS C65100 or UNS C65500. Braze ¼"ø threaded rod to back of plate with nut – 4 required. Use tamper proof nuts.
2. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
4. See "RAILING LAYOUT AND TYPICAL SECTION" Dwg. for rail post spacing.
5. Install bridge rail posts plumb.
6. Core and bond anchor bolts through the existing deck and existing rail hardware. Drill and bond C402 4" into the existing deck. Adjust C402 spacing to avoid existing reinforcing and existing rail hardware.
7. Adjust reinforcing to accommodate curb taper.
8. Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
9. Use grout with a minimum 24-hour f'c of 3,000 psi in single placement.
10. See Standard Plan G-32.03 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.



RAILING STUD DETAIL



BRONZE BRIDGE NO. PLATE

No Scale

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

EKLUTNA RIVER BRIDGE NB

PRELIMINARY GLENN HIGHWAY

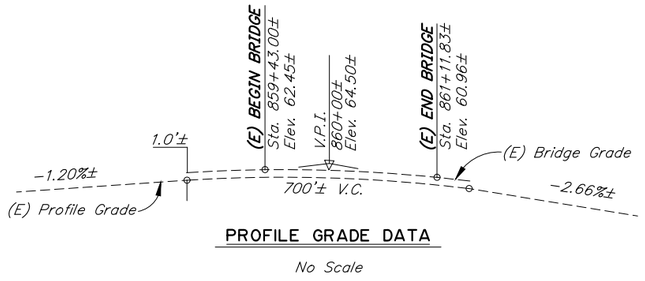
BRIDGE RAILING DETAILS

BRIDGE NO. 1230

DWG. NO. 4

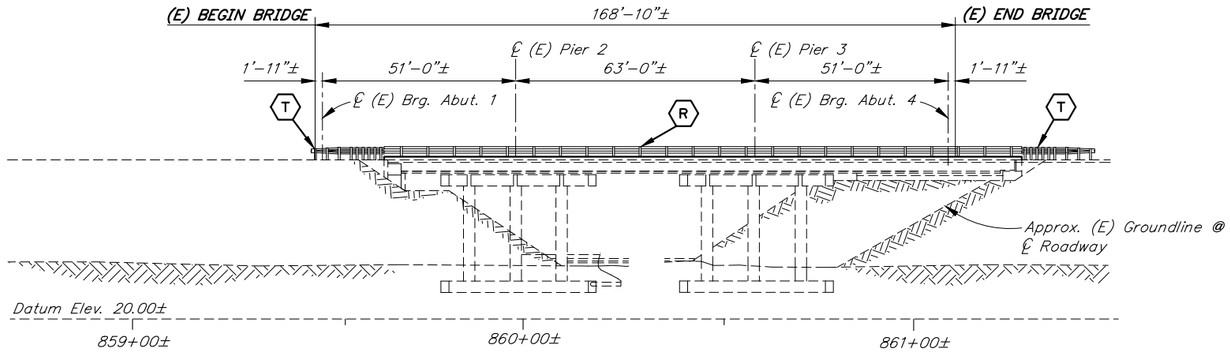
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1230 RAIL Fri, Jul/12/24 02:14pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N9	TtlShts



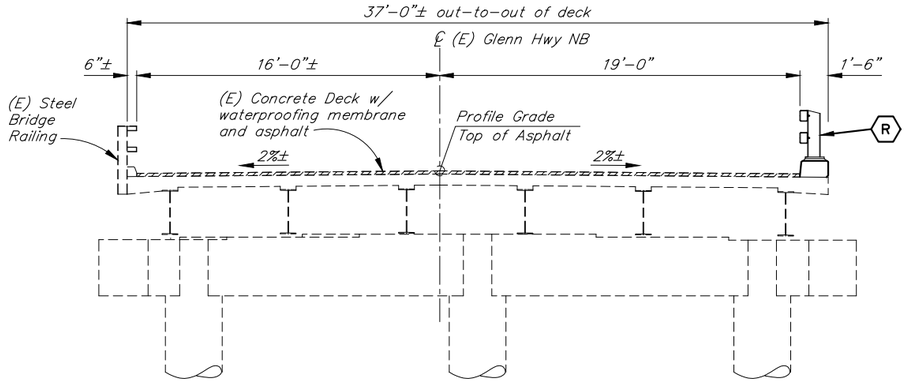
PROFILE GRADE DATA

No Scale



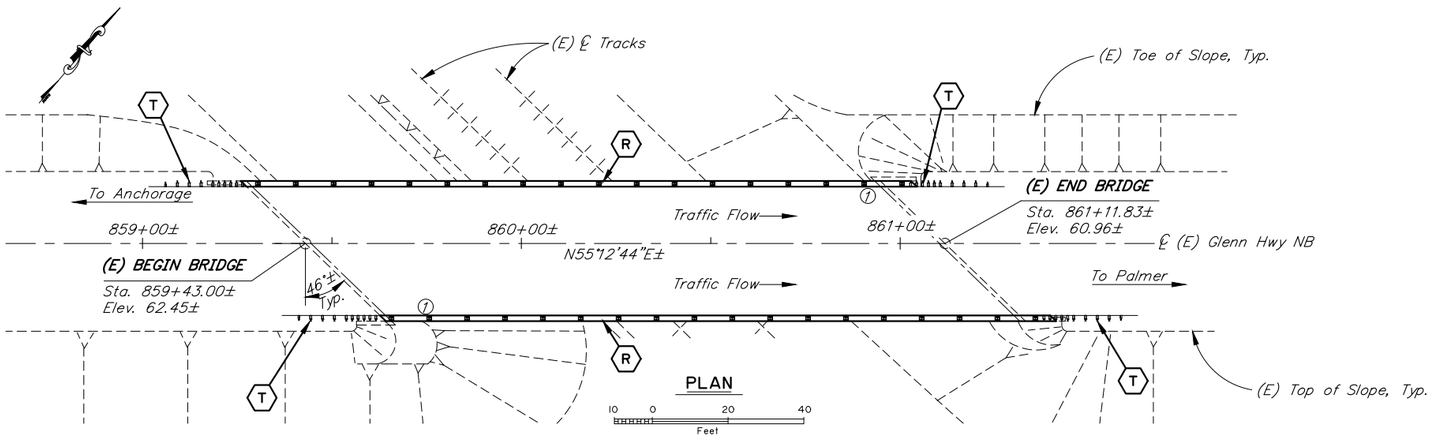
ELEVATION

10 0 20 40
Feet



TYPICAL SECTION

12 0 4 8
In. Feet



PLAN

10 0 20 40
Feet

PRELIMINARY PLAN

LEGEND	
R	– Replace Steel Bridge Railing
T	– Replace Transition Railing

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
WINGWALL DETAILS	2
BRIDGE RAILING	3
BRIDGE RAILING DETAILS	4

NOTES:

(E) = Existing

– – – – – = Existing

——— = Proposed

① = Approximate location of Bridge Number Plate.

Bridge stations and elevations are based on 1976 as-built drawings.

Verify controlling field dimensions before ordering or fabricating any material

DESIGNED BY: Andrew Wells	CHECKED: Checker	REHABILITATION	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

GLENN HIGHWAY OVERHEAD NB

PRELIMINARY GLENN HIGHWAY

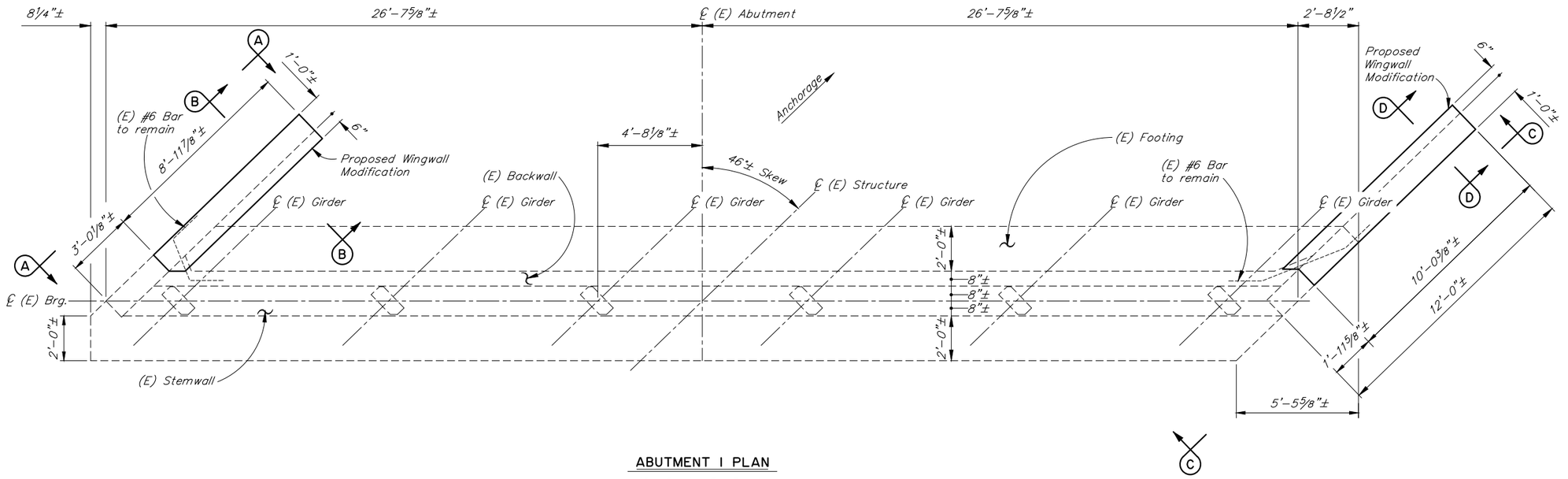
GENERAL LAYOUT

BRIDGE NO. 1266

DWG. NO. 1

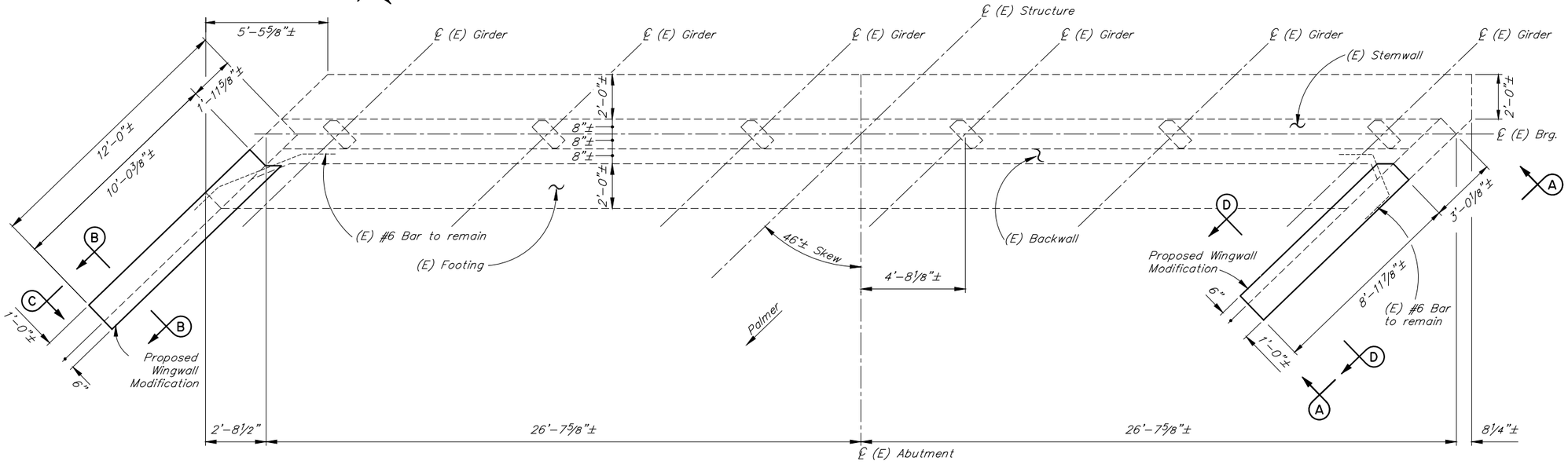
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1266 GEN Fri, Jul/12/24 02:14pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N10	TtlShts



ABUTMENT 1 PLAN

12 0 1 2 3 4
In. Feet



ABUTMENT 2 PLAN

12 0 1 2 3 4
In. Feet

NOTES:

(E) = Existing
- - - - - - = Existing
——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

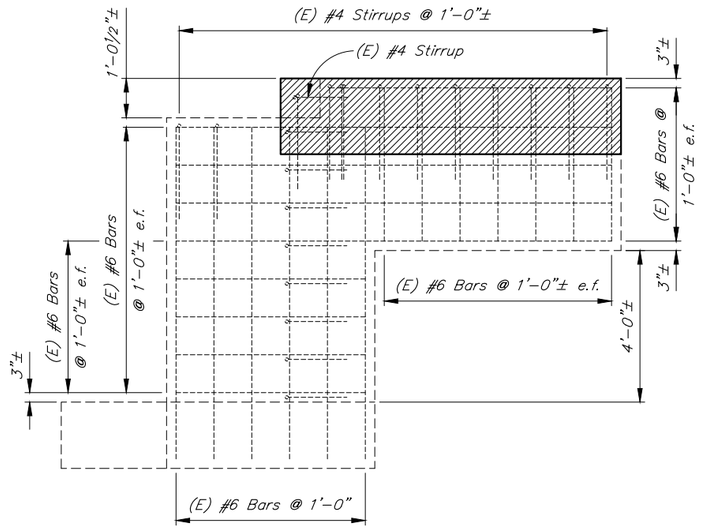
DESIGNED BY: Andrew Wells	CHECKED: Checker	REHABILITATION	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

GLENN HIGHWAY OVERHEAD NB
PRELIMINARY GLENN HIGHWAY
ABUTMENTS

BRIDGE NO. 1266
DWG. NO. 2

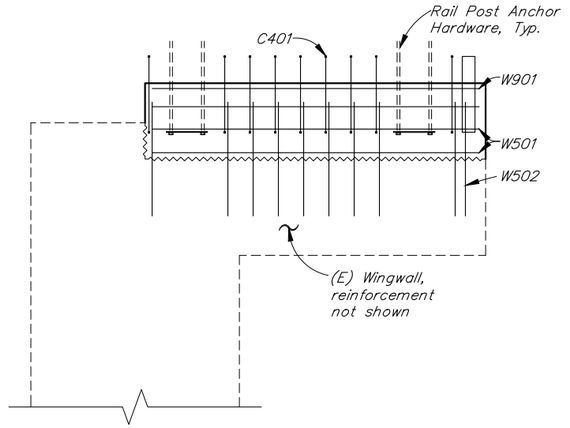
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1266 ABUT Fri, Jul/12/24 02:14pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N11	TtlShts



EXISITNG VIEW A-A

12 6 0 1 2 3 4
In. Feet



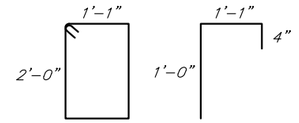
PROPOSED VIEW A-A

12 6 0 1 2 3 4
In. Feet

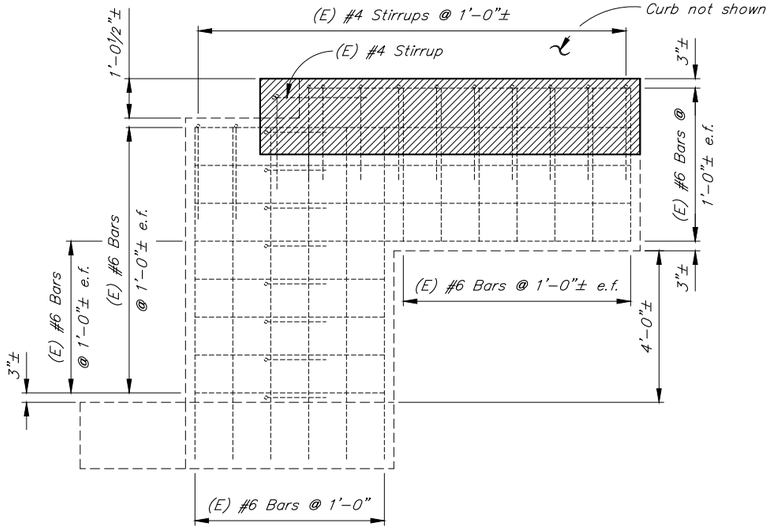
REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE
W501	E	5	12	Varies	---
W502		5	44	3'-0"	---
W901	E	9	4	Varies	---
C401	E	4	20	6'-11"	STIRRUP
C402	E	4	124	2'-5"	BENT
C501	E	5	2	178'-4"	---
C502	E	5	2	Varies	---

BENDING DIAGRAM

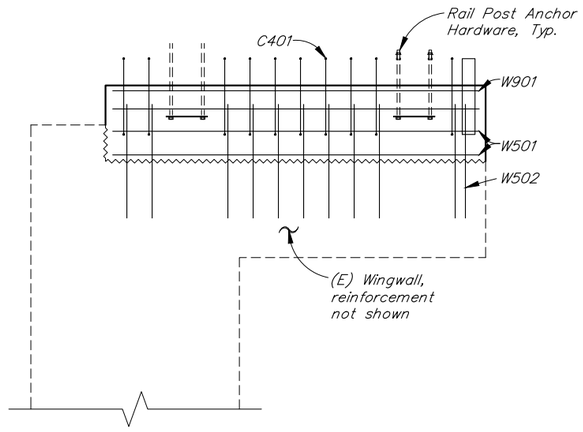


E – Epoxy-Coated



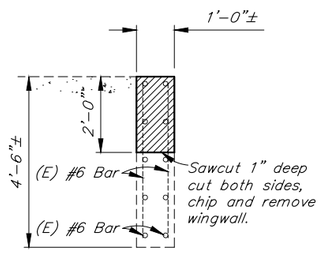
EXISITNG VIEW C-C

12 6 0 1 2 3 4
In. Feet



PROPOSED VIEW C-C

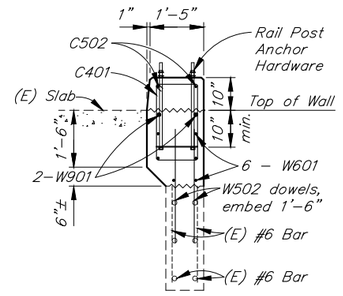
12 6 0 1 2 3 4
In. Feet



EXISTING SECTION B-B & D-D

(D-D Shown, B-B Similar)

12 6 0 1 2 3 4
In. Feet



PROPOSED SECTION B-B & D-D

(D-D Shown, B-B Similar)

12 6 0 1 2 3 4
In. Feet

NOTES:

- = Concrete to be removed
- (E) = Existing
- ------ = Existing
- ——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

GLENN HIGHWAY OVERHEAD NB

PRELIMINARY GLENN HIGHWAY

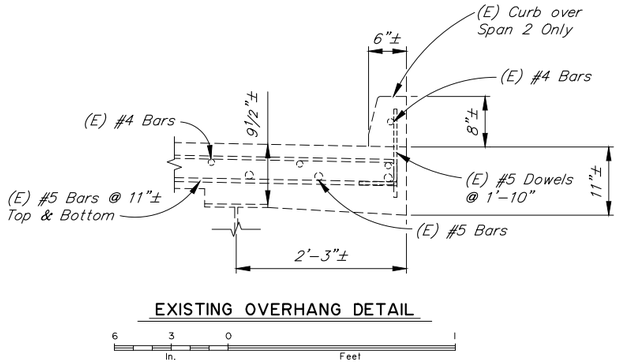
WINGWALL DETAILS

BRIDGE NO. 1266

DWG. NO. 3

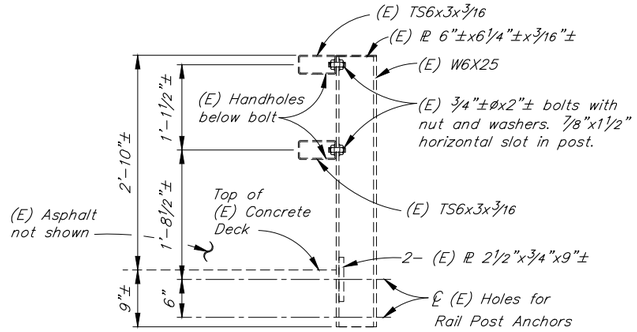
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1266 WING Fri, Jul/12/24 02:14pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N12	TtlShts



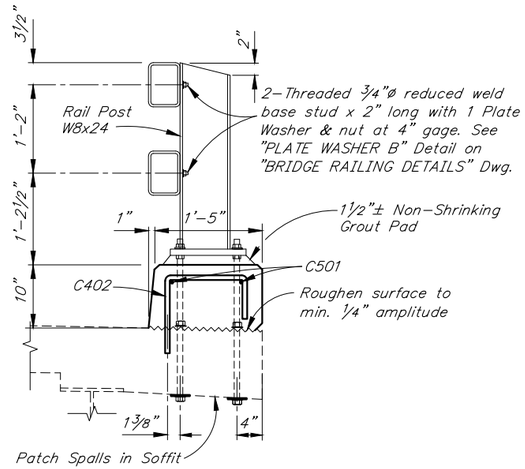
EXISTING OVERHANG DETAIL

6 3 0 1
In. Feet



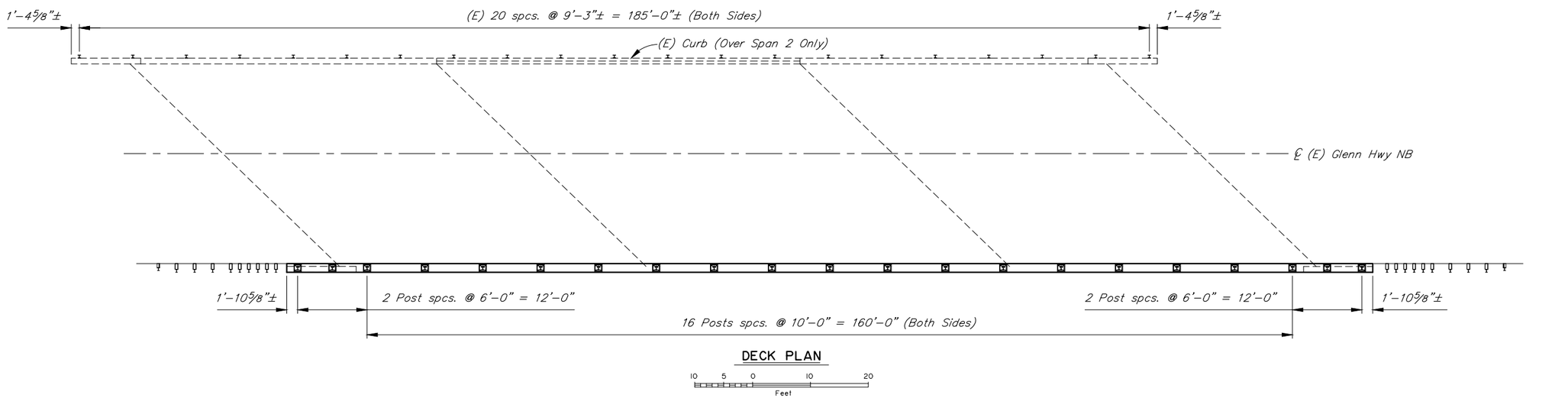
EXISTING RAIL SECTION

12 6 0 1 2
In. Feet



PROPOSED RAIL SECTION

12 6 0 1 2
In. Feet



DECK PLAN

10 5 0 10 20
Feet

NOTES:

(E) = Existing
- - - - - = Existing
——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

GLENN HIGHWAY OVERHEAD NB

PRELIMINARY GLENN HIGHWAY

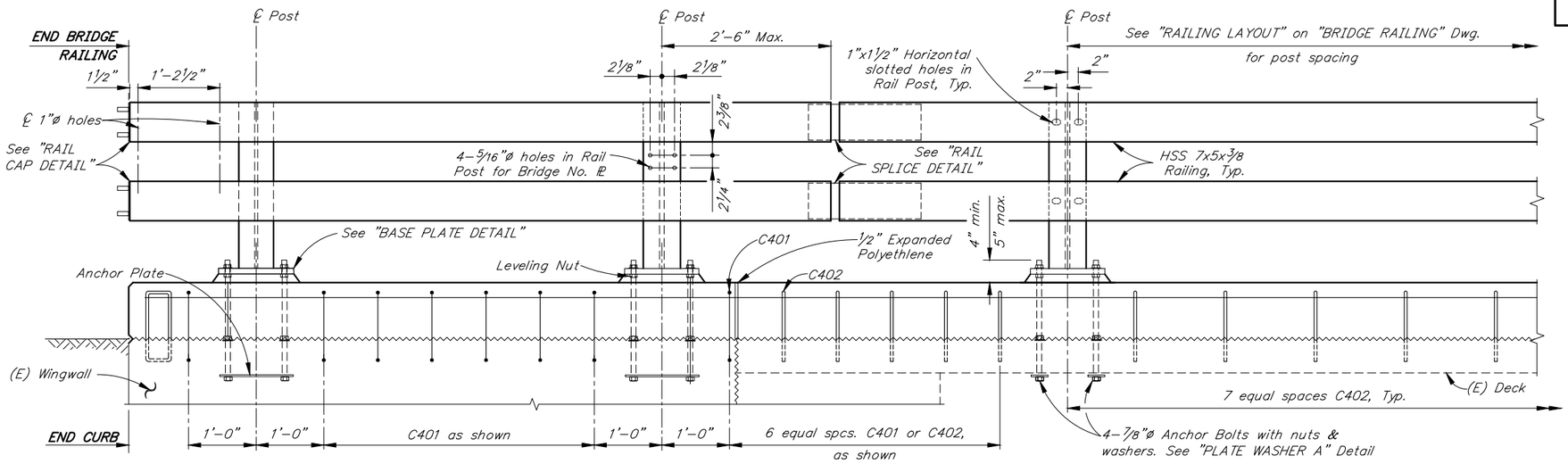
BRIDGE RAILING

BRIDGE NO. 1266

DWG. NO. 3

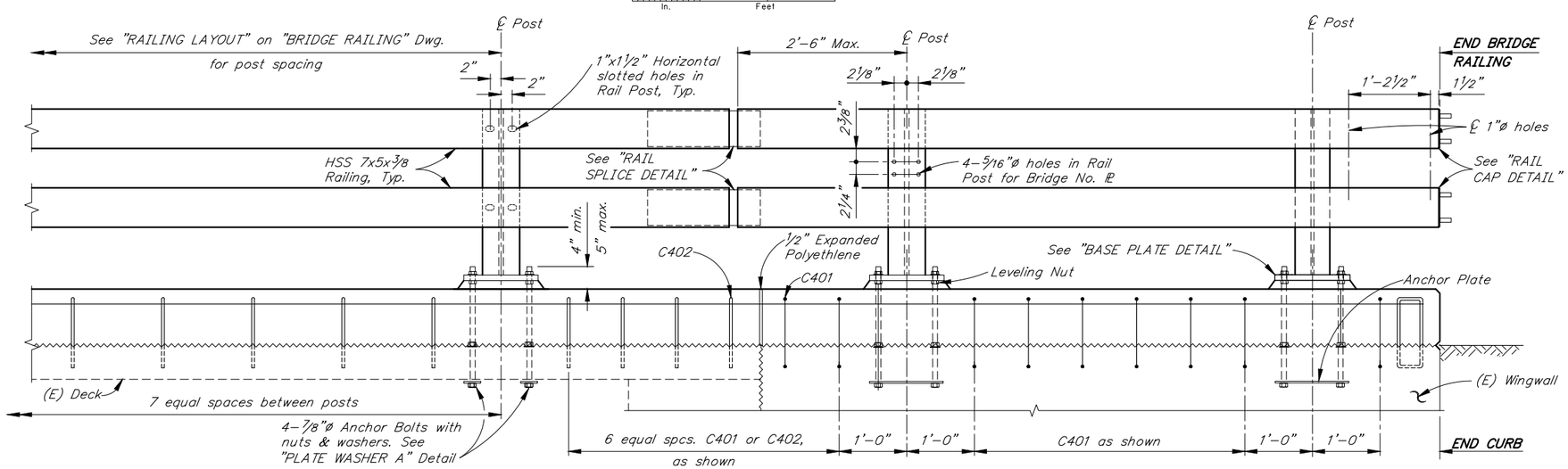
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway- 1266 (E) RAIL Fri, Jul/12/24 02:14pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N13	TtlShts



TYPICAL POST ELEVATION EXPANSION JOINT END POST ELEVATION

LT ELEVATION



TYPICAL POST ELEVATION EXPANSION JOINT END POST ELEVATION

RT ELEVATION

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

GLENN HIGHWAY OVERHEAD NB

PRELIMINARY GLENN HIGHWAY

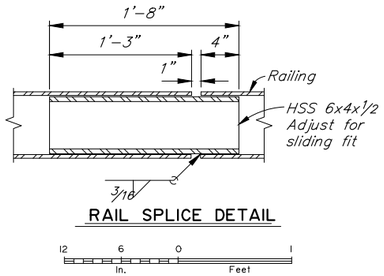
BRIDGE RAILING DETAILS 2

BRIDGE NO. 1266

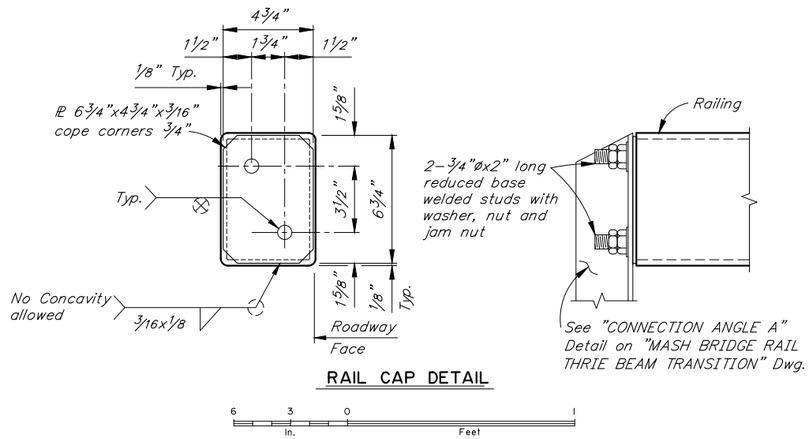
DWG. NO. 4

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1266 RAIL Fri, Jul/12/24 02:14pm

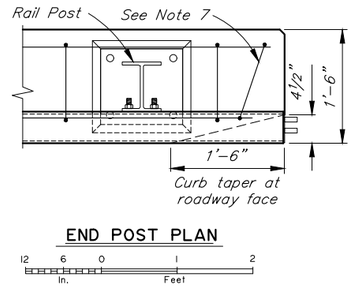
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N14	TtlShts



RAIL SPLICE DETAIL

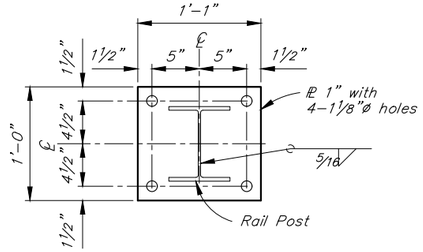


RAIL CAP DETAIL



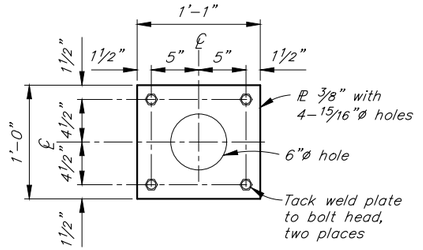
END POST PLAN

12 6 0 1 2
In. Feet



BASE PLATE DETAIL

12 6 0 1
In. Feet



ANCHOR PLATE DETAIL

12 6 0 1
In. Feet

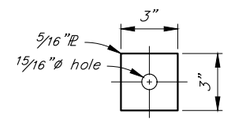


PLATE WASHER A

No Scale

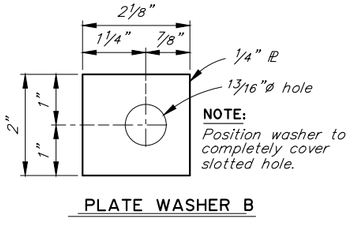
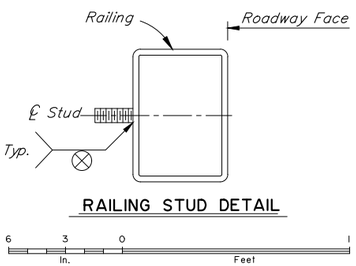
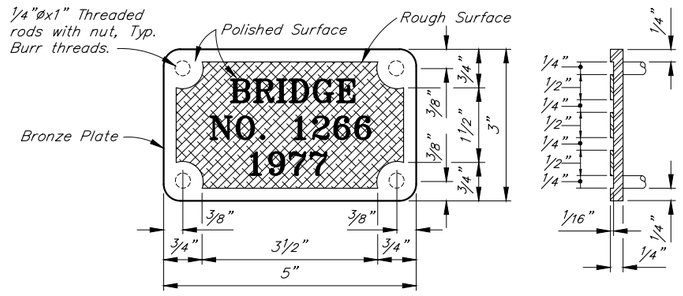


PLATE WASHER B

No Scale



RAILING STUD DETAIL



BRONZE BRIDGE NO. PLATE

No Scale

NOTES:

1. Remove existing bridge number plates. Install bridge number plates onto new steel bridge railing posts. Use studs and nuts that conform to UNS C65100 or UNS C65500. Braze 1/4"ø threaded rod to back of plate with nut – 4 required. Use tamper proof nuts.
2. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
4. See "RAILING LAYOUT AND TYPICAL SECTION" Dwg. for rail post spacing.
5. Install bridge rail posts plumb.
6. Core and bond anchor bolts through the existing deck and existing rail hardware. Drill and bond C402 4" into the existing deck. Adjust C402 spacing to avoid existing reinforcing and existing rail hardware.
7. Adjust reinforcing to accommodate curb taper.
8. Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
9. Use grout with a minimum 24-hour f'c of 3,000 psi in single placement.
10. See Standard Plan G-32.03 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

GLENN HIGHWAY OVERHEAD NB

PRELIMINARY GLENN HIGHWAY

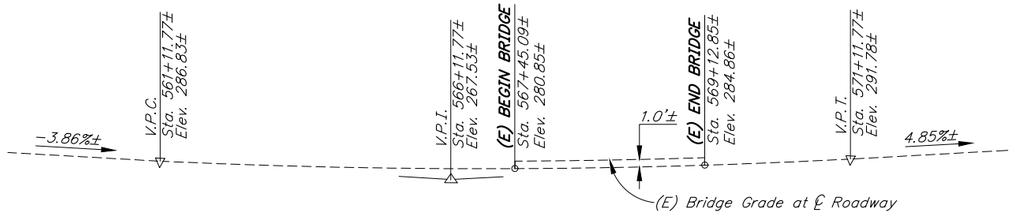
BRIDGE RAILING DETAILS 2

BRIDGE NO. 1266

DWG. NO. 5

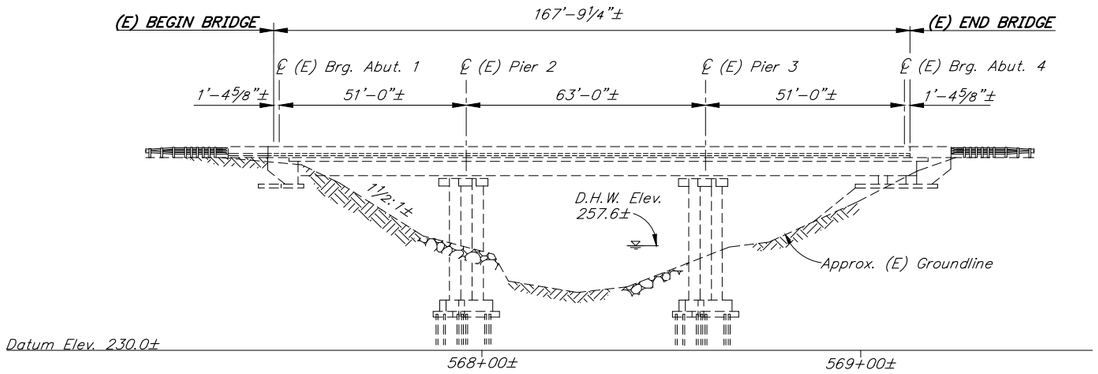
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1266 RAIL 2 Fri, Jul/12/24 02:14pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N15	TtlShts



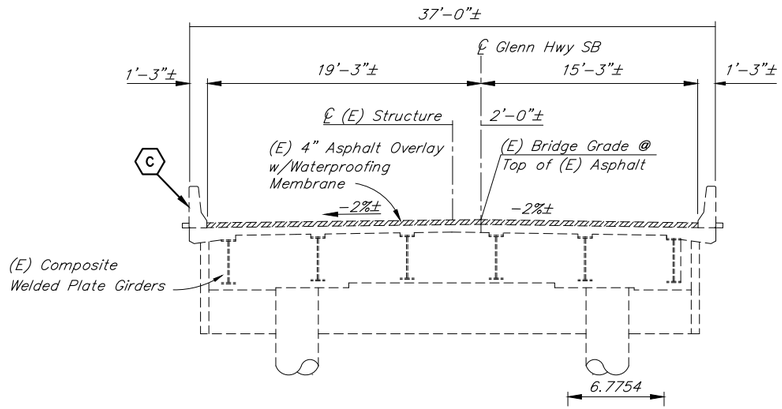
PROFILE GRADE DATA

No Scale



ELEVATION

PLAN



TYPICAL SECTION

PRELIMINARY PLAN

LEGEND
(C) – Patch Spalled Concrete

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
BARRIER JOINT REPAIRS	2

NOTES:

(E) = Existing

- - - - - = Existing

——— = Proposed

Bridge stations and elevations are based on 2009 as-built drawings.

