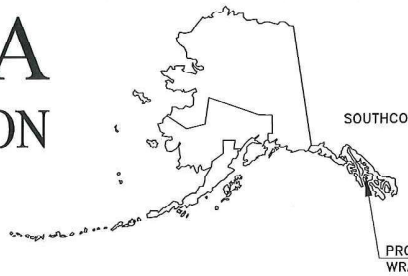
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

NO.	DATE	REVISIONS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL "A" SHEETS
ALASKA	Z680290000	2018	A1	6
			PLAN SFT TOTAL	87
CDS ROUTE: – 293400		MILEPOINT: 0.003 TO 0.915		



PROPOSED HIGHWAY PROJECT
WRANGELL, ALASKA
EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS
NH-STP-0003(158)~Z680290000

GRADING, DRAINAGE, PAVING, PATHWAYS, SIGNING, STRIPING, RETAINING WALL AND SIDE SLOPE STABILIZATION

May 1, 2018

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

PROJECT SUMMARY	
WIDTH OF PAVEMENT	28 FT
LENGTH OF PAVING	4816' 0.91 MILES
LENGTH OF PROJECT	4816' 0.91 MILES

As-Builts
Contractor: SECON
Project Engineer: Steve Mielke.
Project Manager: Catherine Wilkins AIA.
Start Date: May 2, 2018
End Date:September 29, 2019

DESIGN DESIGNATION ROUTE 293400	
A.D.T. 2014	890
A.D.T. 2038	940
D.H.V. 2014	100
D.H.V. 2038	100
% T	4.6%
V	30 MPH
E.A.L.	200,000
C.Z.	10'
TURNING VEHICLE	WB-50
DESIGN LOADING	HS 25

VICINITY MAP

USE THESE PLANS IN CONJUNCTION WITH THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2017 EDITION AND THE PROJECT SPECIAL PROVISIONS.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
Steve Mielke PE
Digitally signed by Steve Mielke
Date: 2021.12.30 13:13:13 -09'00'
Date 12/30/21

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

APPROVED:
REGIONAL PRECONSTRUCTION ENGINEER — DATE
L. PAT CARROLL, P.E.
2.2.18

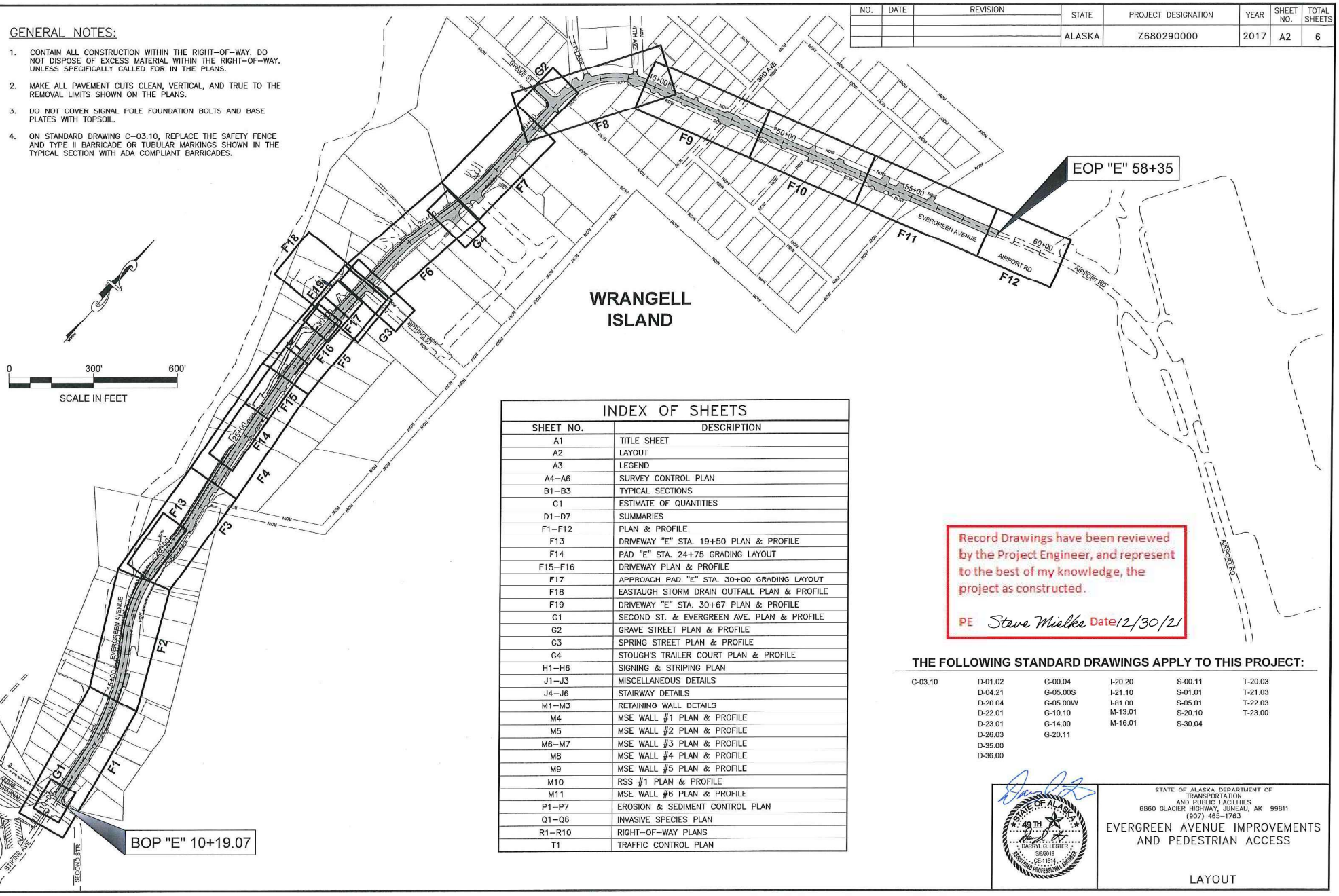
CONCUR:
DIRECTOR, SOUTHCOAST REGION: — DATE
D. LANCE MEARIG, P.E.
2-2-18

FILE | G:\Wrg\68029\Planset\68029_A1 Tsht.dwg | DRAFTED | RG, BB | DESIGNED | DL, DB | CHECKED | DL, KK | LAYOUT | A1 | DATE | 2/1/2018 7:35 AM

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	A2	6

GENERAL NOTES:

1. CONTAIN ALL CONSTRUCTION WITHIN THE RIGHT-OF-WAY. DO NOT DISPOSE OF EXCESS MATERIAL WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS.
2. MAKE ALL PAVEMENT CUTS CLEAN, VERTICAL, AND TRUE TO THE REMOVAL LIMITS SHOWN ON THE PLANS.
3. DO NOT COVER SIGNAL POLE FOUNDATION BOLTS AND BASE PLATES WITH TOPSOIL.
4. ON STANDARD DRAWING C-03.10, REPLACE THE SAFETY FENCE AND TYPE II BARRICADE OR TUBULAR MARKINGS SHOWN IN THE TYPICAL SECTION WITH ADA COMPLIANT BARRICADES.



