NO.	DATE	REVISIONS	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00241/0003243	2021	A1	23
			CDS ROUTE: 295500		MILEPOINT: 0.03 TO 0.44		
			LATITUDE: 57°03'13"N		LONGITUDE: 135°19'50"E		

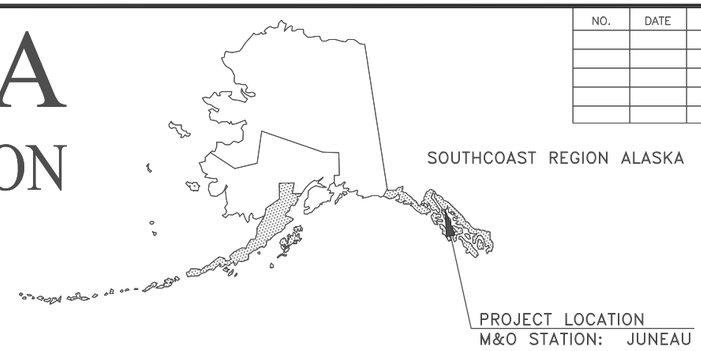
STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT

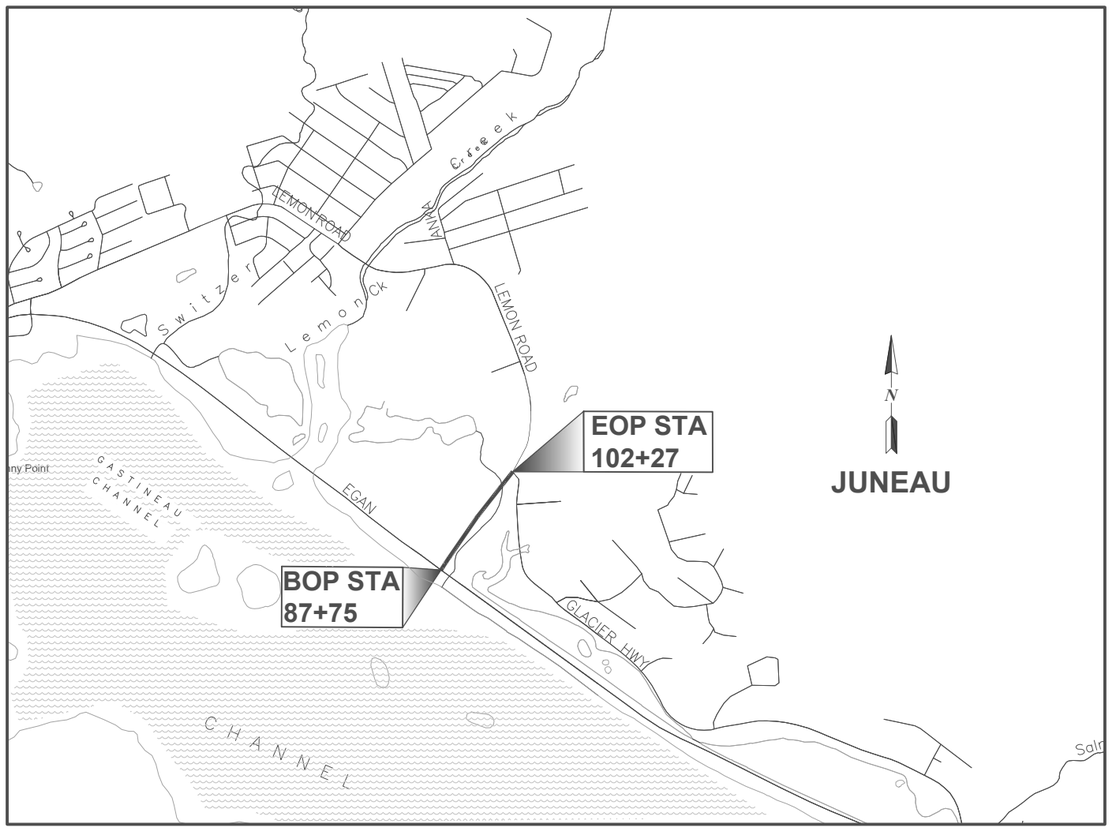
JNU RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY PROJECT NO. SFHWY00241/0003243

PAVING, SIGNING, STRIPING, GUARDRAIL, AND DRAINAGE



PROJECT SUMMARY	
	VANDERBILT HILL RD
WIDTH OF PAVEMENT	56' TO 71'
LENGTH OF PAVING	1,179'
LENGTH OF PROJECT	1,452'

DESIGN DESIGNATIONS	
PROJECT TYPE	PM
FUNCTIONAL CLASS	URBAN ARTERIAL
ADT (2020)	9,167
ADT (2030)	9,399
DHV (2020)	1,045
DHV (2030)	1,072
PERCENT TRUCKS (T)	5%
DIRECTIONAL SPLIT (D)	62 / 38
DESIGN SPEED (V)	45 MPH
DESIGN EAL'S (10 YEARS)	1,919,447



VICINITY MAP

VANDERBILT HILL RD.

The undersigned hereby certifies that this duplicated document is an exact and true copy of the original.
Jessica Pickala

July 23, 2021

AS Built Plans

Contractor: SECON
Project Engineer: Randall E Johnston
Start Construction: July 30,2021
End Construction: July 8, 2022

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

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

APPROVED: DocuSigned by: 5/4/2021
REGIONAL PRECONSTRUCTION ENGINEER DATE
KIRK D. MILLER, P.E.

CONCUR: DocuSigned by: 5/4/2021
REGIONAL DIRECTOR DATE
D. LANCE MEARIG, P.E.

STATE OF ALASKA 49TH David A. Pyeatt AELC13268 REGISTERED PROFESSIONAL ENGINEER
3/22/2021

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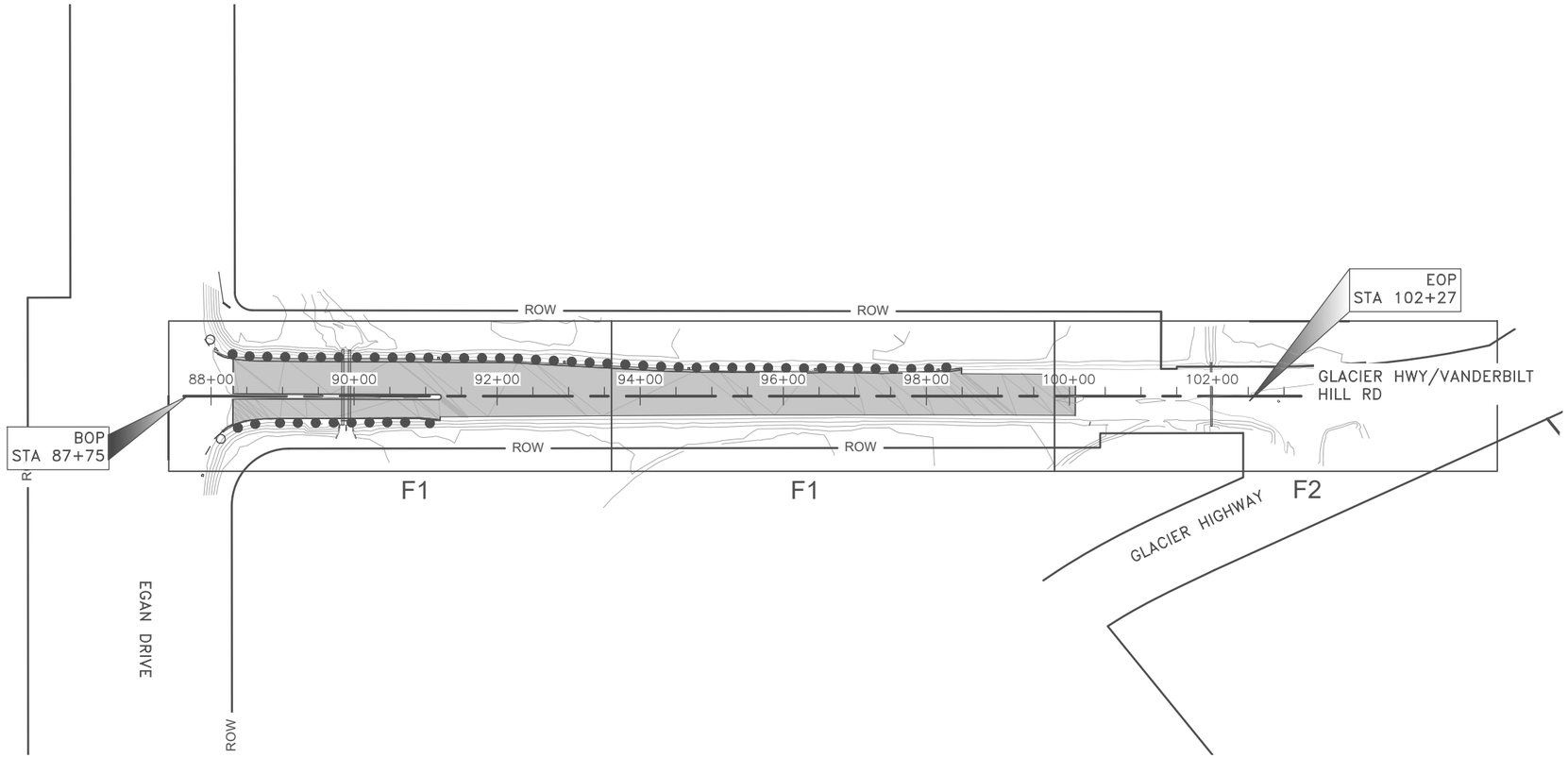
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00241/0003243	2021	A2	23

GENERAL NOTES:

1. MAKE ALL PAVEMENT CUTS CLEAN, VERTICAL, AND TRUE TO THE REMOVAL LIMITS SHOWN ON THE PLANS.

0 200' 400'

SCALE IN FEET



THE FOLLOWING STANDARD PLANS APPLY TO THIS PROJECT:

C-04.12	M-16.01	T-22.04
C-05.20	S-00.12	
G-00.05	S-01.02	
G-05.11S	S-05.02	
G-10.20	S-20.10	
G-14.01	S-30.05	
G-29.00	T-20.04	
L-23.02	T-21.04	

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

INDEX OF SHEETS

STATE OF ALASKA
49TH
David A. Pyeatt
AELC13268
PROFESSIONAL ENGINEER
3/22/2021

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

JNU RESURFACE GLACIER HIGHWAY:
VANDERBILT HILL ROAD EGAN TO
GLACIER HWY

LAYOUT & INDEX OF SHEETS

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DRAFTED BL,AC,BW,RG

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00241/0003243	2021	A3	23

	RECOVERED	SET
BLM MONUMENT		
GLO MONUMENT		
USC&GS MONUMENT		
PRIMARY MONUMENT		
CENTERLINE MONUMENT IN CASING		
PRIMARY R.O.W. MONUMENT		
BEARING OBJECT		
MISCELLANEOUS MONUMENT		
LINE OF SIGHT MONUMENT		
CONCRETE R.O.W. MONUMENT		
BENCHMARK		BM
REBAR AND CAP		
REBAR		
IRON PIPE		
PK NAIL		
SPIKE		
HUB AND TACK		

CONSTRUCTION CENTERLINE — 5+00

MICELLANEOUS CENTERLINE — 10+00

STATION EQUATION — "L"48+97.23 POT BK= / "O"48+97.23 PC AHD

PROJECT RIGHT-OF-WAY LINE — ROW

EXISTING RIGHT-OF-WAY LINE — ROW

EXISTING PROPERTY LINE

CONTROLLED ACCESS LINE — C/A

EXISTING EASEMENT LINE

PROPOSED EASEMENT LINE

PROPOSED CUT SLOPE LIMIT

PROPOSED FILL SLOPE LIMIT

SECTION LINE

1/4 SECTION LINE

1/16 SECTION LINE

TOWNSHIP & RANGE LINE — T. 2 N. / T. 1 N. — T. 1 E. — T. 2 E.

MEANDER LINE — M1 M2 M3

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)	SS	SS
FUEL LINE	O	O
GAS LINE	G	G
WATER LINE	W	W
METER, VALVE, FIRE HYDRANT	W	W
EXISTING STORM DRAIN (FLOW DIRECTION →)	SD	
PROPOSED STORM DRAIN	S-10, S-11, P-11, P-10, SD, MH	
FIBER OPTIC LINE	FO	
DIRECT BURIAL TELEPHONE CABLE	T	T
DIRECT BURIAL ELECTRIC CABLE	E	E
ELECTRIC LINE (OVERHEAD)		
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
TELEPHONE DUCT	T	T
TELEPHONE PEDESTAL		
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE	MH	MH
SANITARY SEWER CLEAN OUT		
RIPRAP		
SPECIAL DITCH CENTERLINE		
HIGH TIDE LINE	HTL	HTL
ANADROMOUS STREAM		

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

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

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

	EXISTING	PROPOSED
JUNCTION BOX, TYPE IA		5
JUNCTION BOX, TYPE II		6
JUNCTION BOX, TYPE III		3
SIGNAL FACE, VEHICULAR	42	42
SIGNAL FACE, BACKPLATE	42	42
SIGNAL FACE, LEFT TURN, BACKPLATE	43	43
SIGNAL FACE, PEDESTRIAN		
LOOP DETECTOR	33	73
VIDEO DETECTOR	2	2
RADAR DETECTOR	4	4A
OPTICOM DETECTOR	1	1
PEDESTRIAN PUSH BUTTON	1	1
SIGNAL POST W/O MAST ARM		1
SIGNAL POLE W/MAST ARM		4
SIGNAL CONTROLLER		
LOAD CENTER		
LUMINAIRE		122
RIGID METAL CONDUIT		

ACCRONYMS

AC	ACRE	MPH	MILES PER HOUR
APPROX	APPROXIMATE	NO	NUMBER
BLM	BUREAU OF LAND MANAGEMENT	PCF	POUNDS PER CUBIC FOOT
BOP	BEGINNING OF PROJECT	PE	PROFESSIONAL ENGINEER
CL	CENTER LINE	PM	PREVENTATIVE MAINTENANCE
DHV	DESIGN HOURLY VOLUME	RD	ROAD
EAL'S	EQUIVALENT AXLE LOAD'S	RH	RIGHT HAND
ELEV	ELEVATION	ROW	RIGHT OF WAY
EOP	END OF PROJECT	RT	RIGHT
FT	FEET	S	SOUTH
GLO	GENERAL LAND OFFICE	STA.	STATION
HWY	HIGHWAY	SW	SOUTHWEST
IN	INCH	TCP	TRAFFIC CONTROL PLAN
LB	POUND	USC & GS	UNITED STATES COAST AND GEODETIC SURVEY
LT	LEFT		

STATE OF ALASKA — 49 TH — David A. Pyeatt AELC13268 — REGISTERED PROFESSIONAL ENGINEER — 3/22/2021

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

JNU RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

LEGEND

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00241/0003243	2021	SCS 1	23

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM
XREFS
SCALE
LAYOUT A2
DATE TIME 3/17/2021 11:07
DRAWING LOCATION Q:\Jnu\SFHWY00241\SV\C3D\BASEMAPS\SFHWY00241_Vandrebilt_SCS_120920.dwg

VERTICAL CONTROL

The Vertical Datum for JNU Grid-2000 is Mean Lower Low Water = 0.00' Gastineau Channel - Stephens Pass tidal datum based on NOAA NOS tidal benchmark series 9452210. The tidal epoch is 1960-1978, time period 1994-1998, published 11/1999. The latest NOS publication (May 2014) on the 2007 - 2011 tidal epoch, time period 2007-2011 indicates the tidal benchmark series has risen 0.56' at benchmark 9452210 C.

HORIZONTAL CONTROL

Horizontal Control for this project is based on the DOT/PF 2000 Juneau Grid

The DOT/PF Juneau Grid-2000 System is a local ground coordinate system based at USC&GS first order control station EDDIE (Destroyed). It relates to AKSPC zone 1 NAD83 (1992) through the following parameters:
Zone = NAD83 (1992) AKSPC ZONE 1
Grid Scale = 0.999928875
Convergence = -0°45'27.26"
Translation about USC&GS point EDDIE (Destroyed) as follows:
AKSPC Northing = 2383469.17 FT US
AKSPC Easting = 2512570.06 FT US
Local Northing = 500000.00 FT US
Local Easting = 500000.00 FT US

Project Specific Horizontal Control

130: 2.5" Aluminum Cap Rebar sub graded 0.40. Set 3' From Back Sidewalk @ North Entrance To Dragon Inn
RP PK W\ Plastic Washer in Power Pole #12048
Bearing N18E Distance 62.45'

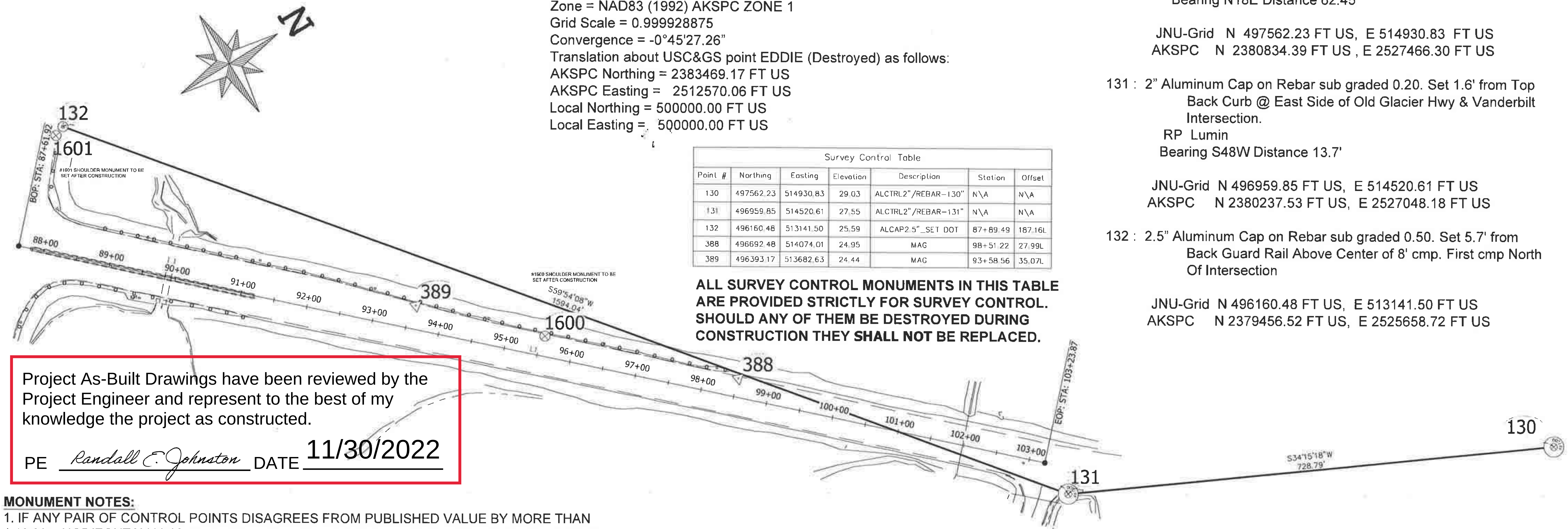
JNU-Grid N 497562.23 FT US, E 514930.83 FT US
AKSPC N 2380834.39 FT US , E 2527466.30 FT US

131 : 2" Aluminum Cap on Rebar sub graded 0.20. Set 1.6' from Top Back Curb @ East Side of Old Glacier Hwy & Vanderbilt Intersection.
RP Lumin
Bearing S48W Distance 13.7'

JNU-Grid N 496959.85 FT US, E 514520.61 FT US
AKSPC N 2380237.53 FT US, E 2527048.18 FT US

132 : 2.5" Aluminum Cap on Rebar sub graded 0.50. Set 5.7' from Back Guard Rail Above Center of 8' cmp. First cmp North Of Intersection

JNU-Grid N 496160.48 FT US, E 513141.50 FT US
AKSPC N 2379456.52 FT US, E 2525658.72 FT US



Survey Control Table						
Point #	Northing	Easting	Elevation	Description	Station	Offset
130	497562.23	514930.83	29.03	ALCTRL2"/REBAR-130"	N\A	N\A
131	496959.85	514520.61	27.55	ALCTRL2"/REBAR-131"	N\A	N\A
132	496160.48	513141.50	25.59	ALCAP2.5"_SET DOT	87+89.49	187.16L
388	496692.48	514074.01	24.95	MAG	98+51.22	27.99L
389	496393.17	513682.63	24.44	MAG	93+58.56	35.07L

ALL SURVEY CONTROL MONUMENTS IN THIS TABLE ARE PROVIDED STRICTLY FOR SURVEY CONTROL. SHOULD ANY OF THEM BE DESTROYED DURING CONSTRUCTION THEY SHALL NOT BE REPLACED.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE *Randall E. Johnston* DATE 11/30/2022

VANDERBILT HILL ROAD DESIGN ALIGNMENT								
SEGMENT	STATION	NORTHING	EASTING	DISTANCE	BEARING	STATION	NORTHING	EASTING
L1	87+61.92	495996.39	513235.66	1561.96	N51° 46' 07"E	103+23.87	496962.99	514462.61

MONUMENT NOTES:

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

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

3. WHEN POSSIBLE ALL ORIGINAL PRIMARY MONUMENTS SHALL BE SAVED AND RESET IN THEIR ORIGINAL HORIZONTAL POSITION AND A RECORD OF MONUMENT FORM IN ACCORDANCE WITH (A.S.34.65.040) AND (A.S.19.10.260) SHALL BE SUBMITTED TO THE CONSTRUCTION ENGINEER FOR REVIEW PRIOR TO RECORDING

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

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

APPROXIMATE LOCATION OF NEW SHOULDER MONUMENTS					
Point #	Northing	Easting	Description	Station	Offset
1600	496511.37	513840.86	APPROX_SH_MON	95+56.00	30.00L
1601	496143.93	513145.00	APPROX_SH_MON	87+82.00	172.00L

PROPOSED LOCATION OF SHOULDER MONUMENTS TO BE SET AFTER CONSTRUCTION. SHOULDER MONUMENTS MUST BE LINE OF SIGHT BETWEEN EACH MONUMENT. CONTRACTOR CAN MOVE THE SHOULDER MONUMENTS AND CASES AS NEEDED TO MAINTAIN SIGHT LINE BETWEEN SHOULDER MONUMENTS AS DIRECTED BY ENGINEER.

0 150 300 Feet

STATE OF ALASKA · 49th · H. Erik Pedersen · 03/17/21 · No. 14828 · REGISTERED PROFESSIONAL LAND SURVEYOR

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

JNU- RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

SURVEY CONTROL

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00241/0003243	2021	SCS 2	23

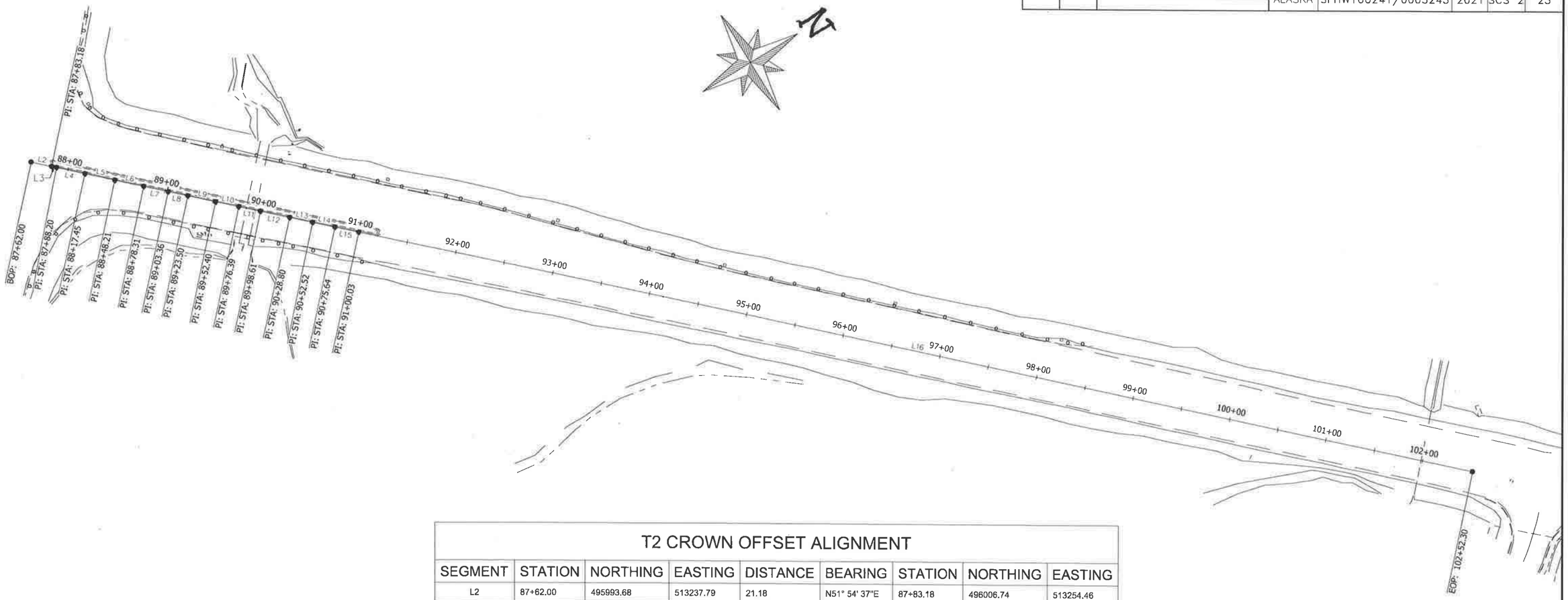
DESIGNED C. IVANUSZKA
CHECKED J. BROWN
DRAFTED R. GRANTHAM

XREFS

SCALE

LAYOUT
A3

DATE TIME
3/17/2021 11:07



T2 CROWN OFFSET ALIGNMENT

SEGMENT	STATION	NORTHING	EASTING	DISTANCE	BEARING	STATION	NORTHING	EASTING
L2	87+62.00	495993.68	513237.79	21.18	N51° 54' 37"E	87+83.18	496006.74	513254.46
L3	87+83.18	496006.74	513254.46	5.02	N50° 55' 47"E	87+88.20	496009.91	513258.36
L4	87+88.20	496009.91	513258.36	29.26	N52° 14' 59"E	88+17.45	496027.82	513281.49
L5	88+17.45	496027.82	513281.49	30.75	N51° 56' 45"E	88+48.21	496046.77	513305.71
L6	88+48.21	496046.77	513305.71	30.11	N51° 57' 09"E	88+78.31	496065.33	513329.42
L7	88+78.31	496065.33	513329.42	25.04	N52° 01' 27"E	89+03.36	496080.74	513349.16
L8	89+03.36	496080.74	513349.16	20.14	N51° 56' 23"E	89+23.50	496093.16	513365.02
L9	89+23.50	496093.16	513365.02	28.90	N52° 04' 48"E	89+52.40	496110.92	513387.82
L10	89+52.40	496110.92	513387.82	23.98	N51° 48' 30"E	89+76.39	496125.75	513406.67
L11	89+76.39	496125.75	513406.67	22.22	N51° 54' 30"E	89+98.61	496139.46	513424.16
L12	89+98.61	496139.46	513424.16	30.20	N52° 18' 59"E	90+28.80	496157.92	513448.05
L13	90+28.80	496157.92	513448.05	23.72	N51° 49' 04"E	90+52.52	496172.58	513466.70
L14	90+52.52	496172.58	513466.70	23.12	N52° 06' 49"E	90+75.64	496186.78	513484.95
L15	90+75.64	496186.78	513484.95	24.38	N52° 12' 48"E	91+00.03	496201.72	513504.22
L16	91+00.03	496201.72	513504.22	1152.27	N51° 50' 19"E	102+52.30	496913.68	514410.21

0 100 200 Feet

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall C. Johnston DATE 11/30/2022

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

JNU- RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

SURVEY CONTROL

DRAWING LOCATION
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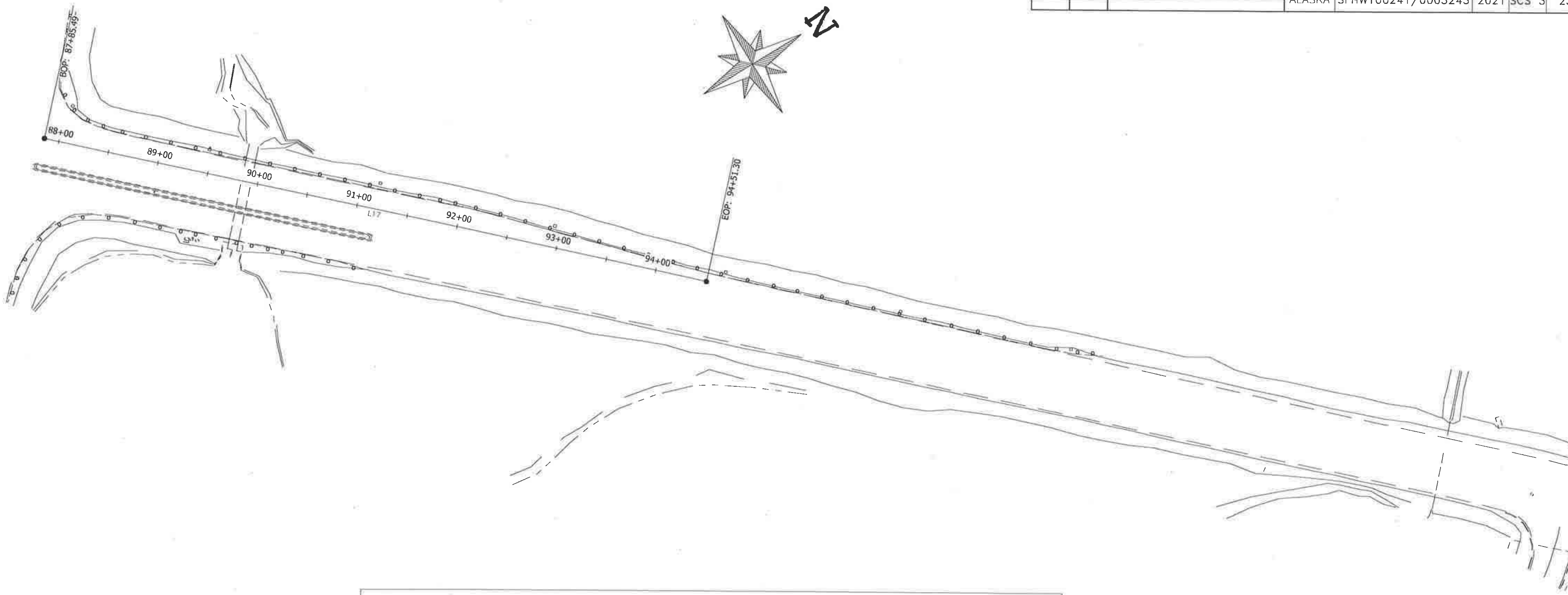
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00241/0003243	2021	SCS 3	23