Verify controlling field dimensions before ordering or fabricating any material

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

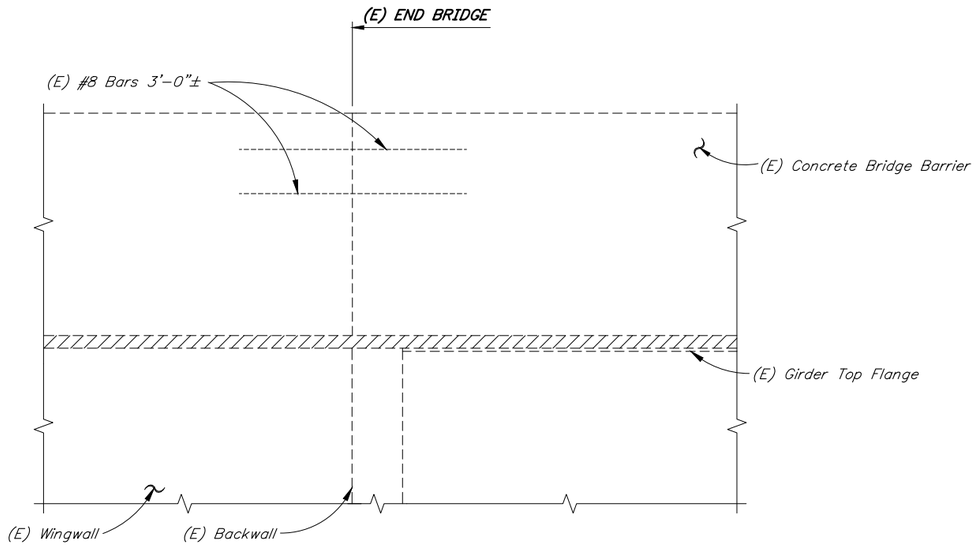
PRELIMINARY

PETERS CREEK SB
GLENN HIGHWAY
GENERAL LAYOUT

BRIDGE NO. 1344
DWG. NO. 1

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1344 GEN Fri, Jul/12/24 02:14pm

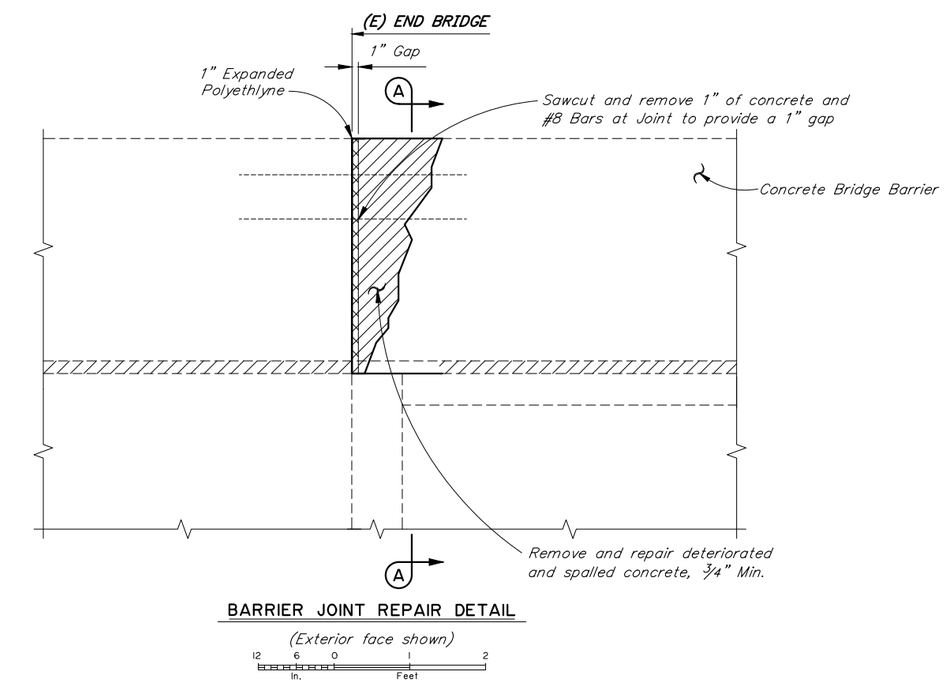
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N16	TtlShts



APPROACH BARRIER JOINT DETAIL

(Exterior face shown)

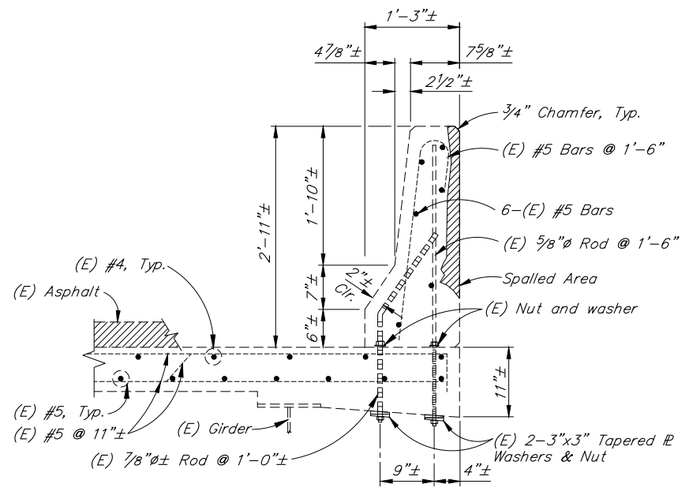
12 6 0 1 2
In. Feet



BARRIER JOINT REPAIR DETAIL

(Exterior face shown)

12 6 0 1 2
In. Feet



SECTION A-A

12 6 0 1 2
In. Feet

NOTES:

- = Concrete to be removed
- (E) = Existing
- ----- = Existing
- ——— = Proposed

1. Do not used driven devices or expansion anchors for fastening forms or supports to concrete.
2. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

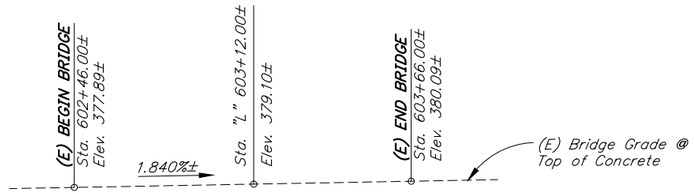
PRELIMINARY

PETERS CREEK SB
GLENN HIGHWAY
BARRIER JOINT REPAIRS

BRIDGE NO. 1344
DWG. NO. 2

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1344 BAR JOINT Fri, Jul/12/24 02:14pm

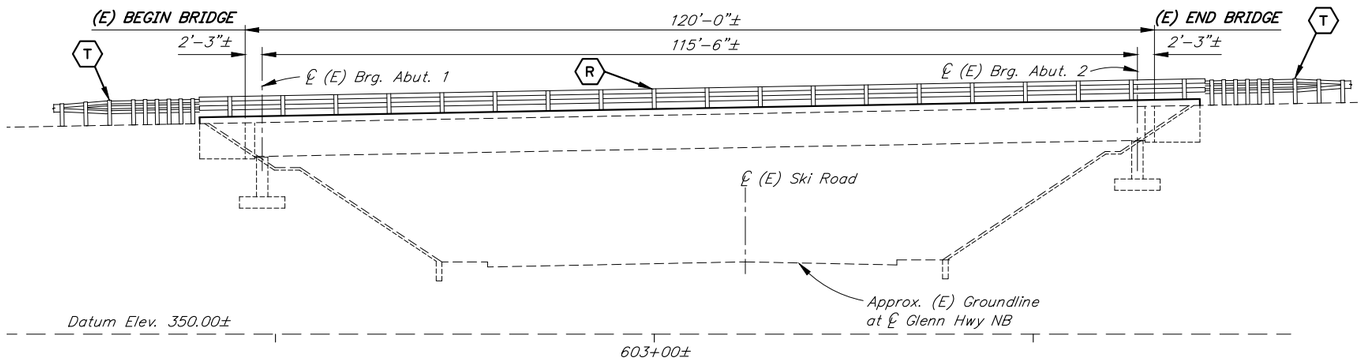
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N17	TtlShts



"L" LINE

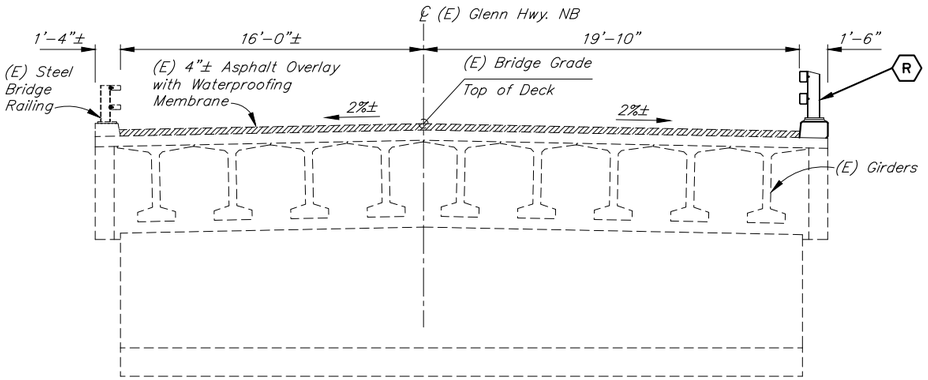
PROFILE GRADE DATA

No Scale



ELEVATION

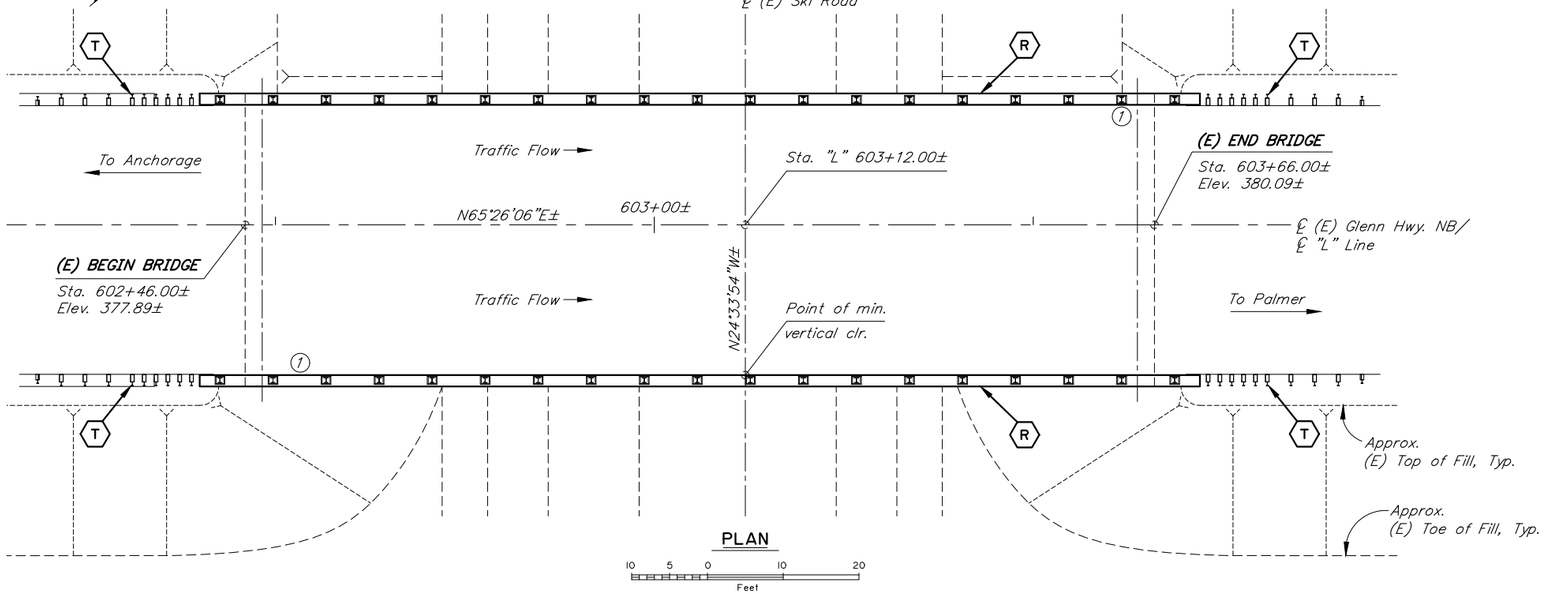
10 5 0 10 20
Feet



EXISTING PROPOSED

TYPICAL SECTION

12 0 4 8
In. Feet



PLAN

10 5 0 10 20
Feet

PRELIMINARY PLAN

LEGEND

- (R) – Replace Steel Bridge Railing
- (T) – Replace Transition Railing

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
WINGWALL DETAILS	2
BRIDGE RAILING	3
BRIDGE RAILING DETAILS	4

NOTES:

(E) = Existing
– – – – = Existing
——— = Proposed

① = Approximate location of Bridge Number Plate.

2. Bridge stations and elevations are based on 1980 as-built drawings.

3. Verify controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Andrew Wells	CHECKED: Checker	REHABILITATION	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

PETERS CREEK UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

GENERAL LAYOUT

BRIDGE NO. 1367

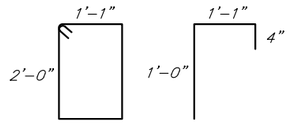
DWG. NO. 1

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1367 GEN Fri, Jul/12/24 02:14pm

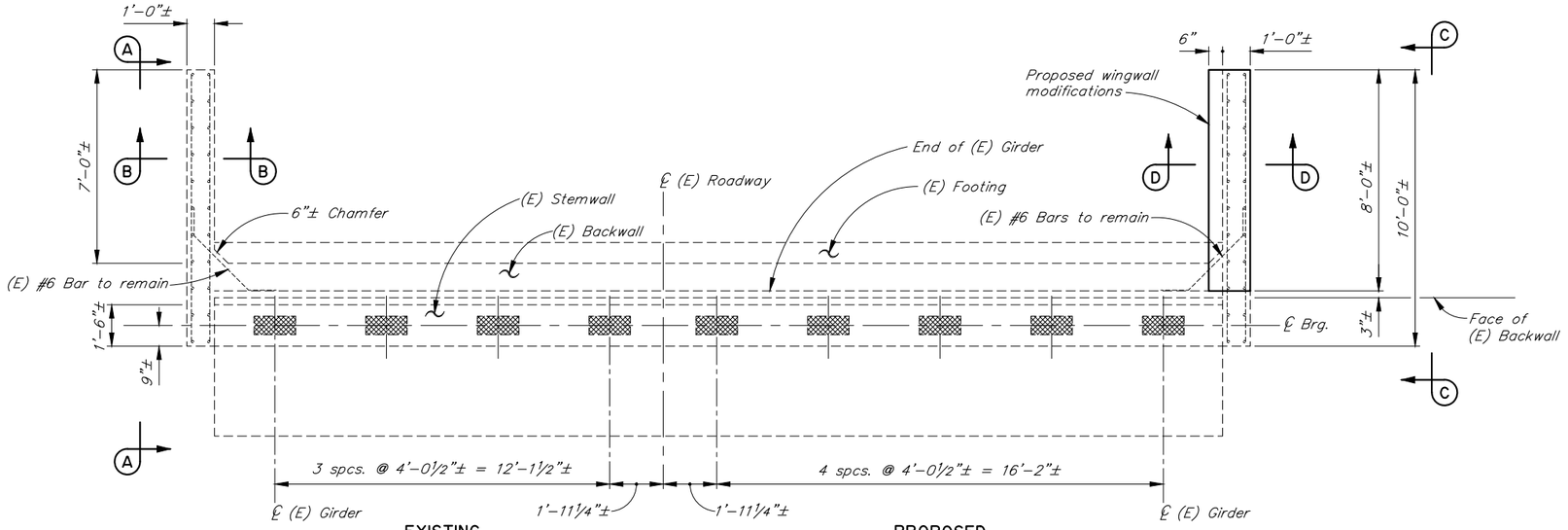
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N18	TtlShts

REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W501	E	5	6	7'-8"	---	
W502		5	28	3'-0"	---	
W901	E	9	4	7'-8"	---	
C401	E	4	14	6'-11"	STIRRUP	
C402	E	4	95	2'-5"	BENT	
C501	E	5	2	133'-8"	---	



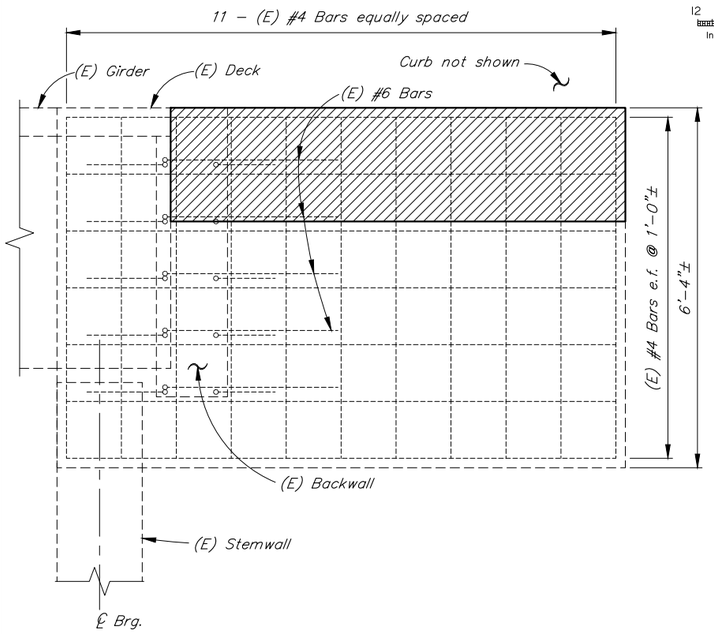
E - Epoxy-Coated



EXISTING PROPOSED

PLAN

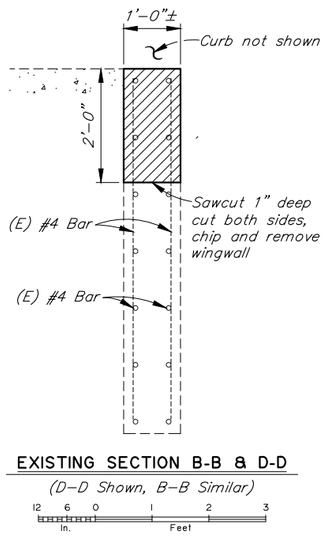
12 0 1 2 3 4
In. Feet



EXISITNG VIEW A-A & C-C

(C-C Shown, A-A Similar)

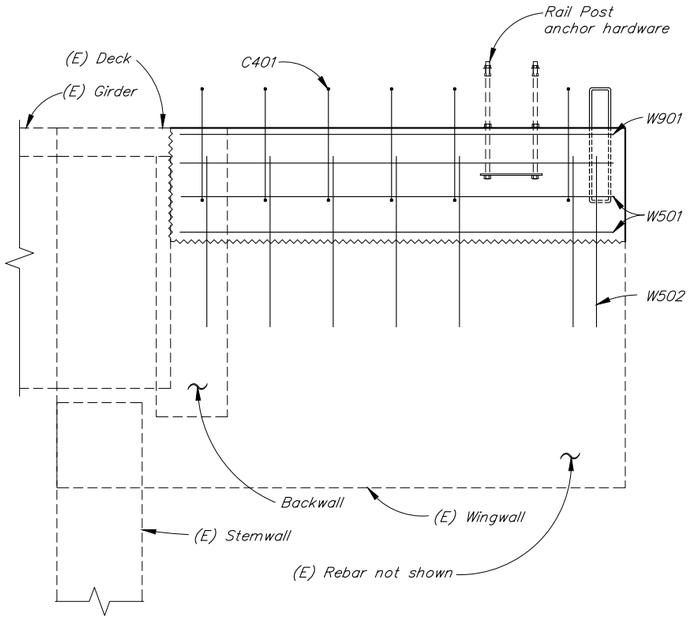
12 6 0 1 2 3
In. Feet



EXISTING SECTION B-B & D-D

(D-D Shown, B-B Similar)

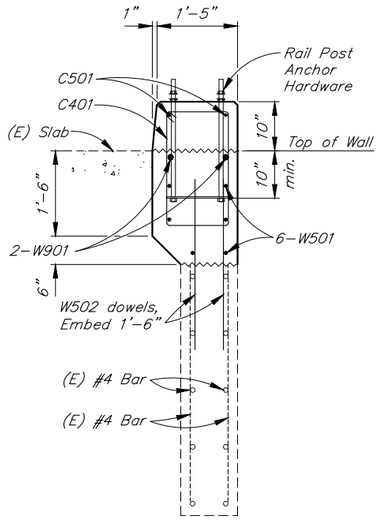
12 6 0 1 2 3
In. Feet



PROPOSED VIEW A-A & C-C

(C-C Shown, A-A Similar)

12 6 0 1 2 3
In. Feet



PROPOSED SECTION B-B & D-D

(D-D Shown, B-B Similar)

12 6 0 1 2 3
In. Feet

NOTES:

- = Concrete to be removed
- (E) = Existing
- ----- = Existing
- ——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

PETERS CREEK UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

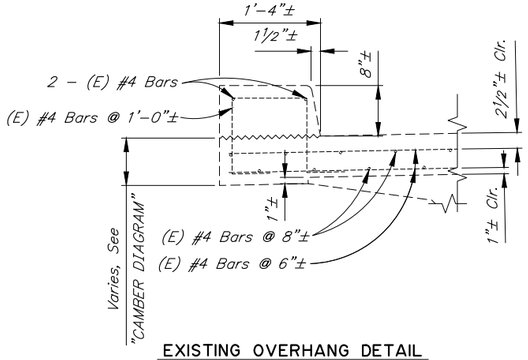
WINGWALL DETAILS

BRIDGE NO. 1367

DWG. NO. 2

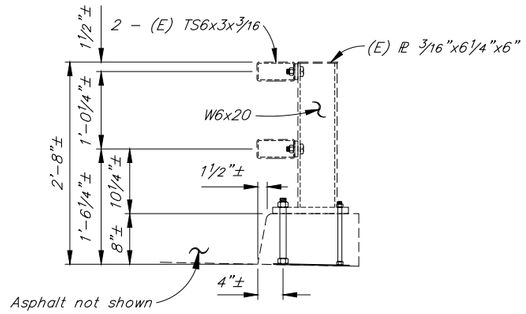
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1367 WINGWALL Fri, Jul/12/24 02:14pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N19	TtlShts



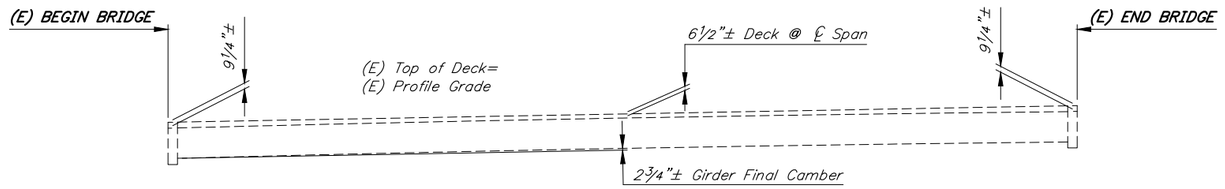
EXISTING OVERHANG DETAIL

6 3 0 1 In. Feet



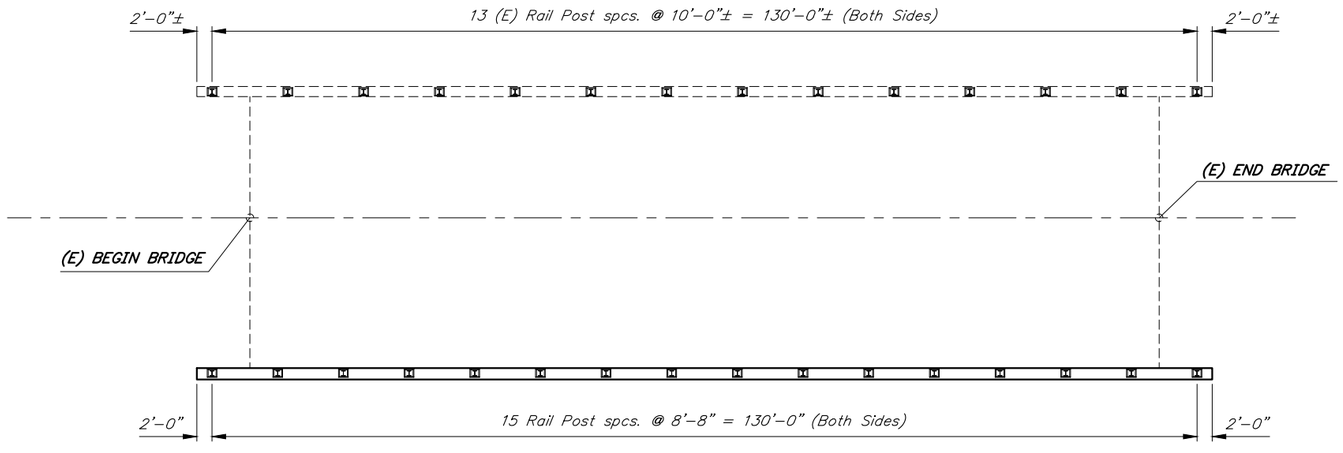
EXISTING RAIL SECTION

12 6 0 1 2 In. Feet



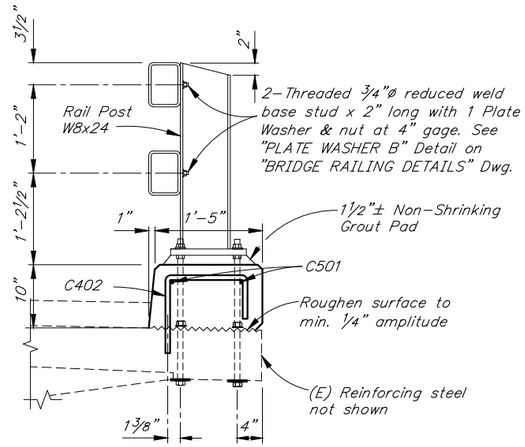
CAMBER DIAGRAM

10 5 0 10 20 Feet



DECK PLAN

10 5 0 10 20 Feet



PROPOSED RAIL SECTION

12 6 0 1 2 In. Feet

NOTES:

(E) = Existing

- - - - - = Existing

——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

PETERS CREEK UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

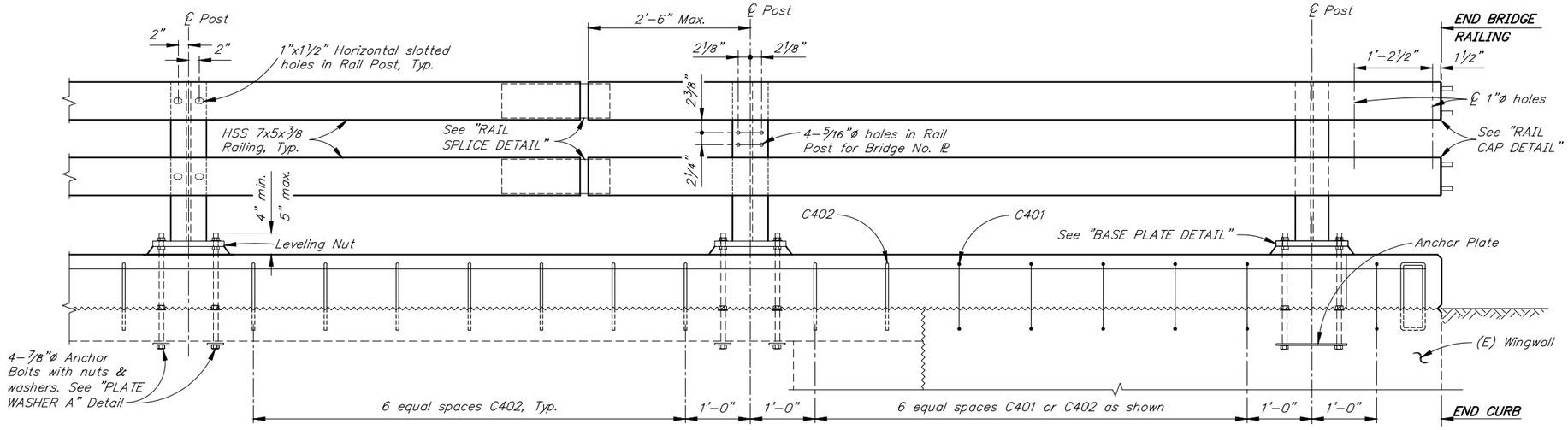
BRIDGE RAILING

BRIDGE NO. 1367

DWG. NO. 3

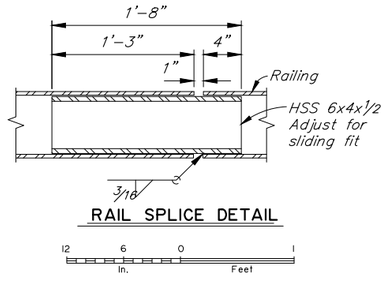
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1367 (E) RAIL Fri, Jul/12/24 02:15pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N20	TtlShts

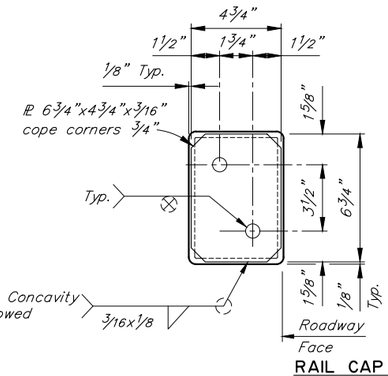


TYPICAL POST ELEVATION

EXPANSION JOINT

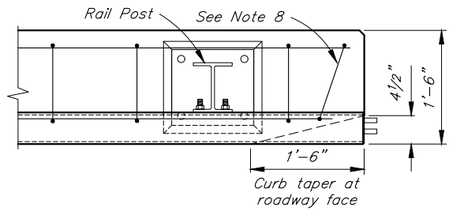


RAIL SPLICE DETAIL



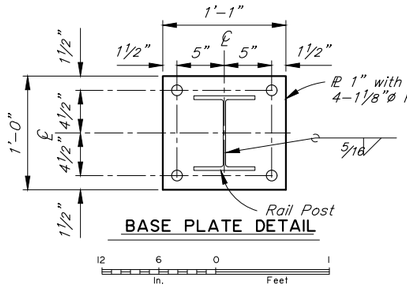
RAIL CAP DETAIL

ELEVATION



PLAN

END POST DETAIL



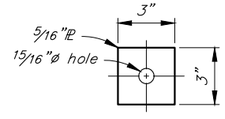
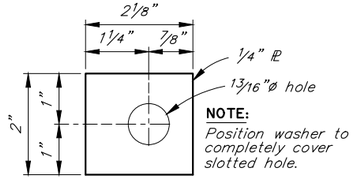


PLATE WASHER A

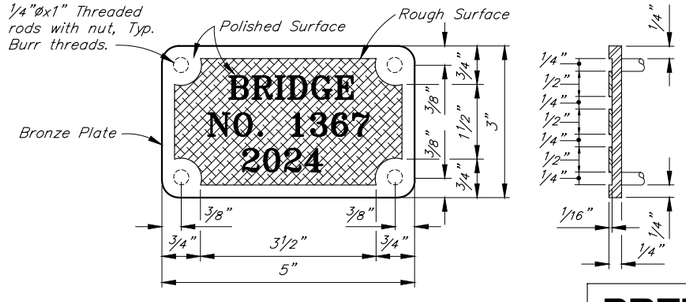
No Scale



NOTE: Position washer to completely cover slotted hole.