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	LAYOUT
A3	LEGEND
A4–A6	SURVEY CONTROL PLAN
B1–B3	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES
D1–D7	SUMMARIES
F1–F12	PLAN & PROFILE
F13	DRIVEWAY "E" STA. 19+50 PLAN & PROFILE
F14	PAD "E" STA. 24+75 GRADING LAYOUT
F15–F16	DRIVEWAY PLAN & PROFILE
F17	APPROACH PAD "E" STA. 30+00 GRADING LAYOUT
F18	EASTAUGH STORM DRAIN OUTFALL PLAN & PROFILE
F19	DRIVEWAY "E" STA. 30+67 PLAN & PROFILE
G1	SECOND ST. & EVERGREEN AVE. PLAN & PROFILE
G2	GRAVE STREET PLAN & PROFILE
G3	SPRING STREET PLAN & PROFILE
G4	STOUGH'S TRAILER COURT PLAN & PROFILE
H1–H6	SIGNING & STRIPING PLAN
J1–J3	MISCELLANEOUS DETAILS
J4–J6	STAIRWAY DETAILS
M1–M3	RETAINING WALL DETAILS
M4	MSE WALL #1 PLAN & PROFILE
M5	MSE WALL #2 PLAN & PROFILE
M6–M7	MSE WALL #3 PLAN & PROFILE
M8	MSE WALL #4 PLAN & PROFILE
M9	MSE WALL #5 PLAN & PROFILE
M10	RSS #1 PLAN & PROFILE
M11	MSE WALL #6 PLAN & PROFILE
P1–P7	EROSION & SEDIMENT CONTROL PLAN
Q1–Q6	INVASIVE SPECIES PLAN
R1–R10	RIGHT-OF-WAY PLANS
T1	TRAFFIC CONTROL PLAN

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

PE Steve Mielke Date 12/30/21

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

C-03.10	D-01.02	G-00.04	I-20.20	S-00.11	T-20.03
	D-04.21	G-05.00S	I-21.10	S-01.01	T-21.03
	D-20.04	G-05.00W	I-81.00	S-05.01	T-22.03
	D-22.01	G-10.10	M-13.01	S-20.10	T-23.00
	D-23.01	G-14.00	M-16.01	S-30.04	
	D-26.03	G-20.11			
	D-35.00				
	D-36.00				

STATE OF ALASKA
49TH
DARRYL G. LESTER
3/6/2018
CE-11514
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

LAYOUT

FILE | Q:\Wrg\680229\Planset\680229_A2_Layout.dwg | DATE | 3/6/2018 3:10 PM | LAYOUT | A2 | DESIGNED | D.B., D.L. | CHECKED | K., D.L. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	A3	6

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C:\Varg\68029\Plotset\68029_A3_Legend.dwg	5/31/2017 11:51 AM	K. K.			R. G.

	RECOVERED	SET
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 PROPERTY LINE		
EXISTING EASEMENT LINE		
TEMPORARY CONSTRUCTION EASEMENT LINE		
PROPOSED CUT SLOPE LIMIT		
PROPOSED FILL SLOPE LIMIT		

	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, SD, MH, P-10
FIBER OPTIC LINE	FO	
DIRECT BURIAL TELEPHONE CABLE	T	T
DIRECT BURIAL ELECTRIC CABLE	UGE	
ELECTRIC LINE (OVERHEAD)	OHE	
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		
ORDINARY HIGH WATER	OHW	
PIPE CULVERT		
RIPRAP		

	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	H = HOUSE G = GARAGE M = MERCHANT/STORE B = BARN S = SHED P = PRIVY SS = SERVICE STATION W = WAREHOUSE
POST OR BOLLARD		
WELL OR MONITORING WELL	W	
SEPTIC PIPE	S	
FUEL TANK FILL PIPE/VENT	F	
SATELLITE DISH	SAT. DISH	
TEST HOLE	TH	
CONIFER TREE		
DECIDUOUS TREE		
GRAVE		
THERMOSIPHON		
PARKING METER		
VEHICLE PLUG-IN		
DELINEATOR/GUIDE MARKER		

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

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

LEGEND / SYMBOLS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	A4	6

HORIZONTAL CONTROL

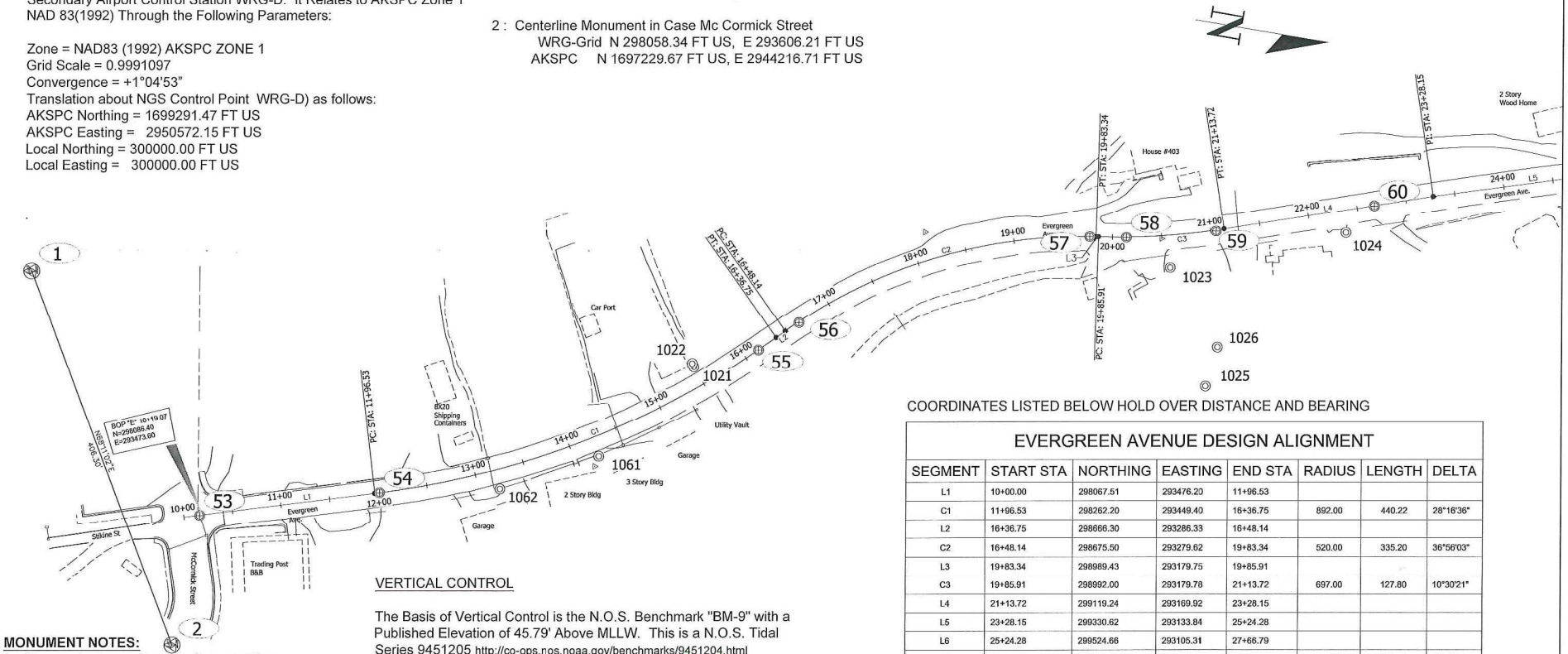
Horizontal Control for this project is based on the DOT/PF Wrangell Grid 2001 System a Local ground Coordinate System Based at the NGS Secondary Airport Control Station WRG-D. It Relates to AKSPC Zone 1 NAD 83(1992) Through the Following Parameters:

Zone = NAD83 (1992) AKSPC ZONE 1
Grid Scale = 0.9991097
Convergence = +1°04'53"
Translation about NGS Control Point WRG-D) as follows:
AKSPC Northing = 1699291.47 FT US
AKSPC Easting = 2950572.15 FT US
Local Northing = 300000.00 FT US
Local Easting = 300000.00 FT US

Project Specific Horizontal Control

1: 2.5" aluminum cap on drive rod down 0.1
WRG-Grid N 297907.35 FT US, E 293229.01 FT US
AKSPC N 1697071.60 FT US , E 2943842.46 FT US

2 : Centerline Monument in Case Mc Cormick Street
WRG-Grid N 298058.34 FT US, E 293606.21 FT US
AKSPC N 1697229.67 FT US, E 2944216.71 FT US



VERTICAL CONTROL

The Basis of Vertical Control is the N.O.S. Benchmark "BM-9" with a Published Elevation of 45.79' Above MLLW. This is a N.O.S. Tidal Series 9451205 http://co-ops.nos.noaa.gov/benchmarks/9451204.html

The Project Specific Basis of Vertical Control

See points listing on Sheet A6.