T6 LT-11 OFFSET ALIGNMENT

SEGMENT	STATION	NORTHING	EASTING	DISTANCE	BEARING	STATION	NORTHING	EASTING
L17	87+85.49	496033.63	513236.40	665.82	N52° 02' 26"E	94+51.30	496443.18	513761.36

0 100 200 Feet

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE *Randall E. Johnston* DATE 11/30/2022

STATE OF ALASKA 49th H. Erik Pedersen 03/17/21 No. 14828 REGISTERED PROFESSIONAL LAND SURVEYOR

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

JNU- RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

SURVEY CONTROL

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM
XREFS
SCALE
LAYOUT A4
DATE TIME 3/17/2021 11:07
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NO.	DATE	REVISION
1	5/24	ADDENDUM 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00241/0003243	2021	B1	23

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DRAWN BL_AC_BW_RG
CHECKED DP
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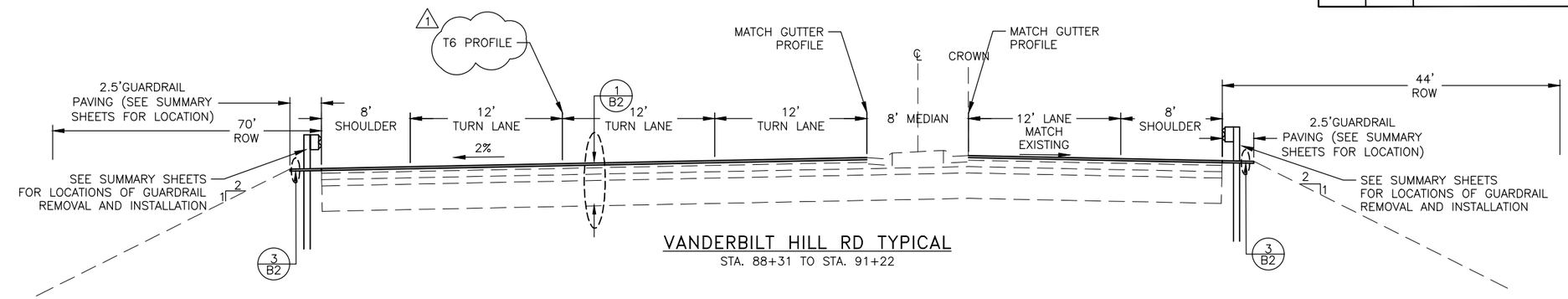
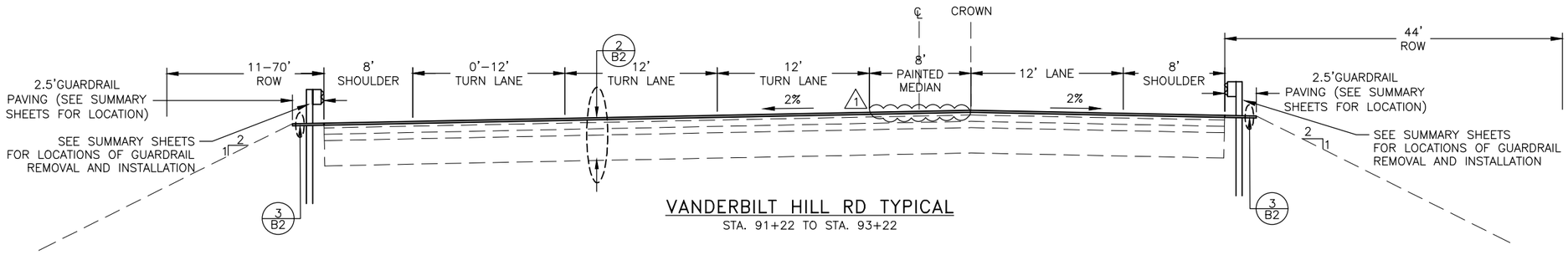
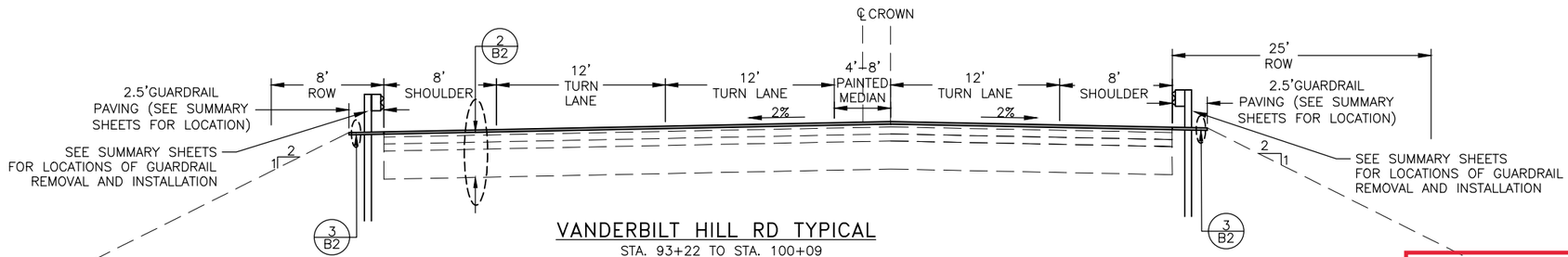


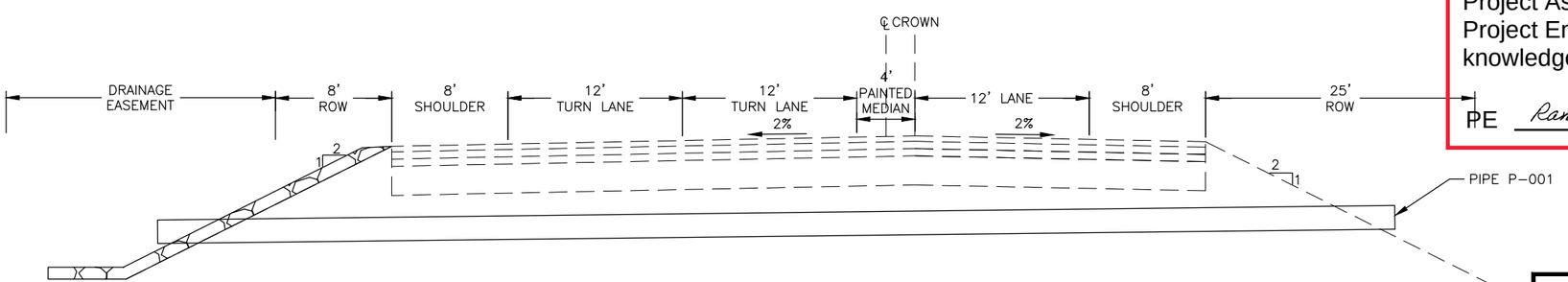
VANDERBILT HILL RD TYPICAL
STA. 88+31 TO STA. 91+22



VANDERBILT HILL RD TYPICAL
STA. 91+22 TO STA. 93+22



VANDERBILT HILL RD TYPICAL
STA. 93+22 TO STA. 100+09



CROSS SECTION AT PIPE P–001
STA. 102+00

TYPICAL SECTION NOTES

1. PRE–LEVEL THE EXISTING HMA TO RE–ESTABLISH THE 2% CROWN OF THE ROAD. RECONSTRUCTING. THE 2% CROSS–SLOPE WITH THE PRE–LEVEL LAYER ONLY APPLIES TO PAVEMENT STRUCTURAL SECTION 2/B2

2. RE–ESTABLISH CROSS–SLOPE FOR SW BOUND LANES UTILIZING STRUCT. SECTION 1/B2. MATCH EXISTING CROSS–SLOPE OF NE BOUND LANES UTILIZING STRUCTURAL SECTION 1/B2.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

JNU RESURFACE GLACIER
HIGHWAY: VANDERBILT HILL ROAD
EGAN TO GLACIER HWY

TYPICAL SECTIONS

STATE OF ALASKA
David A. Pyatt
5/24/2021
AELC13268
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION
1	5/24	ADDENDUM 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00241/0003243	2021	B2	23

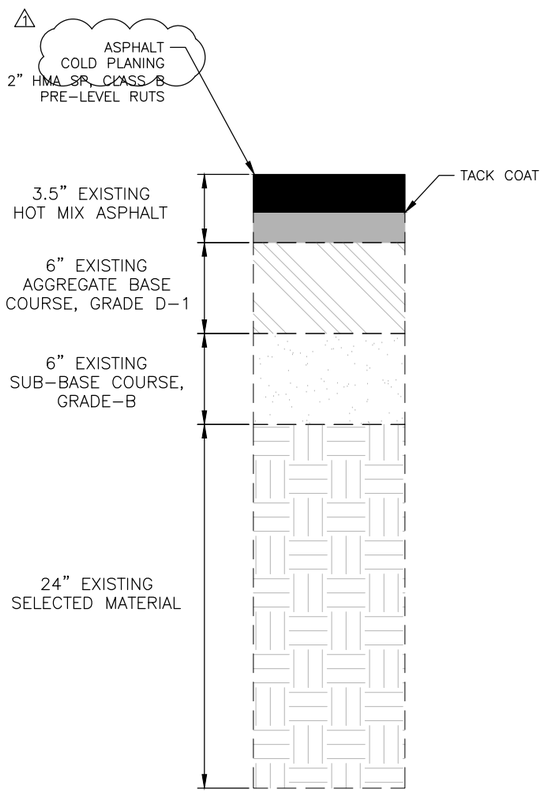
DESIGNED BL_AC_BW
DRAWN BL_AC_BW_RG
CHECKED DP

SCALE:

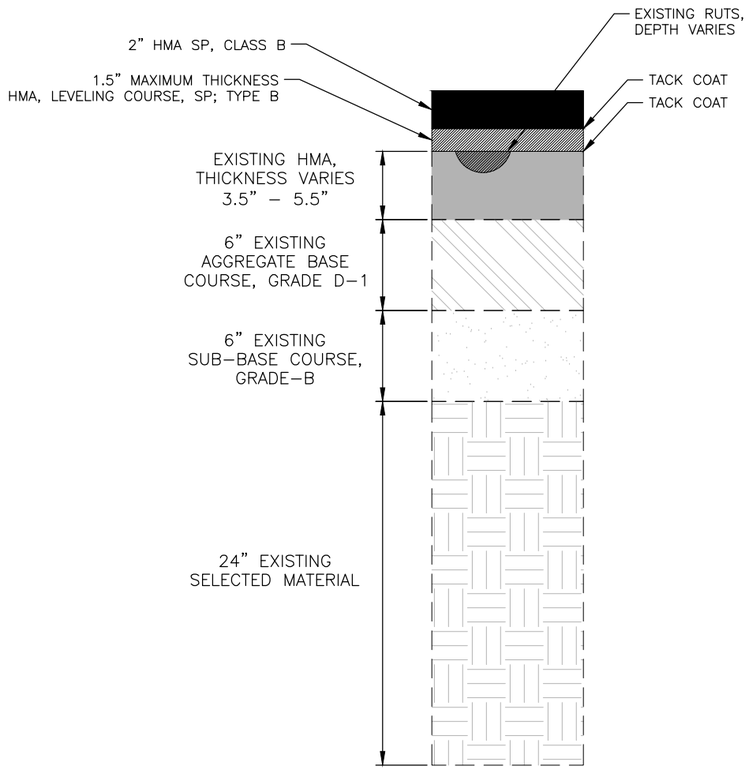
LAYOUT: B2

REVISED: 5/24/2021 12:34

FILE: Q:\jnu\SFHWY00241\Planset\00241_B1_Vanderbilt.dwg



1 B2 PAVEMENT STRUCTURAL SECTION 1
SCALE: NOT TO SCALE



2 B2 PAVEMENT STRUCTURAL SECTION 2
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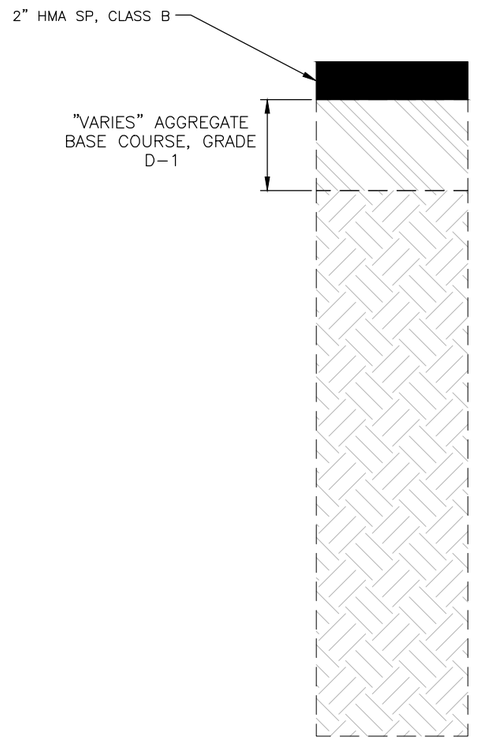

3 B2 GUARDRAIL PAVING SECTION
SCALE: NOT TO SCALE

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

JNU RESURFACE GLACIER
HIGHWAY: VANDERBILT HILL ROAD
EGAN TO GLACIER HWY

TYPICAL SECTIONS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/20	ADDENDUM 1	ALASKA	SFHWY00241/0003243	2021	C1	23

DRAFTED BL, RG | DESIGNED AC, BL, BW | CHECKED DP | LAYOUT C1 ESTIMATE OF QUANTITIES | DATE 5/24/2021 11:48 | FILE Q:\Jnu\SFHWY00241\Planset\00241_C1_Vanderbilt.dwg

ESTIMATE OF QUANTITIES

Totals To Date.

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY	
201.0001.0000	CLEARING	ACRE	1.03	.94 acres
201.0003.0000	CLEARING AND GRUBBING	ACRE	0.1	.10 acres
201.2002.0000	INVASIVE PLANT SURVEY	LUMP SUM	ALL REQUIRED	1.00
201.2003.0000	~~INVASIVE PLANT SPECIES CONTROL, REMOVAL, AND DISPOSAL~~	~~CONTINGENT SUM~~	~~ALL REQUIRED~~	
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED	1.0
202.0007.0000	REMOVAL OF JUNCTION BOX	EACH	1	2 ea.
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	1,063	192.55 Tons
303.2001.0000	LINEAR GRADING	LINEAR FOOT	2,356	477.01 LF.
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	TON	9	10.03 Tons
408.2001.000B	HMA, SP; TYPE B	TON	967	1000.98 Tons
408.2002.000B	~~HMA, LEVELING COURSE, SP; TYPE B~~	~~SQUARE YARD~~	~~535~~	
408.2004.6428	ASPHALT BINDER, GRADE PG 64-28	TON	91	69.36 Tons
408.2010.0002	PAVEMENT SMOOTHNESS PRICE ADJUSTMENT, METHOD 2	CONTINGENT SUM	ALL REQUIRED	
408.2017.0000	~~PRELEVEL FOR RUTS, DELAMINATIONS, AND DEPRESSIONS~~	~~SQUARE YARD~~	~~388~~	
408.2018.0000	REPAIR UNSTABLE PAVEMENT	SQUARE YARD	210	1011.97 SY.
410.2001.0000	PAVEMENT COLD PLANING	SQUARE YARD	2,257	11467.10
603.2019.0024	LINER FOR STORM DRAIN 24 INCH, LINER FOR STORM DRAIN 24 INCH	LINEAR FOOT	89	92.30 LF.
603.2019.0036	LINER FOR STORM DRAIN 36 INCH, LINER FOR STORM DRAIN 36 INCH	LINEAR FOOT	210	220.50 LF.
606.0001.0000	W-BEAM GUARDRAIL	LINEAR FOOT	1,350	1351.0 LF
606.0006.0000	REMOVING AND DISPOSING OF GUARDRAIL	LINEAR FOOT	1,350	1349.0 LF.
606.2014.0000	GUARDRAIL PAVING	LINEAR FOOT	1,350	1351.00 LF.
611.0002.0001	RIPRAP, CLASS I	TON	53	181.16 Tons
613.0002.0000	CULVERT MARKER POST	EACH	4	4 ea.
615.0001.0000	STANDARD SIGN	SQUARE FOOT	37	36.7SF.
615.0005.0000	DELINEATOR, FLEXIBLE	EACH	2	11/09/21 2 ea. Installed
615.0006.0000	SALVAGE SIGN	EACH	1	1 ea.
618.0002.0000	SEEDING	POUND	2	0.0
619.2013.0000	BONDED FIBER MATRIX (BFM)	POUND	112	0.0
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED	.79 LS
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED	1.0 LS
641.0003.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED	0.0
641.0005.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	ALL REQUIRED	0.0
642.0004.0000	SET PRIMARY MONUMENT	EACH	2	2.0
642.0010.0000	MONUMENT CASE	EACH	2	2.0
643.0002.0000	~~TRAFFIC MAINTENANCE~~	~~LUMP SUM~~	~~ALL REQUIRED~~	.90 Ls.
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED	.90 Ls
643.0025.0000	~~TRAFFIC CONTROL~~	~~CONTINGENT SUM~~	~~ALL REQUIRED~~	$6885.70 CS.
643.0032.0000	FLAGGING	CONTINGENT SUM	ALL REQUIRED	12,122.00 CS.
660.2004.0000	ADJUST JUNCTION BOX	EACH	7	7.00 ea.
660.2005.001A	JUNCTION BOX, TYPE 1A	EACH	1	2.0 ea.
670.0001.0000	PAINTED TRAFFIC MARKINGS	LUMP SUM	ALL REQUIRED	0.0 Ls
670.2002.0000	MMA PAVEMENT MARKINGS, INLAID	LUMP SUM	ALL REQUIRED	0.0 Ls.
670.2007.0000	MMA PAVEMENT MARKINGS, SYMBOLS AND ARROW(S) INLAID	EACH	8	0.0

1

BASIS OF ESTIMATE

ITEM No.	PAY ITEM	ESTIMATING FACTOR
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	3375 LB/CUYD
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	0.10 GAL/S.Y. 240 GAL/TON
408.2001.000B	HMA, SP; TYPE B	4050 LB/CUYD
408.2004.6428	ASPHALT BINDER, GRADE PG 64-28	6% OF ITEMS 408.2001.000B & 408.2002.000B
408.2018.0000	REPAIR UNSTABLE PAVEMENT	10% OF THE SHOULDER AREA
611.0002.0001	RIPRAP, CLASS I	3375 LB/CUYD
618.0004.0000	SEEDING	1.2 LB/ 1000 SF
619.2013.0000	BONDED FIBER MATRIX (BFM)	4000 LB/ ACRE

1

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

STATE OF ALASKA 49TH
David A. Pyeatt
5/24/2021
AELC13268
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

JNU – RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

ESTIMATE OF QUANTITIES

NO.	DATE	REVISION
1	5/20	ADDENDUM 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0966028/SFHWY00241	2021	D1	23

[201.0007.0000] CLEARING

TTD.
Quantity for clearing.
.94 acre..10

START STATION	END STATION	OFFSET	AREA (AC)	NOTES
87+83	91+20	CL	0.04	CLEAR VEGETATION FROM MEDIAN
90+35	102+26	RT	0.99	
		TOTAL:	1.03	

[201.0009.0000] CLEARING AND GRUBBING

TTD.
.10 acers

START STATION	END STATION	OFFSET	AREA (AC)	NOTES
88+30	98+49	LT	0.07	GUARDRAIL PAVING
88+30	91+20	RT	0.02	GUARDRAIL PAVING
89+80	89+98	LT	0.006	OUTLET OF PIPE P-002
101+90	102+07	LT	0.005	OUTLET OF PIPE P-001
		TOTAL:	0.10	

[202.0001.0000] REMOVAL OF STRUCTURES AND OBSTRUCTIONS

TTD.
1.0 ea.

STATION	OFFSET (FT)		NOTES
99+54	52.36	LT	ABANDONDED UTILITY POLE (CUT POLE OFF AT GROUND LEVEL)
100+45	61.13	LT	ABANDONDED UTILITY POLE (CUT POLE OFF AT GROUND LEVEL)
100+69	43.52	RT	ABANDONDED UTILITY POLE (DIG OUT AND REMOVE POLE)

[202.0007.0000] REMOVAL OF JUNCTION BOX

TTD.
2.0 ea.

STATION	OFFSET (FT)		NOTES
89+50	36.8	RT	TRAFFIC SIGNAL JUNCTION BOX

[303.2000.0000] LINEAR GRADING

TTD.
477.1 LF.

START STATION	END STATION	OFFSET	LENGTH (FT)	NOTES
88+31	100+09	LT	1178	
88+31	100+09	RT	1178	
TOTAL:			2356	10/06/21 Completed.

[402.0001.STE1] STE-1 ASPHALT FOR TACK COAT

TTD.
1
10.03 tons.

START STATION	END STATION	WEIGHT (TON)	NOTES
88+31	91+22	0.2	TACK COAT FOR ITEM 408.2017.0000 (388 SY)
88+31	91+22	1.0	TACK COAT FOR ITEM 408.2001.000B (2257 SY)
91+22	100+08	3.5	TACK COAT FOR ITEM 408.2002.000B (8593 SY)
91+22	100+08	3.5	TACK COAT FOR ITEM 408.2001.000B (8593 SY)
TOTAL:		8.2	

[408.2001.000B] HMA, SP; TYPE B

TTD.
1,100.98 tons.

START STATION	END STATION	AREA (SF)	THICKNESS (FT)	VOLUME (CY)	WEIGHT (TON)	NOTES
88+31	100+08	77329	0.167	478	967	
TOTAL:					967	

[408.2002.000B] HMA, LEVELING COURSE, SP; TYPE B

START STATION	END STATION	AREA (SF)	DEPTH (FT)	VOLUME (CY)	WEIGHT (TON)	NOTES
93+22	100+08	57020	0.125	264	535	
TOTAL:					535	

Item was changed from SY. to tons. TTD. 206.75 tons.

[408.2017.0000] PRELEVEL FOR RUTS, DELAMINATION AND DEPRESSIONS

TTD.
Pay item not used.

START STATION	END STATION	START OFFSET (FT)		END OFFSET (FT)		AREA (SY)	NOTES
88+31	91+22	28	LT	40	LT	388	LEVEL FULL LENTH OF RH TURN LANE
TOTAL:						388	

[410.2001.0000] PAVEMENT COLD PLANING

TTD.
1,1467.10 SY.

START STATION	END STATION	MILLING DEPTH (IN)	MILLING AREA (SY)	NOTES
88+31	91+22	2	2257	
	TOTAL:		2257	9/28/21

[603.2019.0024] LINER FOR STORM DRAIN 24 INCH

TTD.
92.30 LF.

PIPE NUMBER	LENGTH (ROUNDED TO THE NEAREST FT)	INLET				OUTLET				NOTES
		STATION	OFFSET (FT)		EXISTING INVERT ELEV. (FT)	STATION	OFFSET (FT)		EXISTING INVERT ELEV. (FT)	
P-001	89	101+99	42	RT	17.3	101+98	47	LT	16.1	

[603.2019.0036] LINER FOR STORM DRAIN 36 INCH

TTD.
220.50 LF.

PIPE NUMBER	LENGTH (ROUNDED TO THE NEAREST FT)	INLET				OUTLET				NOTES
		STATION	OFFSET (FT)		EXISTING INVERT ELEV. (FT)	STATION	OFFSET (FT)		EXISTING INVERT ELEV. (FT)	
P-002a	104	89+94	40	RT	14.3	89+94	64	LT	12.4	REMOVE INLET FLAP GATE
P-002b	106	89+84	40	RT	14.3	89+84	65	LT	12.3	REMOVE INLET FLAP GATE

[606.0001.0000] W-BEAM GUARDRAIL

TTD.
1,351.0 LF.

START STATION	OFFSET (FT)		END STATION	OFFSET (FT)		LENGTH (FT)	NOTES
88+10	59.3	LT	98+49	36.8	LT	1042	
88+17	49.0	RT	91+20	32.9	RT	308	
TOTAL:						1350	

[606.0006.0000] REMOVING AND DISPOSING GUARDRAIL

TTD.
1,349.0 LF.

START			END			LENGTH (FT)	NOTES
STATION	OFFSET (FT)		STATION	OFFSET (FT)			
88+10	59.3	LT	98+49	36.8	LT	1042	
88+17	49.0	RT	91+20	32.9	RT	308	
TOTAL:						1350	

[606.2014.0000] GUARDRAIL PAVING

TTD.
1,351.0 LF.

START STATION	END STATION	LENGTH (FT)	NOTES
88+10	98+49	1042	
88+17	91+20	308	
TOTAL:		1350	

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

STATE OF ALASKA
49TH
David A. Wyatt
5/20/2021
AELC13266
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

JNU RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

SUMMARIES

FILE | Q:\Jnu\SFHWY00241\Planset\00241_D1_Vanderbilt.dwg | LAYOUT | D1 SUMMARIES | DESIGNED | AC, BL, BW | CHECKED | DP | DRAFTED | BL, RG | DATE | 5/20/2021 16:38

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0966028/SFHWY00241	2021	D2	23

[611.0001.0001] RIPRAP, CLASS 1

PIPE NUMBER	INLET SLOPE STABLIZATION		OUTLET SLOPE STABLIZATION		VOLUME (CY)	ENERGY DISSIPATER			VOLUME (CY)
	WIDTH (FT)	HEIGHT (FT)	WIDTH (FT)	HEIGHT (FT)		LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	
P-001	-	-	17	4	3	10	17	1	6
P-002	-	-	19	15	10	16	24	1	12
TOTAL (CY):									31
TOTAL (TONS):									53

TTD.
181.16 tons.

[613.0002.0000] CULVERT MARKER POST CONT.

PIPE NUMBER	INLET STATION	OUTLET STATION	QUANTITY	NOTES
P-001	101+99	101+98	2	
P-002a	89+94	89+94	1	OUTLET ONLY
P-002b	89+84	89+84	1	INLET ONLY
TOTAL:			4	

TTD.
4.0 ea.

[618.0002.0000] SEEDING

START STATION	END STATION	OFFSET	AREA (SY)	WEIGHT (LBS)	NOTES
102+09	101+89	LT	67	1	SEEDING FOR P-001 CONSTRUCTION ACCESS
89+78	89+98	LT	67	1	SEEDING FOR P-002 CONSTRUCTION ACCESS
TOTAL (LBS):				2	

TTD.
Seeding was not used.

[619.2013.0000] BFM

START STATION	END STATION	OFFSET	AREA (SY)	WEIGHT (LBS)	NOTES
102+09	101+89	LT	67	56	SEEDING FOR P-001 CONSTRUCTION ACCESS
89+78	89+98	LT	67	56	SEEDING FOR P-002 CONSTRUCTION ACCESS
TOTAL (LBS):				112	

TTD.
BFM was not used.

[642.0004.0000] SET PRIMARY MONUMENT

POINT #	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET (FT)	
1600	496511.37	513840.86	APPROX_SH_MON	95+56.00	30.00	LT
1601	496143.93	513145.00	APPROX_SH_MON	87+82.00	172.00	LT

TTD.

2 ea.

[642.0010.0000] MONUMENT CASE

POINT #	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET (FT)	
1600	496511.37	513840.86	APPROX_SH_MON	95+56.00	30.00	LT
1601	496143.93	513145.00	APPROX_SH_MON	87+82.00	172.00	LT

TTD.

2 ea.

[660.2004.0000] ADJUST JUNCTION BOX

STATION	OFFSET (FT)		NOTES
89+47	51.4	LT	
89+47	53.5	LT	
91+18	53.2	LT	
92+93	47.4	LT	
94+68	38.8	LT	
96+44	37.0	LT	
98+17	36.5	LT	

TTD.
7 ea. J-Box's were adjusted.