PLATE WASHER B

No Scale



BRONZE BRIDGE NO. PLATE

No Scale

Railing
Roadway Face
℄ Stud
Typ.

RAILING STUD DETAIL

PRELIMINARY PLAN

NOTES:

1. Remove existing bridge number plates. Install bridge number plates onto new steel bridge railing posts. Use studs and nuts that conform to UNS C65100 or UNS C65500. Braze ¼"ø threaded rod to back of plate with nut – 4 required. Use tamper proof nuts.
2. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
4. See "RAILING LAYOUT AND TYPICAL SECTION" Dwg. for rail post spacing.
5. Install bridge rail posts plumb.
6. Core and bond anchor bolts through the existing deck and existing rail hardware. Drill and bond C402 4" into the existing deck. Adjust C402 spacing to avoid existing reinforcing and existing rail hardware.
7. Adjust reinforcing to accommodate curb taper.
8. Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
9. Use grout with a minimum 24-hour f'c of 3,000 psi in single placement.
10. See Standard Plan G-32.03 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

PETERS CREEK UNDERCROSSING NB

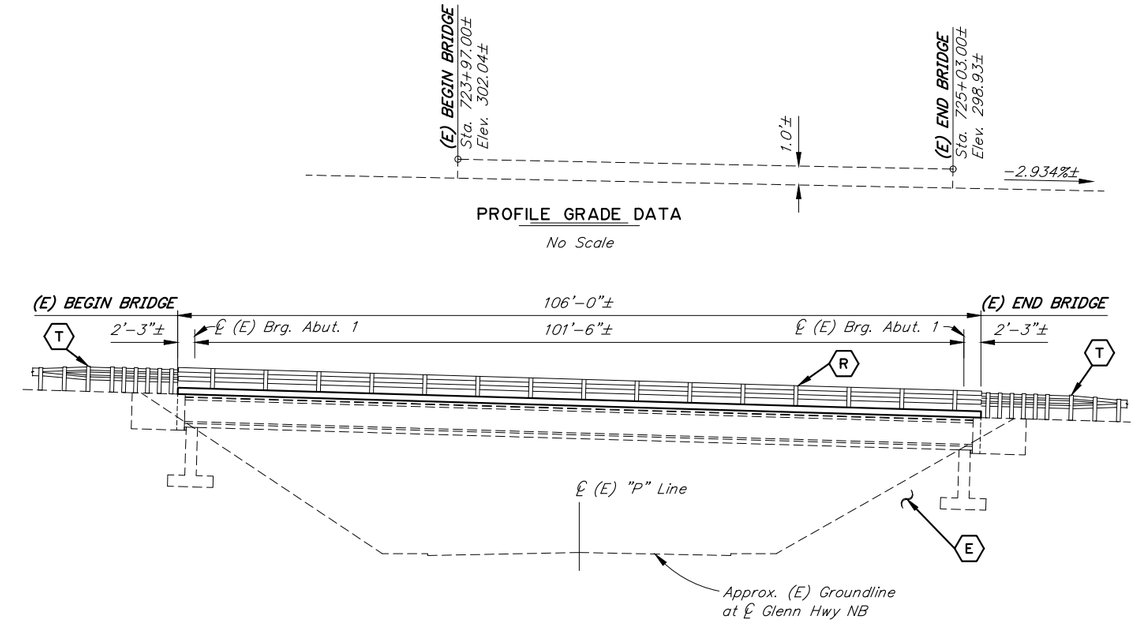
PRELIMINARY GLENN HIGHWAY

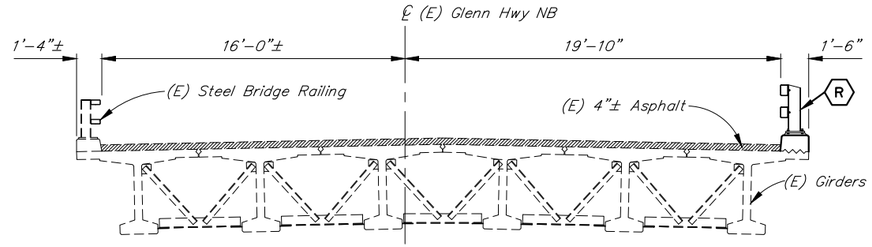
BRIDGE RAILING DETAILS

BRIDGE NO. 1367

DWG. NO. 4

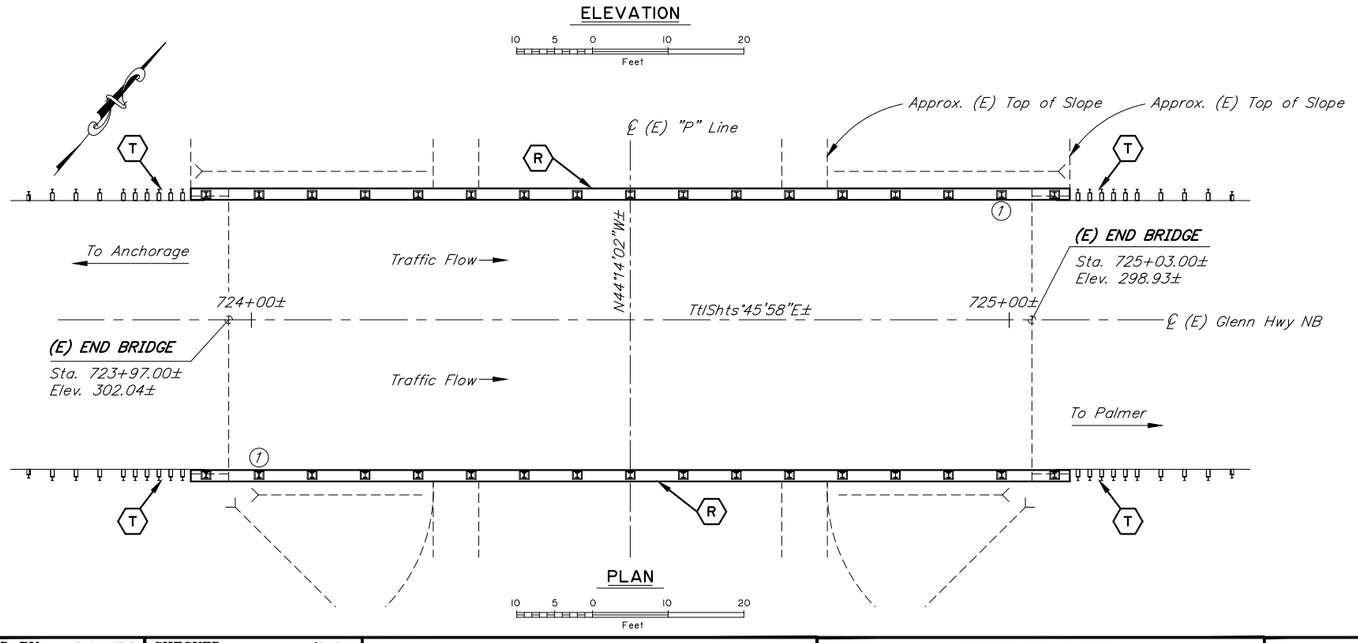
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N21	TtlShts





TYPICAL SECTION

12 0 4 8
In. Feet



PRELIMINARY PLAN

LEGEND	
E	– Fill Errosion Gullies
R	– Replace Steel Bridge Railing
T	– Replace Transition Railing

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
SLOPE REPAIR	2
WINGWALL DETAILS	3
BRIDGE RAILING	4
BRIDGE RAILING DETAILS	5

NOTES:

(E) = Existing
– – – – – = Existing
——— = Proposed
(1) = Approximate location of Bridge Number Plate.
2. Bridge stations and elevations are based on 1976 as-built drawings.
3. Verify controlling field dimensions before ordering or fabricating any material

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

PRELIMINARY

EDMONDS LAKE UNDERCROSSING NB
GLENN HIGHWAY
GENERAL LAYOUT

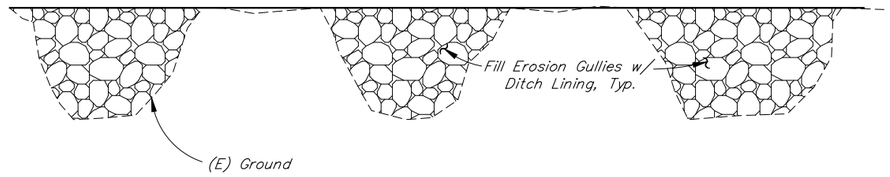
BRIDGE NO. 1369
DWG. NO. 1

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1369 GEN Fri, Jul/12/24 02:15pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N22	TtlShts

EXISTING GROUND AT ABUTMENT 2

No Scale



TYPICAL SECTION

No Scale

NOTES:

(E) = Existing

----- = Existing

——— = Proposed

1. *Verify controlling field dimensions before ordering or fabricating any material.*

PRELIMINARY PLAN

DESIGNED BY: *Andrew Wells*	CHECKED: *Checker*	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: *Javier De Leon*	CHECKED: *Andrew Wells*		
QUANTITIES BY: *Andrew Wells*	CHECKED: *Checker*		

EDMUNDS LAKE UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

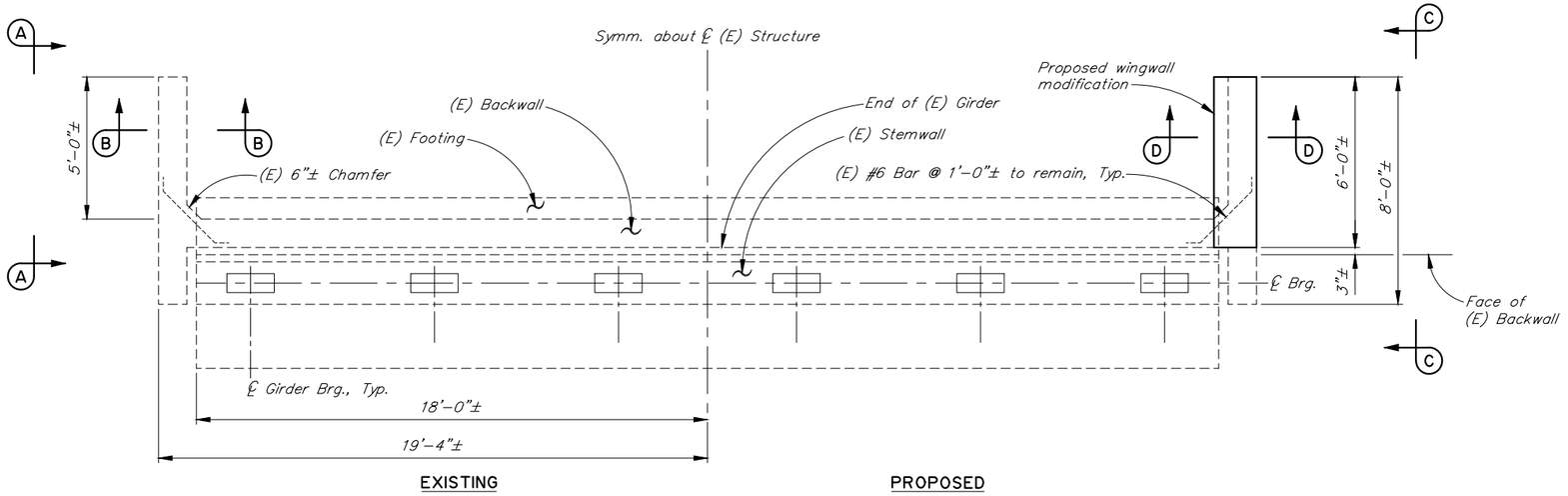
SLOPE REPAIR

BRIDGE NO. 1369

DWG. NO. 2

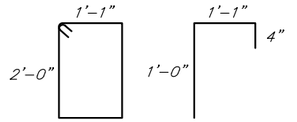
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1369 SLOPE Fri, Jul/12/24 02:15pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N23	TtlShts



REINFORCING STEEL - ONE ABUTMENT

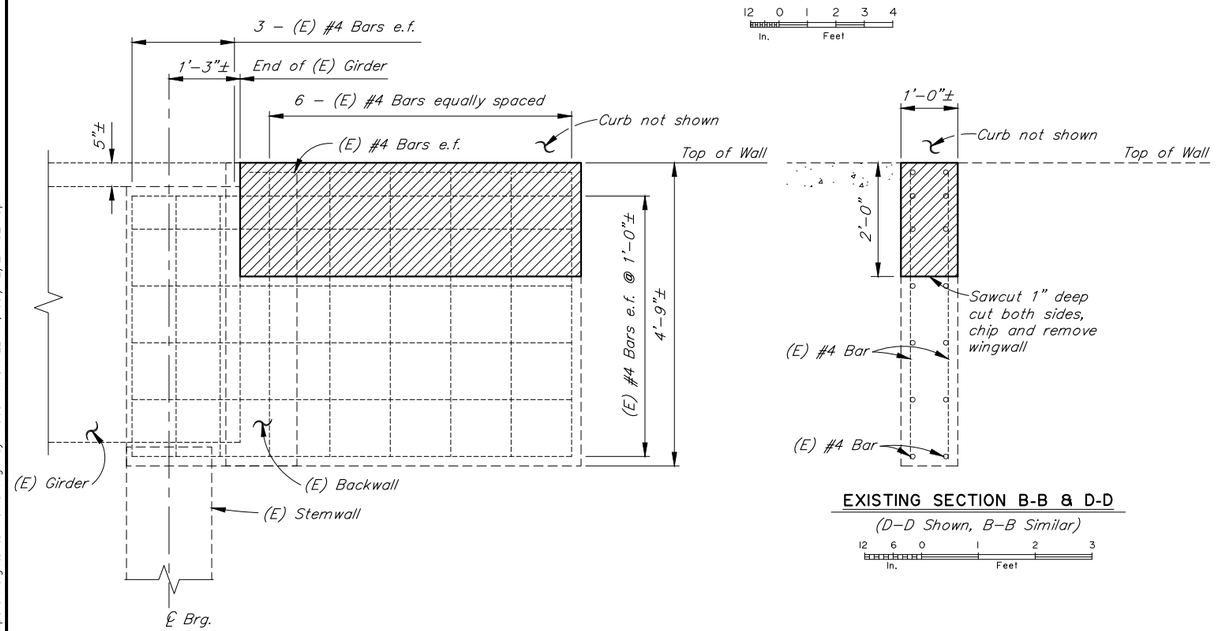
MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W501	E	5	12	5'-8"	---	
W502		5	24	3'-0"	---	
W901	E	9	4	5'-8"	---	
C401	E	4	12	6'-11"	STIRRUP	
C402	E	4	104	1'-5"	BENT	
C501	E	5	2	13'-8"	---	



E – Epoxy-Coated

PLAN

12 0 1 2 3 4
In. Feet



EXISITNG VIEW A-A & C-C

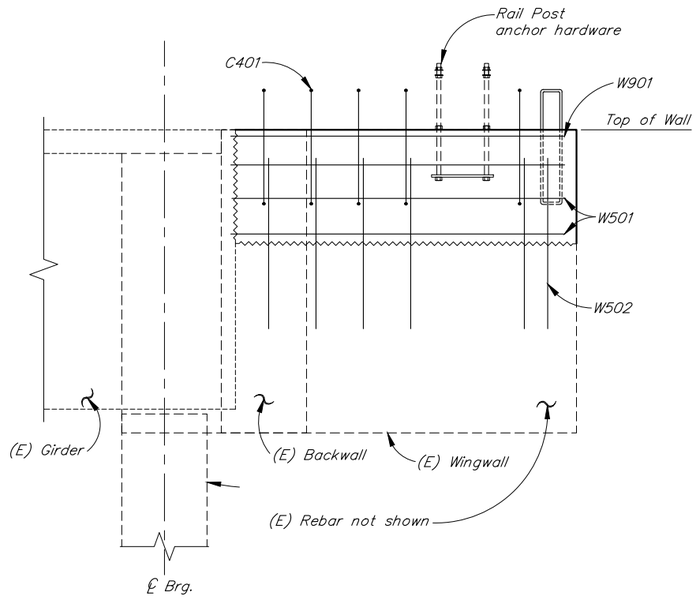
(C-C Shown, A-A Similar)

12 6 0 1 2 3
In. Feet

EXISTING SECTION B-B & D-D

(D-D Shown, B-B Similar)

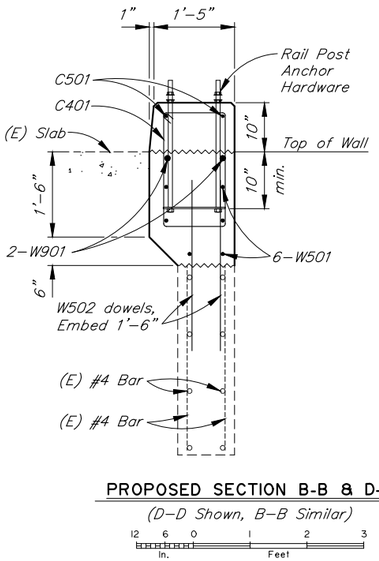
12 6 0 1 2 3
In. Feet



PROPOSED VIEW A-A & C-C

(C-C Shown, A-A Similar)

12 6 0 1 2 3
In. Feet



PROPOSED SECTION B-B & D-D

(D-D Shown, B-B Similar)

12 6 0 1 2 3
In. Feet

NOTES:

= Concrete to be removed

(E) = Existing

= Existing

= Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

EDMUNDS LAKE UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

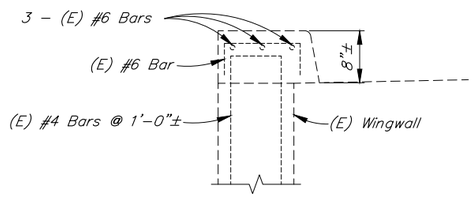
WINGWALL DETAILS

BRIDGE NO. 1369

DWG. NO. 3

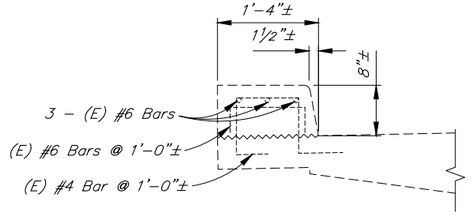
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1369 WINGWALL Fri, Jul/12/24 02:15pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N24	TtlShts



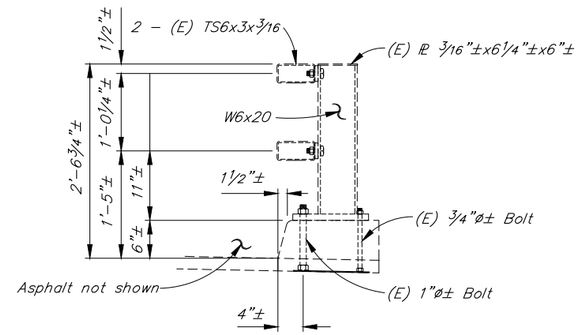
EXISTING CURB AT WINGWALL

12 6 0 1 2
In. Feet



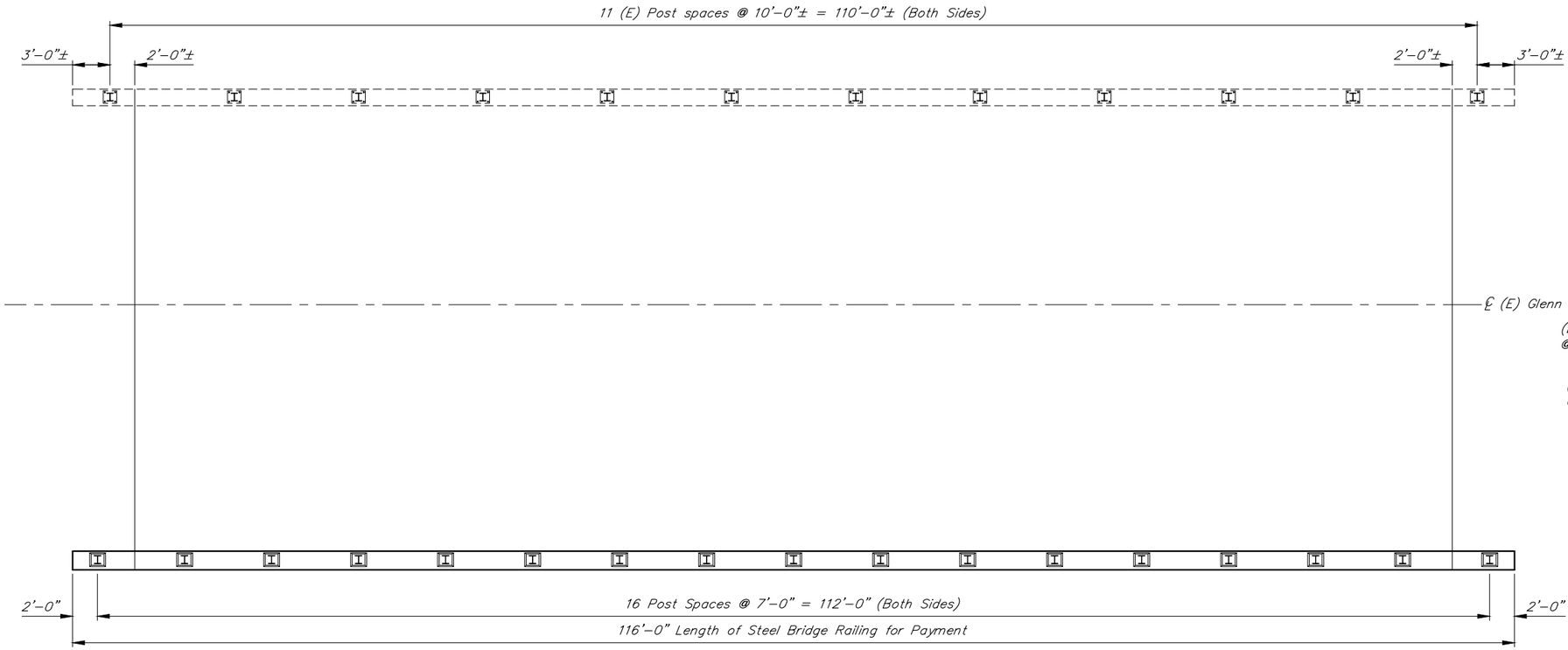
EXISTING OVERHANG DETAIL

12 6 0 1 2
In. Feet



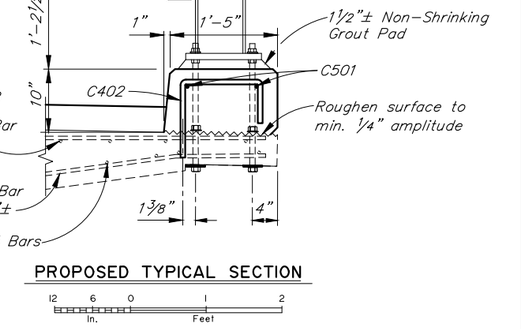
EXISTING TYPICAL SECTION

12 6 0 1 2
In. Feet



DECK PLAN

10 5 0 10 20
Feet



PROPOSED TYPICAL SECTION

12 6 0 1 2
In. Feet

NOTES:

(E) = Existing
– – – – – = Existing
——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

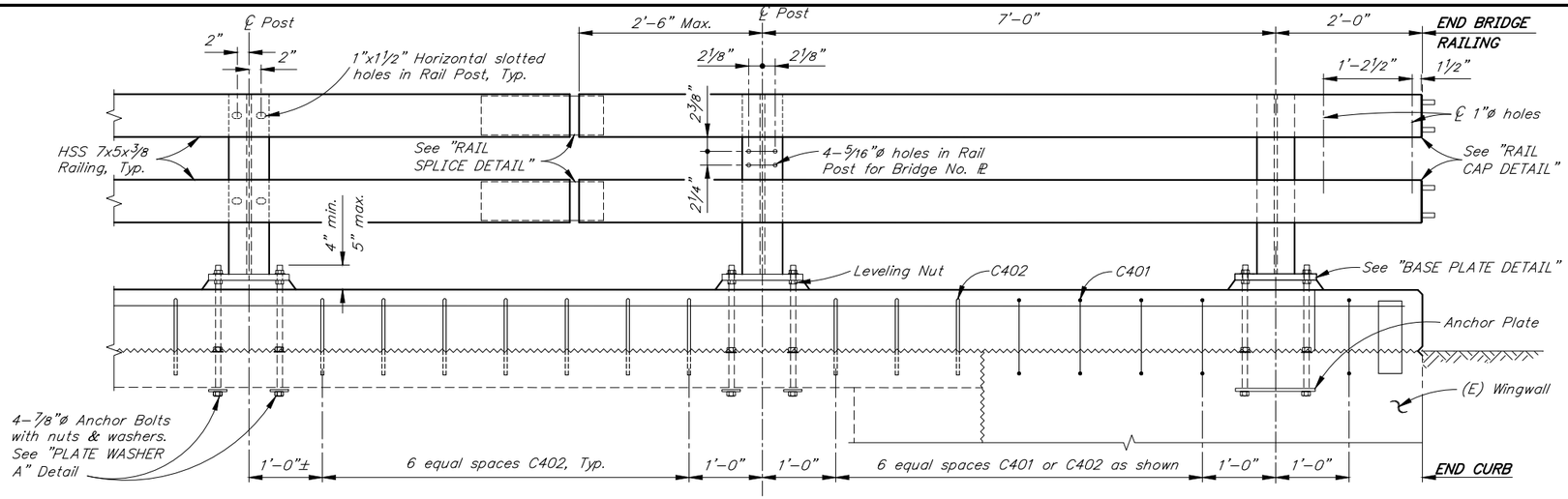
DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

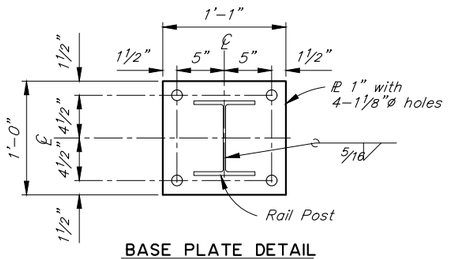
EDMUNDS LAKE UNDERCROSSING NB
PRELIMINARY GLENN HIGHWAY
BRIDGE RAILING

BRIDGE NO. 1369
DWG. NO. 4

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1369 (E) RAIL Fri, Jul/12/24 02:15pm

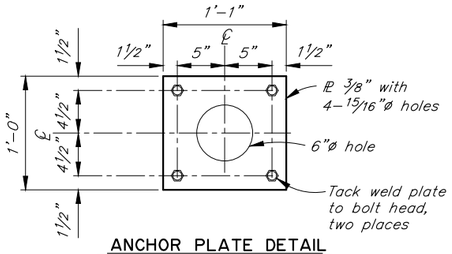
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N25	TtlShts





BASE PLATE DETAIL

12 6 0 1 In. Feet



ANCHOR PLATE DETAIL

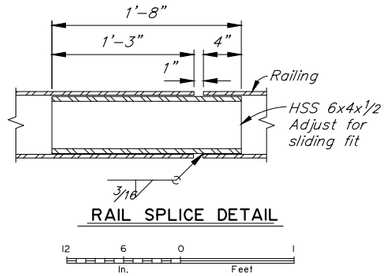
12 6 0 1 In. Feet

TYPICAL POST ELEVATION

12 6 0 1 2 In. Feet

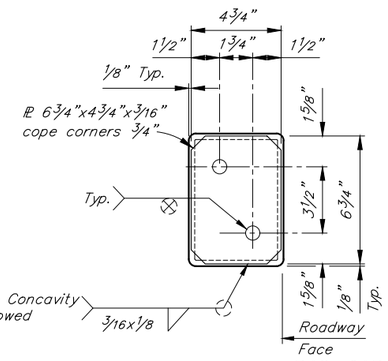
EXPANSION JOINT

12 6 0 1 2 In. Feet



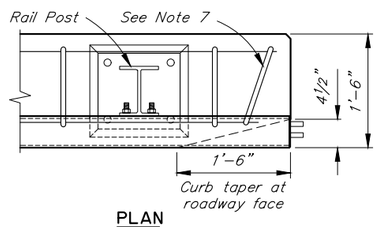
RAIL SPLICE DETAIL

12 6 0 1 In. Feet



RAIL CAP DETAIL

6 3 0 1 In. Feet



PLAN

END POST DETAIL

12 6 0 1 2 In. Feet

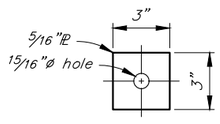


PLATE WASHER A

No Scale

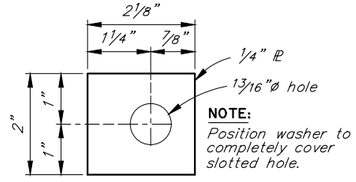
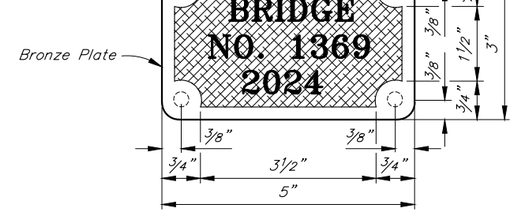


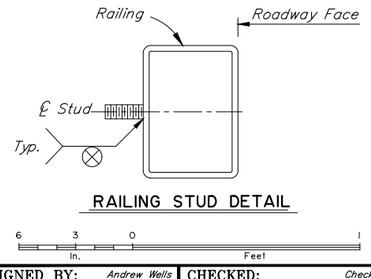
PLATE WASHER B

No Scale



BRONZE BRIDGE NO. PLATE

No Scale



RAILING STUD DETAIL

6 3 0 1 In. Feet

PRELIMINARY PLAN

NOTES:

1. Remove existing bridge number plates. Install bridge number plates onto new steel bridge railing posts. Use studs and nuts that conform to UNS C65100 or UNS C65500. Braze ¼"ø threaded rod to back of plate with nut – 4 required. Use tamper proof nuts.
2. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
4. See "RAILING LAYOUT AND TYPICAL SECTION" Dwg. for rail post spacing.
5. Install bridge rail posts plumb.
6. Core and bond anchor bolts through the existing deck and existing rail hardware. Drill and bond C402 4" into the existing deck. Adjust C402 spacing to avoid existing reinforcing and existing rail hardware.
7. Adjust reinforcing to accommodate curb taper.
8. Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
9. Use grout with a minimum 24-hour f'c of 3,000 psi in single placement.
10. See Standard Plan G-32.03 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

EDMUNDS LAKE UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

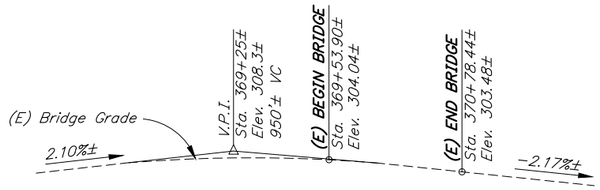
BRIDGE RAILING DETAILS

BRIDGE NO. 1369

DWG. NO. 5

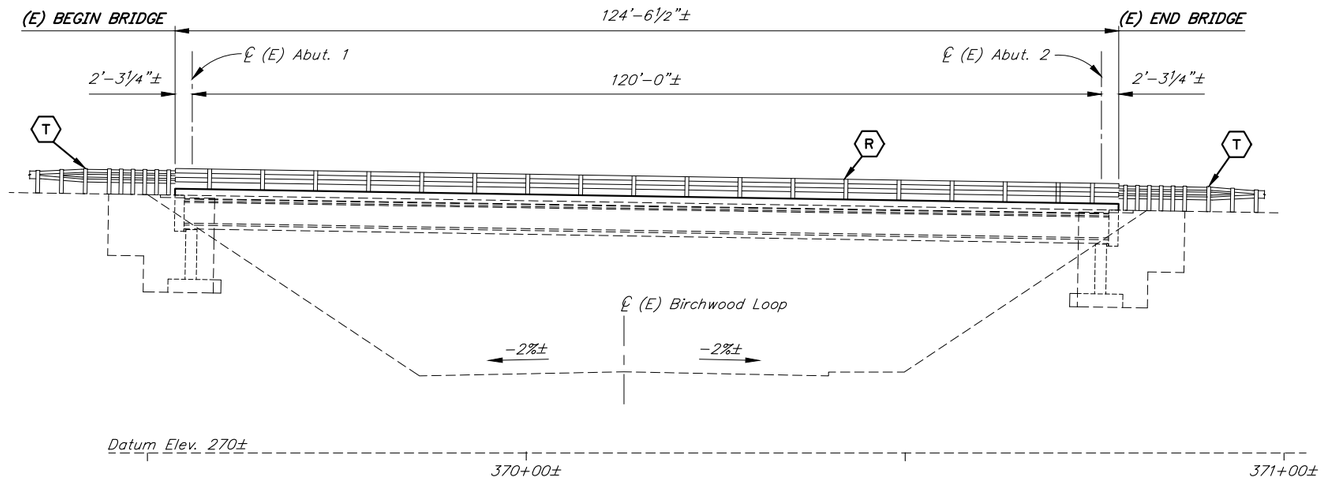
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1369 RAIL Fri, Jul/12/24 02:15pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N26	TtlShts



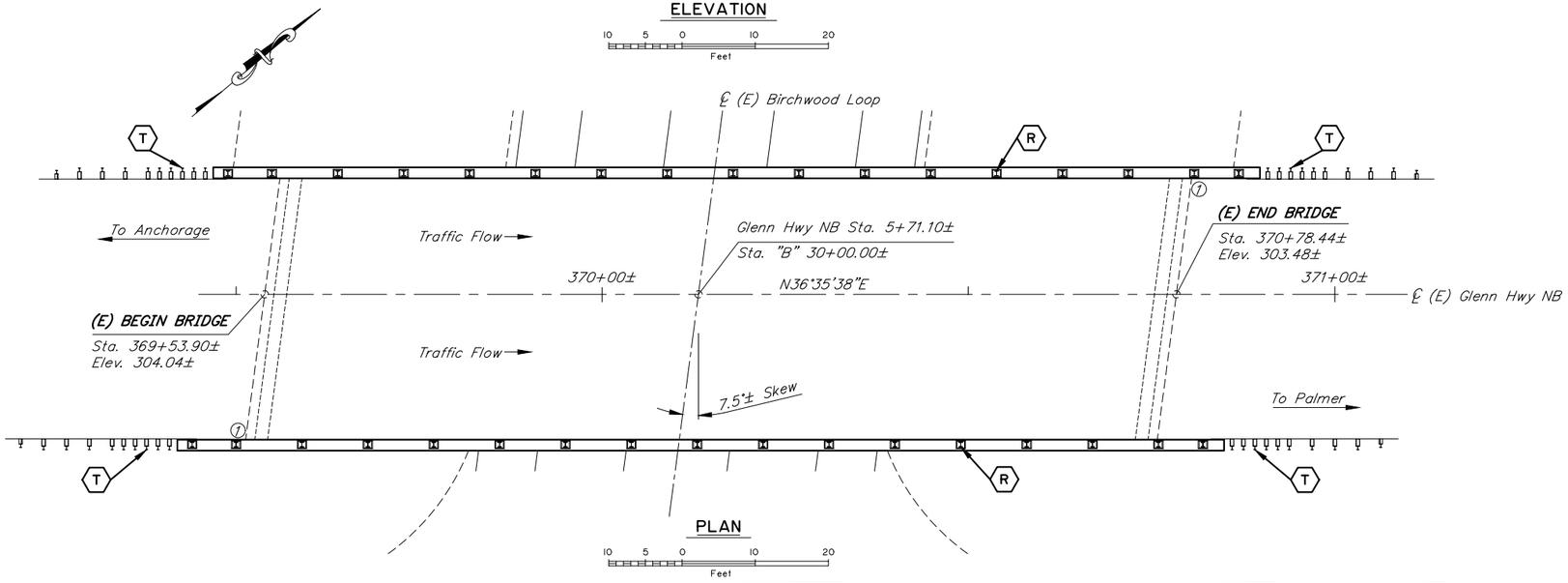
PROFILE GRADE DATA

No Scale



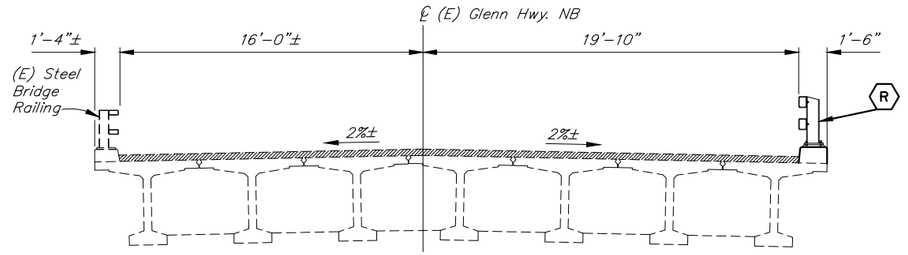
ELEVATION

10 5 0 10 20
Feet



PLAN

10 5 0 10 20
Feet



EXISTING PROPOSED

TYPICAL SECTION

12 0 4 8
In. Feet

PRELIMINARY PLAN

LEGEND

R – Replace Steel Bridge Railing

T – Replace Transition Rail

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
WINGWALL DETAILS	2
BRIDGE RAILING	3
BRIDGE RAILING DETAILS	4

NOTES:

(E) = Existing

- - - - - = Existing

——— = Proposed

① = Approximate location of Bridge Number Plate.

