

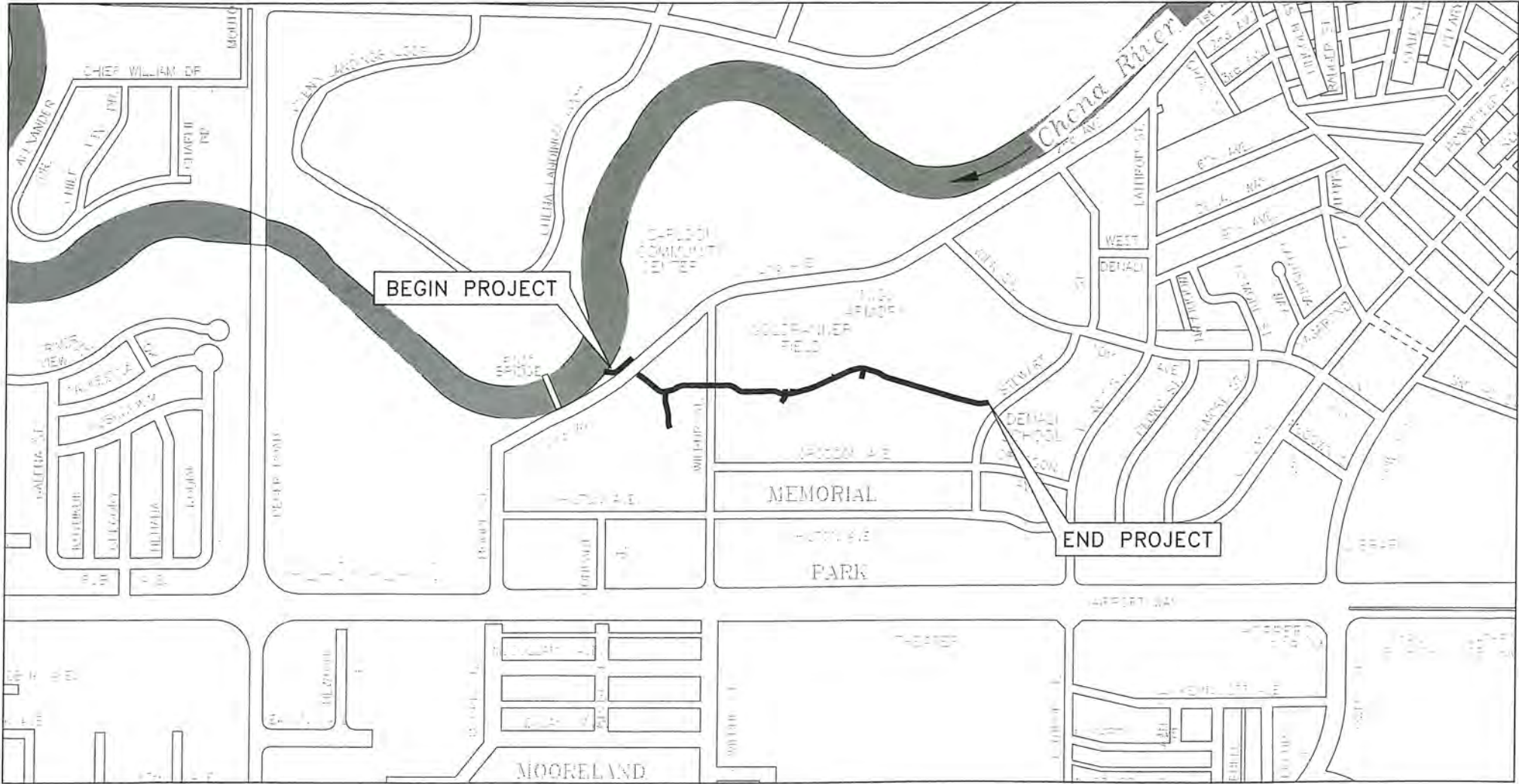
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	A1	63
CDS ROUTE: N/A			MILEPOINT: N/A TO N/A				

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	LEGEND
A3	SURVEY CONTROL
A4	ALIGNMENT CONTROL
B1-B3	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES & GENERAL NOTES
D1-D5	DEMOLITION PLANS
E1-E2	SUMMARIES
E3-E8	MISCELLANEOUS DETAILS
F1-F14	PLAN & PROFILE
H1-H8	SIGN SUMMARIES AND DETAILS
H9-H16	RECTANGULAR RAPID FLASHING BEACONS
Q1-Q4	EROSION SEDIMENT & POLLUTION CONTROL
T1	TRAFFIC CONTROL DEVICES
V1-V7	STANDARD PLANS

THE FOLLOWING STANDARD PLANS APPLY TO THIS PROJECT:
C-04.12
S-00.12, S-01.02, S-05.02, S-20.10, S-23.00, S-30.05

CONFORMED COPY
THE UNDERSIGNED HEREBY CERTIFIES THAT THIS INSTRUMENT IS AN EXACT AND TRUE COPY OF THE ORIGINAL
Stacy McSoley



PROJECT SUMMARY	
WIDTH OF PAVEMENT	10' & 5'
LENGTH OF GRADING	2,793 FT
LENGTH OF PAVING	2,647 FT
LENGTH OF PROJECT	2,793 FT

JOHN NETARDUS, P.E., PROJECT MANAGER
TRAVIS DONOVAN, P.E., DESIGN ENGINEER
ETHAN GRAETZ, P.E., DESIGN ENGINEER
JEFF CARLETON, E.E., DESIGN ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED BY: *[Signature]* DATE 4/6/2021
for Sarah E. Schacher, P.E.,
Preconstruction Engineer, Northern Region
ACCEPTED FOR CONSTRUCTION: *[Signature]* DATE 4/6/2021
Ryan F. Anderson, P.E.,
Regional Director, Northern Region

		NO.		DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
						ALASKA	0002453 / NFHWY00454	2021	A2	A4

		RECOVERED		SET		EXISTING		PROPOSED	
BLM MONUMENT									
GLO MONUMENT									
USC&GS MONUMENT									
PRIMARY MONUMENT									
CENTERLINE MONUMENT IN CASING									
PRIMARY R.O.W. MONUMENT									
BEARING OBJECT									
MISCELLANEOUS MONUMENT									
LINE OF SIGHT MONUMENT									
CONCRETE R.O.W. MONUMENT									
BENCHMARK									
REBAR AND CAP									
REBAR									
IRON PIPE									
PK NAIL									
SPIKE									
HUB AND TACK									
CONSTRUCTION CENTERLINE			5+00						
MISCELLANEOUS CENTERLINE			10+00						
STATION EQUATION			"L"48+97.23 POT BK= "O"48+97.23 PC AHD						
PROJECT RIGHT-OF-WAY LINE			R/W						
EXISTING RIGHT-OF-WAY LINE									
EXISTING PROPERTY LINE									
CONTROLLED ACCESS LINE			C/A						
UTILITY EASEMENT LINE			PUE						
TEMPORARY EASEMENT LINE (TCP OR TCE)			TCP						
ACCESS OR SECTION LINE EASEMENT			ACCESS EASEMENT						
PROPOSED CUT SLOPE LIMIT									
PROPOSED FILL SLOPE LIMIT									
SECTION LINE									
1/4 SECTION LINE									
1/16 SECTION LINE									
TOWNSHIP & RANGE LINE			T. 2 N. T. 1 N.						

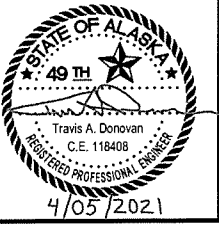
		EXISTING		PROPOSED	
SANITARY SEWER (FLOW DIRECTION →)			SS		SS
FUEL LINE			O		O
GAS LINE			G		G
WATER LINE			W		W
METER, VALVE, FIRE HYDRANT			W		W
EXISTING STORM DRAIN (FLOW DIRECTION →)			SD		
PROPOSED STORM DRAIN					
FIBER OPTIC LINE			FO		
DIRECT BURIAL TELEPHONE CABLE			T		T
DIRECT BURIAL ELECTRIC CABLE			E		E
ELECTRIC LINE (OVERHEAD)					
POWER POLE LINE					
JOINT USE POWER & TELEPHONE					
TELEPHONE POLE LINE					
POLE ANCHOR					
STUB POLE (POWER OR TELEPHONE)					
TELEPHONE DUCT			T		T
TELEPHONE PEDESTAL					
BURIED CABLE MARKER					
PIPELINE MARKER OR VALVE					
CATCH BASIN OR DROP INLET					
MANHOLE			MH		MH
SANITARY SEWER CLEAN OUT					
LANDSCAPE BOULDER					
ASPHALT PATH, SIDEWALK, CURB & GUTTER					
AGGREGATE ROAD SURFACE					
POST OR BOLLARD					
STANDARD SIGN					
WAYFINDING/INTERPRETIVE SIGN					

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

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

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

		EXISTING		PROPOSED	
JUNCTION BOX, TYPE IA					5
JUNCTION BOX, TYPE II					6
JUNCTION BOX, TYPE III					3
SIGNAL FACE, VEHICULAR			42		42
SIGNAL FACE, BACKPLATE			42		42
SIGNAL FACE, LEFT TURN, BACKPLATE			43		43
SIGNAL FACE, PEDESTRIAN					

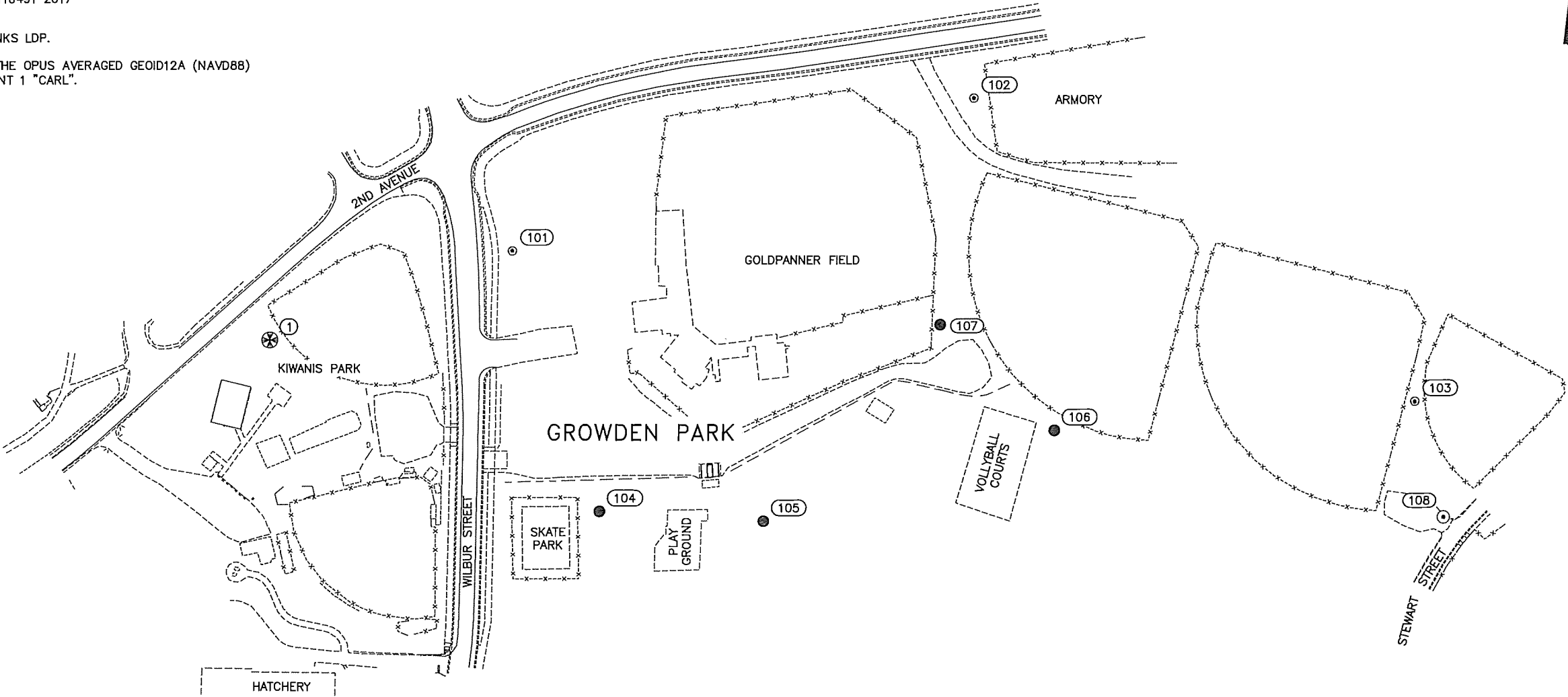


GENERAL NOTES

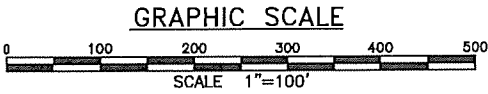
1. VERIFY HORIZONTAL AND VERTICAL CONTROL PRIOR TO USE. ON MULTI YEAR PROJECTS, VERIFY ALL CONTROL ON A SEASONAL BASIS.
2. BACKGROUND MAPPING IS SHOWN FOR ORIENTATION PURPOSES ONLY. THIS SHEET DOES NOT PURPORT TO DEPICT RIGHT OF WAY.
3. ALL DISTANCES SHOWN ARE GROUND DISTANCES, IN U.S. SURVEY FEET.
4. THIS PROJECT IS LOCATED ENTIRELY WITHIN THE FAIRBANKS LOW DISTORTION PROJECTION (LDP), A LOW DISTORTION PROJECTION CREATED BY THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES.
- FAIRBANKS LDP DEFINITION:
LINEAR UNIT: U.S. SURVEY FOOT (SFT)
DATUM: NAD83(2011)
PROJECTION: LAMBERT CONFORMAL CONIC, (SINGLE PARALLEL)
STANDARD PARALLEL AND GRID ORIGIN: 64°51'00"N
CENTRAL MERIDIAN (GRID ORIGIN): 146°56'00"W
FALSE NORTHING: 200,000 SFT
FALSE EASTING: 800,000 SFT
STANDARD PARALLEL SCALE: 1.00003 (EXACT)
5. THE BASIS OF COORDINATES IS THE NAD83(2011)(EPOCH:2010.0000) OPUS AVERAGED POSITION OF RECOVERED CONTROL POINT 1 "CARL", A PRIMARY MONUMENT STAMPED "CARL LS-116491 2017"
6. BASIS OF BEARING IS FAIRBANKS LDP.
7. THE BASIS OF ELEVATION IS THE OPUS AVERAGED GEOID12A (NAVD88) ELEVATION OF 436.98 FT AT POINT 1 "CARL".

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	A3	A4

CONTROL MONUMENTS						
POINT NO.	NORTHING	EASTING	ELEVATION	LATITUDE	LONGITUDE	DESCRIPTION
1	197372.35	670696.66	436.98	N64° 50' 25.7912"	W147° 45' 49.7197"	PRIM MON FND CARL LS11649 2017
101	197514.65	671082.24	438.29	N64° 50' 27.2412"	W147° 45' 40.8486"	REBAR CAP SET GROWDEN1 LS14471 2020
102	197757.19	671816.82	438.89	N64° 50' 29.7223"	W147° 45' 23.9385"	REBAR CAP SET GROWDEN2 LS14471 2020
103	197269.60	672518.98	440.02	N64° 50' 25.0136"	W147° 45' 07.5585"	REBAR CAP SET GROWDEN3 LS14471 2020
104	197097.42	671223.34	437.36	N64° 50' 23.1535"	W147° 45' 37.4603"	REBAR SET
105	197081.12	671484.22	437.72	N64° 50' 23.0266"	W147° 45' 31.4244"	REBAR SET
106	197225.22	671946.29	439.79	N64° 50' 24.5039"	W147° 45' 20.7852"	REBAR SET
107	197394.72	671764.17	438.84	N64° 50' 26.1486"	W147° 45' 25.0465"	REBAR SET
108	197084.79	672565.85	440.51	N64° 50' 23.2009"	W147° 45' 06.4196"	REBAR CAP FND 4794S



- LEGEND
- PRIMARY MONUMENT FOUND
 - REBAR AND CAP SET
 - REBAR AND CAP FOUND
 - REBAR SET



SURVEY CONTROL



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	A4	A4

ALIGNMENT "02" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197259.69	670356.55	BOP	
	197255.95	670380.65	PC	
	197252.59	670402.39	PI	
	197235.97	670416.80	PT	
	197215.28	670434.74	PC	
	197192.35	670454.62	PI	
	197188.38	670484.71	PT	
	197182.08	670532.39	PC	
	197179.63	670551.02	PI	
	197170.58	670567.48	PT	
	197144.21	670615.45	PC	
	197134.23	670633.60	PI	
	197137.58	670654.03	PT	
	197151.61	670739.80	PC	
	197153.69	670752.48	PI	
	197160.77	670763.20	PT	
	197164.22	670768.41	PC	
	197170.04	670777.23	PI	
	197172.51	670787.51	PT	
	197180.25	670819.79	PC	
	197181.97	670826.95	PI	
	197181.91	670834.31	PT	
	197179.99	671056.43	PC	
	197179.79	671079.37	PI	
	197164.33	671096.33	PT	

ALIGNMENT "01" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197237.27	670415.64	BOP	
	197258.83	670440.68	PI	
	197304.52	670489.62	EOP	

ALIGNMENT "02" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197150.14	671111.90	PC	
	197133.75	671129.88	PI	
	197134.51	671154.19	PT	
	197139.67	671319.36	PC	
	197140.16	671335.27	PI	
	197132.71	671349.33	PT	
	197131.21	671352.16	PC	
	197123.25	671367.17	PI	
	197124.20	671384.14	PT	
	197126.09	671417.79	PC	
	197126.50	671425.18	PI	
	197128.44	671432.33	PT	
	197154.25	671527.88	PC	
	197158.62	671544.06	PI	
	197165.62	671559.29	PT	
	197257.81	671759.71	PC	
	197263.23	671771.50	PI	
	197266.00	671784.16	PT	
	197271.55	671809.44	PC	
	197276.00	671829.78	PI	
	197269.99	671849.70	PT	
	197251.07	671912.33	PC	
	197248.32	671921.42	PI	
	197242.90	671929.23	PT	
	197234.21	671941.74	PC	

ALIGNMENT "03" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197143.23	670688.58	BOP	
	197109.62	670688.53	PC	
	197098.01	670688.51	PI	
	197086.70	670691.15	PT	
	197027.60	670704.96	PC	
	197017.53	670707.31	PI	
	197007.19	670707.55	PT	
	196945.56	670708.99	EOP	

ALIGNMENT "02" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197225.34	671954.50	PI	
	197220.76	671969.34	PT	
	197093.10	672383.36	PC	
	197091.47	672388.65	PI	
	197090.13	672394.03	PT	
	197082.70	672423.91	PC	
	197078.92	672439.09	PI	
	197079.20	672454.73	PT	
	197079.37	672464.72	PC	
	197079.51	672472.65	PI	
	197077.59	672480.34	PT	
	197069.08	672514.36	EOP	

ALIGNMENT "04" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197136.61	671136.47	BOP	
	197095.52	671136.90	EOP	

ALIGNMENT "05" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197160.48	671382.17	BOP	
	197124.21	671384.26	EOP	

ALIGNMENT "06" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197162.36	671415.75	BOP	
	197126.20	671417.76	EOP	

ALIGNMENT "07" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197211.93	671659.97	BOP	
	197222.90	671654.92	PC	
	197232.62	671650.45	PI	
	197241.74	671656.06	PT	
	197248.13	671659.99	EOP	

ALIGNMENT "08" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197273.37	671828.64	BOP	
	197224.85	671816.58	EOP	

ALIGNMENT "09" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197181.28	670906.24	BOP	
	197151.32	670907.58	EOP	

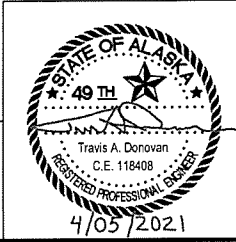
ALIGNMENT "10" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197177.92	670810.06	BOP	
	197224.54	670792.00	EOP	

ALIGNMENT "A" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197211.30	670406.18	BOP	
	197238.33	670437.58	PI	
	197377.69	670591.05	EOP	

ALIGNMENT "B" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197074.34	671015.05	BOP	
	197237.88	671017.14	EOP	

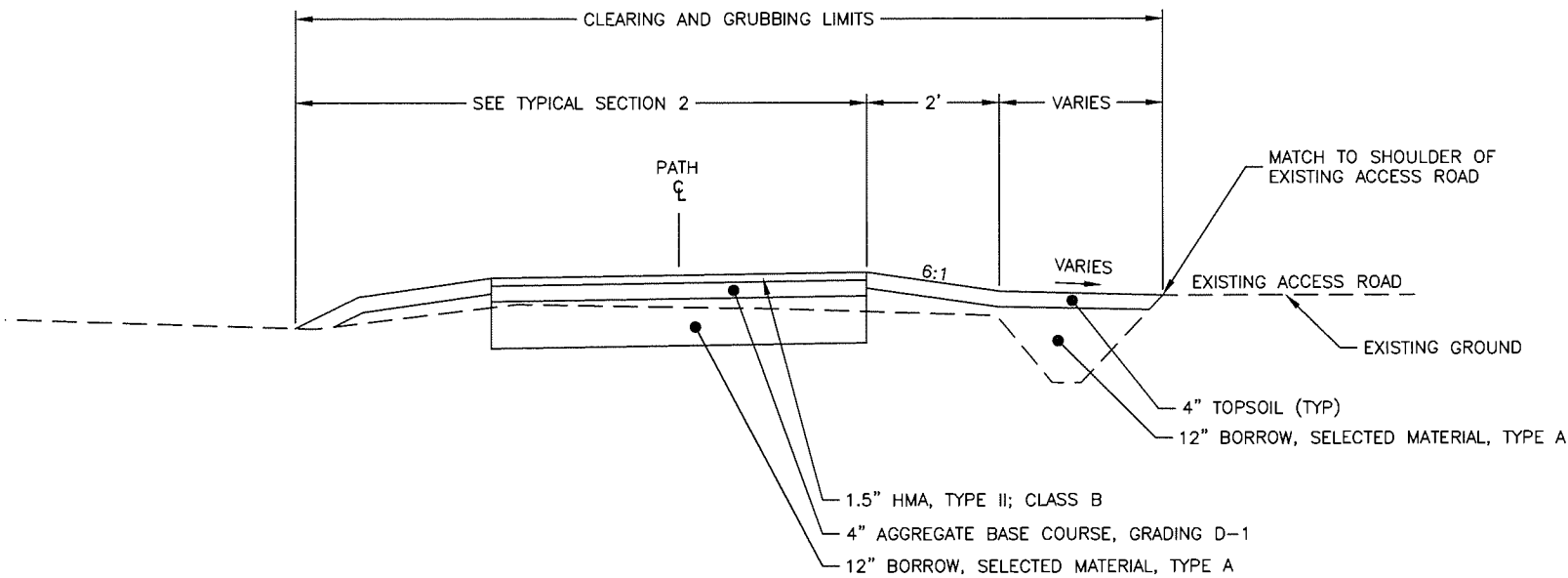
ALIGNMENT "C" CONTROL				
	NORTHING	EASTING	DESCRIPTION	
	197044.51	670413.77	BOP	
	197143.04	670521.76	EOP	

ALIGNMENT CONTROL				
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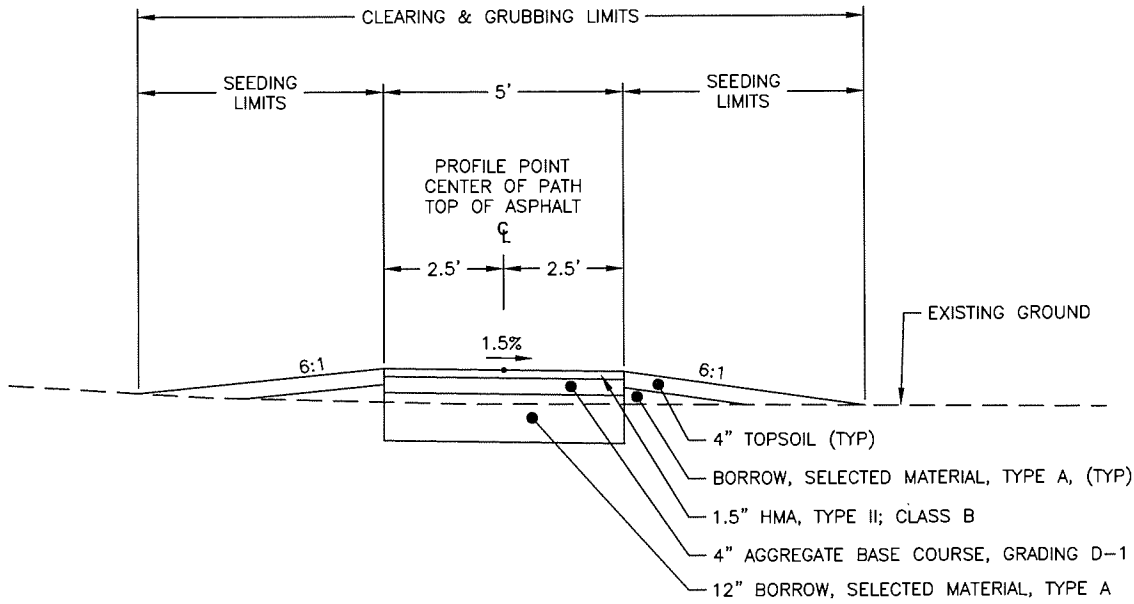


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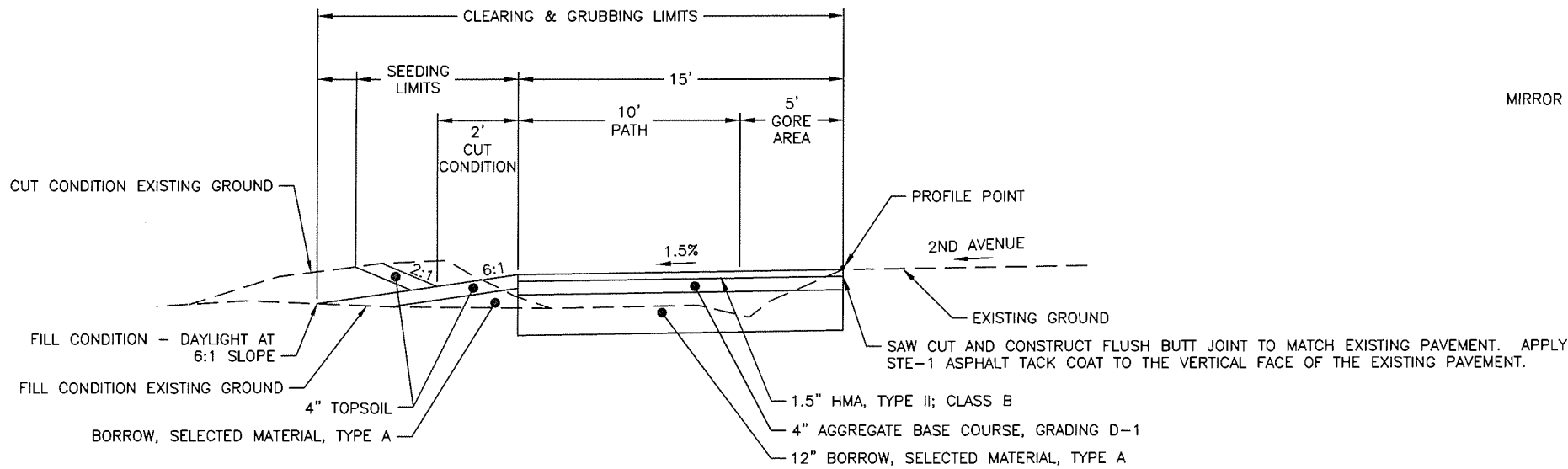
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	B2	B3



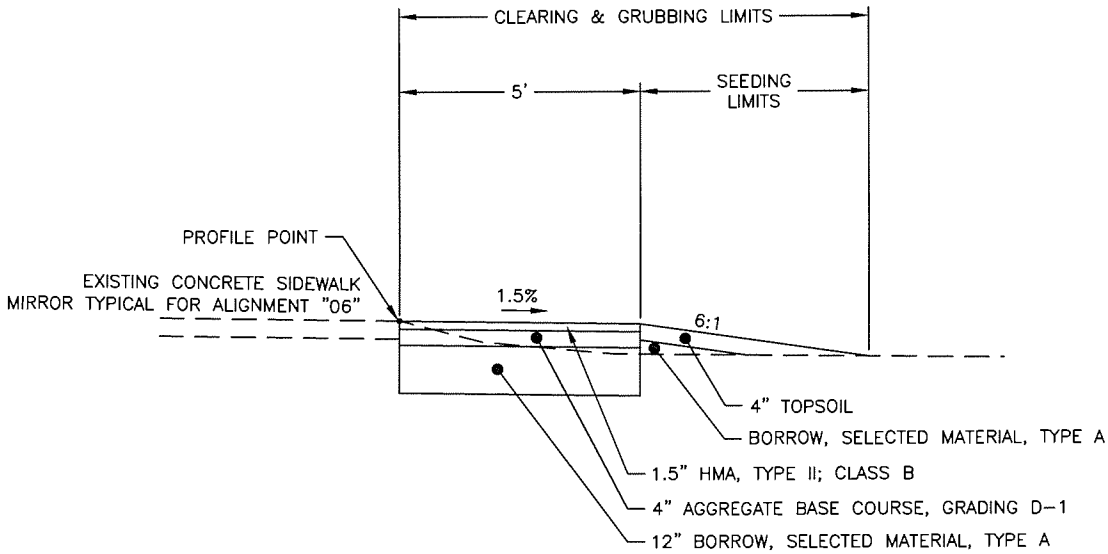
TYPICAL SECTION 5
NTS



TYPICAL SECTION 7
NTS



TYPICAL SECTION 6
NTS

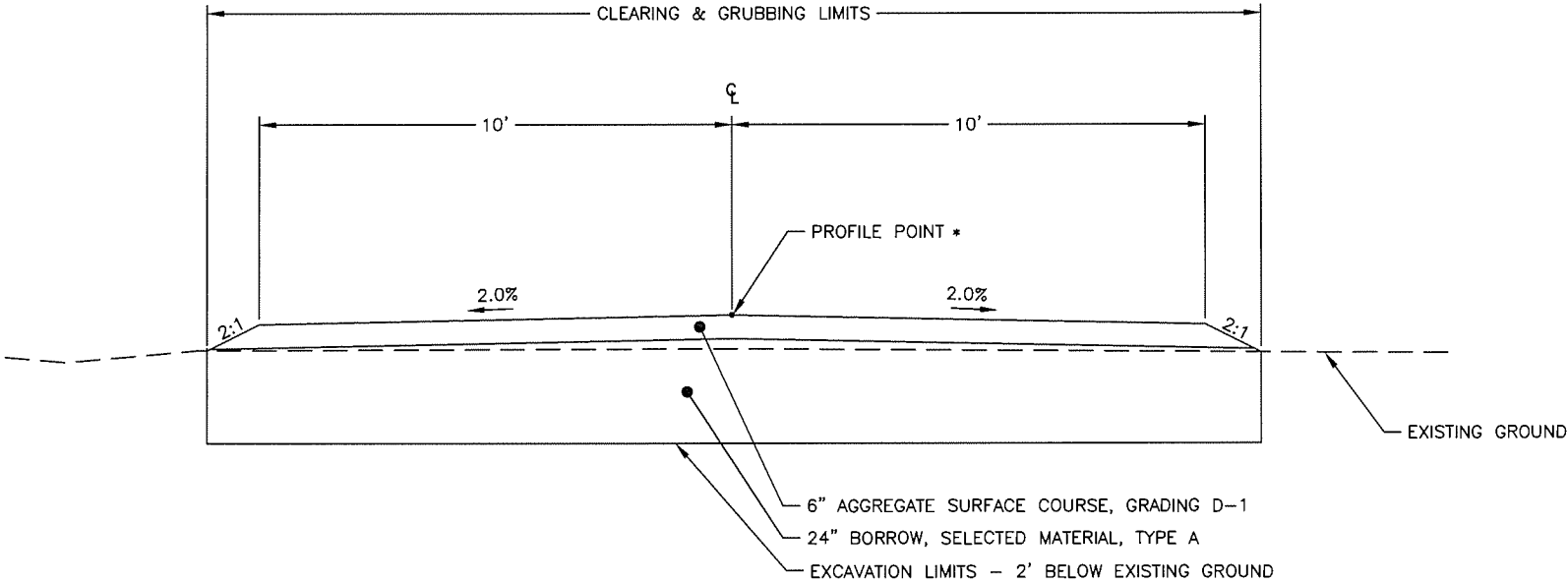


TYPICAL SECTION 8
NTS



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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	B3	B3

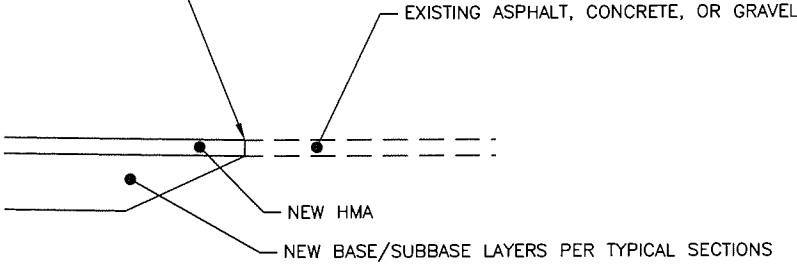


TYPICAL SECTION 9
NTS

TYPICAL SECTION 9 NOTES:

* CONSTRUCT PROFILE OF NEW ACCESS ROAD USING EXISTING GROUND ELEVATIONS AT THE TIE IN POINTS, AND 24" EXCAVATION BELOW EXISTING GROUND TO DETERMINE PROFILE GRADE BETWEEN THE TIE IN POINTS. SUBMIT PROPOSED PROFILE TO ENGINEER PRIOR TO PERFORMING ANY EXCAVATION OF THIS TYPICAL SECTION ALONG THIS ALIGNMENT. PROFILE OF NEW ACCESS ROAD MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

SAW CUT AND CONSTRUCT FLUSH BUTT JOINT TO MATCH EXISTING PAVEMENT. PROVIDE A CLEAN FLUSH VERTICAL EDGE IF MATCHING TO EXISTING CONCRETE. APPLY STE-1 ASPHALT TACK COAT TO THE VERTICAL FACE OF THE EXISTING PAVEMENT OR CONCRETE.



MATCH TO EXISTING FEATURE DETAIL
MATCH EXISTING PAVEMENT, CONCRETE OR GRAVEL

TYPICAL SECTION TABLE			
ALIGNMENT	TYPICAL SECTION NUMBER	STARTION START	STATION END
1	6	10+05.00	10+93.00
2	1	10+05.00	10+65.00
2	4 & 1	10+93.00	11+65.00
2	5 & 2	11+65.00	12+72.00
2	1	12+72.00	16+70.00
2	1	17+41.00	31+70.00
2	2	31+70.00	32+76.00
3	1	10+05.00	11+74.00
4	7	10+05.00	10+31.00
5	8	10+00.00	10+31.00
6	8	10+00.00	10+31.00
7	1	10+05.00	10+39.00
8	7	10+05.00	10+50.00
9	7	10+05.00	10+25.00
10	1	10+05.00	10+36.00
C	9	10+00.00	11+46.00

TYPICAL SECTION NOTES:

- WHERE NEW PATH CONNECTS TO EXISTING PATHS, SIDEWALKS, GRAVEL PADS ETC., TRANSITION TYPICAL SECTION CROSS SLOPES TO MATCH EXISTING FEATURE IN A DISTANCE OF 10 FEET. SEE MATCH TO EXISTING FEATURE DETAIL ON THIS SHEET.



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	C1	C1

ESTIMATE OF QUANTITIES

ITEM NUMBER	PAY ITEM	PAY UNIT	QUANTITY
201.0009.0000	CLEARING AND GRUBBING	LUMP SUM	ALL REQUIRED
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED
202.0002.0000	REMOVAL OF PAVEMENT	SQUARE YARD	170
202.0003.0000	REMOVAL OF SIDEWALK	SQUARE YARD	110
202.0009.0000	REMOVAL OF CURB AND GUTTER	LINEAR FOOT	67
203.0003.0000	UNCLASSIFIED EXCAVATION	CUBIC YARD	1,300
203.0006.0000	BORROW	TON	2,400
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	640
301.0003.00D1	AGGREGATE SURFACE COURSE, GRADING D-1	TON	110
401.0015.0000	ASPHALT MATERIAL PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
606.2000.0000	BOLLARD	EACH	5
607.0005.0000	DRIVE GATE	EACH	1
607.2012.0000	WOOD FENCE	LINEAR FOOT	344
608.0001.0006	CONCRETE SIDEWALK, 6 INCHES THICK	SQUARE YARD	95
608.0002.0000	ASPHALT SIDEWALK	TON	250
608.0006.0000	CURB RAMP	EACH	2
609.0002.0ALL	CURB AND GUTTER, ALL TYPES	LINEAR FOOT	67
615.0001.0000	STANDARD SIGN	SQUARE FOOT	89
615.0002.0000	REMOVE AND RELOCATE SIGN	EACH	2
618.0002.0000	SEEDING	POUND	80
620.0001.0000	TOPSOIL	SQUARE YARD	2,150
621.2008.0000	LANDSCAPE BOULDER	EACH	26
622.2011.0000	INTERPRETIVE SIGN	EACH	5
622.2032.0000	WAYFINDING SIGN	EACH	4
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641.0002.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	CONTINGENT SUM	ALL REQUIRED
641.0006.0000	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED
642.0001.0000	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
642.0003.0000	THREE PERSON SURVEY PARTY	HOURL	10
643.0002.0000	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643.0025.0000	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED
643.2005.0000	PUBLIC INFORMATION PROGRAM	LUMP SUM	ALL REQUIRED
644.0001.0000	FIELD OFFICE	LUMP SUM	ALL REQUIRED
644.0006.0000	VEHICLE	LUMP SUM	ALL REQUIRED
660.0002.0000	FLASHING BEACON SYSTEM COMPLETE, 2ND AVENUE & WILBUR ST	LUMP SUM	ALL REQUIRED
661.0003.0000	LOAD CENTER, TYPE 2	EACH	2
670.0011.0000	METHYL METHACRYLATE TRANSVERSE PAVEMENT MARKING LINES	SQUARE FOOT	640

ESTIMATING FACTORS

ITEM NO.	DESCRIPTION	REMARKS	VALUE
608.0002.0000	ASPHALT SIDEWALK	HMA, TYPE II, CLASS B	2 TON/CY
		ASPHALT BINDER PG52-28	5.5% TOTAL WEIGHT OF MIX
203.0006.0000	BORROW		2 TON/CY
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1		2 TON/CY
301.0003.00D1	AGGREGATE SURFACE COURSE, GRADING D-1		2 TON/CY

TABLE OF LUMP SUM ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	REMARKS	UNIT	VALUE
201.0009.0000	CLEARING AND GRUBBING	FILL/CUT LINE AREAS	ACRE	0.92
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS (SEE SUMMARY OF SHEET E1)	CONNEX RELOCATION	EACH	6
		SPLIT RAIL WOOD FENCE	LF	140
		LANDSCAPE BOULDER	EACH	12
		REMOVE SIGN PANEL	EACH	1
		BOLLARD	EACH	4
		CONCRETE BLOCK	EACH	8
		WOOD CURB	LF	100
		WOOD PEDESTRIAN BRIDGE	EACH	1

GENERAL NOTES:

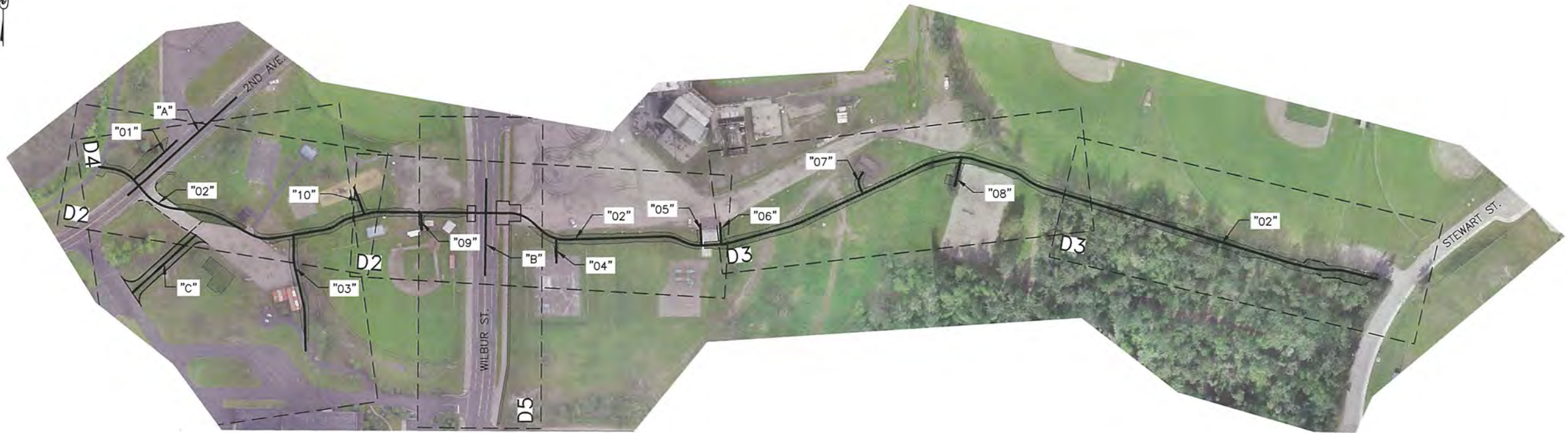
1. THERE ARE BURIED GAS UTILITIES IN THE PROJECT AREA. RECORDS SHOW GAS ON THE WEST SIDE OF WILBUR STREET AND ON THE NORTH SIDE OF CROSSON AVENUE. LOCATE UTILITIES PRIOR TO ANY GROUND DISTURBING ACTIVITIES. REFER TO SECTION 651 OF THE SPECIFICATIONS FOR MORE UTILITY INFORMATION.
2. USE STAGING AREAS PROVIDED IN, AND FOLLOW THE STIPULATIONS OF GROWDEN PARK - FNSB TEMPORARY USE LICENSE (TUL). REFER TO APPENDIX A OF THE SPECIFICATIONS.