[660.2005.001A] JUNCTION BOX, Type 1A

STATION	OFFSET (FT)		NOTES
89+50	36.8	RT	TRAFFIC SIGNAL JUNCTION BOX

TTD.
2 ea.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

STATE OF ALASKA
49TH
David A. Pyeatt
AELC13268
REGISTERED PROFESSIONAL ENGINEER
3/22/2021

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

JNU RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

SUMMARIES

FILE | Q:_jnu\SFHWY00241\Planset\00241_D1_Vanderbilt.dwg
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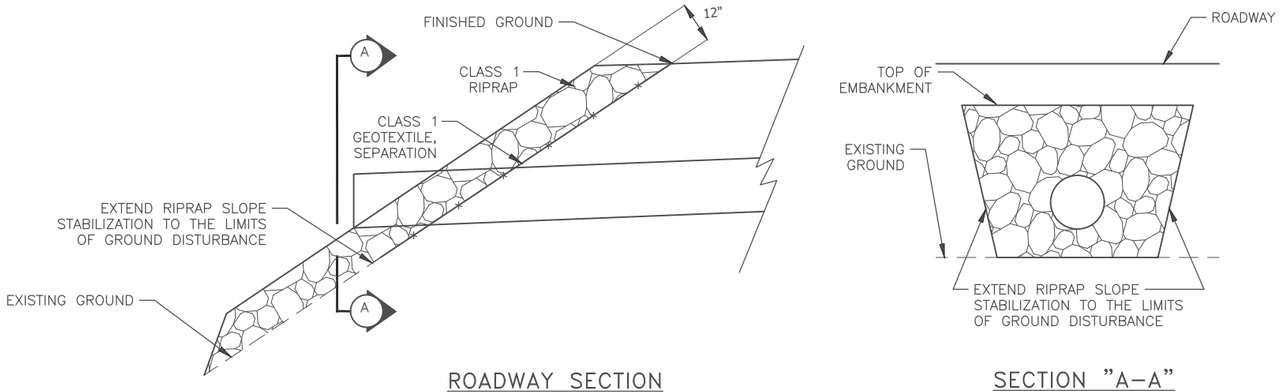
LAYOUT | D2 SUMMARIES
DESIGNED | AC, BL, BW
CHECKED | DP
DRAFTED | BL, RG

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0966028/SFHWY00241	2021	E1	23



ROADWAY SECTION

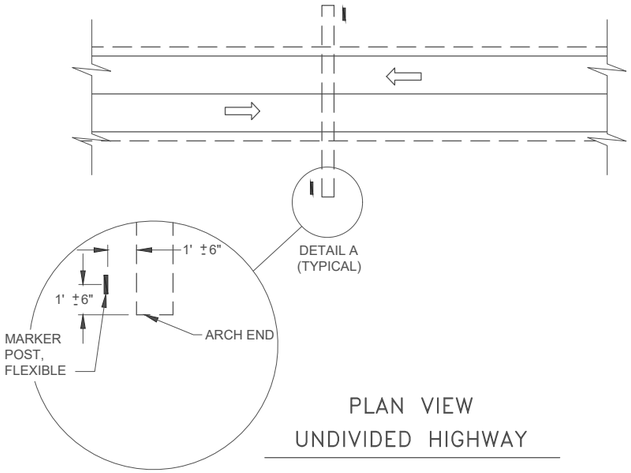
SECTION "A–A"

1 E1 RIPRAP SLOPE STABLIZATION AT CULVERTS

SCALE: NOT TO SCALE

NOTES:

1. CONSTRUCT AT INLET AND/OR OUTLET, REFER TO SHEET D2 FOR LOCATIONS AND DIMENSIONS.

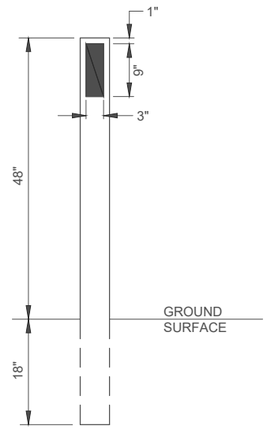


PLAN VIEW
UNDIVIDED HIGHWAY

DETAIL A
(TYPICAL)

3 E1 FLEXIBLE MARKER POST LOCATION

SCALE: NOT TO SCALE



2 E1 FLEXIBLE MARKER POST DETAIL

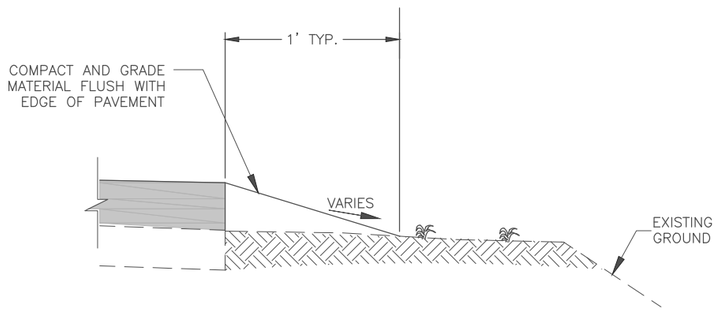
SCALE: NOT TO SCALE

FLEXIBLE MARKER POST NOTES:

1. FLEXIBLE MARKER POSTS SHALL BE WHITE, FIBERGLASS COMPOSITE.
2. A 3" BY 9" STRIP OF BLACK 2–MIL GRAPHIC FILM SHALL BE AFFIXED TO EACH SIDE OF THE POST AS SHOWN IN THE FLEXIBLE MARKER POST DETAIL DRAWING. THE MATERIAL SHALL BE CENTERED WITHIN THE WIDTH OF THE POST. APPLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022



4 E1 LINEAR GRADING

SCALE: NOT TO SCALE

STATE OF ALASKA
David A. Pyeatt
AELC13268
REGISTERED PROFESSIONAL ENGINEER
3/22/2021

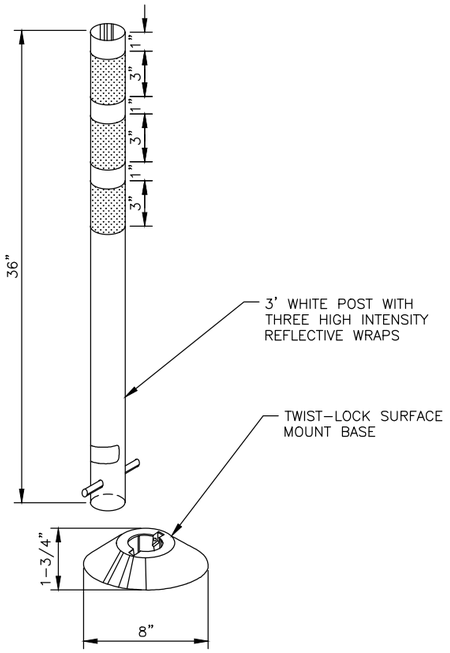
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465–1763

JNU RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

MISCELLANEOUS DETAILS

FILE | Q:_jnu_SFHWY00241\Planset\00241_E1_Vanderbilt.dwg
DATE | 3/22/2021 10:04
LAYOUT | E1 MISCELLANEOUS DE
DESIGNED | AC, BL, BW
CHECKED | DP
DRAFTED | BL, RG

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/24	ADDENDUM 1	ALASKA	0966028/SFHWY00241	2021	E2	23

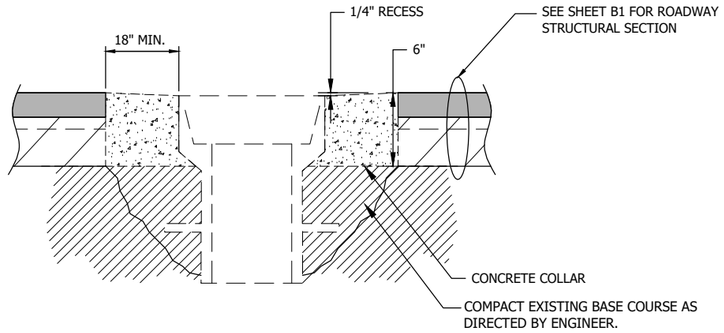


DETAIL NOTES:

1. DELINEATORS SHALL BE INSTALLED AT LOCATIONS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER
2. DELINEATORS SHALL BE WHITE IN COLOR. DELINEATORS SHALL HAVE YELLOW REFLECTIVE SHEETING.
3. DELINEATOR BASE SHALL BE INSTALLED USING BOTH EPOXY AND ANCHOR BOLTS

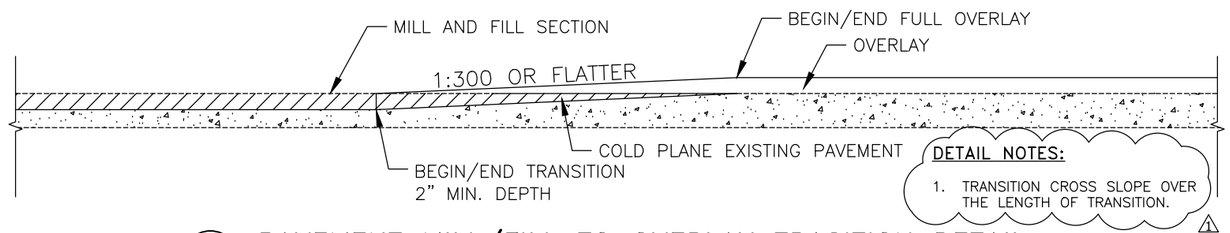
1 E2 DELINEATOR TYPE A

SCALE: NOT TO SCALE



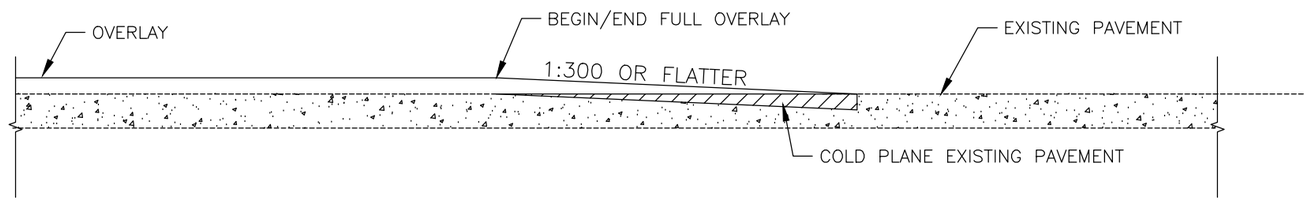
2 E2 MONUMENT CASE DETAIL

SCALE: NOT TO SCALE



3 E2 PAVEMENT MILL/FILL TO OVERLAY TRASITION DETAIL

SCALE: NOT TO SCALE



4 E2 PAVEMENT OVERLAY TO EG TRASITION DETAIL

SCALE: NOT TO SCALE

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
David A. Pickett
5/24/2021
AELC13268
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

JNU RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

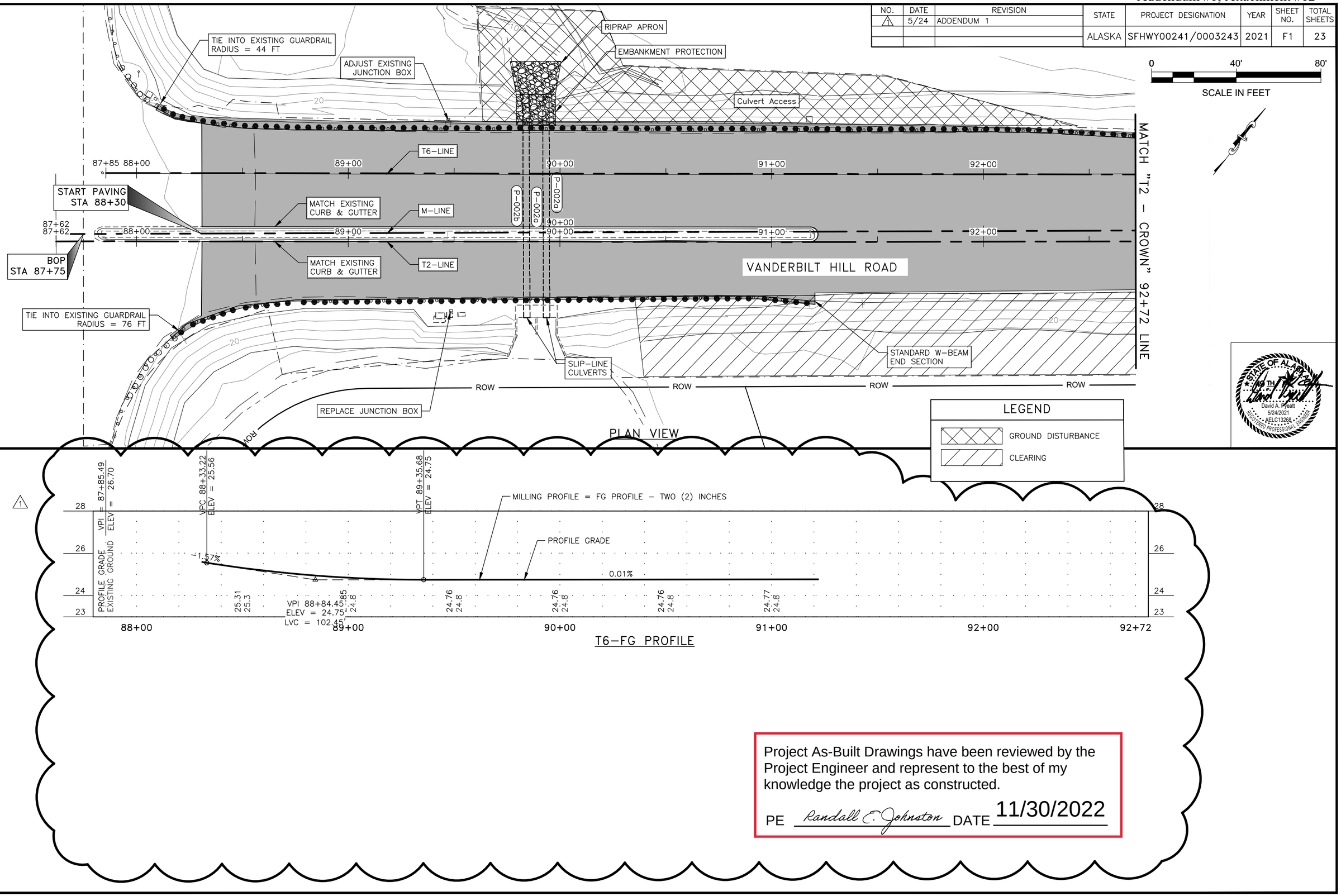
E2 MISCELLANEOUS

FILE | Q:\jnu\SFHWY00241\Planset\00241_E1_Vanderbilt.dwg | DATE | 5/24/2021 12:25 | LAYOUT | E2 MISCELLANEOUS | DESIGNED | AC, BL, BW | CHECKED | DP | DRAFTED | BL, RG

Addendum #1; Attachment #12

NO.	DATE	REVISION
1	5/24	ADDENDUM 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00241/0003243	2021	F1	23



STATE OF ALASKA
49TH
David A. Pyeatt
5/24/2021
AELC13268
REGISTERED PROFESSIONAL ENGINEER

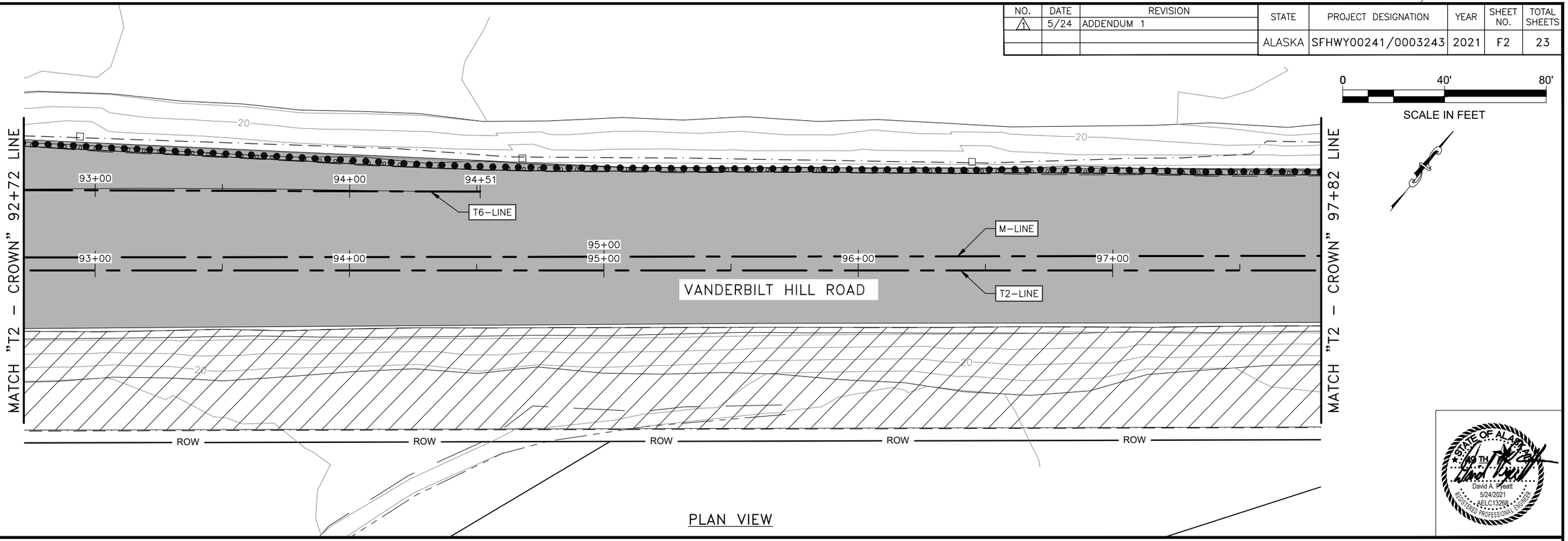
Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

ADDRESS	6860 GLACIER HWY, JUNEAU, AK 99811	PHONE	(907) 465-1763	CERTIFICATE OF AUTH #:			
DATE	5/20/2021 16:00	DESIGNED	BL,AC,BW	CHECKED	DP	DRAFTED	BL,AC,BW,RG
FIRM	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES						
FILE	Q:\jnu\SFHWY00241\Planset\SFHWY00241_F1_PP.dwg			LAYOUT	F1		

NO.	DATE	REVISION
1	5/24	ADDENDUM 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00241/0003243	2021	F2	23



PLAN VIEW

STATE OF ALASKA
David A. Pyeatt
5/24/2021
AELC13268
REGISTERED PROFESSIONAL ENGINEER

LEGEND

GROUND DISTURBANCE

CLEARING

1

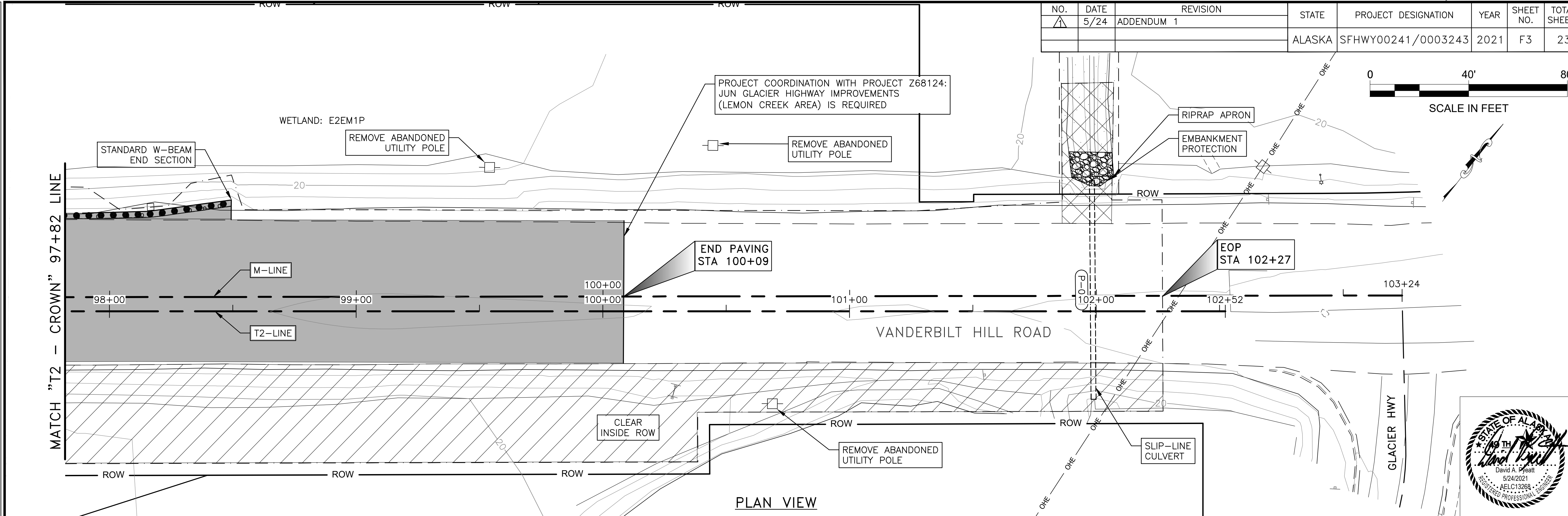
Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

FIRM	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
FILE	Q:\Jnu\SFHWY00241\Planset\SFHWY00241_F1_PP.dwg
ADDRESS	6860 GLACIER HWY, JUNEAU, AK 99811
DATE	5/20/2021 16:00
PHONE	(907) 465-1763
DESIGNED	BL,AC,BW
CHECKED	DP
DRAFTED	BL,AC,BW,RG
LAYOUT	F2
CERTIFICATE OF AUTH #	

NO.	DATE	REVISION
1	5/24	ADDENDUM 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00241/0003243	2021	F3	23



LEGEND

(cross-hatch)	GROUND DISTURBANCE
(diagonal hatch)	CLEARING

1

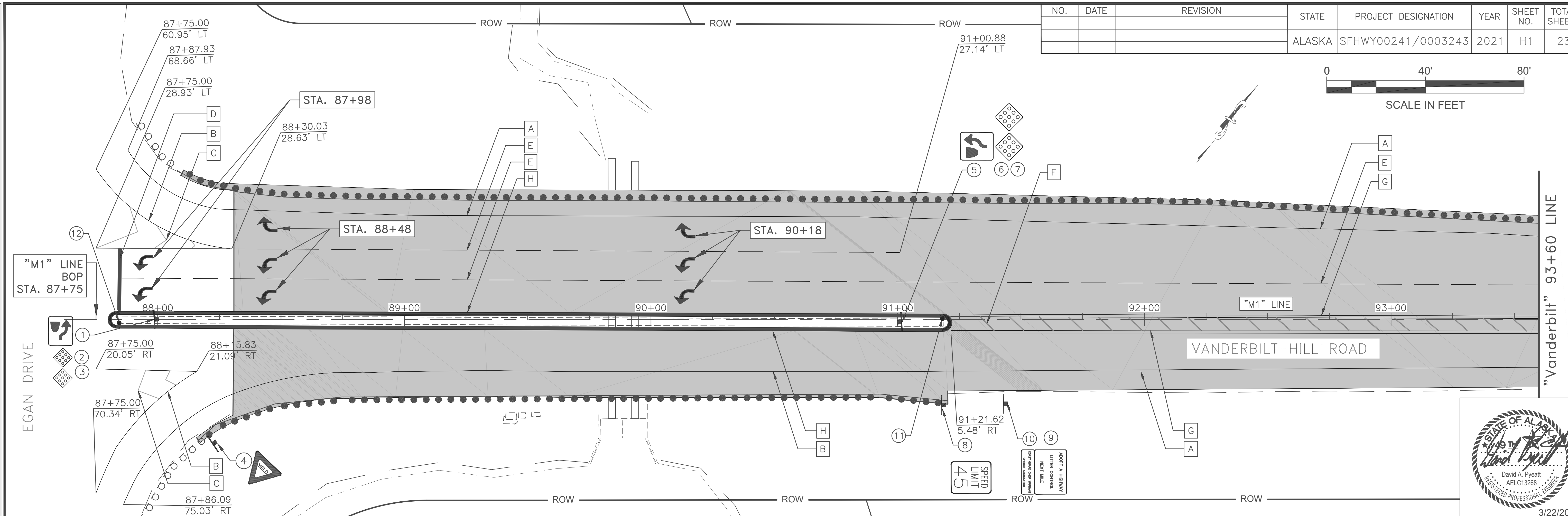
Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE *Randall E. Johnston* DATE 11/30/2022

FIRM: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES | ADDRESS: 6860 GLACIER HWY, JUNEAU, AK 99811 | PHONE: (907) 465-1763 | CERTIFICATE OF AUTH #:

FILE: Q:\Jnu\SFHWY00241\Planset\SFHWY00241_F1_PP.dwg | DATE: 5/20/2021 16:00 | LAYOUT: F3 | DESIGNED: BL,AC,BW | CHECKED: DP | DRAFTED: BL,AC,BW,RG

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00241/0003243	2021	H1	23

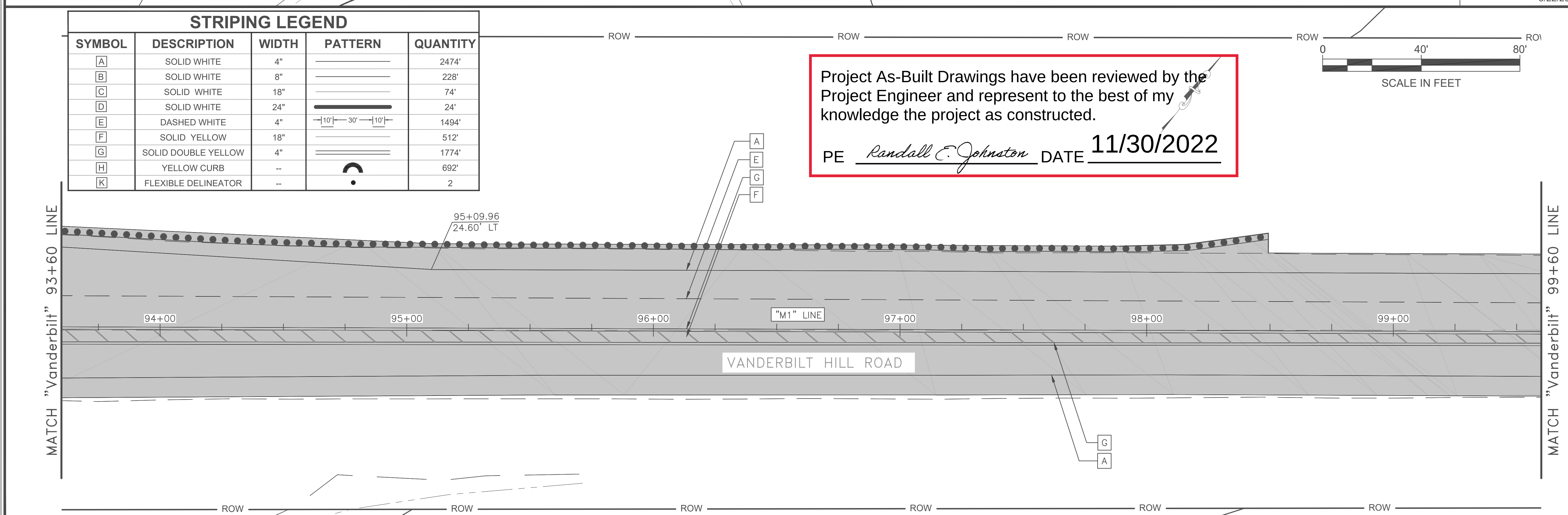


STRIPING LEGEND

SYMBOL	DESCRIPTION	WIDTH	PATTERN	QUANTITY
A	SOLID WHITE	4"		2474'
B	SOLID WHITE	8"		228'
C	SOLID WHITE	18"		74'
D	SOLID WHITE	24"		24'
E	DASHED WHITE	4"	10' 30' 10'	1494'
F	SOLID YELLOW	18"		512'
G	SOLID DOUBLE YELLOW	4"		1774'
H	YELLOW CURB	--		692'
K	FLEXIBLE DELINEATOR	--		2

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE *Randall E. Johnston* DATE 11/30/2022



FIRM STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES | ADDRESS 6860 GLACIER HWY, JUNEAU, AK 99811 | PHONE (907) 465-1763 | CERTIFICATE OF AUTH #:

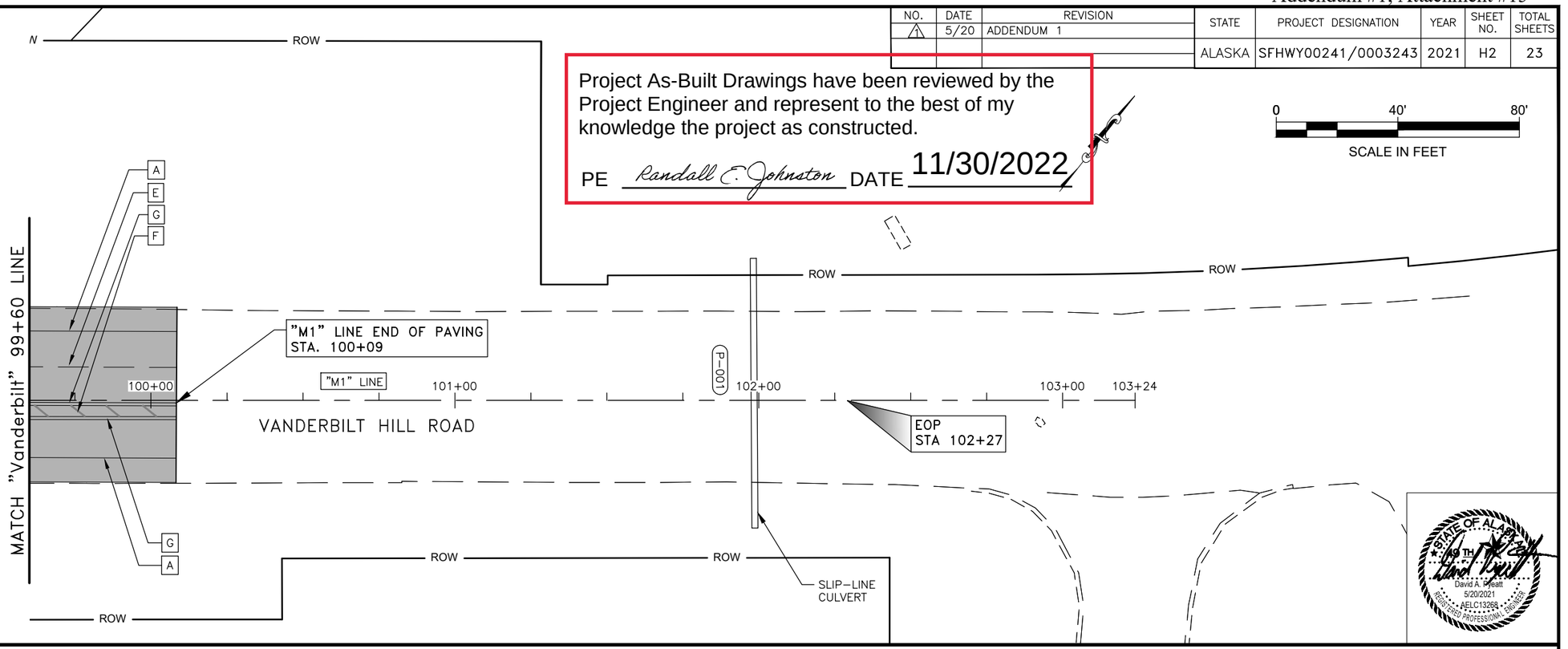
FILE Q:\Jnu\SFHWY00241\Planset\SFHWY00241_H-Sheet.dwg | DATE 3/22/2021 10:15 | LAYOUT H1 SIGNING & STRIPING | DESIGNED BL,AC,BW | CHECKED DP | DRAFTED BL,AC,BW,RG

NO.	DATE	REVISION
1	5/20	ADDENDUM 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00241/0003243	2021	H2	23

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022



STRIPING LEGEND

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B	SOLID WHITE	8"		228'
C	SOLID WHITE	18"		74'
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F	SOLID YELLOW	18"		512'
G	SOLID DOUBLE YELLOW	4"		1774'
H	YELLOW CURB	--		692'
K	FLEXIBLE DELINEATOR	--		2

TTD.

All signs have been installed.