2. Bridge stations and elevations are based on 2009 as-built drawings.

3. Verify controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Andrew Wells	CHECKED: Checker	REHABILITATION	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

SOUTH BIRCHWOOD UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

GENERAL LAYOUT

BRIDGE NO. 1378

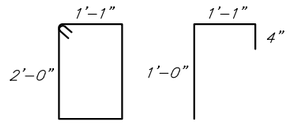
DWG. NO. 1

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1378 GEN Fri, Jul/12/24 02:15pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N27	TtlShts

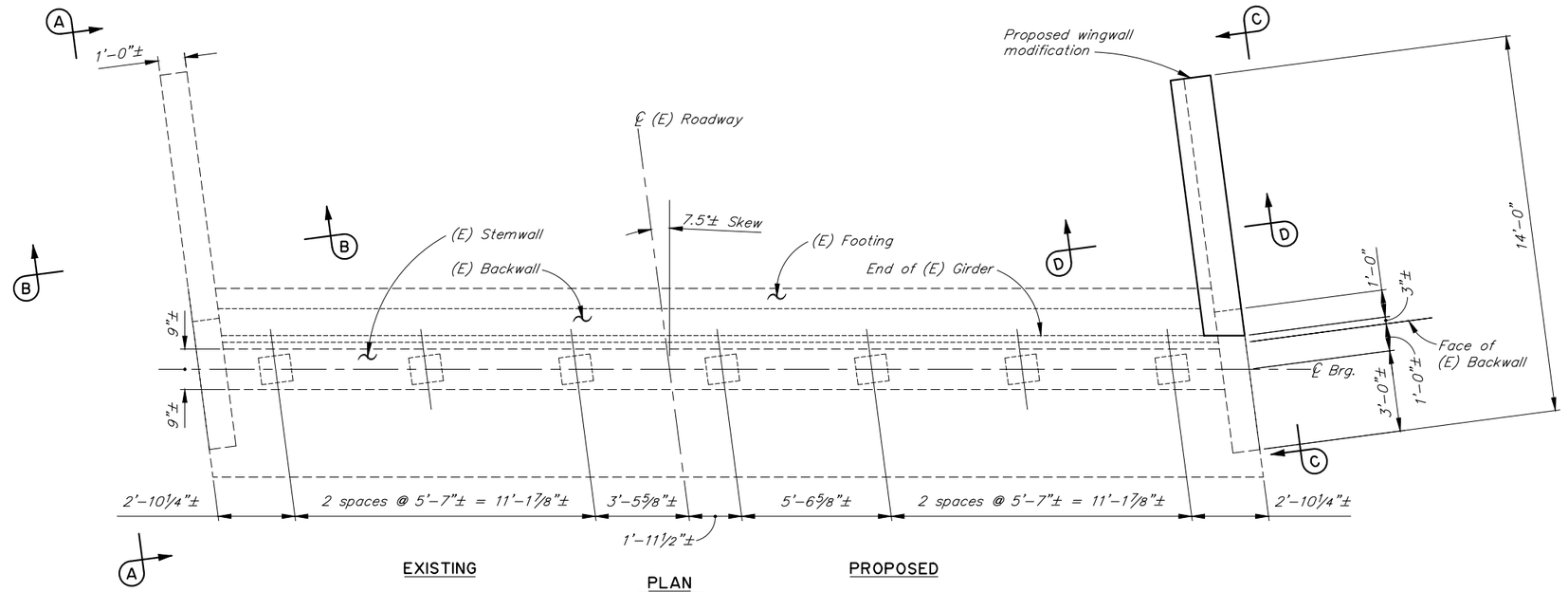
REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W501	E	5	12	9'-5"	---	
W502		5	40	3'-0"	---	
W901	E	9	4	9'-5"	---	
C401	E	4	24	6'-11"	STIRRUP	
C402	E	4	92	2'-5"	BENT	
C501	E	5	2	122'-8"	---	
C502	E	5	4	9'-5"	---	



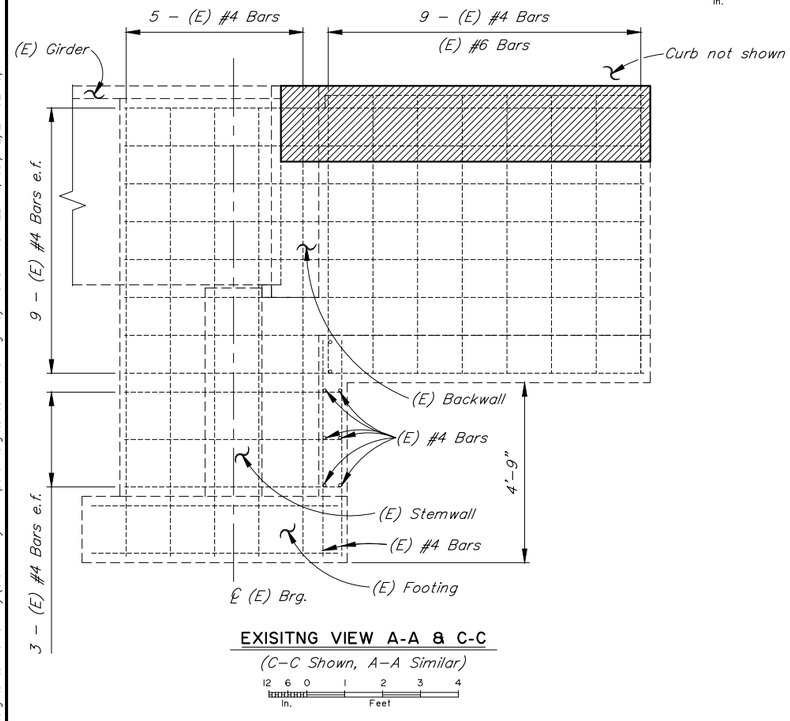
C401 C402

E = Epoxy-Coated



EXISTING PLAN PROPOSED

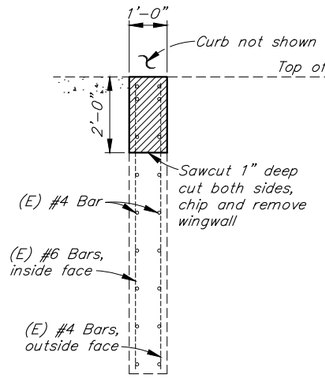
12 6 0 1 2 3 4 In. Feet



EXISITNG VIEW A-A & C-C

(C-C Shown, A-A Similar)

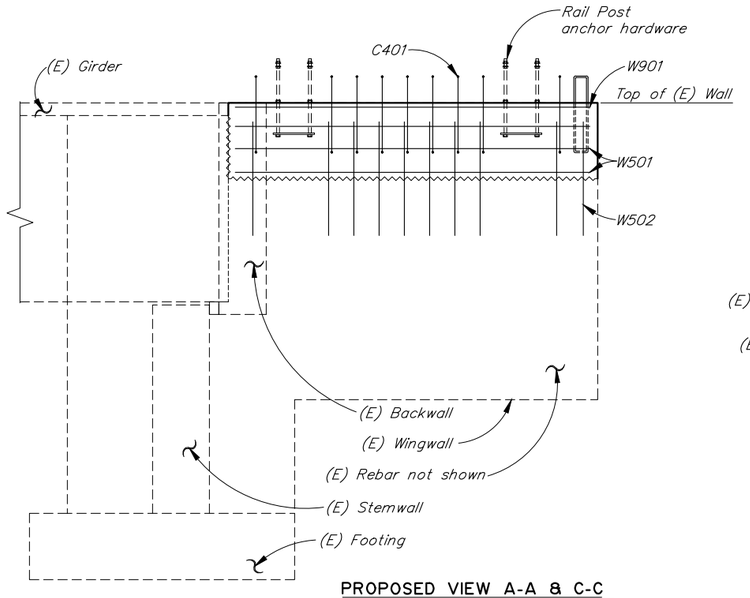
12 6 0 1 2 3 4 In. Feet



EXISTING SECTION B-B & D-D

(D-D Shown, B-B Similar)

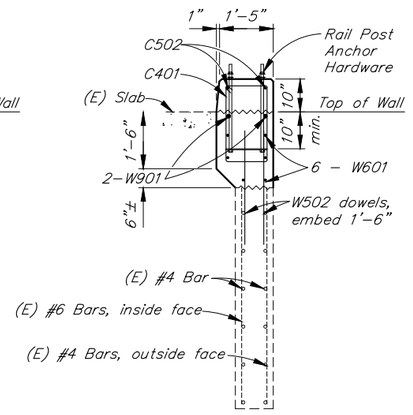
12 6 0 1 2 3 4 In. Feet



PROPOSED VIEW A-A & C-C

(C-C Shown, A-A Similar)

12 6 0 1 2 3 4 In. Feet



PROPOSED SECTION B-B & D-D

(D-D Shown, B-B Similar)

12 6 0 1 2 3 4 In. Feet

NOTES:

- = Concrete to be removed
- (E) = Existing
- ----- = Existing
- ——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

SOUTH BIRCHWOOD UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

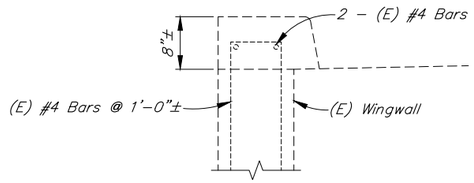
WINGWALL DETAILS

BRIDGE NO. 1378

DWG. NO. 2

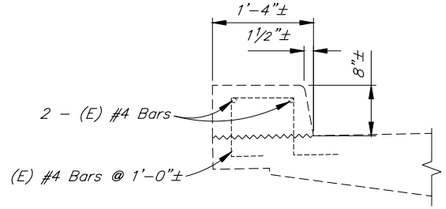
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1378 WINGWALL Fri, Jul/12/24 02:15pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N28	TtlShts



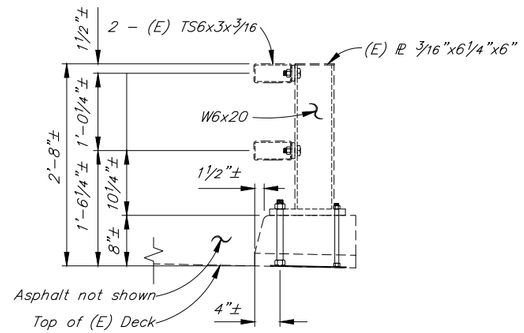
EXISTING CURB AT WINGWALL

12 6 0 1 2
In. Feet



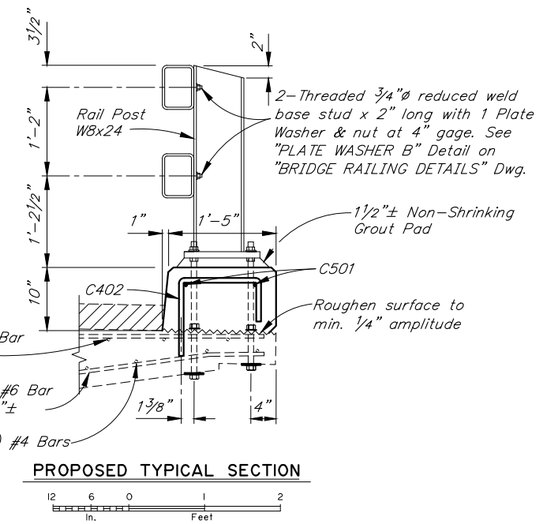
EXISTING OVERHANG DETAIL

12 6 0 1 2
In. Feet



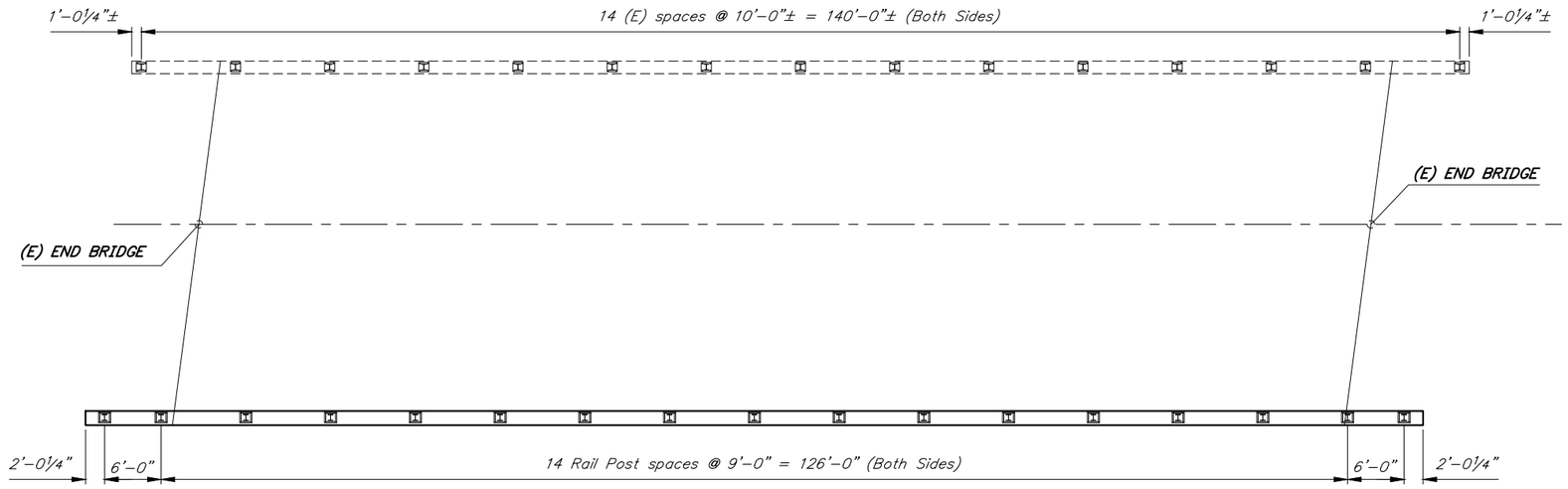
EXISTING TYPICAL SECTION

12 6 0 1 2
In. Feet



PROPOSED TYPICAL SECTION

12 6 0 1 2
In. Feet



DECK PLAN

12 0 4 8 12
In. Feet

NOTES:

(E) = Existing
- - - - - - = Existing
——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

SOUTH BIRCHWOOD UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

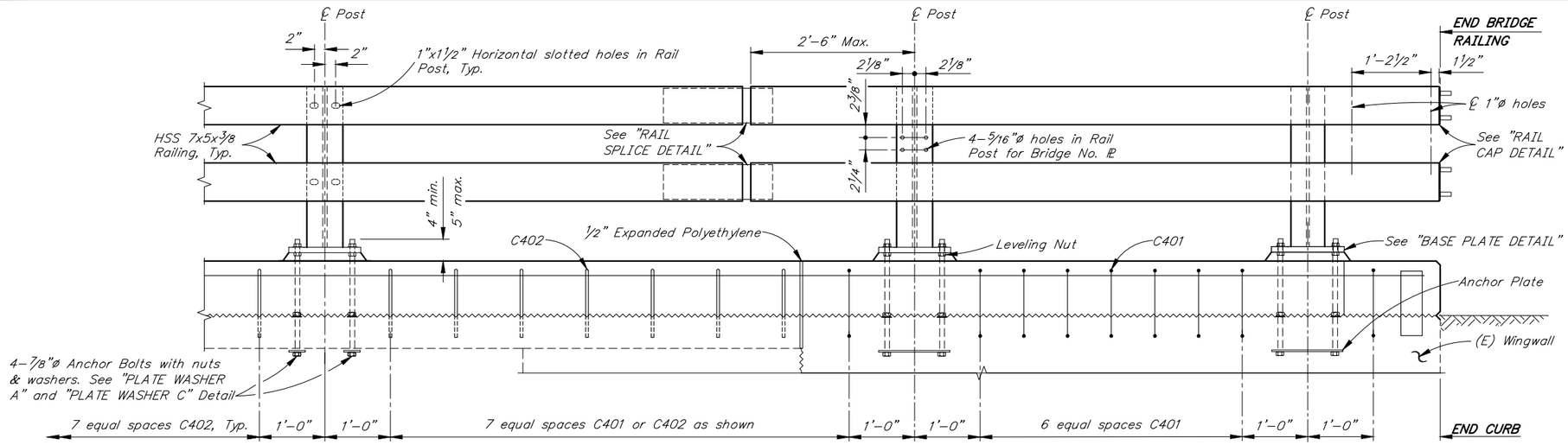
BRIDGE RAILING

BRIDGE NO. 1378

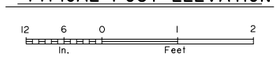
DWG. NO. 3

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1378 (E) RAIL Fri, Jul/12/24 02:15pm

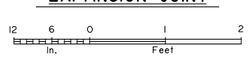
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N29	TtlShts

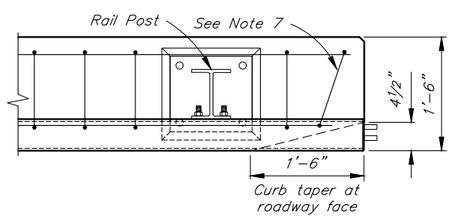


TYPICAL POST ELEVATION



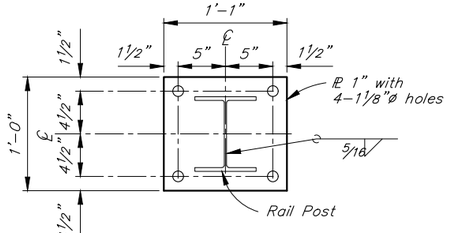
EXPANSION JOINT



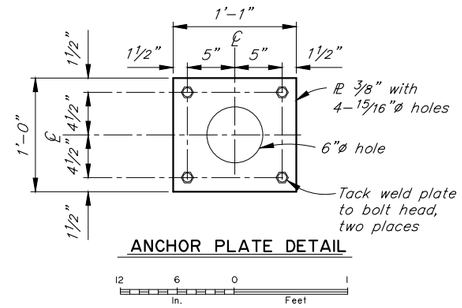


ELEVATION

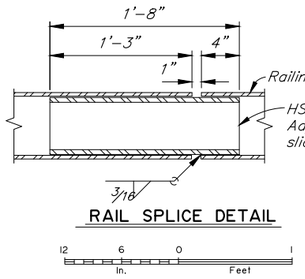
PLAN



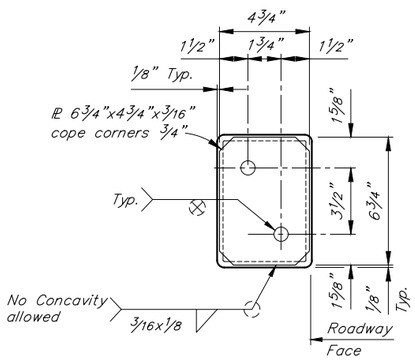
BASE PLATE DETAIL

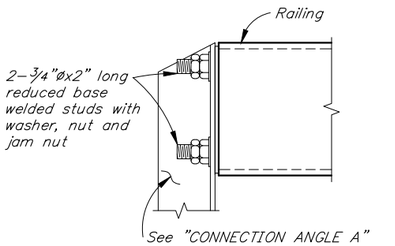


ANCHOR PLATE DETAIL



RAIL SPLICE DETAIL





RAIL CAP DETAIL

END POST DETAIL

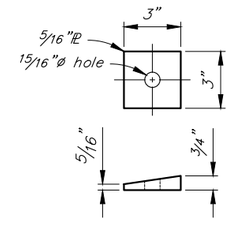
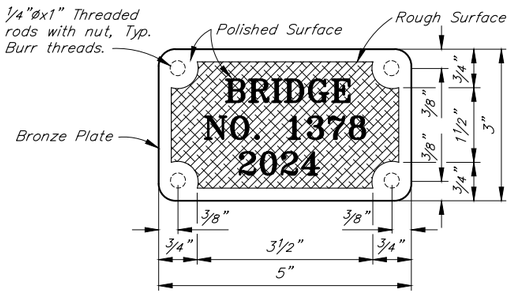


PLATE WASHER C

No Scale



BRONZE BRIDGE NO. PLATE

No Scale

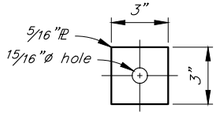
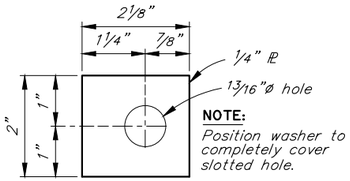


PLATE WASHER A

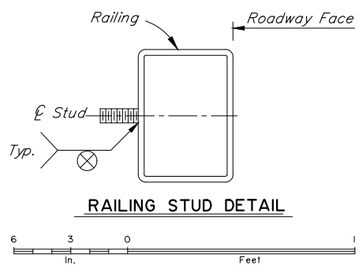
No Scale



NOTE: Position washer to completely cover slotted hole.

PLATE WASHER B

No Scale



RAILING STUD DETAIL

NOTES:

1. Remove existing bridge number plates. Install bridge number plates onto new steel bridge railing posts. Use studs and nuts that conform to UNS C65100 or UNS C65500. Braze ¼"ø threaded rod to back of plate with nut – 4 required. Use tamper proof nuts.
2. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
4. See "RAILING LAYOUT AND TYPICAL SECTION" Dwg. for rail post spacing.
5. Install bridge rail posts plumb.
6. Core and bond anchor bolts through the existing deck and existing rail hardware. Drill and bond C402 4" into the existing deck. Adjust C402 spacing to avoid existing reinforcing and existing rail hardware.
7. Adjust reinforcing to accommodate curb taper.
8. Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
9. Use grout with a minimum 24-hour f'c of 3,000 psi in single placement.
10. See Standard Plan G-32.03 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

SOUTH BIRCHWOOD UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

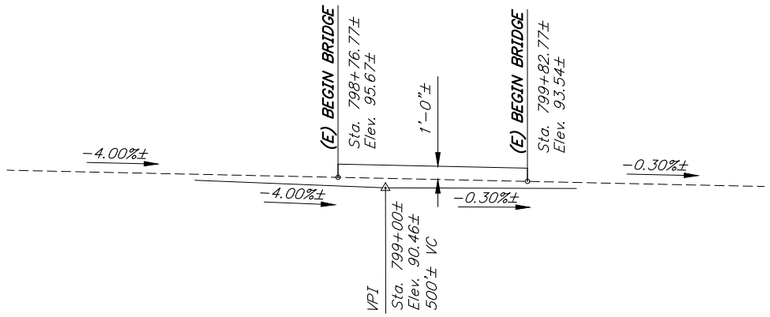
BRIDGE RAILING DETAILS

BRIDGE NO. 1378

DWG. NO. 4

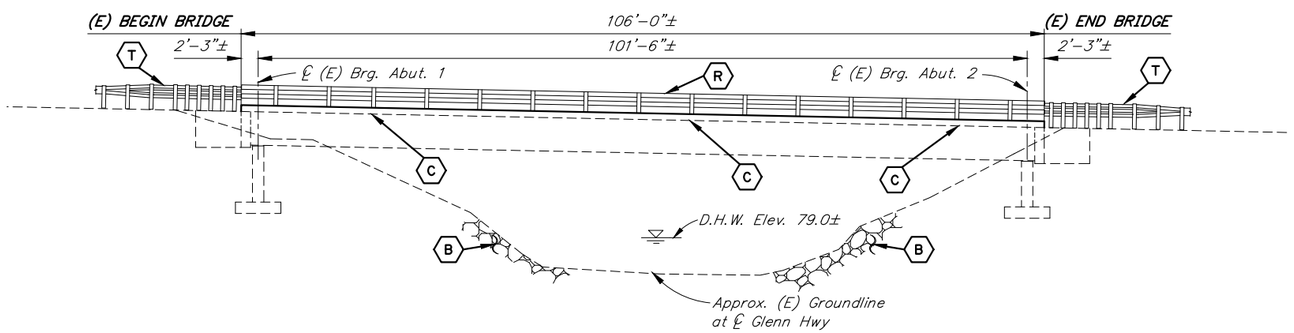
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Hwy–1378 RAIL Fri, Jul/12/24 02:15pm

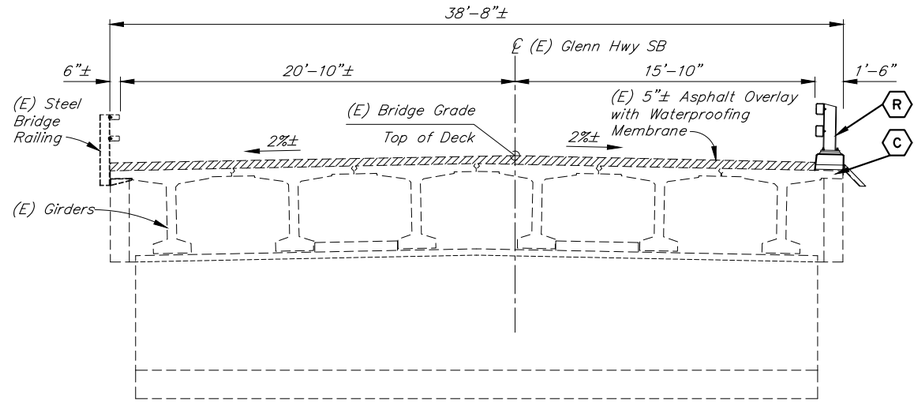
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N30	TtlShts



PROFILE GRADE DATA

No Scale

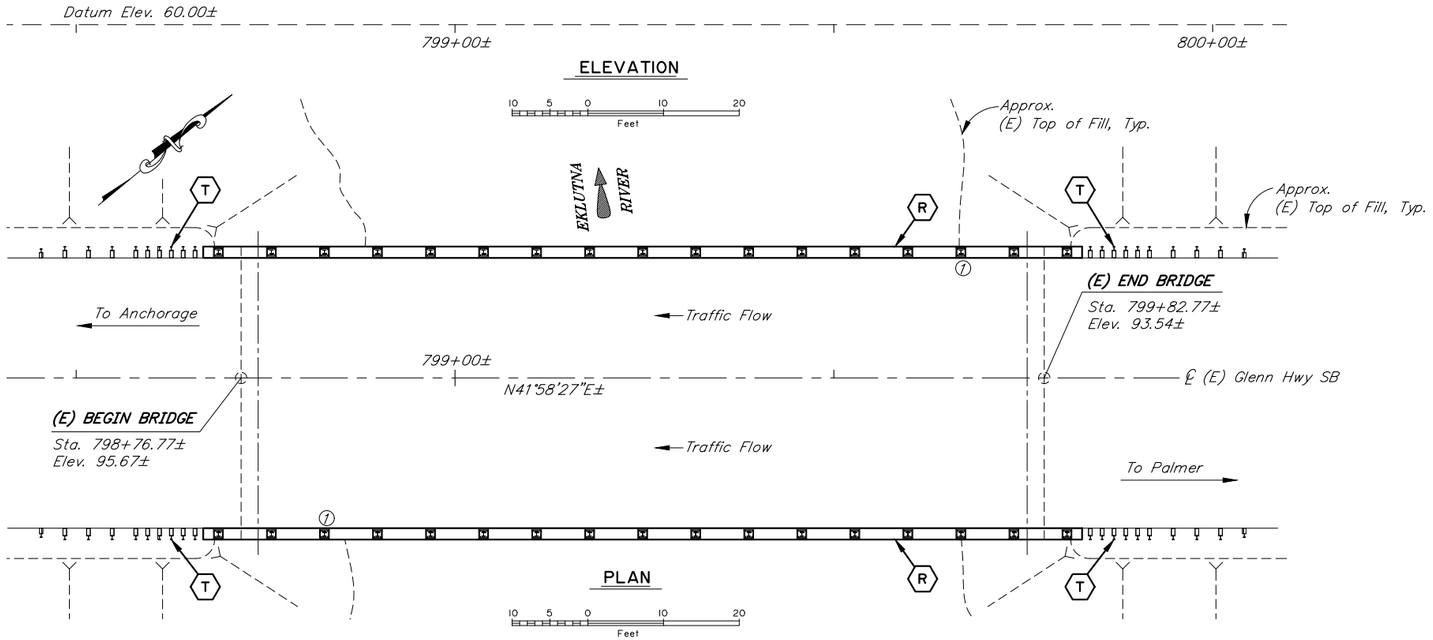




EXISTING PROPOSED

TYPICAL SECTION

12 0 4 8
In. Feet



PRELIMINARY PLAN

LEGEND	
B	– Install Bank Protection Improvements
C	– Patch Spalled Concrete
R	– Replace Steel Bridge Railing
T	– Replace Transition Railing

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
WINGWALL DETAILS	2
BRIDGE RAILING	3
BRIDGE RAILING DETAILS	4

NOTES:

(E) = Existing

----- = Existing

——— = Proposed

(1) = Approximate location of Bridge Number Plate.

Bridge stations and elevations are based on 1976 as-built drawings.