ESTIMATE OF QUANTITIES



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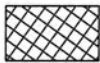
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	D1	D5



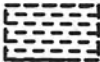
DEMOLITION PLAN LEGEND



CLEARING AND GRUBBING



REMOVAL OF PAVEMENT, SIDEWALK, CURB AND GUTTER



REMOVAL OF STRUCTURES

DEMOLITION PLAN NOTES:

1. REUSE ITEMS NOTED FOR DEMOLITION TO THE EXTENT POSSIBLE. RESUABLE ITEMS INCLUDE, SPLIT RAIL FENCE AND LANDSCAPE BOULDERS.
2. RELOCATE CONNEXES TO NEW LOCATION. STAKE OUT NEW LOCATION GET AND APPROVAL FROM THE ENGINEER PRIOR TO REMOVING CONNEXES. COORDINATE WITH PROJECT ENGINEER AND FAIRBANKS NORTH STAR BOROUGH PARKS COORDINATOR TO DETERMINE FINAL LOCATION OF RELOCATED CONNEXES. CLEARING, GRUBBING, GRADING, SEEDING, LEVELING AND COMPACTION WILL BE NECESSARY AT NEW CONNEX LOCATION, THIS WORK WILL BE PAID UNDER THE RESPECTIVE PAY ITEM LISTED IN BID SCEDULE. THE PHYSICAL RELOCATION OF THE CONNEXES IS SUBSIDIARY TO ITEM 202.0001.0000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
3. REMOVE THE 8 EACH CONCRETE BLOCKS SHOWN ON DEMO SHEET D2 AND DELIVER TO STORAGE AREA ON THE WEST SIDE OF THE BIG DIPPER PARKING LOT AT 1920 LATHROP ST. COORDINATE WITH FNSB PARKS TO SCHEDULE DELIVERY - BRIAN CHARLTON - FNSB PARKS COORDINATOR - 907-590-3665. REMOVAL AND RELOCATION OF THE CONCRETE BLOCKS IS SUBSIDIARY TO ITEM 202.0001.0000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS.

DEMOLITION PLAN SHEET
LAYOUT



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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	D2	D5



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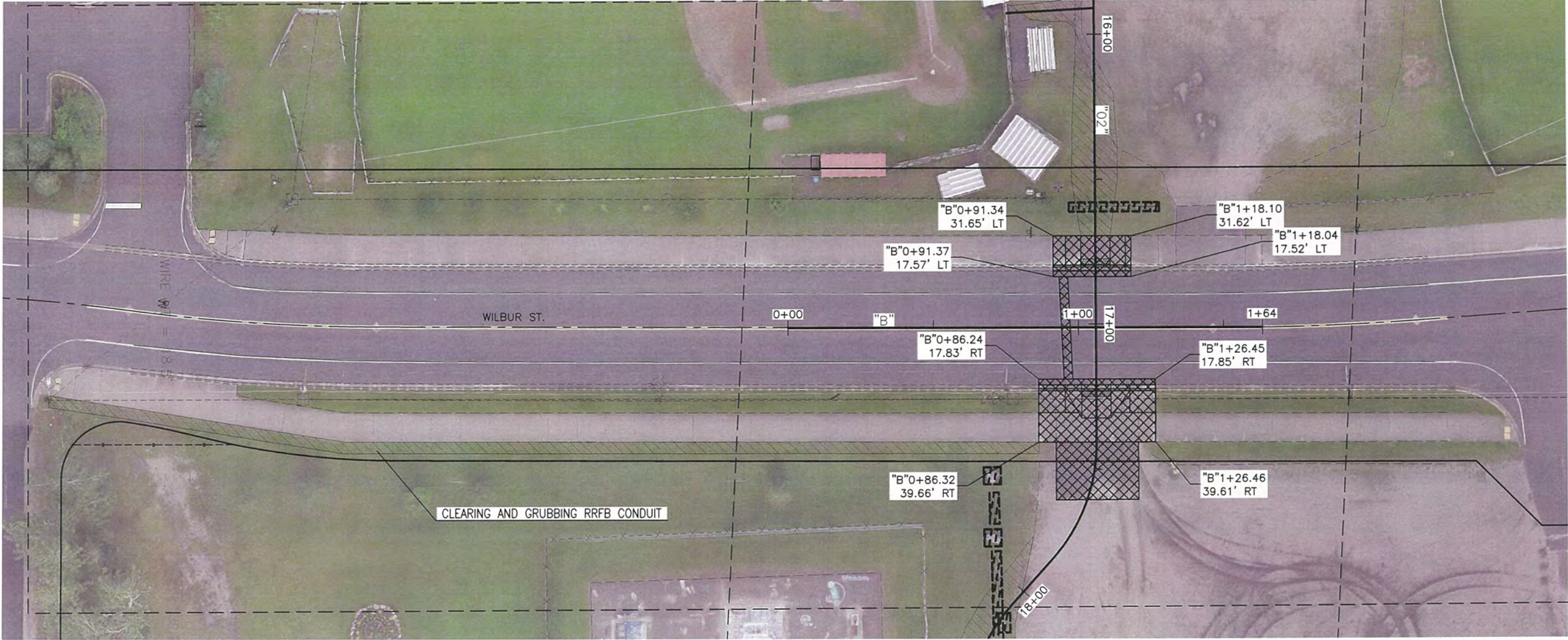


DEMOLITION PLAN 3 OF 4



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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	D5	D5



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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202.0001.0000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS									
ITEM	UNIT	QUANTITY	ALIGNMENT	STATION START	OFFSET	DIST (FT)	STATION END	OFFSET	DIST (FT)
SPLIT RAIL WOOD FENCE	LF	20	"02"	15+35.3	RT	1.0	15+46.3	LT	16.3
SPLIT RAIL WOOD FENCE	LF	10	"02"	15+31.8	RT	7.5	15+27.1	RT	17.0
SPLIT RAIL WOOD FENCE	LF	30	"02"	16+59.3	RT	8.5	16+59.6	LT	22.0
SPLIT RAIL WOOD FENCE	LF	10	"02"	17+77.3	RT	30.1	17+88.5	RT	23.5
SPLIT RAIL WOOD FENCE	LF	30	"02"	17+95.8	RT	16.4	18+28.0	RT	7.8
SPLIT RAIL WOOD FENCE	LF	20	"02"	25+27.1	LT	14.1	25+45.3	LT	7.2
SPLIT RAIL WOOD FENCE	LF	20	"02"	25+57.8	LT	7.0	25.73.9	LT	15.5
	TOTAL	140							
WOOD PEDESTRIAN BRIDGE	EACH	1	"A"	11+03.9	LT	53.3	11+22.6	LT	46.5
	TOTAL	1							
CONNEX RELOCATION	EACH	6							
	TOTAL	6							
LANDSCAPE BOULDER	EACH	1	"02"	12+30.0	LT	51.5			
LANDSCAPE BOULDER	EACH	1	"02"	12+48.0	LT	12.0			
LANDSCAPE BOULDER	EACH	1	"02"	12+79.0	LT	12.0			
LANDSCAPE BOULDER	EACH	1	"02"	15+33.0	RT	4.4			
LANDSCAPE BOULDER	EACH	1	"02"	17+67.0	RT	33.5			
LANDSCAPE BOULDER	EACH	1	"02"	17+93.0	RT	20.0			
LANDSCAPE BOULDER	EACH	1	"02"	18+13.0	LT	1.6			
LANDSCAPE BOULDER	EACH	1	"02"	20+72.0	LT	23.0			
LANDSCAPE BOULDER	EACH	1	"02"	20+80.0	LT	23.7			
LANDSCAPE BOULDER	EACH	1	"02"	21+26.0	LT	26.1			
LANDSCAPE BOULDER	EACH	1	"02"	25+52.0	LT	5.0			
LANDSCAPE BOULDER	EACH	1	"03"	10+25.0	RT	16.4			
	TOTAL	12							
REMOVE SIGN PANEL	EACH	1	"02"	11+18.0	LT	18.7			
BOLLARD	EACH	1	"03"	10+20.6	RT	11.9			
BOLLARD	EACH	1	"03"	10+20.2	RT	6.7			
BOLLARD	EACH	1	"03"	10+19.1	LT	5.0			
BOLLARD	EACH	1	"03"	10+18.8	LT	9.4			
	TOTAL	4							
CONCRETE BLOCK	EACH	1	"02"	12+88.4	LT	9.7			
CONCRETE BLOCK	EACH	1	"02"	12+98.5	LT	7.3			
CONCRETE BLOCK	EACH	1	"02"	13+07.3	LT	4.6			
CONCRETE BLOCK	EACH	1	"02"	13+15.6	LT	0.6			
CONCRETE BLOCK	EACH	1	"02"	13+22.3	RT	5.2			
CONCRETE BLOCK	EACH	1	"02"	13+27.9	RT	11.6			
CONCRETE BLOCK	EACH	1	"02"	13+33.2	RT	18.4			
CONCRETE BLOCK	EACH	1	"02"	13+46.5	RT	21.7			
	TOTAL	8							
WOOD CURB	LF	100	"A"	10+13.0	LT	21.0	11+03.0	LT	43.0
	TOTAL	100							

202.0002.0000 REMOVAL OF PAYMENT						
ALIGNMENT	STATION START	LT/RT - OFFSET (FT)	STATION END	LT/RT - OFFSET (FT)	SY	DESCRIPTION
"A"	10+21.7	LT - 76.7	11+03.9	LT - 53.3	60.6	EXISTING PATH EAST OF BRIDGE
"A"	11+22.6	LT - 46.5	11+43.4	LT - 59.9	13.8	EXISTING PATH WEST OF BRIDGE
"B"	0+91.4	LT - 17.6	1+18.0	LT - 17.5	6.0	WIBUR ST PAVEMENT FOR C&G REMOVAL EAST SIDE
"B"	0+86.2	RT - 17.8	1+26.5	RT - 17.9	8.9	WILBUR ST PAVEMENT FOR C&G REMOVAL EAST SIDE
"B"	0+92.3	RT - 49.7	1+20.6	RT - 49.9	62.6	APPROACH PAVEMENT ENTANCE TO PARK OFF OF WILBUR
"02"	10+65	LT - 6.6	10+92.8	LT - 8.5	10.0	RRFB TRENCH ACROSS 2ND AVE
"02"	16+83.5	RT - 11.1	17+18.9	RT - 9.5	8.5	RRFB TRENC E ACROSS WILBUR ST
				TOTAL	170.5	

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			ALASKA	0002453 / NFHWY00454	2021	E1	E8

202.0003.0000 REMOVAL OF SIDEWALK					
ALIGNMENT	STATION START	STATION END	OFFSET	SY	DESCRIPTION
"B"	0+91.64	1+18.10	LT	30.11	WEST SIDE WILBUR
"B"	0+86.32	1+26.46	RT	79.33	EAST SIDE WILBUR
			TOTAL	109.44	

202.0009.0000 REMOVAL OF CURB AND GUTTER					
ALIGNMENT	STATION START	STATION END	OFFSET	LF	DESCRIPTION
"B"	0+91.34	1+18.04	LT	27	WEST SIDE WILBUR
"B"	0+86.24	1+26.45	RT	40	EAST SIDE WILBUR
			TOTAL	67	

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606.2000.0000 BOLLARD		
LOCATION NO.	NORTHING	EASTING
B1	197201.4	670450.4
B2	197123.7	670688.6
B3	197180.9	670956.2
B4	197178.3	671070.2
B5	197076.8	672511.3
TOTAL	5	

BOLLARD NOTES:

1. SEE SHEET E4 FOR BOLLARD DETAILS.

607.2012.0000 WOOD FENCE		
FENCE ALIGNMENT	LENGTH (LF)	NOTES
"F1"	160	8 - 20' SECTIONS
"F2"	60	3 - 20' SECTIONS INCLUDING 12' ACCESS GATE
"F3"	50	1 - 10' SECTION, 2 - 20' SECTIONS
"F4"	40	2 - 20' SECTIONS
"F5"	34	1 - 14' SECTION, 1 - 20' SECTION
TOTAL	344	

WOOD FENCE NOTES:

1. SEE PLAN AND PROFILE SHEETS FOR FENCE ALIGNMENT LOCATIONS AND CONTROL DATA.
2. SEE SHEETS E3 AND E4 FOR FENCE DETAILS

607.2005.0000 DRIVE GATE			
GATE LOCATION	NORTHING	EASTING	EACH
CENTER OF GATE	197191.0	670880.0	1
		TOTAL	1

DRIVE GATE NOTES:

1. SEE SHEET E3 FOR DRIVE GATE DETAILS.

608.0001.0006 CONCRETE SIDEWALK 6 INCHES THICK					
ALIGNMENT	STATION START	STATION END	OFFSET	SY	DESCRIPTION
"B"	0+91.64	1+18.10	LT	30.12	WEST SIDE WILBUR NEW SW & CURB RAMP
"B"	0+86.32	1+26.46	RT	62.37	EAST SIDE WILBUR NEW SW & CURB RAMP
			TOTAL	92.49	

609.0002.0ALL CURB AND GUTTER, ALL TYPES					
ALIGNMENT	STATION START	STATION END	OFFSET	LF	DESCRIPTION
"B"	0+91.34	1+18.04	LT	27	WEST SIDE WILBUR
"B"	0+86.24	1+26.45	RT	40	EAST SIDE WILBUR
			TOTAL	67	

608.0006.0000 CURB RAMP					
ALIGNMENT	STATION	OFFSET	TYPE	EACH	DESCRIPTION
"B"	1+05.91	LT	PARALLEL	1	WEST SIDE WILBUR
"B"	1+06.09	RT	PERPENDICULAR	1	EAST SIDE WILBUR
			TOTAL	2	

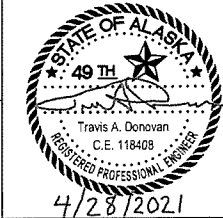
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	E2	E8

621.2008.0000 LANDSCAPE BOULDER		
LOCATION NO.	NORTHING	EASTING
1	197195.4	670445.4
2	197208.2	670455.0
3	197153.8	670493.0
4	197174.0	670515.1
5	197166.1	670544.1
6	197158.1	670573.0
7	197144.1	670599.5
8	197130.0	670626.0
9	197116.0	670652.5
10	197101.9	670679.0
11	197123.4	670680.7
12	197123.8	670696.1
13	197194.4	670866.4
14	197190.1	670896.1
15	197189.5	670926.2
16	197188.9	670956.3
17	197173.5	670955.8
18	197185.1	671072.9
19	197171.4	671068.6
20	197180.7	671091.2
21	197161.9	671114.6
22	197284.0	671821.0
23	197088.2	672476.0
24	197079.9	672504.8
25	197075.8	672518.3
26	197065.5	672518.3
TOTAL	26	

LANDSCAPE BOULDER NOTES:

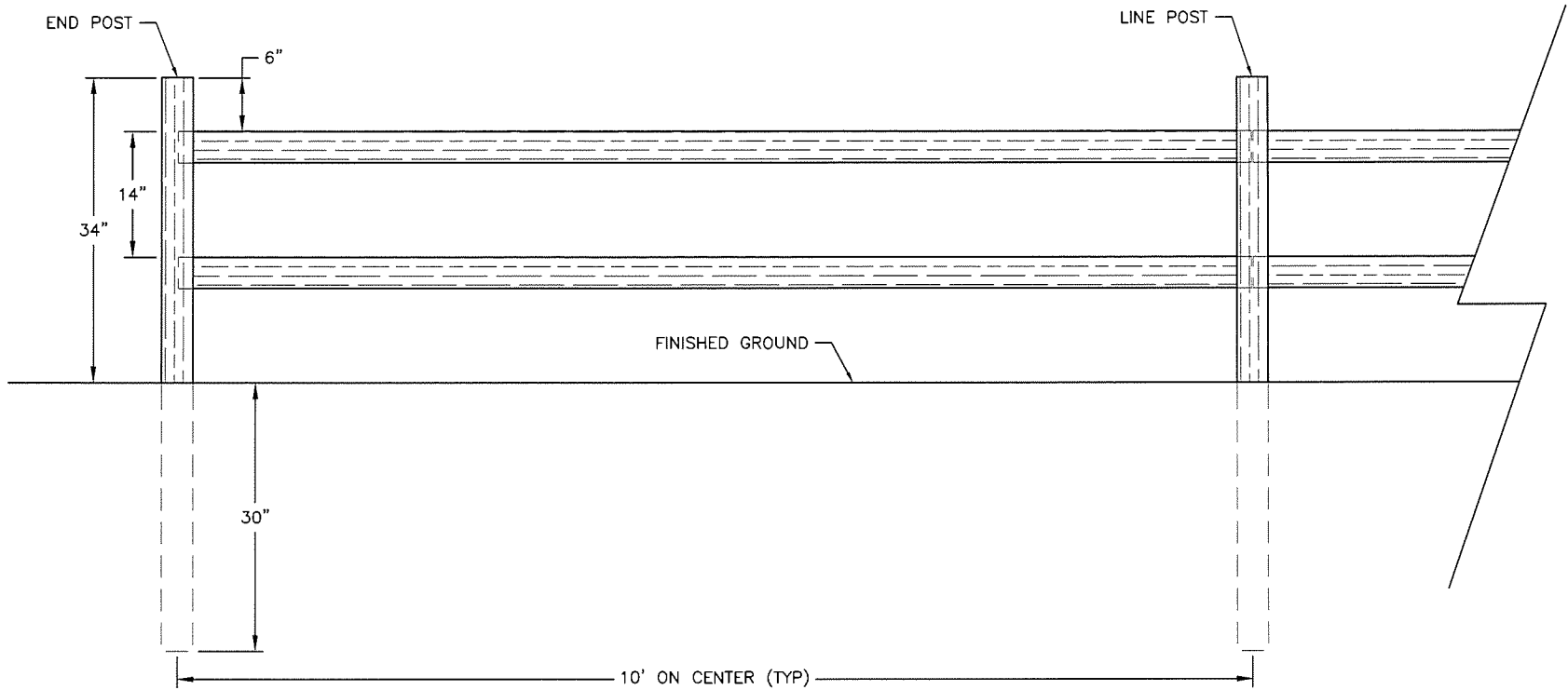
1. SEE SHEET E4 FOR LANDSCAPE BOULDER DETAILS.

670.0011.0000 METHYL METHACRYLATE TRANSVERSE PAVEMENT MARKINGS		
LOCATION	24" WHITE (SF)	8" WHITE (SF)
2ND STREET CROSSWALK	215.5	
2ND AVE PATH SEPARATION		125.5
WILBUR STREET CROSSWALK	297.5	
SUB TOTALS (SF)	513	125.5
GRAND TOTAL (SF)	638.5	



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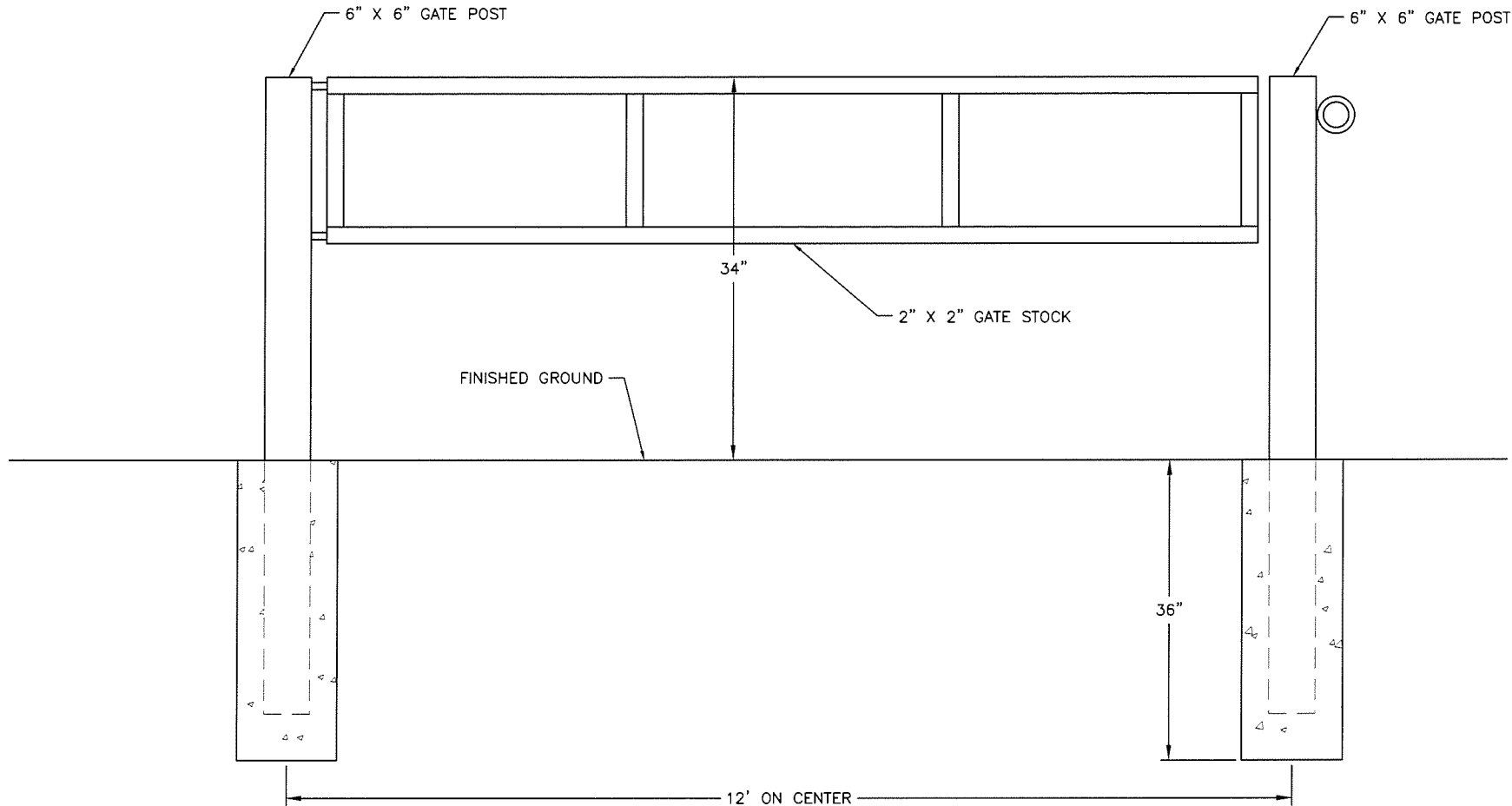
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	E3	E8



SPLIT RAIL WOOD FENCE DETAIL

SPLIT RAIL WOOD FENCE NOTES:

1. SPLIT RAIL FENCING SHALL BE TWO RAIL, RUSTIC SPLIT CEDAR, JUMBO 64" POSTS AND JUMBO 10' RAILS
2. AT SPLIT RAIL FENCE BREAKS, THE LAST POST SHALL BE AN END POST.
3. ALL RAILS AND POSTS SHALL BE STAINED AND SEALED PRIOR TO INSTALLATION WITH FLOOD PRO SERIES 96/9600 TRANSPARENT ACRYLIC/OIL STAIN IN WALNUT OR APPROVED EQUAL.
4. AFTER INSTALLATION OF FENCE RAILS, RAILS SHALL BE FASTENED TO POSTS WITH SCREWS.
5. EMBED POSTS 30" AND BACKFILL WITH COMPACTED SOIL.



DRIVE GATE DETAIL

DRIVE GATE NOTES:

1. GATE SHALL BE UNGALVANIZED STEEL PRIMED WITH OIL BASED KROMIK UNIVERSAL METAL PRIMER IN RED OXIDE UNDER TWO COATS OF OIL BASED URETHANE ALKYD ENAMEL IN OSHA SAFETY YELLOW.
2. CONCRETE FOOTINGS SHALL BE MINIMUM OF 12" X 36" CLASS A CONCRETE.

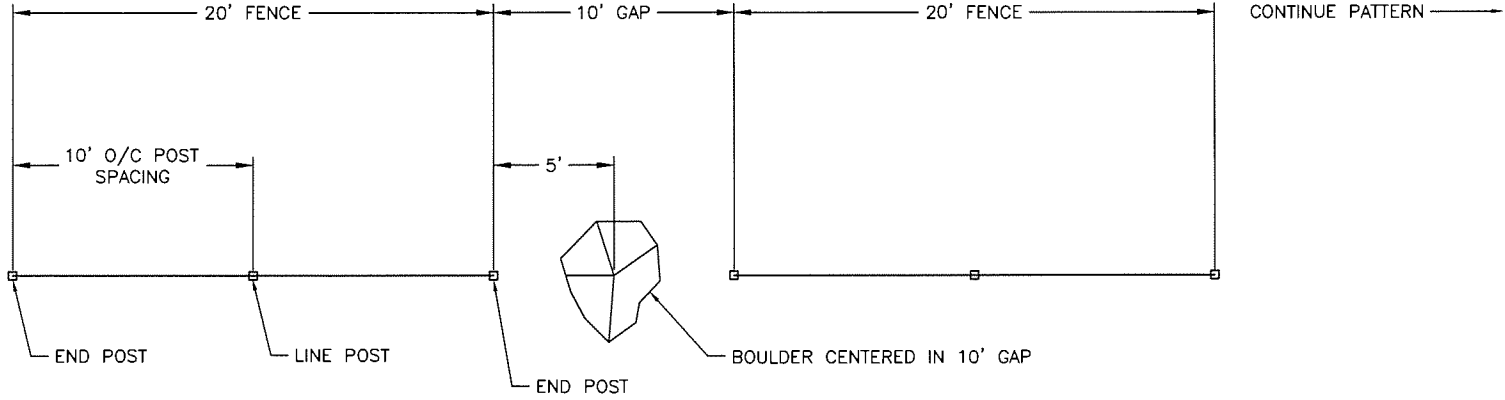
FENCE DETAILS



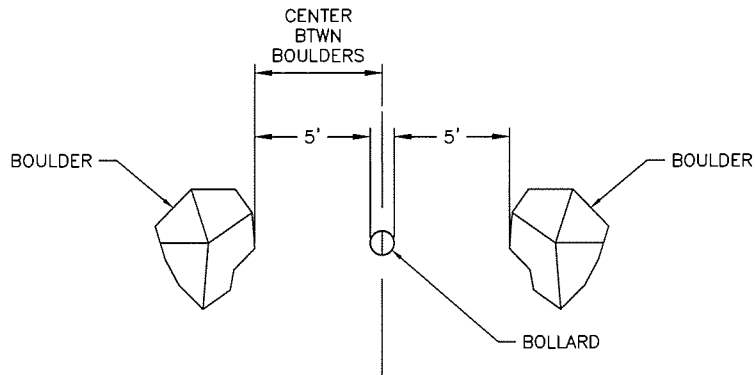
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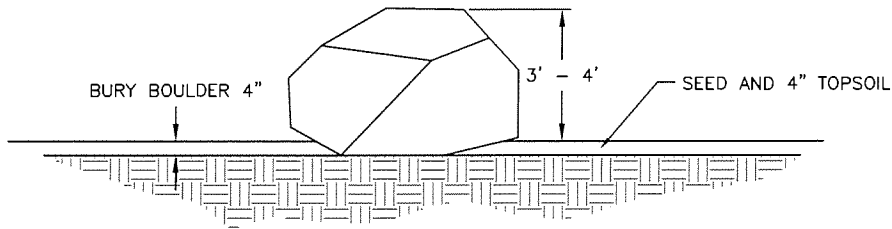
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	E4	E8



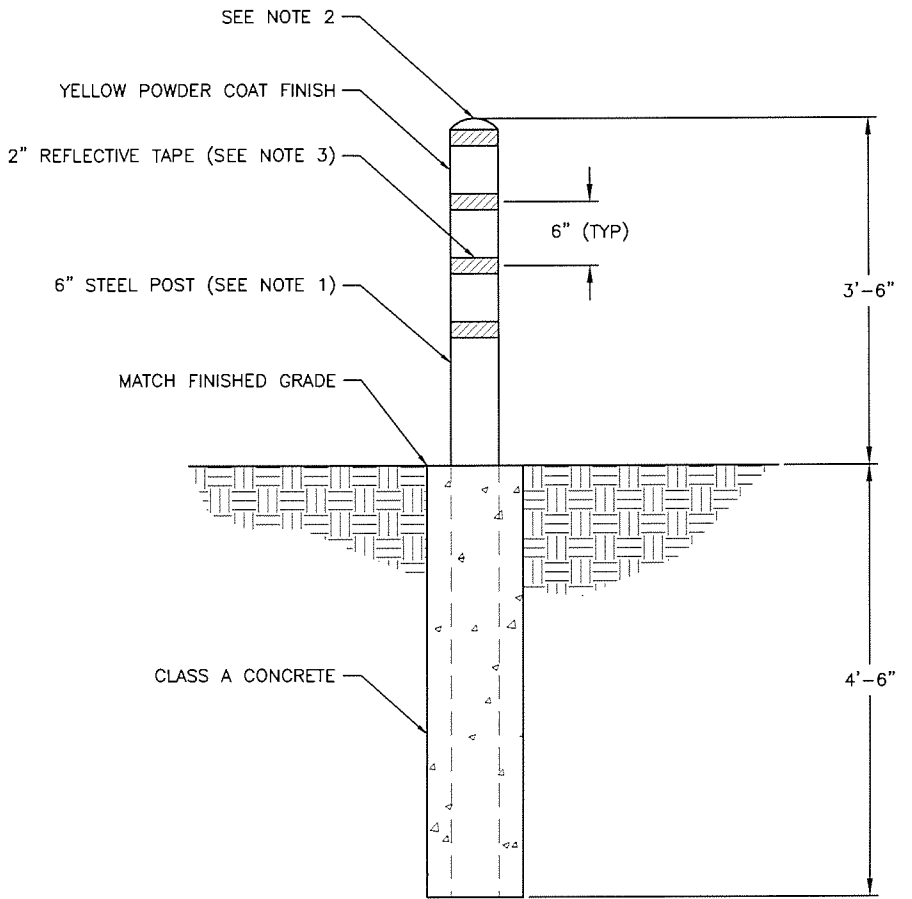
TYPICAL SPLIT RAIL FENCE AND BOULDER LAYOUT



TYPICAL CENTER PATH BOLLARD AND BOULDER LAYOUT



LANDSCAPE BOULDER DETAIL



BOLLARD DETAIL

BOLLARD NOTES:

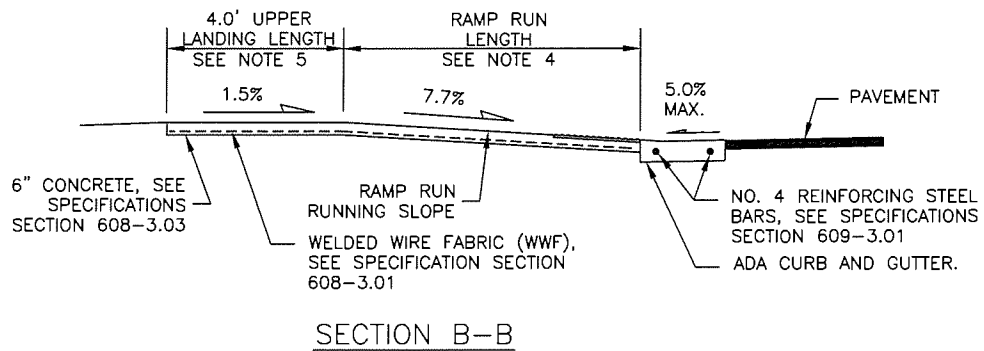
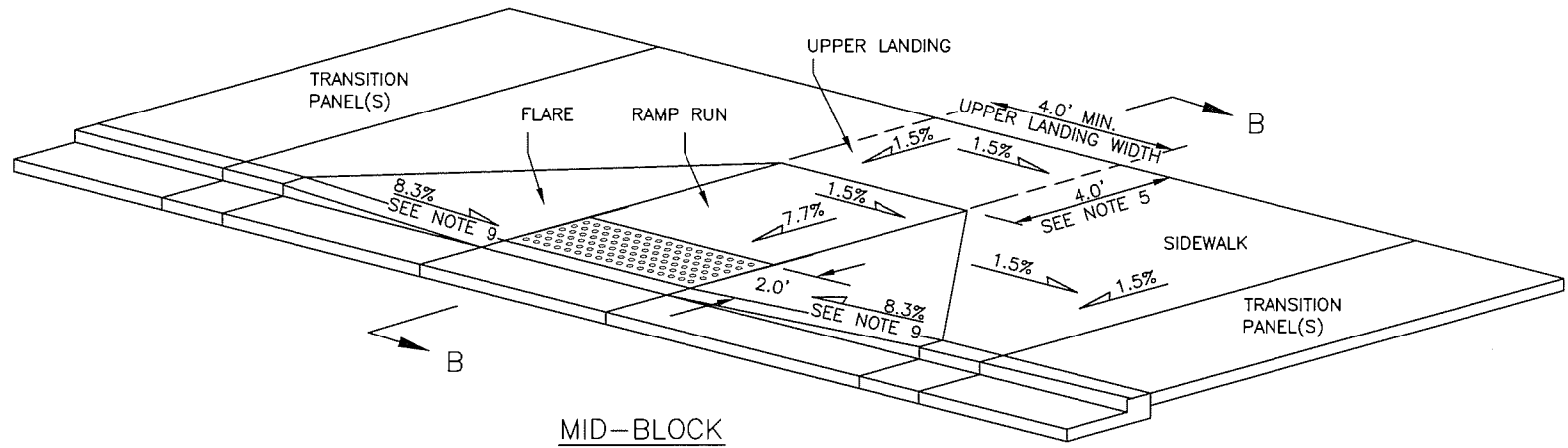
1. PROVIDE 6" DIA. GALVANIZED STEEL, SCHEDULE #40 PIPE, FILLED WITH CONCRETE
2. ROUND CONCRETE AT TOP OF POST SMOOTH AND PAINT YELLOW. USE EXTERIOR ACRYLIC-EPOXY CONCRETE PAINT.
3. INSTALL 4-2" BANDS OF YELLOW REFLECTIVE TAPE AS SHOWN.
4. LOCATION AND QUANTITY OF POSTS AS INDICATED ON DRAWINGS.