1

NOTES

1. Yellow curb utilizes traffic paint. All other markings are to be inlaid MMA.

[615.0005.0000] DELINEATOR, FLEXIBLE

SIGN NO.	LEGEND	STATION	OFFSET (FT)		NOTES
11	FLEXIABLE DELINATOR	91+18	0.32	LT	
12	FLEXIABLE DELINATOR	87+84	1.39	RT	

[615.0006.0000] SALVAGE SIGN

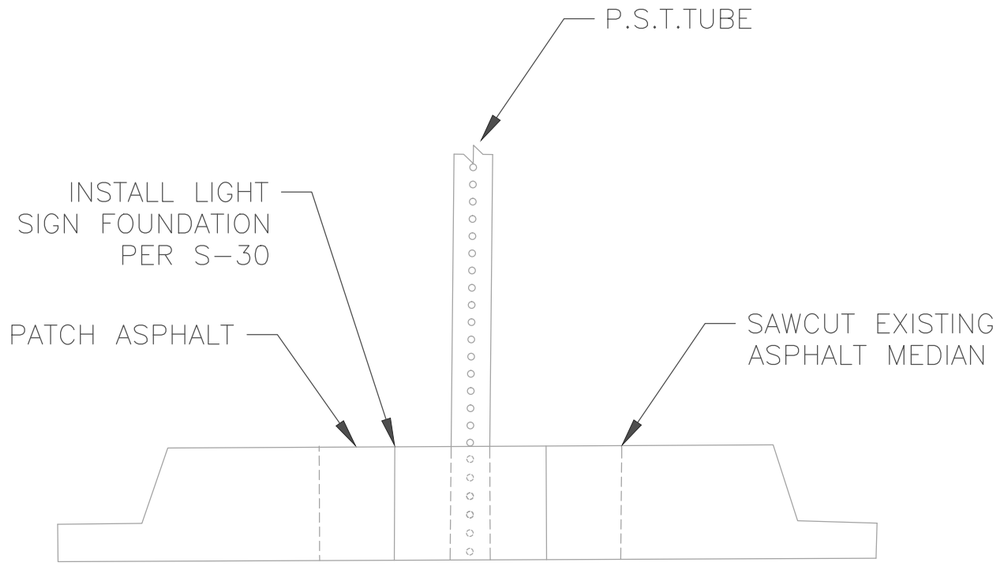
SIGN NO.	LEGEND	STATION	OFFSET	NOTES
5	KEEP RIGHT SYMBOL	91+01	CL	

[615.0001.0000] STANDARD SIGN

SIGN NO.	LEGEND	STATION	OFFSET	ASDS CODE	WIDTH (IN)	HEIGHT (IN)	AREA (SF)	SIGN FACING	POST	EMBEDMENT TYPE	FRAMED / BRACED	NOTES
1	KEEP RIGHT SYMBOL	87+99	CL	R4-7	24	30	5	NE	2.5 x 2.5 PST	CONCRETE	-	
2	OBJECT MARKER	87+99	CL	OM1-1	18	18	2.25	NE	-	-	-	MOUNT BELOW SIGN NO. 1
3	OBJECT MARKER	87+99	CL	OM1-1	18	18	2.25	SW	-	-	-	MOUNT ON THE REVERSE OF SIGN NO. 2
4	YIELD	88+24	RT	R1-2	30	30	2.7	S	2.5 x 2.5 PST	SOIL	-	
5	KEEP RIGHT SYMBOL	91+01	CL	R4-7	24	30	5	NE	2.5 x 2.5 PST	CONCRETE	-	
6	OBJECT MARKER	91+01	CL	OM1-1	18	18	2.25	NE	-	-	-	MOUNT BELOW SIGN NO. 5
7	OBJECT MARKER	91+01	CL	OM1-1	18	18	2.25	SW	-	-	-	MOUNT ON THE REVERSE OF SIGN NO. 6
8	SPEED LIMIT 45	91+20	RT	R2-1	30	36	7.5	SW	2.5 x 2.5 PST	SOIL	BRACED	
9	ADOPT A HIGHWAY LITTER CONTROL NEXT MILE	91+43	RT	D14-100	30	24	5	SW	2.5 x 2.5 PST	SOIL	-	
10	COAST GUARD CHIEF WARRANT OFFICER ASSOCIATION	91+43	RT	D14-100	30	12	2.5	SW	2.5 x 2.5 PST	SOIL	-	MOUNT BELOW SIGN NO. 9

FIRM | STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES | ADDRESS | 6860 GLACIER HWY, JUNEAU, AK 99811 | PHONE | (907) 465-1763 | CERTIFICATE OF AUTH #:
DATE | 5/20/2021 16:00 | LAYOUT | H2 SIGNING & STRIPING | DESIGNED | BL.AC.BW | CHECKED | DP | DRAFTED | BL.AC.BW.RG
FILE | Q:\Jnu\SFHWY00241\Planset\SFHWY00241_H-Sheet.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00241/0003243	2021	H3	23



1 / H3 SIGN REPLACEMENT
SCALE: NOT TO SCALE

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

STATE OF ALASKA
David A. Pyeatt
AELC13268
REGISTERED PROFESSIONAL ENGINEER
3/22/2021

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

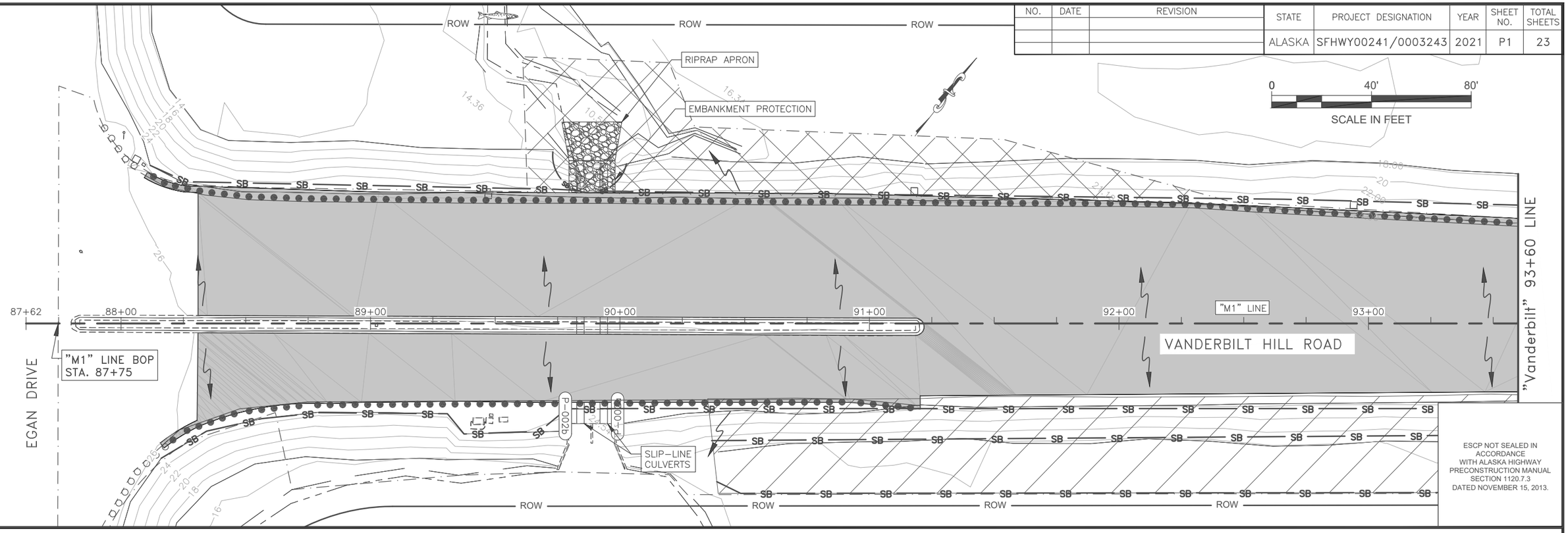
JNU RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

SIGNING & STRIPING

FILE | Q:\Jnu\SFHWY00241\Planset\SFHWY00241_H-Sheet.dwg
DATE | 3/22/2021 10:15
LAYOUT | H3 SIGNING & STRIPING
DESIGNED | BL,AC,BW
CHECKED | DP
DRAFTED | BL,AC,BW,RG

NO.	DATE	REVISION

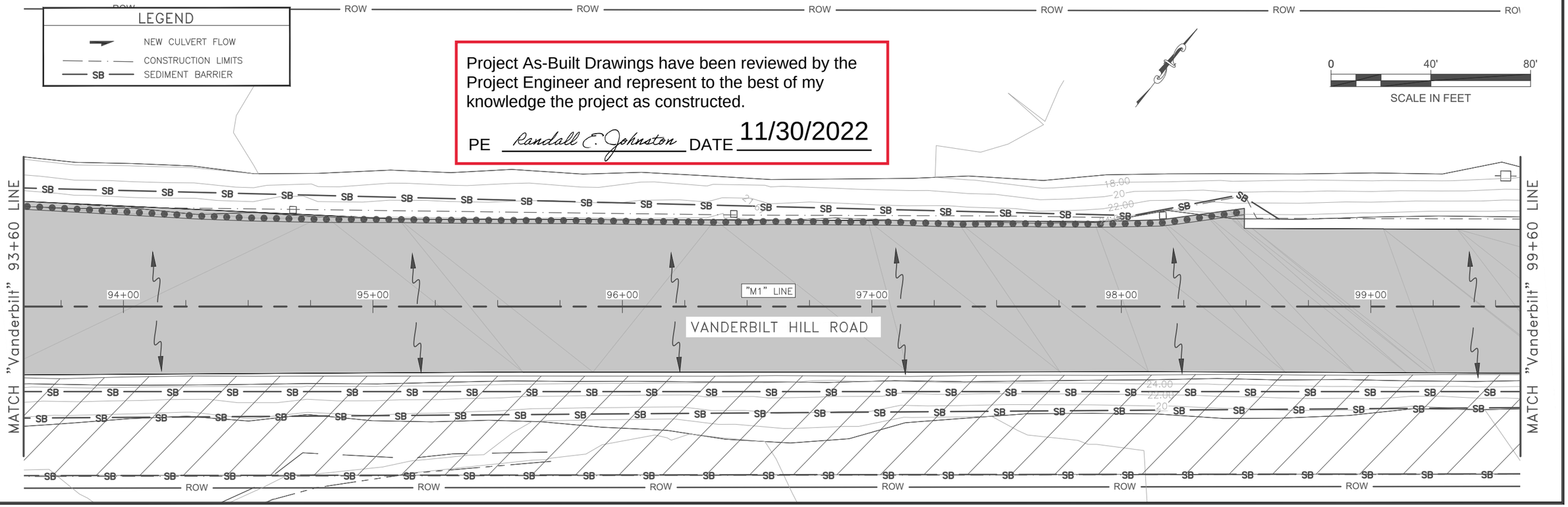
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00241/0003243	2021	P1	23



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

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

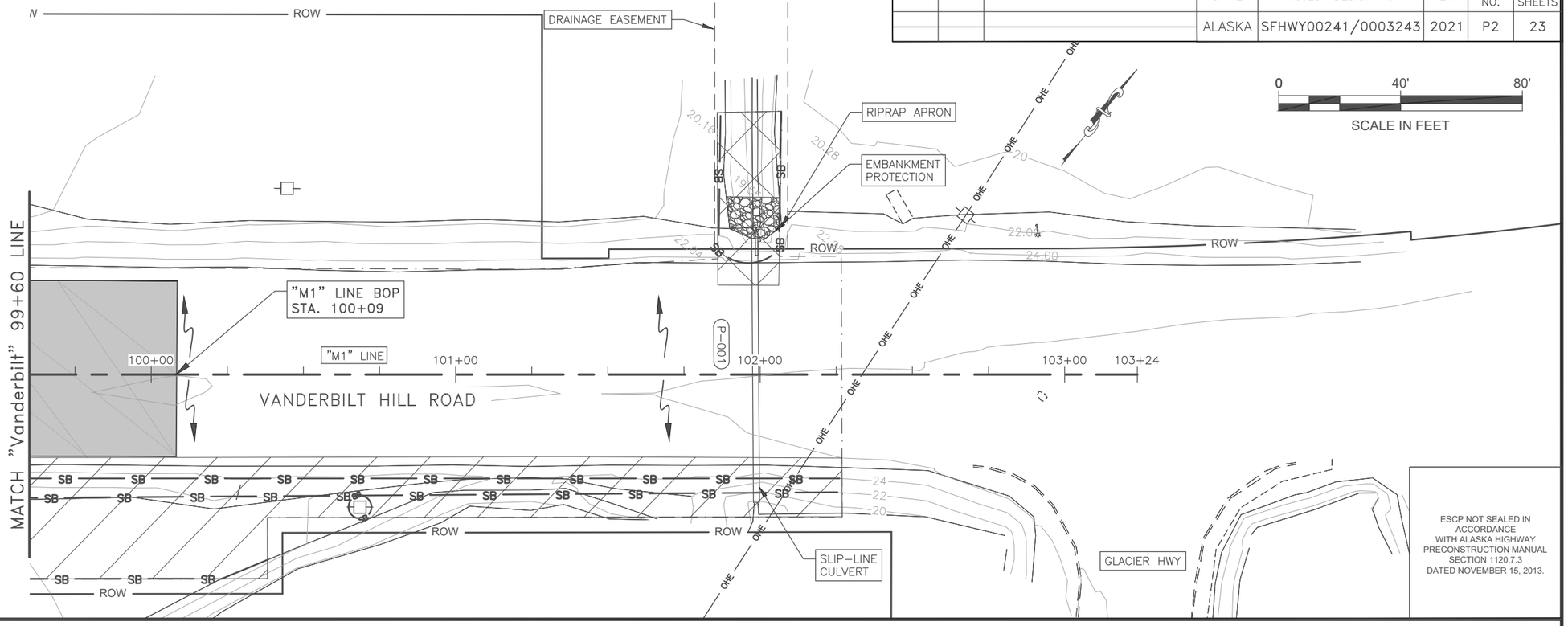
PE *Randall E. Johnston* DATE 11/30/2022



FIRM | STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES | CERTIFICATE OF AUTH #:
ADDRESS | 6860 GLACIER HWY, JUNEAU, AK 99811 | PHONE | (907) 465-1763 | DESIGNED | BL,AC,BW | CHECKED | DP | DRAFTED | BL,AC,BW,RG
DATE | 3/16/2021 13:01 | LAYOUT | P1 STORMDRAIN
FILE | Q:\jnu\SFHWY00241\Planset\SFHWY00241_P-Sheet.dwg

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00241/0003243	2021	P2	23



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

LEGEND

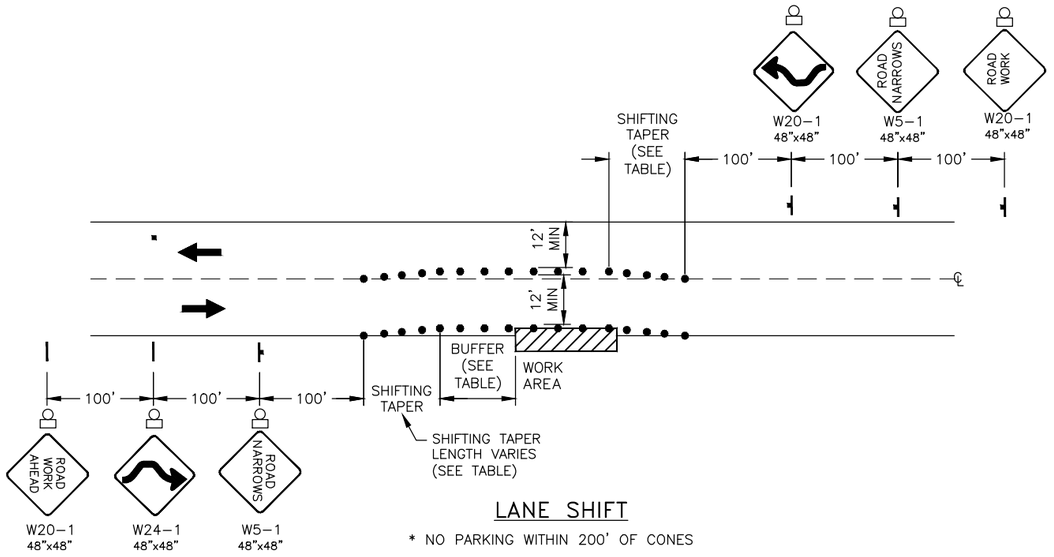
- NEW CULVERT FLOW
- CONSTRUCTION LIMITS
- SB — SEDIMENT BARRIER

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

FIRM | STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES | ADDRESS | 6860 GLACIER HWY, JUNEAU, AK 99811 | PHONE | (907) 465-1763 | CERTIFICATE OF AUTH #:
FILE | Q:\jnu\SFHWY00241\Planset\SFHWY00241_P-Sheet.dwg | DATE | 3/16/2021 13:01 | LAYOUT | P2 STORMDRAIN | DESIGNED | BL,AC,BW | CHECKED | DP | DRAFTED | BL,AC,BW,RG

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/24	ADDENDUM 1	ALASKA	0966028/SFHWY00241	2021	T1	23

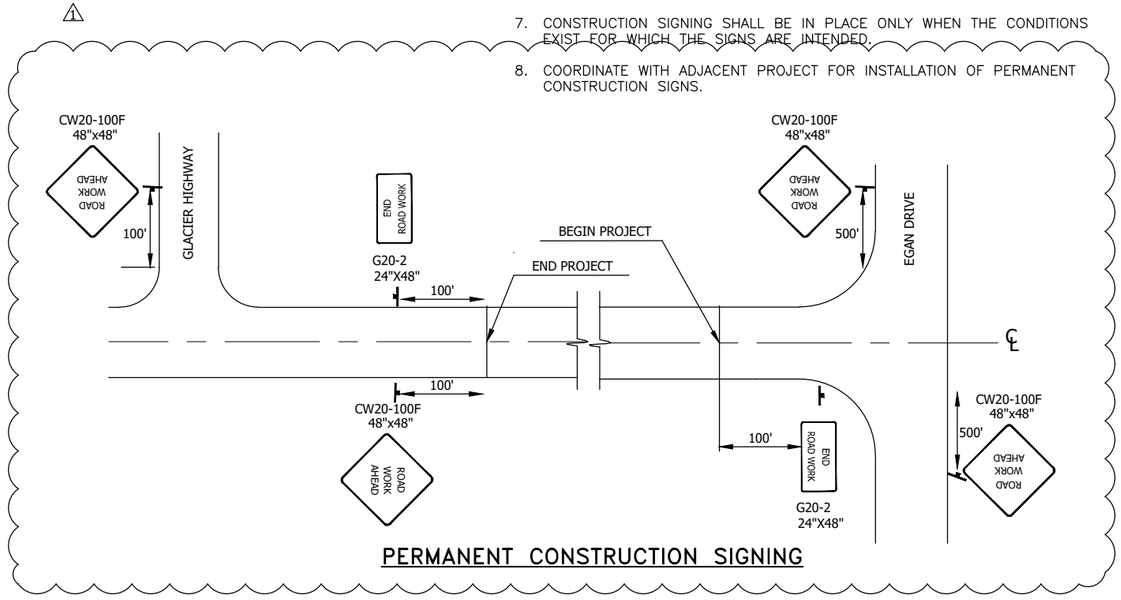


LANE SHIFT

* NO PARKING WITHIN 200' OF CONES

TRAFFIC CONTROL NOTES

1. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 12'.
2. CONSTRUCTION SIGNS SHALL BE IN PLACE ONLY WHEN THE CONDITIONS THEY WARN ABOUT EXIST.
3. CHANNELIZATION DEVICES, IF USED AT NIGHT, SHALL BE LIT IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.
4. TEMPORARY PAVEMENT MARKINGS WILL BE REQUIRED AS DESCRIBED IN SECTION 643–3.04 OF THE SPECIFICATIONS.
5. THE MINIMUM SEPARATION BETWEEN WORK ZONES SHALL BE 1,000'. IF VEHICLE STOP TIME EXCEEDS FIVE MINUTES, THE CONTRACTOR SHALL SHORTEN HIS WORK ZONE OR RESCHEDULE HIS WORK TO A LESS BUSY HOUR. COORDINATE WITH ADJACENT PROJECTS TO INSURE COMPLIANCE.
6. ALWAYS ALLOW ACCESS TO EMERGENCY SERVICES
7. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
8. COORDINATE WITH ADJACENT PROJECT FOR INSTALLATION OF PERMANENT CONSTRUCTION SIGNS.



PERMANENT CONSTRUCTION SIGNING

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall F. Johnston DATE 11/30/2022

LEGEND

- SIGN
- CONE
- DRUM
- FLAGGING STATION
- WARNING LIGHT
- TYPE III BARRIER

TCP SETUP TABLE

	MIN MERGING TAPER LENGTH (L) IN FEET WIDTH OF OFFSET (W) IN FEET			MIN NUMBER OF DEVICES WIDTH OF OFFSET (W) IN FEET			MAX DEVICE SPACING IN FEET		BUFFER SPACE
SPEED (MPH)	10'	11'	12'	10'	11'	12'	ALONG TAPER	ALONG TANGENT	(FT)
40	270	295	320	8	9	9	40	80	305
45	450	495	540	11	12	13	45	90	360

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

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465–1763

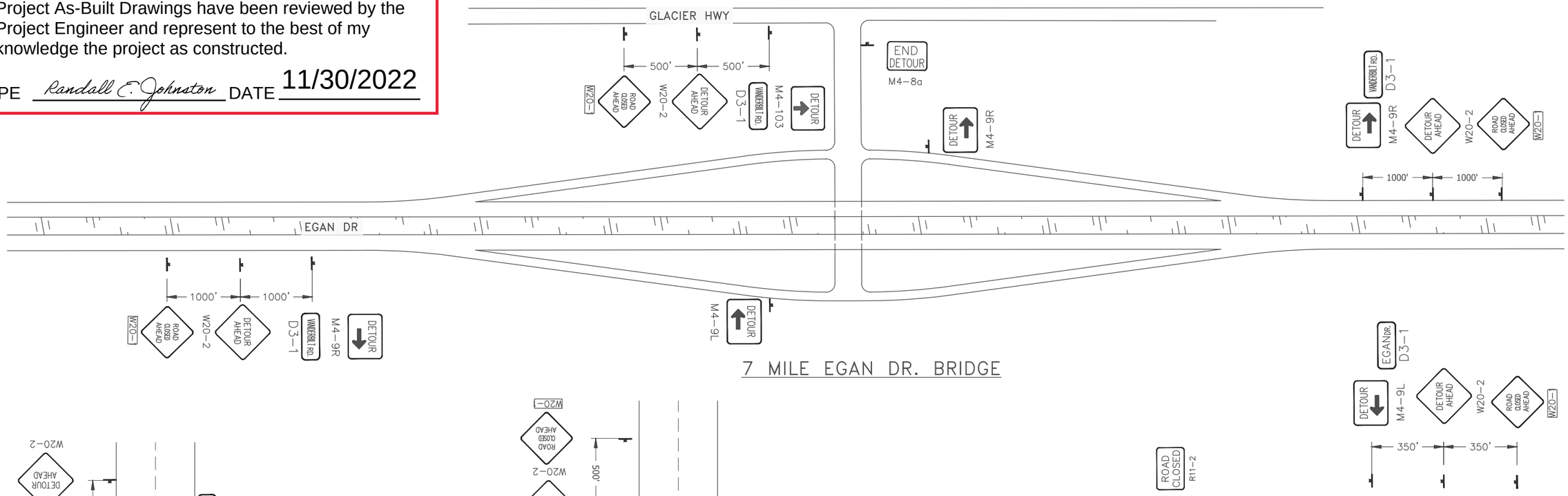
JNU RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

TRAFFIC CONTROL PLAN

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00241/0003243	2021	T2	23

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022



INTERSECTION OF EGAN DR. AND GLACIER HWY

INTERSECTION OF EGAN DR. AND VANDERBILT HILL RD.

INTERSECTION OF GLACIER HWY AND VANDERBILT HILL RD.

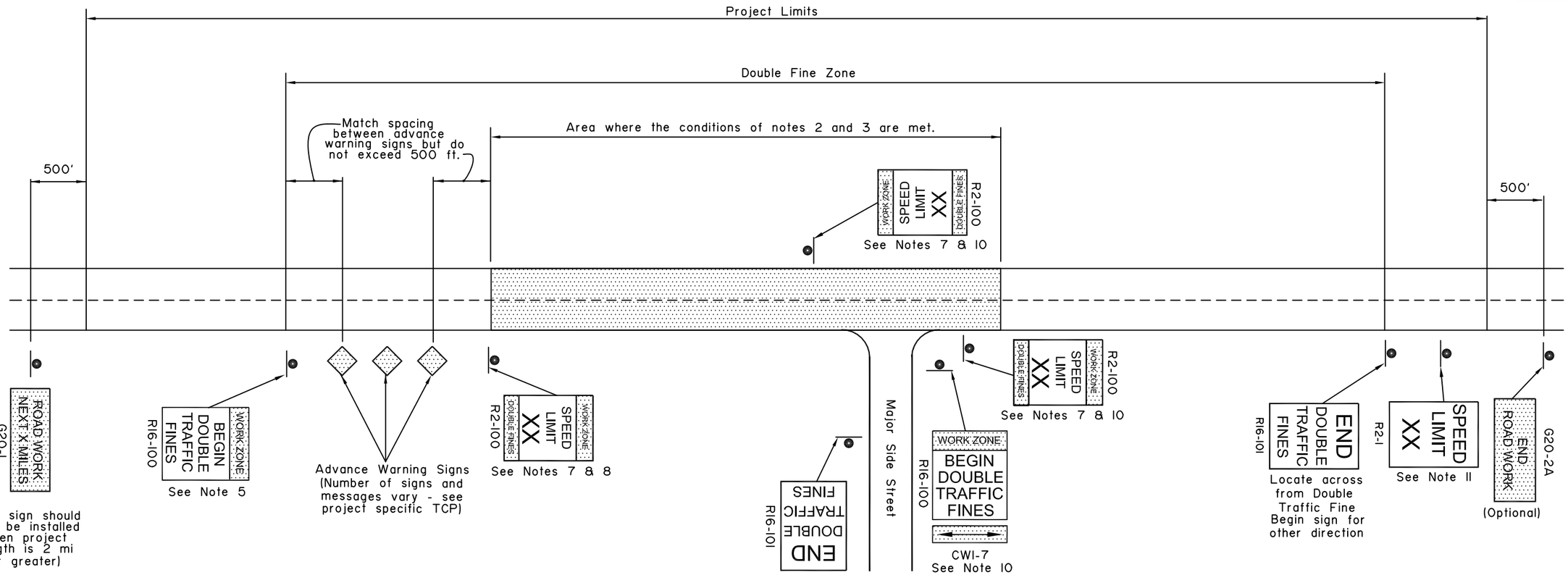
TCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1400.3.5 DATED JANUARY 30, 2012.

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

JNU RESURFACE GLACIER HIGHWAY: VANDERBILT HILL ROAD EGAN TO GLACIER HWY

T2 TRAFFIC CONTROL PLAN (2)

FILE | Q:\Jnu\SFHWY00241\Planset\00241_T1_Vanderbilt.dwg | DATE | 3/22/2021 10:05 | LAYOUT | T2_TRAFFIC_CONTROL_PLAN | DESIGNED | AC, BL, BW | CHECKED | DP | DRAFTED | BL, RG



GENERAL NOTES

1. Signs are shown for one direction only (with one exception). Signs for the other direction mirror those shown.

2. Double fine signs shall be used only where one or more of the following conditions exist:
   a. Active work areas (where road workers and/or machines are presently working on or adjacent to a road)
   b. Detours on new temporary roads built for that purpose (this does not include detours on existing streets)
   c. Sections of paved roads where pavement has been removed.
   d. Roads being paved where unmatched asphalt lifts result in a vertical lip between lanes.

3. Double fine signs shall be confined to the areas where the above conditions exist, with the following exceptions:
   a. 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.
   b. 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.

4. 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.

5. 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.

6. 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.

7. "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.

8. 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.

9. All existing regulatory speed limit signs within double fine zones shall either be replaced with R2-100 signs or supplemented with CW20-102 plates.

10. 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 CWI-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.

11. 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.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

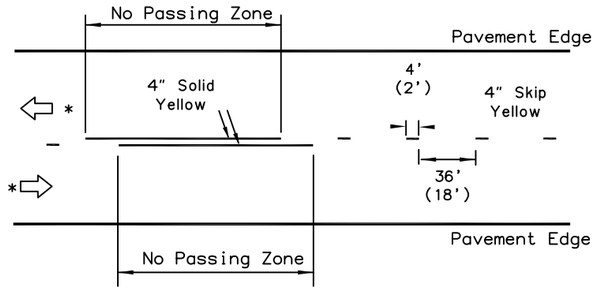
LOCATION OF DOUBLE TRAFFIC FINE SIGNS

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

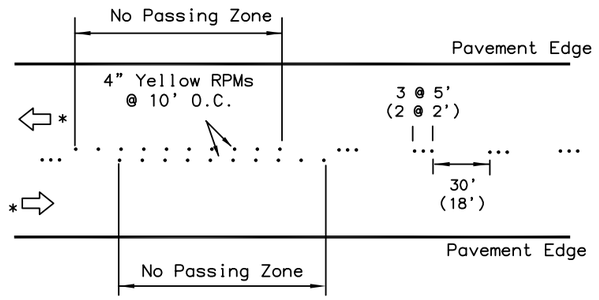
Adoption Date: 02/08/2019

Last Code and Stds. Review By: Date:

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



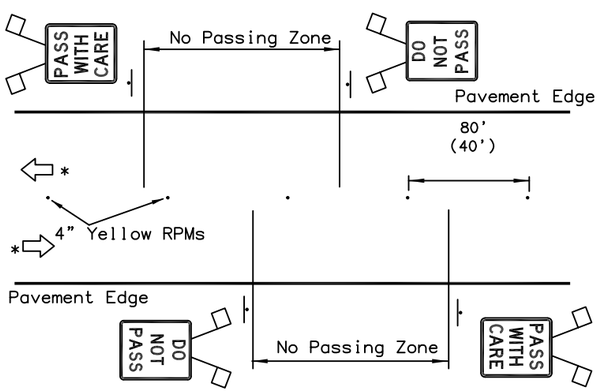
Striping



Temporary Raised Pavement Markers

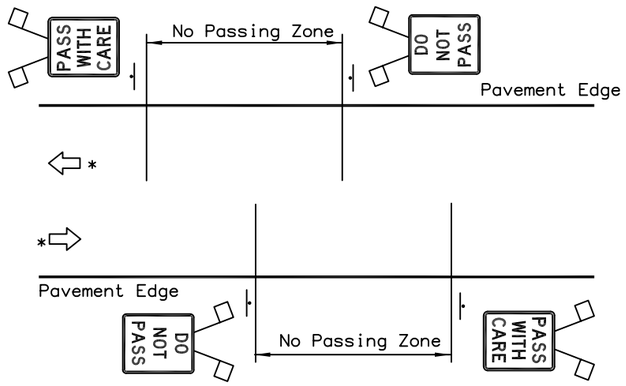
DETAIL A

Two-lane road: No Passing Zones indicated with pavement markings.



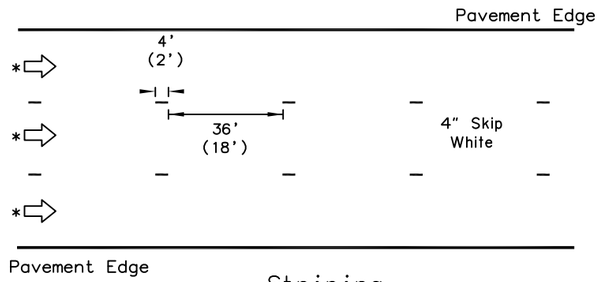
DETAIL B

Two-lane road: No Passing Zones indicated by signs only. Raised pavement markers for centerline delineation.

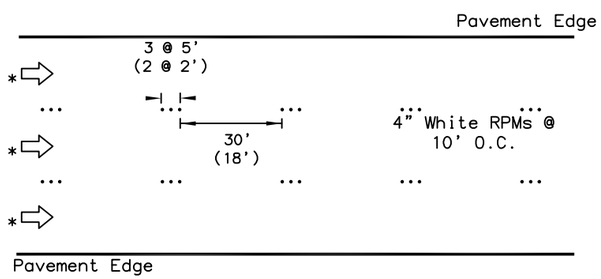


DETAIL C

Two-lane road: No Passing Zones indicated by signs only (see Note 2c). No centerline delineation.



Striping



Temporary Raised Pavement Markers

DETAIL D

Multilane one-way road: Lane dividing lines

* Direction of Travel

GENERAL NOTES:

1. Final pavement markings conforming to Part 3 of the Alaska Traffic Manual should be installed before paved roads are open to public travel. If that is not practical, install interim pavement markings as shown on this drawing. Maintain interim pavement markings until final pavement markings are installed.