Verify controlling field dimensions before ordering or fabricating any material

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

EKLUTNA RIVER BRIDGE SB

PRELIMINARY GLENN HIGHWAY

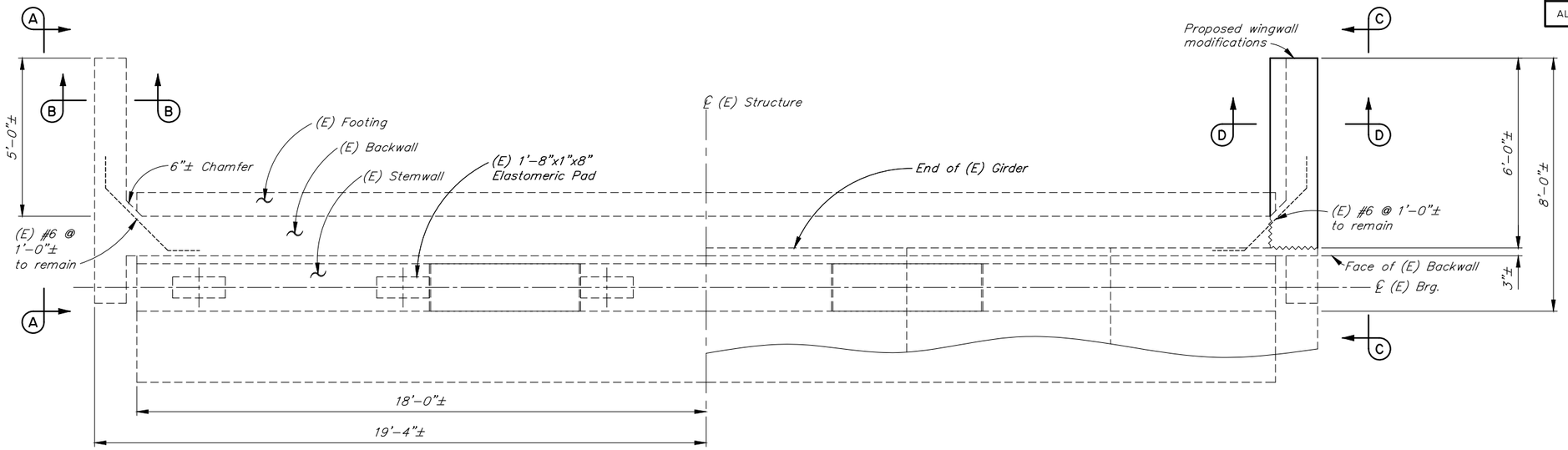
GENERAL LAYOUT

BRIDGE NO. 1864

DWG. NO. 1

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway-1864 GEN Fri, Jul/12/24 02:15pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N31	TtlShts



EXISTING PROPOSED

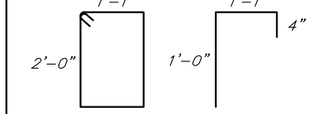
PLAN

12 6 0 1 2 3 4
In. Feet

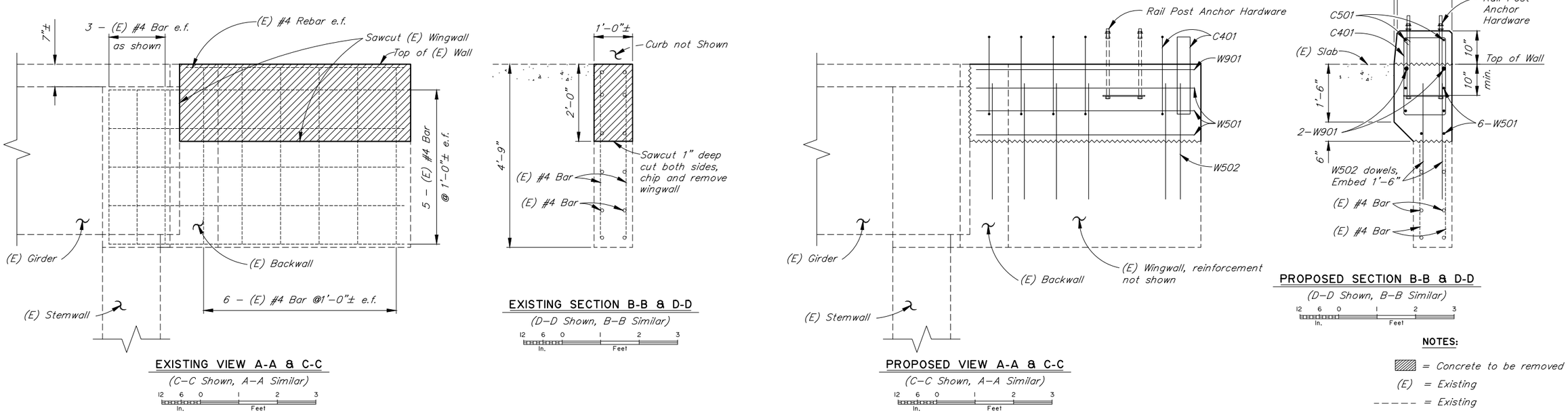
REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE
W501	E	5	12	5'-8"	---
W502		5	20	3'-0"	---
W901	E	9	4	5'-8"	---
C401	E	4	10	6'-11"	STIRRUP
C402	E	4	106	2'-5"	BENT
C501	E	5	4	115'-8"	---

BENDING DIAGRAM



E – Epoxy-Coated



EXISTING VIEW A-A & C-C
(C-C Shown, A-A Similar)
12 6 0 1 2 3
In. Feet

EXISTING SECTION B-B & D-D
(D-D Shown, B-B Similar)
12 6 0 1 2 3
In. Feet

PROPOSED VIEW A-A & C-C
(C-C Shown, A-A Similar)
12 6 0 1 2 3
In. Feet

PROPOSED SECTION B-B & D-D
(D-D Shown, B-B Similar)
12 6 0 1 2 3
In. Feet

NOTES:

- ▨ = Concrete to be removed
- (E) = Existing
- – – – – = Existing
- ——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

EKLUTNA RIVER BRIDGE SB

PRELIMINARY

GLENN HIGHWAY

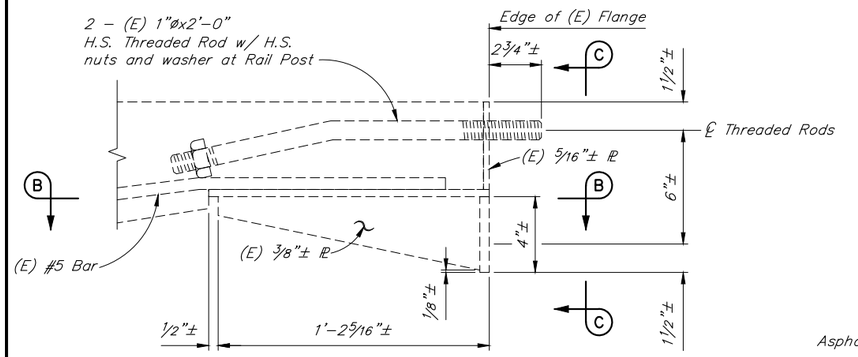
WINGWALL DETAILS

BRIDGE NO. 1864

DWG. NO. 2

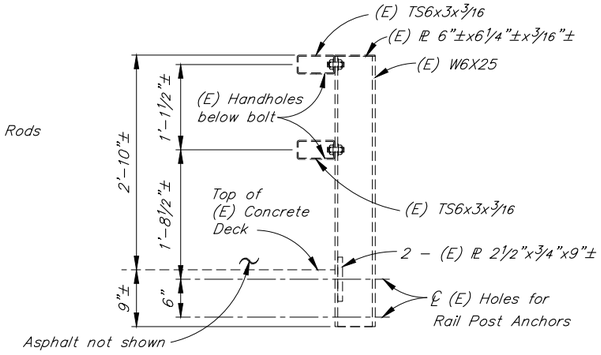
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1864 WINGWALL Fri, Jul/12/24 02:16pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N32	TtlShts



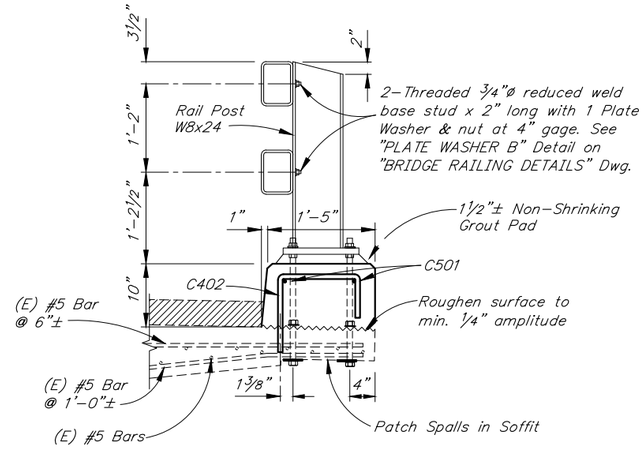
EXISTING RAIL POST ANCHOR

6 3 0 1 In. Feet



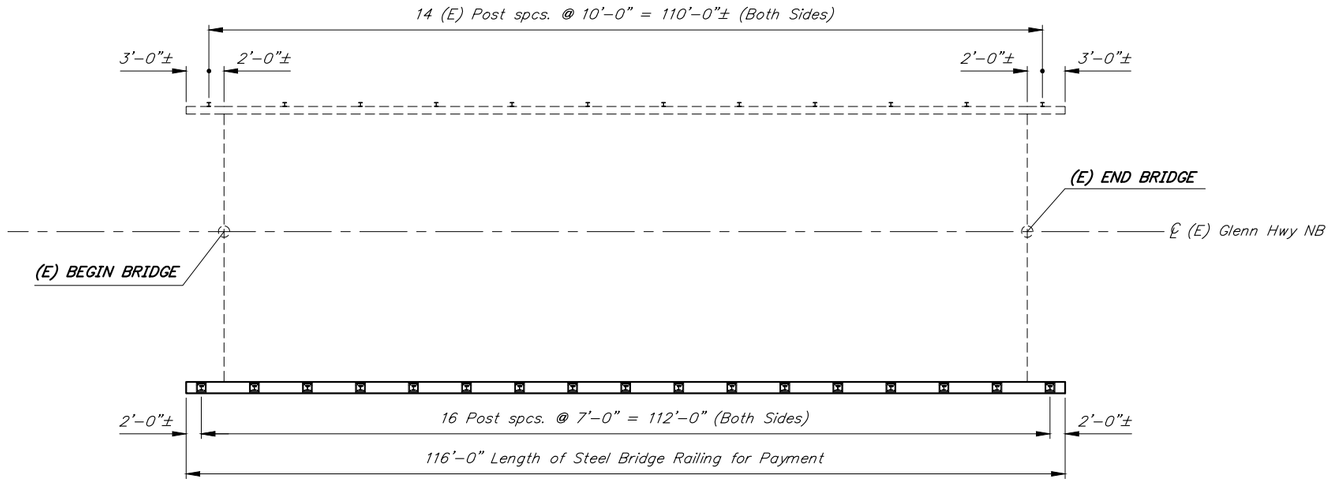
EXISTING RAIL SECTION

12 6 0 1 2 In. Feet



PROPOSED RAIL SECTION

12 6 0 1 2 In. Feet



DECK PLAN

10 5 0 10 20 Feet

NOTES:

(E) = Existing

– – – – – = Existing

——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

EKLUTNA RIVER BRIDGE SB

PRELIMINARY GLENN HIGHWAY

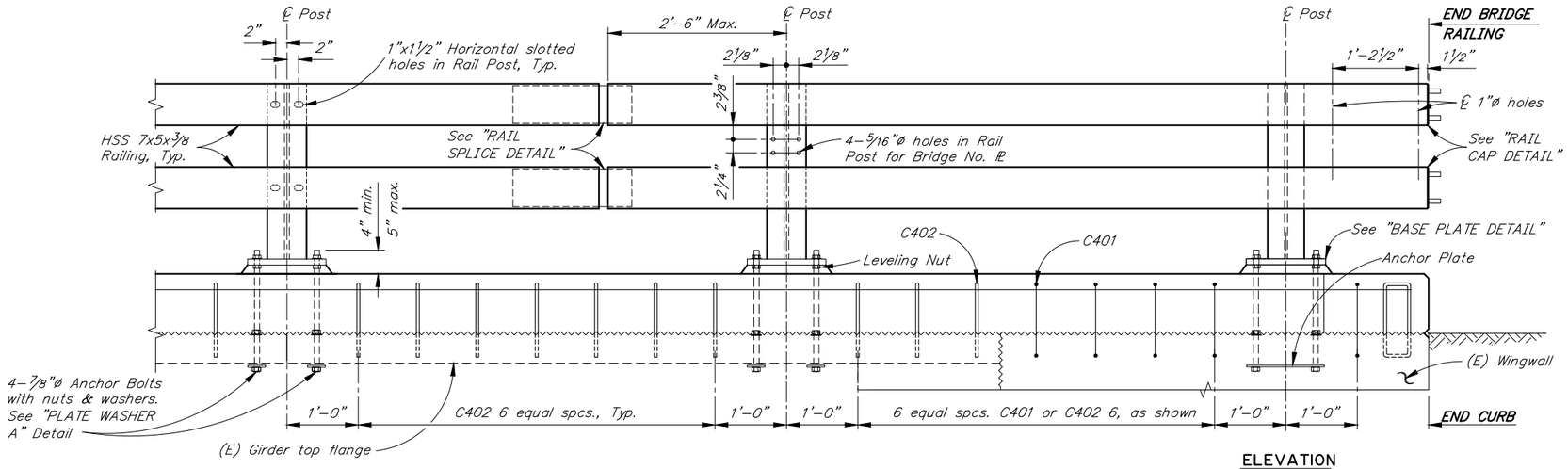
BRIDGE RAILING

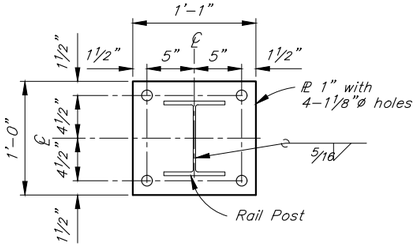
BRIDGE NO. 1864

DWG. NO. 1

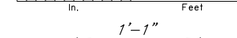
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1864 (E) RAIL Fri, Jul/12/24 02:16pm

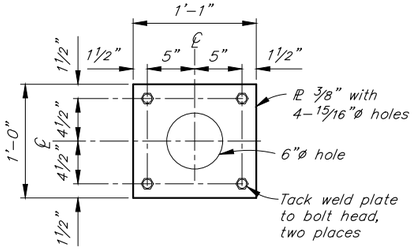
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N33	TtlShts





BASE PLATE DETAIL



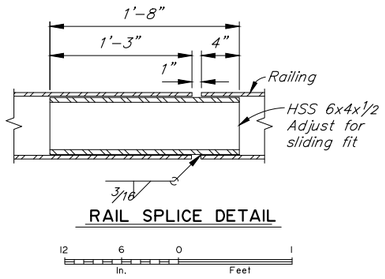


ANCHOR PLATE DETAIL

NOTES:

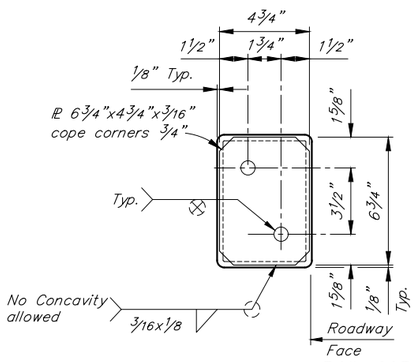
1. Remove existing bridge number plates. Install bridge number plates onto new steel bridge railing posts. Use studs and nuts that conform to UNS C65100 or UNS C65500. Braze ¼"ø threaded rod to back of plate with nut – 4 required. Use tamper proof nuts.
2. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
4. See "RAILING LAYOUT AND TYPICAL SECTION" Dwg. for rail post spacing.
5. Install bridge rail posts plumb.
6. Core and bond anchor bolts through the existing deck and existing rail hardware. Drill and bond C402 4" into the existing deck. Adjust C402 spacing to avoid existing reinforcing and existing rail hardware.
7. Adjust reinforcing to accommodate curb taper.
8. Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
9. Use grout with a minimum 24-hour f'c of 3,000 psi in single placement.
10. See Standard Plan G-32.03 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.

TYPICAL POST ELEVATION

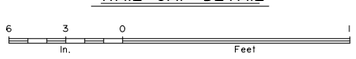


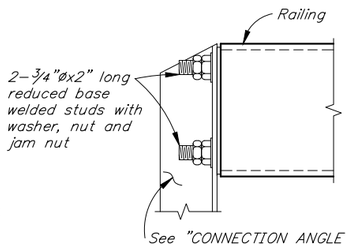
RAIL SPLICE DETAIL

EXPANSION JOINT

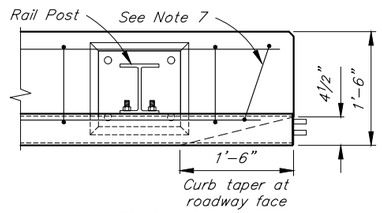


RAIL CAP DETAIL





ELEVATION



PLAN

END POST DETAIL

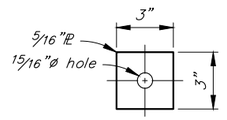


PLATE WASHER A

No Scale

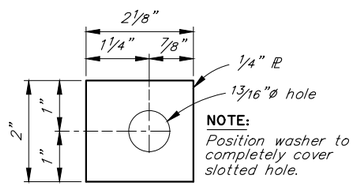
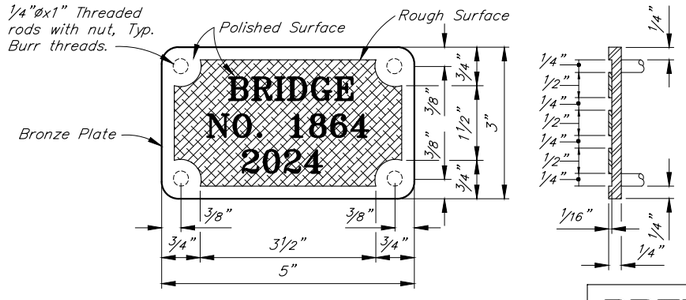


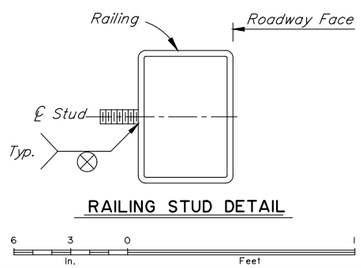
PLATE WASHER B

No Scale



BRONZE BRIDGE NO. PLATE

No Scale



RAILING STUD DETAIL

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells
QUANTITIES BY: Andrew Wells	CHECKED: Checker

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

EKLUTNA RIVER BRIDGE SB

PRELIMINARY GLENN HIGHWAY

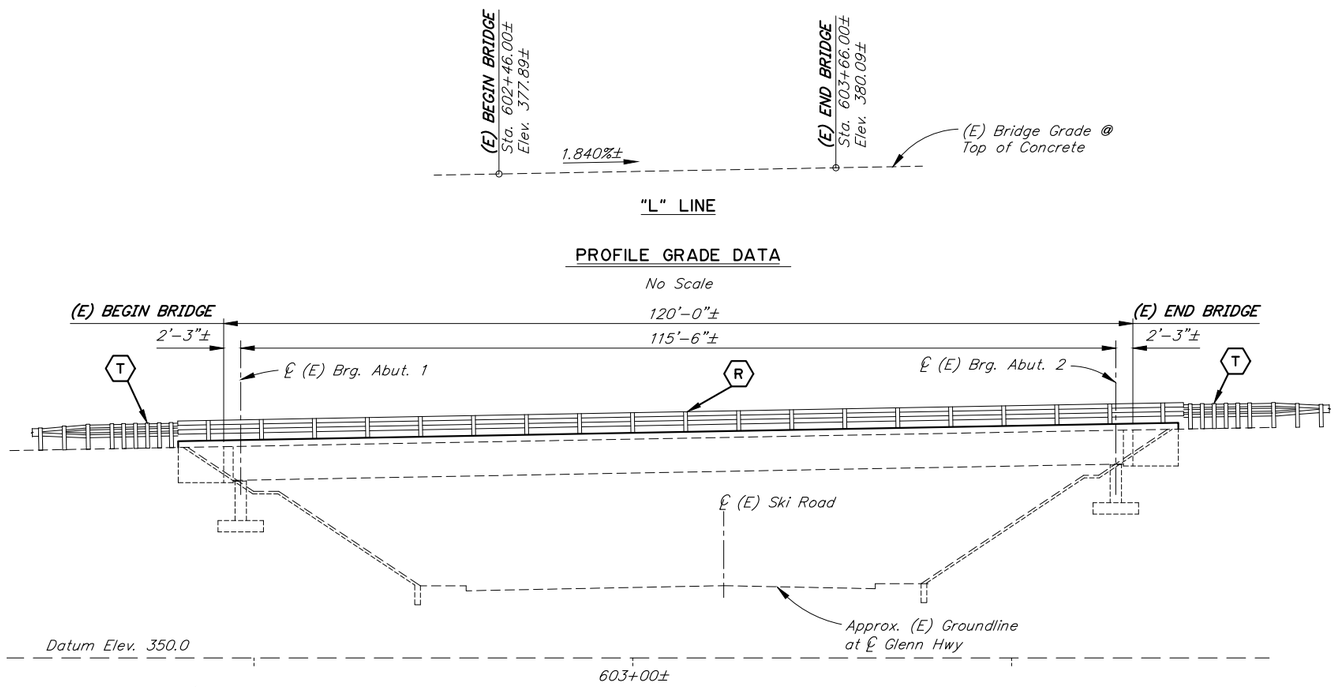
BRIDGE RAILING DETAILS

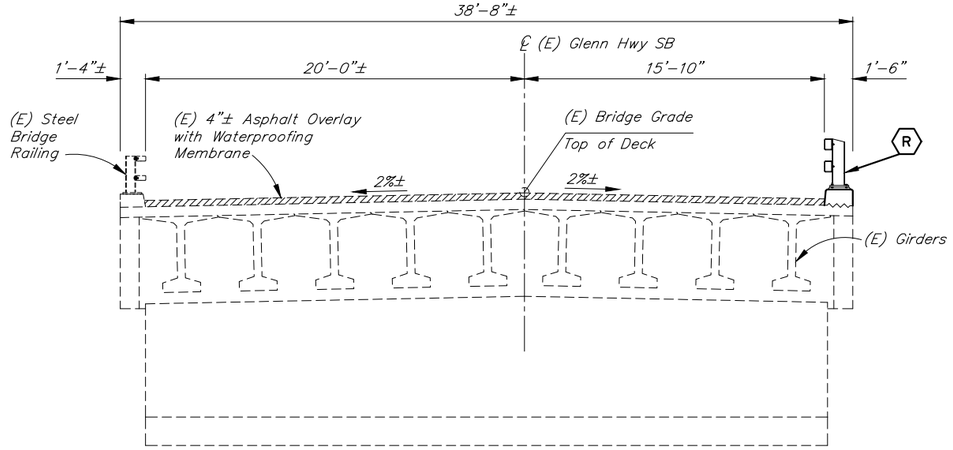
BRIDGE NO. 1864

DWG. NO. 4

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Hwy–1864 RAIL Fri, Jul/12/24 02:16pm

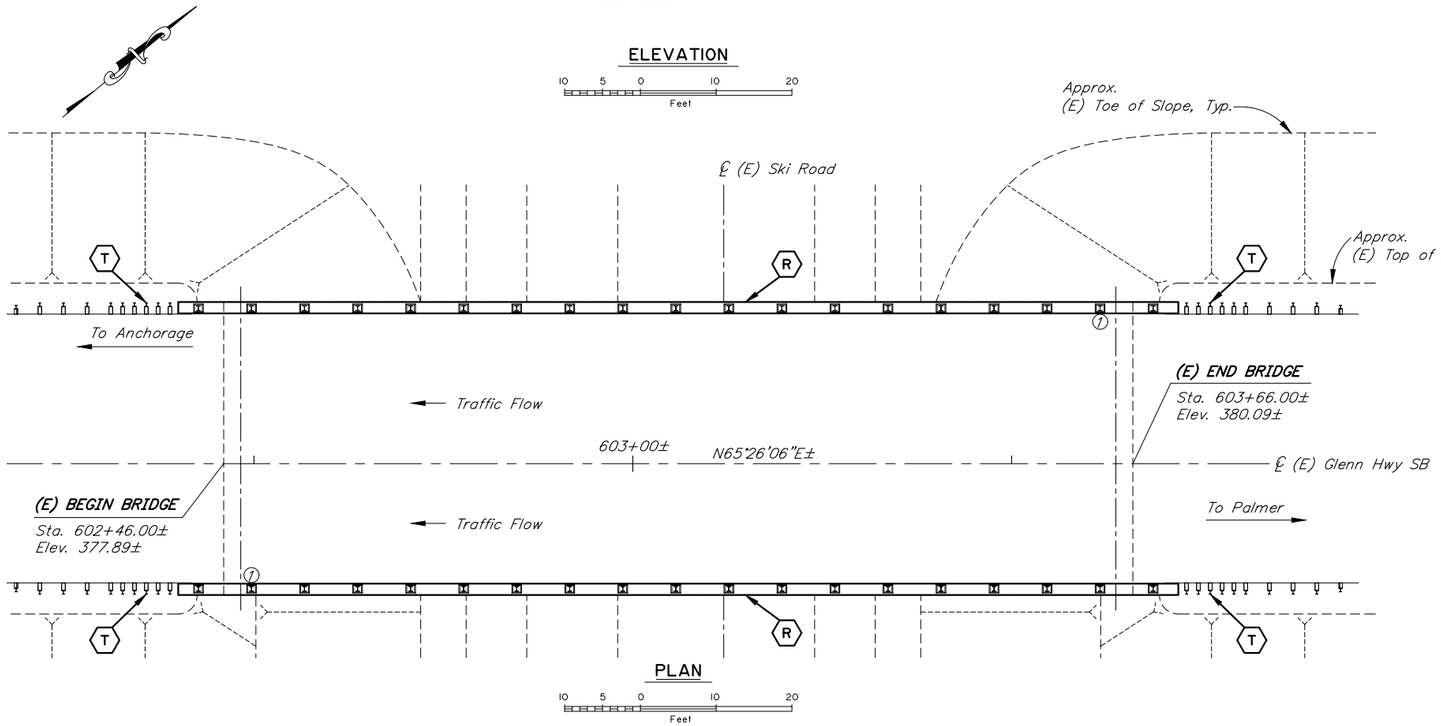
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N34	TtlShts





TYPICAL SECTION

12 0 4 8
In. Feet



PRELIMINARY PLAN

LEGEND	
R	– Replace Steel Bridge Railing
T	– Replace Transition Railing

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
WINGWALL DETAILS	2
BRIDGE RAILING	3
BRIDGE RAILING DETAILS	4

NOTES:

(E) = Existing
– – – – – = Existing
——— = Proposed
① = Approximate location of Bridge Number Plate.

Bridge stations and elevations are based on 1980 as-built drawings.

Verify controlling field dimensions before ordering or fabricating any material

DESIGNED BY:	Andrew Wells	CHECKED:	Checker
DRAWN BY:	Javier De Leon	CHECKED:	Andrew Wells
QUANTITIES BY:	Andrew Wells	CHECKED:	Checker

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

PETERS CREEK UNDERCROSSING SB
PRELIMINARY GLENN HIGHWAY
GENERAL LAYOUT

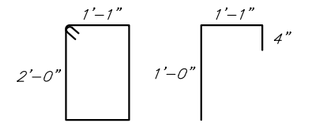
BRIDGE NO. 1867
DWG. NO. 1

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1867 GEN Fri, Jul/12/24 02:16pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N35	TtlShts

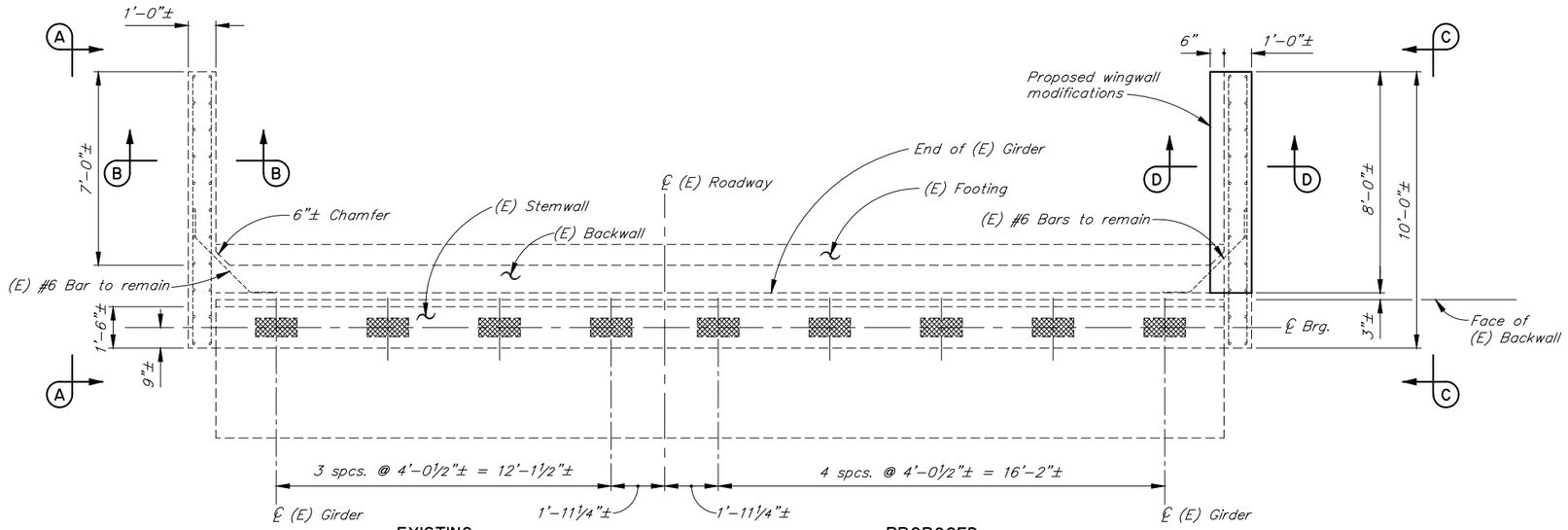
REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W501	E	5	6	7'-8"	---	
W502		5	28	3'-0"	---	
W901	E	9	4	7'-8"	---	
C401	E	4	14	6'-11"	STIRRUP	
C402	E	4	95	2'-5"	BENT	
C501	E	5	2	133'-8"	---	



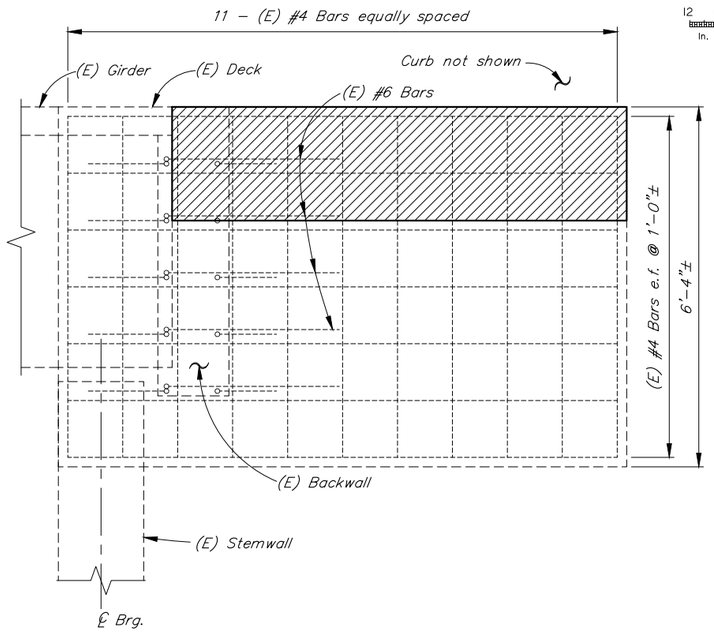
C401 C402

E = Epoxy-Coated



EXISTING PROPOSED

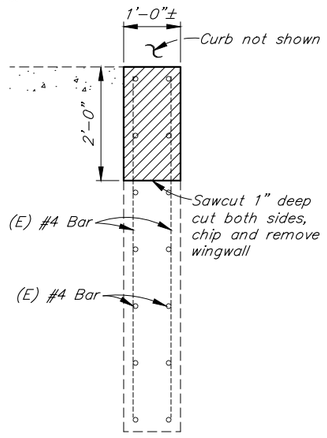
PLAN



EXISITNG VIEW A-A & C-C

(C-C Shown, A-A Similar)

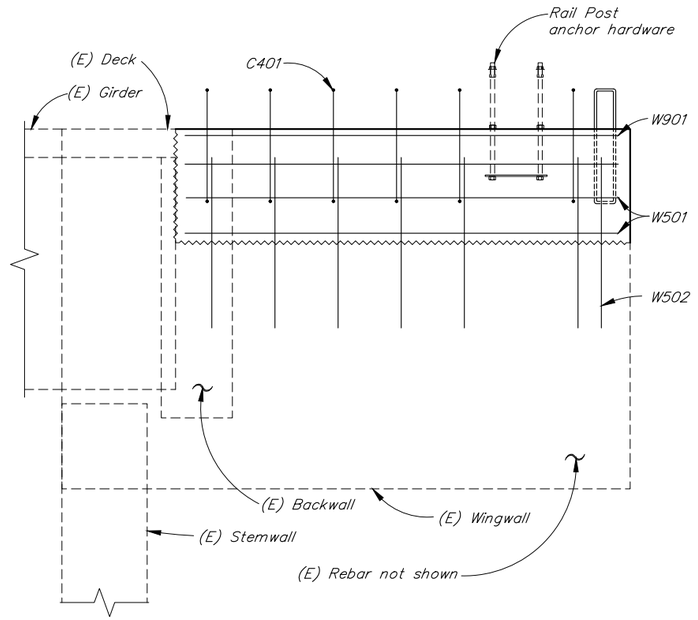
12 6 0 1 2 3
In. Feet



EXISTING SECTION B-B & D-D

(D-D Shown, B-B Similar)

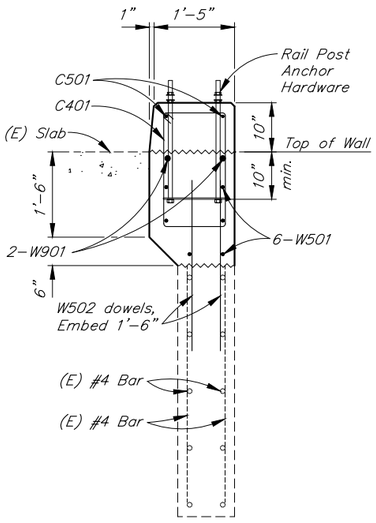
12 6 0 1 2 3
In. Feet



PROPOSED VIEW A-A & C-C

(C-C Shown, A-A Similar)

12 6 0 1 2 3
In. Feet



PROPOSED SECTION B-B & D-D

(D-D Shown, B-B Similar)

12 6 0 1 2 3
In. Feet

NOTES:

- ▨ = Concrete to be removed
- (E) = Existing
- ------ = Existing
- ——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

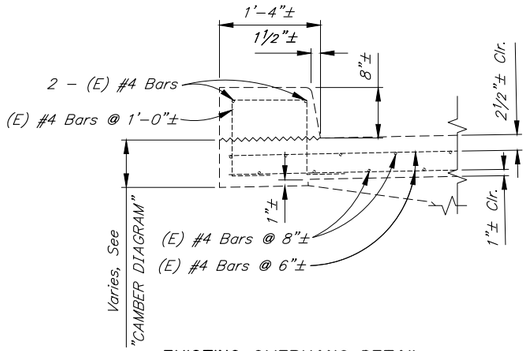
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

PETERS CREEK UNDERCROSSING SB
PRELIMINARY GLENN HIGHWAY
WINGWALL DETAILS

BRIDGE NO. 1867
DWG. NO. 2

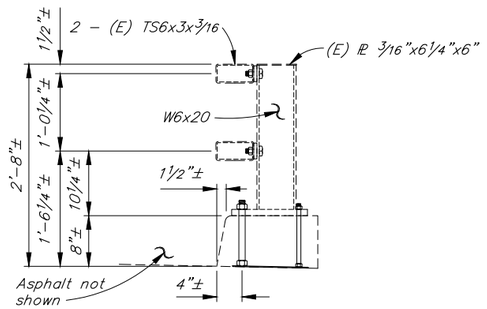
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1867 WINGWALL Fri, Jul/12/24 02:16pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N36	TtlShts