FENCE, BOLLARD, & LANDSCAPE
BOULDER DETAILS



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	E5	E8



CONSTRUCTION NOTES:

- CONSTRUCT RAMP RUNS, FLARES, AND UPPER LANDINGS OF 6" CONCRETE, REGARDLESS OF WHETHER THE SIDEWALK IS ASPHALT OR CONCRETE.
- NOTIFY THE ENGINEER PRIOR TO CONCRETE PLACEMENT IF MAXIMUM OR MINIMUM GRADES CANNOT BE CONSTRUCTED. UNLESS PREVIOUSLY APPROVED BY THE ENGINEER, ANY FEATURE EXCEEDING MINIMUM OR MAXIMUM ALLOWABLE SLOPES WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
- TRANSITION PANEL(S): WHEN CONNECTING INTO EXISTING SIDEWALK, REPLACE ADJACENT SIDEWALK PANEL(S) LABELED AS TRANSITION PANEL(S), AS REQUIRED FOR CROSS SLOPE TRANSITION FROM THE EXISTING SIDEWALK TO THE NEW UPPER LANDING TO ENSURE THE UPPER LANDING IS CONSTRUCTED WITH A COMPLIANT CROSS SLOPE.
- RAMP RUN: CONSTRUCT RAMP RUN WIDTH TO 4.0 FEET. RAMP RUN WIDTH MAY BE DECREASED TO 3.0 FEET IF APPROVED BY THE ENGINEER. SURVEY PRIOR TO CONSTRUCTION TO VERIFY RAMP RUN LENGTHS REQUIRED FOR COMPLIANT RUNNING SLOPES. ADJUST THE RAMP RUN LENGTH AS NEEDED TO ENSURE COMPLIANT RAMP RUN RUNNING SLOPE IF CONDITIONS ALLOW, OTHERWISE NOTIFY THE ENGINEER. THIS SURVEY IS SUBSIDIARY TO 642 PAY ITEMS.
- UPPER LANDING LENGTH: CONSTRUCT UPPER LANDING LENGTH TO 4.0 FEET. UPPER LANDING LENGTH MAY BE DECREASED TO 3.0 FEET IF APPROVED BY THE ENGINEER.
UPPER LANDING WIDTH: THE WIDTH OF ALL UPPER LANDINGS SHALL MATCH OR EXCEED THE WIDTH OF THE ADJACENT RAMP RUN.
*UPPER LANDING RUNNING SLOPE EXCEPTION (SECTION C-C): WHEN UPPER LANDING DOES NOT SERVE AS A TURNING SPACE, THE RUNNING SLOPE MAY BE INCREASED TO 4.5% NOMINAL (5.5% MAX).
- DETECTABLE WARNING TILE: INSTALL 24" DETECTABLE WARNING TILES FOR THE FULL WIDTH OF THE RAMP RUN.
- JOINTS: INSTALL CONTINUOUS MINIMUM 6 INCH DEEP 1/2" EXPANSION JOINT AT ALL LOCATIONS WHERE SIDEWALK, CURB RAMP, OR CURB AND GUTTER (ANY TYPE) MEET. SEAL ALL EXPANSION JOINTS WITH HOT POURED ELASTIC TYPE JOINT SEAL CONFORMING TO SPECIFICATIONS 705-2.02 JOINT SEALANT. EXPANSION AND DUMMY JOINTS IN THE SIDEWALK AND CURB RAMP SHALL LINE UP WITH EXPANSION AND DUMMY JOINTS IN THE CURB AND GUTTER.
- WHEN APPROVED BY THE ENGINEER, FLARES MAY BE REPLACED WITH A CURB AT LOCATIONS WHERE ACCESS TO THE SIDE OF A RAMP RUN IS BLOCKED BY POLES, UTILITY BOXES, OTHER OBSTRUCTIONS, OR BY A NON-ACCESSIBLE SURFACE SUCH AS A DIRT PLANTER STRIP. SEE STANDARD PLAN I-20 FOR DETAILS.
- SLOPE GUIDE TABLE:

SLOPES GUIDE			
	PREFERRED	MINIMUM	MAXIMUM
RAMP RUN RUNNING SLOPE	7.7%	N/A	8.3%
FLARE SLOPE (IF UPPER LANDING)	8.3%	N/A	10.0%
FLARE SLOPE (NO UPPER LANDING)	7.7%	N/A	8.3%
UPPER LANDING SLOPE (ANY DIRECTION)	1.5%	1%	2%*
ALL CROSS SLOPES	1.5%	1%	2%

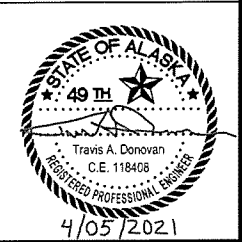
SLOPE DIRECTION KEY:
RAMP RUN RUNNING SLOPE:
PERPENDICULAR TO CURB & GUTTER

RAMP RUN CROSS SLOPE:
PARALLEL TO CURB & GUTTER

FLARE SLOPE:
PARALLEL TO CURB & GUTTER

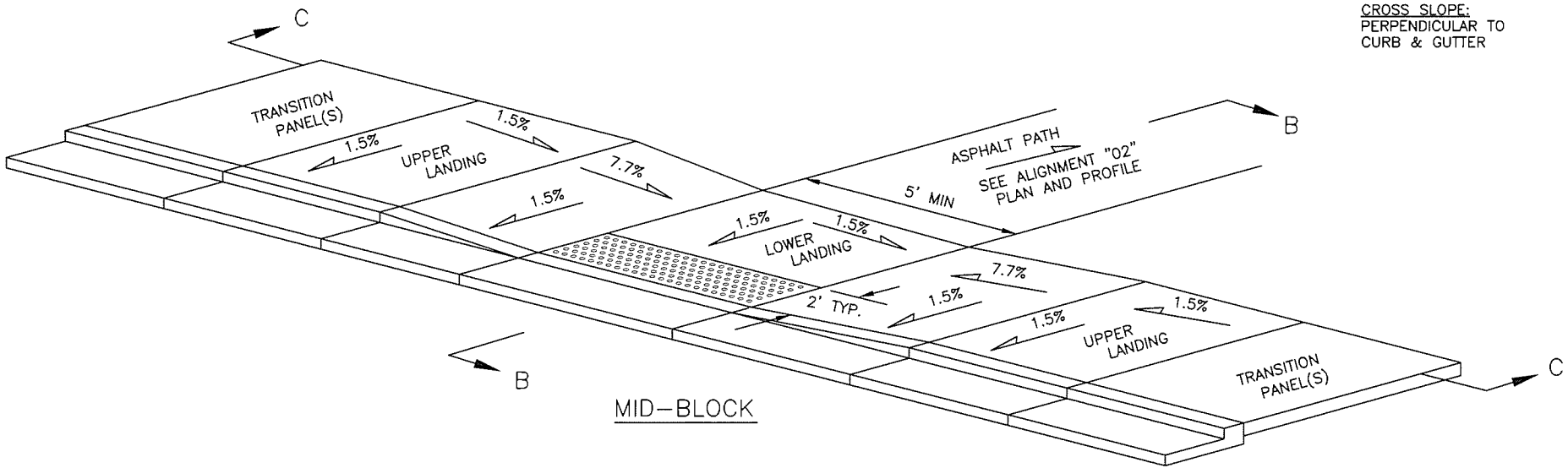
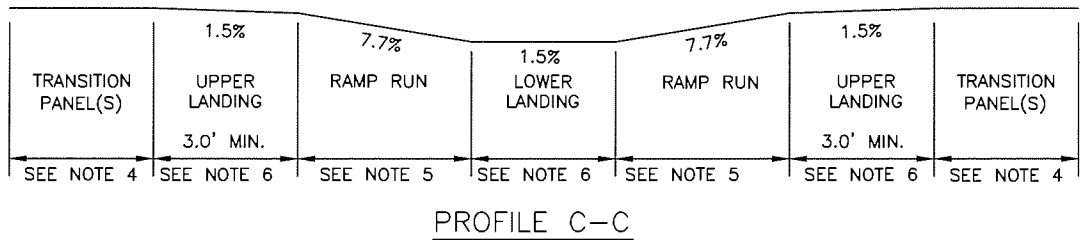
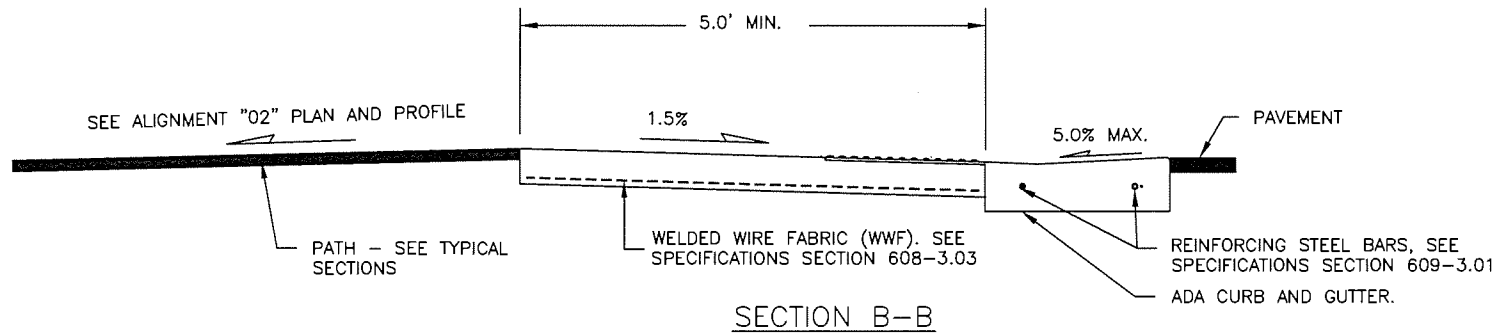
Note: Drawing not to scale

PERPENDICULAR CURB
RAMP



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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002453 / NFWY00454	2021	E6	E8



CONSTRUCTION NOTES:

1. CONSTRUCT RAMP RUN AND BOTH UPPER AND LOWER LANDING OF 6" CONCRETE WITH COARSE BROOM FINISH IN THE DIRECTION OF THE CROSS SLOPE.
2. NOTIFY THE ENGINEER PRIOR TO CONCRETE PLACEMENT IF MAXIMUM OR MINIMUM GRADES CANNOT BE CONSTRUCTED. UNLESS PREVIOUSLY APPROVED BY THE ENGINEER, ANY FEATURE EXCEEDING MINIMUM OR MAXIMUM ALLOWABLE SLOPES WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
3. WHEN ONE PARALLEL CURB RAMP WILL SERVE TWO DIRECTIONS, USE THE ONE CROSSING DIRECTION DETAIL AND REFER TO THE STRIPING PLANS FOR CROSSWALK LAYOUTS.
4. **TRANSITION PANEL(S):** WHEN CONNECTING INTO EXISTING SIDEWALK, REPLACE ADJACENT SIDEWALK PANEL(S) LABELED AS TRANSITION PANEL(S), AS REQUIRED FOR CROSS SLOPE TRANSITION FROM THE EXISTING SIDEWALK TO THE NEW UPPER LANDING TO ENSURE THE UPPER LANDING IS CONSTRUCTED WITH A COMPLIANT CROSS SLOPE.
5. **RAMP RUN:** SURVEY PRIOR TO CONSTRUCTION TO VERIFY RAMP RUN LENGTHS REQUIRED FOR COMPLIANT RUNNING SLOPES. ADJUST THE RAMP RUN LENGTH AS NEEDED TO ENSURE COMPLIANT RAMP RUN RUNNING SLOPE. THIS SURVEY IS SUBSIDIARY TO 642 PAY ITEMS.
6. **UPPER LANDING LENGTH:** CONSTRUCT UPPER LANDING LENGTH TO 4.0 FEET. UPPER LANDING LENGTH MAY BE DECREASED TO 3.0 FEET IF APPROVED BY THE ENGINEER.
SHARED UPPER LANDING LENGTH: CONSTRUCT SHARED UPPER LANDING LENGTH TO 4.0 FEET.
UPPER LANDING WIDTH: THE WIDTH OF ALL UPPER LANDINGS SHALL MATCH OR EXCEED THE WIDTH OF THE ADJACENT RAMP RUN.
LOWER LANDING: ENSURE LOWER LANDING HAS A 5-FT DIAMETER TURNING SPACE.
7. **DETECTABLE WARNING TILE:** INSTALL 24" DETECTABLE WARNING TILES FOR THE FULL WIDTH OF THE RAMP RUN.
8. **JOINTS:** INSTALL CONTINUOUS MINIMUM 6 INCH DEEP 1/2" EXPANSION JOINT AT ALL LOCATIONS WHERE SIDEWALK, CURB RAMP, OR CURB AND GUTTER (ANY TYPE) MEET. SEAL ALL EXPANSION JOINTS WITH HOT POURED ELASTIC TYPE JOINT SEAL CONFORMING TO SPECIFICATIONS 705-2.02 JOINT SEALANT. EXPANSION AND DUMMY JOINTS IN THE SIDEWALK AND CURB RAMP SHALL LINE UP WITH EXPANSION AND DUMMY JOINTS IN THE CURB AND GUTTER.
9. SLOPE GUIDE TABLE:

SLOPES GUIDE			
	PREFERRED	MINIMUM	MAXIMUM
UPPER LANDING RUNNING SLOPE	1.5%	1%	5%
RAMP RUN RUNNING SLOPE	7.7%	N/A	8.3%
LOWER LANDING RUNNING SLOPE	1.5%	1%	2%
CROSS SLOPE	1.5%	1%	2%

SLOPE DIRECTION KEY:

RUNNING SLOPE:
PARALLEL TO CURB
& GUTTER

CROSS SLOPE:
PERPENDICULAR TO
CURB & GUTTER

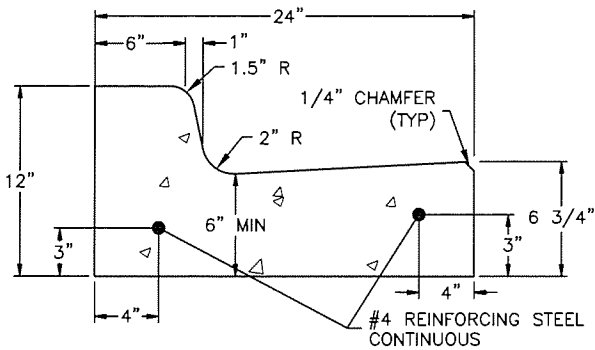
Note: Drawing not to scale

PARALLEL CURB RAMP

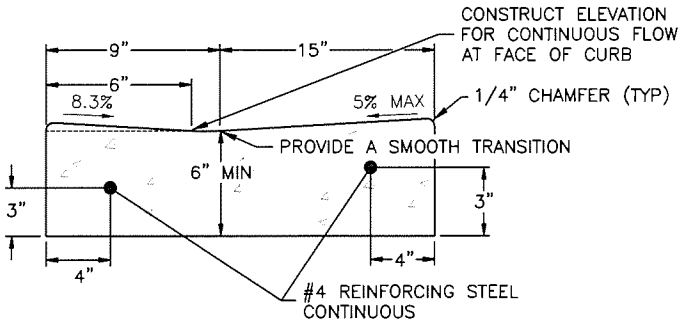


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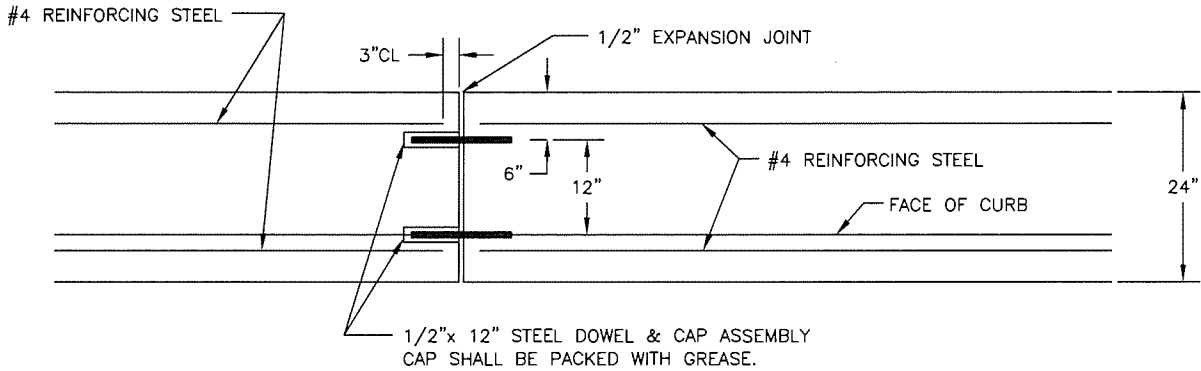
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	E7	E8



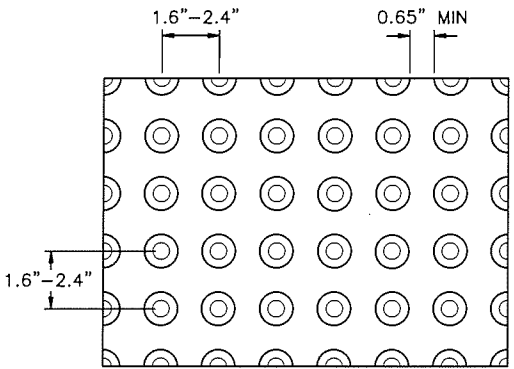
STANDARD CURB AND GUTTER
CATCH



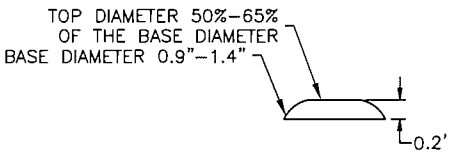
CURB RAMP CURB AND GUTTER
CATCH



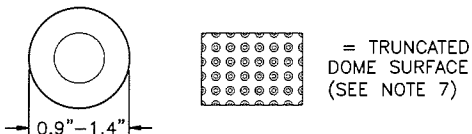
CURB AND GUTTER EXPANSION JOINT DETAIL
PLAN VIEW



TRUNCATED PATTERN DETAIL



TRUNCATED DOME DETAILS



GENERAL NOTES:

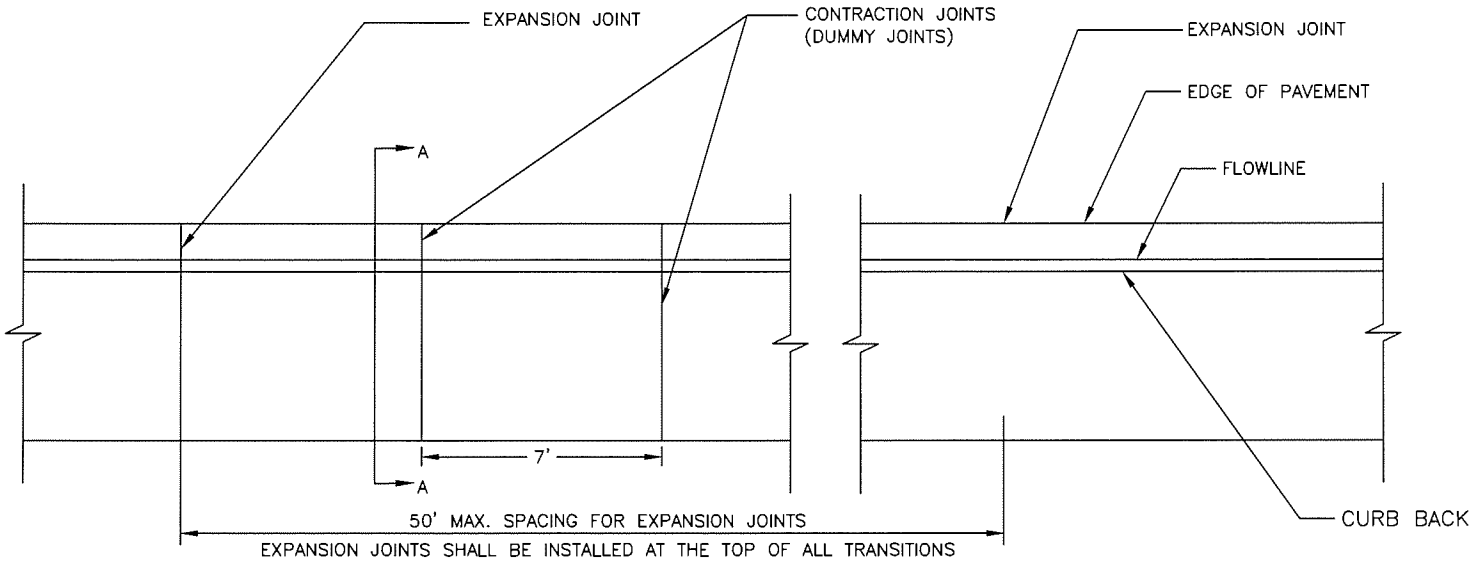
- USE THE TYPE OF CURB AND GUTTER SPECIFIED ON THE PLANS.
- CONSTRUCT RAMP SLOPES AT A 7.7% NOMINAL GRADE, OR FLATTER. RAMP SLOPES MAY BE INCREASED TO A MAXIMUM OF 8.3% WHEN SITE CONDITIONS WARRANT IT. RAMP LENGTHS SHOULD BE INCREASED TO KEEP GRADES UNDER THE 8.3% MAXIMUM, BUT ARE NOT REQUIRED TO EXCEED 15.0 FEET. THE RESULTING RAMP GRADE AT A 15.0 FOOT RAMP LENGTH IS ACCEPTABLE EVEN IF IT EXCEEDS 8.3%.
- INSTALL 24" WIDE DETECTABLE WARNING TILES FOR THE FULL WIDTH OF THE RAMP. PROVIDE TILES WITH TRUNCATED DOMES MEETING SECTION 705.1 OF THE 2006 ADA STANDARDS FOR TRANSPORTATION FACILITIES. ALIGN TRUNCATED DOME PATTERN IN THE PREDOMINANT DIRECTION OF WHEELCHAIR TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
- CURB AND GUTTER REINFORCING BARS TO BE SPLICED SHALL BE LAPPED AT LEAST 20 BAR DIAMETERS AND DOUBLE TIED. THE INNER AND OUTER BAR SPLICES SHALL BE OFFSET FROM EACH OTHER BY AT LEAST SIX INCHES.
- ALL DETECTABLE WARNINGS TO BE WEATHERED PATINA DUCTILE IRON. PROJECT ENGINEER TO APPROVE COLOR PRIOR TO PLACEMENT.
- ALL CURB RAMP LAYOUTS AND DIMENSIONS IN THIS PLAN SET ARE APPROXIMATE AND NEED TO BE FIELD FIT AND SHALL MEET 2006 ADA STANDARDS FOR MAXIMUM SLOPES. FINAL LAYOUT TO BE APPROVED BY THE ENGINEER PRIOR TO CONCRETE POUR.
- STANDARD CURB & GUTTER, DEPRESSED CURB & GUTTER, CURB RAMP CURB & GUTTER, TERMINATION TRANSITIONS, SHALL ALL BE MEASURED AND PAID FOR UNDER ITEM 609(2).
- SAWCUT EXISTING SIDEWALK FULL DEPTH PRIOR TO REMOVAL.

CURB AND GUTTER
DETAILS

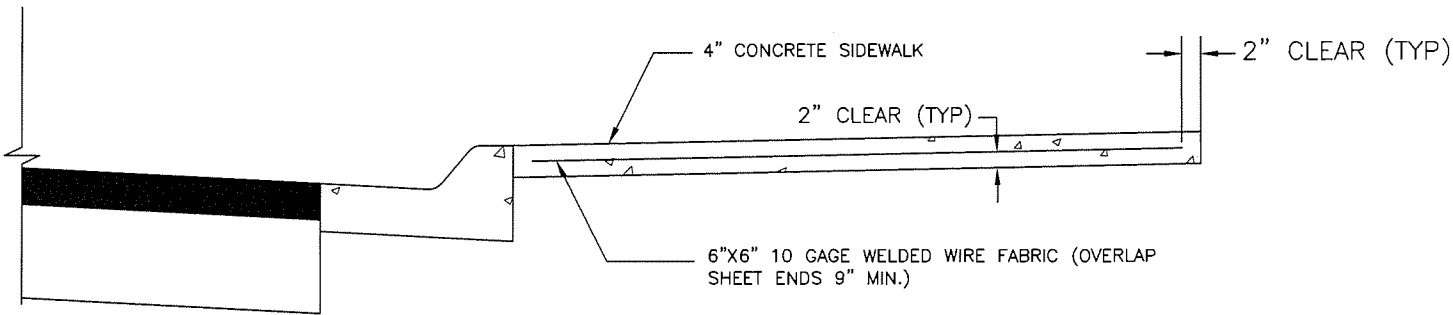


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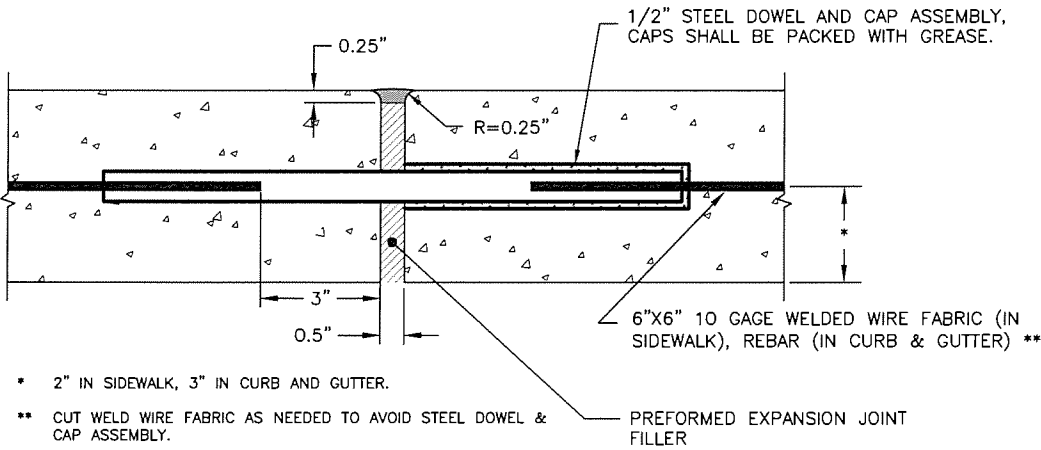
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	E8	E8



SIDEWALK DETAIL



SECTION A-A



EXPANSION JOINT DETAIL
PROFILE

CONTRACTION JOINT NOTES:

1. SPACING SHALL BE EQUAL TO THE SIDEWALK WIDTH UNLESS OTHERWISE NOTED. JOINTS IN THE SIDEWALK AND CURB AND GUTTER SHALL BE AT THE SAME LOCATION.

EXPANSION JOINT NOTES:

1. IN CURB AND GUTTER, CONSTRUCT EXPANSION JOINTS AT CURB RAMPS, DROP INLETS, CURB CUTS, CURB RETURNS AND A MAXIMUM OF 100 FOOT INTERVALS. EXPANSION JOINTS IN SIDEWALK WILL BE CONSTRUCTED AT THE SAME LOCATIONS AS IN THE CURB AND GUTTER. THE LOCATION OF EXPANSION JOINTS MAY BE ADJUSTED BY THE ENGINEER.
2. PLACE (3) STEEL DOWEL AND CAP ASSEMBLIES PER SIDEWALK JOINT AND (2) PER CURB AND GUTTER JOINT. PLACE ASSEMBLIES IN CONCRETE AS DIRECTED BY THE ENGINEER. THE MAXIMUM SPACING WILL BE 3 FEET
3. DRILL AND GROUT STEEL DOWEL AND CAP ASSEMBLIES INTO EXISTING CONCRETE.

SIDEWALK DETAILS



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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	F1	F14



PLAN AND PROFILE NOTES:

- WHERE NEW PATH CONNECTS TO EXISTING PATHS OR SIDEWALKS, TRANSITION TYPICAL SECTION CROSS SLOPE TO MEET EXISTING PATH OR SIDEWALK IN A DISTANCE OF 10 FEET.

TRAFFIC MARKING KEY

8"W 8" WHITE LINE

24"W 24" WHITE LINE

NOTE:
DIMENSIONS ARE TO CENTER OF STRIPE OR STRIPE GROUP.

PLAN VIEW KEY

STATION
SIGN CODE(S)
SIGN LOCATION #

B# BOLLARD LOCATION NO.

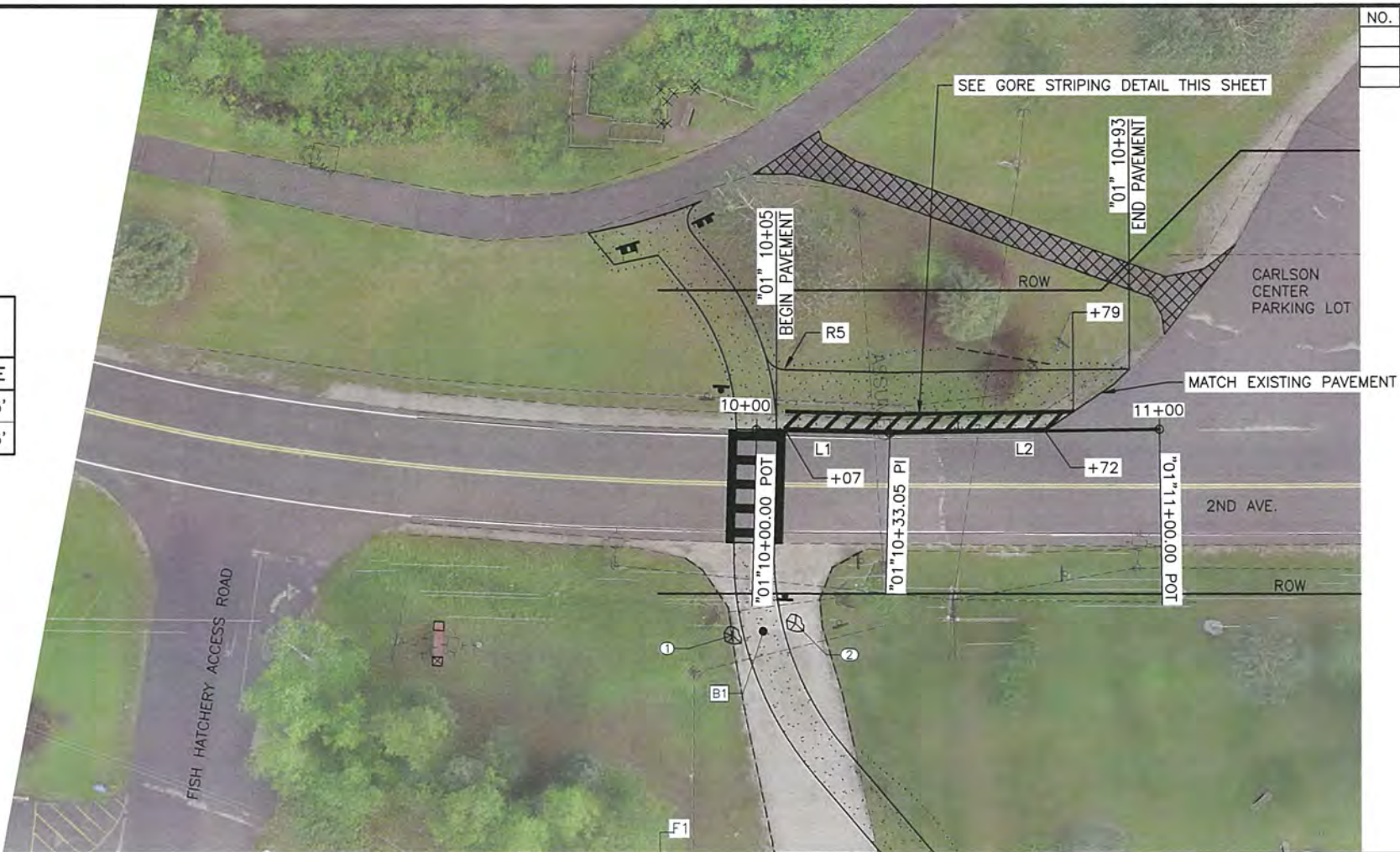
LANDSCAPE BOULDER LOCATION NO.

◆ ← F# FENCE ALIGNMENT POINT

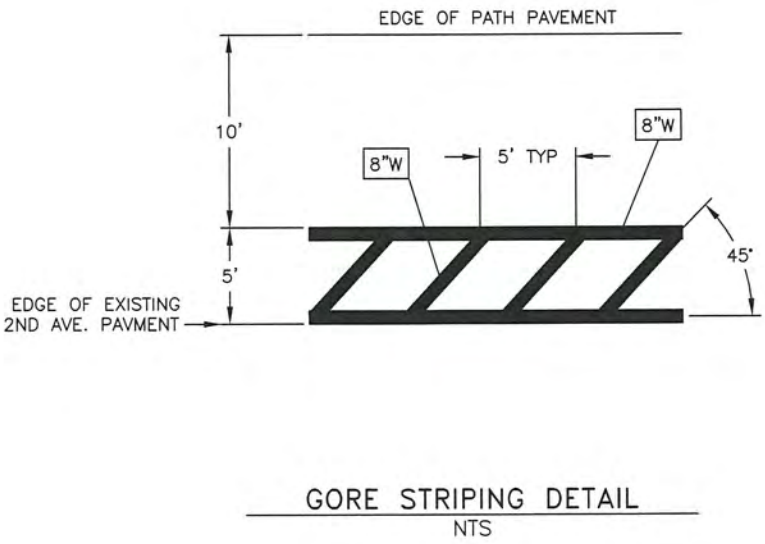
**PLAN & PROFILE SHEET
LAYOUT INDEX**



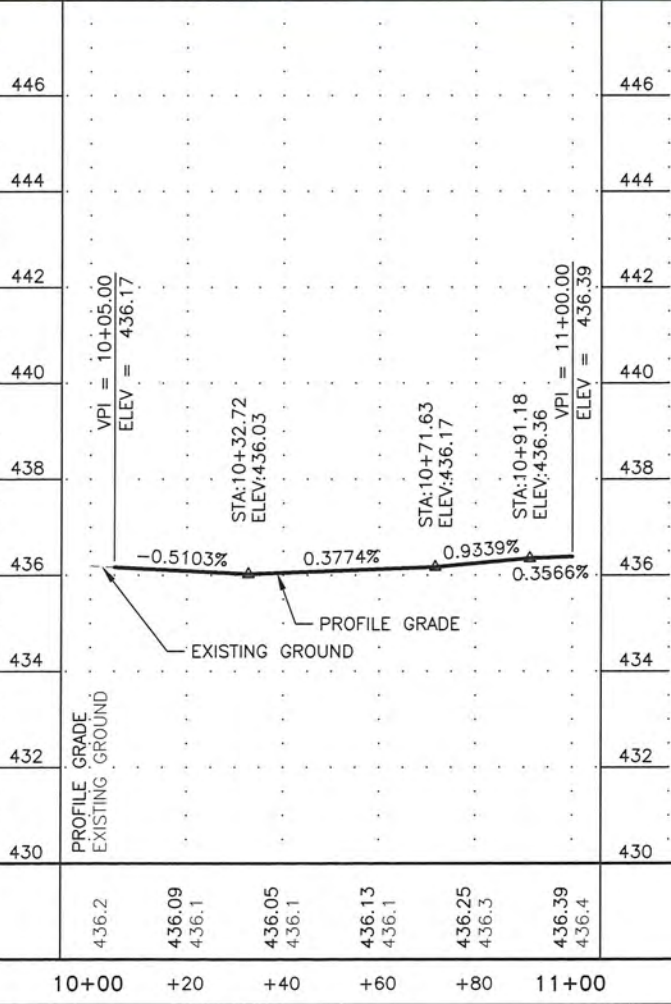
LINE TABLE		
NO.	BEARING	DISTANCE
L1	N 49°16'32" E	33.05'
L2	N 46°58'22" E	66.95'

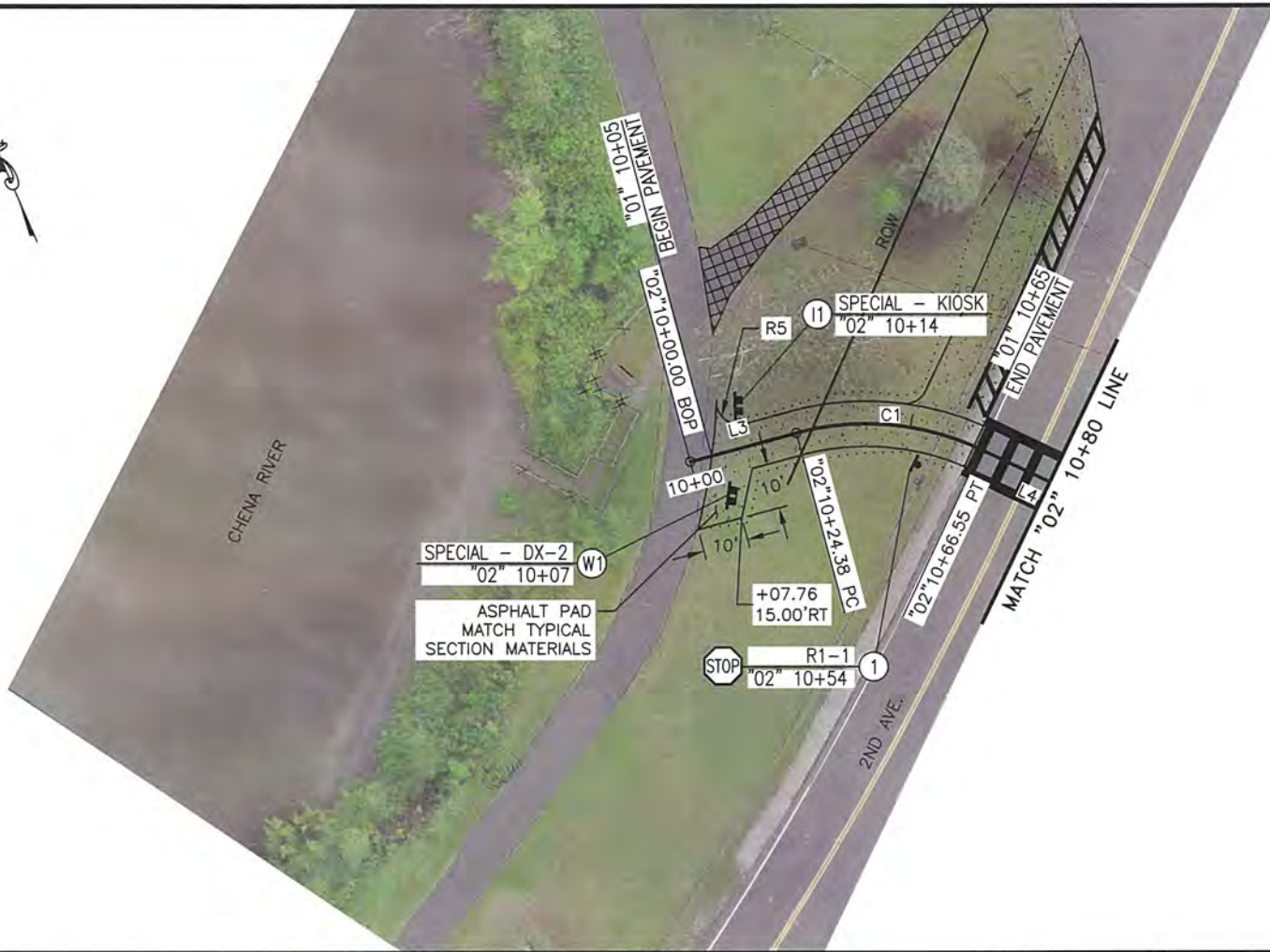


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	F2	F14



ALIGNMENT 01 PLAN AND PROFILE



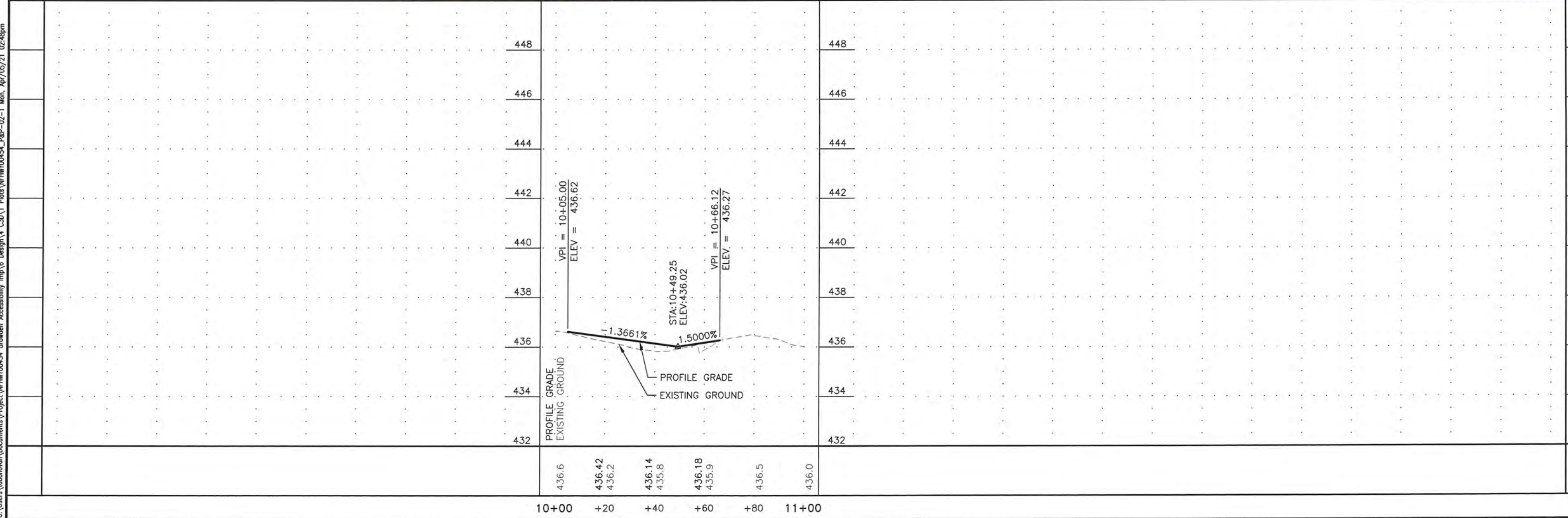


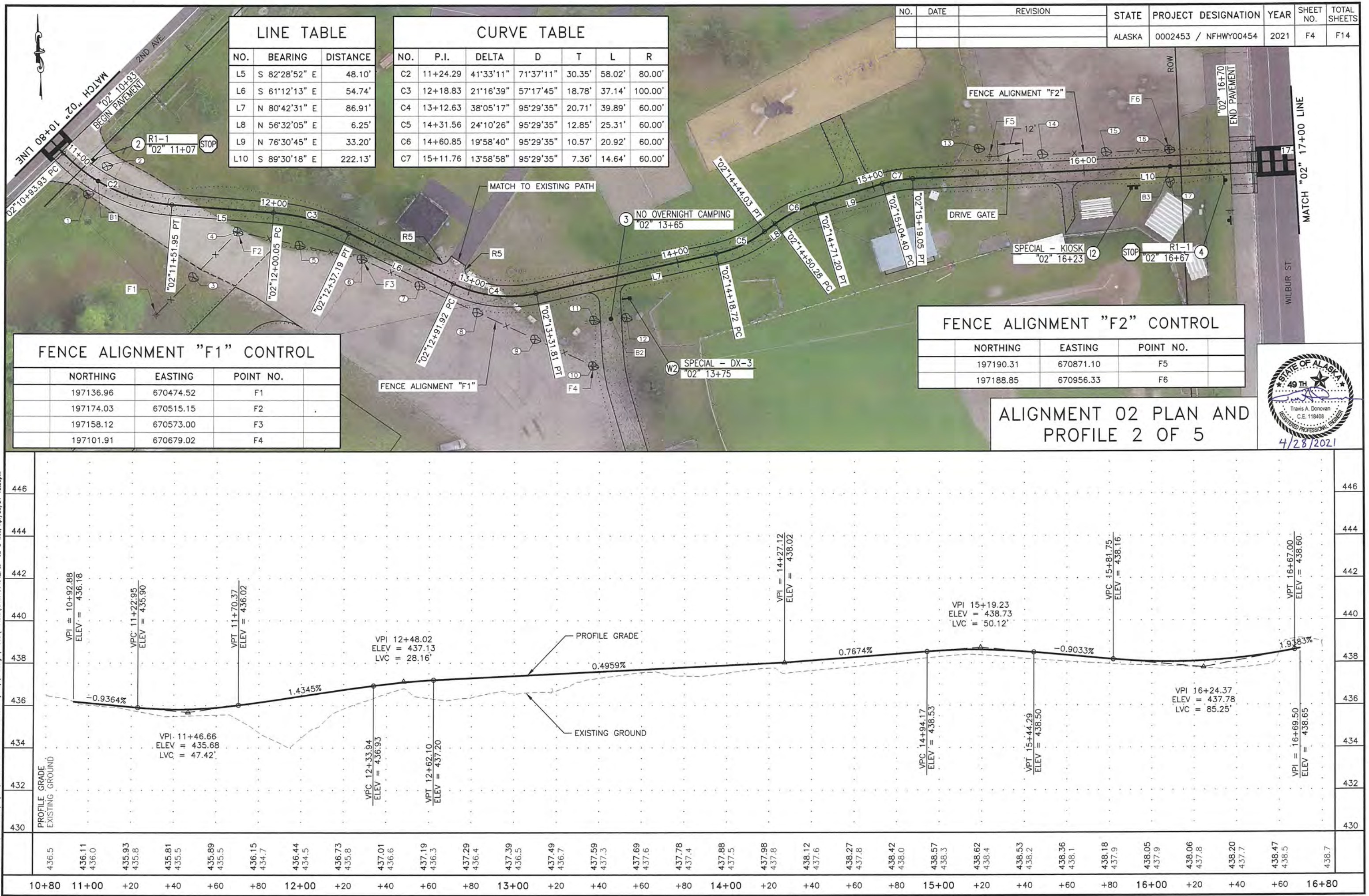
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	F3	F14