2. No interim pavement markings are required:
   a. on projects that will not have permanent markings when finished.
   b. in work zones that are open to public travel for no more than one work shift during daytime or for no more than one hour at night.
   c. where DO NOT PASS and PASS WITH CARE signs are installed on two lane roads as shown in Detail C, no pavement markings are required:
      1) for 3 days if seasonal ADT is above 2000, or
      2) for 1 month if seasonal ADT is below 2000.

3. Interim pavement markings should not be in place longer than 14 calendar days before being replaced with permanent markings conforming to Part 3 of the Alaska Traffic Manual unless the Engineer provides written approval.

4. Where R4-1 DO NOT PASS signs are used, install at the beginning of no passing zones and at no more than 1500' spacings within no passing zones.

5. Install high level warning devices on all DO NOT PASS and PASS WITH CARE signs.

6. Offset temporary markings 8"-12" from the future location of permanent markings if applied on the same lift of pavement.

7. Dimensions in parenthesis apply to curves with a radius of 1000 feet or less or where posted speed limit is 30 mph or less.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE *Randall E. Johnston* DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

INTERIM PAVEMENT MARKINGS

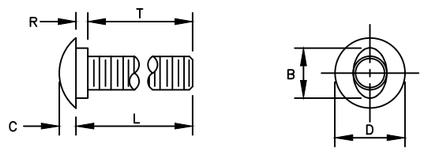
Adopted as an Alaska Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

Last Code and Stds. Review By: Date:

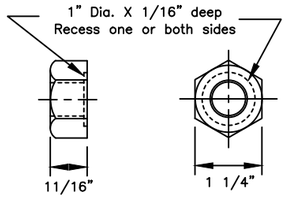
Next Code and Standards Review date: 02/08/2029

C-05.20

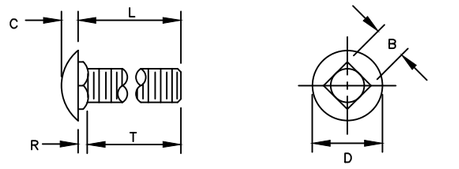


B	C	D	L (Length)	R	T (Thread Length)
15/16"	5/16"	1 5/16" or 1 7/16"	As Required	7/32"	As Required

5/8" BUTTONHEAD BOLT
(FBB01–05)

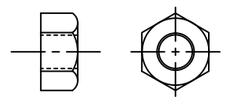


5/8" Dia. RECESSED HEX NUT
(FBB01–05)

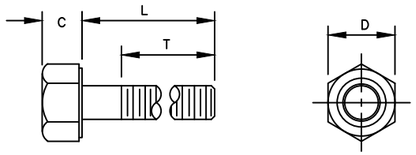


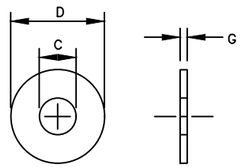
B	C	D	L (Length)	R	T (Thread Length)
5/8"	5/16"	1 5/16"	As Required	3/16"	As Required

5/8" Dia. CARRIAGE BOLT
(FBC10–20)



STANDARD HEX NUT



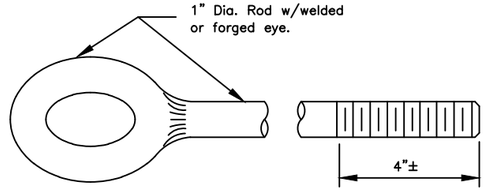


Bolt Size	C	D	L (Length)	T (Thread Length)
5/16"	——	——	1 1/2"	7/8"
5/16"	——	——	1"	1"
3/8"	——	——	7 1/2"	1 1/2"
1/2"	——	——	1 1/2"	1 1/2"
1/2"	——	——	1 1/4"	1 1/4"
5/8" H.S.	5/16"	7/8"	8"	1 1/2"
5/8"–11	——	——	1 1/2"	1 1/2"
3/4"	——	——	1 1/2"	1 1/2"
3/4"	——	——	As Required	2"
3/4" H.S.	15/32"	1 1/4"	2"	1 1/2"

STANDARD HEX BOLTS

For Bolt ø	C	D	G
3/8"	7/16"	1"	5/64"
1/2"	17/32"	1 1/16"	3/32"
1/2" H.S.	17/32"	1 1/16"	3/32"
5/8"	11/16"	1 3/4"	9/64"
3/4"	13/16"	1 15/32"	9/64"
3/4" H.S.	13/16"	2"	5/32"
1"	1 1/16"	2"	9/64"

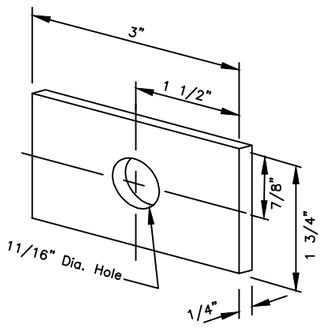
STANDARD STEEL WASHERS



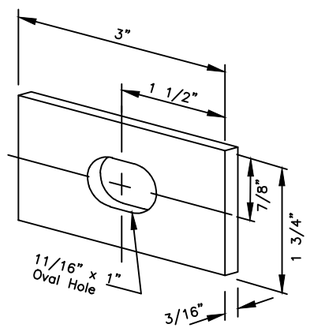
EYE BOLT

GENERAL NOTES:

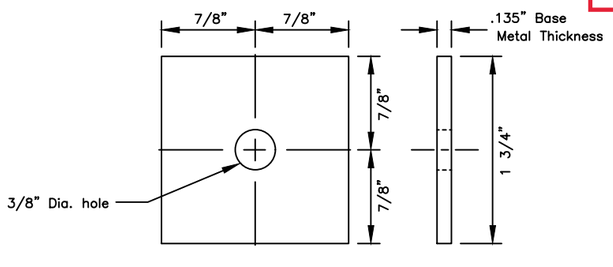
1. All covered hardware shall comply with the Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware online publication. Designators given when possible in parentheses.



FLAT PLATE WASHER



RECTANGULAR POST BOLT WASHER
(FWR03)



SQUARE STEEL WASHER
(FWR01)

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

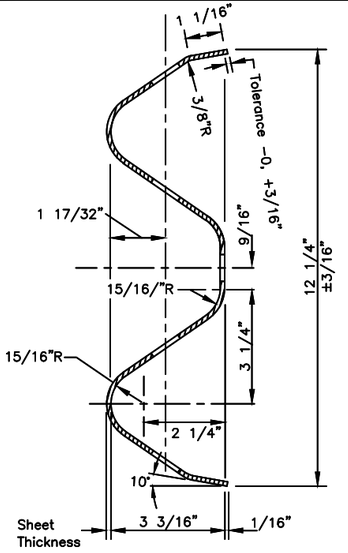
STANDARD GUARDRAIL HARDWARE
(NUTS, BOLTS & WASHERS)

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

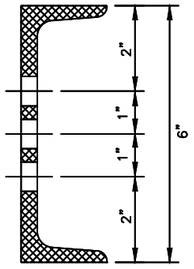
Adoption Date: 7/17/2020

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

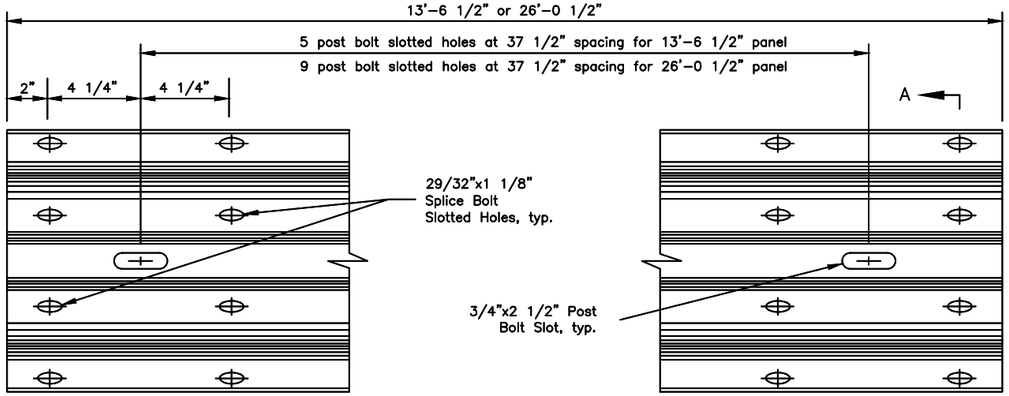
Next Code and Standards Review Date: 7/8/2030



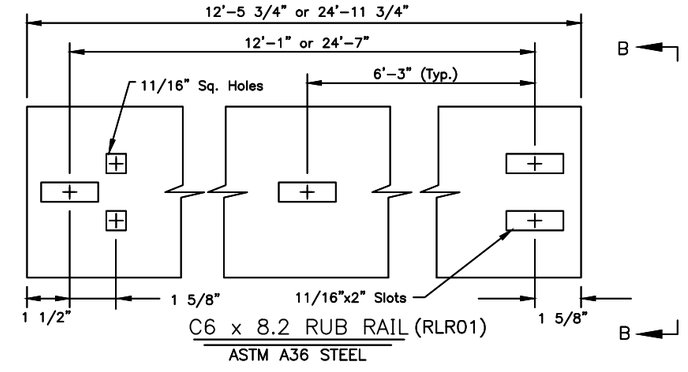
SECTION A–A
(cross section same as RWM02a–b)



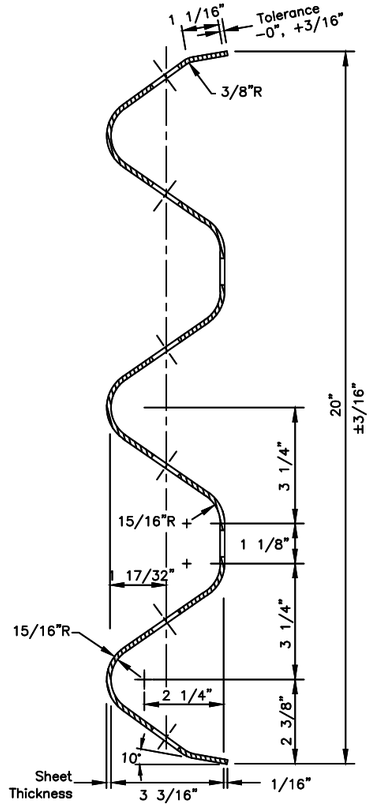
SECTION B–B



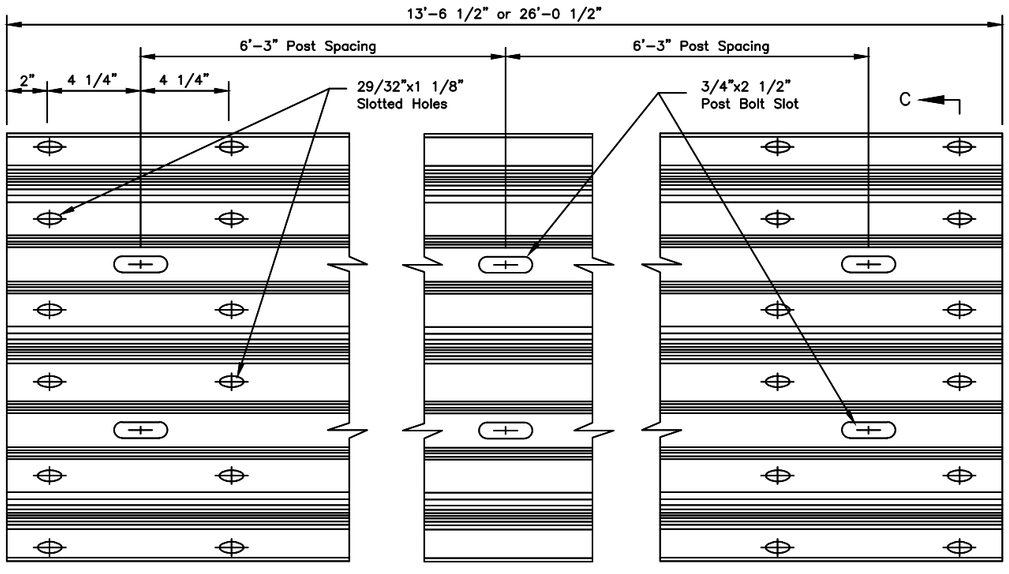
STANDARD W–BEAM PANEL (RWM04a–b)



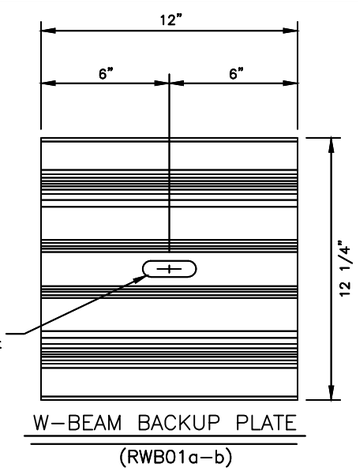
C6 x 8.2 RUB RAIL (RLR01)
ASTM A36 STEEL



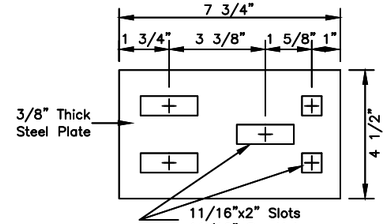
SECTION C–C
(RTM01a–02b)



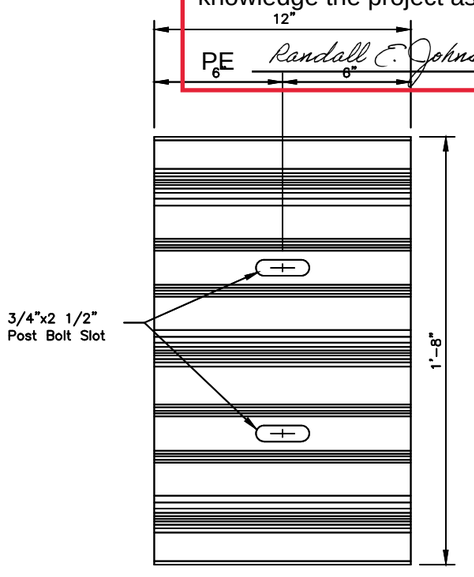
STANDARD THRIE BEAM PANEL (RTM01a–02b)



W–BEAM BACKUP PLATE
(RWB01a–b)



SECTION B–B (RWB01a–b)
ASTM A36 STEEL



THRIE BEAM BACKUP PLATE
(RTB01a–02b)

GENERAL NOTES:

1. All covered hardware shall comply with the Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware online publication. Designators given when possible in parentheses.
2. Install back–up plates between blockouts and w–beam or thrie–beam rail at intermediate (non–splice) posts when steel blockouts are used but not with wood, rubber, plastic, or other approved blockouts.

Project As–Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

STANDARD GUARDRAIL HARDWARE (RAILS AND SPLICES)

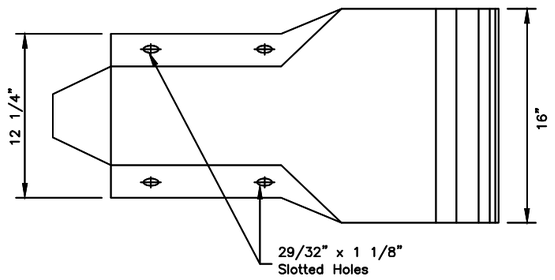
Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

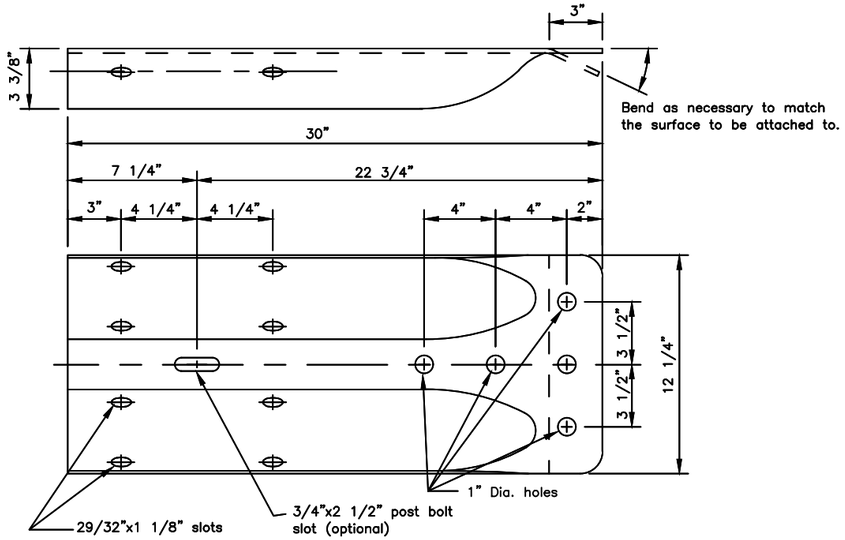
Last Code and Stds. Review
By: KLK Date: 7/8/2020

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

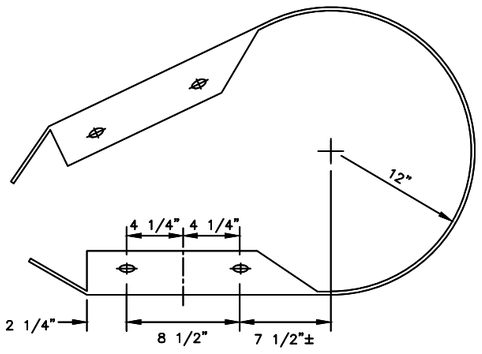
G–00.05



PROFILE

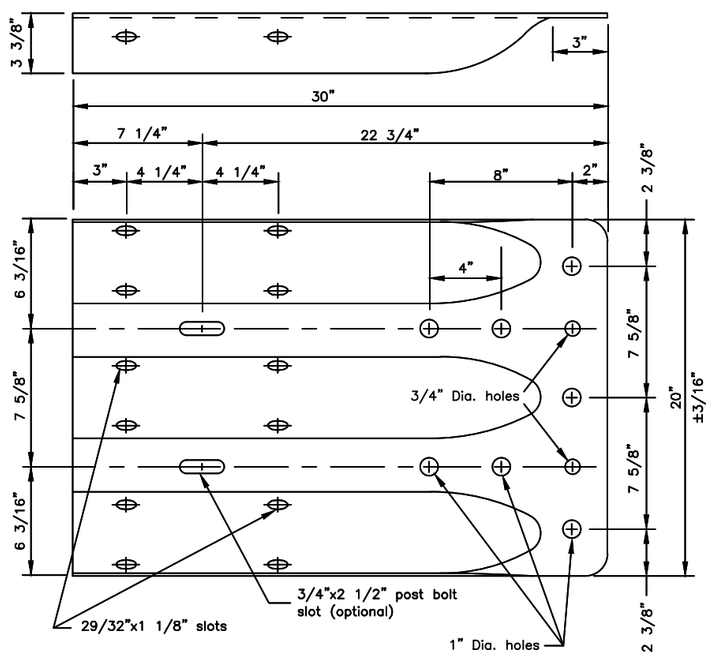


STANDARD W-BEAM TERMINAL CONNECTOR
(RWE02)



W-BEAM PLAN VIEW
*Radius to be specified on the plans

STANDARD W-BEAM END SECTION
(RWE06)



STANDARD THRIE BEAM TERMINAL CONNECTOR
(RTE01b)

GENERAL NOTES:

1. W-Beam and Thrie Beam Terminal Connectors shall conform to AASHTO M 180, Class B, Type II.
2. W-Beam end sections shall conform to AASHTO M 180, Class A, Type II.
3. All covered hardware shall comply with the Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware online publication. Designators given when possible in parentheses.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

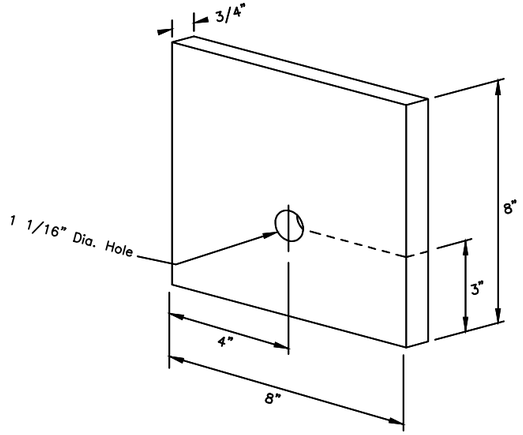
STANDARD GUARDRAIL HARDWARE (TERMINAL CONNECTORS)

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

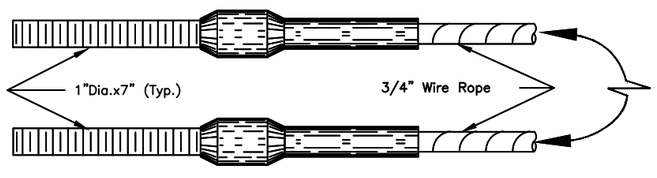
Adoption Date: 7/17/2020

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

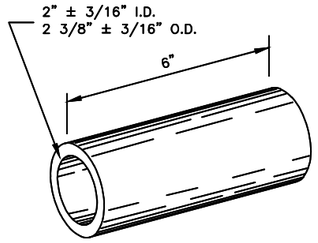
Next Code and Standards Review Date: 7/8/2030



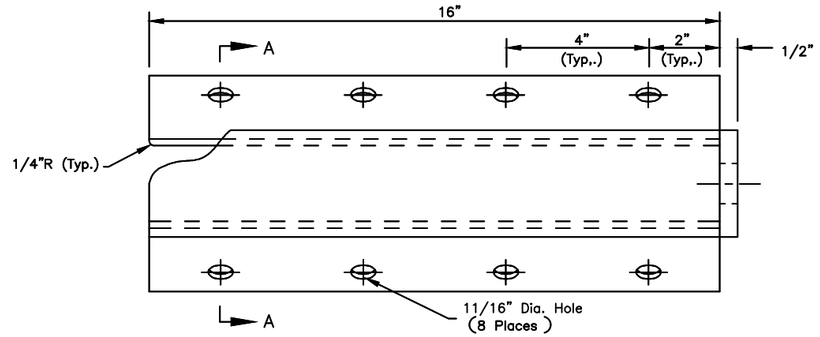
BEARING PLATE for CRT TERMINAL ANCHOR
(FPB01)



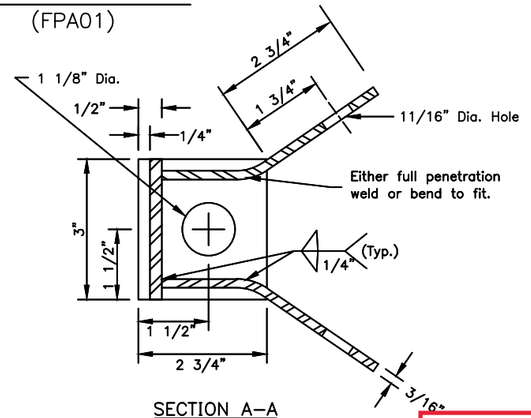
SWAGED FITTING DETAIL
(FCA01–02)



SLEEVE DETAIL
(FMM02)



CABLE ANCHOR PLATE
(FPA01)



SECTION A–A

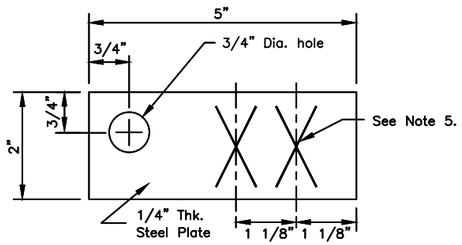
CONTROLLED RELEASE TERMINAL HARDWARE DETAILS

GENERAL NOTES:

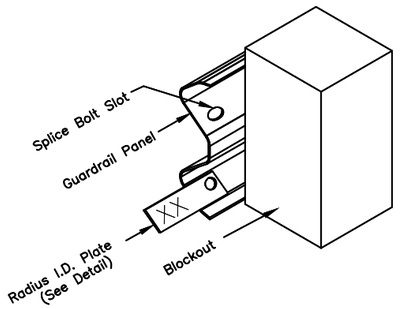
1. Cable Anchor Plate may be formed in single unit or welded fabrication.
2. Anchor Cable Assembly must conform to AASHTO M 30 with Type II Wire Rope.
3. Provide Sleeve for Wood Posts meeting the requirements of ASTM A53 and made of 2–inch galvanized standard pipe. Sleeve shall be a tight, pressed fit in post.
4. Attach radius ID plates to all shop–bent guardrail sections. Bolt the ID plates to the back side of the guardrail panel with the lower splice bolt nearest the P.C. of the radius.
5. Show the Rail bend radius, in feet, as "XX" on the radius ID plate. Digits shall be etched or stamped and have a min. height of 1 1/2" and a max. width of 3/4". Galvanize the plate after the digits are marked.
6. All covered hardware shall comply with the Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware online publication. Designators given when possible in parentheses.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

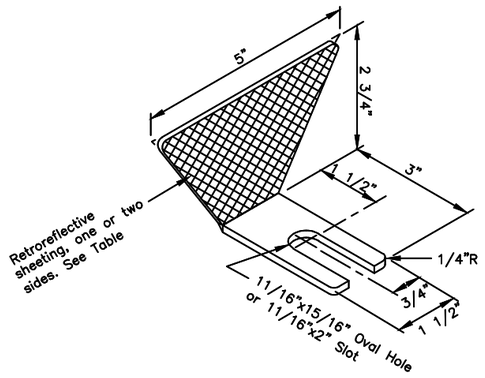
PE Randall E. Johnston DATE 11/30/2022



RADIUS I.D. PLATE



RADIUS I.D. PLATE MOUNTING DETAIL



GUARDRAIL REFLECTOR

Guardrail Reflector Table

Type	Color	Reflectorized
A	White	Front & Rear
B	White	Front
C	Yellow	Front
D	Yellow	Front & Rear

State of Alaska DOT&PF
ALASKA STANDARD PLAN

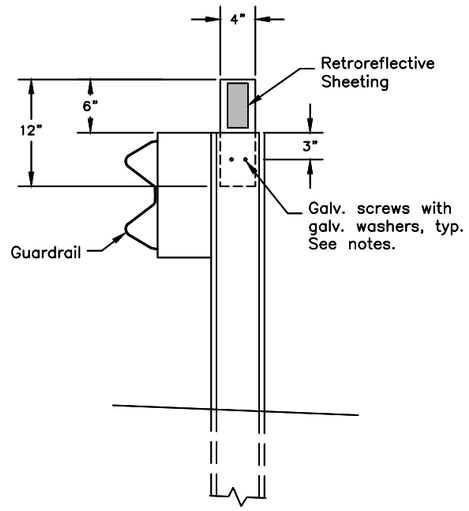
STANDARD GUARDRAIL HARDWARE (MISCELLANEOUS)

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



GUARDRAIL FLEXIBLE DELINEATOR DETAIL

(Steel post shown – similar for wood post)

CONSTRUCTION NOTES

1. Install guardrail flexible delineators where shown on the plans.
2. Install guardrail flexible delineators at 50 foot spacing, unless otherwise noted on the plans. Install not less than 2 delineators per guardrail run.
3. Use 3" x 5" white/yellow/red retroreflective sheeting as required per Standard Plan T–05. Install retroreflective sheeting on both sides of delineator on two–way roads.
4. Attach 4" x 12" flexible delineators to the top of new guardrail posts, on the trailing side of the posts relative to the adjacent lane's direction of travel.
5. Use 2 each 1/4" dia. x 1–1/2" long galvanized lag screws for attaching to wood posts and 2 each 1/4" dia. x 3/4" long galvanized self–drilling fasteners for steel posts. Install a galvanized washer between the fastener head and the flexible delineator.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

STANDARD GUARDRAIL HARDWARE (FLEXIBLE DELINEATORS)

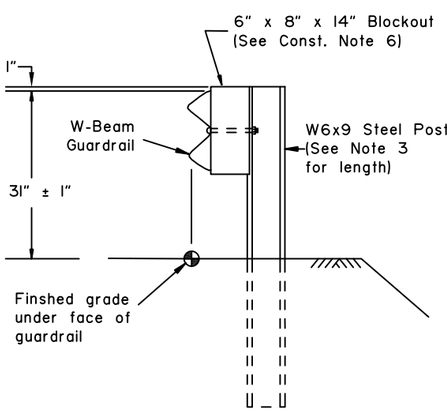
Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

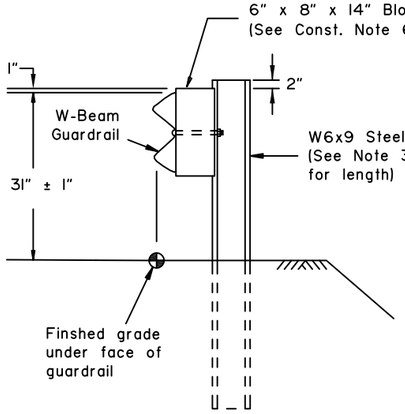
Last Code and Stds. Review
By: KLK Date: 7/8/2020

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

G–00.05

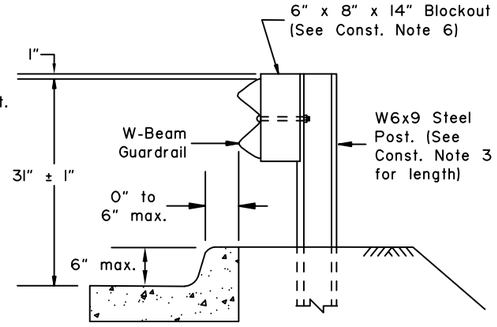


TYPE I POST INSTALLATION

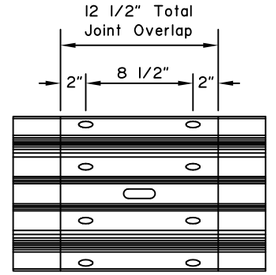


TYPE II POST INSTALLATION

(Facilitates raising rail for future overlays.)