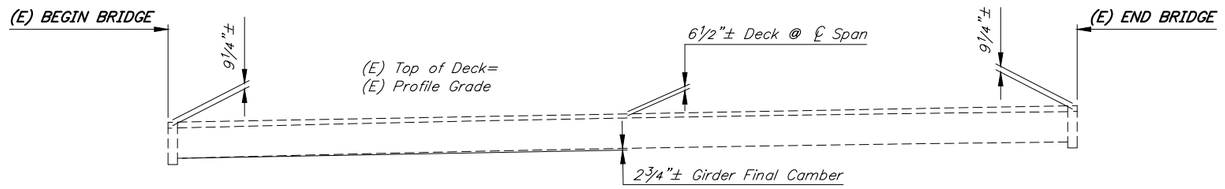
EXISTING OVERHANG DETAIL

6 3 0 1 In. Feet



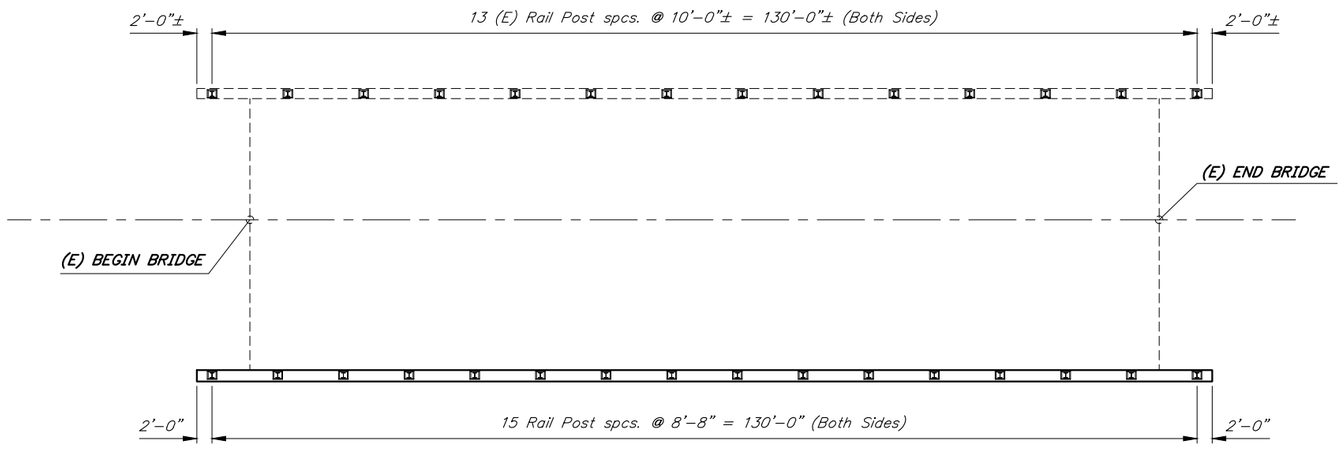
EXISTING RAIL SECTION

12 6 0 1 2 In. Feet



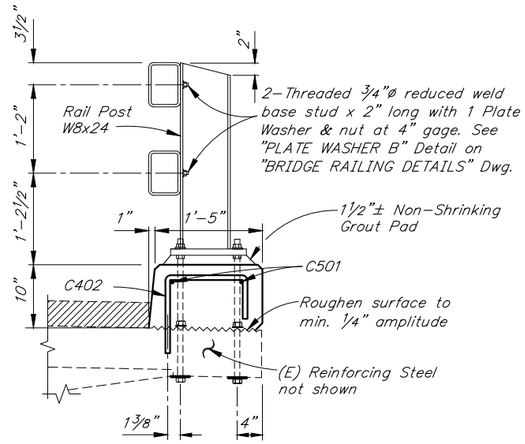
CAMBER DIAGRAM

10 5 0 10 20 Feet



DECK PLAN

10 5 0 10 20 Feet



PROPOSED RAIL SECTION

12 6 0 1 2 In. Feet

NOTES:

(E) = Existing

- - - - - = Existing

——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

PETERS CREEK UNDERCROSSING SB

PRELIMINARY GLENN HIGHWAY

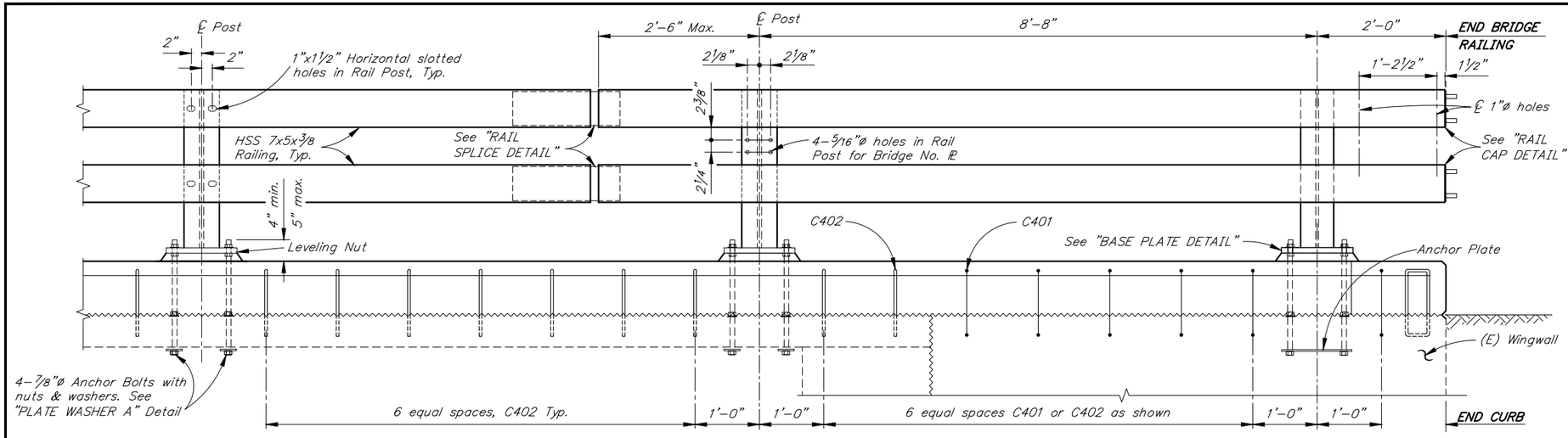
BRIDGE RAILING

BRIDGE NO. 1867

DWG. NO. 3

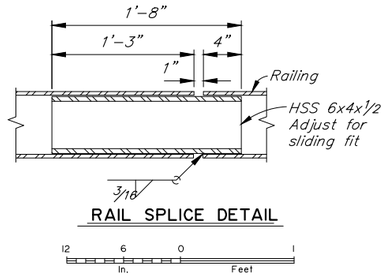
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1867 (E) RAIL Fri, Jul/12/24 02:16pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N37	TtlShts

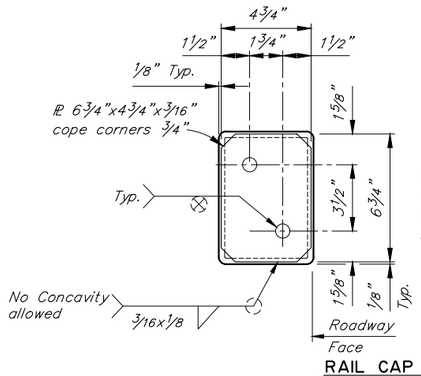


TYPICAL POST ELEVATION

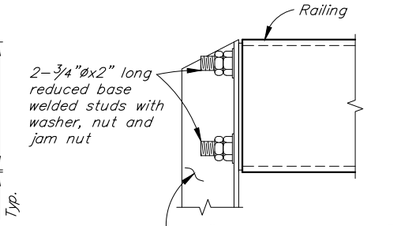
EXPANSION JOINT

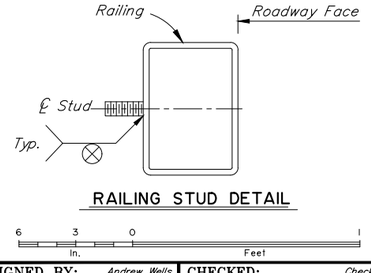


RAIL SPLICE DETAIL

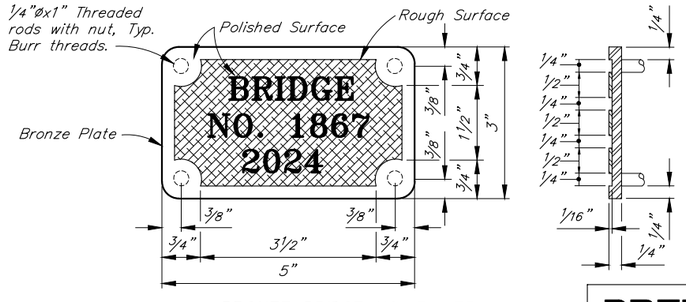


RAIL CAP DETAIL





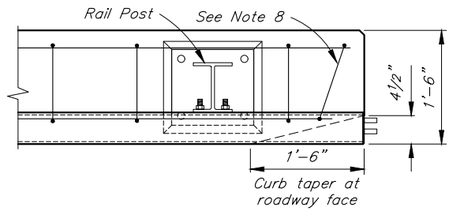
RAILING STUD DETAIL



BRONZE BRIDGE NO. PLATE

PRELIMINARY PLAN

ELEVATION



PLAN

END POST DETAIL

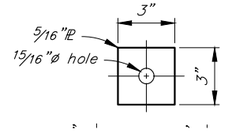
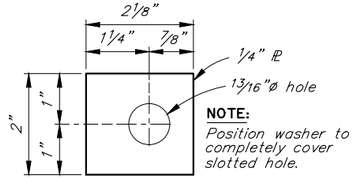


PLATE WASHER A

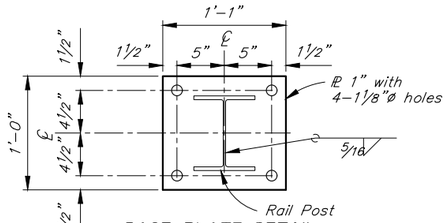
No Scale



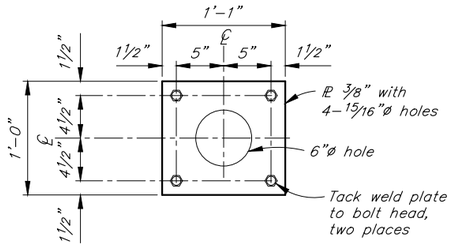
NOTE: Position washer to completely cover slotted hole.

PLATE WASHER B

No Scale



BASE PLATE DETAIL



ANCHOR PLATE DETAIL

NOTES:

1. Remove existing bridge number plates. Install bridge number plates onto new steel bridge railing posts. Use studs and nuts that conform to UNS C65100 or UNS C65500. Braze ¼"ø threaded rod to back of plate with nut – 4 required. Use tamper proof nuts.
2. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
4. See "RAILING LAYOUT AND TYPICAL SECTION" Dwg. for rail post spacing.
5. Install bridge rail posts plumb.
6. Core and bond anchor bolts through the existing deck and existing rail hardware. Drill and bond C402 4" into the existing deck. Adjust C402 spacing to avoid existing reinforcing and existing rail hardware.
7. Adjust reinforcing to accommodate curb taper.
8. Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
9. Use grout with a minimum 24-hour f'c of 3,000 psi in single placement.
10. See Standard Plan G-32.03 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells	**REHABILITATION**	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

PETERS CREEK UNDERCROSSING NB

PRELIMINARY GLENN HIGHWAY

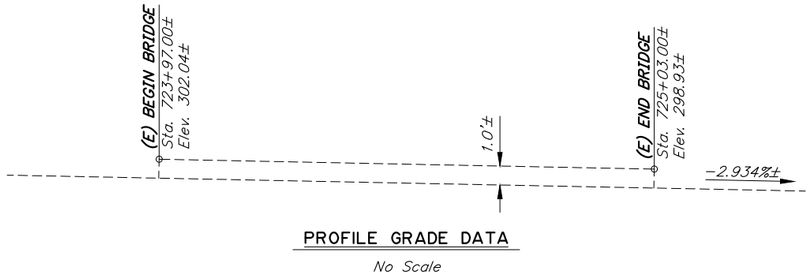
BRIDGE RAILING DETAILS

BRIDGE NO. 1867

DWG. NO. 4

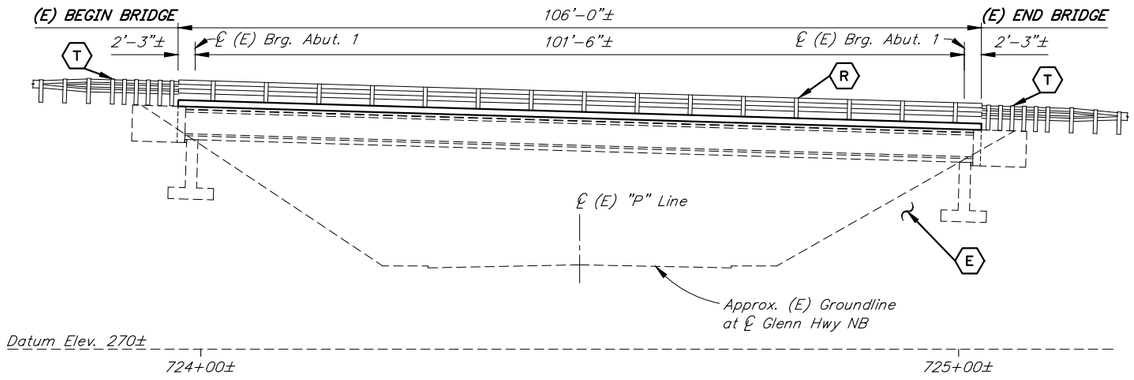
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1867 RAIL Fri, Jul/12/24 02:16pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N38	TtlShts

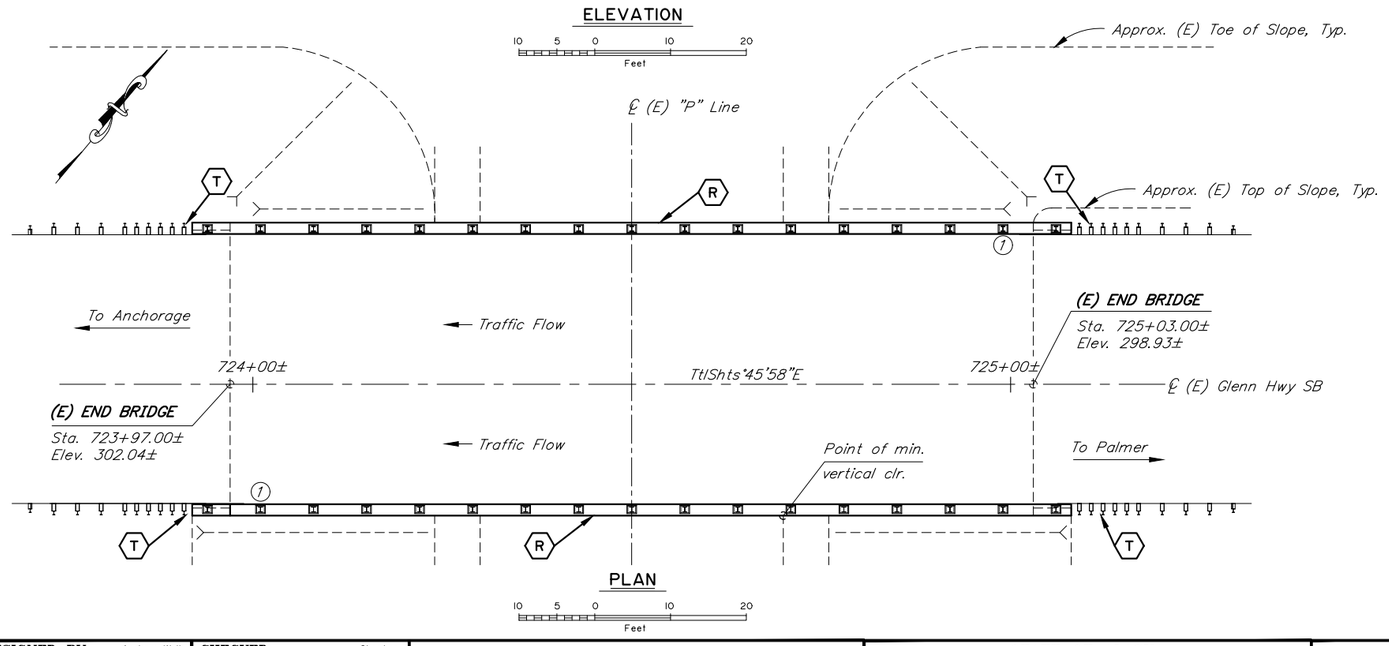


PROFILE GRADE DATA

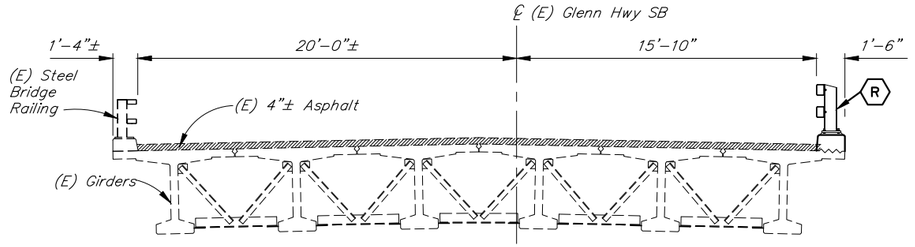
No Scale



ELEVATION



PLAN



EXISTING PROPOSED

TYPICAL SECTION

12 0 4 8
In. Feet

PRELIMINARY PLAN

LEGEND	
E	– Fill Errosion Gullies
R	– Replace Steel Bridge Railing
T	– Replace Transition Railing

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
SLOPE REPAIR	2
WINGWALL DETAILS	3
BRIDGE RAILING	4
BRIDGE RAILING DETAILS	5

NOTES:

(E) = Existing
– – – – – = Existing
——— = Proposed
(1) = Approximate location of Bridge Number Plate.
2. Bridge stations and elevations are based on 1976 as-built drawings.
3. Verify controlling field dimensions before ordering or fabricating any material

DESIGNED BY:	Andrew Wells	CHECKED:	Checker
DRAWN BY:	Javier De Leon	CHECKED:	Andrew Wells
QUANTITIES BY:	Andrew Wells	CHECKED:	Checker

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

PRELIMINARY

EDMONDS LAKE UNDERCROSSING SB

GLENN HIGHWAY

GENERAL LAYOUT

BRIDGE NO. 1868

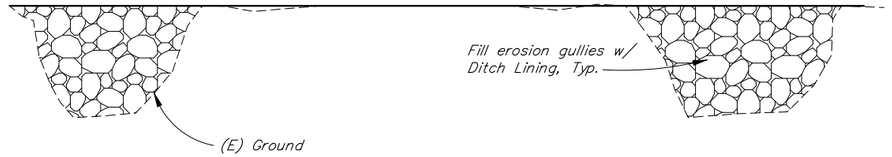
DWG. NO. 1

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1868 GEN Fri, Jul/12/24 02:16pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N39	TtlShts

EXISTING GROUND AT ABUTMENT 2

No Scale



TYPICAL SECTION

No Scale

NOTES:

(E) = Existing

----- = Existing

——— = Proposed

1. *Verify controlling field dimensions before ordering or fabricating any material.*

PRELIMINARY PLAN

DESIGNED BY: *Andrew Wells*	CHECKED: *Checker*	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: *Javier De Leon*	CHECKED: *Andrew Wells*		
QUANTITIES BY: *Andrew Wells*	CHECKED: *Checker*		

PRELIMINARY

EDMUNDS LAKE UNDERCROSSING SB

GLENN HIGHWAY

SLOPE REPAIR

BRIDGE NO. 1868

DWG. NO. 2

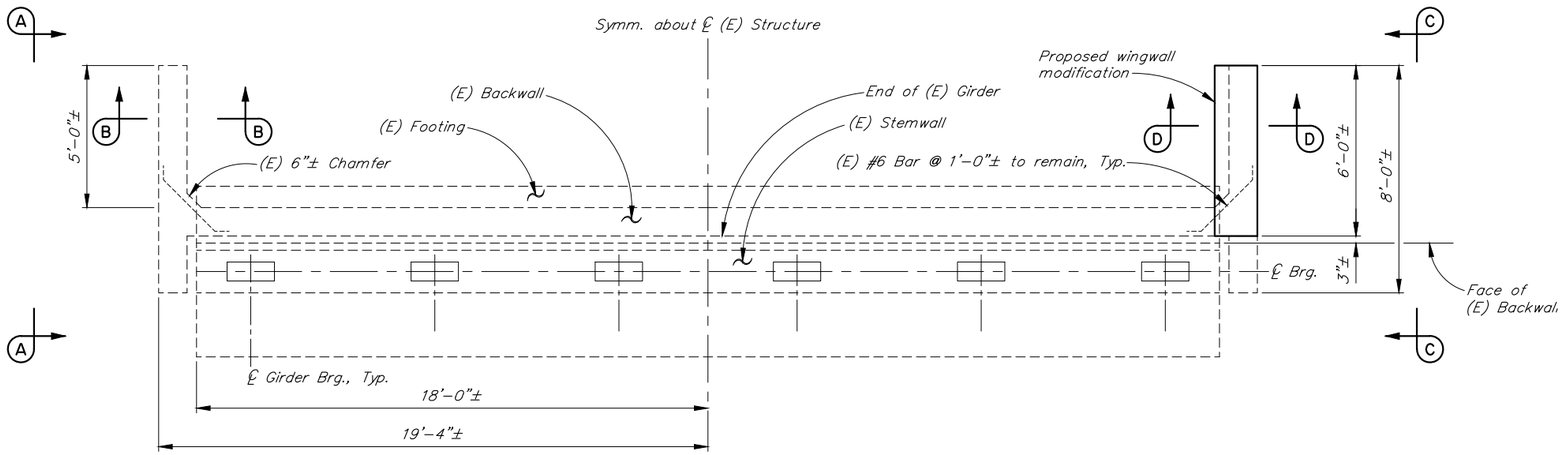
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1868 SLOPE Fri, Jul/12/24 02:16pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N40	TtlShts

REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W501	E	5	12	5'-8"	---	
W502		5	20	3'-0"	---	
W901	E	9	4	5'-8"	---	
C401	E	4	10	6'-11"	STIRRUP	
C402	E	4	104	1'-5"	BENT	
C501	E	5	2	13'-8"	---	

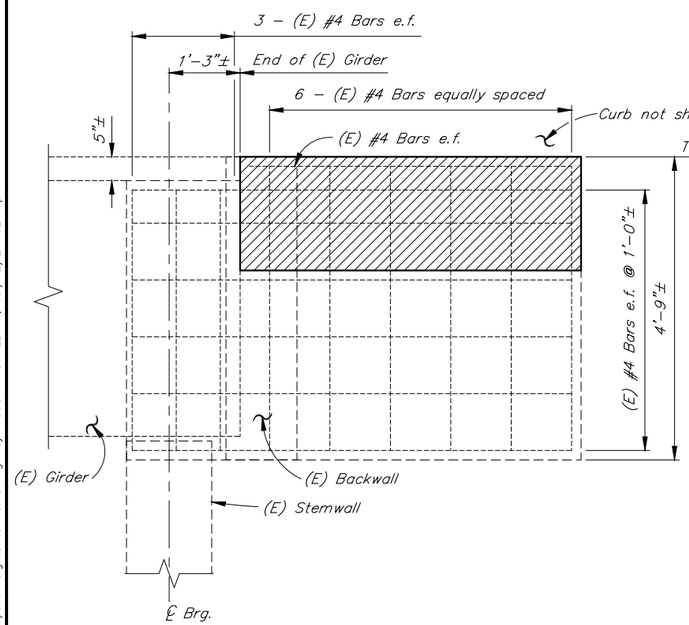
E = Epoxy-Coated



EXISTING PROPOSED

PLAN

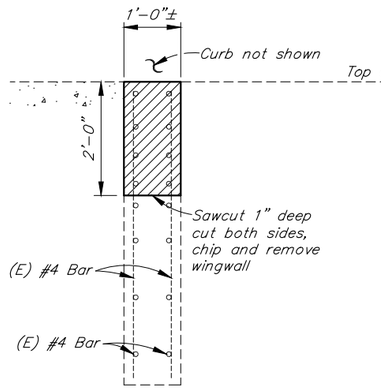
12 0 1 2 3 4
In. Feet



EXISITNG VIEW A-A & C-C

(C-C Shown, A-A Similar)

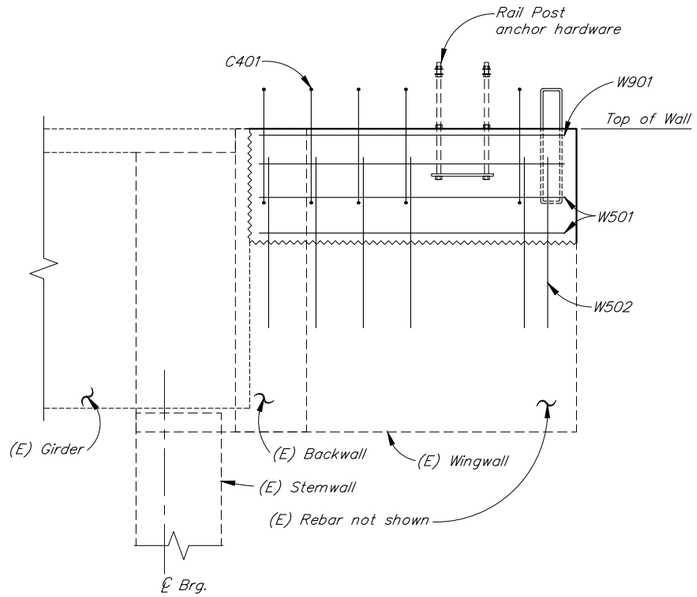
12 6 0 1 2 3
In. Feet



EXISTING SECTION B-B & D-D

(D-D Shown, B-B Similar)

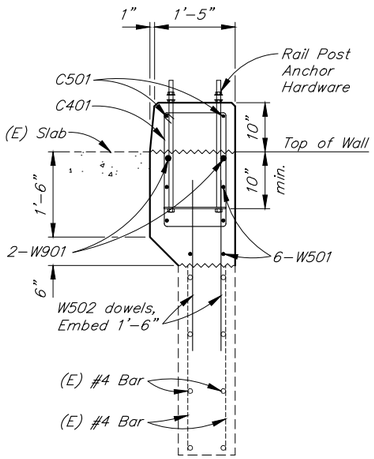
12 6 0 1 2 3
In. Feet



PROPOSED VIEW A-A & C-C

(C-C Shown, A-A Similar)

12 6 0 1 2 3
In. Feet



PROPOSED SECTION B-B & D-D

(D-D Shown, B-B Similar)

12 6 0 1 2 3
In. Feet

NOTES:

- = Concrete to be removed
- (E) = Existing
- ------ = Existing
- ——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

EDMUNDS LAKE UNDERCROSSING SB

PRELIMINARY GLENN HIGHWAY

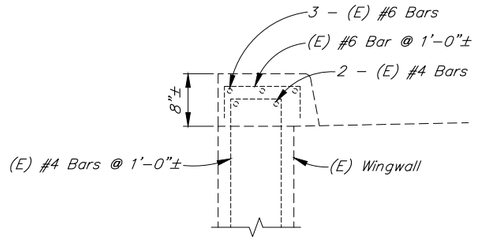
WINGWALL DETAILS

BRIDGE NO. 1868

DWG. NO. 2

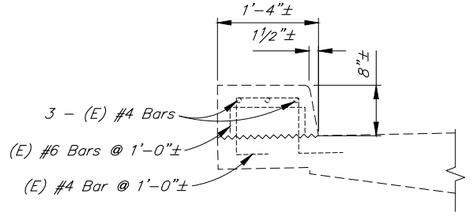
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1868 WINGWALL Fri, Jul/12/24 02:16pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N41	TtlShts



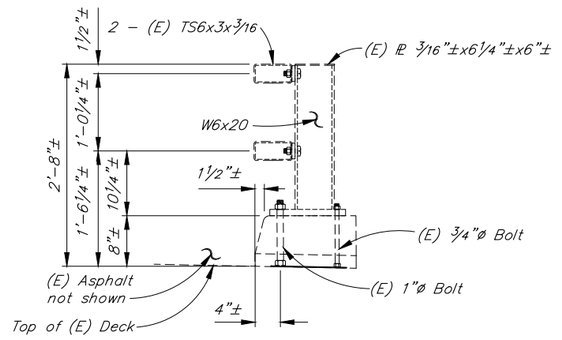
EXISTING CURB AT WINGWALL

12 6 0 1 2
In. Feet



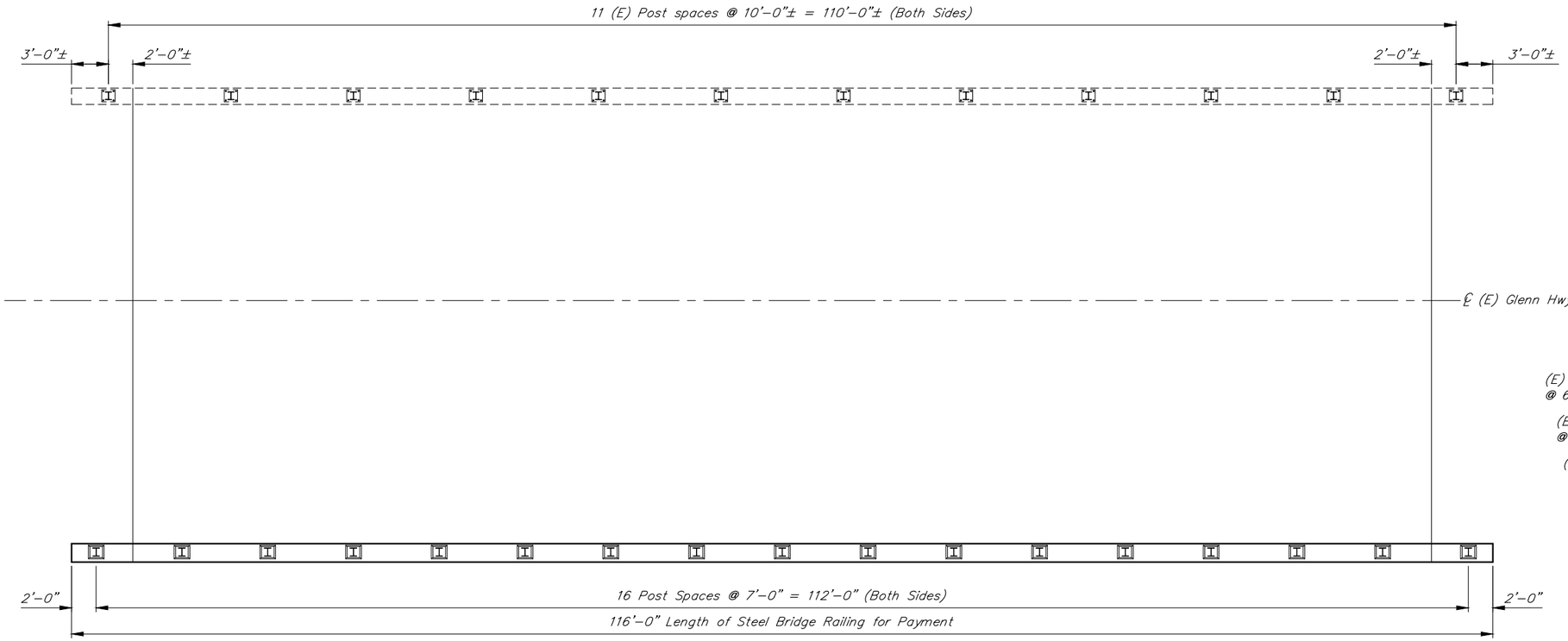
EXISTING OVERHANG DETAIL

12 6 0 1 2
In. Feet



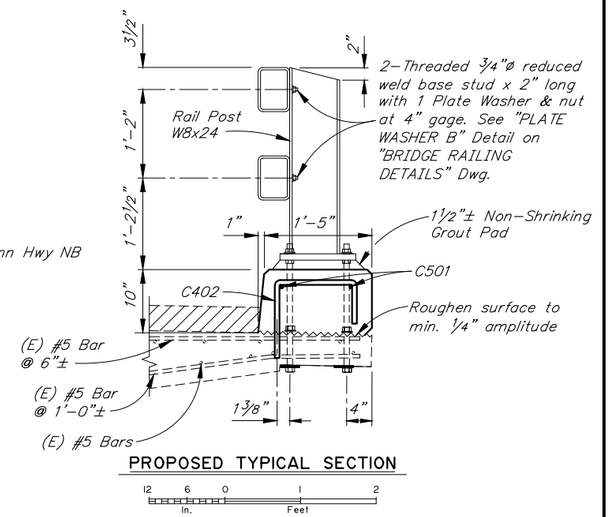
EXISTING TYPICAL SECTION

12 6 0 1 2
In. Feet



DECK PLAN

10 5 0 10 20
Feet



PROPOSED TYPICAL SECTION

12 6 0 1 2
In. Feet

NOTES:

(E) = Existing
– – – – – = Existing
——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

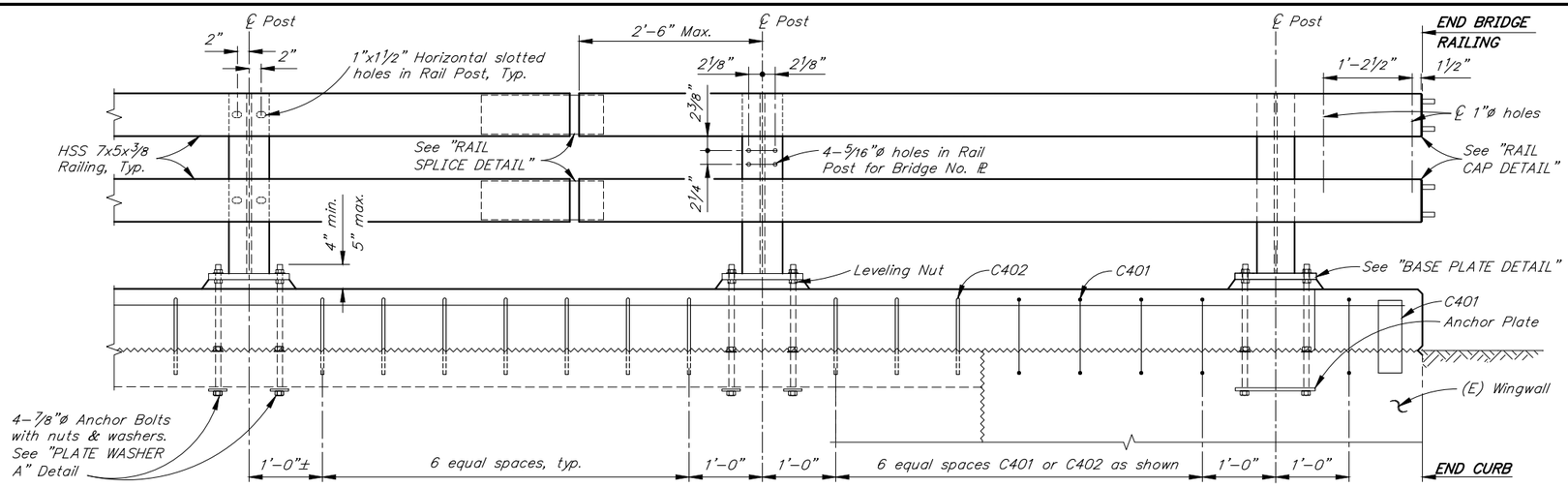
DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