COORDINATES LISTED BELOW HOLD OVER DISTANCE AND BEARING

EVERGREEN AVENUE DESIGN ALIGNMENT

SEGMENT	START STA	NORTHING	EASTING	END STA	RADIUS	LENGTH	DELTA
L1	10+00.00	298067.51	293476.20	11+96.53			
C1	11+96.53	298262.20	293449.40	16+36.75	892.00	440.22	28°16'36"
L2	16+36.75	298666.30	293286.33	16+48.14			
C2	16+48.14	298675.50	293279.62	19+83.34	520.00	335.20	36°56'03"
L3	19+83.34	298989.43	293179.75	19+85.91			
C3	19+85.91	298992.00	293179.78	21+13.72	697.00	127.80	10°30'21"
L4	21+13.72	299119.24	293169.92	23+28.15			
L5	23+28.15	299330.62	293133.84	25+24.28			
L6	25+24.28	299524.66	293105.31	27+66.79			
C4	27+66.79	299765.59	293077.68	31+30.68	2320.00	363.89	8°59'13"
L7	31+30.68	300128.88	293064.69	33+07.70			
C5	33+07.70	300305.74	293072.25	34+92.93	1042.00	185.23	10°11'06"
L8	34+92.93	300489.12	293096.51	35+66.92			
C6	35+66.92	300561.33	293112.69	37+80.79	998.00	213.87	12°16'42"
L9	37+80.79	300773.42	293136.83	41+17.63			
C7	41+17.63	301110.25	293138.90	44+72.21	286.00	354.58	71°02'08"
L10	44+72.21	301379.53	293333.61	60+19.10			

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 monuments, property markers, or accessories that will be disturbed or buried shall be referenced prior to being disturbed, and re-established in their original position and a record of monument form in accordance with A.S.34.65.040 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.

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

PE Steve Mielke Date 12/30/21

6.1.17

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

WRG-EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS
PROJECT #Z680290000
NH-STP-0003(158)~68029

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DRAWN APP'D
CHECKED APP'D
XREFS
SCALE
LAYOUT A4
DATE TIME 6/1/2017 10:33

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	A5	6

DESIGNED JPAPPOLI
DETAILED JPAPPOLI
DRAFTED JPAPPOLI
XREFS
SCALE
LAYOUT A5
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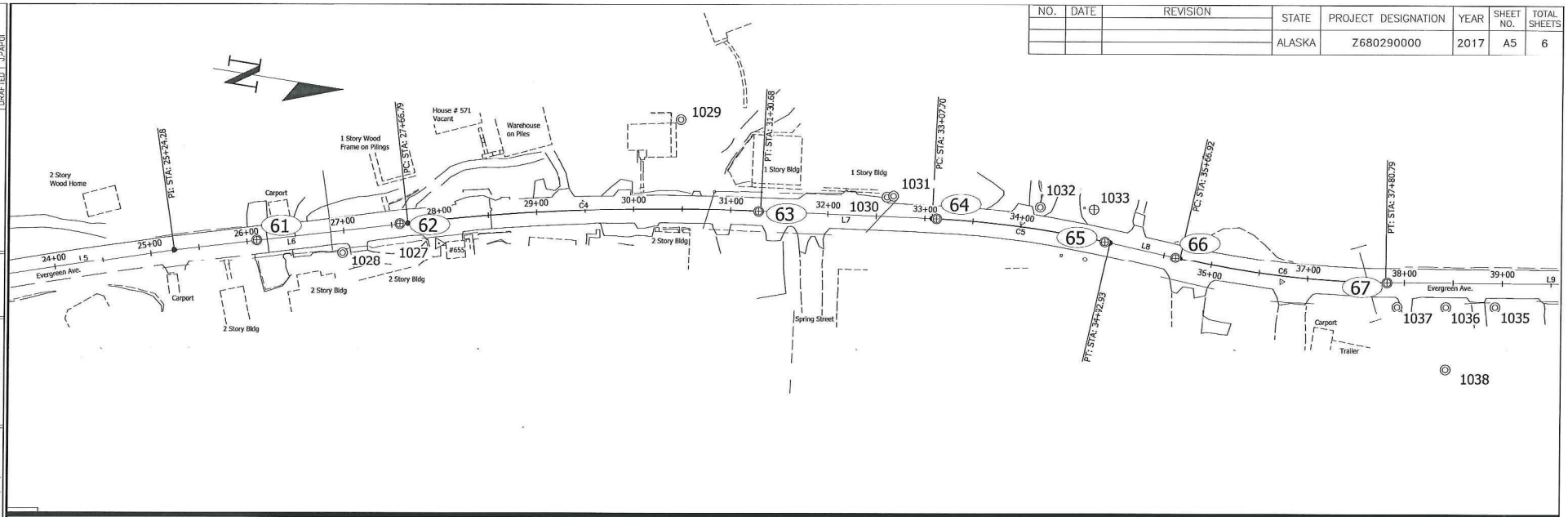
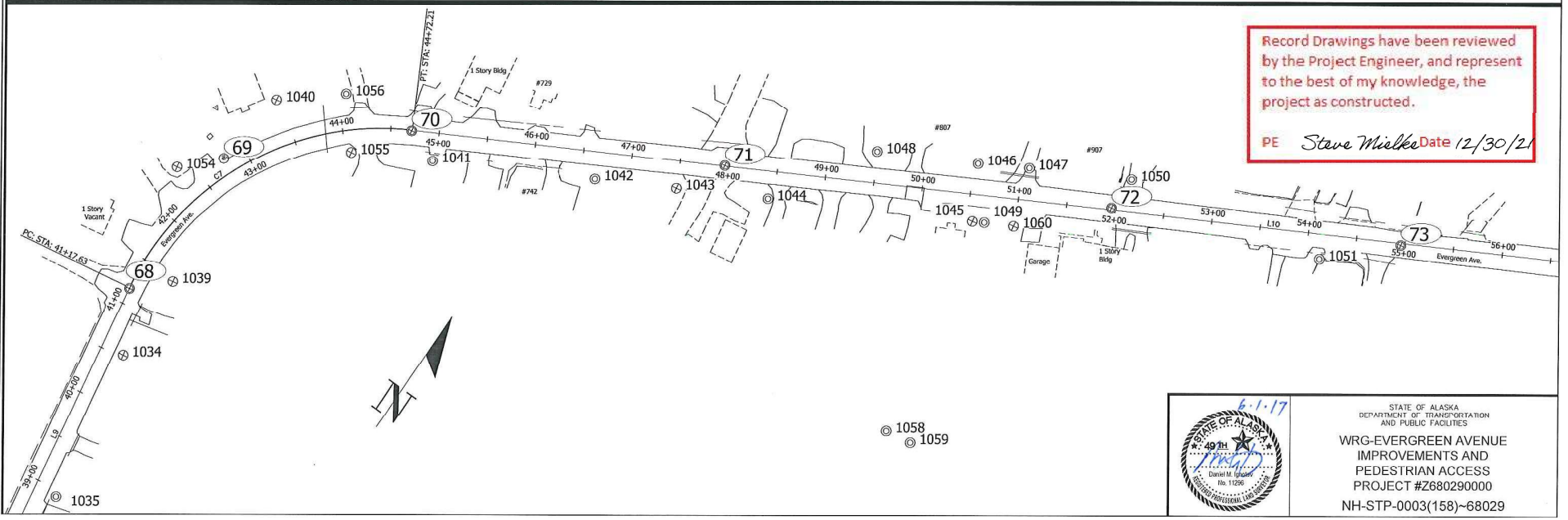




Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

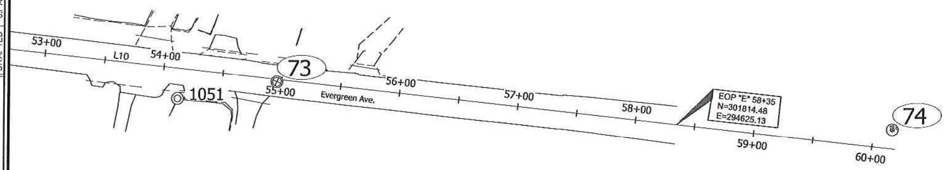
PE Steve Mielke Date 12/30/21

6.1.17

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

WRG-EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS
PROJECT #Z680290000
NH-STP-0003(158)~68029

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	A6	6



76

75

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 monuments, property markers, or accessories that will be disturbed or buried shall be referenced prior to being disturbed, and re-established in their original position and a record of monument form in accordance with A.S.34.65.040 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.