LINE TABLE		
NO.	BEARING	DISTANCE
L3	S 81°11'46" E	24.38'
L4	S 40°55'41" E	27.38'

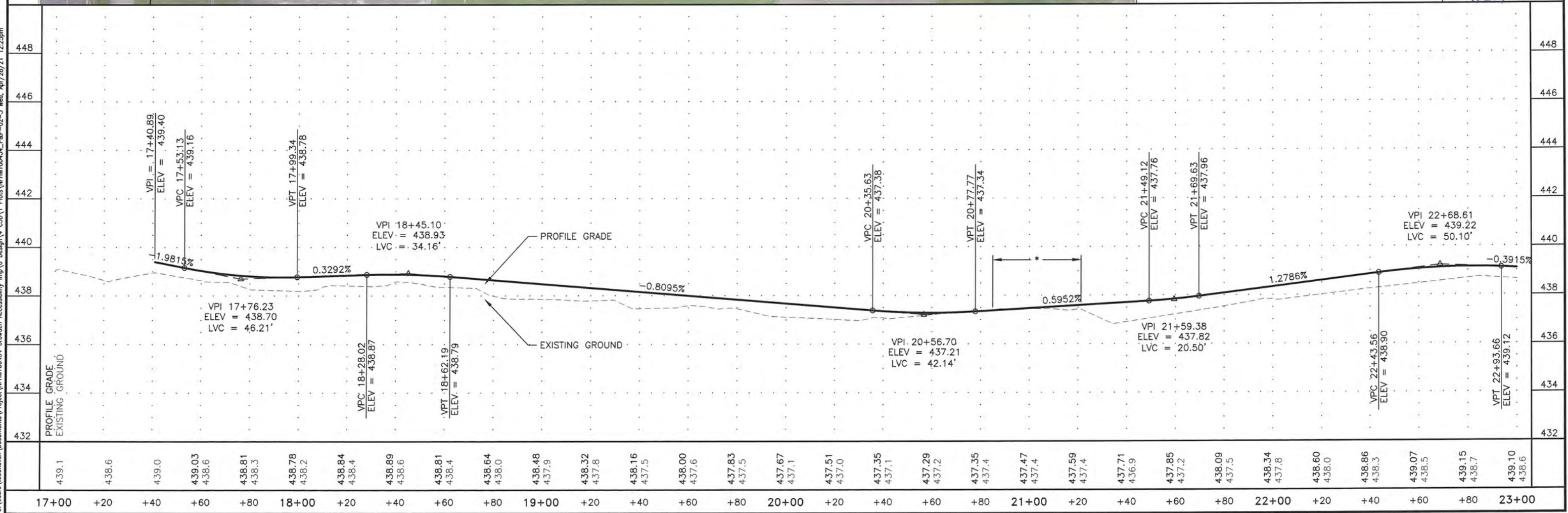
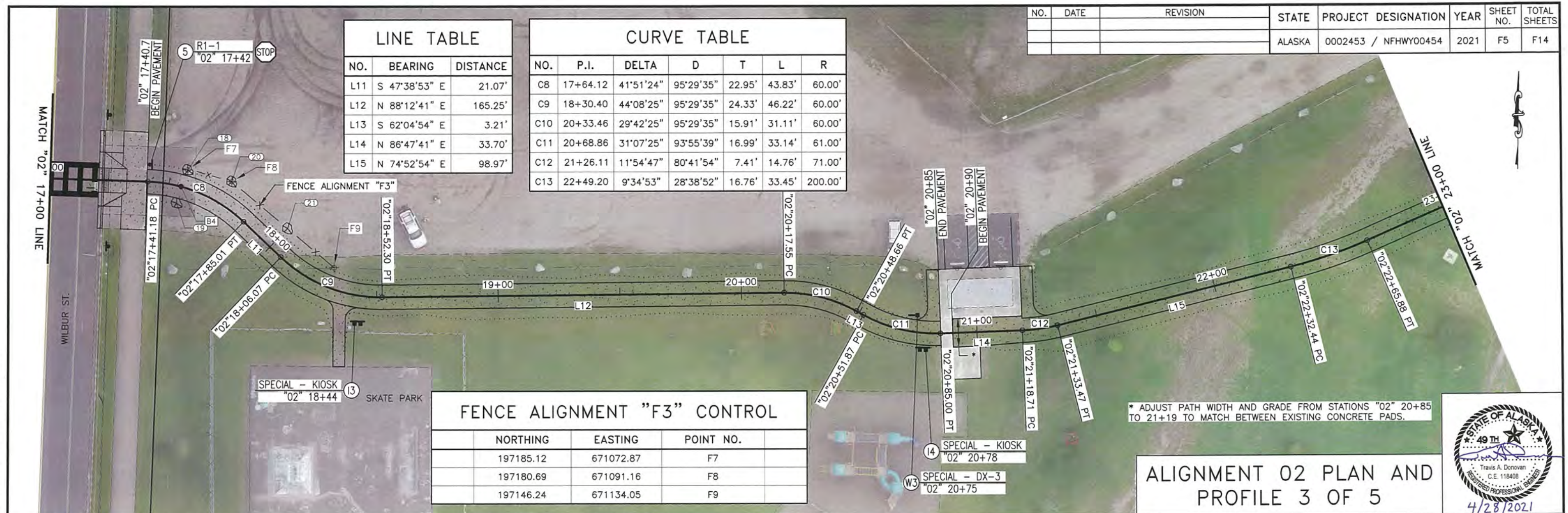
CURVE TABLE						
NO.	P.I.	DELTA	D	T	L	R
C1	10+46.38	40°16'04"	95°29'35"	22.00'	42.17'	60.00'

ALIGNMENT 02 PLAN AND
PROFILE 1 OF 5

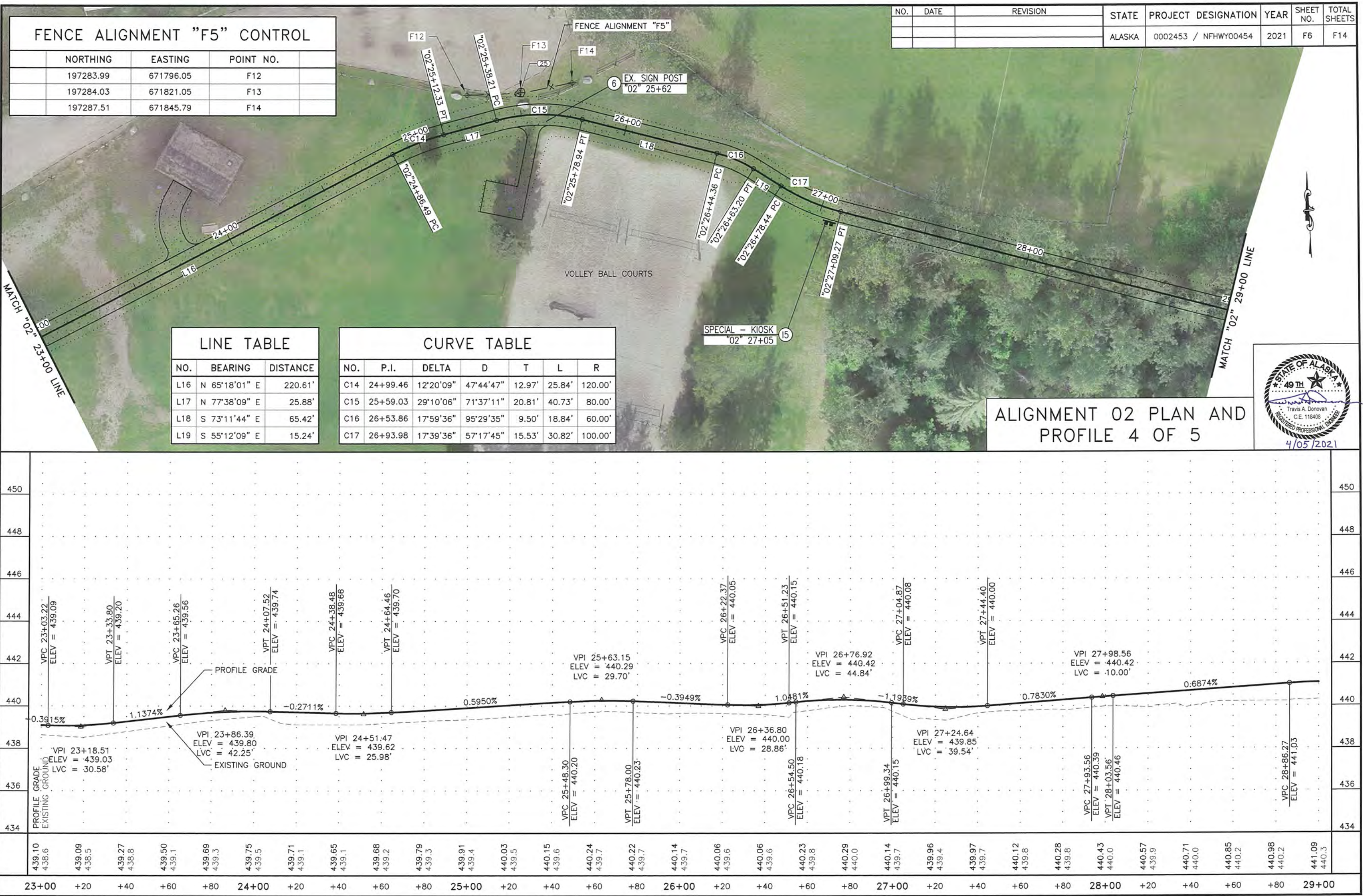




NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	F5	F14



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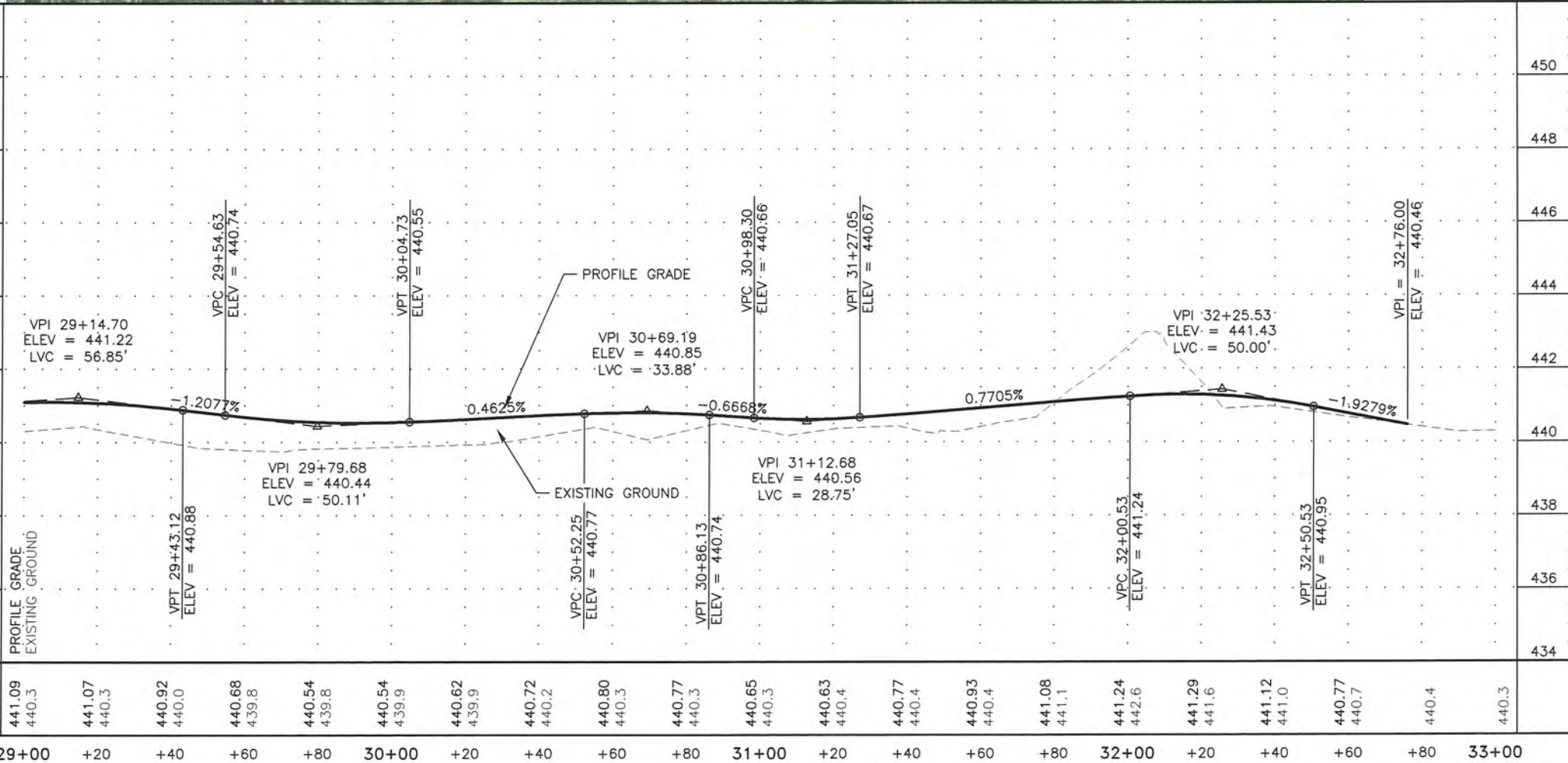
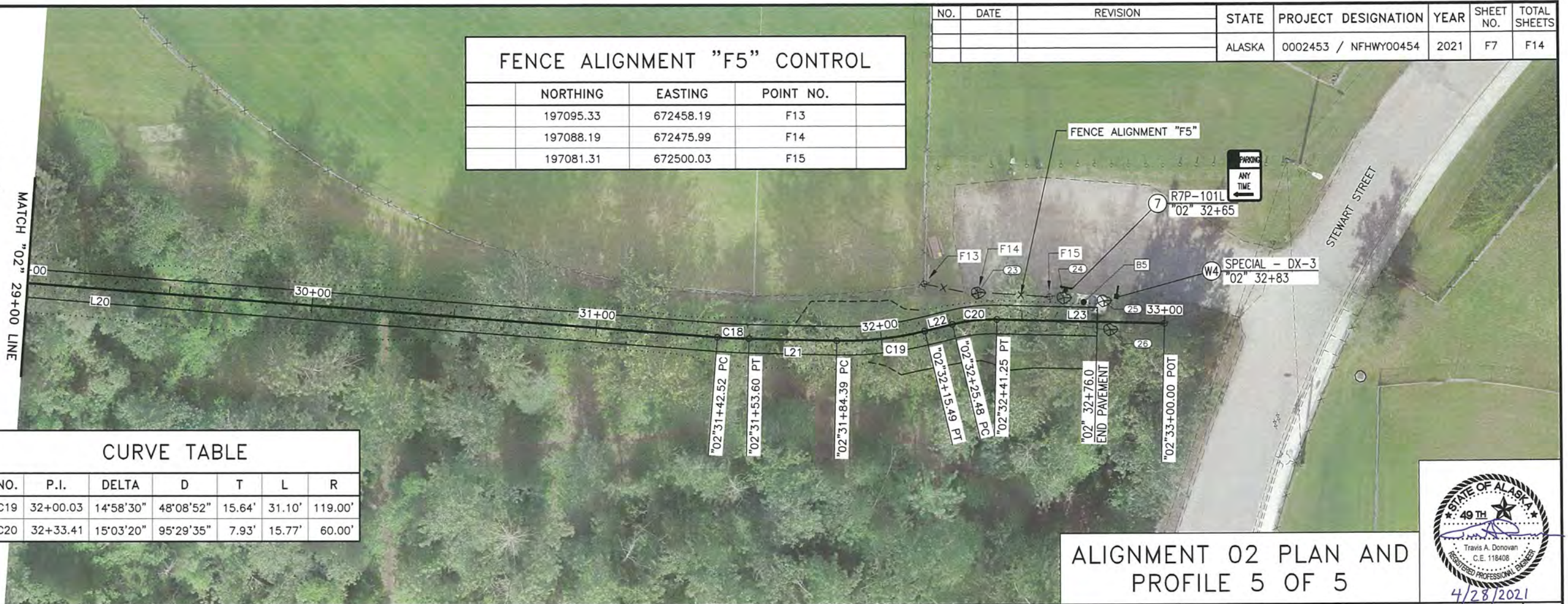
FENCE ALIGNMENT "F5" CONTROL

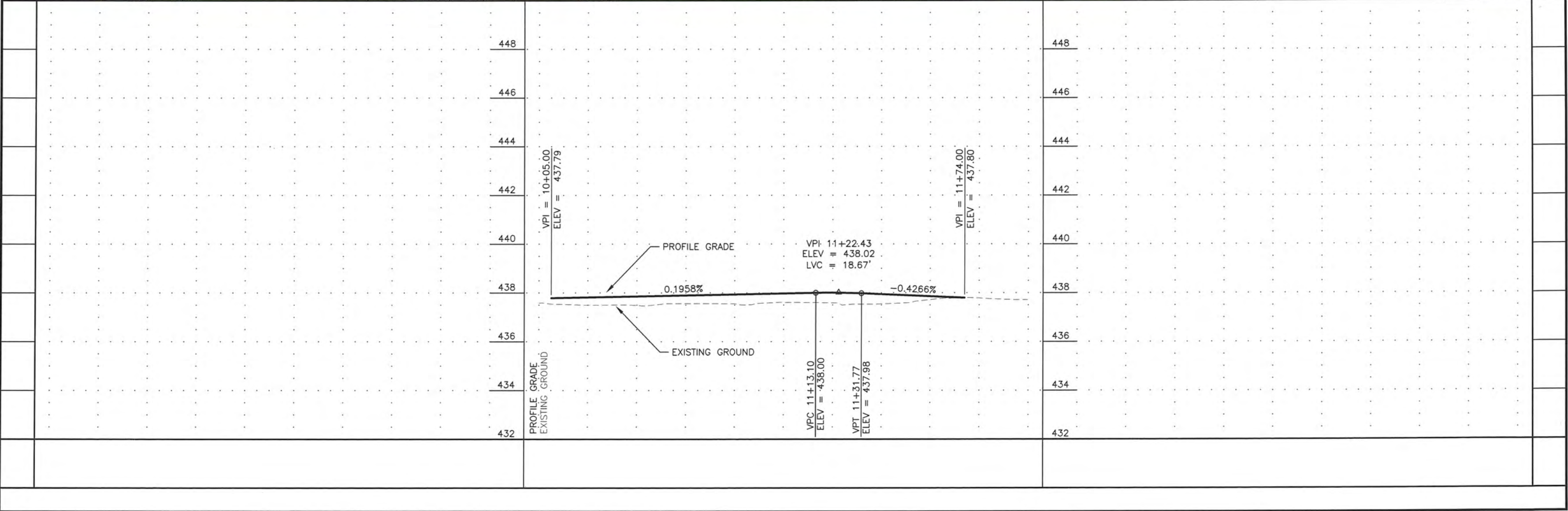
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	197088.19	672475.99	F14
	197081.31	672500.03	F15

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	F7	F14

LINE TABLE		
NO.	BEARING	DISTANCE
L20	S 72°51'45" E	433.25'
L21	S 76°02'09" E	30.80'
L22	N 88°59'21" E	9.99'
L23	S 75°57'19" E	58.75'

CURVE TABLE						
NO.	P.I.	DELTA	D	T	L	R
C19	32+00.03	14°58'30"	48°08'52"	15.64'	31.10'	119.00'
C20	32+33.41	15°03'20"	95°29'35"	7.93'	15.77'	60.00'







ALIGNMENT "04"



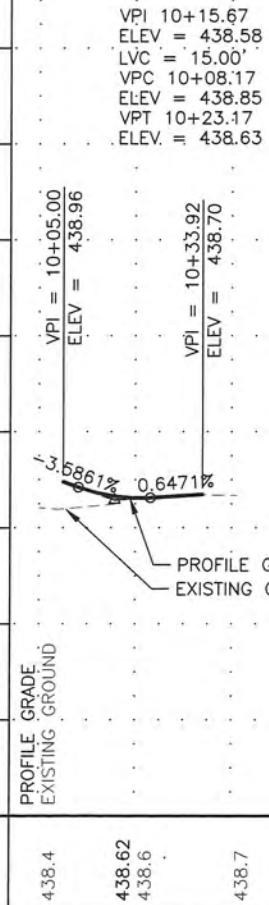
ALIGNMENT "05"

LINE TABLE		
NO.	BEARING	DISTANCE
L27	S 0°36'18" E	41.09'
L28	S 3°17'35" E	36.33'
L29	S 3°11'13" E	36.22'

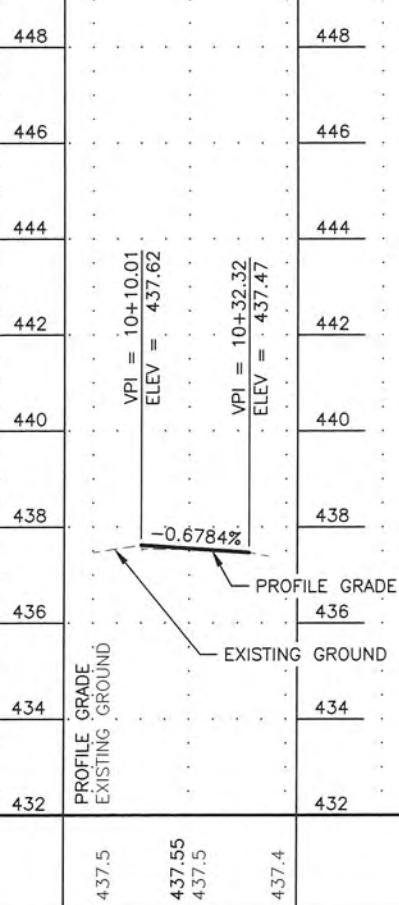


ALIGNMENT "06"

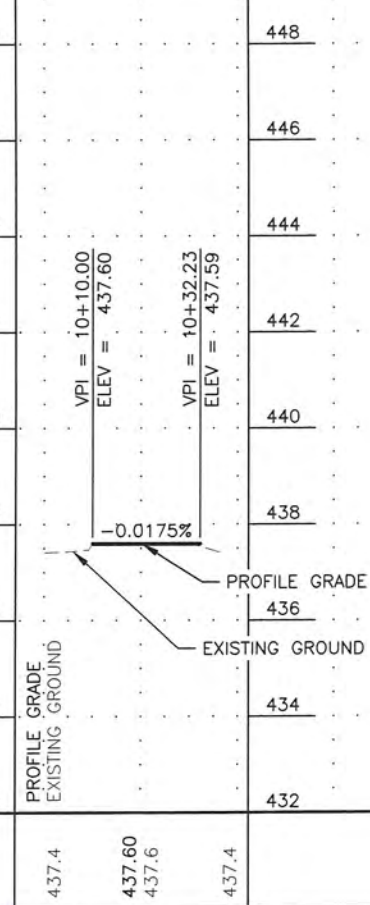
ALIGNMENT 04, 05, & 06
PLAN AND PROFILES



10+00 +20 +40 0+50



10+00 +20 10+36.31



10+00 +20 10+36.22

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	F10	F14

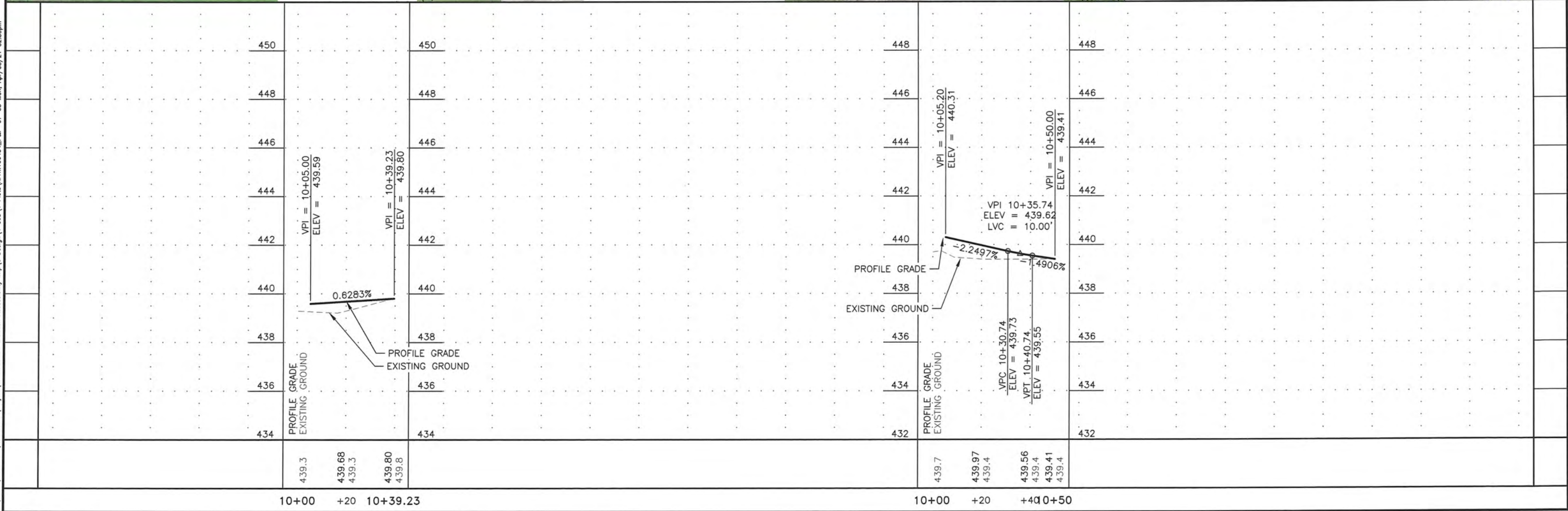


LINE TABLE		
NO.	BEARING	DISTANCE
L32	S 13°57'36" W	50.00'
L30	N 24°41'59" W	12.07'
L31	N 31°35'51" E	7.51'

CURVE TABLE						
NO.	P.I.	DELTA	D	T	L	R
C25	10+22.77	56°17'51"	286'28'44"	10.70'	19.65'	20.00'

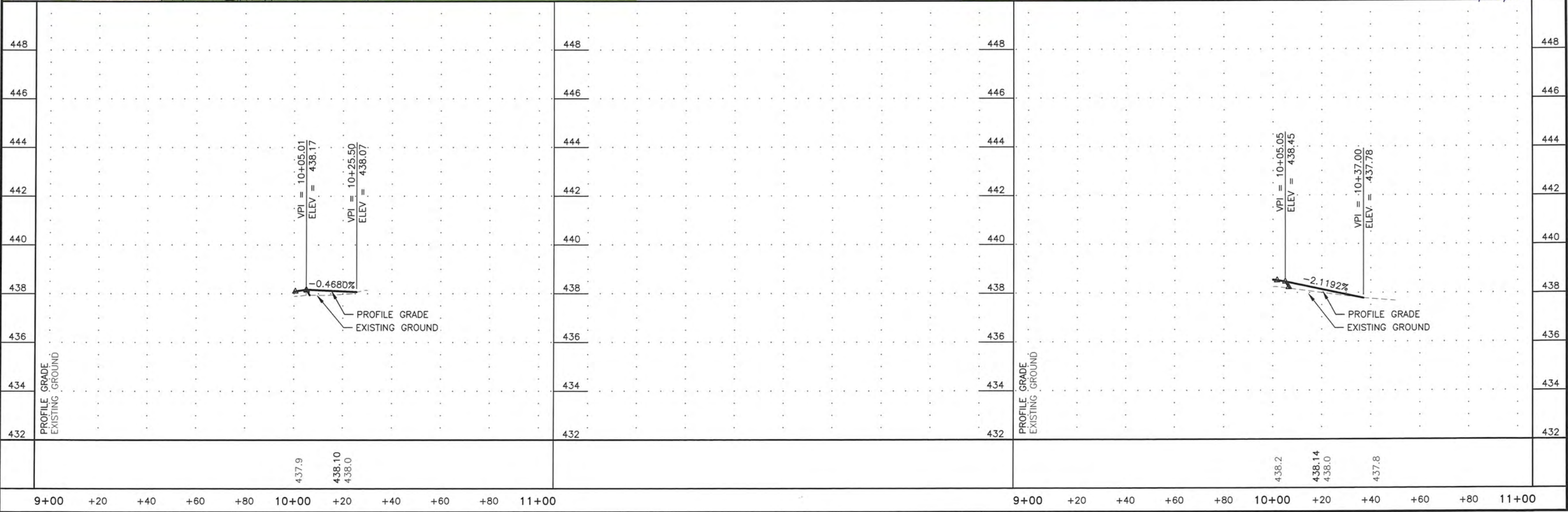
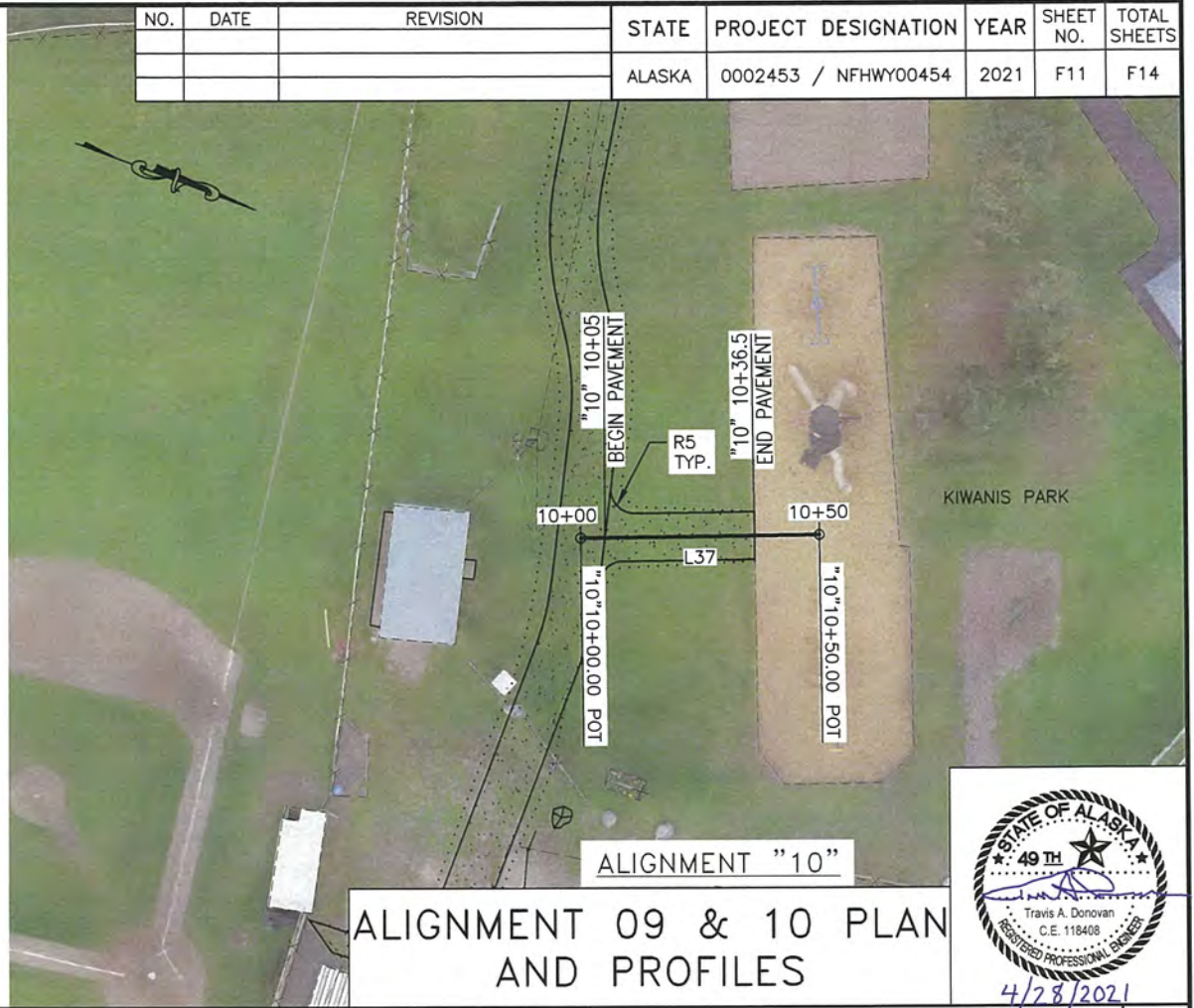


ALIGNMENT 07 & 08 PLAN AND PROFILES

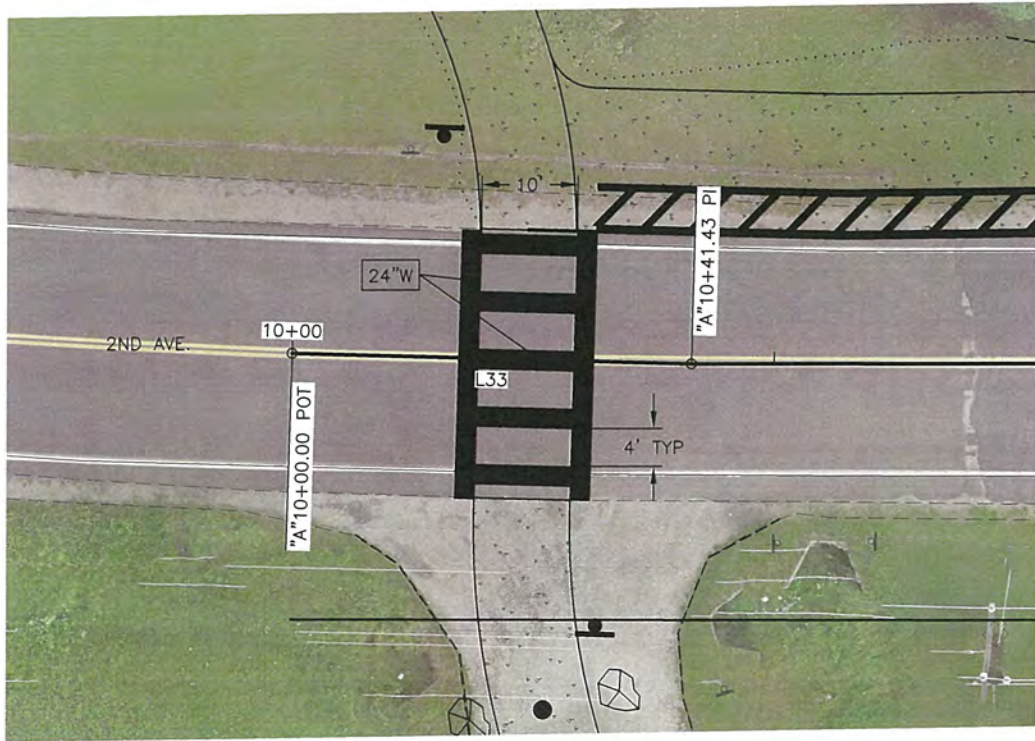
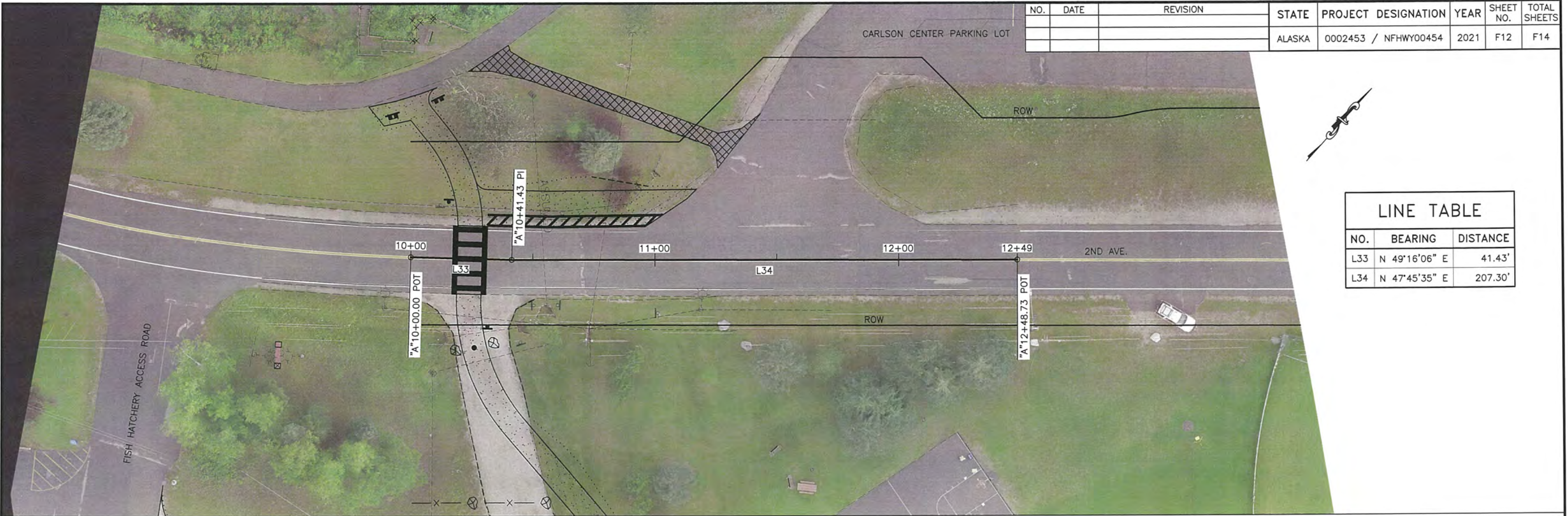




LINE TABLE		
NO.	BEARING	DISTANCE
L36	S 2°33'22" E	30.00'
L37	N 21°10'36" W	50.00'



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2ND STREET CROSSWALK DETAIL
NTS

STRIPING NOTES:

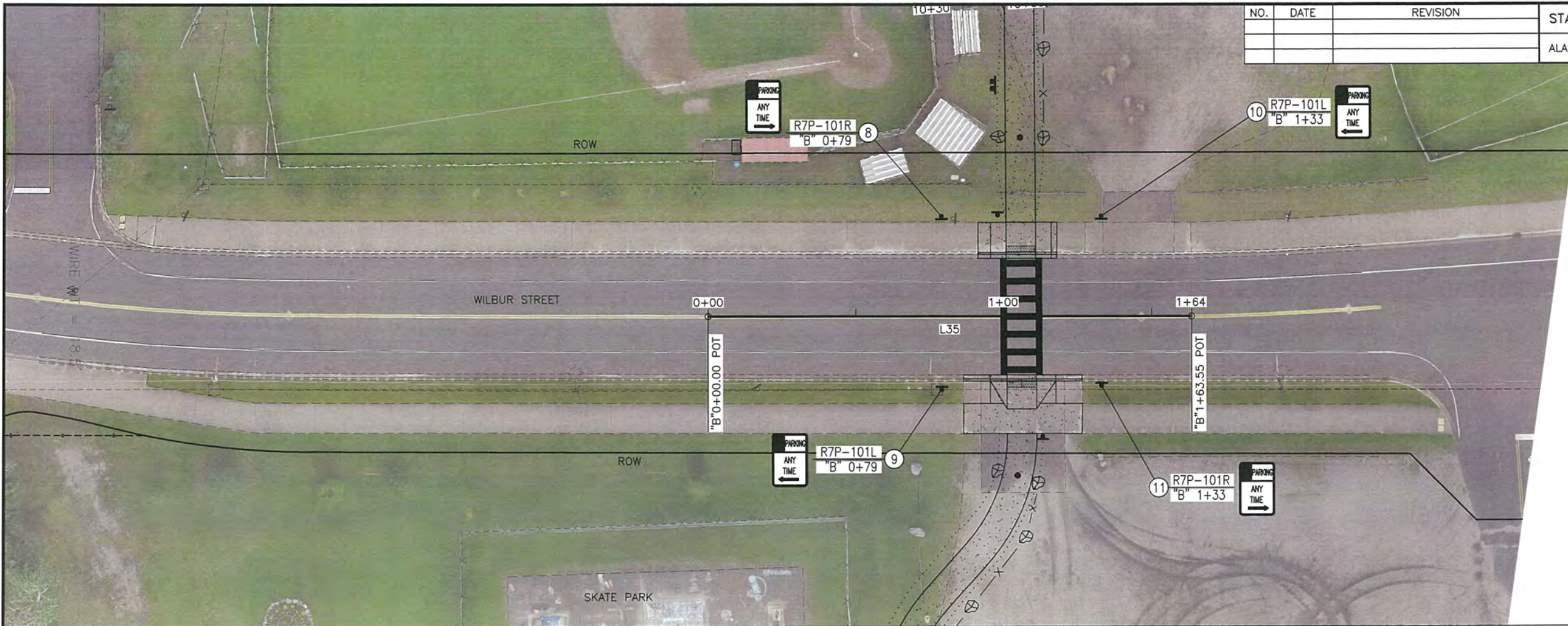
1. CROSSWALK STRIPING SHALL BE 24" WIDE WHITE SURFACE APPLIED METHYL METHACRYLATE MARKINGS.
2. REPLACE ANY STRIPING DAMAGED DURING CONSTRUCTION ACTIVITIES WITHIN THE PROJECT LIMITS.
3. ADJUST CROSSWALK SO SPACING OF LONGITUDINAL LINES AVOID WHEEL PATH, OR AS DIRECTED BY THE ENGINEER.
4. REMOVAL OF EXISTING STRIPING IS SUBSIDIARY TO ITEM 670.0011.0000 METHYL METHACRYLATE TRANSVERSE PAVEMENT MARKING LINES.
5. STATION OFFSET CALLOUTS ARE TO CENTER OF STRIPE OR STRIPE GROUP.