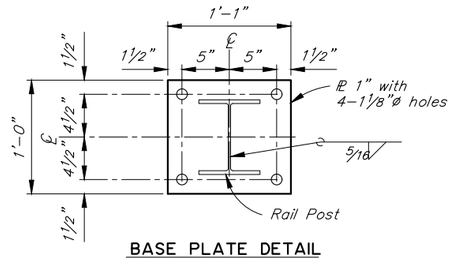
EDMUNDS LAKE UNDERCROSSING SB
PRELIMINARY GLENN HIGHWAY
BRIDGE RAILING

BRIDGE NO. 1868
DWG. NO. 4

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1868 (E) RAIL Fri, Jul/12/24 02:16pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N42	TtlShts



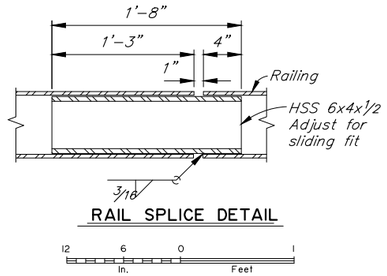


BASE PLATE DETAIL

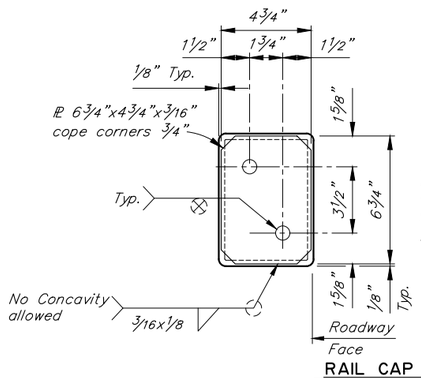
ANCHOR PLATE DETAIL

TYPICAL POST ELEVATION

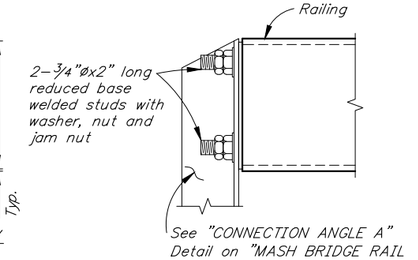
EXPANSION JOINT

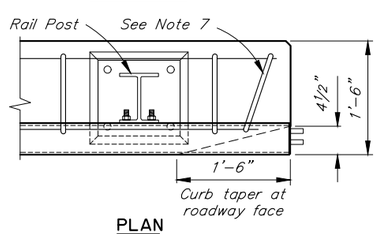


RAIL SPLICE DETAIL



RAIL CAP DETAIL





END POST DETAIL

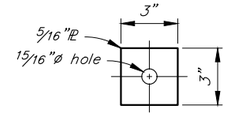


PLATE WASHER A

No Scale

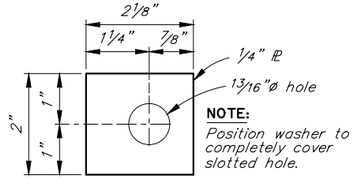
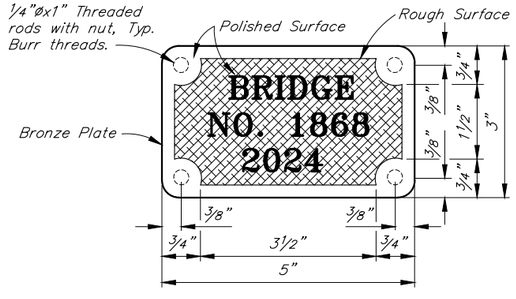


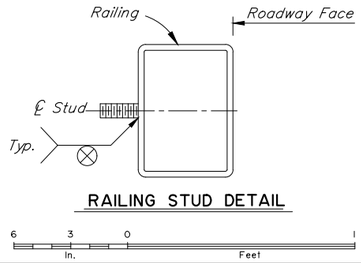
PLATE WASHER B

No Scale



BRONZE BRIDGE NO. PLATE

No Scale



RAILING STUD DETAIL

NOTES:

1. Remove existing bridge number plates. Install bridge number plates onto new steel bridge railing posts. Use studs and nuts that conform to UNS C65100 or UNS C65500. Braze ¼"ø threaded rod to back of plate with nut – 4 required. Use tamper proof nuts.
2. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
4. See "RAILING LAYOUT AND TYPICAL SECTION" Dwg. for rail post spacing.
5. Install bridge rail posts plumb.
6. Core and bond anchor bolts through the existing deck and existing rail hardware. Drill and bond C402 4" into the existing deck. Adjust C402 spacing to avoid existing reinforcing and existing rail hardware.
7. Adjust reinforcing to accommodate curb taper.
8. Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
9. Use grout with a minimum 24-hour f'c of 3,000 psi in single placement.
10. See Standard Plan G-32.03 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells	**REHABILITATION**	
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

EDMUNDS LAKE UNDERCROSSING SB

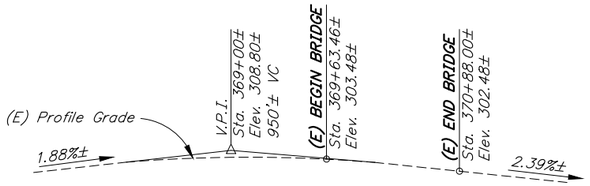
PRELIMINARY GLENN HIGHWAY

BRIDGE RAILING DETAILS

BRIDGE NO. 1868

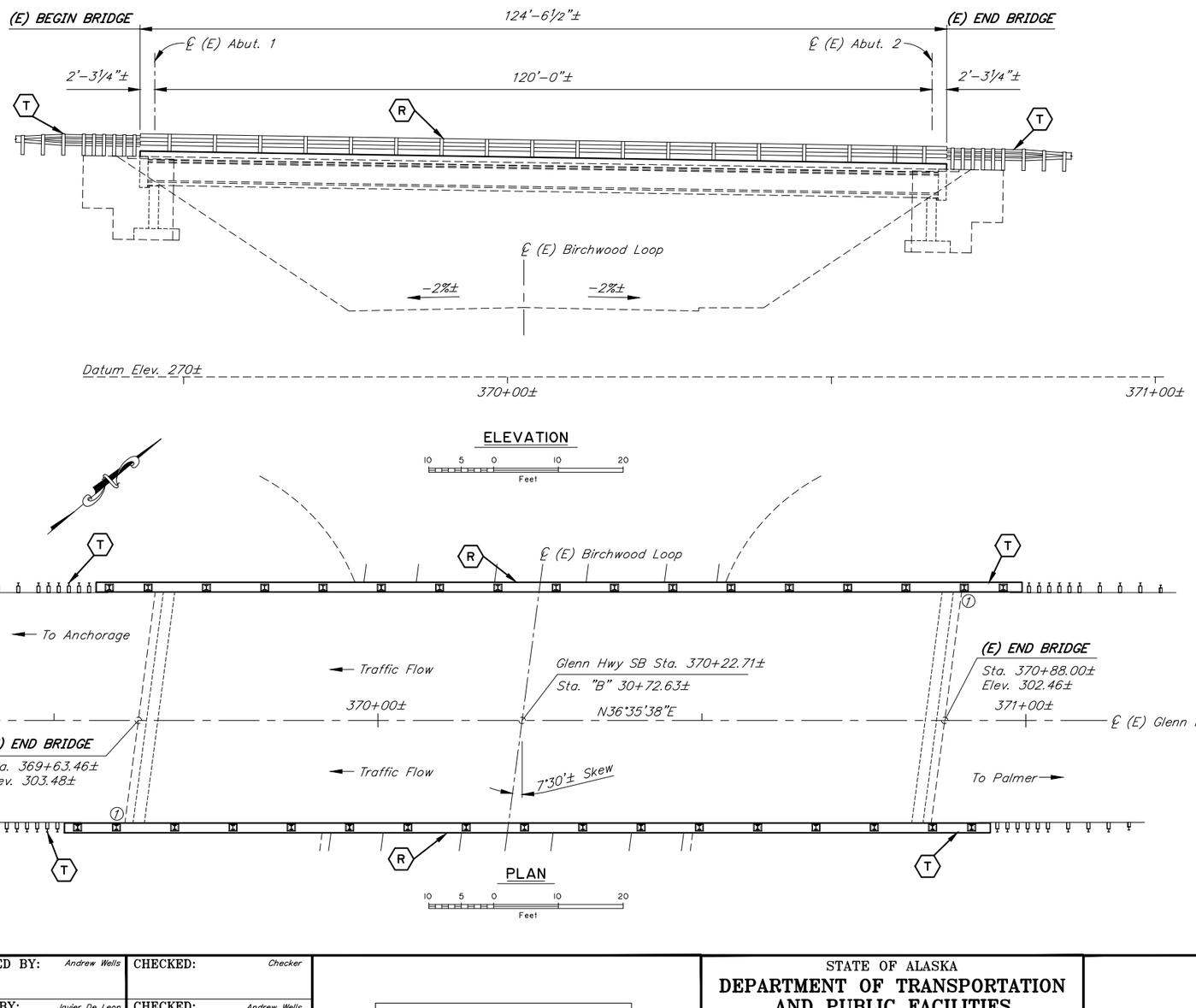
DWG. NO. 5

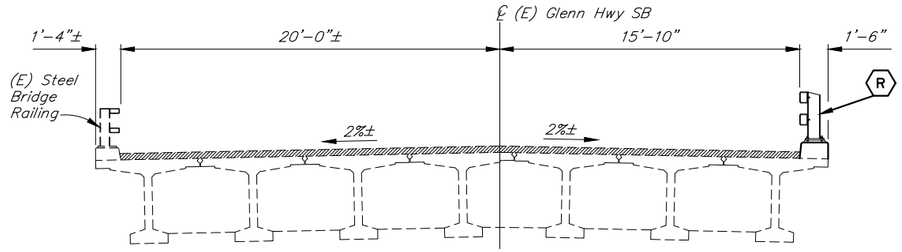
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N43	TtlShts



PROFILE GRADE DATA

No Scale





EXISTING PROPOSED

TYPICAL SECTION

12 0 4 8
In. Feet

PRELIMINARY PLAN

LEGEND

(R) – Replace Steel Bridge Railing

(T) – Replace Transition Railing

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
WINGWALL DETAILS	2
BRIDGE RAILING	3
BRIDGE RAILING DETAILS	4

NOTES:

(E) = Existing

- - - - - = Existing

——— = Proposed

(1) = Approximate location of Bridge Number Plate.

2. Bridge stations and elevations are based on 1979 as-built drawings.

3. Verify controlling field dimensions before ordering or fabricating any material

DESIGNED BY:	Andrew Wells	CHECKED:	Checker
DRAWN BY:	Javier De Leon	CHECKED:	Andrew Wells
QUANTITIES BY:	Andrew Wells	CHECKED:	Checker

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

SOUTH BIRCHWOOD UNDERCROSSING SB

PRELIMINARY GLENN HIGHWAY

GENERAL LAYOUT

BRIDGE NO. 1869

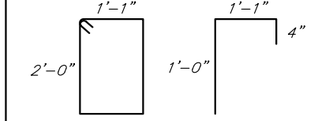
DWG. NO. 1

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1869 GEN Fri, Jul/12/24 02:17pm

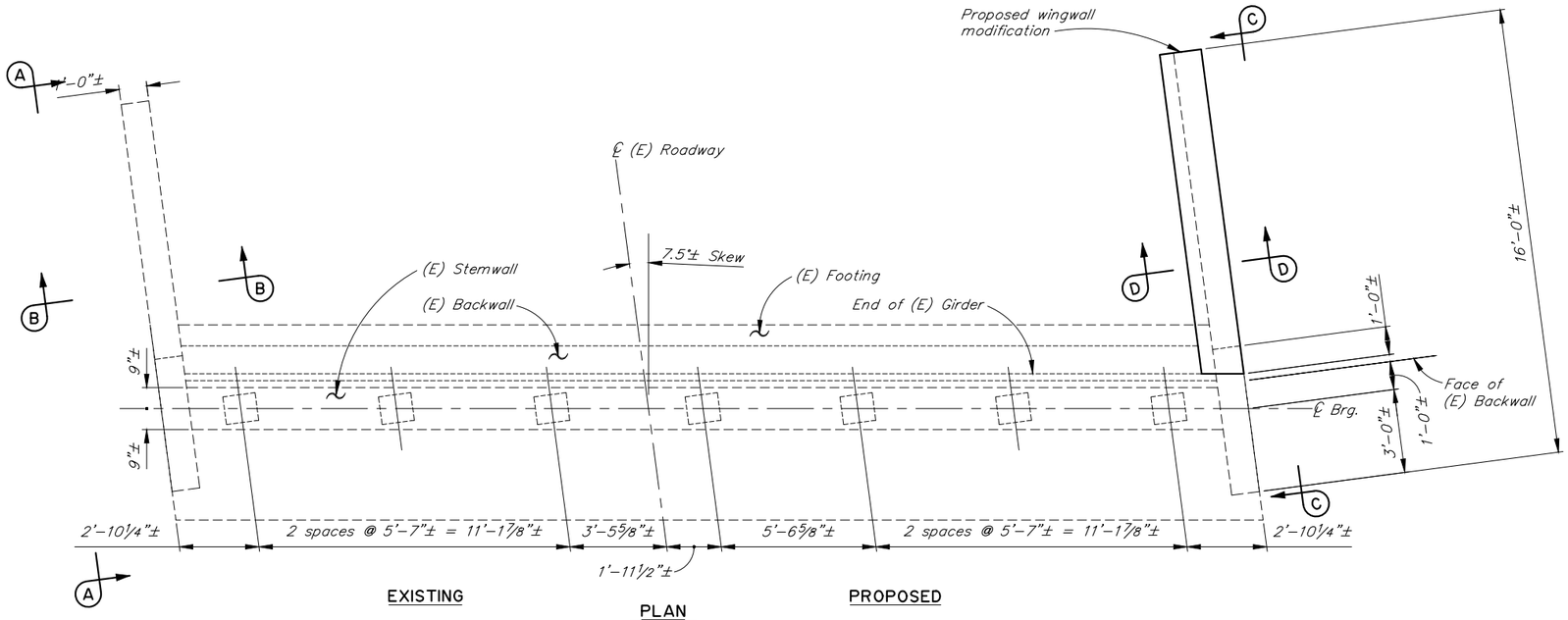
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N44	TtlShts

REINFORCING STEEL - ONE ABUTMENT

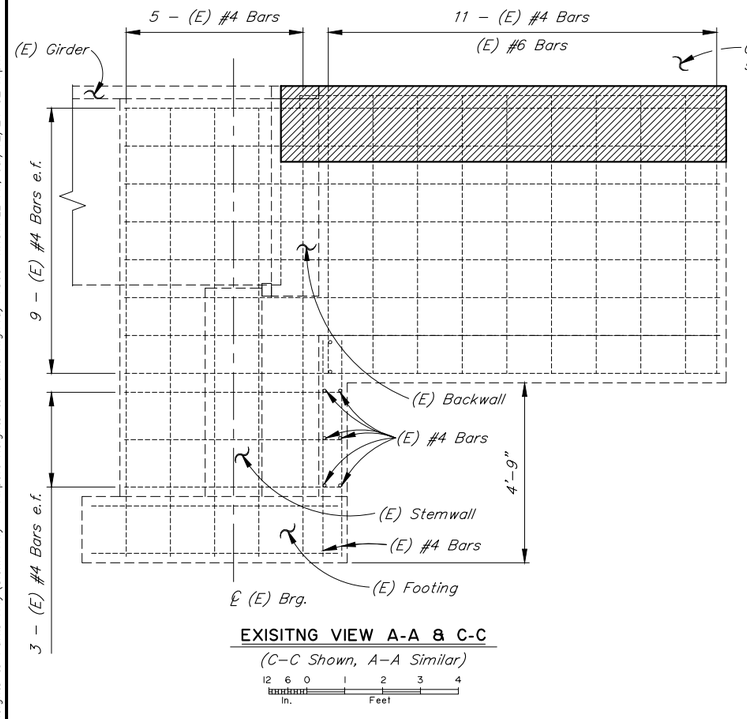
MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W501	E	5	12	11'-5"	---	
W502		5	40	3'-0"	---	
W901	E	9	4	11'-5"	---	
C401	E	4	24	6'-11"	STIRRUP	
C402	E	4	92	2'-5"	BENT	
C501	E	5	2	122'-2"	---	
C502	E	5	4	11'-5"	---	



E – Epoxy-Coated



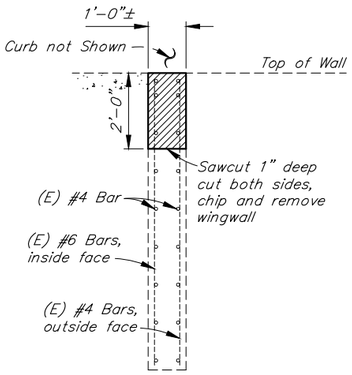
EXISTING PLAN PROPOSED



EXISITNG VIEW A-A & C-C

(C–C Shown, A–A Similar)

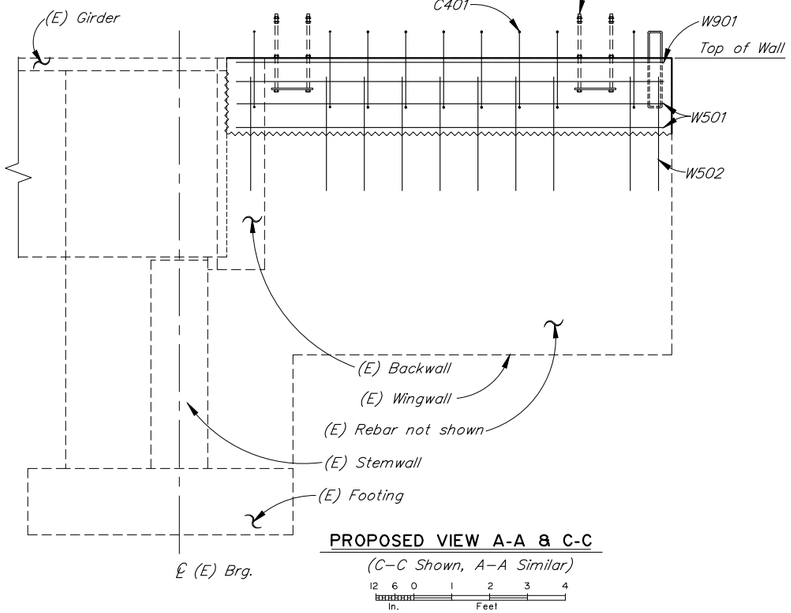
12 6 0 1 2 3 4 In. Feet



EXISTING SECTION B-B & D-D

(D–D Shown, B–B Similar)

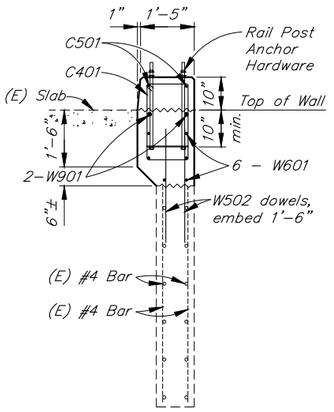
12 6 0 1 2 3 4 In. Feet



PROPOSED VIEW A-A & C-C

(C–C Shown, A–A Similar)

12 6 0 1 2 3 4 In. Feet



PROPOSED SECTION B-B & D-D

(D–D Shown, B–B Similar)

12 6 0 1 2 3 4 In. Feet

NOTES:

- ▨ = Concrete to be removed
- (E) = Existing
- – – – – = Existing
- ——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

SOUTH BIRCHWOOD UNDERCROSSING SB

PRELIMINARY GLENN HIGHWAY

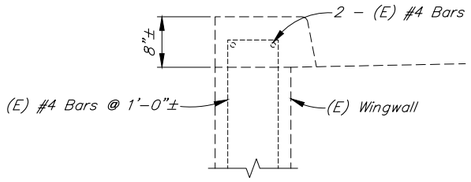
WINGWALL DETAILS

BRIDGE NO. 1869

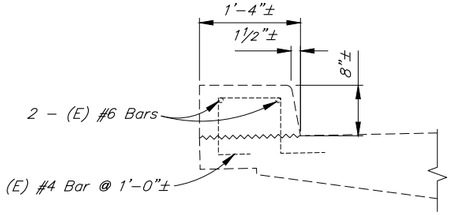
DWG. NO. 2

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1869 WINGWALL Fri, Jul/12/24 02:17pm

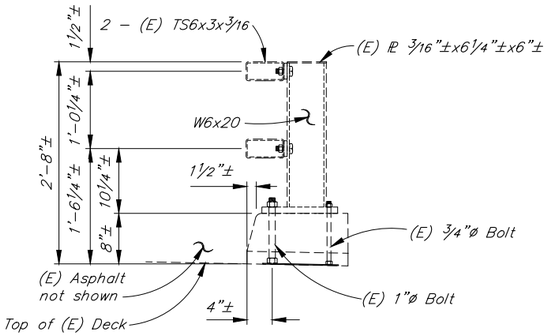
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N45	TtlShts



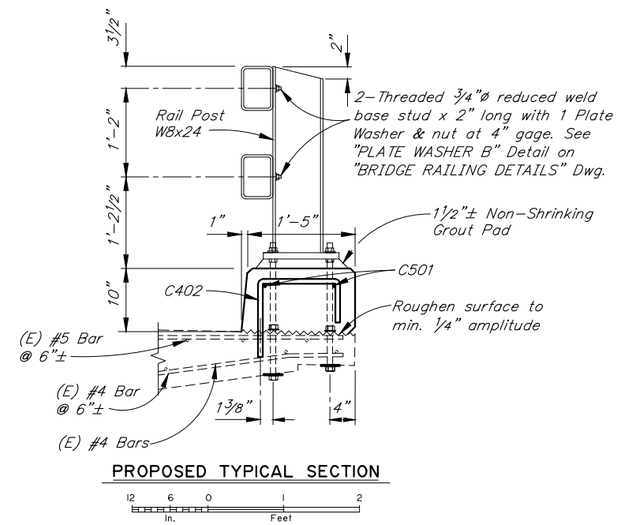
EXISTING CURB AT WINGWALL



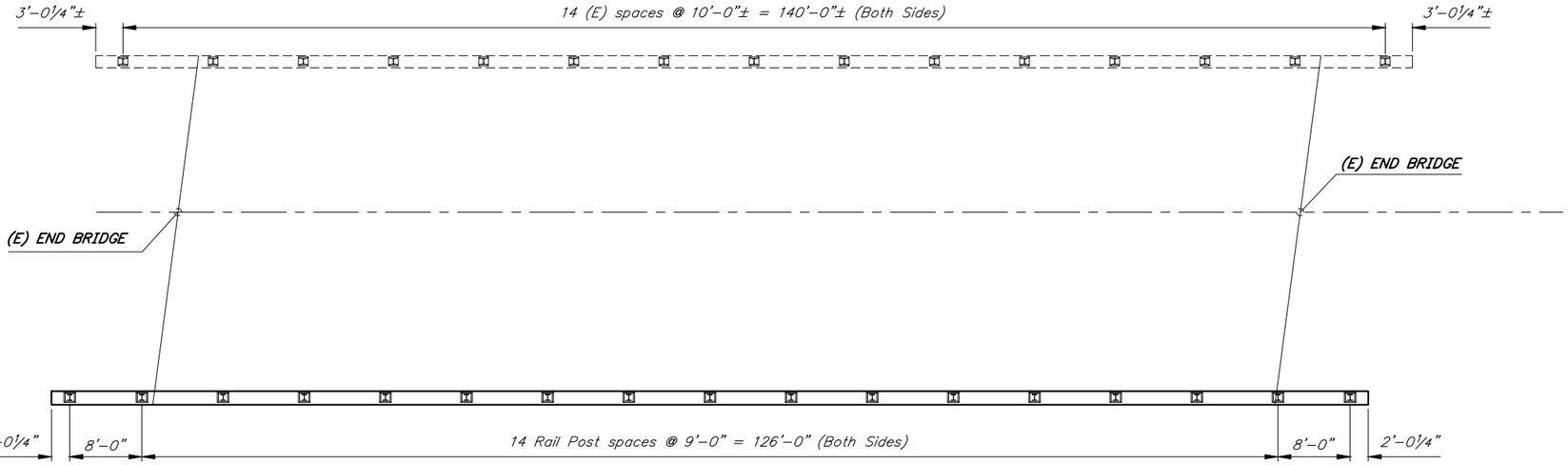
EXISTING OVERHANG DETAIL



EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION



DECK PLAN

NOTES:

(E) = Existing

– – – – – = Existing

——— = Proposed

1. Verify controlling field dimensions before ordering or fabricating any material.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

SOUTH BIRCHWOOD UNDERCROSSING SB

PRELIMINARY GLENN HIGHWAY

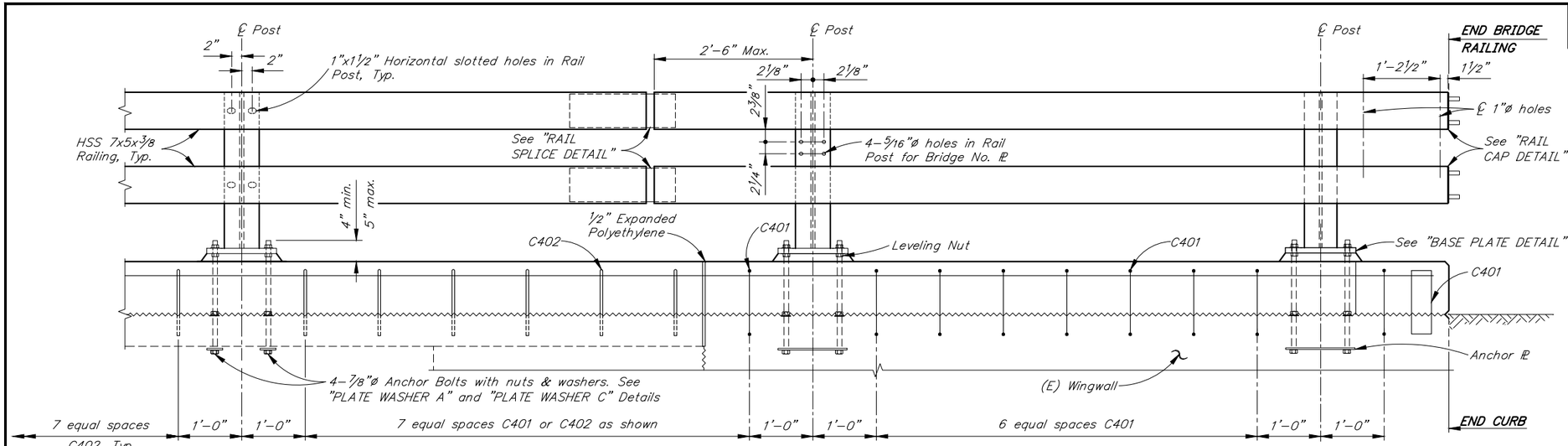
BRIDGE RAILING

BRIDGE NO. 1869

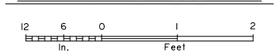
DWG. NO. 3

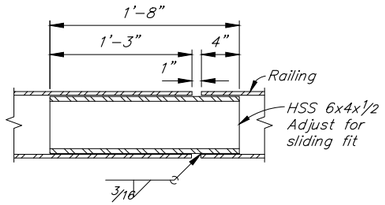
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–1869 (E) RAIL Fri, Jul/12/24 02:17pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N46	TtlShts



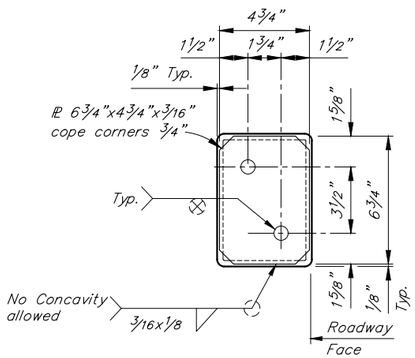
TYPICAL POST ELEVATION

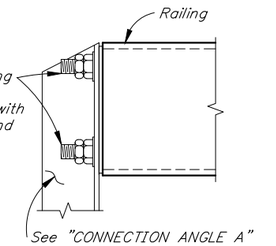




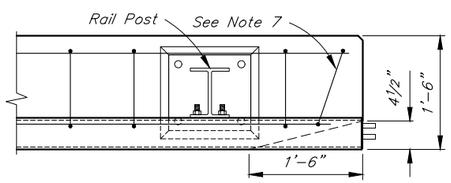
RAIL SPLICE DETAIL

EXPANSION JOINT





ELEVATION



PLAN

END POST DETAIL

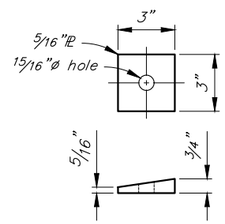
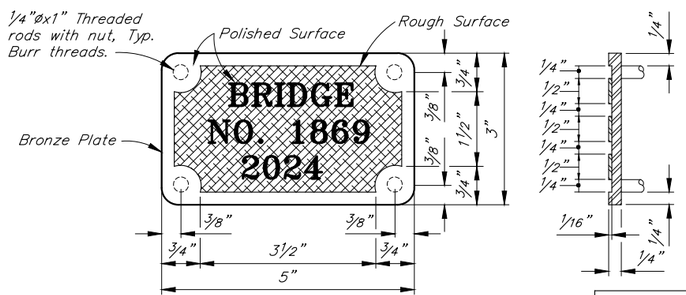


PLATE WASHER C

No Scale

RAIL CAP DETAIL



BRONZE BRIDGE NO. PLATE

No Scale

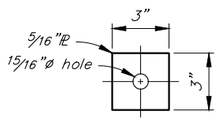


PLATE WASHER A

No Scale

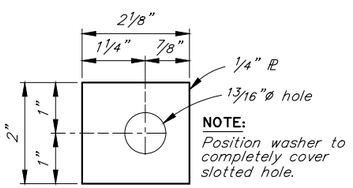
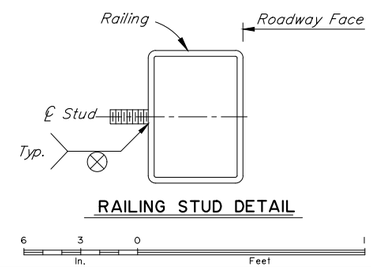


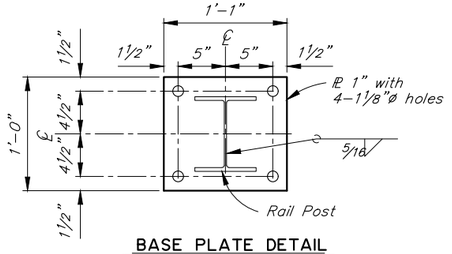
PLATE WASHER B

No Scale



RAILING STUD DETAIL

BASE PLATE DETAIL



ANCHOR PLATE DETAIL

NOTES:

1. Remove existing bridge number plates. Install bridge number plates onto new steel bridge railing posts. Use studs and nuts that conform to UNS C65100 or UNS C65500. Braze ¼"ø threaded rod to back of plate with nut – 4 required. Use tamper proof nuts.
2. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
4. See "RAILING LAYOUT AND TYPICAL SECTION" Dwg. for rail post spacing.
5. Install bridge rail posts plumb.
6. Core and bond anchor bolts through the existing deck and existing rail hardware. Drill and bond C402 4" into the existing deck. Adjust C402 spacing to avoid existing reinforcing and existing rail hardware.
7. Adjust reinforcing to accommodate curb taper.
8. Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
9. Use grout with a minimum 24-hour f'c of 3,000 psi in single placement.
10. See Standard Plan G-32.03 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.