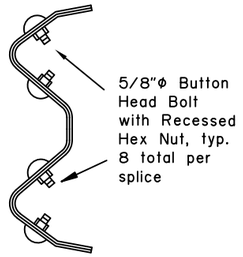


TYPE III POST INSTALLATION

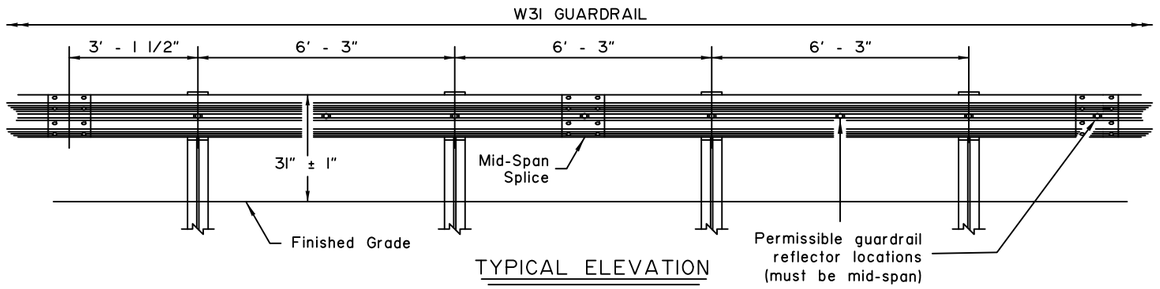


SPLICE DETAIL

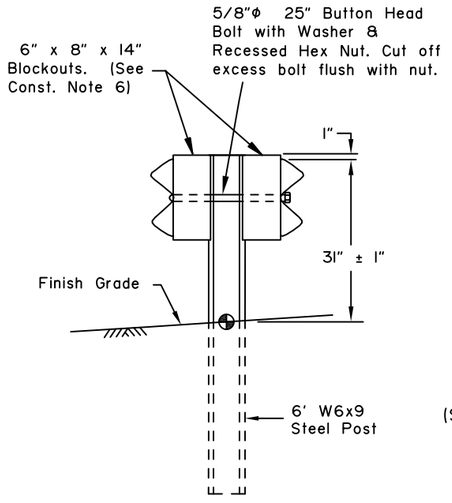
(At mid span between posts only. Bolts not shown for clarity)



SPLICE CROSS-SECTION



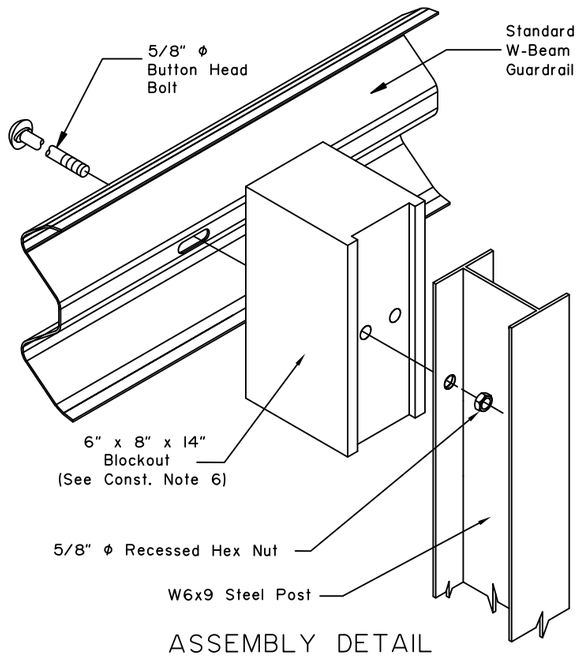
TYPICAL ELEVATION



TYPE IV DOUBLE SIDED INSTALLATION

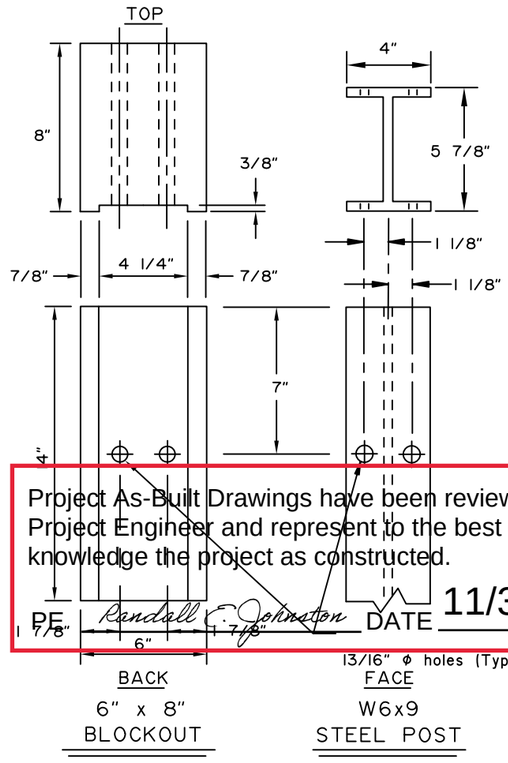
GUARDRAIL REFLECTOR

(See Const. Note 5)



ASSEMBLY DETAIL

(Type I post shown)



6" x 8" BLOCKOUT

W6x9 STEEL POST

CONSTRUCTION NOTES:

1. Provide hardware compliant with the Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware.
2. See Standard Plan G-00 for hardware details not shown on this drawing.
3. See Standard Plan G-10 for post lengths corresponding to different combinations of slope and behind-post embankment width.
4. Typical post spacing is 6'-3" center to center.
5. Attach guardrail reflector to guardrail using a 5/8" button head bolt with 5/8" recessed head hex nut and steel washer at location shown in the Typical Elevation. Install reflectors every 25' on tangents and every 12.5' on curves starting 100' before the P.C. and ending 100' after the P.T.
6. Use wood or synthetic blockouts designed, tested, and passed per MASH for use with steel posts. Either bolt hole on the blockout may be used for attachment.
7. Use a 25 linear foot transition to match differing height of existing or new rail elements and end treatments - see Standard Plan G-11.
8. W6x8.5 steel post may be substituted for W6x9 steel post.
9. Install flexible delineators on guardrail posts when called for in the contract. See Standard Plan G-00 for guardrail flexible delineator details.

DESIGN NOTES:

1. No fixed objects allowed within 36" of the back side of guardrail post.
2. This barrier is acceptable under MASH Tests 3-10 and 3-11.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall K. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

STEEL POST W31 GUARDRAIL

Adopted as an Alaska Standard Plan by: Carolyn Morehouse

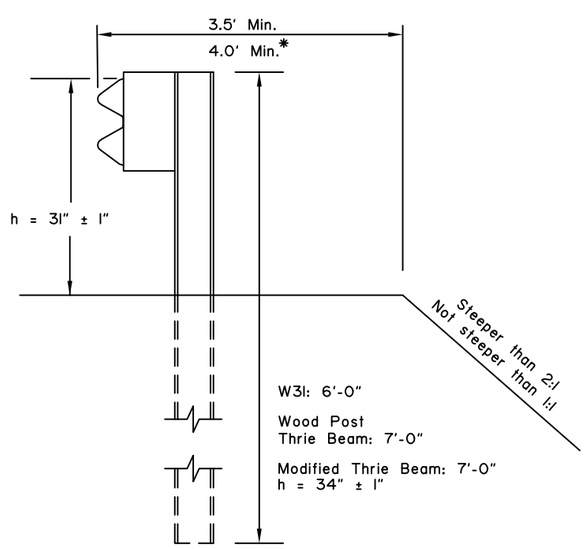
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 05/15/2019

Last Code and Stds. Review By: LRG Date: 5/15/2019

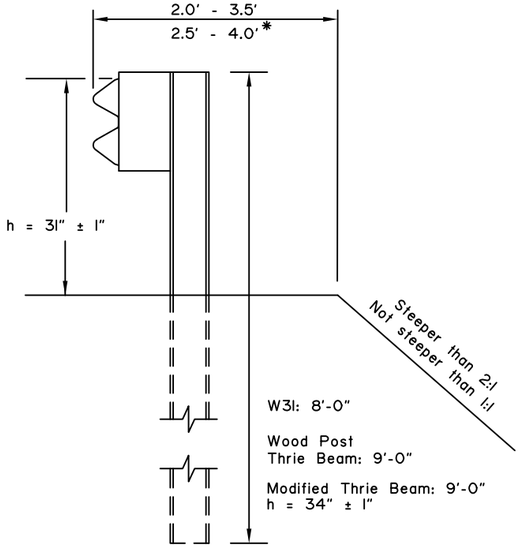
Next Code and Standards Review date: 5/15/2029

G-05.11S



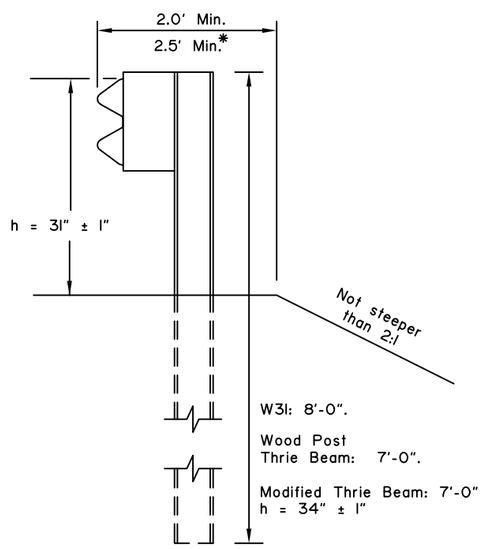
* with Modified Thrie Beam

CASE 1



* with Modified Thrie Beam

CASE 2



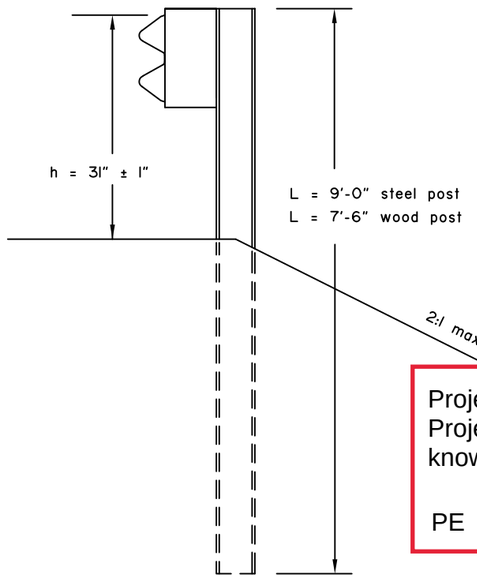
CASE 3

CONSTRUCTION NOTES:

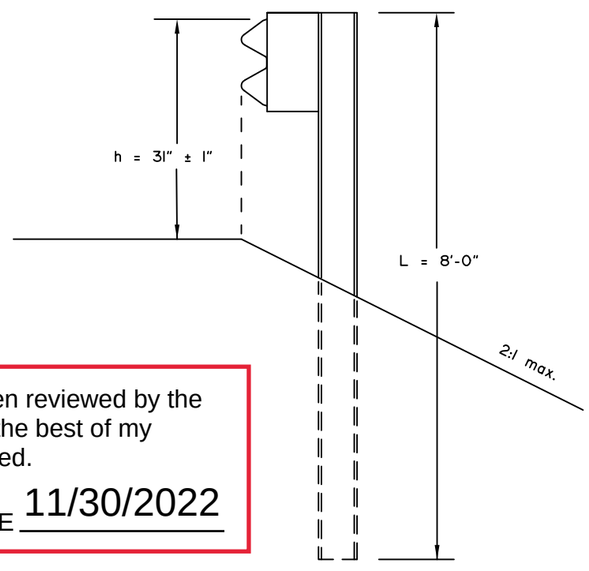
1. This drawings is to be used for post length determination only. See Plans for slopes and behind-post embankment widths.
2. To determine post length, identify the case that matches site conditions and read the length corresponding to the pertinent guardrail type.
3. These dimensions apply to both curbed and uncurbed section.
4. Case 1, 2 and 3 are shown with steel posts. Wood posts may be substituted when allowed by specifications. Wood Post Thrie Beam installations must use wood posts only.
5. Case 4 and 5 apply to W31 guardrail only.

DESIGN NOTES:

1. No fixed objects allowed within 36" of the back of post for Cases 1, 2 & 3.
2. No fixed objects allowed within 48" of the back of post for Cases 4 & 5.



CASE 4
(See Note 5)



CASE 5
(See Note 5)

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

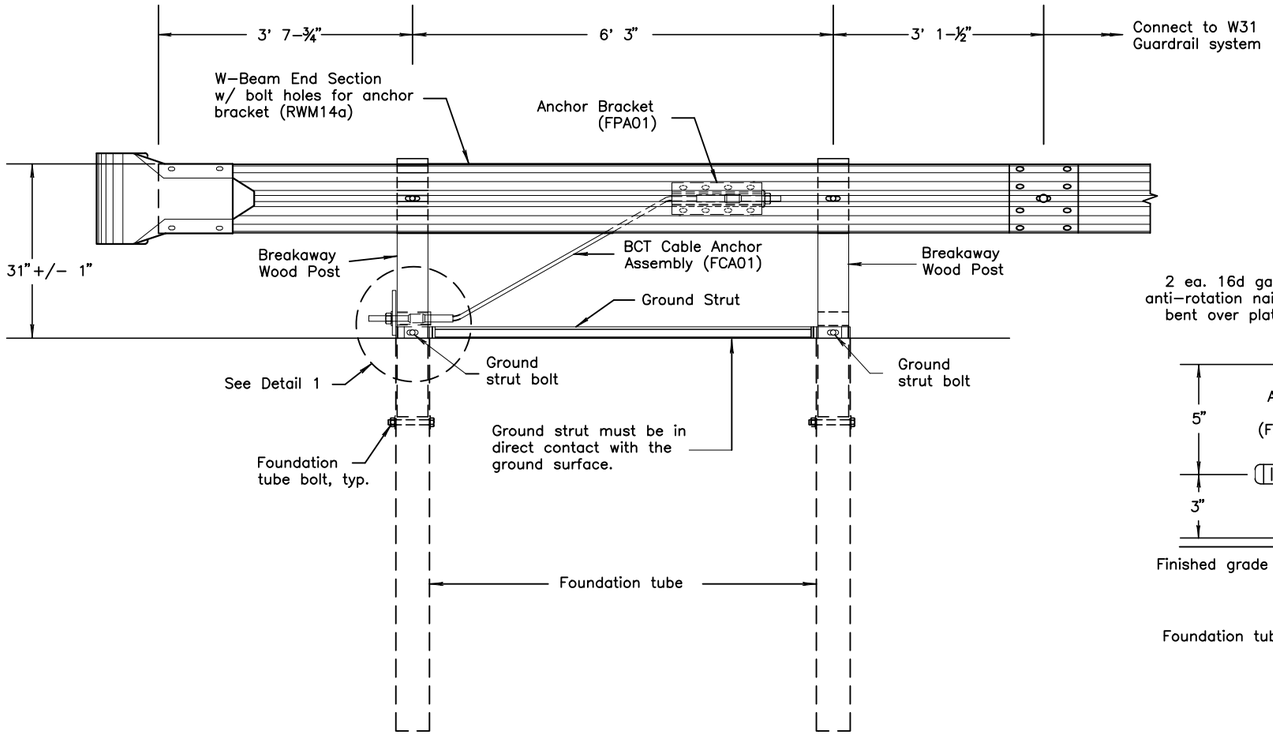
GUARDRAIL POST INSTALLATION

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

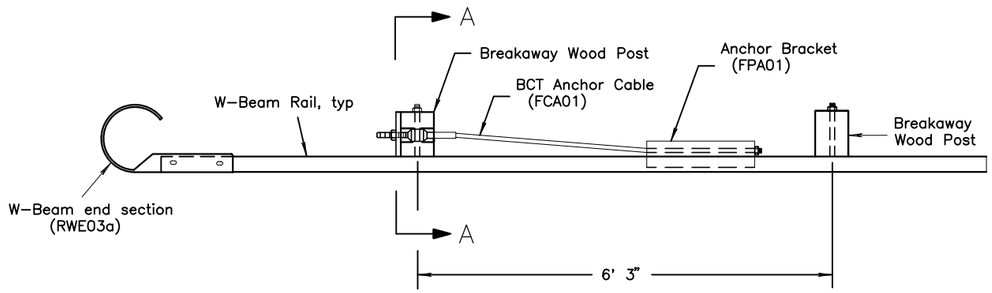
Adoption Date: 02/08/2019

Last Code and Stds. Review By: Date:

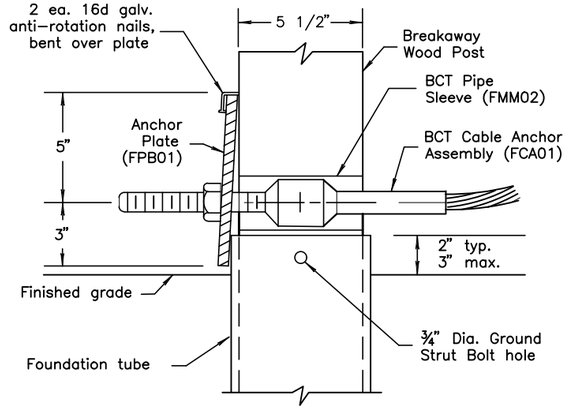
Next Code and Standards Review date: 02/08/2029



ELEVATION

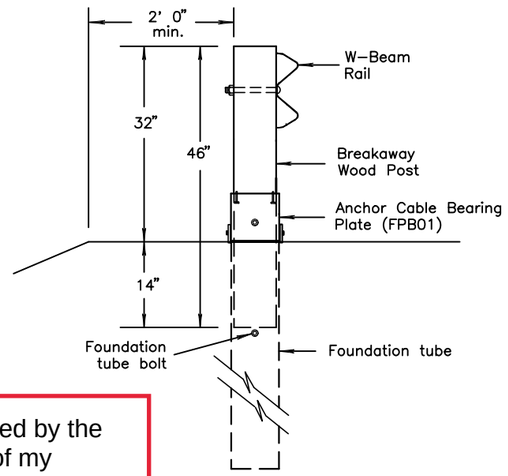


PLAN VIEW



DETAIL 1

(Ground strut not shown for clarity)



SECTION A-A

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

CONSTRUCTION NOTES

1. All covered hardware must comply with Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware online publication. Designators are given in parenthesis, when possible.
2. End section bolts and nuts have the same material requirements as splice bolts.
3. Foundation tube bolts are are 7/8" diameter ASTM A307 hex head. Foundation tube bolts require an ASTM A563 A nut and two ASTM F844 7/8" diameter flat washers. Install one washer under bolt head and one under nut.
4. Anchor bracket and strut bolts are are 5/8" diameter ASTM A307 hex head. Foundation tube bolts require ASTM A563 A nut and two ASTM F844 7/8" diameter flat washers. Install one washer under bolt head and one under nut.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

W31 DOWNSTREAM END ANCHOR

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

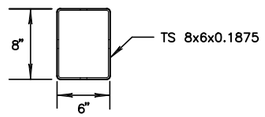
G-14.01

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

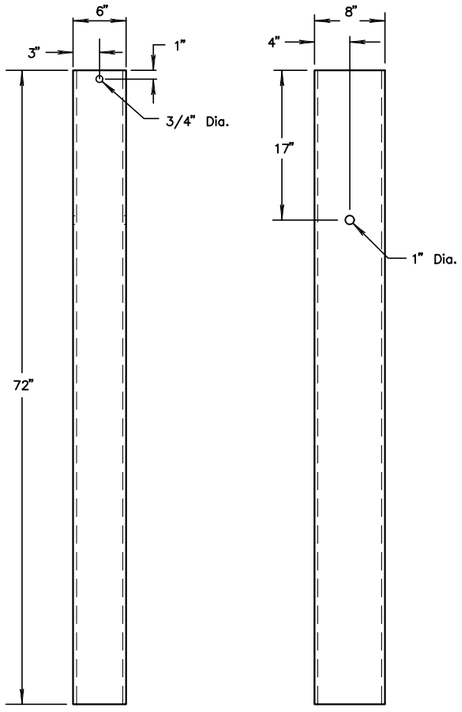
PE Randall E. Johnston DATE 11/30/2022

CONSTRUCTION NOTES

1. All covered hardware must comply with Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware online publication. Designators are given in parenthesis, when possible.



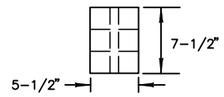
PLAN VIEW



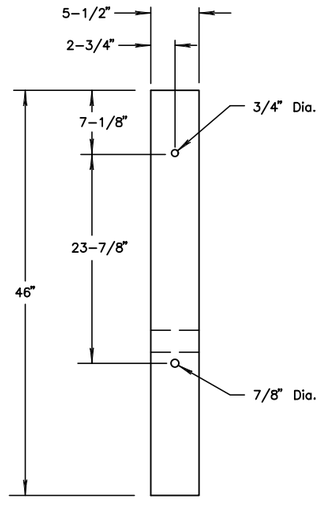
FRONT VIEW SIDE VIEW

FOUNDATION TUBE

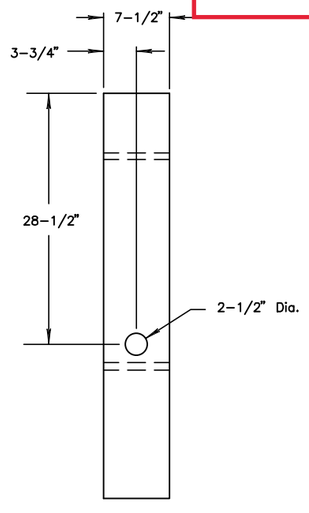
GROUND STRUT SECTION



PLAN VIEW

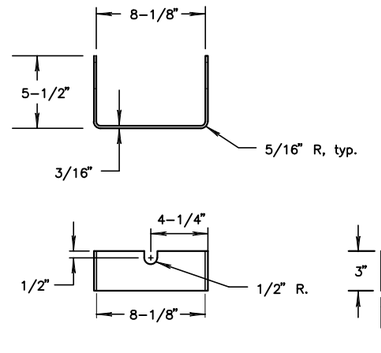


FRONT VIEW

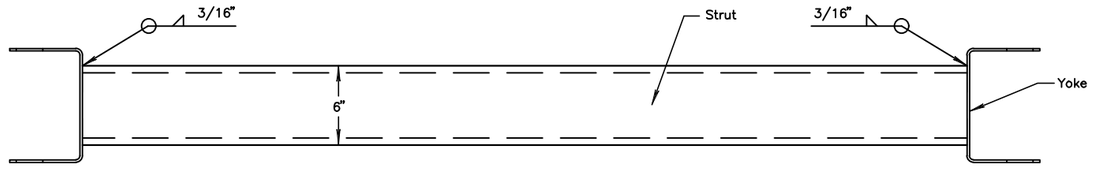


SIDE VIEW

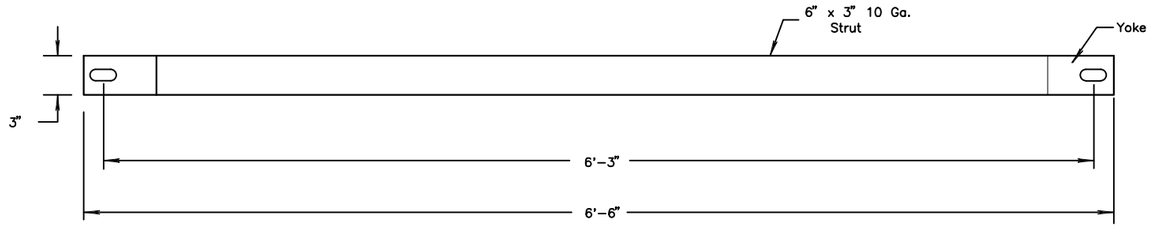
BREAKAWAY WOOD POST



YOKE DETAIL



PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL

State of Alaska DOT&PF
ALASKA STANDARD PLAN

W31 DOWNSTREAM
END ANCHOR

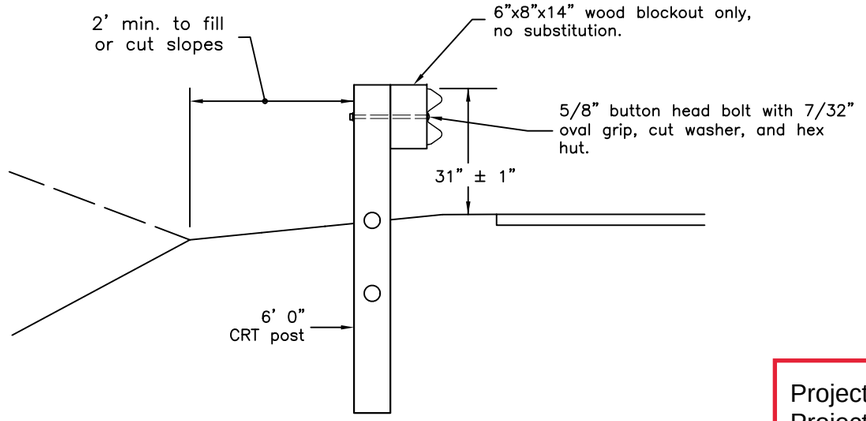
Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

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

G-14.01



SECTION A–A

Typical for all CRT post locations shown in the plan view

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

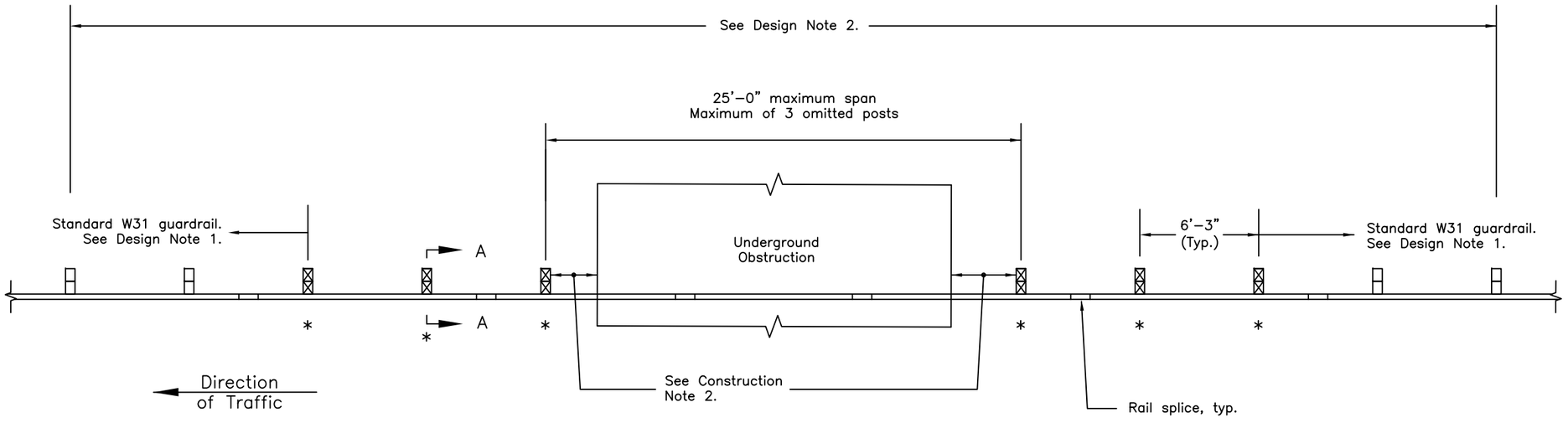
PE Randall E. Johnston DATE 11/30/2022

CONSTRUCTION NOTES

1. See Standard Drawings G–00 and G–05 for additional guardrail and guardrail hardware details. See G–26 Sheet 1 of 3 for CRT post details.
2. Provide 1' minimum lateral clearance between posts and underground obstruction.
3. Nesting of rail elements in the long span area is not allowed.

DESIGN NOTES

1. Total installed length of guardrail and end anchorage (including end terminals, downstream anchors, etc.) shall not be less than 62.5' measured from the outermost CRT post on both the upstream and downstream ends.
2. No fixed objects allowed within 9'–0" from the back of posts where post are omitted. This is the crash–tested lateral deflection of the long span section.
3. Do no install curb in the long span area – this includes the area of CRT posts.



*–Designates CRT post location

LONG SPAN GUARDRAIL PLAN

State of Alaska DOT&PF
ALASKA STANDARD PLAN

LONG SPAN
W31 GUARDRAIL

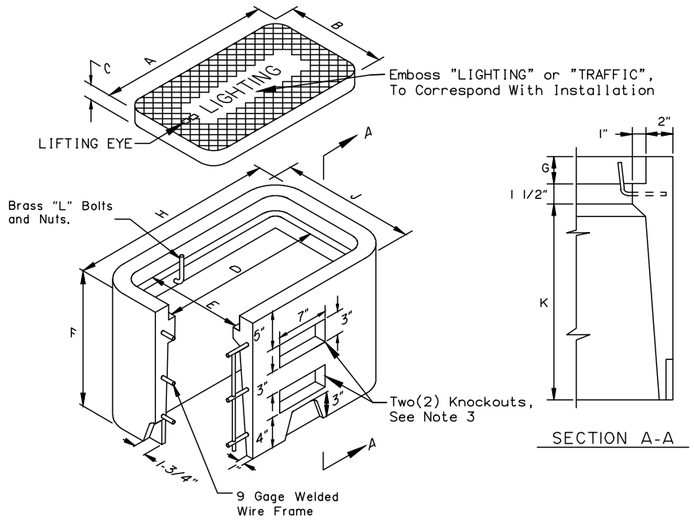
Adopted as an Alaska Standard Plan by: Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

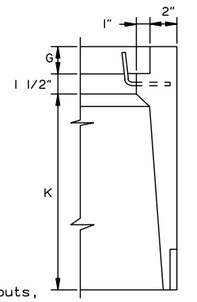
Last Code and Stds. Review
By: Date:

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

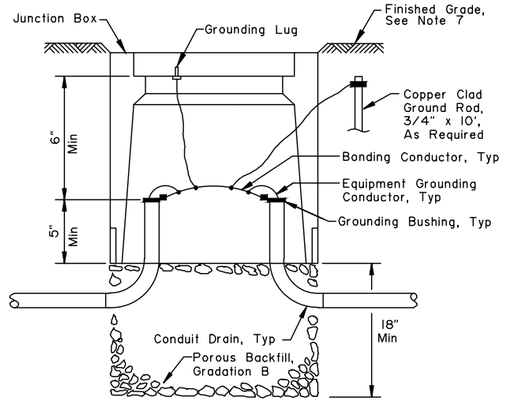
TYPE I & IA JUNCTION BOX



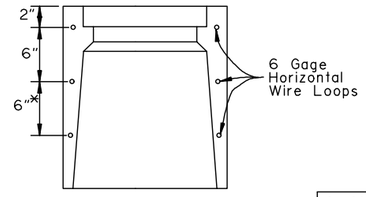
ISOMETRIC



SECTION A-A



ELEVATION



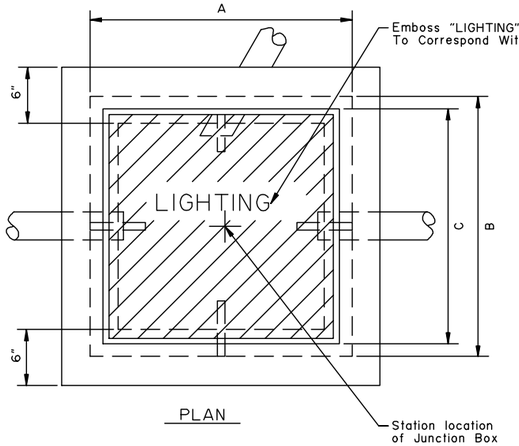
ALTERNATE REINFORCING
*Type IA Only

	DIMENSIONS (IN)	
	TYPE I	TYPE IA
A	15	22 3/4
B	10	13 1/4
C	1 3/4	2
D	13 1/2	21 1/4
E	8 1/2	11 3/4
F	12	18
G	1 3/4	2
H	19 1/2	27 1/4
J	14 1/2	17 3/4
K	8 3/4	14 1/2

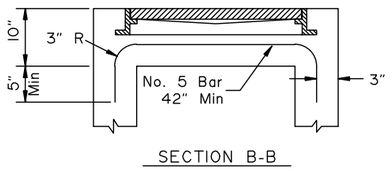
	DIMENSIONS (IN)		
	TYPE II	TYPE III	TYPE IV
A (Max)	30	30	30
B (Max)	30	30	36
C (Min)	22	22	30
D (Min)	22	22	24
E (Min)	24	24	30

GENERAL NOTES:

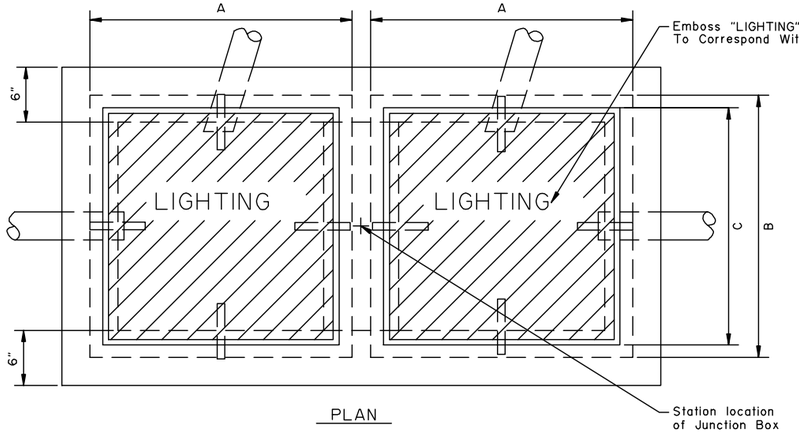
1. See Alaska DOT&PF Standard Specifications for Highway Construction and Standard Plan Development Report (SPDR) for additional requirements.
2. Construct junction boxes using grade 60 reinforcing steel conforming to ASTM A615 and Class A concrete conforming to section 501 of the specifications.
3. Provide knockouts indicated in Type IA junction box when installed for loop detection. Conduit for loop detectors to enter junction box through knockouts.
4. Covers for junction boxes shall be cast iron. Type I & IA shall be secured to junction box with a minimum of two bolts and be rated ANSI/SCTE 77, Tier 8, minimum. Type II, Type III & Type IV cover shall weigh over 100 pounds and be ANSI/SCTE77, AASHTO H-20 traffic rated.
5. The minimum required bearing capacity for Type I shall be 6,800psf, for Type IA shall be 5,100psf, for Type II shall be 3,500psf, for Type III shall be 2,300psf, and for Type IV shall be 2,000psf.
6. See section 703-2.10 of the specifications for stone drain material requirements.
7. See section 660-3.04 of the specifications for top of junction box placement to finished grade requirements.
8. Provide conduits as required, size and quantity indicated in plans.
9. Provide grout around conduits in knockouts and for unused knockouts.
10. Provide a 1/2" thick preformed bituminous joint material around junction boxes installed in concrete walkways.
11. Metal conduits and junction box covers shall be bonded together to be electrically continuous using No. 8 AWG minimum copper bonding conductor. Cover shall be bonded using a tinned copper braided bonding jumper.