Existing Centerline Monuments Preserve in Place

Point #	Northing	Easting	Elevation	Description	Station	Offset
2	298058.34	293606.21	36.47	GPS_CL_MON_DOT-WFT-2	N\A	N\A
53	298083.61	293474.21	30.13	CL_MON_DOT	10+16.23	0.22R
54	298266.92	293448.60	27.12	CL_MON_DOT	12+01.32	0.14L
55	298648.71	293299.04	31.73	CL_MON_DOT	16+15.05	0.16R
56	298689.21	293270.86	34.42	CL_MON_DOT	16+64.40	0.76R
57	298983.06	293179.60	50.97	CL_MON_DOT	19+76.97	0.09L
58	299020.25	293179.87	52.46	CL_MON_DOT	20+14.15	0.25R
59	299111.17	293172.20	54.70	CL_MON_DOT	21+05.38	0.94R
60	299270.91	293144.18	56.35	CL_MON_DOT	22+67.55	0.15R
61	299609.77	293095.09	51.74	CL_MON_DOT	26+10.00	0.46L
62	299757.36	293078.21	52.33	CL_MON_DOT	27+58.55	0.42L
63	300126.79	293064.88	62.56	CL_MON_DOT	31+28.60	0.28R
64	300310.34	293072.43	67.96	CL_MON_DOT	33+12.30	0.02L
65	300483.93	293095.55	67.37	CL_MON_DOT	34+87.65	0.18R
66	300556.55	293111.98	65.44	CL_MON_DOT	35+62.11	0.34R
67	300774.83	293137.06	60.88	CL_MON_DOT	37+82.21	0.22R
68	301109.41	293139.11	70.79	CL_MON_DOT	41+16.79	0.22R
70	301378.72	293333.28	81.97	CL_MON_DOT	44+71.64	0.66R
71	301483.33	293640.24	94.67	CL_MON_DOT	47+95.93	0.50L
72	301612.30	294018.91	93.95	CL_MON_DOT	51+95.96	1.87L
73	301704.34	294304.49	87.50	CL_MON_DOT	54+95.98	2.05R
75	301722.85	295708.06	39.66	CL_MON_DOT	N\A	N\A
76	301986.77	295275.22	37.28	CL_MON_DOT	N\A	N\A

EXISTING CENTERLINE MONUMENTS **SHALL BE PRESERVED IN PLACE**.

All **CENTERLINE MONUMENTS** in this **Existing Centerline Monument** table shall be **preserved** and **referenced** prior to disturbance and replaced at their original horizontal position . **A RECORD OF MONUMENT FORM IN ACCORDANCE WITH A.S.34.65.040 SHALL BE SUBMITTED TO DOT PROJECT ENGINEER FOR REVIEW PRIOR TO RECORDING FOR EACH MONUMENT.**

Existing Property

Point #	Northing	Easting	Description	Station	Offset
1021	298583.40	293317.16	PLASCAP_SCHEEF	15+49.54	19.79L
1022	298581.70	293313.52	PLASCAP_SCHEEF	15+49.93	23.79L
1023	299065.27	293210.02	PLASCAP_SCHEEF	20+56.40	32.91R
1024	299242.72	293171.90	ALCAP1_SCHEEF	22+35.10	22.73R
1025	299103.36	293329.81	ALCAP1_SCHEEF	20+78.93	156.00R
1026	299114.64	293290.11	PLASCAP_SCHEEF	20+92.54	118.09R
1027	299797.74	293098.23	PK_FND	27+96.70	23.88R
1028	299698.38	293107.79	PLASCAP_SCHEEF_DMG	26+96.58	22.25R
1029	300046.18	292971.57	ALCAP1_SCHEEF	30+47.34	91.06L
1030	300258.98	293050.24	REBAR_DMG	32+60.04	19.99L
1031	300265.67	293049.14	ALCAP1_SCHEEF	32+66.68	21.38L
1032	300417.46	293060.36	PLASCAP_SCHEEF	34+16.67	22.46L
1033	300472.54	293062.67	BC3"_USDA	34+70.00	29.66L
1034	301045.23	293162.27	BC3"_USDA	40+52.75	23.77R
1035	300885.29	293161.45	ALCAP1_SCHEEF	38+92.81	23.94R
1036	300835.21	293161.66	ALCAP1_SCHEEF	38+42.74	24.46R
1037	300785.26	293161.57	ALCAP1_SCHEEF	37+92.78	24.67R
1038	300835.12	293226.59	ALCAP1_SCHEEF	38+43.04	89.38R
1039	301134.75	293176.40	BC3"_USDA	41+45.98	36.12R
1040	301348.41	293193.29	BC3"_USDA	43+45.54	47.46L
1041	301360.03	293366.02	ALCAP1_SCHEEF	44+96.70	28.83R
1042	301414.10	293525.26	ALCAP1_SCHEEF	46+64.87	28.41R
1043	301441.11	293605.19	BC3"_DMG	47+49.24	28.32R
1044	301471.29	293695.02	ALCAP1_SCHEEF	48+44.00	28.39R
1045	301539.52	293895.13	BC3"_USDA	50+55.42	27.60R
1046	301595.46	293875.20	REBAR_FND	50+54.39	31.78L
1047	301613.64	293925.02	REBAR_DMG	51+07.40	33.12L
1048	301562.85	293775.64	ALCAP1_BRAUN	49+49.63	32.65L
1049	301543.67	293906.83	ALCAP1_SCHEEF	50+67.84	27.40R
1050	301647.46	294025.01	PLASCAP_UNREAD	52+12.96	33.25L
1051	301656.02	294234.56	PLASCAP_SCHEEF	54+14.29	25.53R
1052	301316.52	292587.66	BC3.5_USCG	41+85.52	576.69L
1053	300497.52	292708.83	BC3.25_SCHEEF_RM	34+36.88	382.20L
1054	301242.53	293129.86	BC2.5"_GLO	42+37.83	38.06L
1055	301332.33	293286.18	BC3"_USDA_DMG	44+06.45	22.67R
1056	301384.44	293255.46	ALCAP1_3.5"_DOT	44+07.63	37.82L
1057	301592.95	293049.53	BC2"_USS1948	43+76.59	326.86L
1058	301308.58	293906.96	ALCAP1_SCHEEF	49+92.93	250.23R
1059	301308.32	293934.25	ALCAP1_S3325	50+18.71	259.19R
1060	301553.09	293935.83	BC3"_USDA_DMG	50+98.33	27.73R
1061	298488.68	293408.59	REBAR_FND	14+23.89	19.92R
1062	298388.84	293443.02	REBAR_FND_DMG	13+20.52	19.74R

Existing Survey Control

Point #	Northing	Easting	Elevation	Description	Station	Offset
1	297907.35	293229.01	26.01	GPS_ALCNTL2.5"_WFT-1	N\A	N\A
69	301271.00	293169.78	77.93	ALCNTL2"_SET_69-2012	42+78.08	16.48L
74	301887.28	294790.74	66.27	ALCNTL2"_SET_74-2012	60+15.19	16.14L

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.