PRELIMINARY PLAN

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

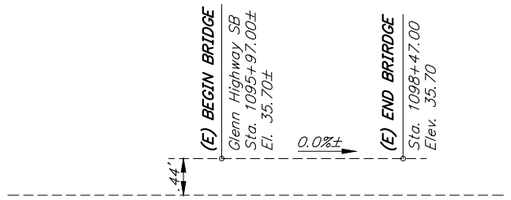
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

SOUTH BIRCHWOOD UNDERCROSSING SB
PRELIMINARY GLENN HIGHWAY
BRIDGE RAILING DETAILS

BRIDGE NO. 1869
DWG. NO. 1

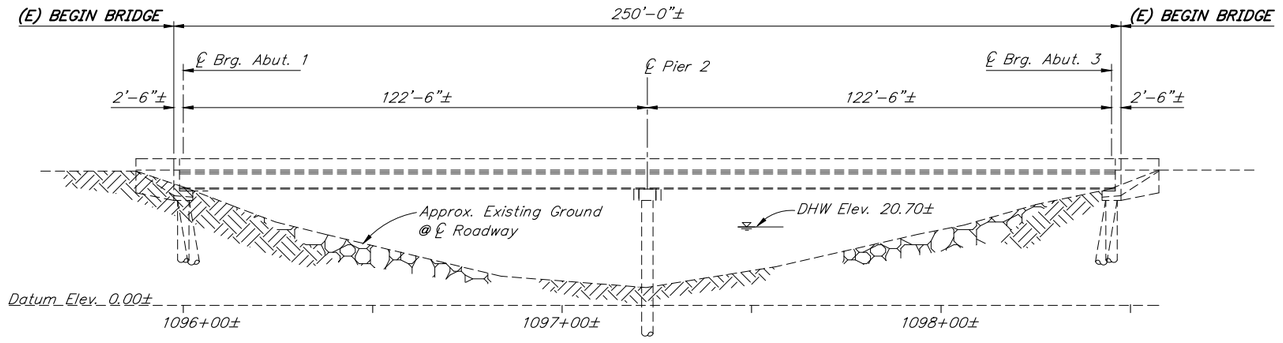
R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1869 RAIL Fri, Jul/12/24 02:17pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N47	TtlShts



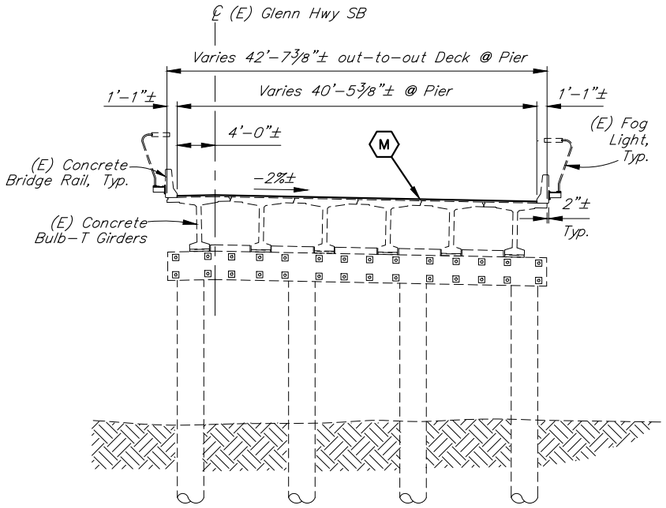
PROFILE GRADE DATA

No Scale



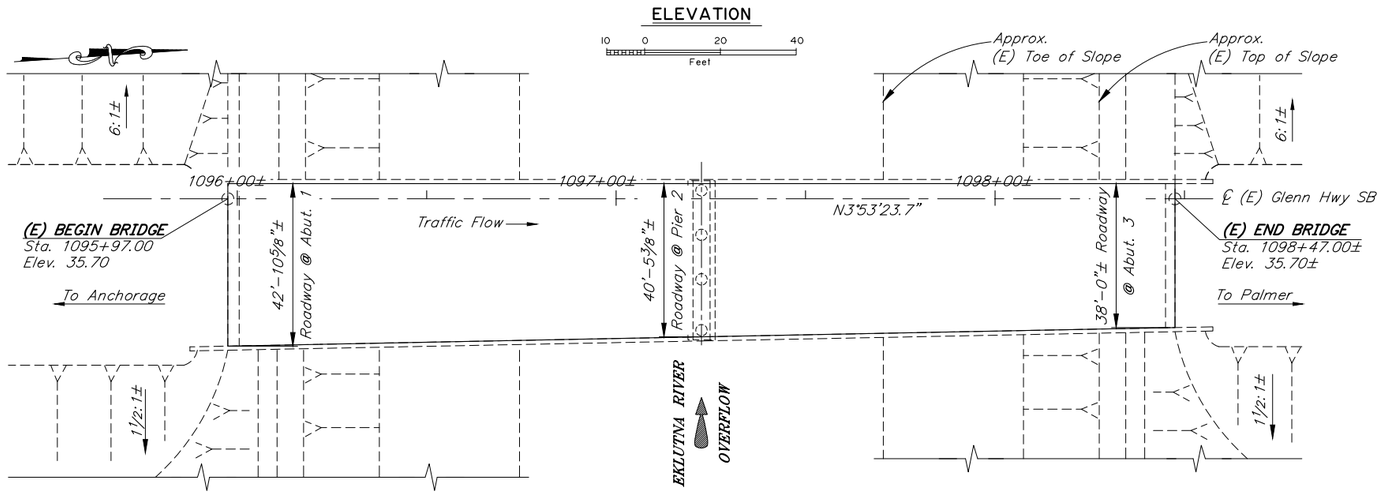
ELEVATION

10 0 20 40 Feet



TYPICAL SECTION

12 0 4 8 12 In. Feet



PLAN

10 0 20 40 Feet

PRELIMINARY PLAN

LEGEND

(M) – Replace Waterproofing Membrane

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1

NOTES:

(E) = Existing

----- = Existing

——— = Proposed

1. Bridge stations and elevations are based on 1992 as-built drawings.
2. Verify controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

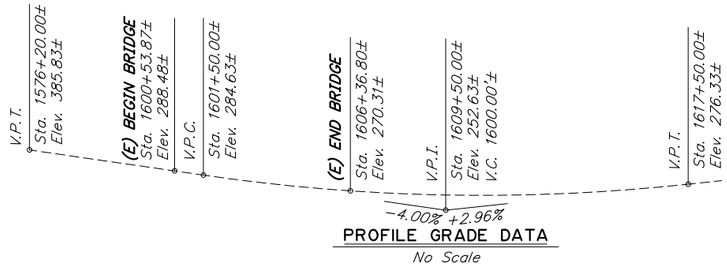
PRELIMINARY

KNIK RIVER OVERFLOW NB
GLENN HIGHWAY
GENERAL LAYOUT

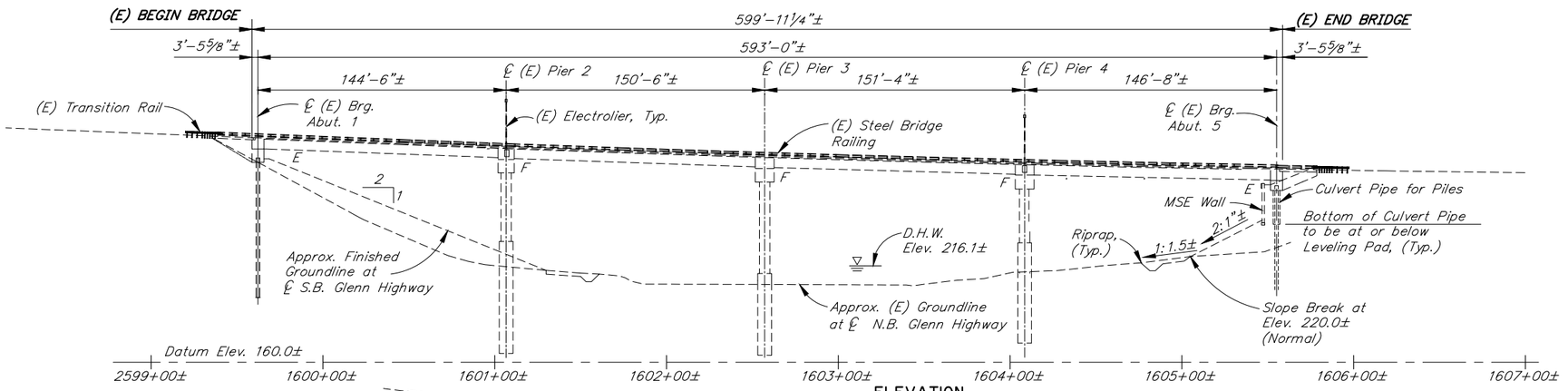
BRIDGE NO. 1888
DWG. NO. 1

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-1888 GEN Fri, Jul/12/24 02:17pm

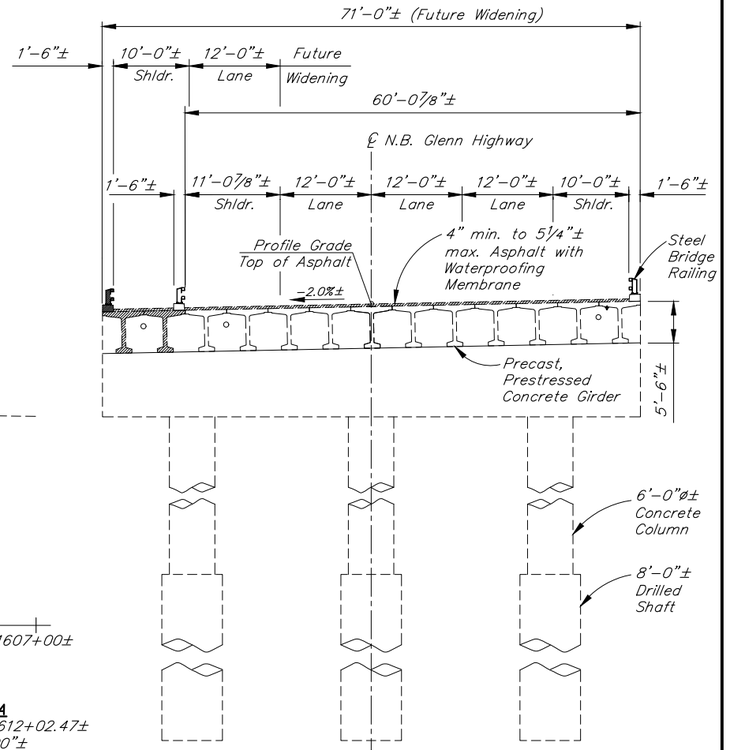
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N48	TtlShts



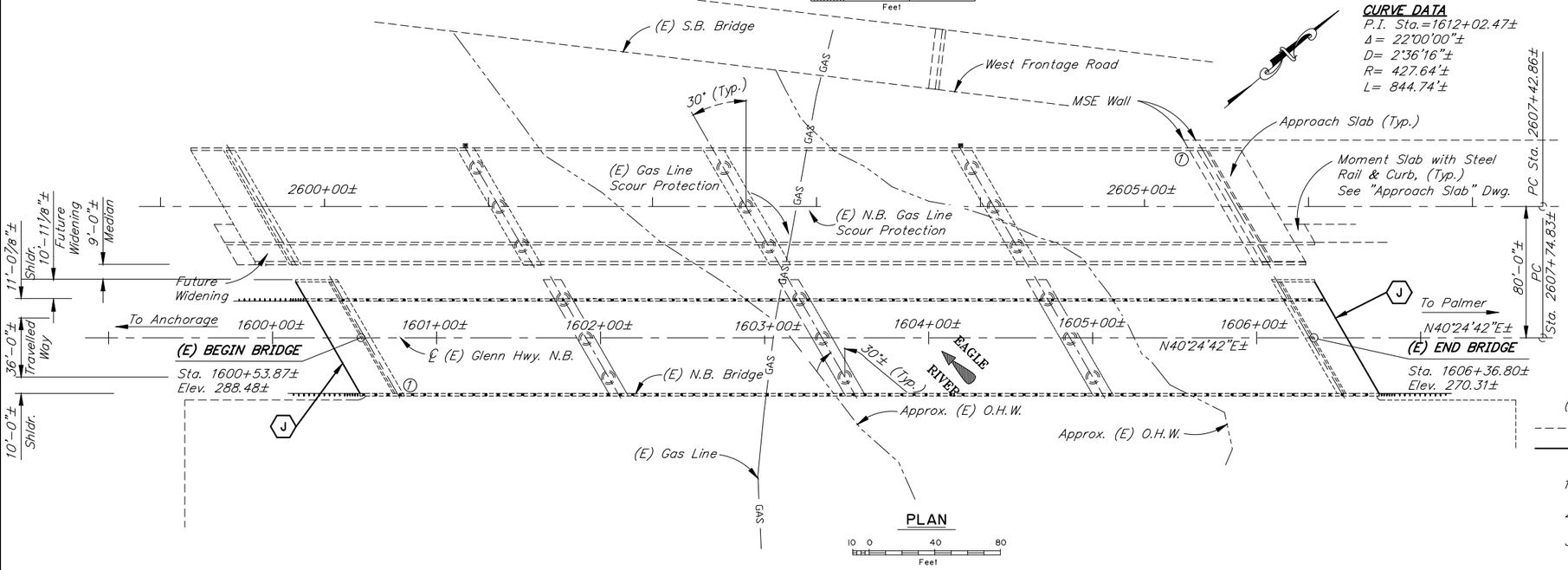
PROFILE GRADE DATA
No Scale



ELEVATION
10 0 20 40
Feet



TYPICAL SECTION
10 5 0 10 20
Feet



CURVE DATA
P.I. Sta.=1612+02.47±
Δ= 22°00'00"±
D= 2°36'16"±
R= 427.64'±
L= 844.74'±

PLAN
10 0 40 80
Feet

PRELIMINARY PLAN

LEGEND

(J) – Asphalt Joint

BRIDGE DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
APPROACH SLAB JOINT	2

NOTES:

(E) = Existing
- - - - - = Existing
——— = Proposed

1. Approx. location of bridge number plate.
2. Bridge stations and elevations are based on 2015 as-built drawings.
3. Verify controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

EAGLE RIVER BRIDGE NORTHBOUND

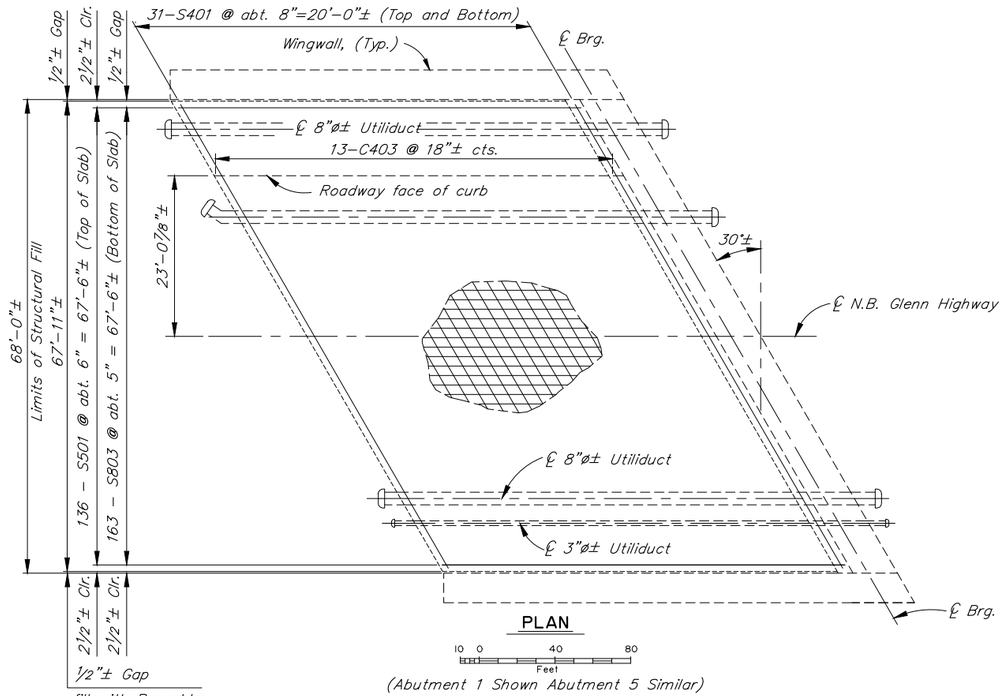
PRELIMINARY GLENN HIGHWAY

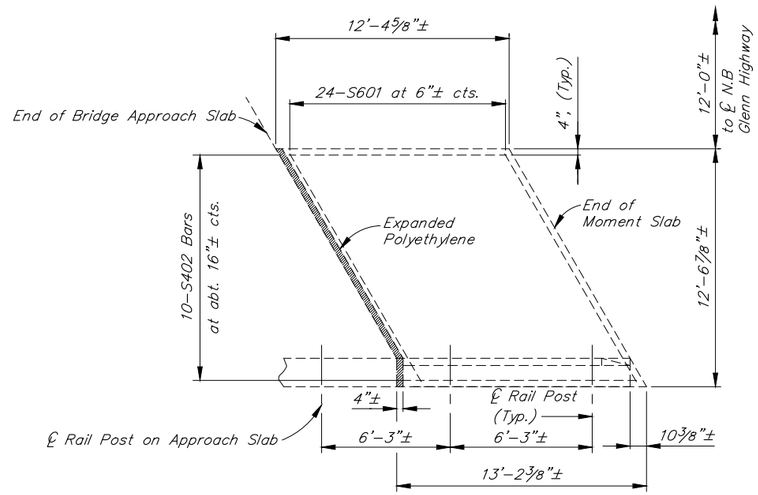
GENERAL LAYOUT

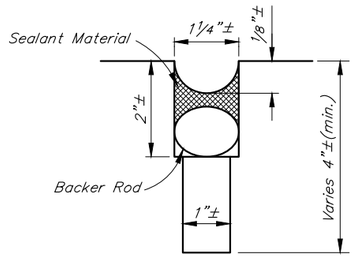
BRIDGE NO. 2303
DWG. NO. 1

R:\eag\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–2303 GEN Fri, Jul/12/24 02:17pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N49	TtlShts

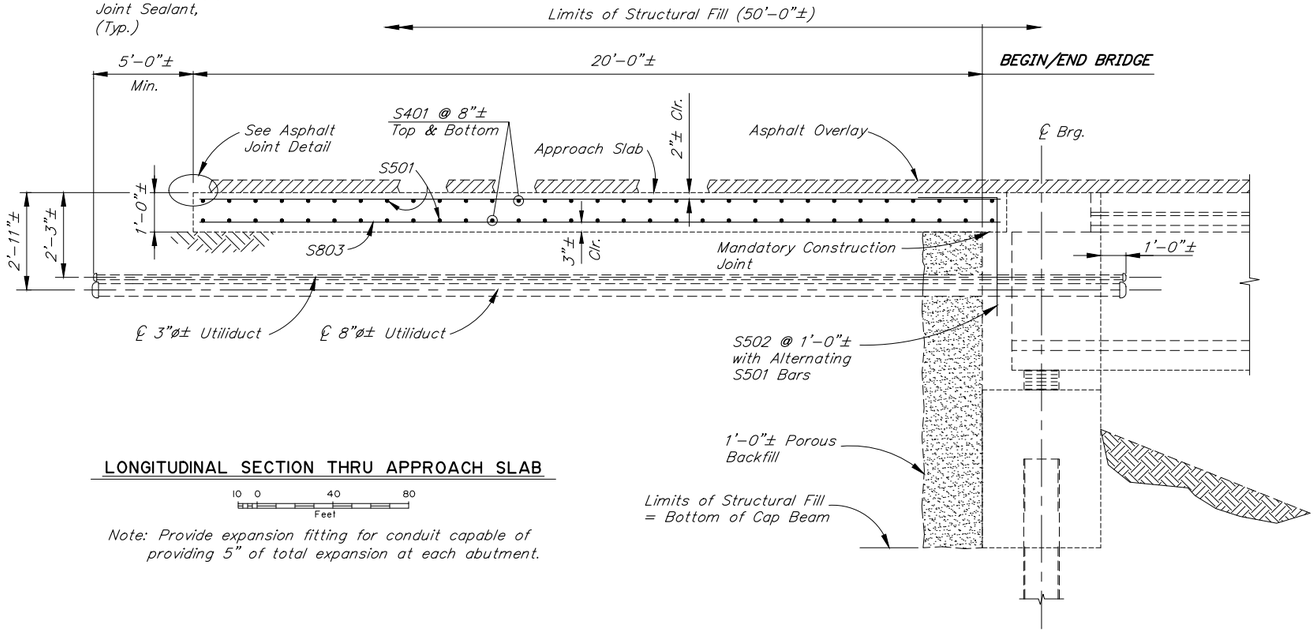






ASPHALT JOINT DETAIL

No Scale



LONGITUDINAL SECTION THRU APPROACH SLAB

10 0 40 80
Feet

Note: Provide expansion fitting for conduit capable of providing 5" of total expansion at each abutment.

Note: Use 1'–11" min. lap for #4 bars.

DESIGNED BY: Andrew Wells	CHECKED: Checker	**REHABILITATION**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

EAGLE RIVER BRIDGE NORTHBOUND

PRELIMINARY GLENN HIGHWAY

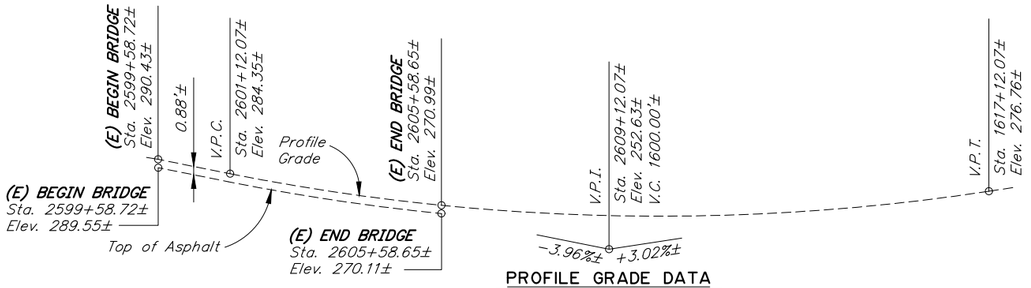
APPROACH SLAB

BRIDGE NO. 2303

DWG. NO. 2

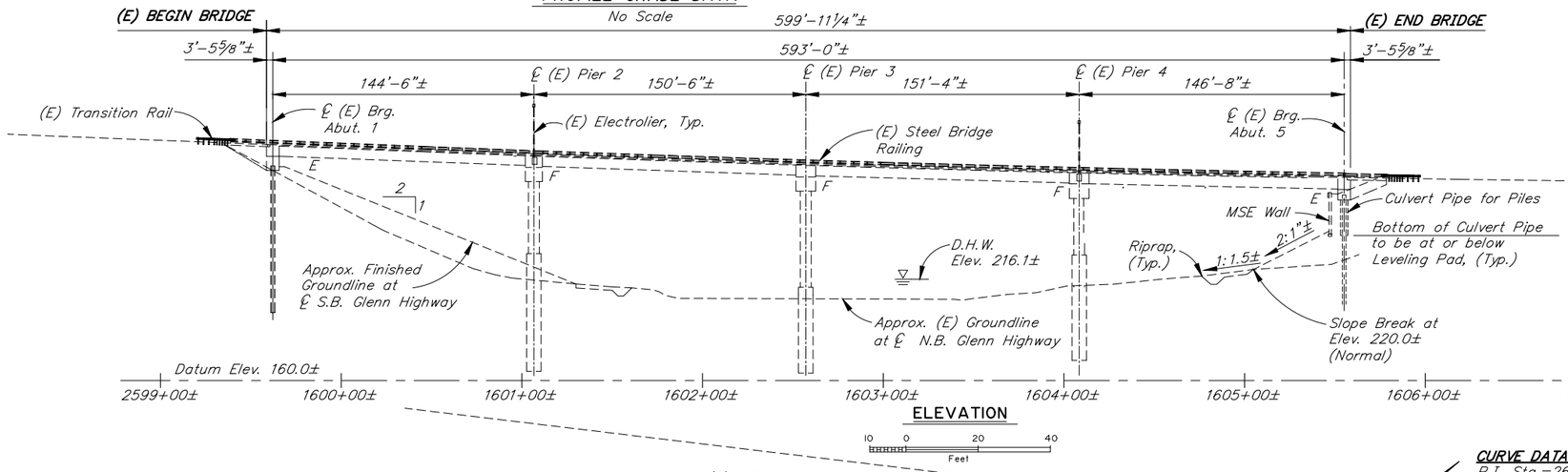
R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–2303 APP Fri, Jul/12/24 02:17pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N50	TtlShts



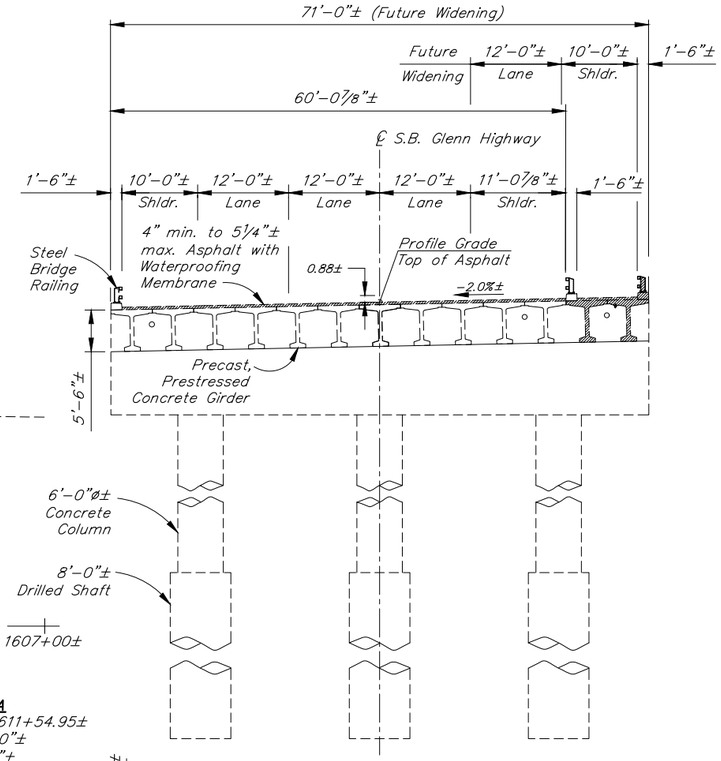
PROFILE GRADE DATA

No Scale



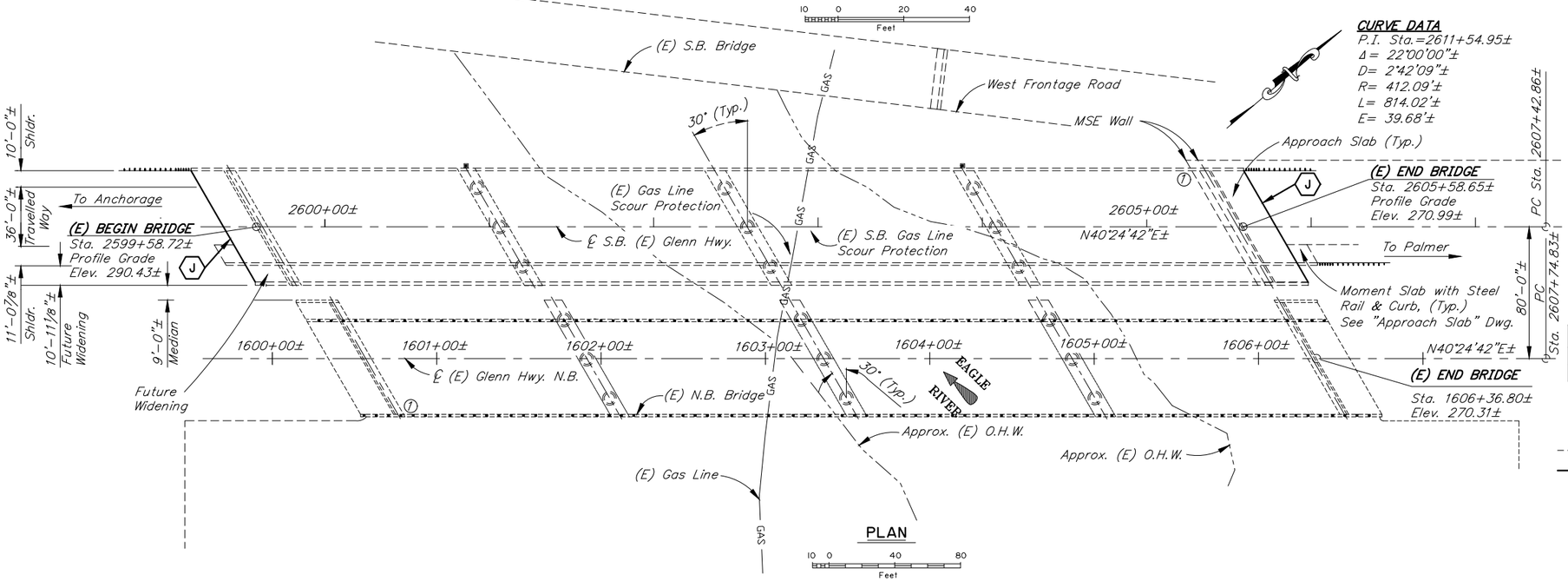
ELEVATION

10 0 20 40 Feet



TYPICAL SECTION

10 5 0 10 20 Feet



PLAN

10 0 40 80 Feet

PRELIMINARY PLAN

LEGEND

J – Asphalt Joint

BRIDGE DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
APPROACH SLAB JOINT	2

NOTES:

(E) = Existing

- - - - - = Existing

——— = Proposed

1. Approx. location of bridge number plate.
2. Bridge stations and elevations are based on 2015 as-built drawings.
3. Verify controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Andrew Wells	CHECKED: Checker		
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

REHABILITATION

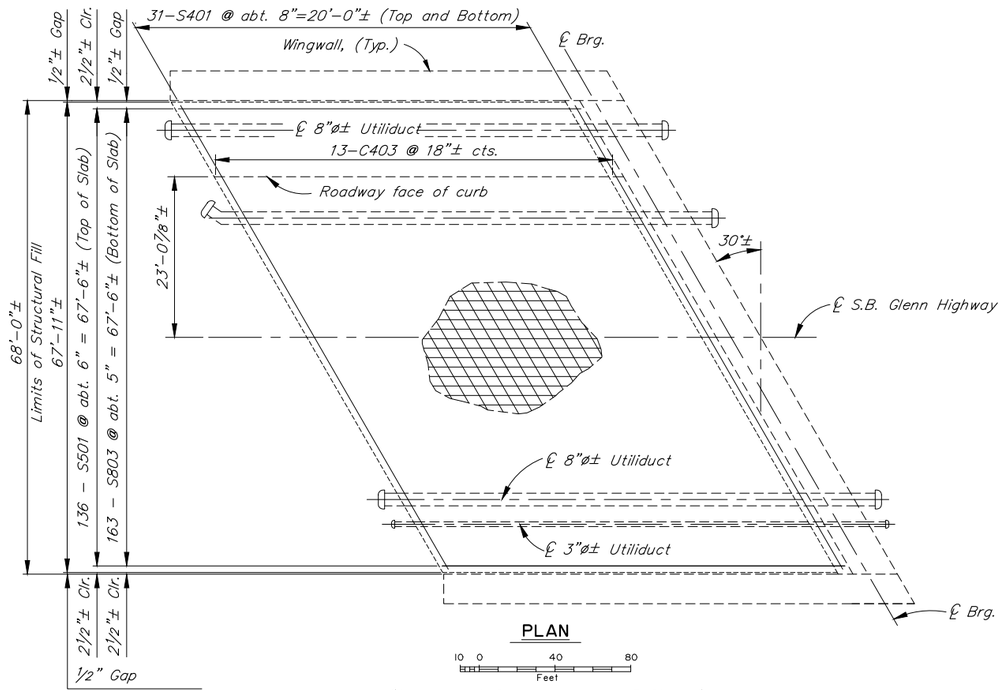
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

EAGLE RIVER BRIDGE SOUTHBOUND
PRELIMINARY GLENN HIGHWAY
GENERAL LAYOUT

BRIDGE NO. 2304
DWG. NO. 1

R:\cad\Glenn Hwy - Airport Heights to Parks Hwy\Glenn Hwy - Airport Heights to Parks Highway-2304 GEN Fri, Jul/12/24 02:17pm

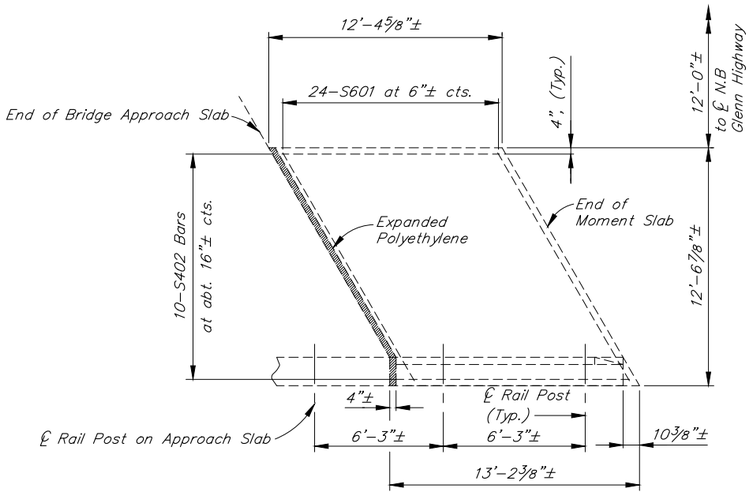
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001656/CFHWY00545	2023	N51	TtlShts



PLAN

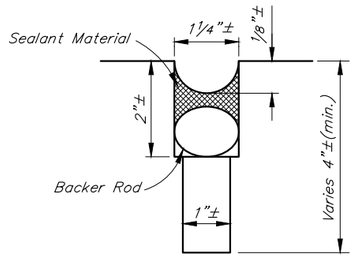
10 0 40 80
Feet

(Abutment 1 Shown Abutment 5 Similar)



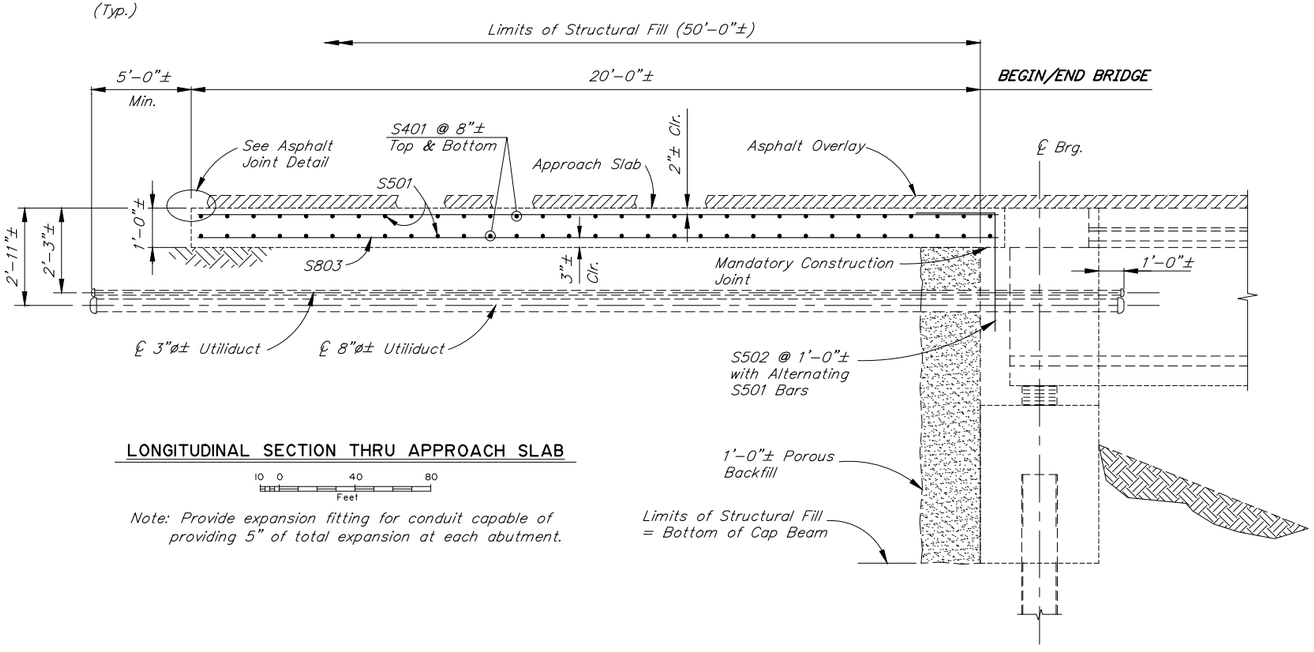
MOMENT SLAB PLAN

10 0 40 80
Feet



ASPHALT JOINT DETAIL

No Scale



LONGITUDINAL SECTION THRU APPROACH SLAB

10 0 40 80
Feet

Note: Provide expansion fitting for conduit capable of providing 5" of total expansion at each abutment.

DESIGNED BY: Andrew Wells	CHECKED: Checker	REHABILITATION	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Javier De Leon	CHECKED: Andrew Wells		
QUANTITIES BY: Andrew Wells	CHECKED: Checker		

PRELIMINARY

EAGLE RIVER BRIDGE SOUTHBOUND
GLENN HIGHWAY
APPROACH SLAB AND MOMENT SLAB

BRIDGE NO. 2304

DWG. NO. 2

R:\cad\Glenn Hwy – Airport Heights to Parks Hwy\Glenn Hwy – Airport Heights to Parks Highway–2304 APP Fri, Jul/12/24 02:17pm