ALIGNMENT A – 2ND
AVENUE PLAN

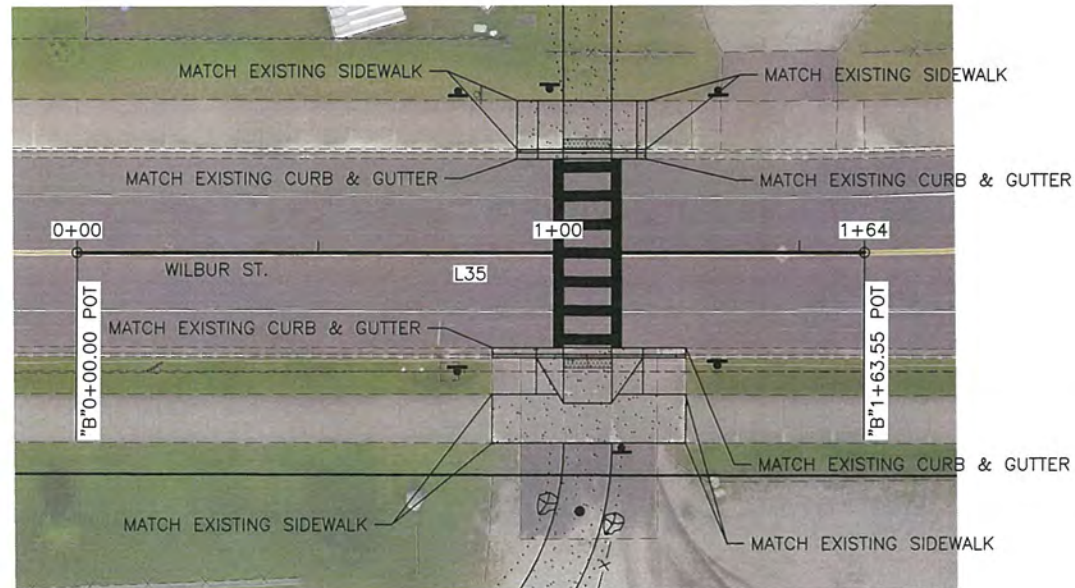


PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
C:\Users\jdonovan\Documents\Project\WFW00454\Drawings\6 Design\6 CSD\1 Plans\WFW00454_P&P-B Wed, Apr/28/21 12:26pm

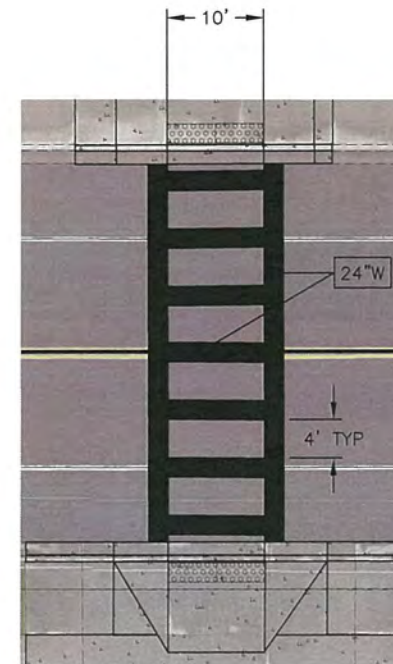
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	F13	F14



LINE TABLE		
NO.	BEARING	DISTANCE
L35	N 0°43'55" E	163.55'



WILBUR STREET SIDEWALK, CURB RAMP, AND CURB AND GUTTER DETAIL
NTS



WILBUR STREET CROSSWALK DETAIL
NTS

STRIPING NOTES:

1. CROSSWALK STRIPING SHALL BE 24" WIDE WHITE SURFACE APPLIED METHYL METHACRYLATE MARKINGS.
2. REPLACE ANY STRIPING DAMAGED DURING CONSTRUCTION ACTIVITIES WITHIN THE PROJECT LIMITS.
3. ADJUST CROSSWALK SO SPACING OF LONGITUDINAL LINES AVOID WHEEL PATH, OR AS DIRECTED BY THE ENGINEER.
4. REMOVAL OF EXISTING STRIPING IS SUBSIDIARY TO ITEM 670.0011.0000 METHYL METHACRYLATE TRANSVERSE PAVEMENT MARKING LINES.
5. CENTER CROSSWALK BETWEEN CURB RAMPS.

CURB RAMP NOTES:

1. CONSTRUCT PARALLEL CURB RAMP PER ALASKA STANDARD PLAN I-21.12 EXCEPT OMIT THE BACKING CURB.

ALIGNMENT B – WILBUR
STREET PLAN



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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	F14	F14

LINE TABLE		
NO.	BEARING	DISTANCE
L38	N 47°37'26" E	146.18'



ALIGNMENT C – ACCESS
ROAD PLAN



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C:\Users\tdonovan\Documents\Project\NFHWY00454\Drawings\PS&E drawings\SIGNS-StdsignSum Wed, Apr/28/21 12:26pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	H1	H16

STANDARD SIGN SUMMARY															
SIGN LOC. #	STATION	LOCATION		ASDS CODE	LEGEND	SIZE HxV (INCHES)	BRACING/FRAMING		AREA (SQ FT)	MTG/HGT (FT)	DIR	POST			REMARKS
		LT	RT				BRACED	FRAMED				TYPE	SIZE (INCHES)	NO.	
1	"02" 10+54		X	R1-1	STOP	18 X 18			2.25		NW	PST	2.5	1	
2	"02" 11+07	X		R1-1	STOP	18 X 18			2.25		SE	PST	2.5	1	
3	"02" 16+30	X			NO OVERNIGHT CAMPING						N				REMOVE AND RELOCATE EXISTING SIGN
4	"02" 16+67		X	R1-1	STOP	18 X 18			2.25		W	PST	2.5	1	
5	"02" 17+42	X		R1-1	STOP	18 X 18			2.25		E	PST	2.5	1	
6	"02" 25+62		X		SIGN POST										REMOVE AND RELOCATE EXISTING SIGN POST
7	"02" 32+65	X		R7P-101L	NO PARKING ANYTIME	12 X 18			1.5		N	PST	2.5	1	
8	"B" 0+79	X		R7P-101R	NO PARKING ANYTIME	12 X 18			1.5		E	PST	2.5	1	
9	"B" 0+79		X	R7P-101L	NO PARKING ANYTIME	12 X 18			1.5		W	PST	2.5	1	
10	"B" 1+33	X		R7P-101L	NO PARKING ANYTIME	12 X 18			1.5		E	PST	2.5	1	
11	"B" 1+33		X	R7P-101R	NO PARKING ANYTIME	12 X 18			1.5		W	PST	2.5	1	
12	"C" 10+17	X		R1-1	STOP	30 X 30	X		6.25			PST	2.5	1	
STANDARD SIGN SUMMARY TOTAL =									22.75						
RRFB SIGN SUMMARY SUB TOTAL (SEE SHEET H11) =									66.00						
ITEM 615.0001.0000 GRAND TOTAL =									88.75						

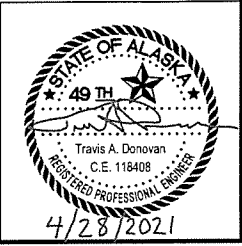
STANDARD SIGN NOTES:

1. MOUNT SIGNS THAT PROJECT OVER OR WITHIN 2 FEET OF THE SIDEWALK WITH A MOUNTING HEIGHT OF 8 FEET.
2. INSTALL BIKE PATH SIGNS 3 TO 6 FEET FROM THE EDGE OF THE SHARED-USE PATH AND AT A MOUNTING HEIGHT OF 5 FEET. IF THE SIGN MUST BE LOCATED CLOSER THAN 3 FEET, INSTALL AT AN 8-FOOT MOUNTING HEIGHT.
3. MOUNTING HEIGHTS ARE PER STANDARD PLAN S-05.02 UNLESS OTHERWISE NOTED.
4. DETERMINE POST LENGTHS IN THE FIELD. DO NOT EXTEND POSTS ABOVE TOP OF SIGN.
5. INSTALL PST SIGN POSTS WITH SLEEVE TYPE CONCRETE FOUNDATION. EMBED PST IN SLEEVE 12"-24" PER STANDARD PLAN S-30.05. ATTACH THE SIGN POST TO THE SLEEVE USING GALVANIZED 3/8" BOLT, NUT, SPLIT LOCK WASHER AND TWO FLAT WASHERS.
6. 1/4" X 1 1/2" ALUMINUM ALLOY 6061-T6 BAR MAY ALSO BE USED TO FABRICATE SIGN BRACES AS SHOWN ON STANDARD PLAN S-01.02.
7. ATTACH ALL SIGNS TO THEIR SUPPORTS WITH 3/8" BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO PST POSTS WITH ALUMINUM DRIVE RIVETS. WIND WASHERS ARE NOT REQUIRED WITH DRIVE RIVETS. INCLUDE SPLIT LOCK WASHERS WHEN BOLTS ARE USED.
8. ALL FASTENER HARDWARE SHALL MEET THE REQUIREMENTS OF THE FASTENER SPECIFICATION TABLE IN SECTION 730 OF THE SPECIFICATIONS.
9. STOP (R1-1) AND YIELD (R1-2) SIGN LOCATIONS, ESPECIALLY THOSE AT LARGE RADIUS INTERSECTIONS, MAY NEED ADJUSTMENT IN THE FIELD. THE ENGINEER WILL APPROVE FINAL LOCATIONS.
10. D3-100 SERIES SIGNS REQUIRE TWO SEPARATE SINGLE SIDED PANELS. END-BRACE PANELS PER SMALL STREET NAME SIGN BRACING DETAILS IN STANDARD PLAN S-01.01.
11. MAINTAIN EXISTING SIGNS UNTIL NEW SIGNS ARE INSTALLED. DO NOT LEAVE DUPLICATE OR CONFLICTING SIGNING UP AT ANY TIME.
12. ALL SIGNS NOTED FOR REMOVAL AND REINSTALLATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE IF THEY ARE DAMAGED DURING THE RELOCATION EFFORT.
13. LOCATE AND PROTECT ALL NEW AND EXISTING UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO: PIPELINES, INTERCONNECT CABLES, SIGNAL SYSTEMS, LIGHTING SYSTEMS, STORM AND SANITARY SEWERS, WATER SYSTEMS, AND TELEPHONE AND ELECTRICAL CABLES, PRIOR TO INSTALLING SIGN POSTS. NOT ALL EXISTING UTILITIES MAY BE SHOWN ON THE PLANS.
14. CLEARING, AS DIRECTED BY THE ENGINEER, MAY BE REQUIRED TO ENSURE ADEQUATE VISIBILITY OF SIGNS. THIS WORK IS SUBSIDIARY TO PAY ITEM 615.0001.0000.
15. INSTALL WEATHER TIGHT CAPS ON ALL TS POSTS.

POST TYPE LEGEND:

- PST = PERFORATED STEEL TUBE
- TS = TUBE STEEL (SQUARE STRUCTURAL STEEL TUBING)
- W_X_ = WIDE FLANGE

STANDARD SIGN SUMMARY
& NOTES



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C:\Users\jadenovan\Documents\Project\NFWY00454 Crowden Accessibility Imp\9 Drafting\PS&E drawings\SIGNS-SpcSignSum Mon, Apr/05/21 02:51pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	H2	H16

WAYFINDING SIGN SUMMARY					
SIGN LOC #	STATION	LOCATION	DIR	TYPE	NOTES
W1	"02" 10+07	RT	NW	DX-2	RIVERWALK WAYFINDING
W2	"02" 13+75	RT	N/S	DX-3	FISH HATCHERY "WYE"
W3	"02" 20+75	LT	N/S	DX-3	GROWDEN RESTROOM
W4	"02" 32+83	LT	E/W	DX-3	STEWART STREET

INTERPRETATIVE SIGN SUMMARY				
SIGN LOC #	STATION	LOCATION	DIR	TYPE
I1	"02" 10+14	LT	NW	KIOSK
I2	"02" 16+23	RT	N	KIOSK
I3	"02" 18+44	RT	N	KIOSK
I4	"02" 20+78	RT	N	KIOSK
I5	"02" 27+05	RT	N	KIOSK

WAYFINDING AND INTERPRETIVE SIGN NOTES:

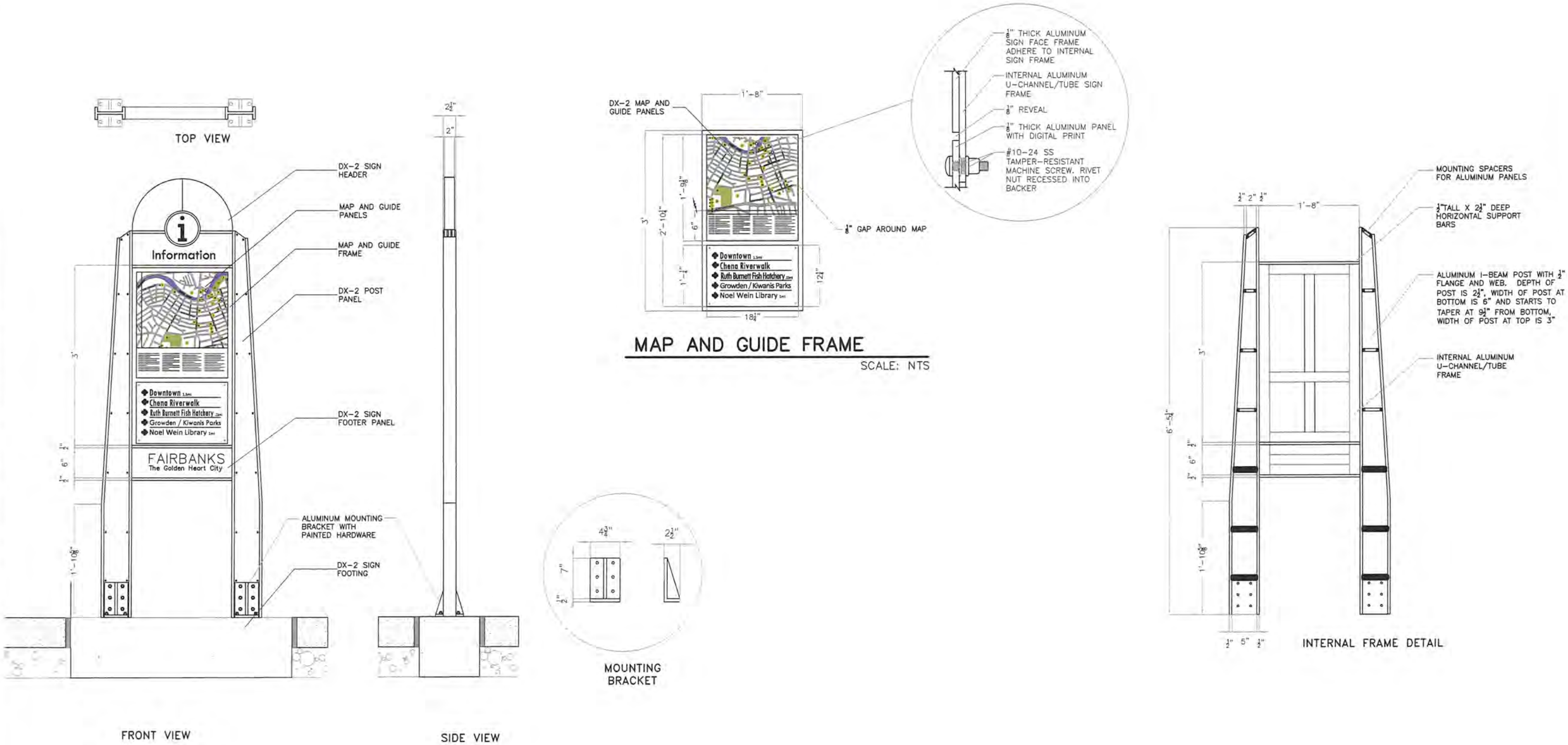
1. MOUNT SIGNS THAT PROJECT OVER OR WITHIN 2 FEET OF THE EDGE OF PAVEMENT WITH A MOUNTING HEIGHT OF 8 FEET.

SPECIAL SIGN SUMMARY
AND NOTES



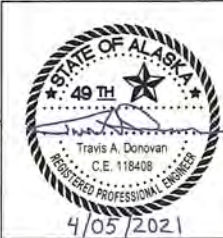
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	H3	H16

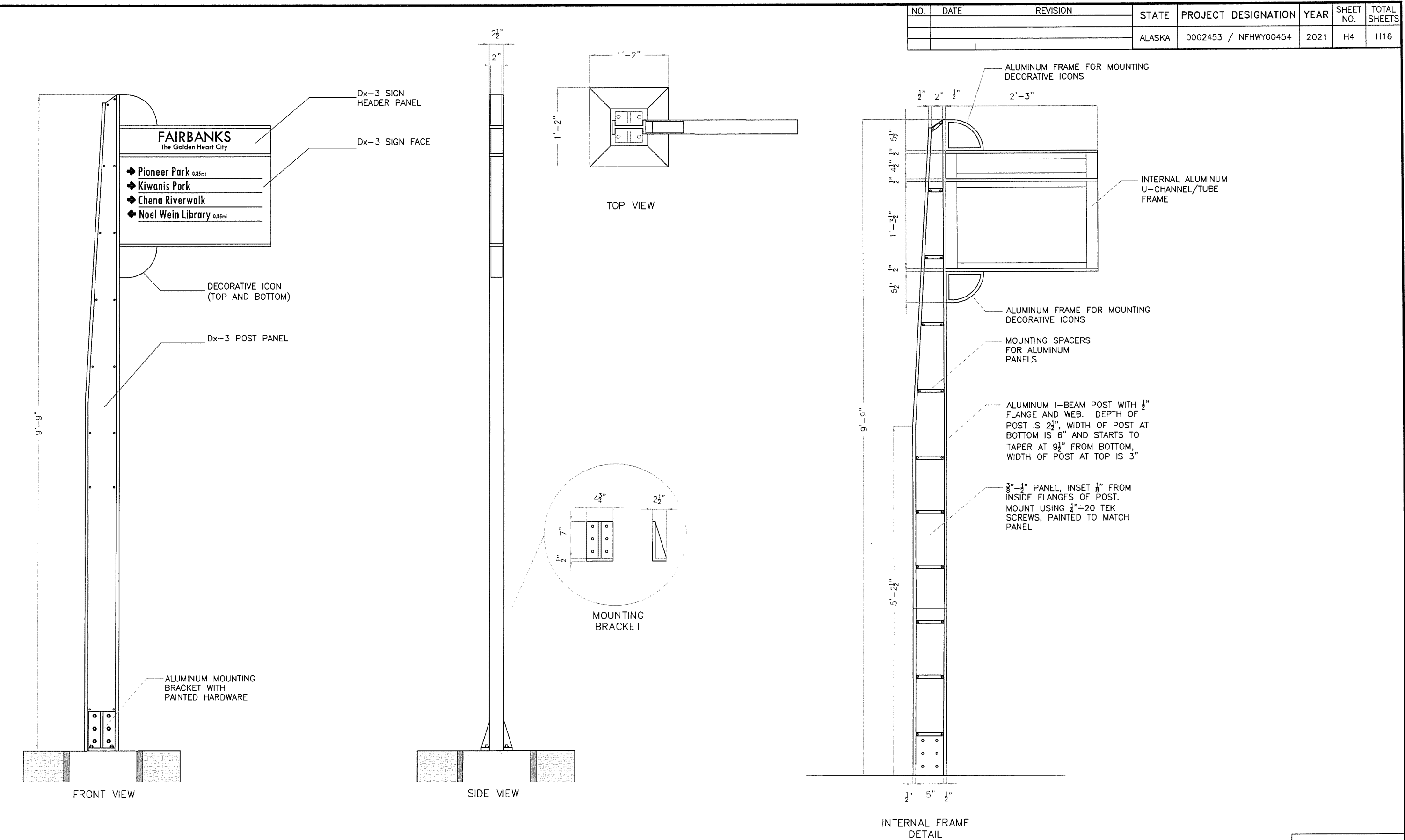


WAYFINDING SIGN, DX-2

SCALE: NTS

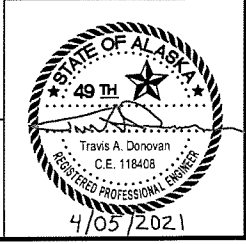


PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99708 (907)451-2200
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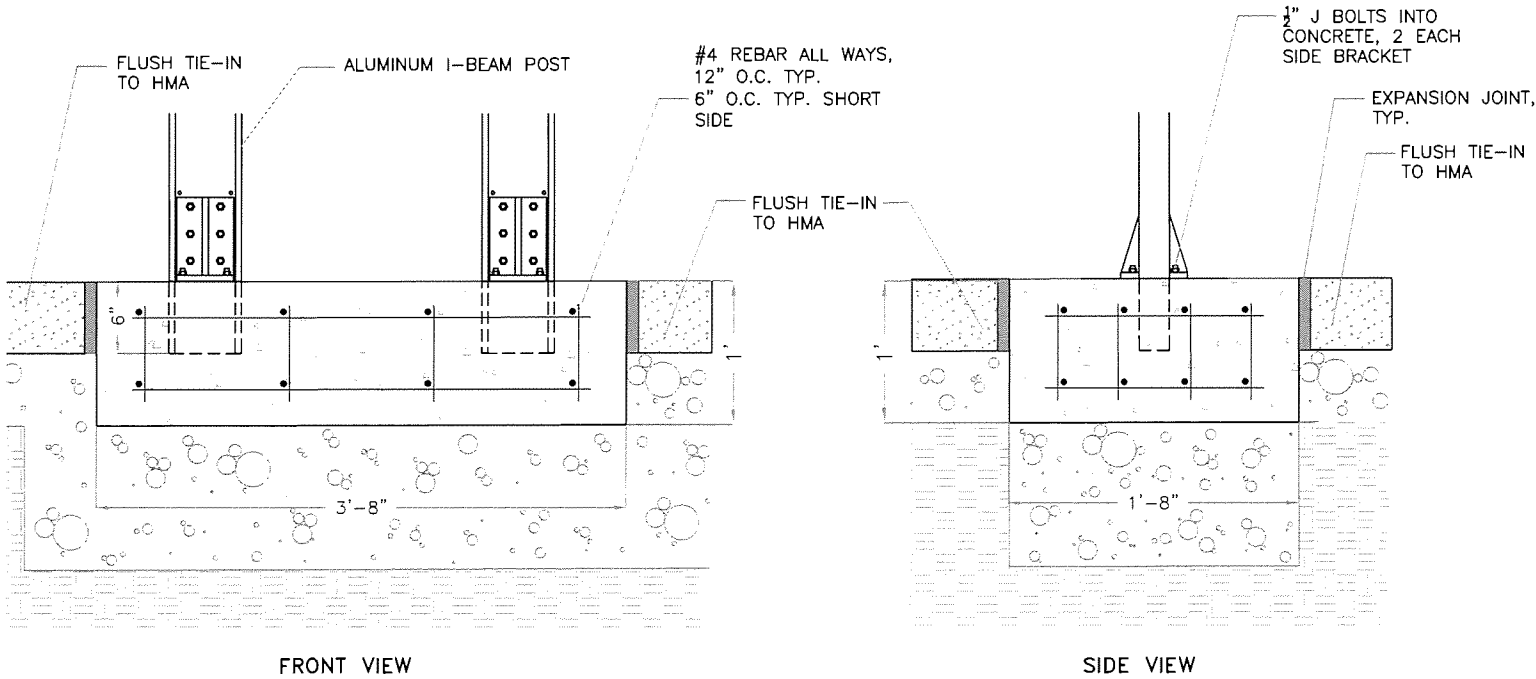
WAYFINDING SIGN, DX-3

SCALE: NTS



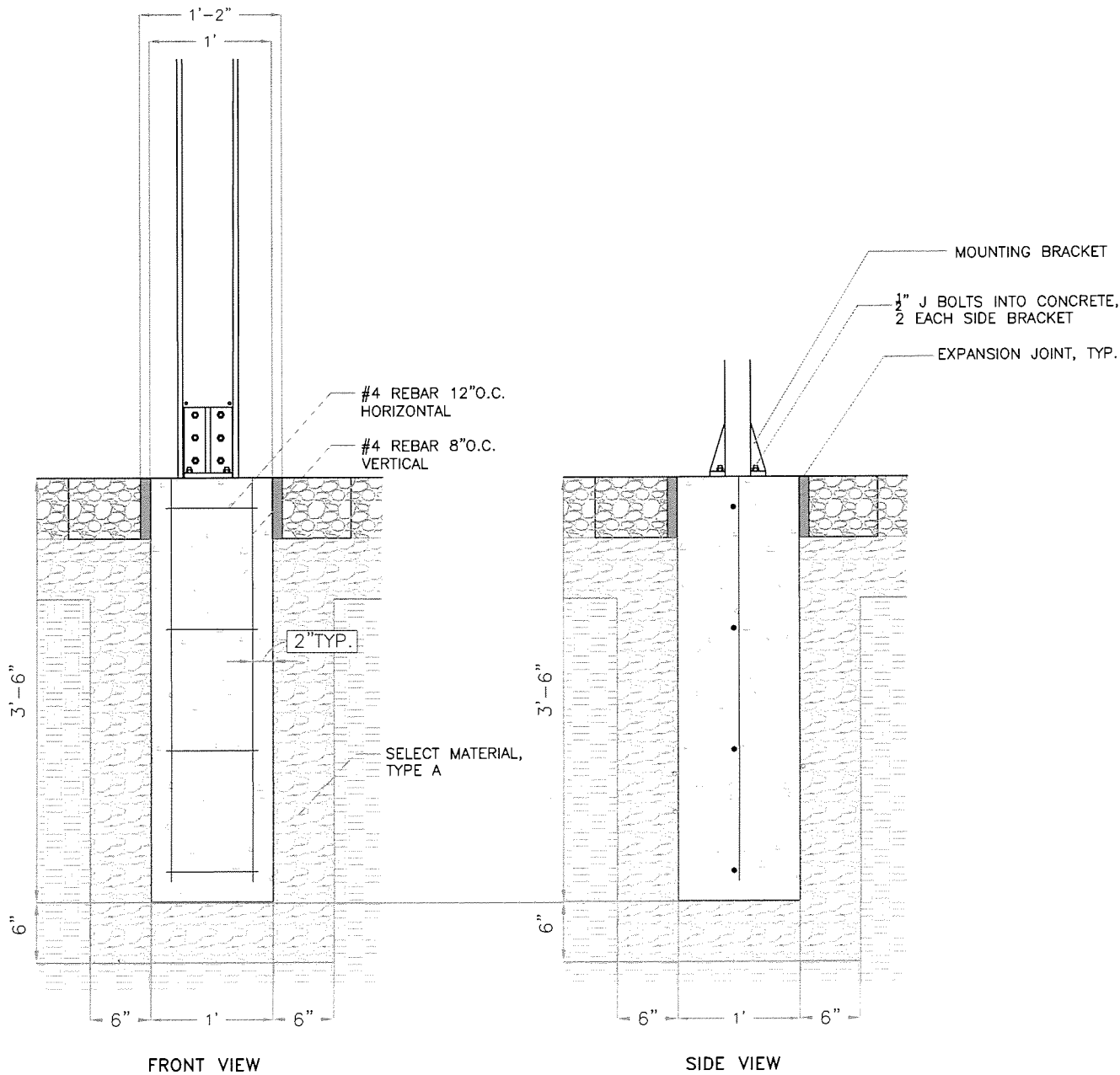
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	H5	H16



DX-2 FOOTING

SCALE: NTS



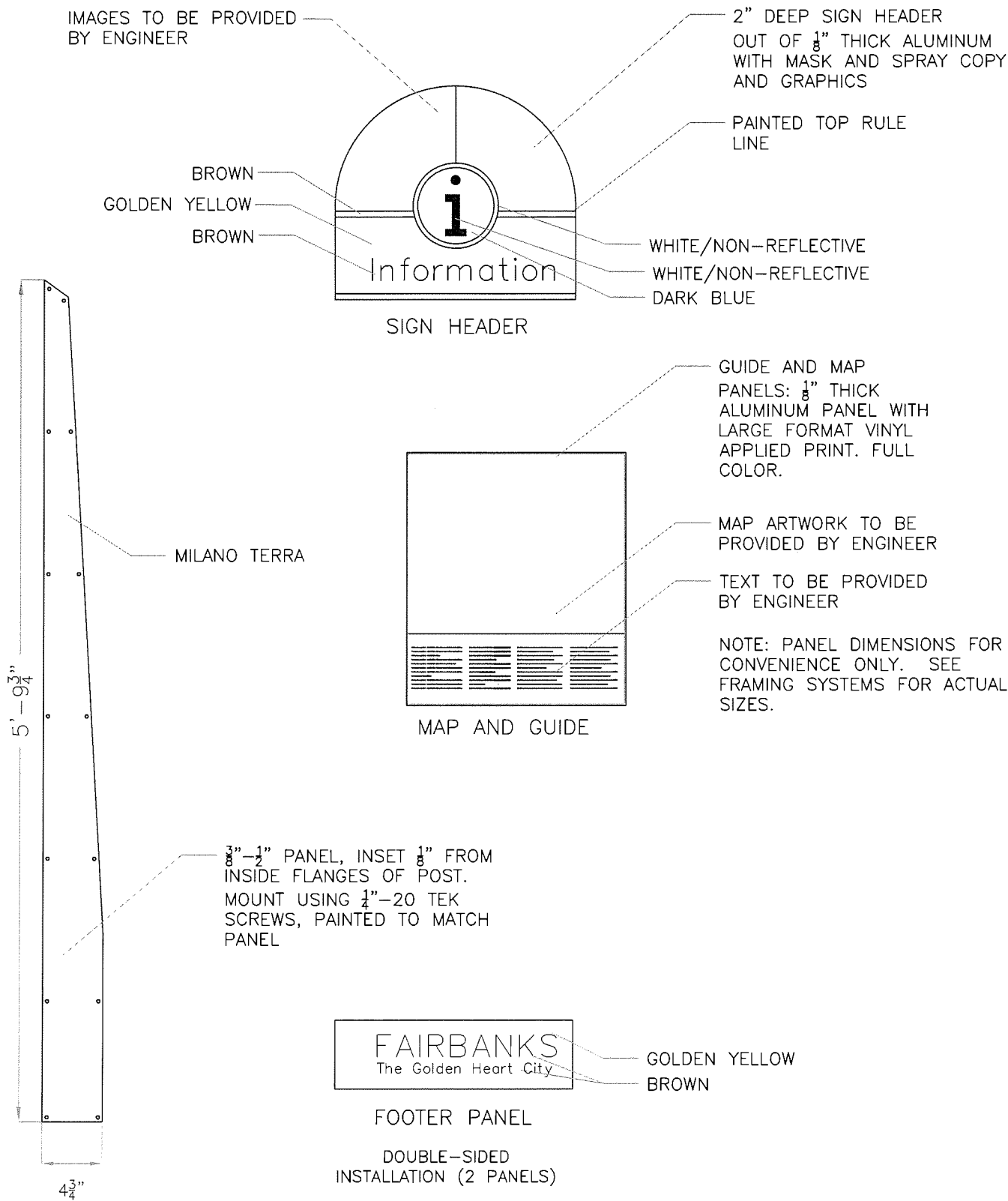
DX-3 FOOTING

SCALE: NTS

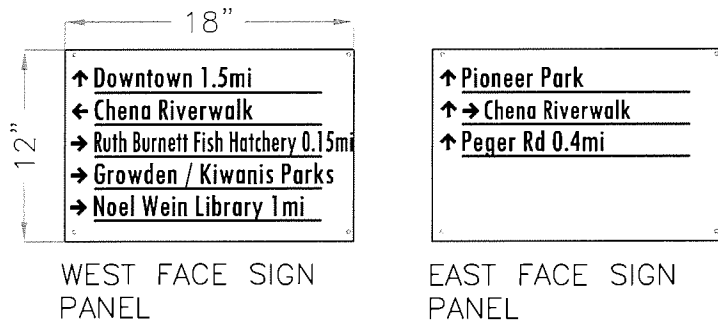


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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	H6	H16



GUIDE AND MAP PANELS



SIGN PANEL W1 RIVERWALK WAYFINDING

NOTE: DX-2 SIGNS TO INCLUDE CLEARVIEW HWY 2W FONT TYPE. USE CLEARVIEW 1W ON A LINE IF 2W DOES NOT FIT PANEL.

WAYFINDING PANELS DX-2

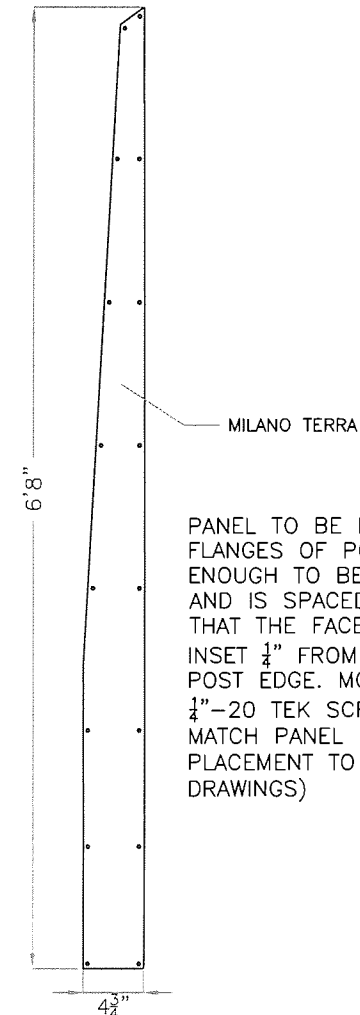
SCALE: NTS

WAYFINDING SIGN DETAILS
4 OF 5



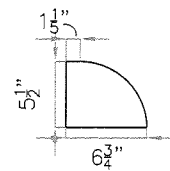
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99708 (907)451-2200
C:\Users\tdonovan\Documents\Project\NFWY00454\Drawings\PS&E drawings\Signs-W_SignDetails Mon, Apr/05/21 02:51pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	H7	H16

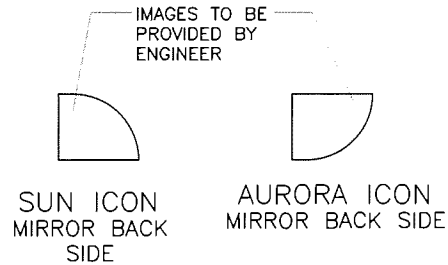


PANEL TO BE INSET $\frac{1}{8}$ " FROM INSIDE FLANGES OF POST. PANEL IS THICK ENOUGH TO BE SELF SUPPORTING AND IS SPACED OFF THE THE WEB SO THAT THE FACE OF THE PANEL IS INSET $\frac{1}{4}$ " FROM THE FACE OF THE POST EDGE. MOUNT PANEL USING $\frac{1}{4}$ "-20 TEK SCREWS, PAINTED TO MATCH PANEL (QUANTITY AND PLACEMENT TO BE SHOWN IN SHOP DRAWINGS)

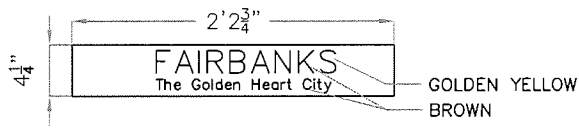
POST PANEL
NOTE BACK PANEL IS MIRROR IMAGE



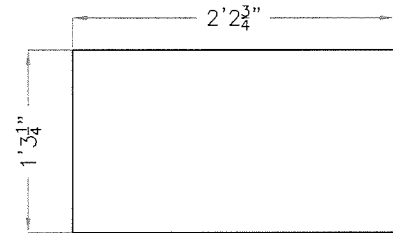
ICON PANEL
FOR DOUBLE-SIDED
INSTALLATION
(2 PANELS)



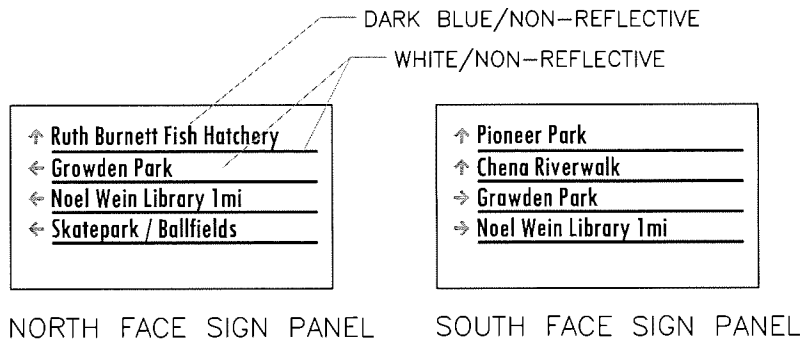
NOTE: PANEL DIMENSIONS FOR CONVENIENCE ONLY. SEE FRAMING SYSTEMS FOR ACTUAL SIZES.



BACK & FRONT FACE
SIGN HEADER PANEL

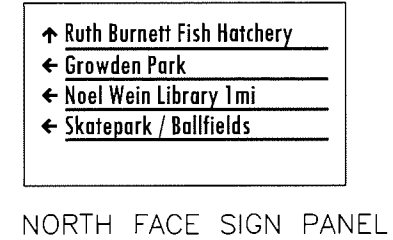


BACK & FRONT FACE SIGN PANEL
SEE SIGN SCHEDULE
FOR LOCATION

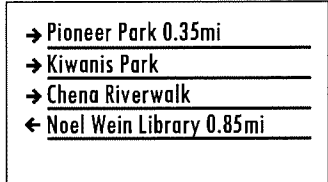


DOUBLE SIDED SIGNS WITH REMOVABLE FACES. FACES ARE $\frac{1}{8}$ " THICK PAINTED ALUMINUM MOUNTED TO THE INTERNAL FRAME STRUCTURE.

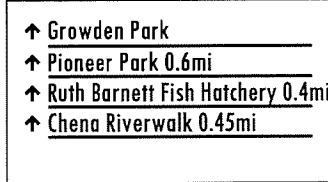
NOTE: DX-3 SIGNS TO INCLUDE CLEARVIEW HWY 2W FONT TYPE. USE CLEARVIEW 1W ON A LINE IF 2W DOES NOT FIT PANEL.