All **PROPERTY MONUMENTS** in these **existing property** tables shall be **preserved** and **referenced** prior to disturbance and replaced at their original horizontal position. **A RECORD OF MONUMENT FORM IN ACCORDANCE WITH A.S.34.65.040 SHALL BE SUBMITTED TO DOT PROJECT ENGINEER FOR REVIEW PRIOR TO RECORDING FOR EACH MONUMENT.**

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

PE Steve Mielke Date 12/30/21

6.1.17

STATE OF ALASKA 49TH Daniel M. Ignatov No. 11296 REGISTERED PROFESSIONAL LAND SURVEYOR

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

WRG-EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS
PROJECT #Z680290000
NH-STP-0003(158)~68029

DRAWING LOCATION Q:\Wrg\68029\SV\C3D\SOURCE DWGS\BASEMAPS\68029_SCS.dwg

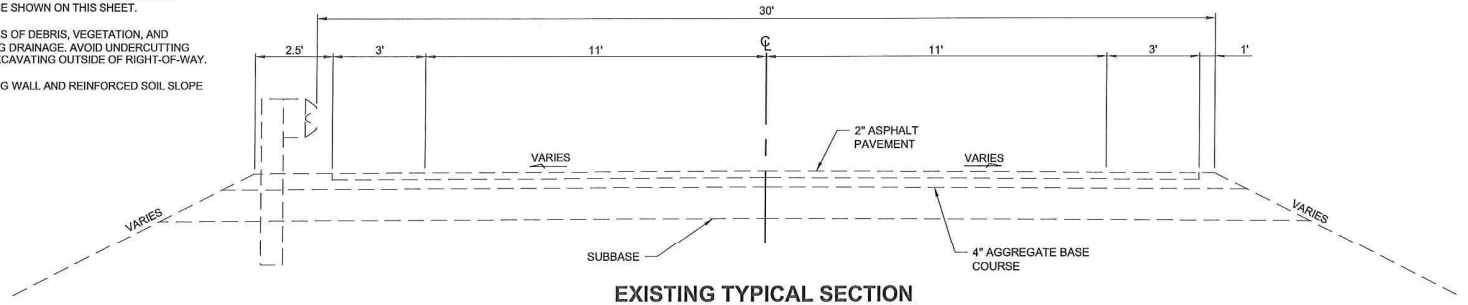
DATE TIME 5/30/2017 12:22

LAYOUT A6

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	B1	3

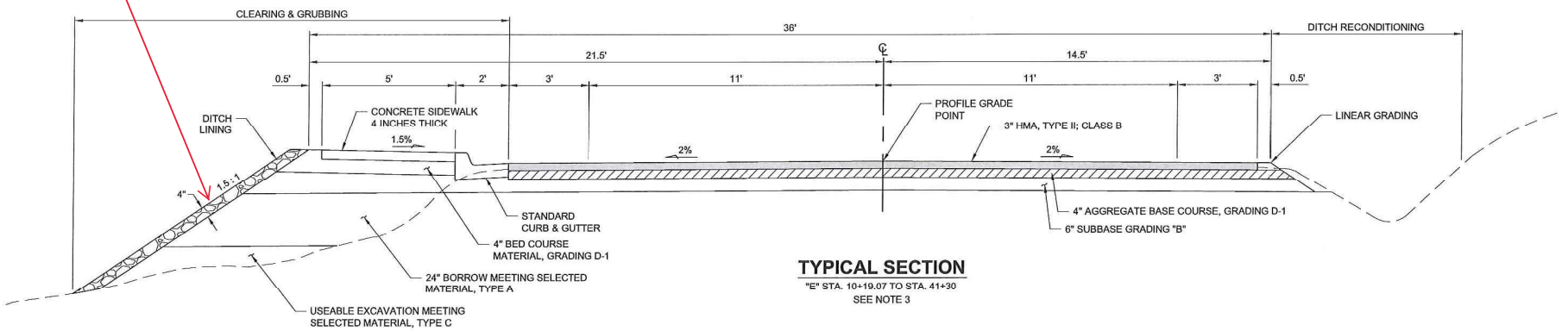
NOTES:

1. EVERGREEN AVENUE HAS THE SAME PAVEMENT STRUCTURE THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT. THE SHOULDERS AND SIDEWALK DETAILS VARY REPEATEDLY. SEE THE FOLLOWING B SHEETS FOR THE TYPES AND LOCATIONS OF VARIATIONS FROM THOSE SHOWN ON THIS SHEET.
2. DITCH RECONDITIONING: CLEAN DITCHES OF DEBRIS, VEGETATION, AND SEDIMENT TO ESTABLISH FREE FLOWING DRAINAGE. AVOID UNDERCUTTING PRIVATE STACKED ROCK WALLS AND EXCAVATING OUTSIDE OF RIGHT-OF-WAY.
3. SEE THE "M" SHEETS FOR THE RETAINING WALL AND REINFORCED SOIL SLOPE LOCATIONS AND INFORMATION.

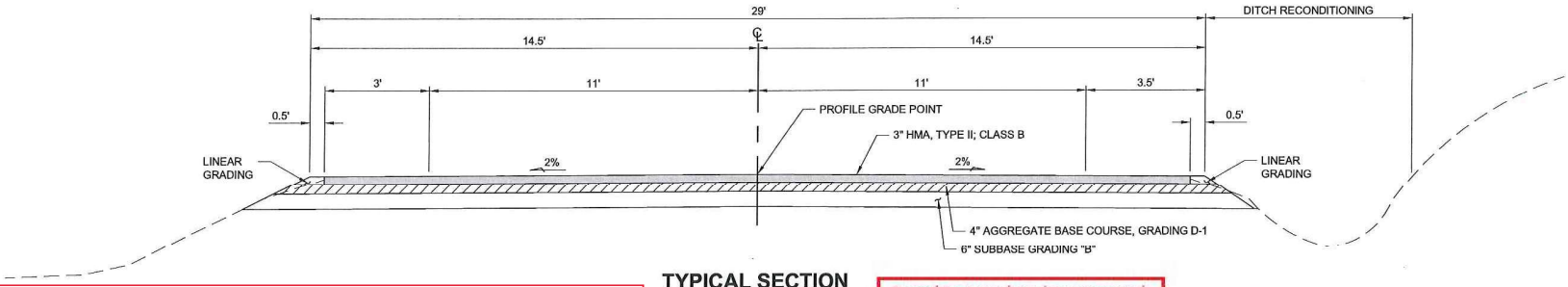


EXISTING TYPICAL SECTION
NTS

Ditch Lining



TYPICAL SECTION
"E" STA. 10+19.07 TO STA. 41+30
SEE NOTE 3



TYPICAL SECTION
"F" STA. 41+30 TO STA. 58+35

610-2.01. MATERIALS. Delete this Special Provision including the gradation table in it's entirety and replace this subsection with the following Subsection 610-2.01:
610-2.01 MATERIALS. Use stones that are sound and durable,4" minus clean shot rock, approved visually by the Engineer.

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA 49TH DARRYL G. LESTER 6/21/2017 CE-11514 REGISTERED PROFESSIONAL ENGINEER

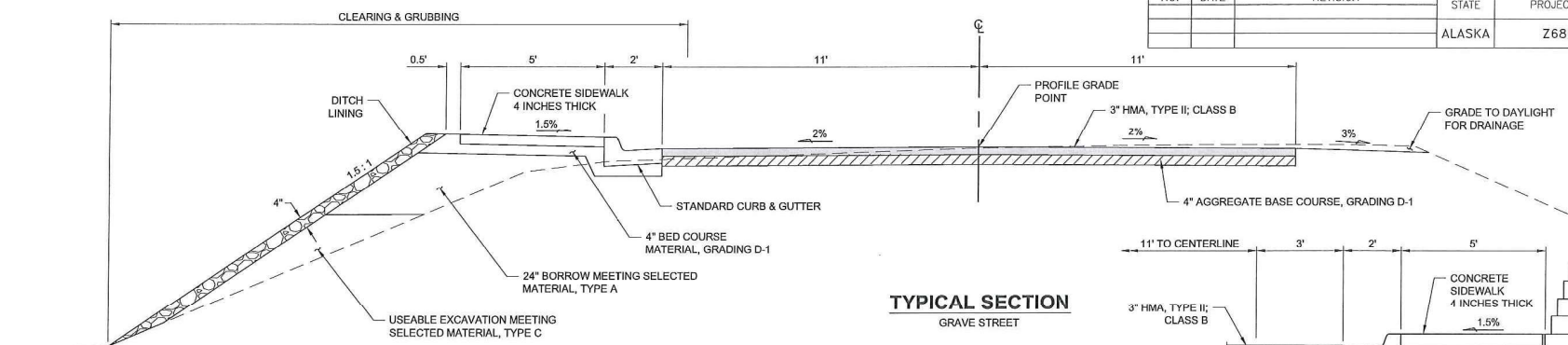
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

TYPICAL SECTIONS

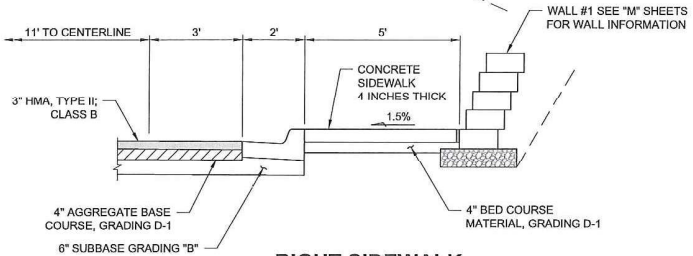
FILE | G:\Wrq\68029\Planset\68029_B1-B3_Typ.dwg | DATE | 6/21/2017 1:46 PM | LAYOUT | B1 | DESIGNED | D.B., D.L. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	B2	3