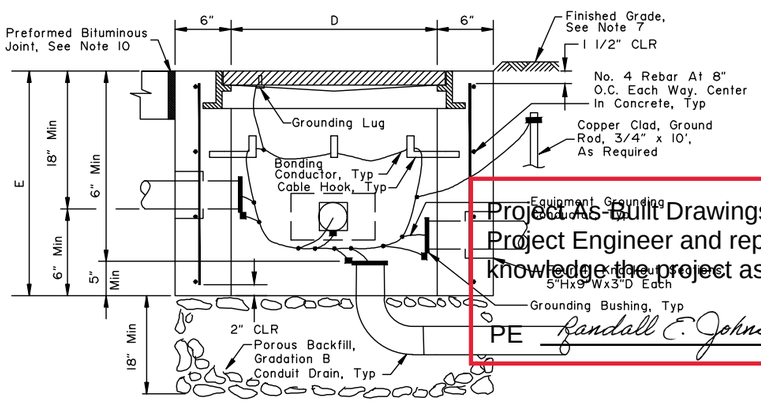
PLAN



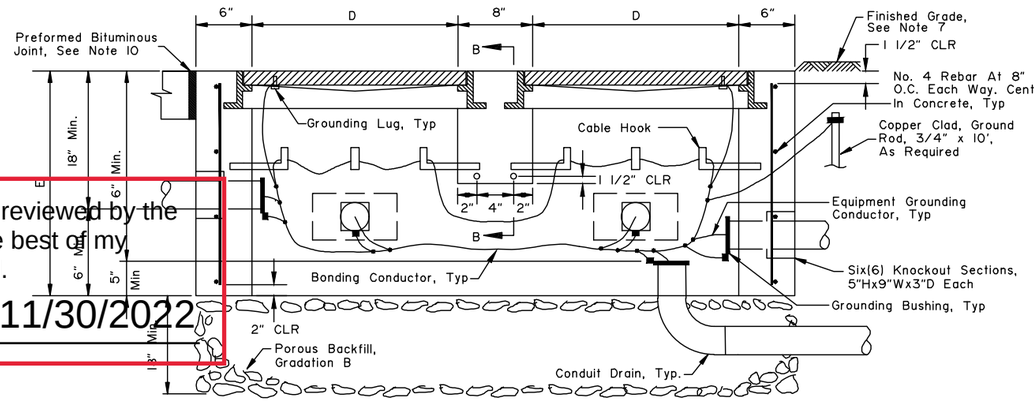
SECTION B-B



PLAN



ELEVATION
TYPE II JUNCTION BOX



ELEVATION
TYPE III & IV JUNCTION BOX

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

JUNCTION BOXES FOR ELECTROLIER & TRAFFIC SIGNALS

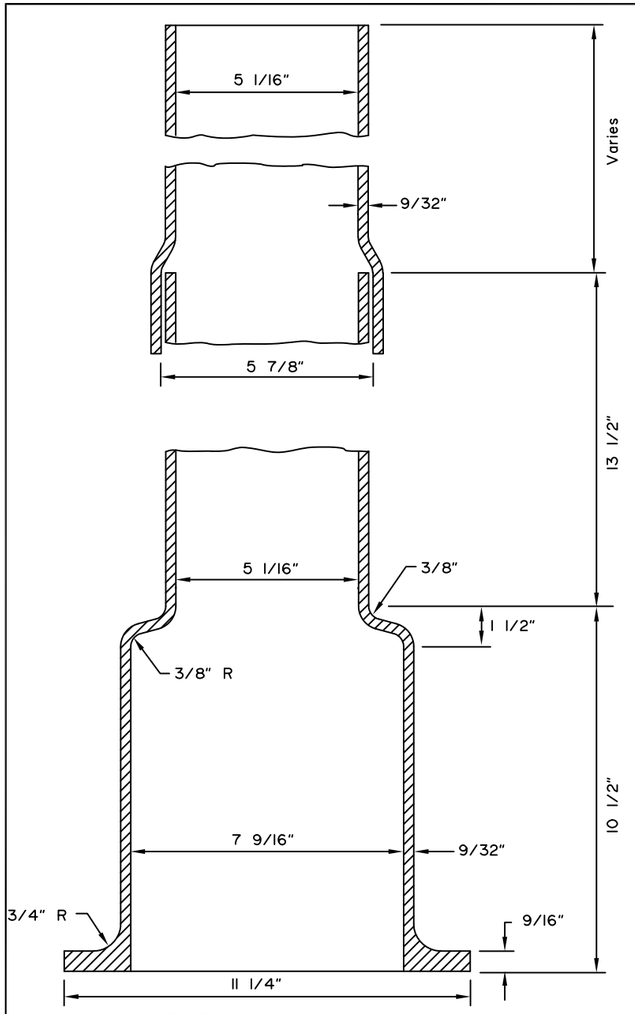
Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

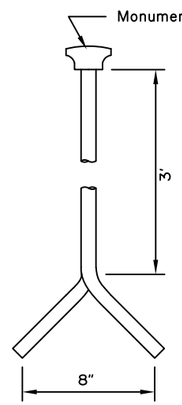
Last Code and Stds. Review By: CNH Date: 7/15/2020

Next Code and Standards Review date: 7/15/2030

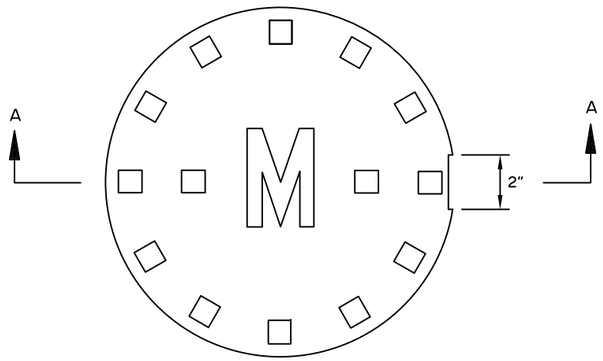
L-23.02



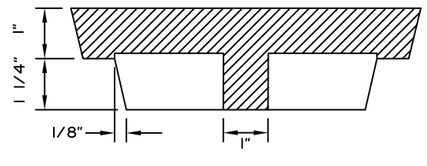
EXTENSION PIPES



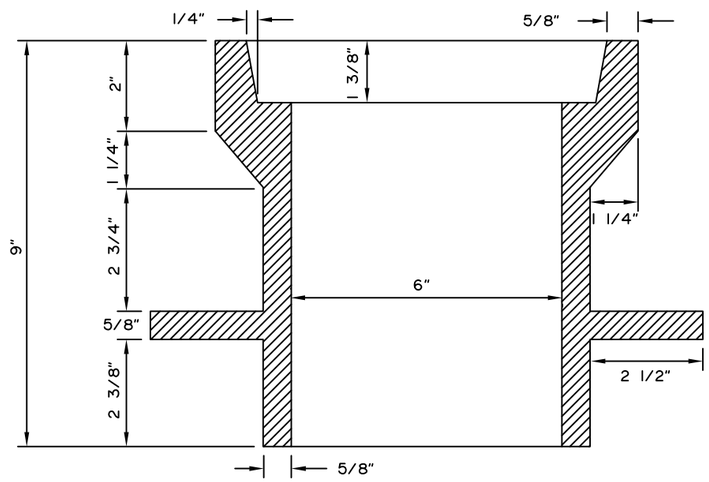
MONUMENT DETAIL



PLAN VIEW ACCESS COVER



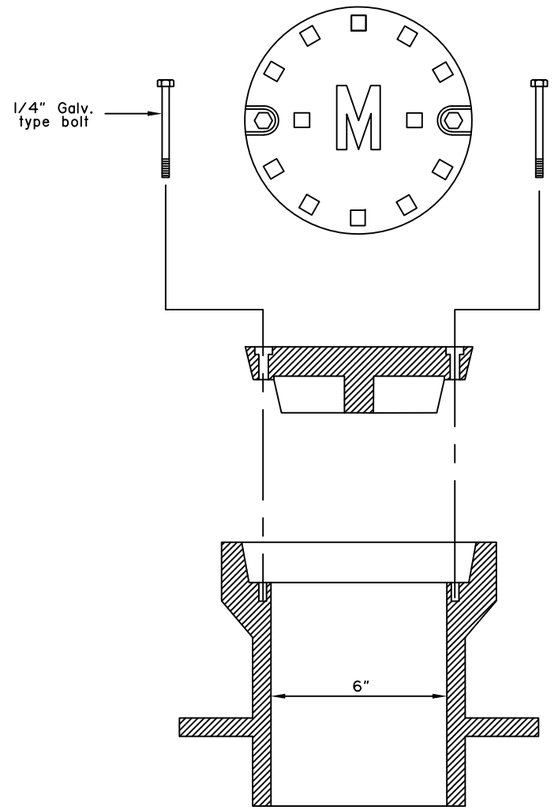
SECTION A-A



MONUMENT CASE

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022



BOLTING MONUMENT CASE ASSEMBLY (See Note 2)

GENERAL NOTES:

1. Details shown are to indicate general design only. Dimensions and design may vary among the manufacturers.
2. Where monument cases are to be placed in paved area of a roadway or sidewalk, the top of the case and/or cover shall be the same elevation as the top of the finish surface with bolting type access cover.
3. Where monument cases are to be placed in a gravel surfaced roadway, the top of the case shall be placed 1'-0" below the top of the surface of the roadway.
4. In solid rock, drill a 2" Dia. hole a minimum of 1'-0" deep, fill with mortar and set cap. 3/4"x9" galvanized pipe, designated length when set in mortar.
5. The top of the monument cap shall be placed 1' ± above the bottom of the monument case.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

BRASS CAP MONUMENT AND MONUMENT CASE

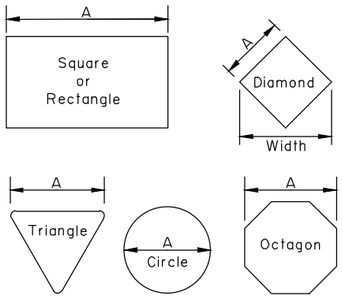
Adopted as an Alaska Standard Plan by: Kenneth J. Fisher, P.E. Chief Engineer

Adoption Date: 02/08/2019

Last Code and Stds. Review By: Date:

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

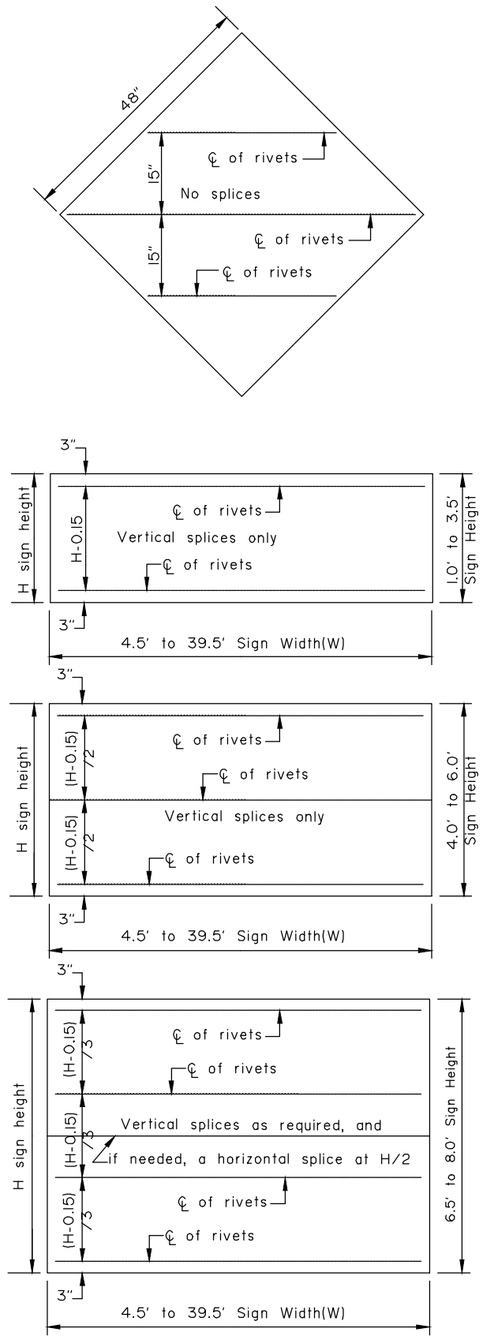
M-16.01



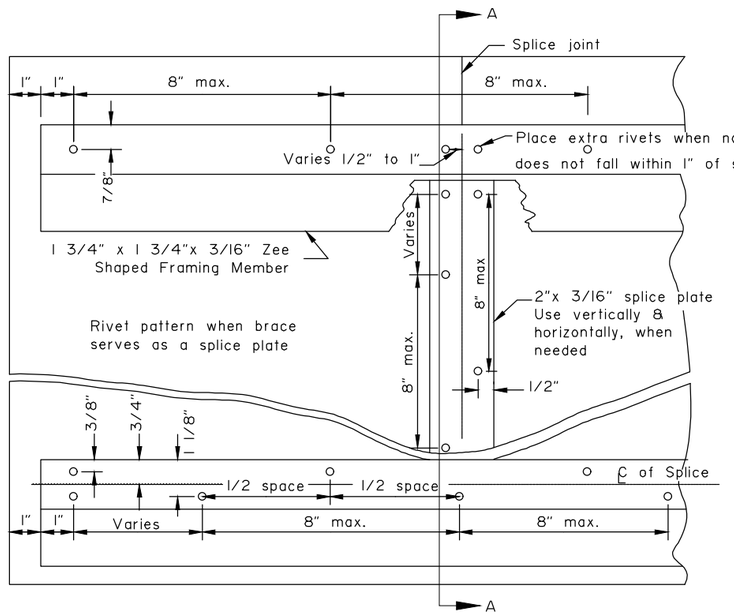
Maximum size unframed signs using 0.125" thick aluminum sheeting.	
Sign Shape	A
Squares, Shields, and Route Markers	48"
Rectangles	48"
Diamonds	48"
Triangles	48"
Rounds and Octagons	48"

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

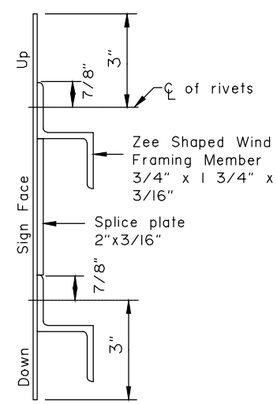
LIGHT SIGNS



WIND FRAMING LOCATIONS



RIVET DETAIL FOR ZEE SHAPED WIND FRAMING & SPLICE PLATE



SECTION A-A

Note: Drawing not to scale

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall C. Johnston DATE 11/30/2022

GENERAL NOTES

1. See the standard specifications for the aluminum alloys that you may use for sign sheeting and wind framing members.
2. Fabricate all signs from 0.125" thick aluminum sheeting.
3. 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.
4. 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.
5. 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.
6. Use 3/16" diameter rivets conforming to aluminum alloy 6061-T6 for cold driven rivets, or aluminum alloy 6061-T43 for hot driven rivets.
7. 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.
8. 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.
9. Do not use round pipes for sign supports.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

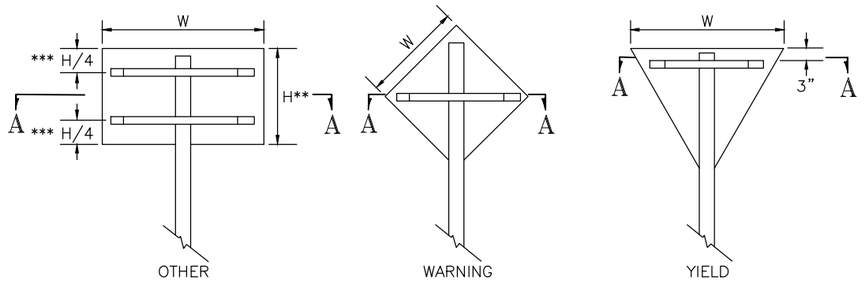
SIGN FRAMING

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

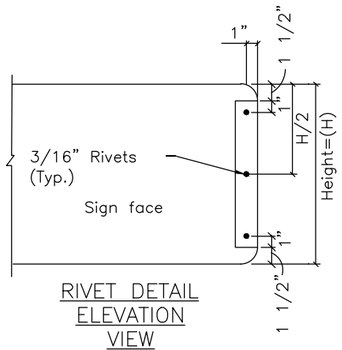
Next Code and Standards Review date: 7/8/2030



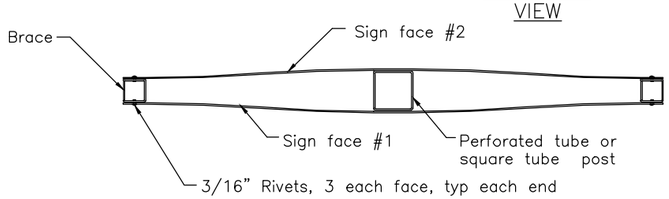
*** Use one brace when H ≤ 18"
Use two braces when 18"< H < 48"
Use three braces when H ≥ 48"

** Position of brace may be varied to match Predrilled mounting holes in panel

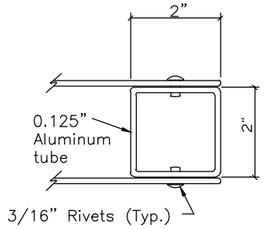
SIGN BRACING PLACEMENT



RIVET DETAIL
ELEVATION
VIEW

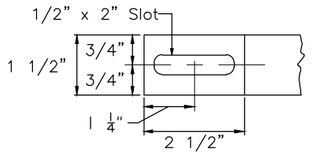


PLAN VIEW

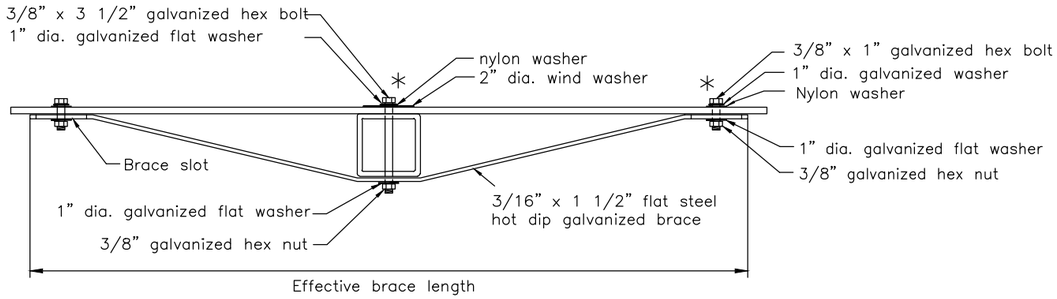


END BRACE DETAIL

SMALL STREET NAME SIGN (D3-1, D3-1A, D3-1D) BRACING DETAILS



DETAIL OF BRACE SLOT
Elevation view



TUBE POST SIGN BRACING SECTION A-A
Plan view

* Adjust location of bracing so that bolts and washers will miss the sign legend

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

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

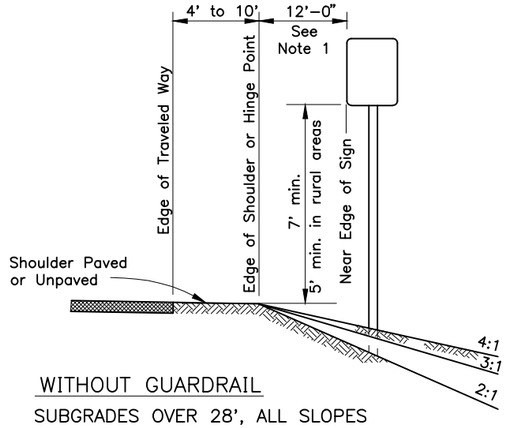
BRACING FOR SIGNS
MOUNTED ON SINGLE POST

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

Adoption Date: 7/17/2020

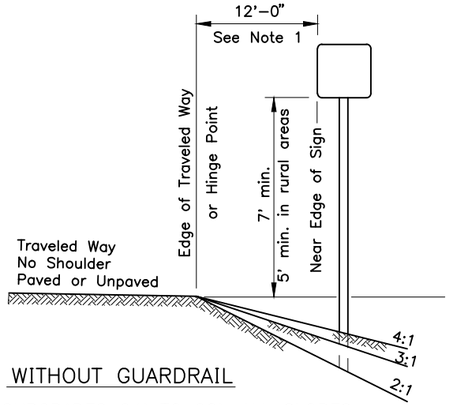
Last Code and Stds. Review
By: WTH Date: 7/8/2020

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



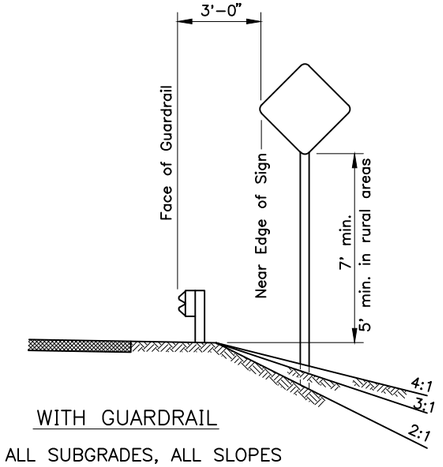
WITHOUT GUARDRAIL

SUBGRADES OVER 28', ALL SLOPES



WITHOUT GUARDRAIL

SUBGRADES 24' TO 28', ALL SLOPES

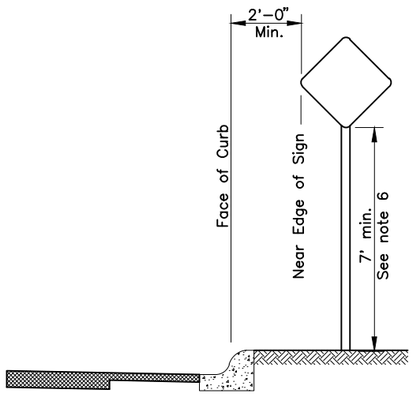


WITH GUARDRAIL

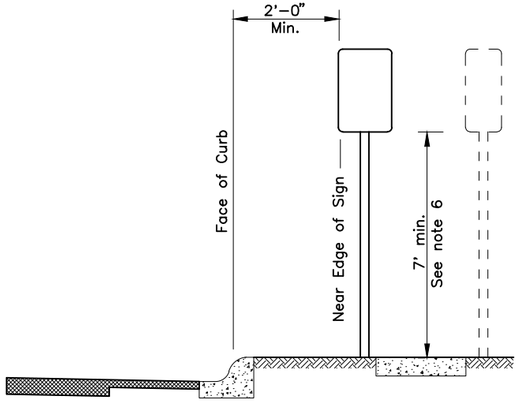
ALL SUBGRADES, ALL SLOPES

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 sings extend over sidewalks.
7. For construction signs in rural areas, mounting height shall be 7' minimum.

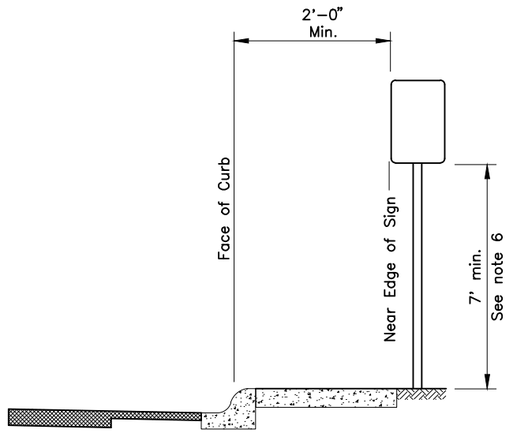


CURB WITHOUT SIDEWALK

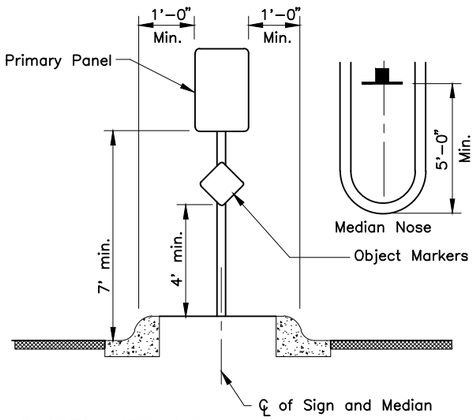


CURB WITH PARKWAY AND SIDEWALK

(If R/W width permits, signs should be placed behind sidewalk.)