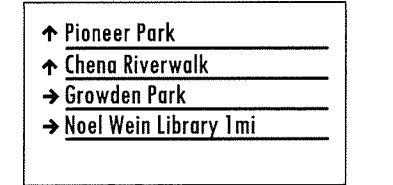
NORTH FACE SIGN PANEL



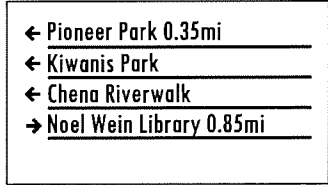
NORTH FACE SIGN PANEL



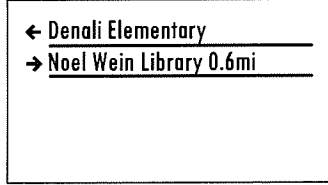
EAST FACE SIGN PANEL



SOUTH FACE SIGN PANEL
SIGN PANEL W2
HATCHERY "WYE"



SOUTH FACE SIGN PANEL
SIGN PANEL W3
GROWDEN RESTROOM



WEST FACE SIGN PANEL
SIGN PANEL W4
STEWART STREET

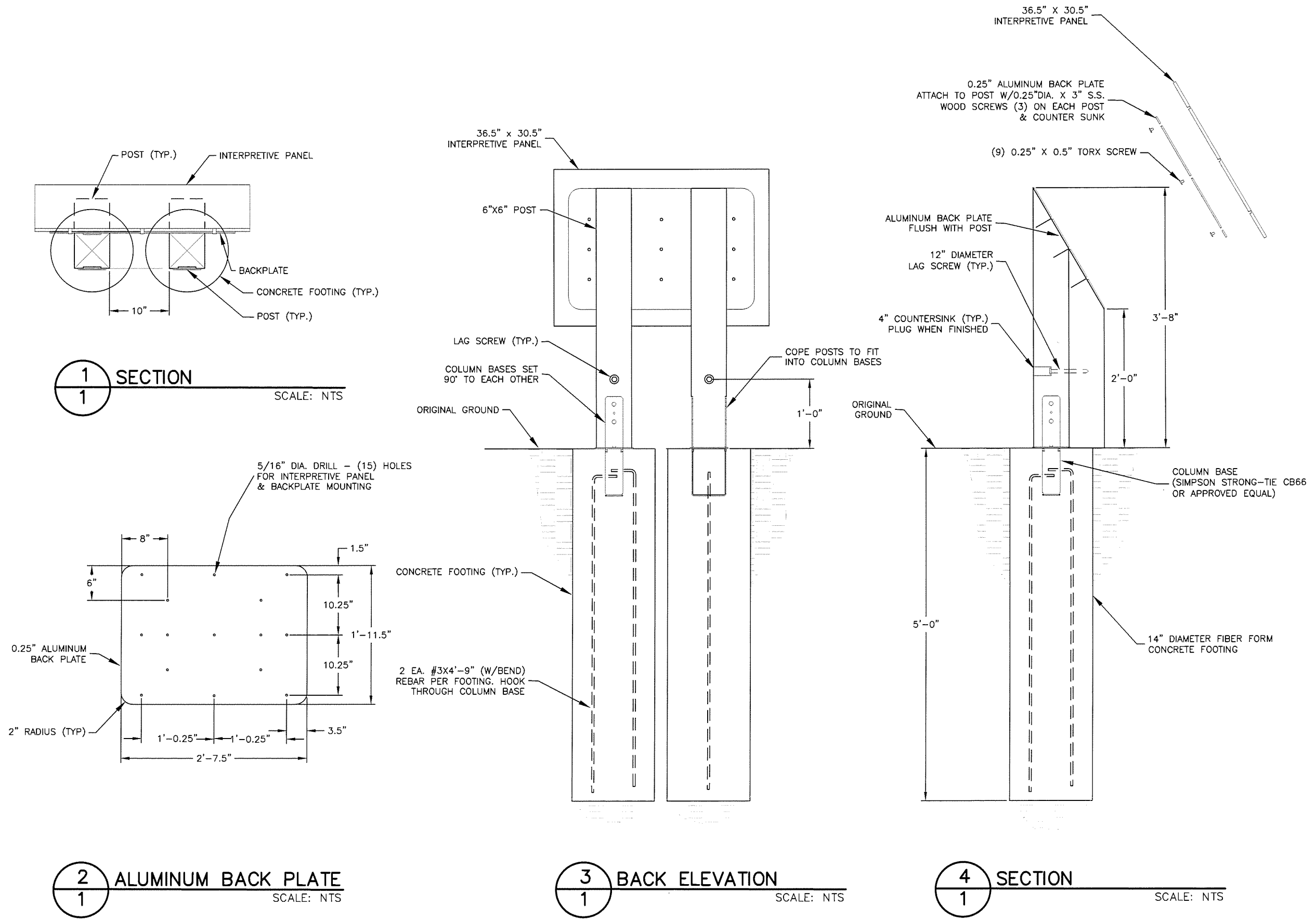
WAYFINDING PANELS DX-3

SCALE: NTS



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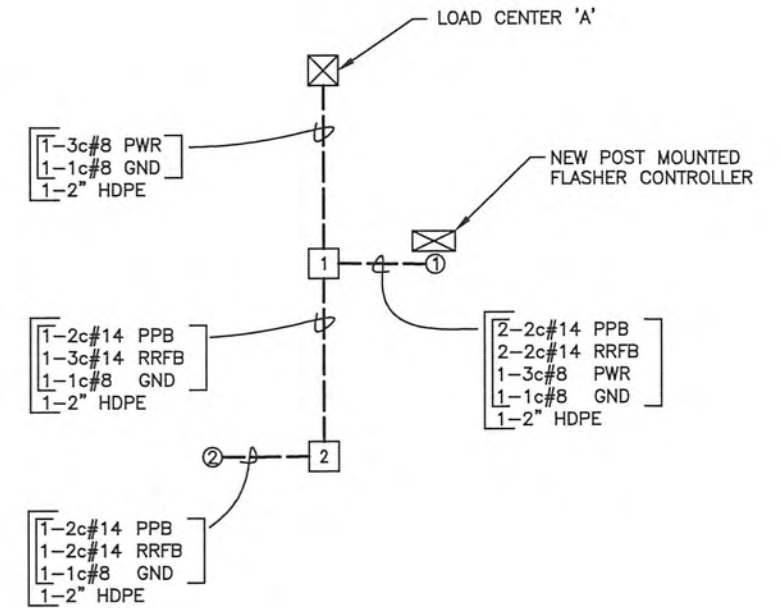
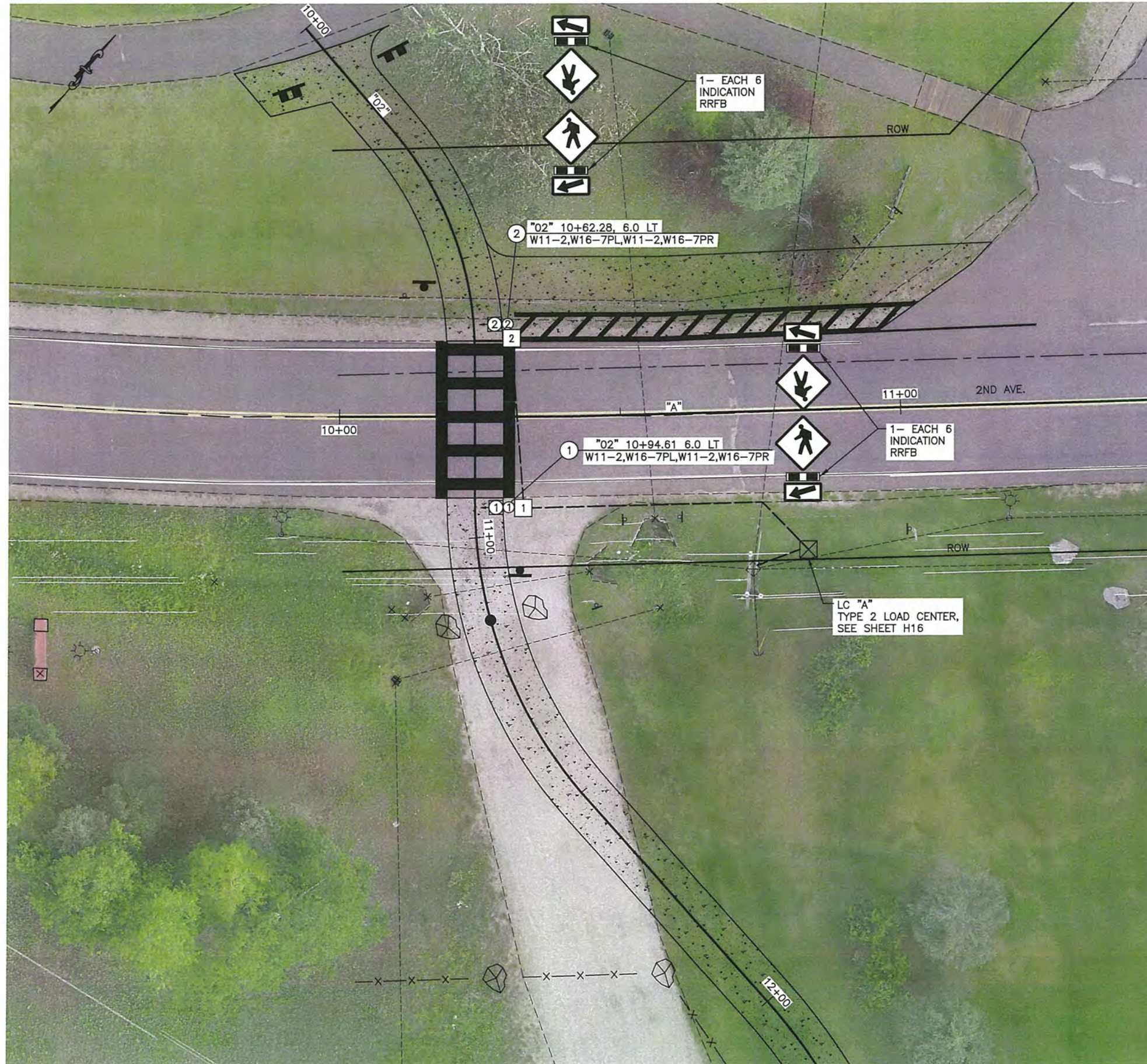
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	H8	H16



INTERPRETIVE SIGN AND
KIOSK DETAILS



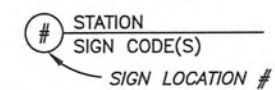
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	H9	H16



WIRING GENERAL NOTES

1. CONNECTIONS SHOWN ARE SCHEMATIC.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING UTILITIES IN THE PROJECT WORK AREAS. ALL UTILITIES WITHIN, UNDER, AND OVER THE PROJECT SHALL REMAIN IN PLACE AND IN SERVICE DURING CONSTRUCTION. LOCATE ALL UTILITIES (OVERHEAD AND BURIED) TO THE EXTENT THEY ARE KNOWN OR SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. BEFORE CONDUCTING ANY GROUND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL VERIFY LOCATIONS BY CONTACTING THE 811 ALASKA DIG LINE AT 1-800-478-3121 OR THE UTILITY COMPANY(S). THERE ARE UTILITIES IN THE PROJECT AREA, INCLUDING CITY OF FAIRBANKS, DOT&PF AND GVEA, THAT DO NOT SUBSCRIBE TO THE DIG LINE.
3. ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE RIGHT-OF-WAY (ROW).

SIGNING KEY



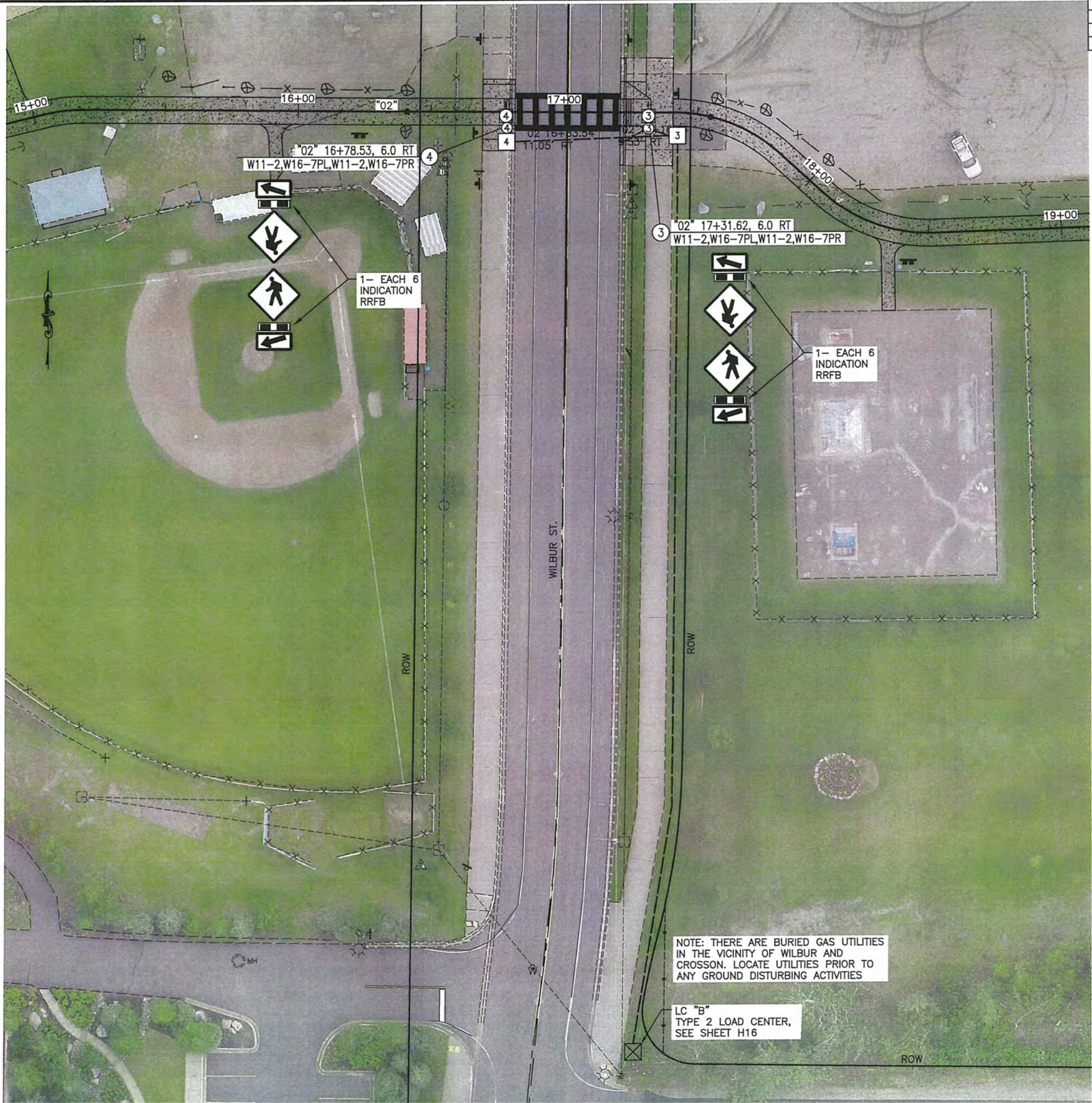
WIRING DIAGRAM CODING LEGEND

DET = DETECTION CONDUIT	5c#14	TRAFFIC SIGNALS
GND = GROUND	7c#14	PROTECTED-PERMITTED SIGNALS
HDPE = HIGH DENSITY POLYETHYLENE	5c#14	PEDESTRIAN SIGNALS
INT = INTERCONNECT CABLE	2c#14	PEDESTRIAN PUSH-BUTTON
ILL = ILLUMINATION	3c#8	ILLUMINATION OR RRFB
LL = LOOP LEAD-IN	3c#6	SIGNAL POWER
OPC = OPTICOM CABLE	1c#8	BARE COPPER GROUND
PED = PEDESTRIAN SIGNAL		
PPB = PEDESTRIAN PUSH BUTTON		
PVC = POLYVINYLCHLORIDE CONDUIT	6 pr #18	VIDEO DETECTION
PWR = POWER CONDUCTORS FOR SIGNAL CONTROLLER	12 pr #19	INTERCONNECT CABLE
RMC = RIGID METAL CONDUIT		
RRFB = RECTANGULAR RAPID FLASHING BEACON		
SIG = SIGNAL		
VDET = VIDEO DETECTION		
(E) = EXISTING		

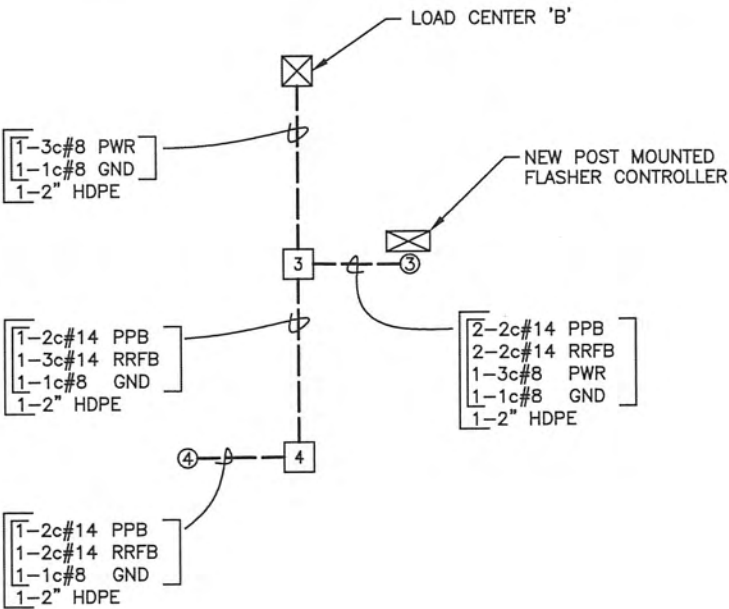
2ND AVENUE RRFB



IS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
Isara Vadorovna\Documents\Project\NFHWY00454 Growden Accessibility Imp\7 Eng Support\7 Traffic\RRFB-Wilbur RRFB Thu, Apr/29/21 09:22am



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	H10	H16



WIRING GENERAL NOTES

1. CONNECTIONS SHOWN ARE SCHEMATIC.

UTILITY NOTES

1. THERE ARE BURIED GAS UTILITIES IN THE PROJECT AREA. RECORDS SHOW GAS ON THE WEST SIDE OF WILBUR STREET AND ON THE NORTH SIDE OF CROSSON AVENUE. LOCATE UTILITIES PRIOR TO ANY GROUND DISTURBING ACTIVITIES.

WILBUR STREET RRFB



\\Users\jordanovan\Documents\Project\NFWY00454- Crowden Accessibility Imp\7 Eng Support\7 Traffic\3 RRFB-SIGNING SUMMARY Thu, Apr/01/21 12:11pm LANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFWY00454	2021	H11	H16

RRFB SIGNING SUMMARY																
LOC. NO.	STATION	LOCATION		ASDS CODE	LEGEND	SIZE H X V (INCHES)	BRACING/ FRAMING		AREA (SQ.FT.)	MTG. HGT. (FT.)	DIR.	POST			REMARKS	
		LT.	RT.				TYPE	SIZE (INCHES)				NO.				
1	"02" 10+94.6	X		W11-2	ADVANCED PEDESTRIAN CROSSING (SYMBOL)	30 X 30	X		6.25		W				MOUNT TO POLE 1.	
		X		W16-7PL	LEFT DIAGONAL ARROW (SYMBOL)	24 X 12	X		2.00		W					
		X		W11-2	ADVANCED PEDESTRIAN CROSSING (SYMBOL)	30 X 30	X		6.25		E					
		X		W16-7PR	RIGHT DIAGONAL ARROW (SYMBOL)	24 X 12	X		2.00		E					
2	"02" 10+62.3	X		W11-2	ADVANCED PEDESTRIAN CROSSING (SYMBOL)	30 X 30	X		6.25		W				MOUNT TO POLE 2.	
		X		W16-7PR	RIGHT DIAGONAL ARROW (SYMBOL)	24 X 12	X		2.00		W					
		X		W11-2	ADVANCED PEDESTRIAN CROSSING (SYMBOL)	30 X 30	X		6.25		E					
		X		W16-7PR	RIGHT DIAGONAL ARROW (SYMBOL)	24 X 12	X		2.00		E					
3	"02" 17+31.6														MOUNT TO POLE 3.	
		X		W11-2	ADVANCED PEDESTRIAN CROSSING (SYMBOL)	30 X 30	X		6.25		N					
		X		W16-7PR	RIGHT DIAGONAL ARROW (SYMBOL)	24 X 12	X		2.00		N					
		X		W11-2	ADVANCED PEDESTRIAN CROSSING (SYMBOL)	30 X 30	X		6.25		S					
4	"02" 16+78.5	X		W16-7PR	RIGHT DIAGONAL ARROW (SYMBOL)	24 X 12	X		2.00		S				MOUNT TO POLE 4.	
		X		W11-2	ADVANCED PEDESTRIAN CROSSING (SYMBOL)	30 X 30	X		6.25		S					
		X		W16-7PR	RIGHT DIAGONAL ARROW (SYMBOL)	24 X 12	X		2.00		S					
		X		W11-2	ADVANCED PEDESTRIAN CROSSING (SYMBOL)	30 X 30	X		6.25		N					
TOTAL = 66.00																

POST TYPE LEGEND:

PST = PERFORATED STEEL TUBE
TS = TUBE STEEL (SQUARE STRUCTURAL STEEL TUBING)
W_X_ = WIDE FLANGE

BASE & JUNCTION BOX SCHEDULE											
LOCATION		DESCRIPTION		BASE TYPE			JUNCTION BOX TYPE				REMARKS
STATION	OFFSET	POLE NO.	JUNCTION BOX NO.	CIDH	P	A	IA	II	III	IV	
		1				X					
		2				X					
		3				X					
		4				X					
			1				X				
			2				X				
			3				X				
			4				X				

BASE TYPE LEGEND:

P = PRECAST BASE (FOUNDATION).
A = TYPE A SEE T-31.00
CIDH = CAST IN DRILLED HOLE

RRFB SIGNING NOTES:

1. MOUNT SIGNS THAT PROJECT OVER OR WITHIN 2 FEET OF THE EDGE OF PAVEMENT WITH A MOUNTING HEIGHT OF 8 FEET.
2. MOUNTING HEIGHTS ARE PER STANDARD DRAWING S-05.01 UNLESS OTHERWISE NOTED.
3. DETERMINE POST LENGTHS IN THE FIELD. DO NOT EXTEND POSTS ABOVE TOP OF SIGN.
4. INSTALL "TUBE POST SIGN BRACING" AS SHOWN ON STANDARD DRAWING S-01.00 ON ALL SIGNS, EXCEPT D3-100 SERIES SIGNS, MOUNTED ON A SINGLE PST POST AND HAVING A HORIZONTAL DIMENSION OF 30 INCHES OR GREATER. INSTEAD OF THE 5/8" GALVANIZED BOLTS AND NYLON LOCKING NUTS SHOWN ON STANDARD DRAWING S-01.00, USE GALVANIZED 3/8" BOLTS, SPLIT LOCK WASHERS AND NUTS. STAINLESS STEEL FASTENER HARDWARE MAY BE USED INSTEAD OF GALVANIZED. 1/4" X 1 1/2" ALUMINUM ALLOY 6061-T6 BAR MAY ALSO BE USED TO FABRICATE SIGN BRACES.
5. ATTACH ALL SIGNS TO THEIR SUPPORTS WITH 3/8" BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO PST POSTS WITH ALUMINUM DRIVE RIVETS. WIND WASHERS ARE NOT REQUIRED WITH DRIVE RIVETS. INCLUDE SPLIT LOCK WASHERS WHEN BOLTS ARE USED.
6. ALL FASTENER HARDWARE SHALL MEET THE REQUIREMENTS OF THE "FASTENER SPECIFICATION TABLE" ON THIS SHEET.
7. MAINTAIN EXISTING SIGNS UNTIL NEW SIGNS ARE INSTALLED. DO NOT LEAVE DUPLICATE OR CONFLICTING SIGNING UP AT ANY TIME.
8. LOCATE AND PROTECT ALL NEW AND EXISTING UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO: PIPELINES, INTERCONNECT CABLES, SIGNAL SYSTEMS, LIGHTING SYSTEMS, STORM AND SANITARY SEWERS, WATER SYSTEMS, AND TELEPHONE AND ELECTRICAL CABLES, PRIOR TO INSTALLING SIGN POSTS. NOT ALL EXISTING UTILITIES MAY BE SHOWN ON THE PLANS.
9. INSTALL WEATHER TIGHT CAPS ON ALL PIPE AND TUBE POSTS, EXCEPT PERFORATED STEEL TUBE.
10. TRANSFORMER BASES IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
11. DELIVER ALL SALVAGED SIGNS TO THE FAIRBANKS MAINTENANCE YARD LOCATED AT 2301 PEGER ROAD. CALL 451-2323 FOR ADDITIONAL DELIVERY INSTRUCTIONS. COORDINATE DELIVERY THROUGH THE PROJECT ENGINEER.
12. ALL SIGN BACKGROUNDS ARE FLUORESCENT YELLOW-GREEN UNLESS OTHERWISE NOTED.

FASTENER SPECIFICATION TABLE		
FASTENERS	STEEL	STAINLESS STEEL
BOLTS	ASTM A 307	ASTM F 593
NUTS	ASTM A 563	ASTM F 594
WASHERS	ASTM A 36	ASTM A 480

FASTENER TABLE NOTE:

THESE SPECIFICATION APPLY TO ALL SIGN FASTENER HARDWARE ON THIS PROJECT.

PEDESTRIAN DETECTION SCHEDULE			
POLE	PUSH BUTTON	PHASE	REMARKS
1	1	*	SEE NOTE 1.
2	2	*	SEE NOTE 1.
3	3	*	SEE NOTE 1.
4	4	*	SEE NOTE 1.

PEDESTRIAN DETECTION NOTES:

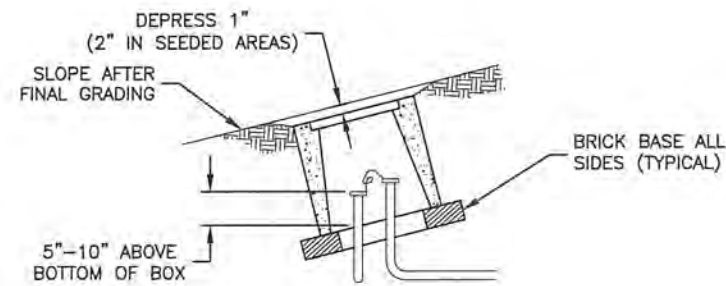
1. INSTALL AN R10-25 SIGN WITH PEDESTRIAN PUSH BUTTON.
2. INSTALL PUSH BUTTONS FACING EDGE OF PAVEMENT FOR POSTS MOUNTED ADJACENT THE ROADWAY.

RRFB SIGNING SUMMARY

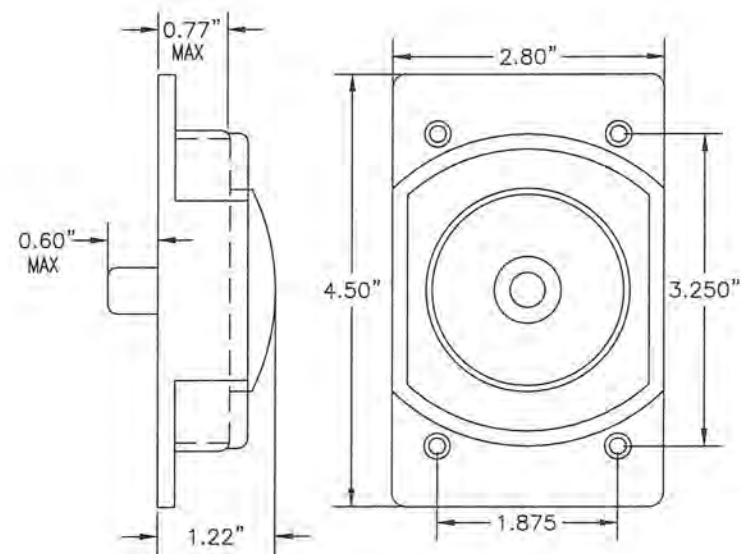


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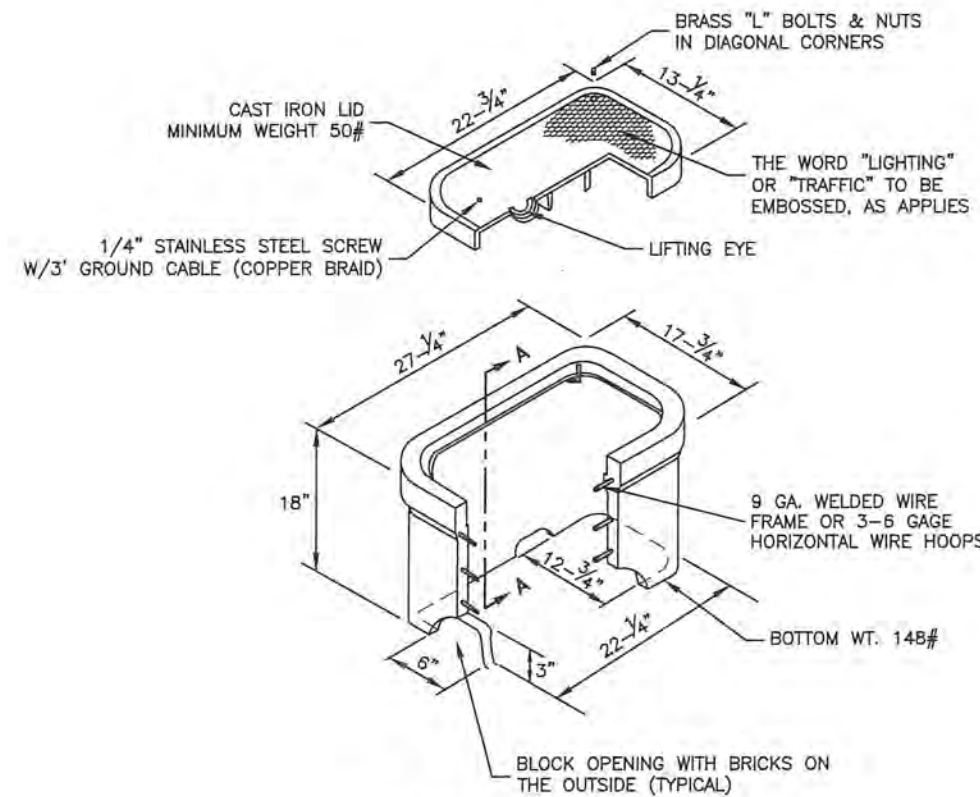
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	H12	H16



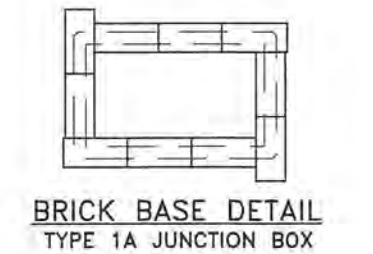
TYPE IA J-BOX INSTALLATION ON SLOPE



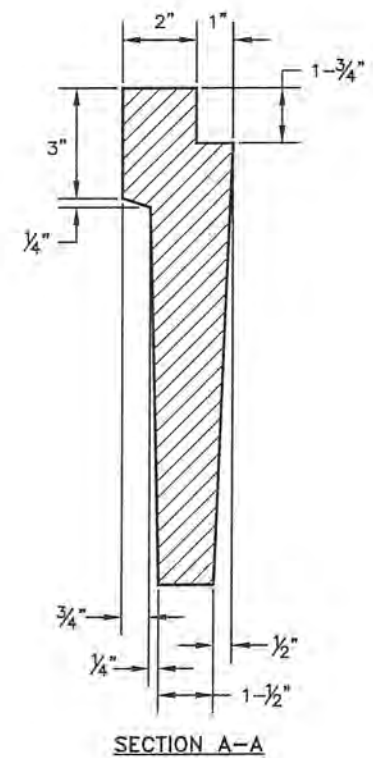
PEDESTRIAN PUSH BUTTON DETAIL



TYPE IA JUNCTION BOX DETAIL



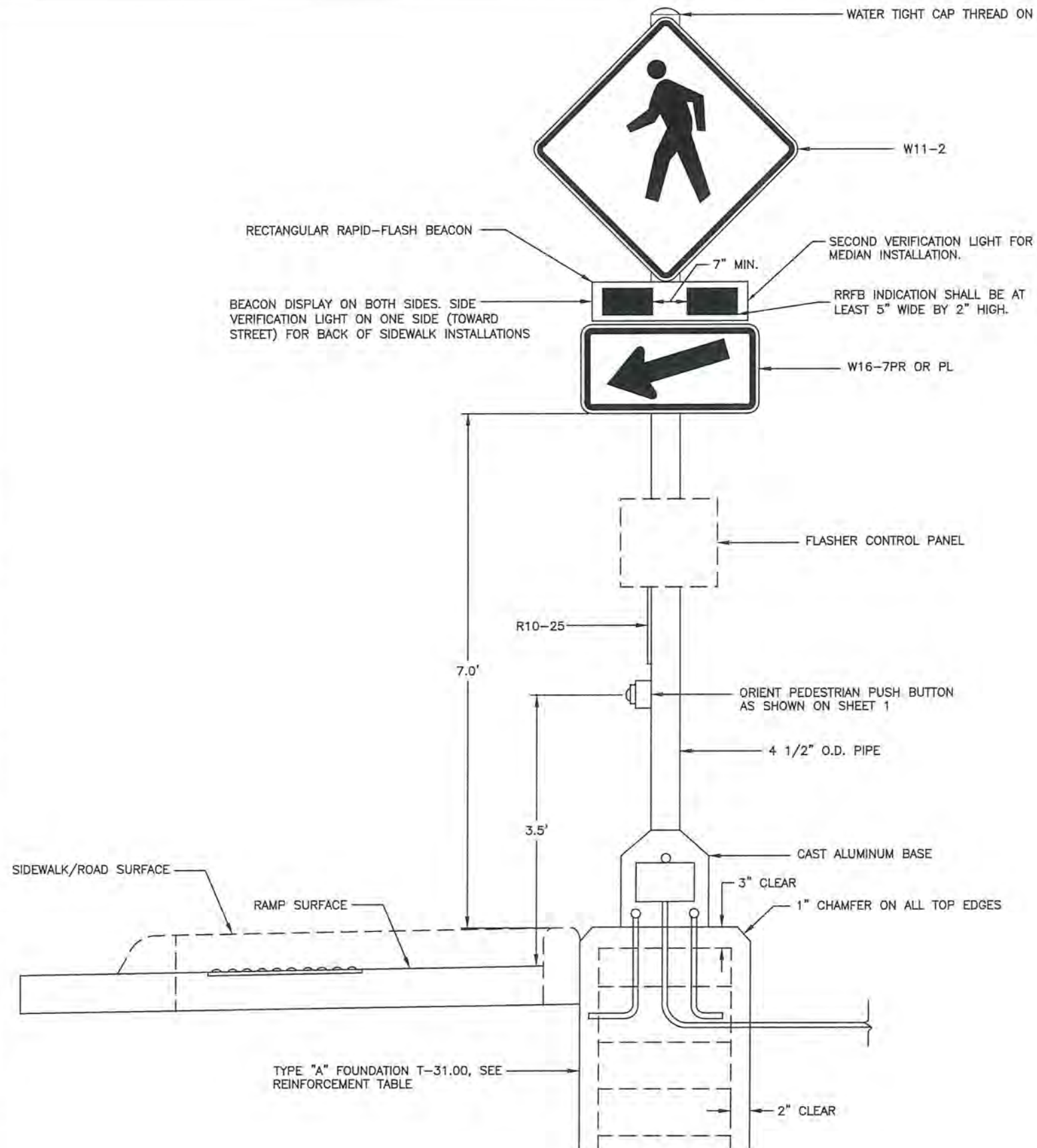
BRICK BASE DETAIL
TYPE 1A JUNCTION BOX



SECTION A-A

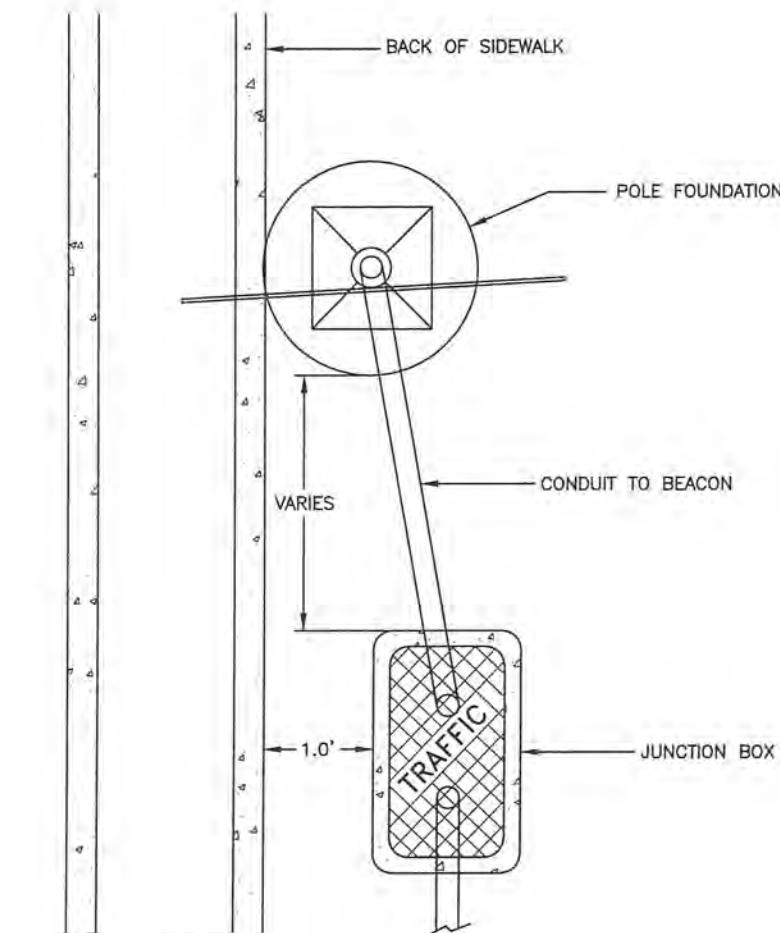
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
C:\Users\ladonovan\Documents\Project\NFHWY00454_Growden Accessibility Imp\7 Traffic\TSM606B-RRFB Pole and Foundation Detail Thu, Apr/01/21 12:12pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	H13	H16



GENERAL NOTES:

1. LOCATE J-BOXES 1' FROM BACK OF EDGE OF PAVEMENT.
2. WHEN CONDUIT RUNS ARE PARALLEL TO THE ROADWAY, INSTALL THEM 1' FROM THE BACK OF EDGE OF PAVEMENT.
3. USE SCHEDULE 40 STEEL PIPE THAT CONFORMS TO ASTM A 53 GRADE 8.
4. FURNISH ALL FLASHER POSTS HOT-DIP GALVANIZED ACCORDING TO ASTM A123.
5. SET THE END OF THE 2" RMC 2" ABOVE THE TOP OF THE FOUNDATION.
6. USE IRREVERSIBLE COMPRESSION CONNECTOR OR CADWELD TO BOND GROUNDING CONDUCTOR TO REINFORCEMENT CAGE. THE INSTALLATION MUST COMPLY WITH THE REQUIREMENTS OF NEC ARTICLE 250. SEE SECTION 660 FOR BONDING AND GROUNDING REQUIREMENTS.
7. DRILL AND TAP THE POLE FOR ALL MOUNTING HOLES FOR SIGN AND PEDESTRIAN PUSH BUTTON HOUSING. REMOVE BURRS AFTER DRILLING. TREAT BARE STEEL SURFACES IN ACCORDANCE WITH AASHTO M36.
8. APPLY ANTI-SEIZE COMPOUND TO CAP SCREWS TAPPED DIRECTLY INTO POLE.
9. SEE STANDARD DRAWINGS S-20.10 AND S-23.00 FOR MOUNTING AND BRACING AS REQUIRED FOR SIGNAGE.
10. SET FLASHING DURATION TO 25 SECONDS. FINAL TIMING TO BE ESTABLISHED IN THE FIELD BY THE ENGINEER.
11. THE OUTSIDE EDGES OF THE RRFB, INCLUDING HOUSINGS, SHALL NOT PROJECT BEYOND THE OUTSIDE EDGES OF THE W11-2 SIGN.



JUNCTION BOX PLAN VIEW DETAIL

REINFORCEMENT					
VERTICAL BARS			HOOPS		
QUANTITY	SIZE	LENGTH	QUANTITY	SIZE	DIAMETER
7	#5	3'-6"	7	#4	1'-8"

RRFB POLE AND
FOUNDATION DETAIL



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
C:\Users\ladonovan\Documents\Project\NFHWY00454 Crowden Accessibility Imp\7 Eng Support\7 Traffic\02-ARC-FLASH-SHOCK-HAZARD LABELING-ARC FLASH SHOCK HAZARD LABELING Thu, Apr/01/21 12:12pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	H14	H16

NOTES:

1. APPLICABLE STATE OF ALASKA DOT&PF ELECTRICAL EQUIPMENT MUST BE LABELED WITH DOT&PF-DEFINED SITE-SPECIFIC PPE LEVELS, AS DEFINED IN NFPA 70E 130.5(H)(3)(c). THE LEVELS ARE: LEVEL 1 (0 TO 4 CAL/CM²), 2 (4.1 TO 8.0 CAL/CM²), 3 (8.1 TO 25.0 CAL/CM²), 4 (25.1 TO 39.9 CAL/CM²), OR WP (WORK PROHIBITED, FOR EQUIPMENT IN WHICH THE CALCULATED ARC FLASH INCIDENT ENERGY IS \geq 40 CAL/CM²).
2. MINIMUM PPE REQUIREMENTS FOR EACH PPE LEVEL DESCRIBED IN NOTE 1 ARE THE SAME REQUIREMENTS AS DESCRIBED IN NFPA 70E TABLE 130.7(C)(15)(c). THESE PPE REQUIREMENTS ARE TO BE USED AS THE SITE-SPECIFIC PPE LEVELS.
3. PROVIDE DESCRIPTION OF EQUIPMENT CONFIGURATIONS IN WHICH A HAZARD EXISTS. FOR EXAMPLE "WHEN COVER REMOVED."

4"

6"

FLAG LEGEND COLOR, BLACK

FLAG BACKGROUND COLOR, HAZARD ORANGE

WARNING

ARC FLASH AND SHOCK HAZARD PRESENT

APPROPRIATE PPE REQUIRED

Arc Flash Boundary Ft

Incident Energy in cal/cm²

Working Distance In

Shock Hazard Exposure VAC

Insulating Gloves Class

Shock Hazard

Limited Approach Boundary Ft

Restricted Approach Boundary Ft

ENCLOSURE TAG OR NAME

Level

Minimum PPE Requirements

INSERT DESCRIPTION OF MINIMUM PPE REQUIREMENTS.