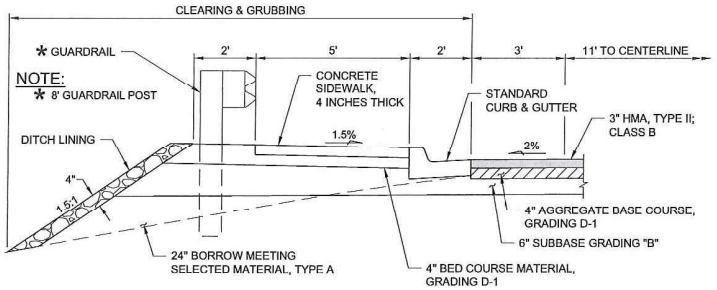
TYPICAL SECTION

GRAVE STREET



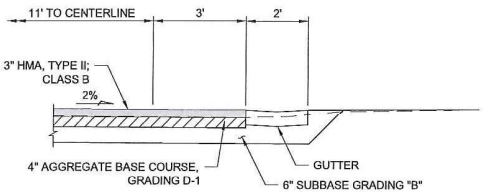
RIGHT SIDEWALK

"E" STA. 10+21.9 TO STA. 10+42.2



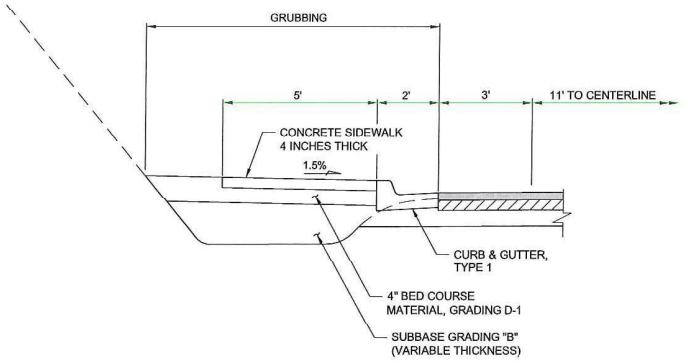
8' GUARDRAIL POST

"E" STA. 18+00 TO STA. 19+38



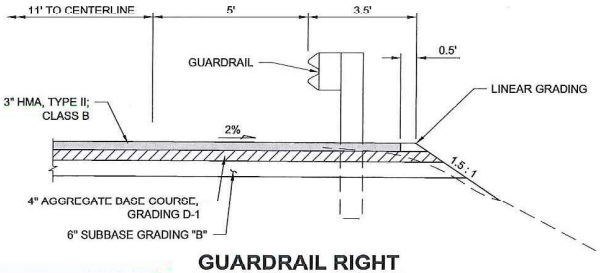
GUTTER

"E" STA. 10+42.2 TO STA. 11+43.7
"E" STA. 13+22.4 TO STA. 15+51.6
"E" STA. 27+76.5 TO STA. 31+59.0



SIDEWALK DITCH IN ROCK

"E" STA. 32+65 TO STA. 33+54



GUARDRAIL RIGHT

"E" STA. 37+14 TO STA. 37+89

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA 49TH DARRYL G. LESTER 6/21/2017 CE-11514 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

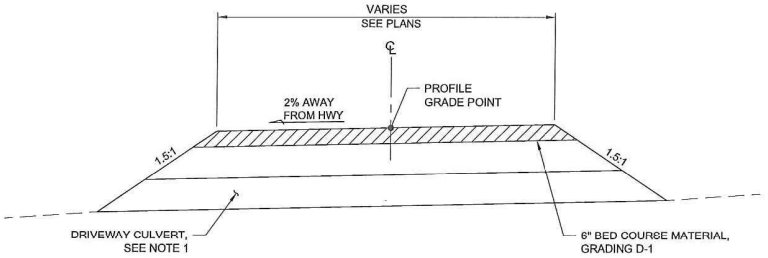
TYPICAL SECTIONS

FILE: D:\Wrg\68029\Planset\68029_B1-B3 Typ.dwg | DATE: 6/21/2017 1:50 PM | LAYOUT: B2 | DESIGNED: D.B., D.L. | CHECKED: K. K. | DRAFTED: R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	B3	3

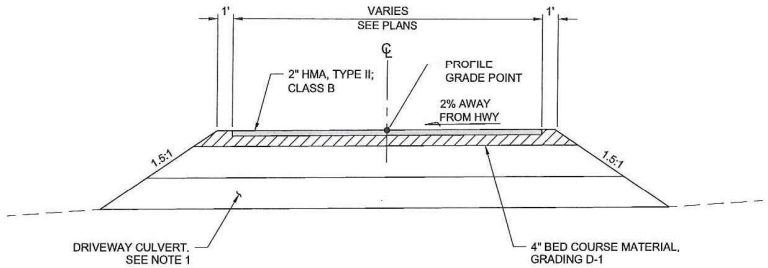
NOTES:

1. ALL DRIVEWAY CULVERTS HAVE CONCRETE HEADWALLS AT BOTH THE INLET AND OUTLET ENDS. SEE SHEET J1 FOR DETAILS. BEVEL THE CULVERTS FLUSH WITH THE HEADWALLS.



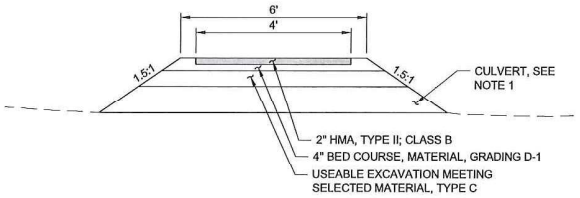
UNPAVED DRIVEWAY

NTS



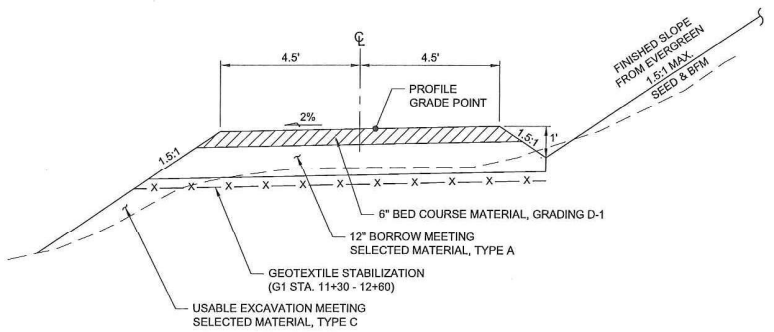
PAVED DRIVEWAY

NTS



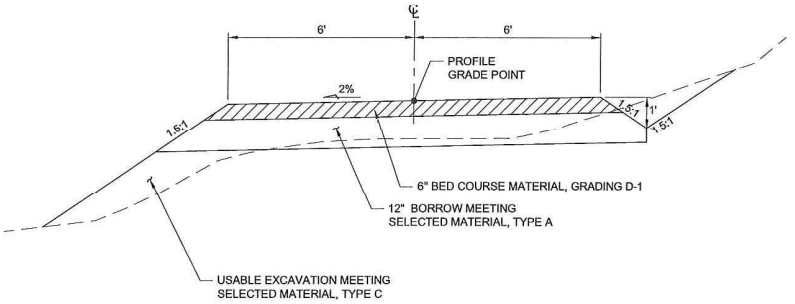
FIRE HYDRANT PAD

NTS



DRIVEWAY FOR "G1" ALIGNMENT

STA. 10+00 TO STA. 12+70



DRIVEWAY FOR "G1" ALIGNMENT

STA. 12+70 TO STA. 13+53

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA
49TH
DARRYL G. LESTER
8/21/2017
CE-11514
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

TYPICAL SECTIONS

FILE: Q:\Wrg\68029\Planset\68029_B1-B3 Typ.dwg | DATE: 6/21/2017 1:53 PM | LAYOUT: B3 | DESIGNED: D.B., D.L. | CHECKED: K. K. | DRAFTED: R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	C1	1

FILE	DATE	DESIGNED	DRAFTED	CHECKED
Q:\Wrg\68029\Plotset\68029_C1_Est.dwg	4/4/2018 2:53 PM	D.B., D.L.	R. G.	K. K., D.L.