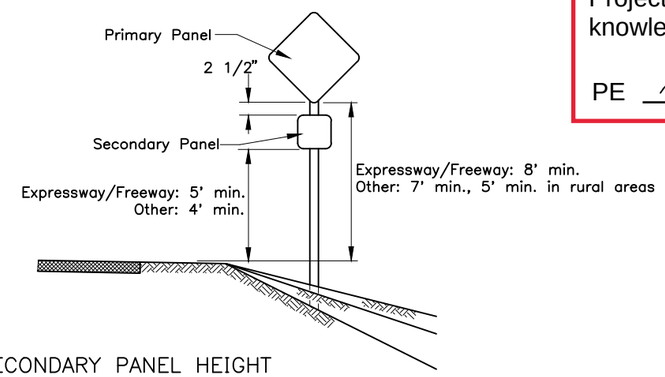


CURB WITH SIDEWALK WITHOUT PARKWAY



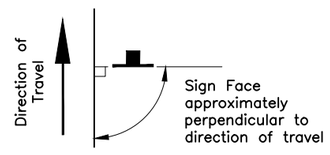
RAISED MEDIANS

Minimum 4' Width for Signing



SECONDARY PANEL HEIGHT

ALL TWO PANEL MOUNTING



SIGN POSITIONING

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

POST MOUNTED SIGN OFFSET AND HEIGHT

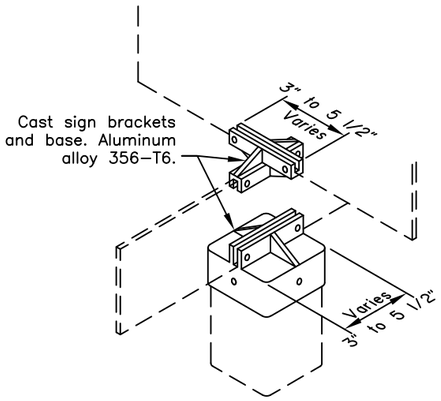
Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

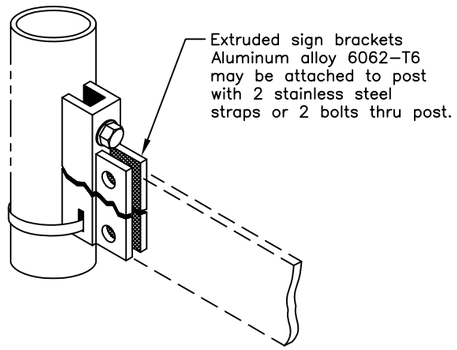
Adoption Date: 7/17/2020

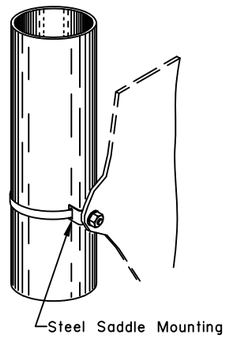
Last Code and Stds. Review
By: KLK Date: 7/8/2020

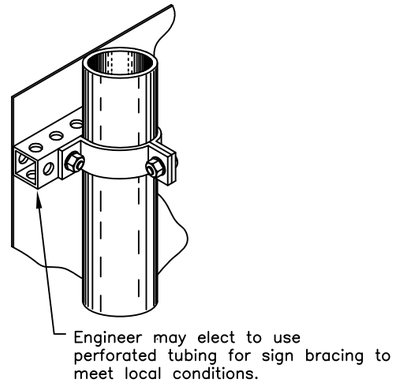
Next Code and Standards Review Date: 7/8/2030

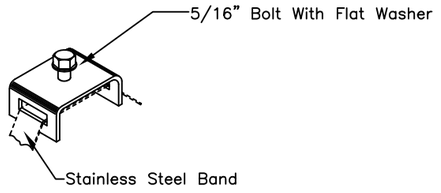
S-05.02

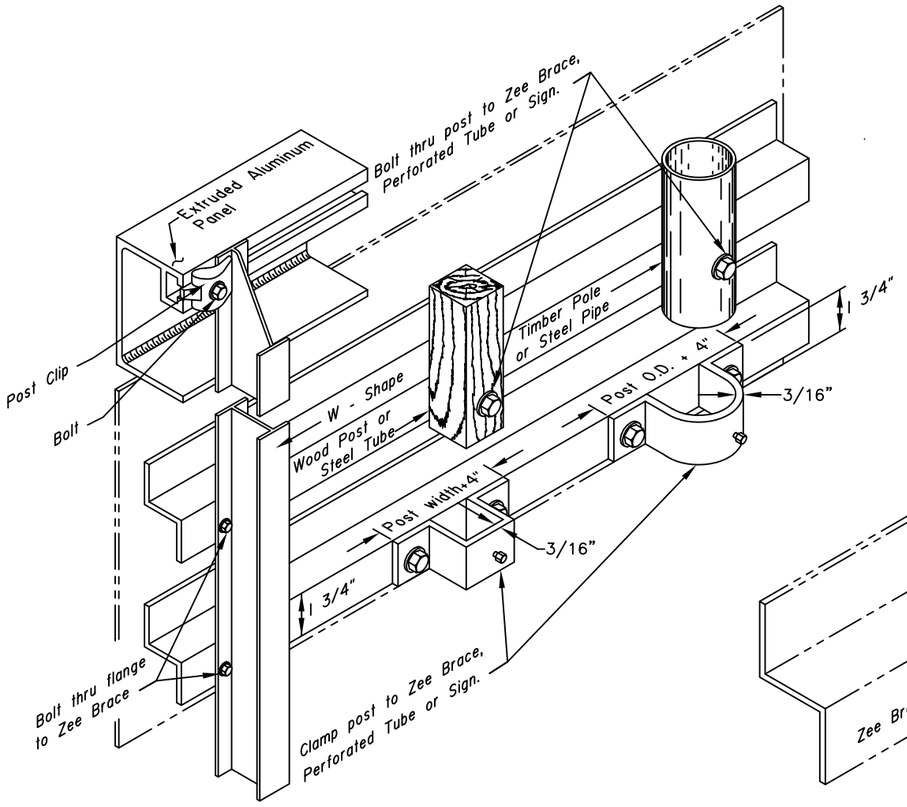


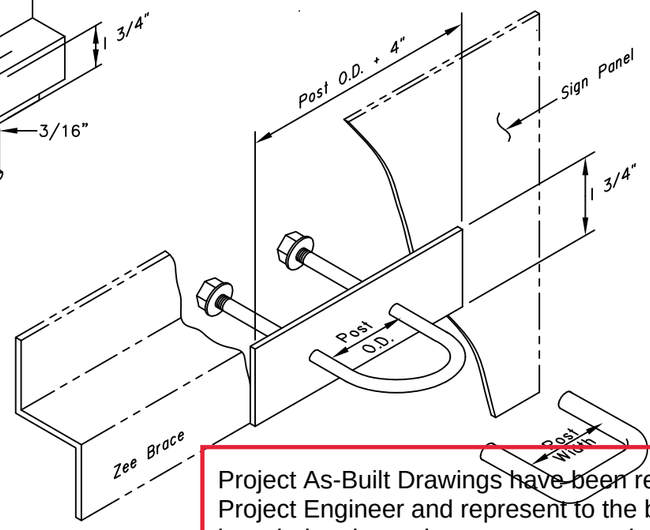


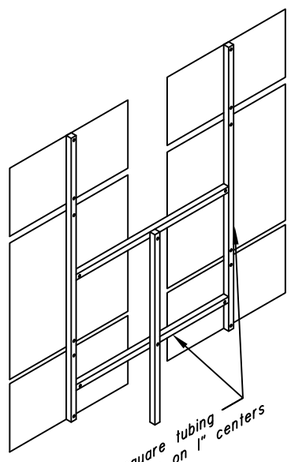












GENERAL NOTES

1. Details shown indicate general design only. Dimensions and design may vary among the manufacturers.
2. Install weather tight caps on all pipe and tube post (except perforated tubing).
3. Protect sign posts installed using driving methods with drive caps during installation.
4. Bolt braces to posts at each point where they cross posts.
5. Install signs with top of post, mounting brackets, etc. with a minimum of 3" below top of sign.
6. Paint all sign mounting fasteners on sign face a color closely matching the sign face.
7. Attach all signs, zees and braces mounted to the posts with 5/16" bolts.
8. 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	6061–T6	A–307	A–276
	LOCK	2017–T4		
WASHERS		2024–T4	A–36	A–276
POST CLIP		356–T6		

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

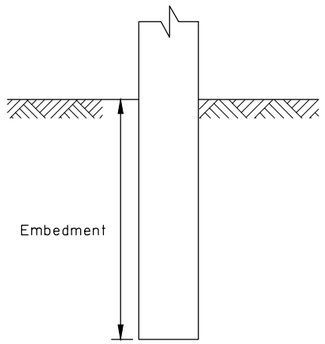
SIGN TO SIGN POST CONNECTION

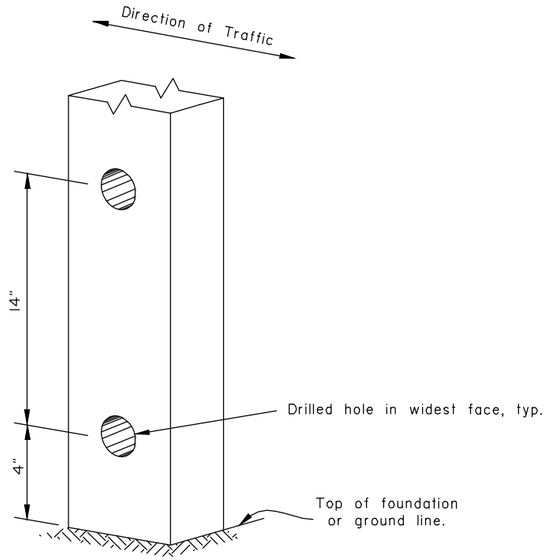
Adopted as an Alaska Standard Plan by: Kenneth J. Fisher, P.E. Chief Engineer

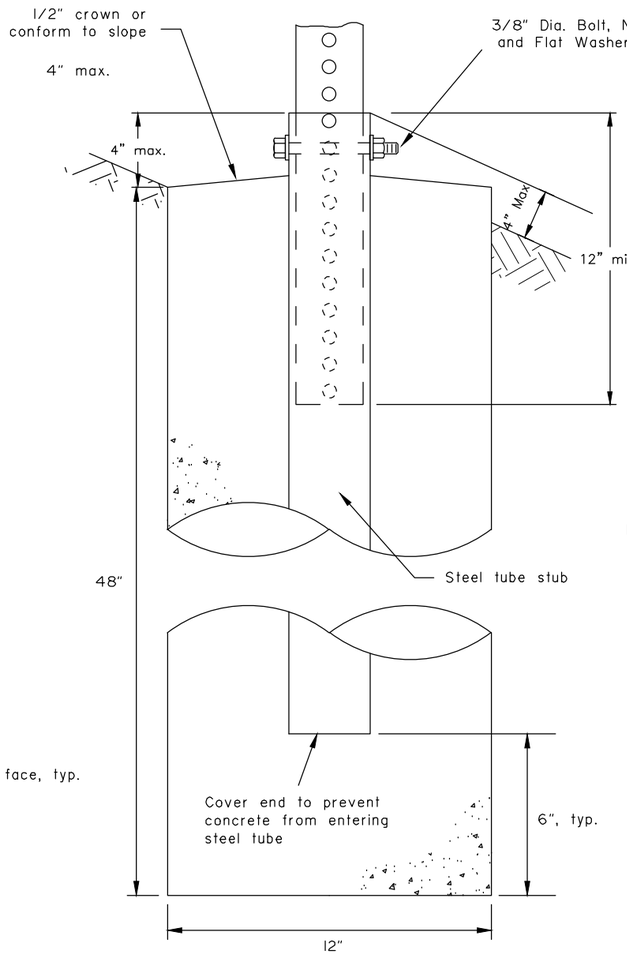
Adoption Date: 02/08/2019

Last Code and Stds. Review By: Date:

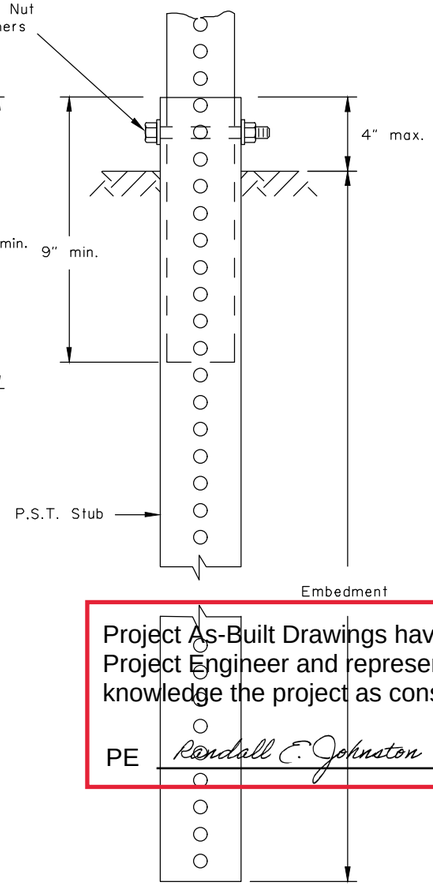
Next Code and Standards Review date: 02/08/2029







SLEEVE TYPE
CONCRETE FOUNDATION



SLEEVE TYPE*
SOIL EMBEDMENT

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

GENERAL NOTES:

1. Sign shall be placed symmetrically around posts and refer to Standard Plan S-00 for sign framing details.
2. See plans for type of post, size and embedment type.
3. To maintain crashworthiness, install no more than the number of P.S.T.s or wood posts specified in the tables within 7' of each other.
4. Concrete shall be class B.
5. Do not use the supports on this drawing for multiple support signs if supports are separated by more than 7 feet.
6. Treat all field cuts and field drilled holes in wood posts in accordance with Section 730-2.04 of the Standard Specifications.

SIGN POST SPACING NOTES:

1. Install sign support in accordance with the table below, unless otherwise required by plans or specifications.
2. Exceptions:
   a. Use one post for all E5-1 gore signs, regardless of width.
   b. Use one 2.5" P.S.T. for all STOP signs, with or without street name signs.
3. Supports placed within 7' of each other must be acceptable for that use. See tables below for the sizes of wood posts and P.S.T.s that may be used within 7'. See Manufacturer's documentation for breakaway couplings and tubes that may be used within 7'.
4. See Standard Plan S-31 for frangible couplings, hinges, and foundations for tube and W-shape sign supports.

WOOD SIGN POSTS			
SIZE	HOLE DIA.	EMBEDMENT*	NO. OF POSTS WITHIN 7 Ft. PATH
4"x4"	NONE	4'-1"	2
4"x6"	1 1/2"	5'-3"	2
6"x6"	1 1/2"	4'-9"	1
6"x8"	3"	4'-9"	1

* Embedment depth applies in both strong and weak soil.

WOOD POSTS

PERFORATED STEEL TUBES (P.S.T.)		
POST SIZE	Embedment Depth	No. of P.S.T.s permitted within 7 ft path
1 1/2" x 1 1/2"	4'-8"	2
1 3/4" x 1 3/4"	4'-6"	2
2" x 2"	4'-3"	2
2 1/4" x 2 1/4"	5'-0"	1
2 1/2" x 2 1/2"	4'-6"	1

* Use 3"x3"x3/16" Stub for 2 1/2"x2 1/2" PST Applications.

PERFORATED STEEL TUBE (PST) POSTS

TUBE SIGN POST SPACING								
Sign Width (feet)	No. of Posts	Distance Between Posts	Sign Overhang	Post Type				Notes
				P.S.T.	Wood	Steel Tube	W-Shape	
0.5 to 4.0	1	-	0.5W	X	X	X		See Note 2.
4.5 to 10.0	2	0.6W	0.2W	X	X	X		See Note 3.
10.5 to 11.0	2	6	Varies	X	X	X		See Note 3.
11.5 to 13.0	2	8	Varies				X	
13.5 to 20.0	2	0.6W	0.2W				X	
20.5 to 22.5	3	8	Varies				X	
23.0 to 29.5	3	0.35W	0.15W				X	
30.0 to 31.5	4	8	Varies				X	
32.0 to 40.0	4	0.25W	0.125W				X	

TUBE SIGN POST SPACING

Note: Drawing not to scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN

LIGHT SIGN STRUCTURE
POST EMBEDMENT

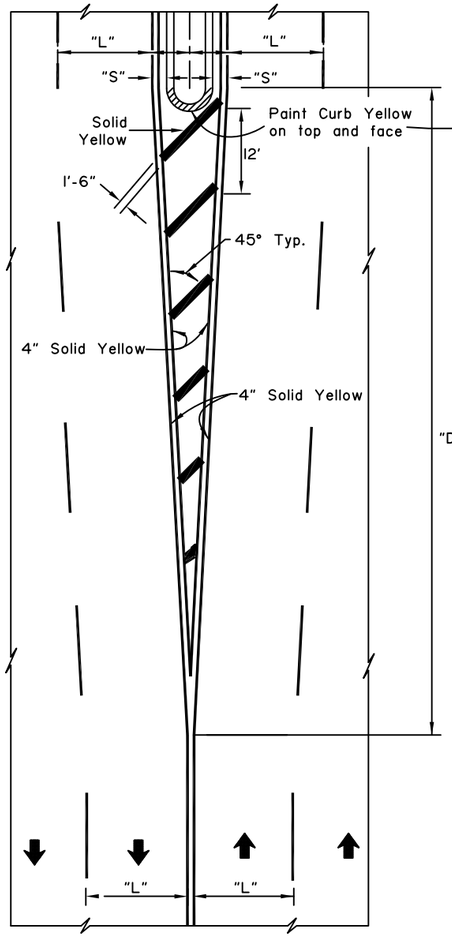
Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

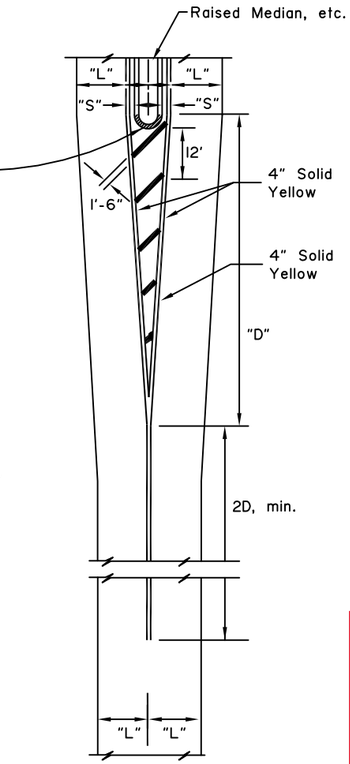
Adoption Date: 7/17/2020

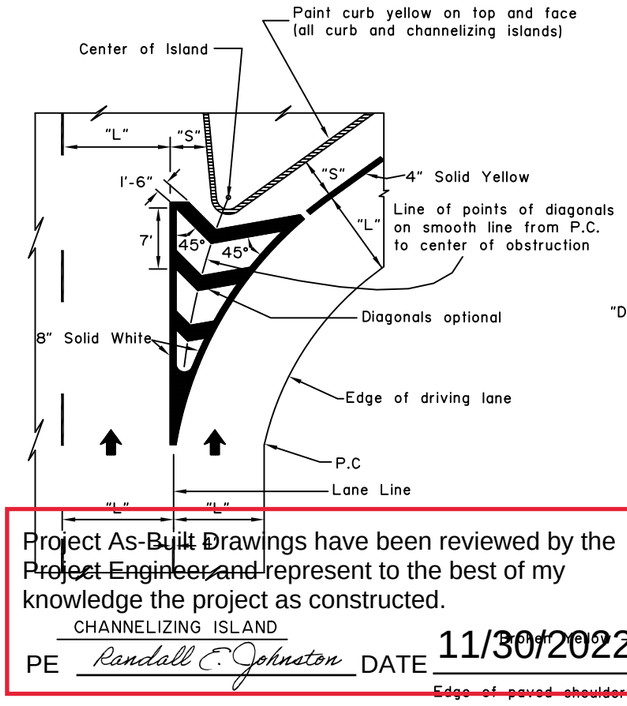
Last Code and Stds. Review
By: WTH Date: 7/8/2020

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

S-30.05

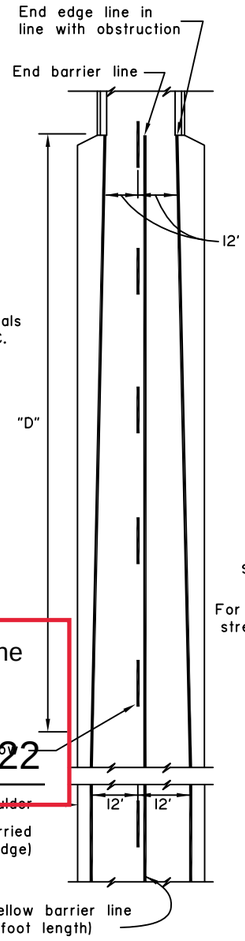






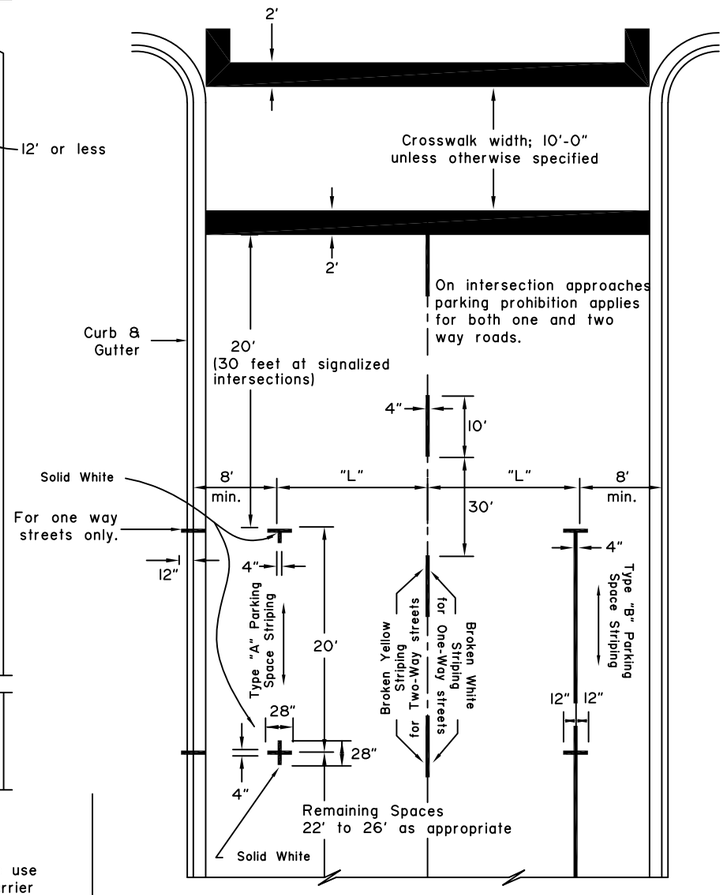
Project As-Built Drawings have been reviewed by the ~~Project Engineer, and~~ represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022



Note: On bridges over 24' wide use standard pavement markings. Barrier lines not used unless otherwise required.

EDGE LINE TRANSITION TO NARROW BRIDGE AND APPROACH BARRIER LINE



CENTERLINES FOR TWO LANE TWO WAY URBAN ROADS-PARKING LIMIT LINES

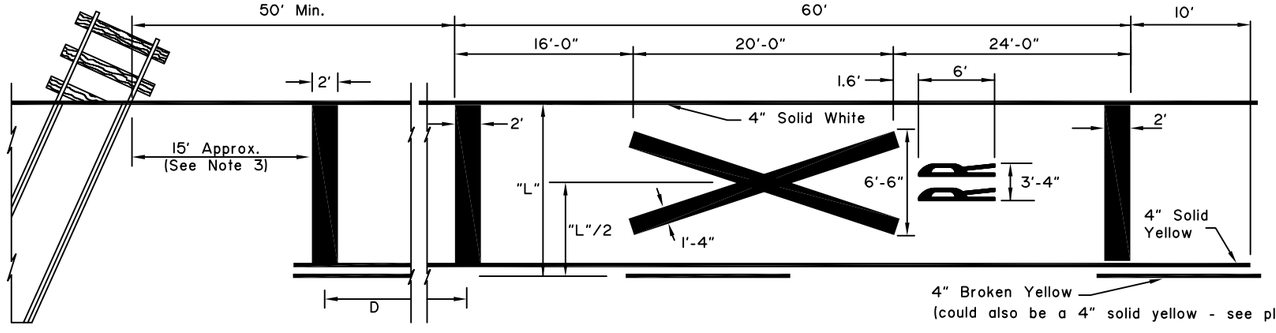
NOTES: "D" = Speed limit (mph) X "S" (offset width in feet) or as indicated on the plans. Minimum "D" = 100 feet urban, 200 feet rural.

APPROACH TO OBSTRUCTIONS

RAILROAD CROSSING NOTES:

1. All markings solid while unless indicated otherwise.
2. On 4-lane roadways place railroad crossing approach markings in each lane of the approach.
3. Locate Stop Bar 15' from railroad track or 8' from gate, if present.
4. Place edge lines and lane lines on a uni-directional approach in a normal manner except that the lane line(s) shall be solid 4" white in lieu of broken for a distance of (D+60') in advance of the stop bands.

POSTED LIMIT	D
30 M.P.H.	225'
40	350'
50	475'
60	625'



APPROACH TO RAILROAD CROSSING ON 2 LANE 2 WAY HIGHWAY

GENERAL NOTES:

1. "S"= offset distance as shown on the plans, otherwise 1 to 2 feet.
2. "L"= driving lane width.
3. See the Alaska Traffic Manual for additional guidance and/or restrictions on the use of traffic control devices.

NOT TO SCALE

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PAVEMENT MAKING APPLICATIONS

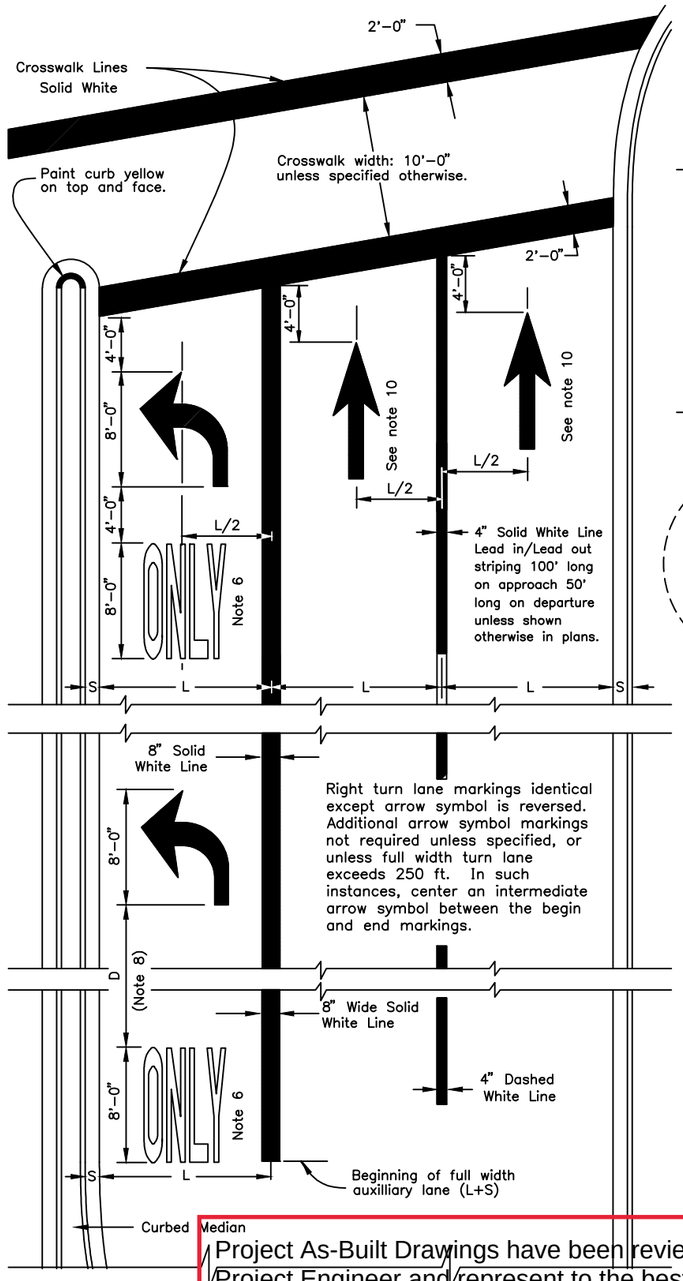
Adopted as an Alaska Standard Plan by: Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

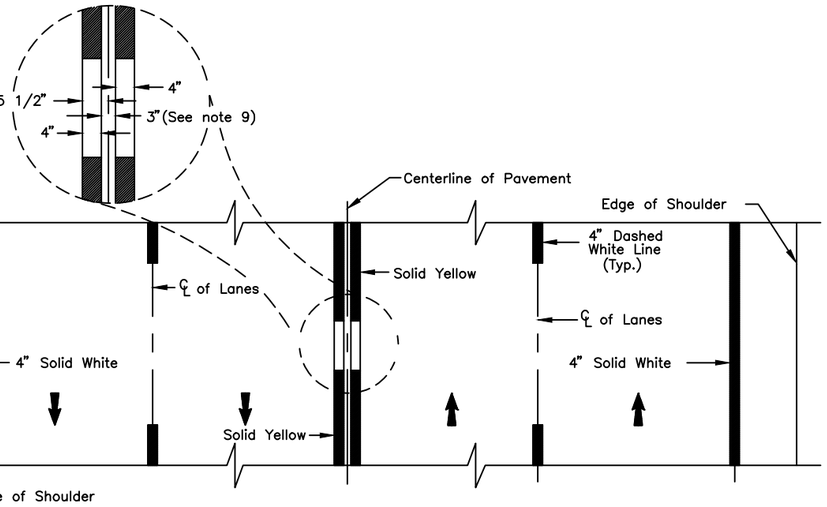
Last Code and Stds. Review By: Date:

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

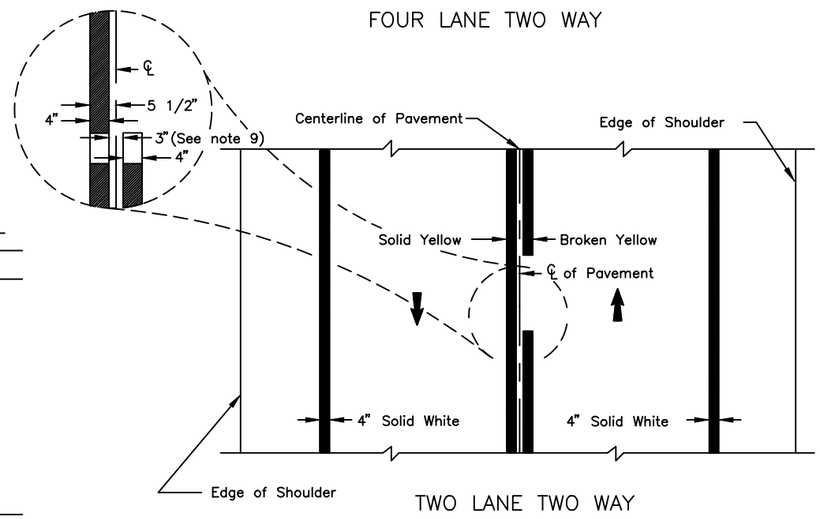
T-20.04



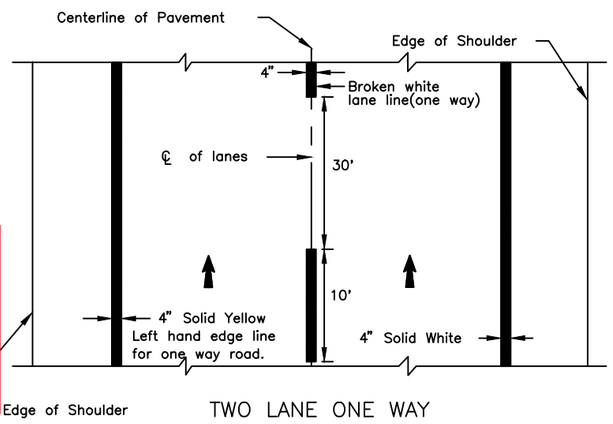
APPROACH TO INTERSECTION



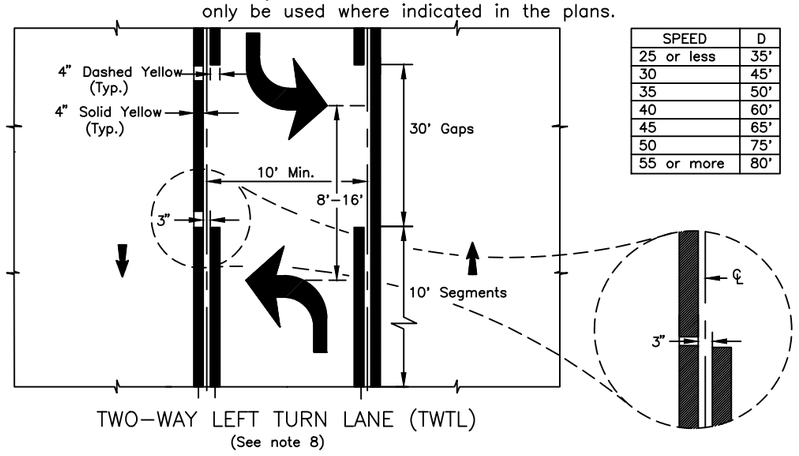
FOUR LANE TWO WAY



TWO LANE TWO WAY

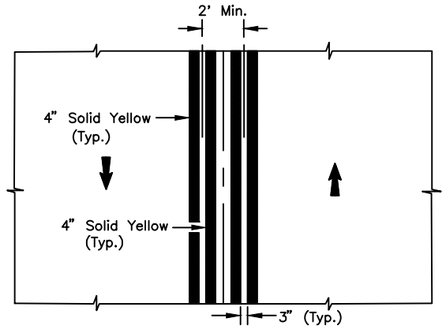


TWO LANE ONE WAY



TWO-WAY LEFT TURN LANE (TWTL)
(See note 8)

SPEED	D
25 or less	35'
30	45'
35	50'
40	60'
45	65'
50	75'
55 or more	80'



STRIPED MEDIAN

GENERAL NOTES:

1. All markings white unless indicated otherwise.
2. Lengths of stripe and gap for lane and center lines identical.
3. Lane lines for auxiliary lanes are unbroken solid lines.
4. "L" = driving lane width.
5. "S" = shy distance as shown on plans, otherwise 1 to 2 feet.
6. ONLY markings are required where through lanes change to turn lanes. In other cases, apply ONLY markings as indicated on plans.
7. See ALASKA TRAFFIC MANUAL for additional instruction on the use of TRAFFIC CONTROL DEVICES.
8. Adjust distance D between ONLY and Turn Arrow based on SPEED vs. D table. Table may be used for spacing between pairs of TWLT markings.
9. Adjust centerline spacing from 3" up to 5" where recessed pavement markers are required.
10. Arrows and symbols are used for through lanes only when the lane layout deviates from the normal intersection rules, and shall only be used where indicated in the plans.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE Randall E. Johnston DATE 11/30/2022

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PAVEMENT MARKING APPLICATIONS

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

T-21.04