Calculated available fault current:

SITE INFORMATION, IF APPLICABLE

DATE CALCULATION WAS PERFORMED

SEE NOTE 1

SEE NOTE 2

WATERMARK IS OPTIONAL. WATERMARK COLOR, GRAY

MAIN BACKGROUND COLOR, WHITE

SEE NOTE 3

STATIC LEGEND COLOR, BLACK

FILL CALCULATION VALUES AND NOTES WITH BOLD TEXT. VALUE AND NOTE LEGEND COLOR, BLACK

ARC FLASH SHOCK
HAZARD LABELING



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	H15	H16

SUMMARY OF LOAD CENTER A										
LOAD CENTER TYPE:		TYPE 2 – SINGLE POST								
MAINTAINED BY:		CITY OF FAIRBANKS								
SERVING UTILITY:		GVEA								
SERVICE CONDUIT TYPE:		RMC, PVC, LFNC (AS REQ'D)								
LOCATION DATA (APPROX. 64.840151', –147.765219')										
LOAD CENTER:		2ND AVE (SW OF WILBUR ST INTERSECTION)								
POWER SOURCE:		NEW GVEA SERVICE TRANSFORMER								
PHOTOELECTRIC CONTROL:		NONE								
SERVICE VOLTAGE:		120/240V, 1–PHASE, 3–WIRE WITH GROUNDED NEUTRAL								
PROVIDE METER SOCKET		YES								
MAIN BREAKER A		240V, 100A								
CONTACTOR:		NONE								
AIC RATING:		10 kAIC @ 240V								
PANEL A										
POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aφ	Bφ	POLE KVA	DESCRIPTION	AMP TRIP	POLE	
1	20/2	RRFB CONTROLLER CABINET	0.5	0.5			SPARE	20/2	2	
3			0.5		0.5				4	
5	20/1	SPARE					SPACE	–	6	
7	15/1	SPARE					SPACE	–	8	
				0.5	0.5	PANEL A KVA			1.0	
							AMPS AT 240V			4.2

ARC FLASH AND SHOCK HAZARD RESULTS - LC "A"	
ARC FLASH BOUNDARY	6.2 FT
INCIDENT ENERGY IN CAL/CM^2	12.4
WORKING DISTANCE	18 INCHES
SHOCK HAZARD EXPOSURE	240V
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	3/04/2021

SEE CONSTRUCTION NOTE 1.

SHORT CIRCUIT CALCULATION - LC "A"	
240V IN A 1-PH, 3W CONFIGURATION WITH A POWER-FACTOR OF 0.90, 1 ALUMINUM CONDUCTOR PER PHASE IN A RMC.	
TRANSFORMER RATING	25 kVA
VOLTAGE	120/240V SEC.
TRANSFORMER IMPEDANCE	1.2%
TRANSFORMER LET-THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	8,681A
LENGTH TO FAULT	15 FT
SERVICE CONDUCTOR SIZE	1/0 AWG (AL)
SERVICE CONDUIT	RMC, PVC, LFNC (AS REQ'D)
MAX. AVAILABLE FAULT CURRENT AT LC A	8.4 kA

SEE CONSTRUCTION NOTE 1.

VOLTAGE DROPS							
240V IN A 1-PH, 2W CONFIGURATION WITH A POWER-FACTOR OF 0.9, 1 COPPER CONDUCTOR PER PHASE IN A RMC.							
CKT #	SEGMENT	SEGMENT SIZE (AWG)	SEGMENT LENGTH (FT)	LOAD (VA)	TOTAL (AMPS)	SEG. DROP (%VD)	CUMULATIVE DROP (%VD)
AA-1/3	LC TO RRFB CONTROLLER	#8	140	960	4.0	0.34	0.34

SUMMARY OF LOAD CENTER B										
LOAD CENTER TYPE:		TYPE 2 – SINGLE POST								
MAINTAINED BY:		CITY OF FAIRBANKS								
SERVING UTILITY:		GVEA								
SERVICE CONDUIT TYPE:		RMC, PVC, LFNC (AS REQ'D)								
LOCATION DATA (APPROX. 64.839009', –147.761598')										
LOAD CENTER:		WILBUR ST AND CROSSON AVE (NE)								
POWER SOURCE:		NEW GVEA SERVICE TRANSFORMER								
PHOTOELECTRIC CONTROL:		NONE								
SERVICE VOLTAGE:		120/240V, 1–PHASE, 3–WIRE WITH GROUNDED NEUTRAL								
PROVIDE METER SOCKET		YES								
MAIN BREAKER B		240V, 100A								
CONTACTOR:		NONE								
AIC RATING:		10 kAIC @ 240V								
PANEL A										
POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aφ	Bφ	POLE KVA	DESCRIPTION	AMP TRIP	POLE	
1	20/2	RRFB CONTROLLER CABINET	0.5	0.5			SPARE	20/2	2	
3			0.5		0.5				4	
5	20/1	SPARE					SPACE	–	6	
7	15/1	SPARE					SPACE	–	8	
				0.5	0.5	PANEL A KVA			1.0	
							AMPS AT 240V			4.2

ARC FLASH AND SHOCK HAZARD RESULTS - LC "B"	
ARC FLASH BOUNDARY	6.2 FT
INCIDENT ENERGY IN CAL/CM^2	12.4
WORKING DISTANCE	18 INCHES
SHOCK HAZARD EXPOSURE	240V
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	3/04/2021

SEE CONSTRUCTION NOTE 1.

SHORT CIRCUIT CALCULATION - LC "B"	
240V IN A 1-PH, 3W CONFIGURATION WITH A POWER-FACTOR OF 0.90, 1 ALUMINUM CONDUCTOR PER PHASE IN A RMC.	
TRANSFORMER RATING	25 kVA
VOLTAGE	120/240V SEC.
TRANSFORMER IMPEDANCE	1.2%
TRANSFORMER LET-THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	8,681A
LENGTH TO FAULT	15 FT
SERVICE CONDUCTOR SIZE	1/0 AWG (AL)
SERVICE CONDUIT	RMC, PVC, LFNC (AS REQ'D)
MAX. AVAILABLE FAULT CURRENT AT LC A	8.4 kA

SEE CONSTRUCTION NOTE 1.

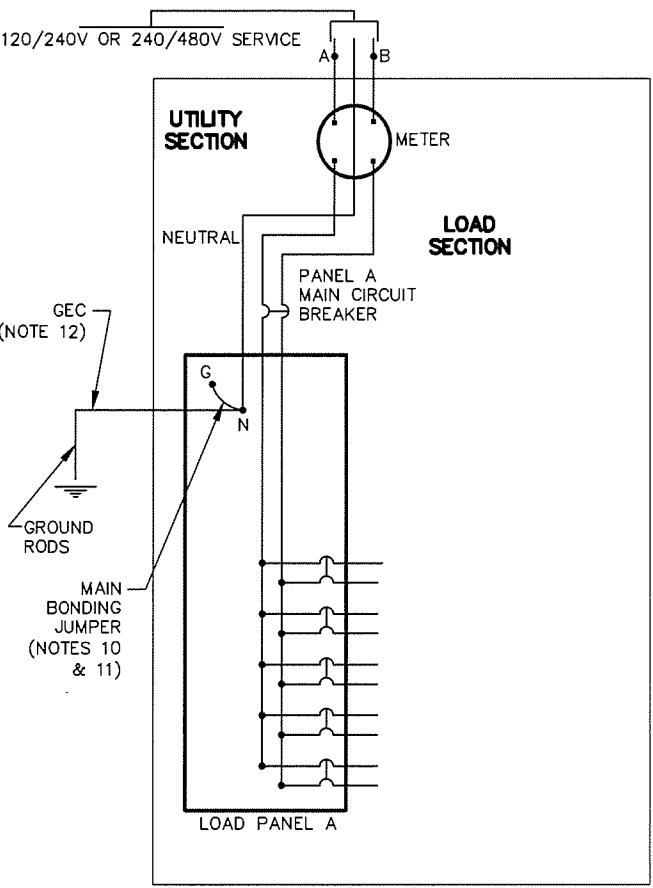
VOLTAGE DROPS							
240V IN A 1-PH, 2W CONFIGURATION WITH A POWER-FACTOR OF 0.9, 1 COPPER CONDUCTOR PER PHASE IN A RMC.							
CKT #	SEGMENT	SEGMENT SIZE (AWG)	SEGMENT LENGTH (FT)	LOAD (VA)	TOTAL (AMPS)	SEG. DROP (%VD)	CUMULATIVE DROP (%VD)
BA-1/3	LC TO RRFB CONTROLLER	#8	420	960	4.0	1.02	1.02

CONSTRUCTION NOTES:

1. THE MAXIMUM AVAILABLE FAULT CURRENT AND MAXIMUM ARC FLASH INCIDENT ENERGY AND BOUNDARY CALCULATIONS ARE VALID AS LONG AS ACTUAL FIELD CONDITIONS FALL WITHIN THE PARAMETERS LISTED BELOW. IF THEY DO NOT, CONTACT THE ENGINEER FOR REVISED CALCULATIONS.
- SERVICE TRANSFORMER MAX RATING: 25kVA
 - SERVICE TRANSFORMER MIN IMPEDANCE: 1.2%
 - SERVICE LATERAL MIN LENGTH: 15 FT
 - SERVICE LATERAL MAX SIZE: 1/0 AWG (AL)



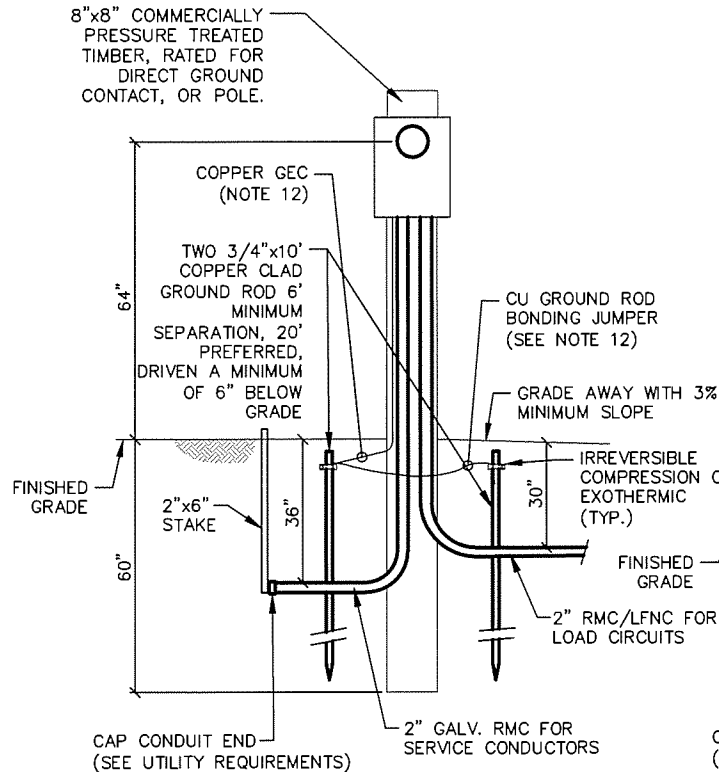
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
C:\Users\ladonovan\Documents\Project\NFWHY00454\Growthen Accessibility Imp\7 Eng Support\7 Traffic\U-26-TYPE-2-AND-3-LOAD-CENTER-TYPE 2 AND 3 LOAD CENTERS 1nu, Apr/01/21 12:12pm



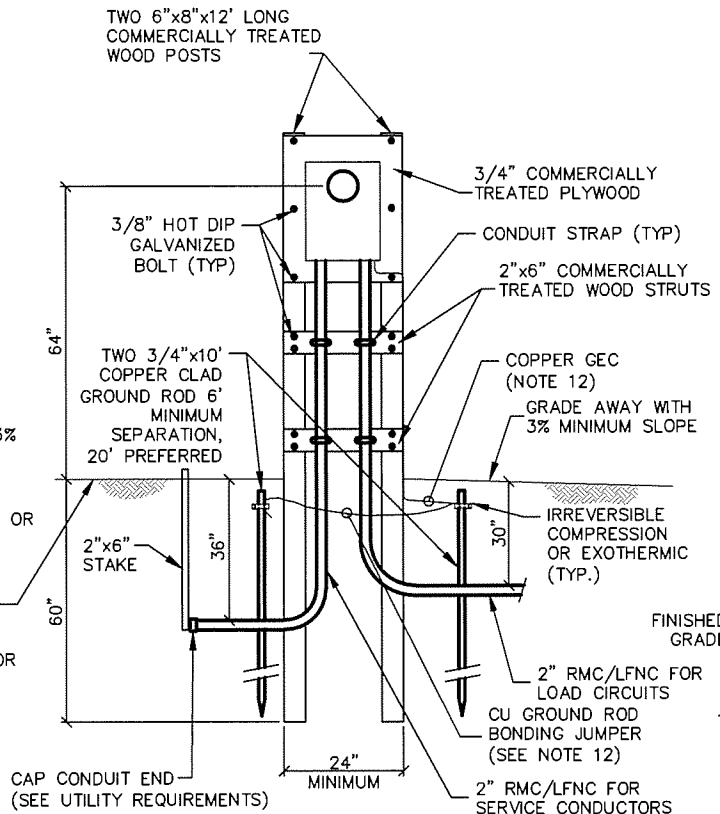
LOAD CENTER ONE LINE DIAGRAM

WIRING NOTES:

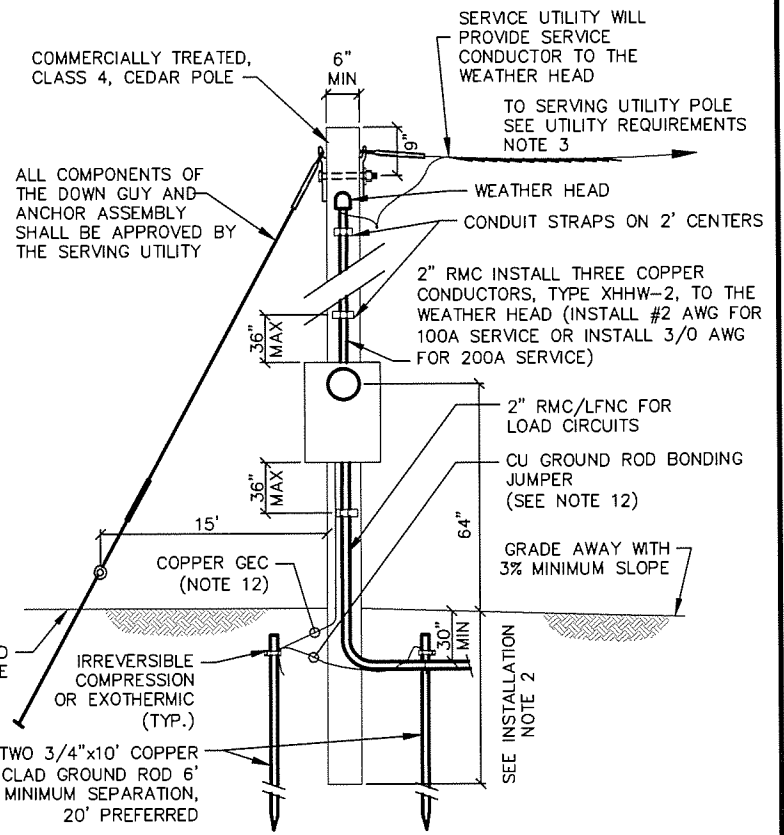
- FURNISH ALL EQUIPMENT NOTED IN THE LOAD CENTER SUMMARY, INCLUDING SPARE CIRCUIT BREAKERS AND PREPARED SPACES AS SHOWN, IN EACH LOAD PANEL. SEE SUMMARIES FOR LOAD PANEL VOLTAGES, CURRENT RATINGS, SHORT CIRCUIT INTERRUPTING RATINGS, AND THE NAME OF THE SERVING UTILITY.
- SIZE THE TYPE 2 AND 3 LOAD CENTER CABINETS TO HOLD THE EQUIPMENT SHOWN IN THE WIRING DIAGRAM AND DETAILED IN EACH LOAD CENTER SUMMARY, ALLOWING SPACE FOR WIRING PER THE NATIONAL ELECTRICAL CODE. INSTALLING A METER BASE AND MAIN BREAKER IN A SEPARATE ENCLOSURE IS ALLOWABLE. HOWEVER IN THIS CASE, FURNISH A BREAKER PANEL WITH A MAIN BREAKER.
- INSTALLATION MUST COMPLY WITH GVEA'S LATEST ELECTRICAL SERVICE GUIDELINES FOR COMMERCIAL AND MULTI-RESIDENTIAL INSTALLATIONS MANUAL.
- NOT USED.
- INSTALL GROUNDING HUBS THIRD PARTY CERTIFIED FOR WET LOCATIONS WHEN ATTACHING CONDUITS TO THE LOAD CENTER ENCLOSURE.
- LABEL ALL CIRCUIT BREAKERS AS TO FUNCTION AND POSITION.
- NOT USED.
- STORE A SCHEMATIC DIAGRAM, A CIRCUIT DIRECTORY, AND A MATERIALS LIST INCLUDING THE MANUFACTURERS' NAMES AND PART/CATALOG NUMBERS, ALL LAMINATED IN PLASTIC, IN A METAL POCKET ATTACHED TO THE INSIDE OF THE LOAD CENTER. INSTALL THE POCKET ON THE LOAD CENTER DOOR, PROVIDING DRAIN HOLES TO PREVENT WATER ACCUMULATION.
- NOT USED.
- INSTALL #4 AWG COPPER MAIN BONDING JUMPER, OR SIZE PER NEC TABLE 250.102 (C)(1), WHICHEVER IS LARGER.
- INSTALLATION MUST COMPLY WITH NEC 250.24(C) AND 250.24 (C) EXCEPTION WHEN MORE THAN ONE PANELBOARD IS PRESENT.
- INSTALL #4 AWG COPPER GROUNDING ELECTRODE CONDUCTOR (GEC), OR SIZE PER NEC TABLE 250.66, WHICHEVER IS LARGER. USE THE SAME METHOD TO SIZE GROUND ROD BONDING JUMPER.
- MAXIMUM METER HEIGHT SHALL NOT EXCEED 64" FROM FINISHED GRADE TO CENTER OF THE METER SOCKET COVER.
- WHEN SHOWN ON THE PLANS, INSTALL ENCLOSURE HEATER WITH INTEGRAL THERMOSTAT, SET TO ENERGIZE THE HEATER AT TEMPERATURES AT OR BELOW 32-DEG F. SCHNEIDER ELECTRIC CAT. NO. NSYCRP1W230VTVC, NVENT-HOFFMAN CAT. NO. DAH4002B, OR APPROVED EQUAL.
- BOND SERVICE CONDUIT GROUNDING BUSHING TO SUPPLY-SIDE BONDING JUMPER. BOND LOAD CONDUIT GROUNDING BUSHINGS TO ASSOCIATED EQUIPMENT GROUNDING CONDUCTORS (EGC'S).



TYPE 2 LOAD CENTER
SINGLE POST - STANDARD



TYPE 2 LOAD CENTER
DUAL POST - ALTERNATE
(NOT USED)



TYPE 3 LOAD CENTER
(NOT USED)

INSTALLATION NOTES:

- INSTALL TYPE 3 LOAD CENTER POLES OF SUFFICIENT LENGTH TO PROVIDE THE FOLLOWING MINIMUM GROUND TO SERVICE CONDUCTOR CLEARANCE:
A. 18.5 FEET, IF THE SERVICE CONDUCTORS ARE LOCATED ABOVE ROADWAYS OR PARKING AREAS.
B. 26.5 FEET, IF THE SERVICE CONDUCTORS ARE LOCATED WITHIN 20 FEET OF A RAILROAD TRACK.
C. 18.5 FEET IN ALL OTHER CIRCUMSTANCES.
- SET THE BUTT END OF TYPE 3 LOAD CENTER POLES TO THE FOLLOWING MINIMUM DEPTH:
A. 10 PERCENT OF ITS LENGTH PLUS 24 INCHES, OR 60 INCHES, WHICHEVER IS GREATER, IF IT IS INSTALLED IN EARTH OTHER THAN SOLID ROCK OR MUSKEG.
B. 10 PERCENT OF ITS LENGTH, OR 48 INCHES, WHICHEVER IS GREATER, IF IT IS INSTALLED IN SOLID ROCK.
C. CONSIDER MUSKEG TO BE AIR, AND SET THE BUTT ENDS TO THE DEPTH GIVEN IN A OR B, WHICHEVER APPLIES, IN THE UNDERLYING EARTH OR ROCK.

WHENEVER MORE THAN 24 INCHES OF EARTH OVERLAYS ROCK, OR THE DIAMETER OF THE DRILLED HOLE IN ROCK EXCEEDS TWICE THE DIAMETER OF THE POLE AT THE GROUND LINE, CONSIDER THE INSTALLATION AS EARTH.
- ATTACH ALL CONDUITS TO THE POSTS AND POLES USING TWO HOLE RIGID METAL CONDUIT STRAPS LOCATED ON 24 INCHES MAXIMUM CENTERS.
- ATTACH ALL GROUND CONDUCTORS TO THE POSTS AND POLES USING CABLE STAPLES LOCATED ON 12 INCH CENTERS. MAKE ALL GROUNDING CONDUCTORS CONTINUOUS. USE #6 AWG CU GEC FOR 100A SERVICE AND #4 AWG CU GEC FOR 200 AMP SERVICE.
- ALL POSTS, POLES, AND STRUTS SHALL BE COMMERCIALY TREATED AND SHALL MEET THE REQUIREMENTS SET FORTH IN ALASKA DOT&P SSHC SECTIONS 713 & 714.
- ALL ELECTRICAL ENCLOSURES SHALL FEATURE MEANS FOR SEALING AND LOCKING ALL DOORS AND ACCESS COVERS THAT MAY CONTAIN EXPOSED ENERGIZED ELECTRICAL PARTS.

UTILITY REQUIREMENTS:

- USE THE SINGLE-POST TYPE 2 "STANDARD" LOAD CENTER IN ALL LOCATIONS EXCEPT WHERE THE SERVING UTILITY REQUIRES THE TWO-POST TYPE 2 "ALTERNATIVE" LOAD CENTER. REFER TO THE LOAD CENTER SUMMARY FOR WHICH TO INSTALL.
- THE LENGTH AND TYPE OF SERVICE ENTRANCE CONDUIT INSTALLED BY THE CONTRACTOR VARIES BY UTILITY. REGARDLESS OF ITS LENGTH, INSTALL A PULL ROPE IN THE SERVICE CONDUIT AND A CAP ON THE BURIED END: MARK THE BURIED END WITH A 2"x6" WOOD STAKE. SEE THE LOAD CENTER SUMMARIES FOR THE FOLLOWING INFORMATION.
A. STATION AND OFFSET OF THE LOAD CENTER AND POWER SOURCE.
B. WHERE THE CONTRACTOR TERMINATES THE SERVICE ENTRANCE CONDUIT.
C. THE TYPE OF SERVICE ENTRANCE CONDUIT (SUCH AS RIGID METAL CONDUIT OR LIQUID-TIGHT FLEXIBLE METAL CONDUIT).
D. THE MAXIMUM AND MINIMUM DISTANCES ALLOWED BETWEEN THE TYPE-3 LOAD CENTER POLE AND UTILITY POLE TO WHICH THE AERIAL DROP IS CONNECTED.
- VERTICAL CLEARANCE FOR SERVICE-DROP CONDUCTORS IN ACCORDANCE WITH NEC 230.24(B).

TYPE 2 AND 3 LOAD
CENTERS



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	Q1	Q4

ESCP NOTES

GENERAL NOTES INFORMATION:

1. SITE FUNCTION : PEDESTRIAN FACILITIES

PROJECT INFORMATION

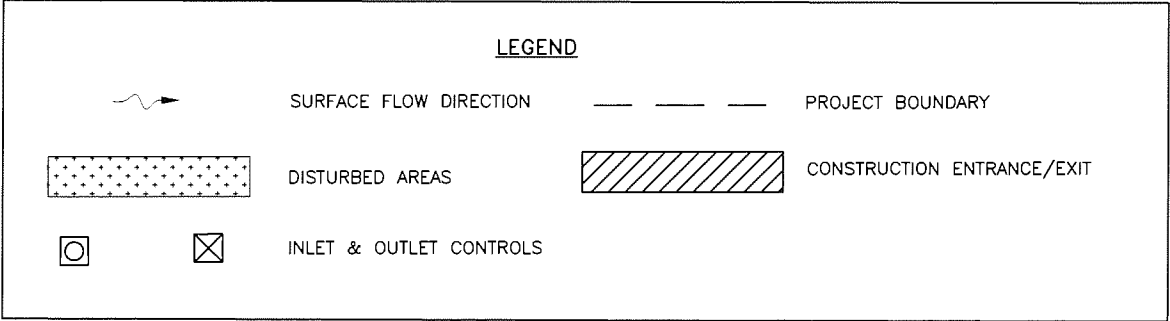
PROJECT AREA: 5.11 ACRES
DISTURBED AREA: 1.12 ACRES

ENVIRONMENTAL INFORMATION:

1. RECEIVING WATERS: FAIRBANKS MS4 AND CHENA RIVER
2. IMPAIRED WATER BODIES: CHENA RIVER
3. TOTAL MAXIMUM DAILY LOAD (TMDL): NONE
4. THREATENED AND ENDANGERED SPECIES: NONE
5. HISTORICAL & CULTURAL RESOURCE PRESENCE : NONE
6. FISH & WILDLIFE ESSENTIAL HABITAT: NONE
7. WETLANDS: NONE WITHIN THE PROJECT FOOTPRINT
8. CONTACT THE PROJECT ENGINEER WITH QUESTIONS/ CONCERNS REGARDING ENVIRONMENTAL ISSUES OR PERMIT INFORMATION.

ESCP GENERAL NOTES:

1. THIS ESCP IS A GENERAL PLAN FOR GUIDING THE DEVELOPMENT OF THE CONTRACTORS SWPPP. THE CONTRACTOR IS EXPECTED TO PROVIDE ADDITIONAL DETAILS AND BMP'S BASED ON THE CONTRACTORS ACTUAL SCHEDULE AND CONSTRUCTION METHODS, AS REQUIRED TO COMPLY WITH THE 2021 CONSTRUCTION GENERAL PERMIT.
2. CONSTRUCTION ENTRANCE/EXIT MUST BE ESTABLISHED TO MINIMIZER OFF SITE IMPACTS.
3. INSTALL PERIMETER CONTROL BMP WHEN WORKING WITH 25 FEET OF SURFACE WATERS AND ALONG WETLANDS WHERE A 25 FOOT VEGETATIVE BUFFER IS NOT RETAINED.
4. AREAS OF DISTURBANCE, TEMPORARY AND PERMANENT STABILIZATION, WILL BE MARKED AS WORK PROCEEDS AND ADDED TO THE LEGEND.
5. REFER TO APPENDIX A OF THE CONTRACT FOR ENVIRONMENTAL PERMIT INFORMATION.
6. PUBLIC WATER PROTECTION AREAS THAT INTERSECT WITH THE BOUNDARY ARE LISTED IN THE ESCP TEMPLATE
7. SUPPORT ACTIVATES ARE CONTRACTOR FURNISHED
8. REFER TO APPENDIX C OF THE CONTRACT FOR THE ESCP TEMPLATE



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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DISCHARGE POINT

CHEENA RIVER

2ND AVE.

FISH HATCHERY ACCESS ROAD

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EROSION SEDIMENT & POLLUTION
CONTROL PLAN 2 OF 4

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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EROSION SEDIMENT & POLLUTION
CONTROL PLAN 3 OF 4

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	Q4	Q4

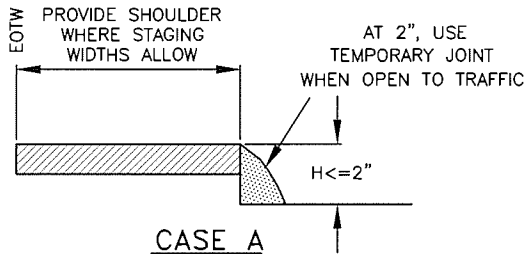
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EROSION SEDIMENT & POLLUTION
CONTROL PLAN 4 OF 4

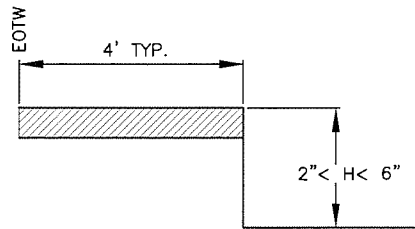
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VERTICAL DROP-OFFS



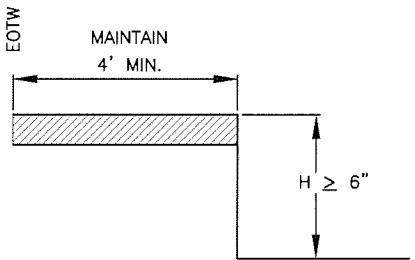
CASE A
DROP-OFFS ≤ 2 INCHES
(PAVED SURFACES ONLY)

1. USE "UNEVEN LANES" (CW8-11) SIGNS FOR ALL DROP-OFFS IN BETWEEN TRAFFIC LANES.
2. LEAVE NO DROP-OFFS > 1.5 " IN THE TRAFFIC LANE OR ACTIVE WHEEL TRACK.



CASE B
 $2" < \text{DROP-OFFS} < 6"$
(ALL ROADWAY SURFACES)

1. PLACE CONES OR CANDLES FOR DROP-OFFS ≥ 4 FEET AND ≤ 30 FEET FROM THE EOTW.
2. USE DRUMS OR TYPE II BARRICADES FOR DROP-OFFS < 4 FEET FROM THE EOTW.



CASE C

DROP-OFFS $\geq 6"$
(ALL ROADWAY SURFACES
AND ROADSIDE SLOPES)

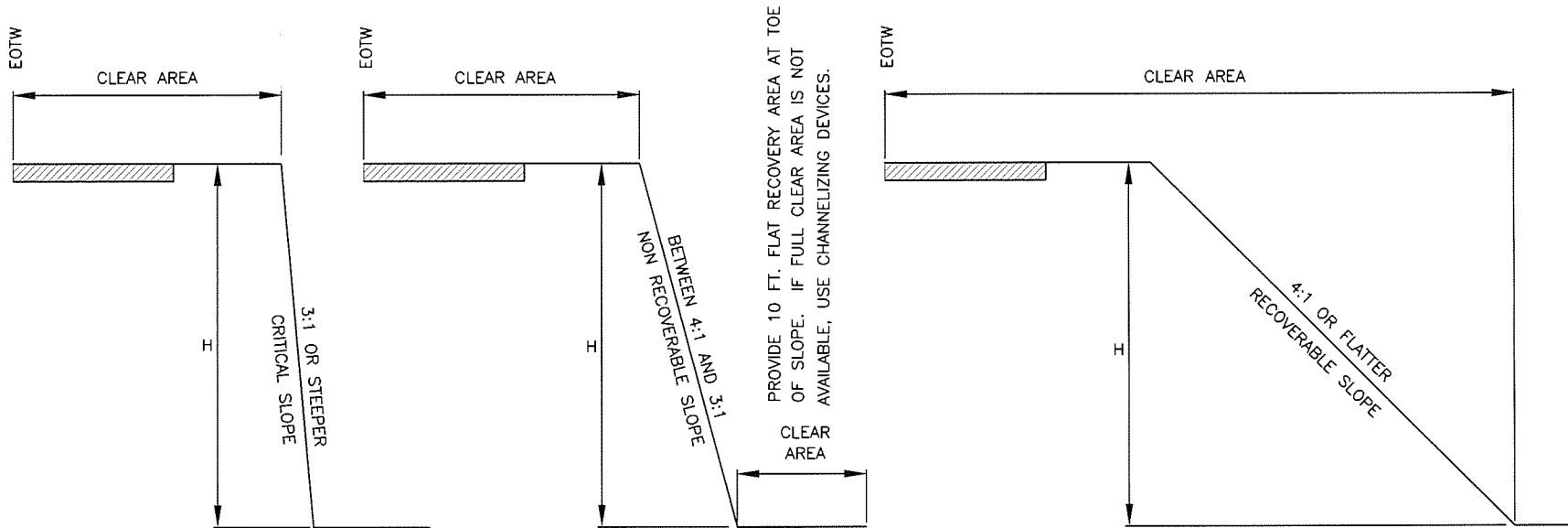
1. PLACE DRUMS OR TYPE II BARRICADES FOR DROP-OFFS ≤ 24 " WITHIN THE CLEAR AREA.
2. PROVIDE PORTABLE CONCRETE BARRIER FOR DROP-OFFS > 24 " WITHIN 15 FEET OF THE EOTW. USE DRUMS OR TYPE II BARRICADES IF BEYOND 15 FEET.

FILL SLOPES

STEEPER THAN OR EQUAL TO 3:1

BETWEEN 4:1 AND 3:1

FLATTER THAN OR EQUAL TO 4:1



CLEAR AREA REQUIREMENTS

	LOW SPEED ≤ 35 MPH	INTERMEDIATE SPEED 40 MPH TO 45 MPH	HIGH SPEED ≥ 50 MPH
RURAL	15'	24'	30'
URBAN	10' DITCH SECTIONS, OR 2' BEHIND CURB	15' DITCH CONDITIONS, OR 2' BEHIND CURB	15' DITCH CONDITIONS, OR 2' BEHIND CURB

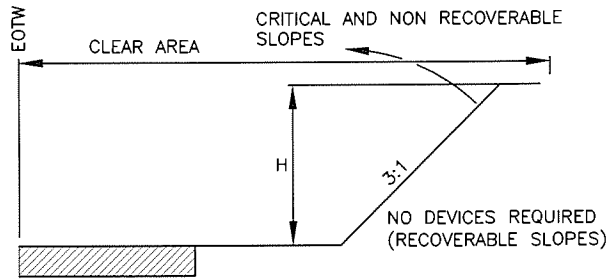
TRAFFIC CONTROL NOTES:

1. USE THE EXISTING CROSS-SECTION (PRIOR TO CONSTRUCTION) AS A BASIS FOR DETERMINING WHEN CHANNELIZING DEVICES ARE NEEDED.
2. INSTALL CHANNELIZING DEVICES WHEN THE HORIZONTAL OR VERTICAL CURVATURE IS MADE MORE SEVERE.
3. INSTALL FLEXIBLE DELINEATORS WHEN ALL VEGETATION OVER 4 FEET HIGH IS CLEARED FROM FILL SLOPES THAT ARE 3:1 OR STEEPER IN THE CLEAR AREA.
4. USE PORTABLE CONCRETE BARRIER FOR WARRANTING CONDITIONS WHICH LAST LONGER THAN 3 DAYS. FOR CONDITIONS LASTING LESS THAN 3 DAYS, OTHER CHANNELIZING DEVICES MAY BE INSTALLED.
5. TERMINATE RUNS OF PORTABLE CONCRETE BARRIER USING THE FOLLOWING METHODS:
 - A) CONNECT TO A PORTABLE CRASH CUSHION, OR
 - B) PROVIDE A CONCRETE BARRIER WITH THREE BEAM TRANSITION TO W-BEAM GUARDRAIL, TREATED WITH A PARALLEL TERMINAL (SEE SECTION 710).
 - C) FLARE THE ENDS OF THE PORTABLE CONCRETE BARRIER AWAY FROM THE ROADWAY AT A RATE OF 7:1 ON A COMPACTED SLOPE OF 6:1 OR FLATTER, OUTSIDE OF THE CLEAR AREA. INSTALL A SLOPING PORTABLE CONCRETE BARRIER END TREATMENT, OR
 - D) BURY IN THE BACKSLOPE.
6. TERMINATE THE RUNS OF TEMPORARY W-BEAM GUARDRAIL USING THE FOLLOWING METHODS:
 - A) PROVIDE A PARALLEL TERMINAL (SEE SECTION 710)
 - B) FLARE THE ENDS OF THE TEMPORARY GUARDRAIL AWAY FROM THE ROADWAY AT A RATE OF 6:1 ON A COMPACTED SLOPE OF 6:1 OR FLATTER OUTSIDE OF THE CLEAR AREA, TERMINATE WITH A STANDARD W-BEAM END SECTION, OR
 - C) BURY IN THE BACKSLOPE.

EQUIPMENT NOTES:

1. WHEN THERE IS ACTIVE, NONMOBILE CONSTRUCTION EQUIPMENT WITHIN THE CLEAR AREA, DELINEATE THE ROADSIDE WITH TRAFFIC CONES.
2. SEPARATE PROCEDURES ARE REQUIRED FOR MOBILE WORK ZONE OPERATIONS AND SHORT DURATION WORK OF LESS THAN 12 HOURS.