ESTIMATE OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	PAY UNIT	QUANTITY	
201(3B)	CLEARING AND GRUBBING	LUMP SUM	ALL REQUIRED	
201(7)	INVASIVE PLANT SPECIES CONTROL, REMOVAL AND DISPOSAL	SQUARE YARD	~~1,400~~	2246.00
202(1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED	
202(2)	REMOVAL OF PAVEMENT	SQUARE YARD	~~18,000~~	16432.18
202(4)	REMOVAL OF CULVERT PIPE	LINEAR FOOT	~~2,100~~	2267.80
203(3)	UNCLASSIFIED EXCAVATION	CUBIC YARD	~~6,700~~	5714.62
203(6)	BORROW	TON	~~1,350~~	1601.58
301(1)	AGGREGATE BASE COURSE, GRADING D-1	TON	~~5,500~~	5946.36
303(3)	LINEAR GRADING	STATION	~~64~~	65.00
303(4)	DITCH RECONDITIONING	STATION	~~30~~	36.16
304(1)	SUBBASE, GRADING B	TON	~~7,800~~	8657.75
401(1B)	HMA, TYPE II, CLASS B -CO.#19.	TON	~~3,100~~	3199.36
401(4B)	ASPHALT BINDER, GRADE 58-28 -CO.#19.	TON	~~180~~	198.58
401(5)	HMA, TEMPORARY, TYPE II, CLASS B -CO.#8.	TON	~~100~~	0.00
401(8B)	HMA PRICE ADJUSTMENT, TYPE II, CLASS B -CO.#8.	CONTINGENT SUM	ALL REQUIRED	
401 (9)	LONGITUDINAL JOINT DENSITY PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED	
506(6)	TIMBER STAIRWAY	LUMP SUM	ALL REQUIRED	
507(2)	PEDESTRIAN RAILING	LINEAR FOOT	~~313~~	203.80
511(1)	MECHANICALLY STABILIZED EARTH WALL	SQUARE FOOT	~~4,195~~	4713.82
603(21-12)	12 INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	~~310~~	388.50
603(21-18)	18 INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	~~1,804~~	
603(21-24)	24 INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	~~500~~	603.00
603(22-12)	12 INCH DUCTILE IRON PIPE	LINEAR FOOT	~~84.5~~	84.00
604(1-48)	48 INCH STORM SEWER MANHOLE	EACH	4	
604(1-72)	72 INCH STORM SEWER MANHOLE	EACH	1	
604(3)	RECONSTRUCT EXISTING MANHOLE	EACH	8	
604(4)	ADJUST EXISTING MANHOLE	EACH	~~14~~	15.00
604(5)	INLET, TYPE A	EACH	8	
604(8)	JUNCTION BOX, TYPE 1A	EACH	2	
606(1)	W-BEAM GUARDRAIL	LINEAR FOOT	~~715~~	887.00
606(0)	REMOVING AND DISPOSING OF GUARDRAIL	LINEAR FOOT	~~1,464~~	1069.00
606(13)	PARALLEL GUARDRAIL TERMINAL	EACH	1	
608(1A)	CONCRETE SIDEWALK, 4 INCHES THICK	SQUARE YARD	~~1,477~~	1327.00
608(1B)	CONCRETE SIDEWALK, 6 INCHES THICK	SQUARE YARD	~~351~~	569.90
608(6)	CURB RAMP	EACH	~~3~~	4.00
609(2)	CURB AND GUTTER, TYPE 1	LINEAR FOOT	~~3,931~~	3967.80
610(1)	DITCH LINING DELETED BY -CO.#4.	CUBIC YARD	~~200~~	
611(2-1)	RIPRAP, CLASS I	TON	~~350~~	856.91
611(2-2)	RIPRAP, CLASS II	TON	~~45~~	23.04
611(2-4)	RIPRAP, CLASS IV	TON	~~30~~	13.52
615(1)	STANDARD SIGN	SQUARE FOOT	~~108~~	127.00
618(2)	SEEDING	POUND	~~5~~	2.00
619(3)	BONDED FIBER MATRIX (BFM)	POUND	~~410~~	0.00
627(0)	FIRE HYDRANT RELOCATION	EACH	~~2~~	1.00
627(10)	ADJUSTMENT OF VALVE BOX	EACH	~~24~~	29.00
629(1)	GUARDRAIL PAVING	LINEAR FOOT	~~78~~	88.00
630(1)	GEOTEXTILE, SEPARATION	SQUARE YARD	~~730~~	981.33
634(1)	GEOGRID, TYPE MSE WALL	SQUARE YARD	640	
639(3)	APPROACH	EACH	~~55~~	58.00

ESTIMATE OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	PAY UNIT	QUANTITY
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
640(4)	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
641(1)	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641(3)	TEMPORARY EROSION . SEDIMENT AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
641(5)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	ALL REQUIRED
641(6)	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED
642(1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
642(3A)	THREE PERSON SURVEY PARTY	CONTINGENT SUM	ALL REQUIRED
642(8)	ADJUST EXISTING MONUMENT Deleted by: -CO.#7	EACH	~~19~~
642(11)	ADJUST EXISTING MONUMENT CASE Deleted by:-CO.#7	EACH	~~19~~
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643(9)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED
643(15)	FLAGGING	CONTINGENT SUM	ALL REQUIRED
643(23)	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
643(25)	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED
643(36)	TEMPORARY PEDESTRIAN PATH	LUMP SUM	ALL REQUIRED
			0
644(1)	FIELD OFFICE	LUMP SUM	ALL REQUIRED
644(2)	FIELD LABORATORY	LUMP SUM	ALL REQUIRED
644(10)	ENGINEERING COMMUNICATIONS	CONTINGENT SUM	ALL REQUIRED
644(15)	NUCLEAR TESTING EQUIPMENT STORAGE SHED	EACH	1

BASIS OF ESTIMATE

ITEM #	ITEM	ESTIMATING FACTOR
201(3B)	CLEARING AND GRUBBING	1.3 ACRE
203(6)	BORROW	1.70 TON / CY
	TYPE A = 650 CY	
	TYPE D = 700 CY	
301(1)	AGGREGATE BASE COURSE, GRADING D 1	1.95 TON / CY
304(1)	SUBBASE, GRADING B	1.90 TON / CY
401(1B)	HMA, TYPE II, CLASS B	120 LBS / SY / IN
401(4B)	ASPHALT BINDER, GRADE PG 58-26	6.0% OF ITEM 401 (1B)
611	RIPRAP CLASS I, II, & IV	1.55 TONS / CY
619(3)	BONDED FIBER MATRIX (BFM)	4000 LBS / ACRE
670(1)	PAINTED TRAFFIC MARKINGS	
	4" SOLID, WHITE = 9338 LF	
	4" SOLID DOUBLE, YELLOW = (4617 LF x 2) = 9234 LF	
	24" WHITE, STOP BAR = 44 LF	

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA
49TH
DARRYL C. LESTER
4/4/2018
CE-11514
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

ESTIMATE OF QUANTITIES

25D-025
10/16

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

FINAL ESTIMATE

SUMMARY OF QUANTITIES

Project No.:
Z680290000/0003158, NH-STP-0003(158)
Project Name & Location:
WRG: Evergreen Road Improvements and Pedestrian Access
Wrangell, Alaska