CUT SLOPES



EOTW = EDGE OF TRAVELED WAY

CHANNELIZING DEVICE REQUIREMENTS FOR SLOPES 3:1 OR STEEPER WITHIN THE CLEAR AREA

	H $\leq 15'$	H $> 15'$
< 2000 VPD LOW VOLUME	CANDLES OR CONES	TYPE II BARRICADES OR DRUMS
> 2000 VPD	TYPE II BARRICADE OR DRUMS	PORTABLE CONCRETE BARRIER OR TEMPORARY GUARDRAIL

WINTER SHUTDOWN NOTES:

1. WHEN REQUIRED, USE CHANNELIZING DEVICES WHICH CAN BE MAINTAINED OVER WINTER.
2. NO CHANNELIZING DEVICES ARE REQUIRED IF:
 - A) CONSTRUCTION SLOPES ARE RECOVERABLE, AND
 - B) SLOPES ARE SMOOTH AND COMPACTED, AND
 - C) REQUIRED CLEAR AREA IS PROVIDED

TRAFFIC CONTROL DEVICES

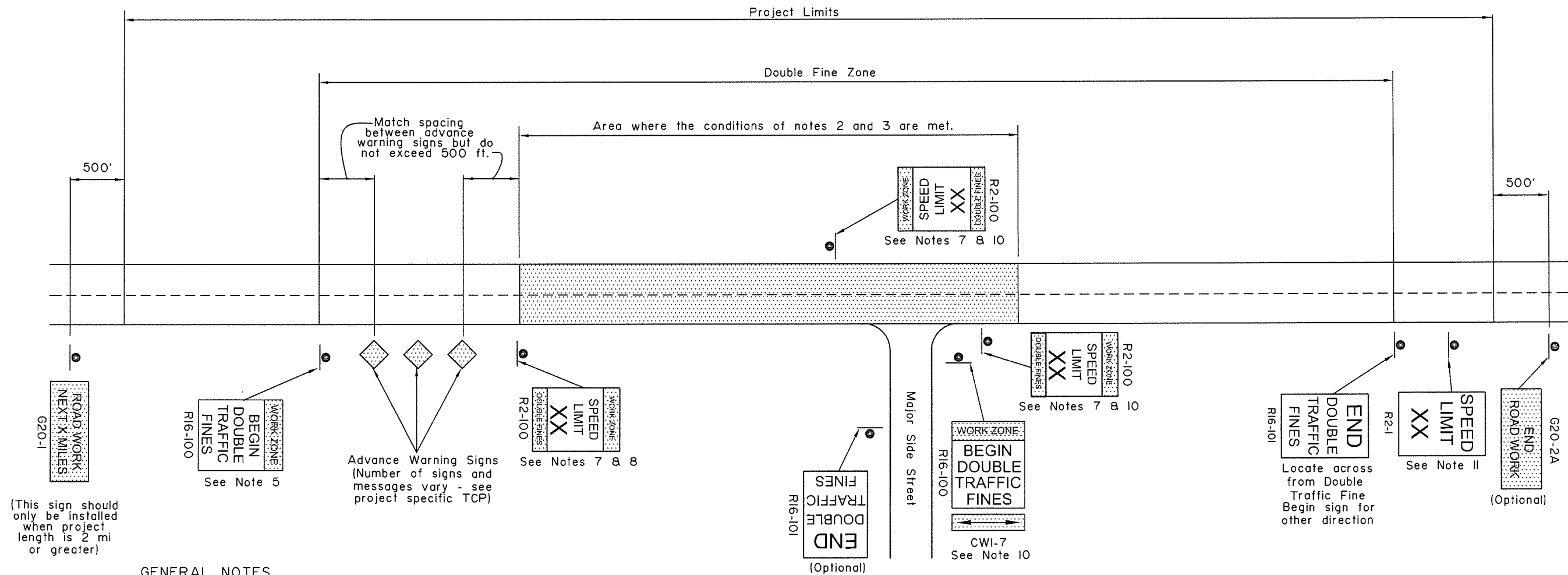


PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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			ALASKA	0002453 / NFHWY00454	2021	V1	V7

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GENERAL NOTES

- Signs are shown for one direction only (with one exception). Signs for the other direction mirror those shown.
- Double fine signs shall be used only where one or more of the following conditions exist:
 - Active work areas (where road workers and/or machines are presently working on or adjacent to a road)
 - Detours on new temporary roads built for that purpose (this does not include detours on existing streets)
 - Sections of paved roads where pavement has been removed.
 - Roads being paved where unmatched asphalt lifts result in a vertical lip between lanes.
- Double fine signs shall be confined to the areas where the above conditions exist, with the following exceptions:
 - If the project is 2 miles or shorter in length, the entire project may be posted for double fines when the above conditions exist on any part of the project.
 - When the above conditions exist at multiple locations separated by less than 2 miles, the locations and the intervening segments may be posted as a single double fine zone.
- Double fine signs shall be removed or covered when work activity ceases for more than two days and conditions b, c, or d of note 2 are not met.
- The R16-100 "BEGIN" sign may be used in place of the first advance warning sign. However, when this is done, the appropriate advance warning sign must be reinstalled when the double fine sign is taken down or covered.
- When a double fine zone is longer than 2 miles, work zone speed limit signs shall be posted at spacings not greater than 2 miles within the double fine zone.
- "Work zone speed limit signs", as used here, refer either to 1) R2-100 signs or 2) standard R2-1 regulatory speed limit signs with CW20-102 "DOUBLE FINES" plates mounted below.
- The limit shown on work zone speed limit signs shall be either the existing limit before construction or, if a work zone speed limit order has been approved in accordance with ADOT&PF Procedure 05.05.020 PDR, a reduced limit.
- All existing regulatory speed limit signs within double fine zones shall either be replaced with R2-100 signs or supplemented with CW20-102 plates.
- Signs shall be installed at major intersections within the double fine zone to warn entering drivers of double fines. This may be done with a R16-100 sign with a CW1-7 arrow panel on the side street or with two work zone speed limit signs on the main street on either side of the intersection. Use of R16-100 signs on side streets eliminates the need for "Road Work Ahead" signs on those streets. If the speed limit has been reduced, the two work zone speed limit signs are mandatory.
- At the end of each double fine zone, install an R2-1 sign showing the speed limit for the road beyond the double fine zone.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

LOCATION OF
DOUBLE TRAFFIC
FINE SIGNS

Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029

C-04.12

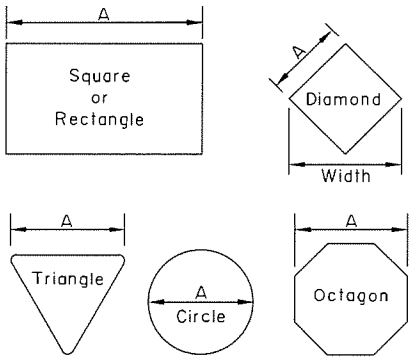
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			ALASKA	0002453 / NFHWY00454	2021	V2	V7

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GENERAL NOTES

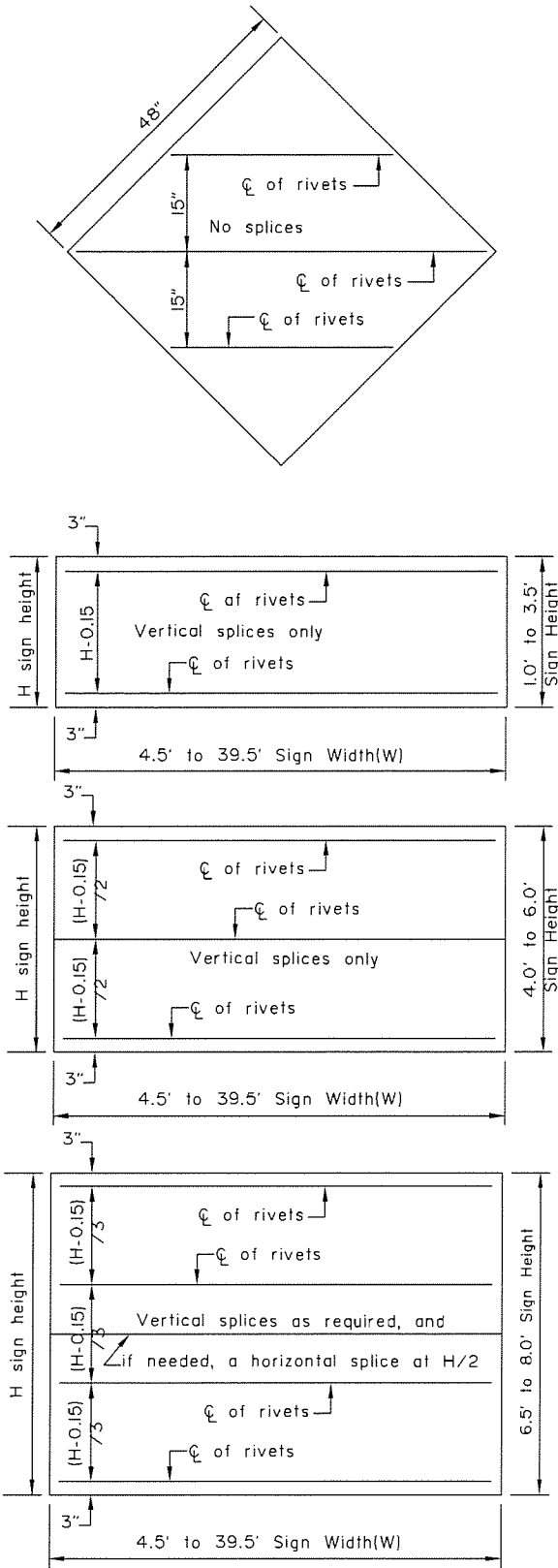
- See the standard specifications for the aluminum alloys that you may use for sign sheeting and wind framing members.
- Fabricate all signs from 0.125" thick aluminum sheeting.
- Sign fabricators may use alternates to the zee shaped framing member with approval of the engineer, if the frame manufacturer certifies their design equals or exceeds the strength of the zee shaped design.
- Install one piece wind framing members on all signs up to 23.5' wide. Use one splice in each wind frame on all signs wider than 23.5'. Locate splices at least 18" from all posts and panel edges. Stagger splices in adjacent framing members at least 8.0' apart.
- Attach wind framing members with rivets or with an engineer approved, double sided, high strength, adhesive tape. Clean and handle sheeting and framing members and apply tape in accordance with the tape manufacturer's written instructions. Install two rivets in both ends of each framing member.
- Use 3/16" diameter rivets conforming to aluminum alloy 6061-T6 for cold driven rivets, or aluminum alloy 6061-T43 for hot driven rivets.
- Sign fabricators may use sign panels extruded with integral framing with approval of the engineer, if the manufacturer certifies their design equals or exceeds the strength of the 0.125" thick panel with framing attached to it.
- Frame all signs taller than 8.0' with five wind framing members located $(H-0.15)/4$ spaces. If needed, make a horizontal splice at the middle wind frame.
- Do not use round pipes for sign supports.



Maximum size unframed signs using 0.125" thick aluminum sheeting.	
Sign Shape	A
Squares, Shields, and Route Markers	48"
Rectangles	48"
Diamonds	48"
Triangles	48"
Rounds and Octagons	48"

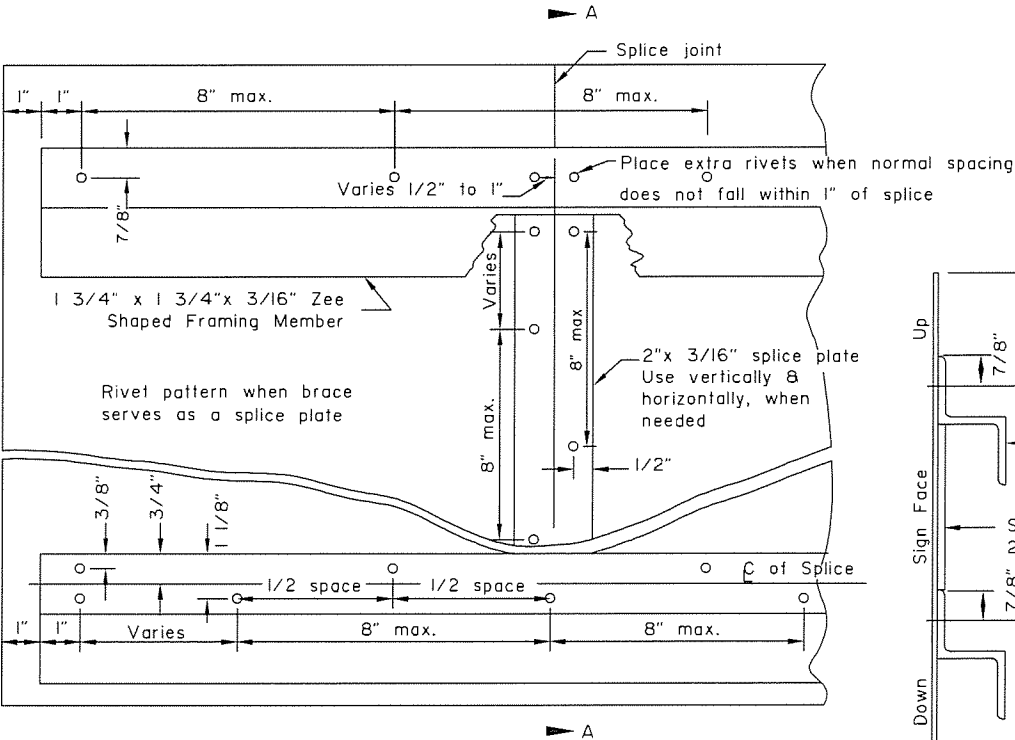
Install wind framing on all signs that exceed the dimensions listed.

LIGHT SIGNS

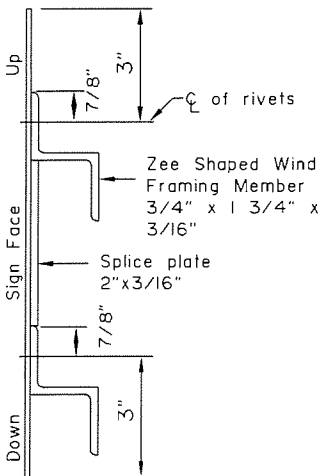


WIND FRAMING
LOCATIONS

Note: Drawing not to scale



RIVET DETAIL FOR ZEE SHAPED
WIND FRAMING & SPLICE PLATE



SECTION A-A

State of Alaska DOT&PF
ALASKA STANDARD PLAN
SIGN FRAMING

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.,
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: WTH Date: 7/8/2020

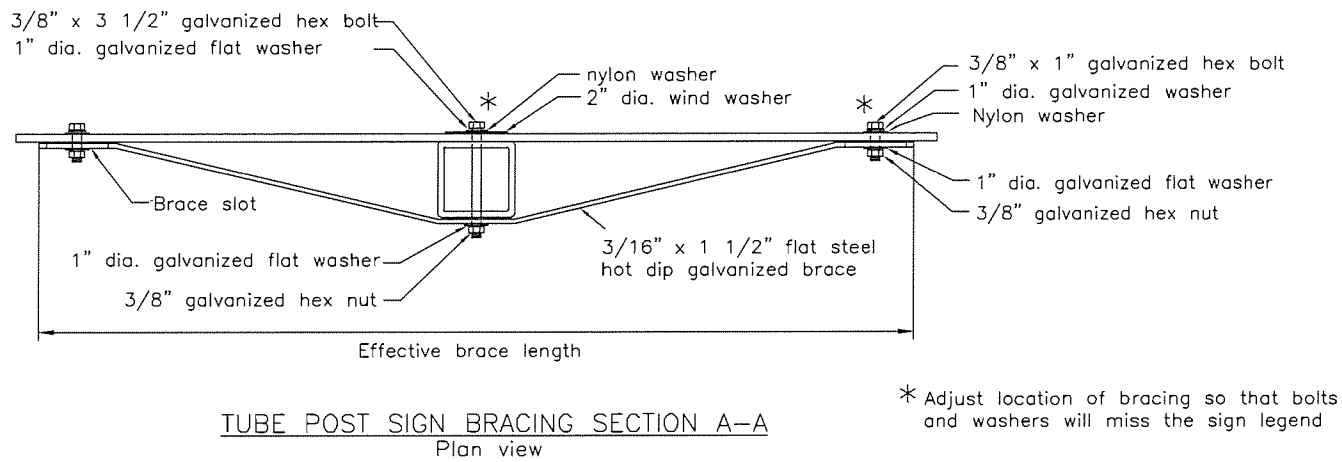
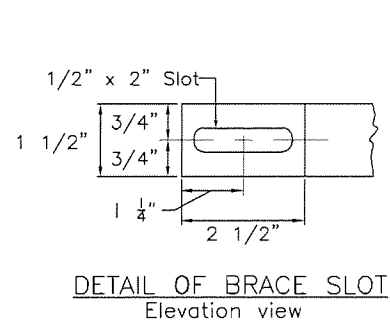
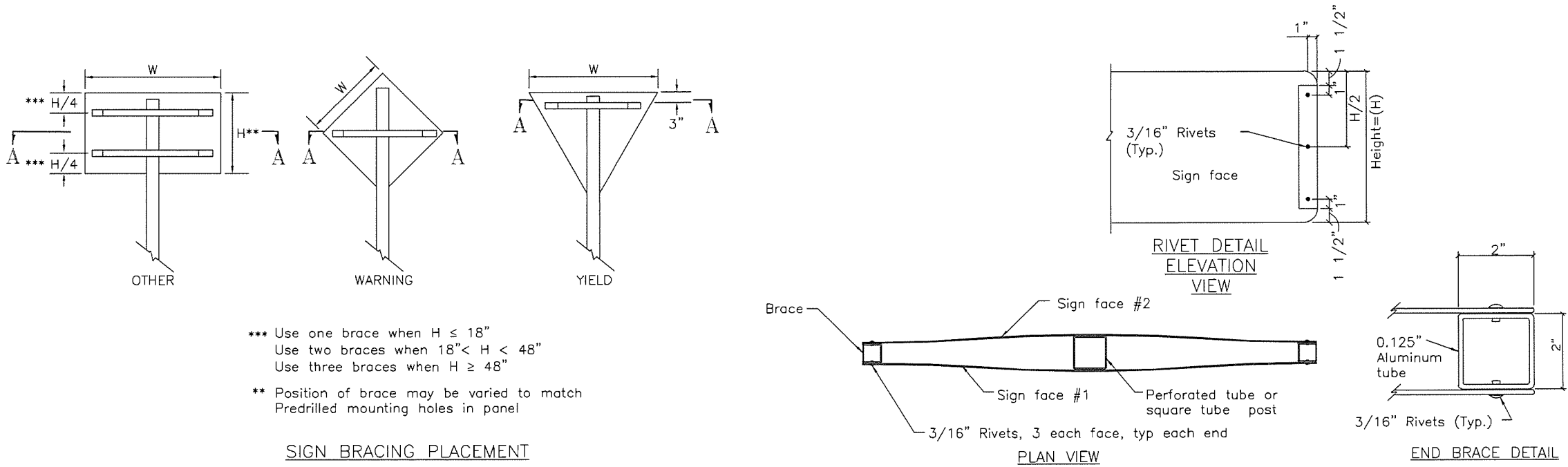
Next Code and Standards Review date: 7/8/2030

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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			ALASKA	0002453 / NFWY00454	2021	V3	V7

S-01.02

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Sign Width(W)	Effective Brace Length		
	Warning	Yield	Other
30"	36"	24"	24"
36"	42"	30"	30"
42"	48"	-	36"
48"	Two posts	36"	42"

< 30" No bracing required and use square tube

Note: Drawing not to scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN

BRACING FOR SIGNS
MOUNTED ON SINGLE POST

Adapted as an Alaska
Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: WTH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

S-01.02

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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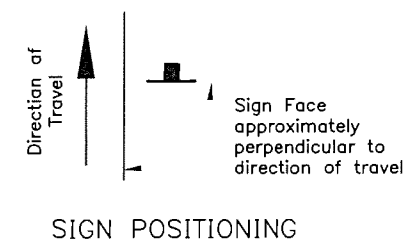
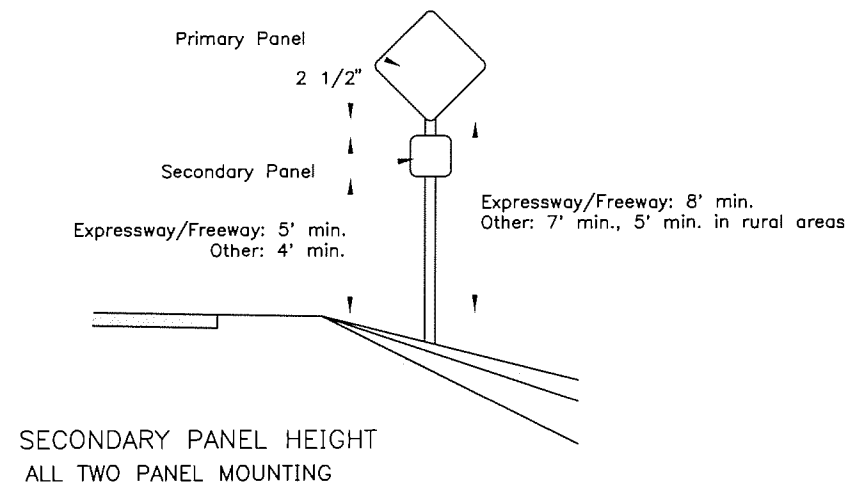
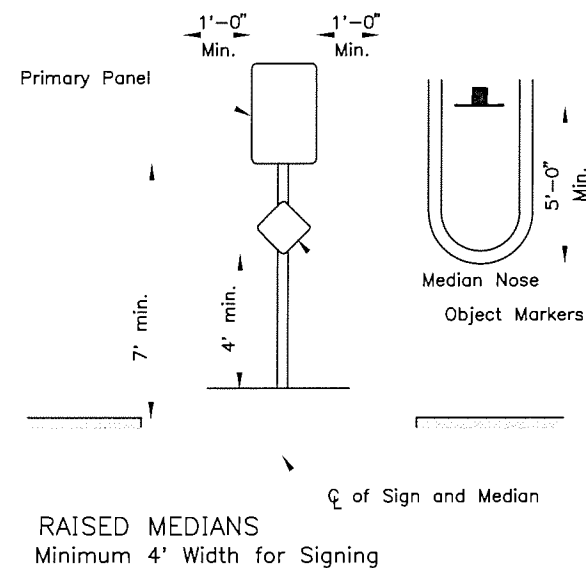
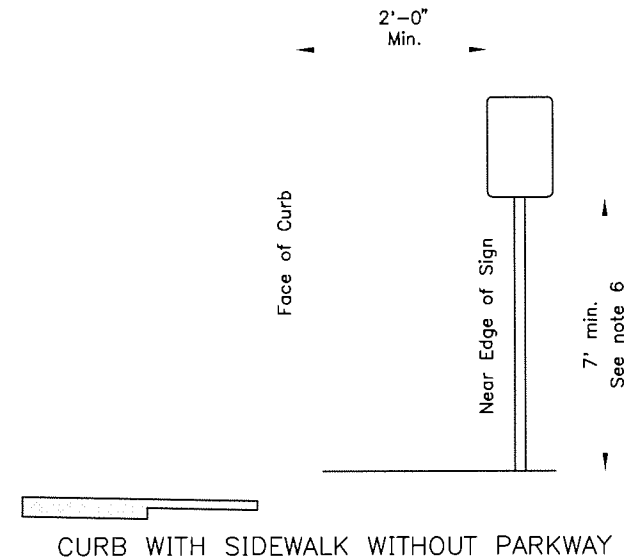
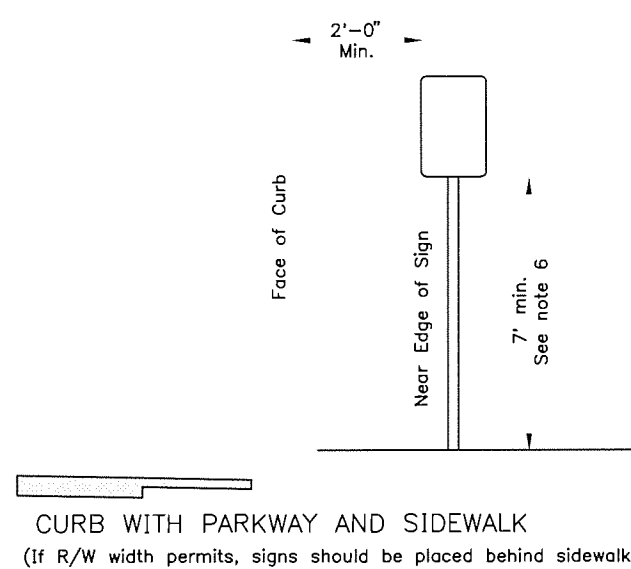
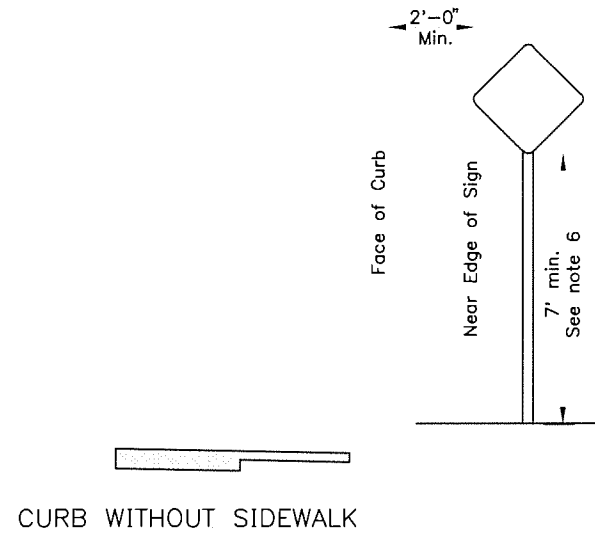
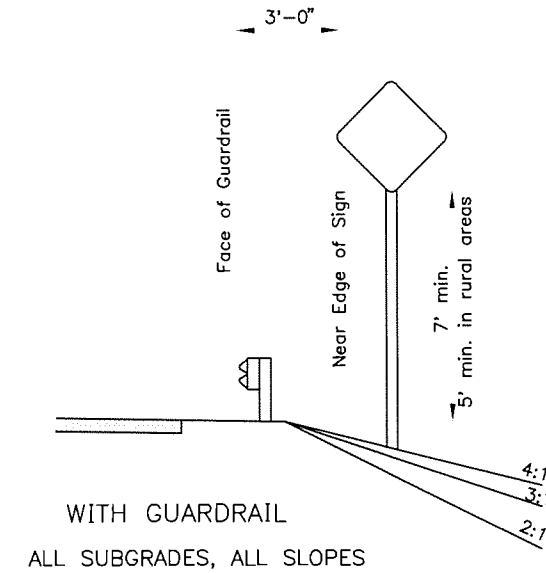
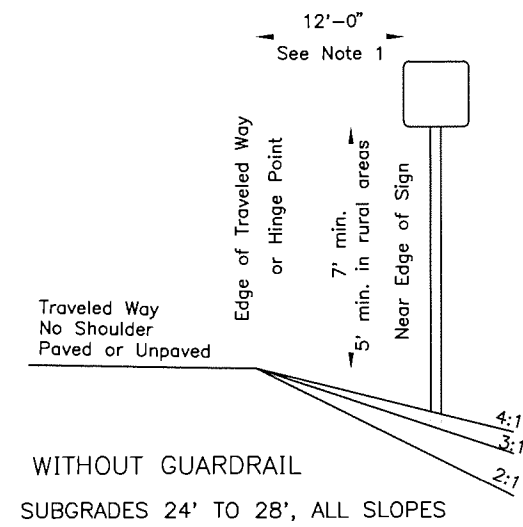
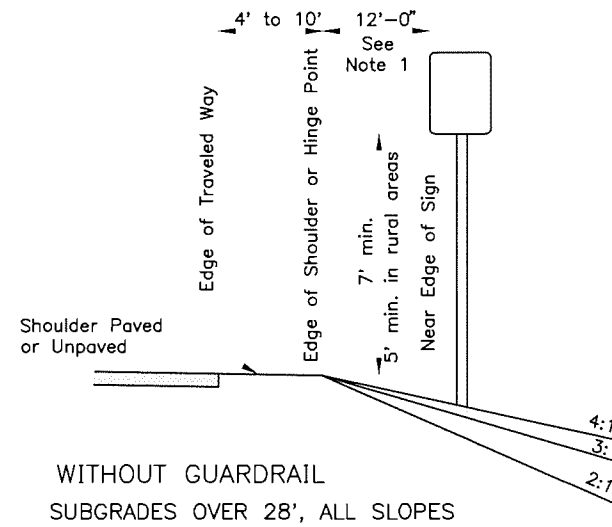
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	V4	V7

S-05.02

SHEET
1 of 1

GENERAL NOTES

1. Unless shown otherwise on the plans, the standard sign offset is 12'. The minimum is 6' where shoulder width is 6' or greater.
2. Add 6" to mounting height on unpaved roads.
3. If signs extend over bike paths, the minimum vertical clearance is 8' 0".
4. When signs are placed 30' or more from the edge of traveled way, mount them with the bottom of the sign at least 5' above the road surface at the near edge of the road.
5. When multiple hinged sign supports are used, mount hinges at least 7' above the ground.
6. Minimum mounting height is 7'-0" where parking or pedestrian movements are likely to occur, or where signs extend over sidewalks.
7. For construction signs in rural areas, mounting height shall be 7' minimum.



State of Alaska DOT&PF
ALASKA STANDARD PLAN

POST MOUNTED SIGN
OFFSET AND HEIGHT

Adopted as an Alaska
Standard Plan by *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLK Date: 7/8/2020

Next Code and Standards Review Date: 7/8/2030

S-05.02

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002453 / NFHWY00454	2021	V5	V7

S-20.10

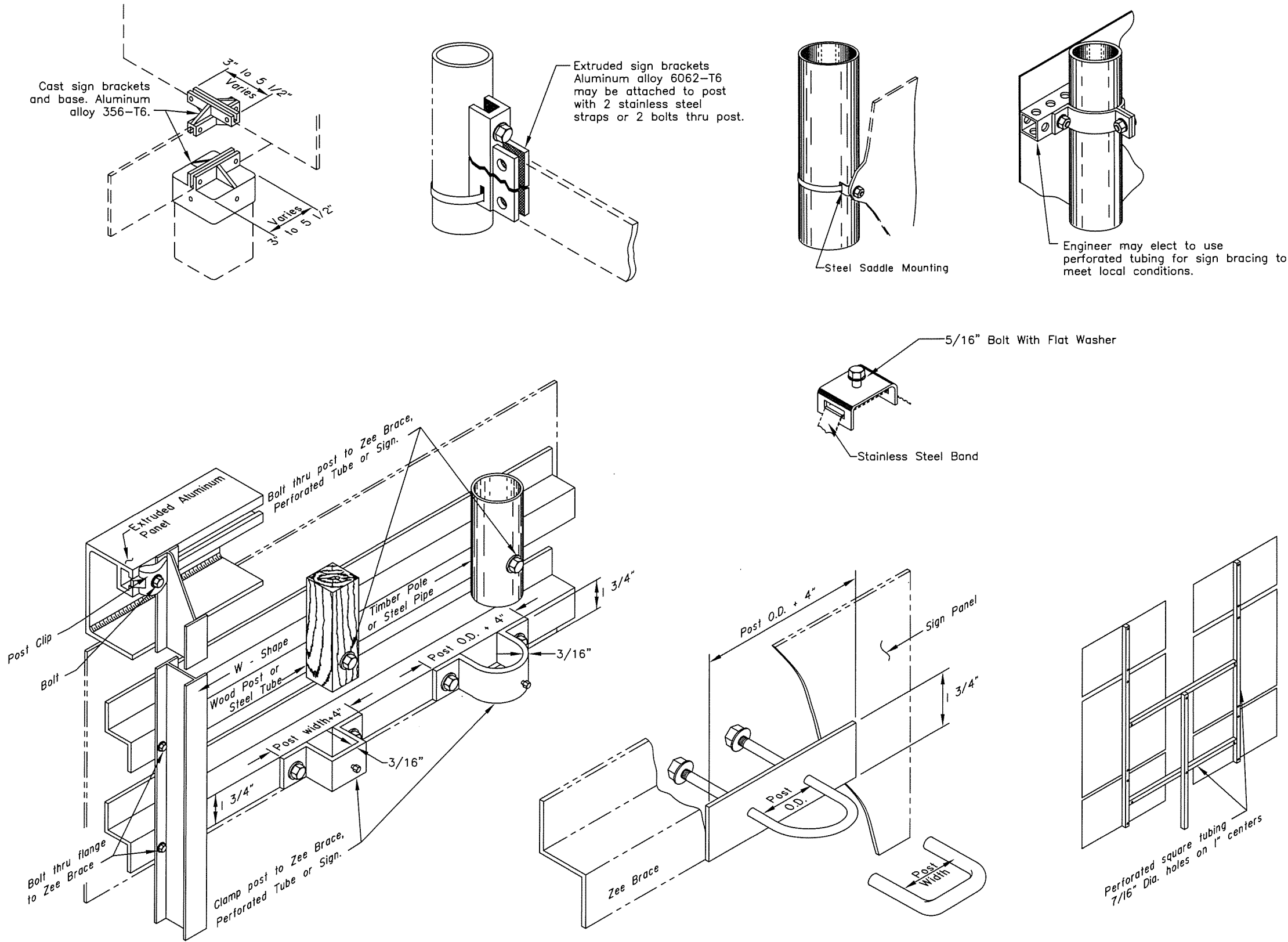
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GENERAL NOTES

- Details shown indicate general design only. Dimensions and design may vary among the manufacturers.
- Install weather tight caps on all pipe and tube post (except perforated tubing).
- Protect sign posts installed using driving methods with drive caps during installation.
- Bolt braces to posts at each point where they cross posts.
- Install signs with top of post, mounting brackets, etc. with a minimum of 3" below top of sign.
- Paint all sign mounting fasteners on sign face a color closely matching the sign face.
- Attach all signs, zeos and braces mounted to the posts with 5/16" bolts.
- Furnish all aluminum nuts, bolts and washers with anodized finish.

FASTENER SPECIFICATION TABLE

FASTENERS		ALUMINUM	STEEL	STAINLESS STEEL
BOLTS	MACHINE CARRIAGE "U"	2024-T4	A-307	A-276
NUTS	REGULAR LOCK	6061-T6 2017-T4	A-307	A-276
WASHERS		2024-T4	A-36	A-276
POST CLIP		356-T6		



State of Alaska DOT&PF
ALASKA STANDARD PLAN
SIGN TO SIGN POST
CONNECTION

Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

Adaption Date: 02/08/2019

Last Code and Sids. Review
By: Date:

Next Code and Standards Review date: 02/08/2029

S-20.10

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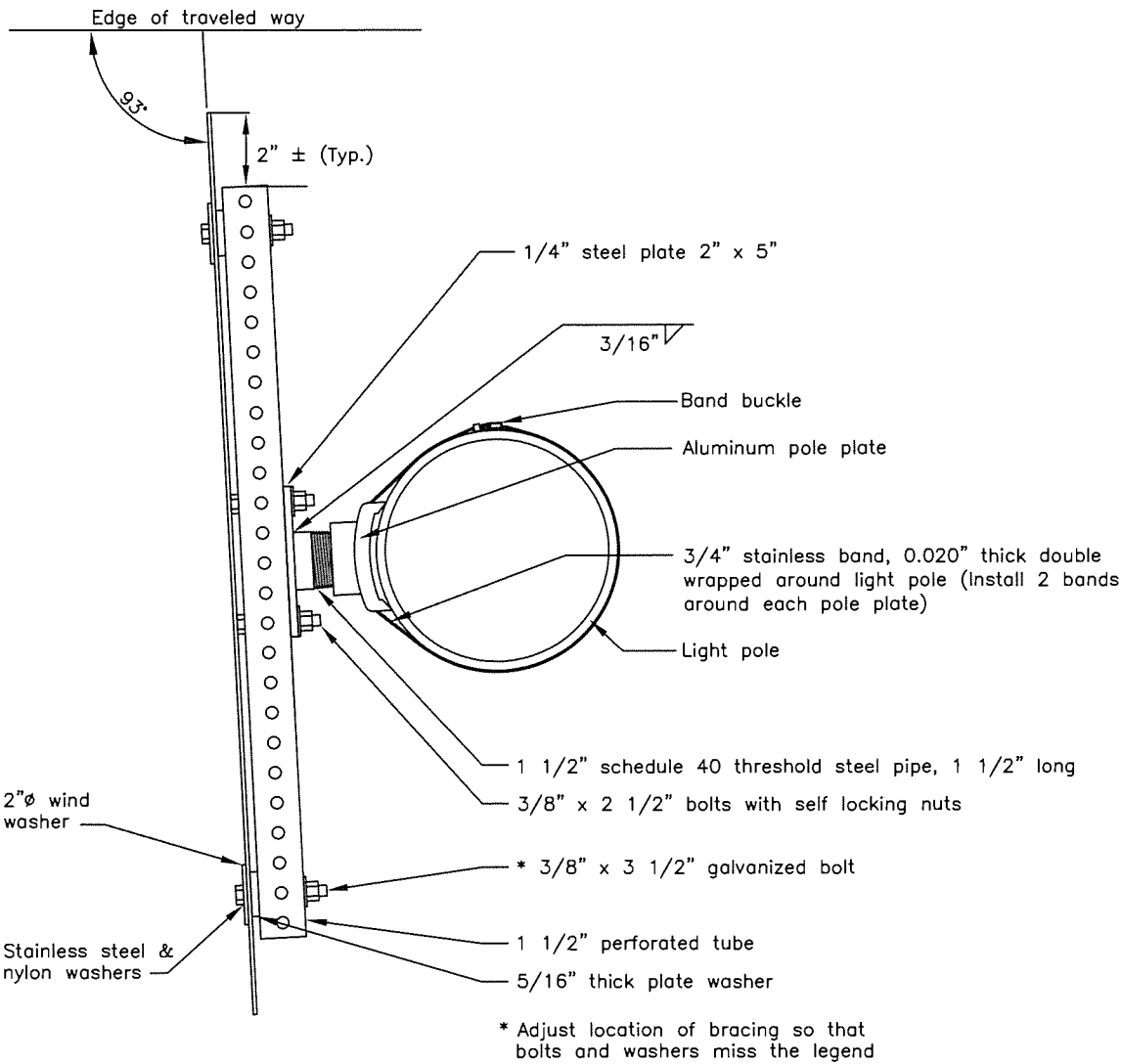
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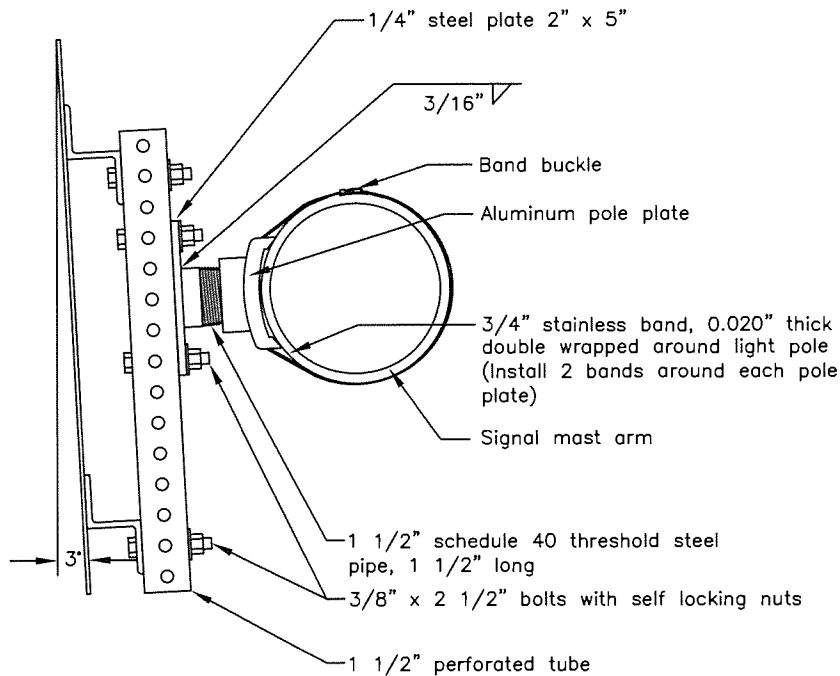
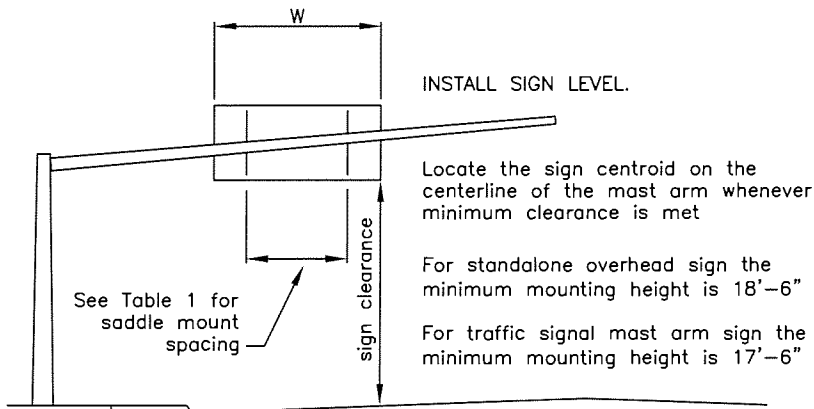
GENERAL NOTES

1. Use pole plate assemblies shown here to install signs on tapered mast arms and light poles. Install one pole plate per 10 square feet of sign panel. Use at least two plates for each installation.
2. Fabricate each pole plate-to-perforated tube adapter (steel plate welded to pipe) using steel plate conforming to ASTM A36 and steel pipe conforming to ASTM A53. Paint these adapters in conformance with section 504 of the Standard Specifications for Highway Construction, latest edition.
3. Paint the assemblies in accordance with AASHTO standard specification M69.
4. Attach each pole plate with two bands of 3/4" wide by 0.020" thick stainless steel banding material. Double wrap each band and tighten it until the band stops moving through the buckle.
5. Install bolts, nuts and washers conforming to ASTM A325.

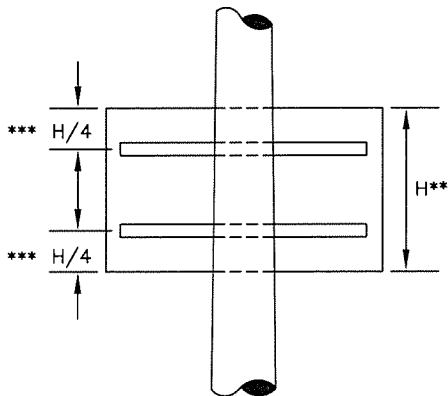
TABLE 1 POLE PLATE SPACING				
NO. OF POLE PLATES	OVERHANG	BETWEEN POLE PLATES	OVERHANG	
2	0.2W	1 SPACE AT 0.6W	2	0.2W
3	0.15W	SPACES AT 0.35W	3	0.15W
4	0.125W	SPACES AT 0.25W	1	0.125W
5	0.2W	SPACE AT 0.6W		0.2W



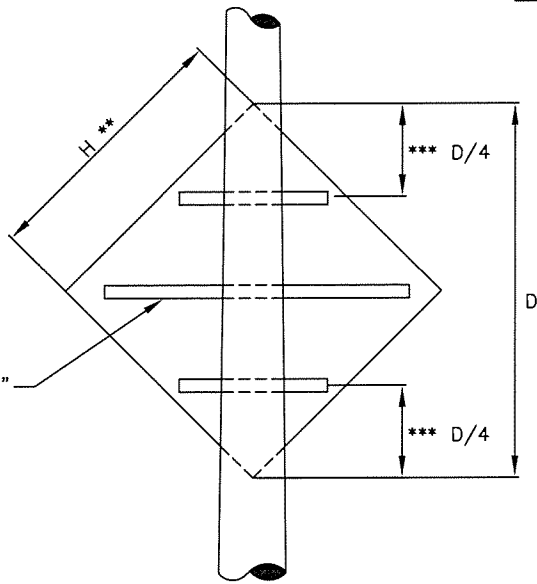
ELECTROLIER SIGN MOUNTING
(PLAN VIEW)



SIGNAL POLE MAST ARM SIGN MOUNTING
(ELEVATION VIEW)



1 1/2" PT brace
only when H ≤ 48"



** Use two pole plates when H ≤ 48"
use three pole plates when H > 48"

*** When sign panels features predrilled
mountings holes, use them to attach the
perforated tubes

State of Alaska DOT&PF
ALASKA STANDARD PLAN
POLE AND MASTARM
SIGN MOUNTING

Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

Last Code and Stds. Review
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