NEW ITEMS ADDED BY CHANGE ORDER

ITEM NO.	FA	ACT.	ITEM	UNIT	UNIT PRICE	QUANTITY	AMOUNT
202(9A)	T04006	153P	Removal of Curb and Gutter - CO 15	Lump Sum	2,403.00	1.00	$ 2,403.00
506(7)	T04006	153P	Additional Stairway - CO 6	Lump Sum	3,335.00	1.00	$ 3,335.00
603(22)	T04006	153P	Drainage Modifications - CO 10	Lump Sum	9,464.00	1.00	$ 9,464.00
603(23)	T04006	153P	4-Inch Perforated Pipe - CO 14	Lump Sum	1,100.00	1.00	$ 1,100.00
604(10)	T04006	153P	Precast Concrete Price Adjustment - CO 3	Lump Sum	-512.80	1.00	$ (512.80)
604(10A)	T04006	153P	Modify Exisitng Inlet - CO 9	Lump Sum	5,000.00	1.00	$ 5,000.00
606(1A)	T04006	153P	Wood Post Price Adjustment - CO 16	Lump Sum	-454.25	1.00	$ (454.25)
606(14)	T04006	153P	Guardrail Modifications - CO 13	Lump Sum	12,775.35	1.00	$ 12,775.35
608(10)	T04006	153P	Reconstruct BOP Bulb Out - CO 11	Lump Sum	20,628.41	1.00	$ 20,628.41
608(11)	T04006	153P	6" Conc. Sidewalk/ped. Railing & Footer - CO 17, 18	Lump Sum	50,048.00	1.00	$ 50,048.00
610(1a)	T04006	153P	Ditch Lining, 4 Inch Minus - CO 4	Cubic Yard	100.00	142.91	$ 14,291.00
627(11)	T04006	153P	Fire Hydrant Adjustment (Complete) - CO 2	Lump Sum	3,200.00	1.00	$ 3,200.00
627(12)	T04006	153P	Furnish Valve Boxes - CO 5	Lump Sum	4,380.00	1.00	$ 4,380.00
627(13)	T04006	153P	Adj. Water, Sewer & Drainage Structures - CO 15	Lump Sum	16,419.52	1.00	$ 16,419.52
639(4)	T04006	153P	Residence Driveways - CO 19	Lump Sum	21,421.00	1.00	$ 21,421.00
641(8)	T04006	153P	ADEC Excavation Dewatering Gen. Permit - CO 1	Lump Sum	5,000.00	1.00	$ 5,000.00
642(13)	T04006	153P	Furnish & Install Monuments & Cases - CO 7	Lump Sum	14,260.00	1.00	$ 14,260.00
670(13)	T04006	153P	Remove & Relocate Crosswalk Markings - CO 12	Lump Sum	5,100.00	1.00	$ 5,100.00

Steve Mielke 12/30/21

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	D1	7

202 (4) REMOVAL OF CULVERT PIPE

STATION "E"	OFFSET		DIAMETER (IN)	LENGTH (FT)	REMARKS
	LEFT	RIGHT			
11+98		19.00	12	20.0	
12+85		19.00	18	24.0	
13+16		0.00	18	31.0	
13+16	18.00		18	9.0	
13+36		19.00	18	31.0	
14+42		19.00	12	20.0	
14+43	29.00		24	20.0	
14+51		0.00	24	43.0	
14+74		18.00	12	38.0	
15+14		18.00	12	41.0	
20+01		29.50	18	15.0	CMP, REPLACE PIPE WITHIN RIGHT OF WAY
20+04		-	24	46.0	CMP, ABANDON & FILL CULVERT.
20+39		21.00	18	48.0	
21+16		20.00	18	23.0	
21+28		-	24	57.0	
21+44		20.00	18	38.0	
22+27		20.00	18	24.0	
22+78		20.00	18	36.0	
25+26		18.00	12	28.0	
27+13		18.00	12	20.0	
25+76		18.00	12	13.0	
26+24		18.00	12	43.0	
26+86		0.00	24	34.0	
26+86	25.00		24	46.0	
30+77		0.00	24	39.0	
30+95	19.00		18	25.0	
31+67	19.00		18	104.0	
31+20		21.00	18	81.0	
31+86		21.00	18	40.0	
32+55		0.00	18	46.0	
35+82		23.00	18	56.0	
36+89		26.00	18	44.0	
38+03		21.00	18	30.0	
38+75		20.00	18	25.0	
39+48		17.00	18	25.0	
40+98		19.00	18	26.0	
43+83		0.00	18	49.0	
44+22	22.00		18	26.0	
44+27		20.00	18	40.0	
44+81	19.00		18	27.0	
45+23		21.00	18	70.0	
45+43	20.00		18	40.0	
46+14	20.00		18	101.0	
46+20		22.00	18	20.0	
47+95	24.00		12	50.0	
50+98	25.00		18	40.0	
51+18		18.00	18	28.0	
51+83		18.00	10	5.0	
52+16	23.00		18	28.0	
52+19		19.00	18	41.0	
53+72		19.00	24	70.0	
53+90	23.00		18	32.0	
54+27		19.00	18	24.0	
54+65	19.00		18	70.0	
54+76		21.00	18	33.0	
55+68	18.00		18	25.0	

202(1) REMOVAL OF STRUCTURES AND OBSTRUCTIONS

NO.	ITEM	QUANTITY	REMARKS
1	CONCRETE SIDEWALK	429 SF	"E" 10+50, 18' LT, SAWCUT AND REMOVE
2	CURB & GUTTER	351 LF	"E" 10+35, 12-18' LT. TO 10+37, RT. SAWCUT
3	CONCRETE INLET BOX WITH FRAME & GRATE	1 EA	"E" 13+16, 13.42' LT
4	48" CPP INLET WITH LID	1 EA	"E" 14+53, 26.3' LT
5	CONCRETE INLET BOX WITH FRAME & GRATE	1 EA	"E" 14+51, 19' RT
6	CONCRETE INLET BOX WITH FRAME & GRATE	1 EA	"E" 14+90, 18' RT
7	CONCRETE INLET BOX WITH FRAME & GRATE	1 EA	"E" 15+31, 19' RT
8	CONCRETE PATCH IN ROADWAY	245 SF	"E" 15+00
9	CONCRETE PATCH IN ROADWAY	87 SF	"E" 14+23, 4' LT
10	CONCRETE INLET BOX WITH FRAME & GRATE	1 EA	"E" 20+08, 25' RT
10B	CONCRETE INLET BOX WITH FRAME & GRATE	1 EA	"E" 21+26, 20' RT
11	9 CY ROCK	1 EA	"E" 26+40, 18' RT. REMOVE & REPLACE FOR STORM PIPE INSTALLATION
12	STAIRS & LANDING	1 EA	"E" 25+76, 20' RT. 5'X5.5'
13	CONCRETE STAIRS	1 EA	"E" 27+40, 23' LT. 4.5'x14'
14	STEEL BOLLARDS	2 EA	"E" 39+36, RT, SALVAGE, BAND TO PALLET & DELIVER TO WRG PUBLIC WORKS @ 1119 CASE AVE.
15	STAIRS	1 EA	"E" 28+50, 70' LT. 3'X12'
16	STAIRS & LANDING	1 EA	"E" 28+57, 62' LT. 4'X22'
17	CONCRETE WALKWAY	30 SF	"E" 30+09, 21' LT
18	SDMH WITH FRAME & GRATE	1 EA	"E" 26+87, 16' LT
19	SDMH WITH FRAME & GRATE	1 EA	"E" 30+83, 18' LT
20	CONCRETE INLET BOX WITH FRAME & GRATE	1 EA	"E" 31+09, 19' LT

506 (6) STAIRWAY SUMMARY

STATION "E"	OFFSET	NUMBER		REMARKS
		LANDINGS	TREADS	
25+76.7	21.7' RT	0	6	ONE STAIR RUN. MATCH TO EXISTING TOP WALKWAY.
27+30.9	21.7' LT	2	10 & 6	TWO STAIR RUNS, ONE TOP LANDING, ONE INTERMEDIATE LANDING. NOTE STAIR DIRECTION CHANGE.
28+52.6	62.2' LT	0	13	ONE STAIR RUN, ONE TOP LANDING, RETAIN BOTTOM LANDING
28+60.2	21.5' LT	2	10 & 11	TWO STAIR RUNS, ONE TOP LANDING, ONE INTERMEDIATE LANDING
28+66.3	63.1' LT	0	7	ONE STAIR RUN, ONE TOP LANDING. RECONSTRUCTING WALKWAY IS INCLUSIVE WITH STAIRWAY.
30+08.7	21.5' LT	0	4	ONE STAIR RUN

STATION AND OFFSET ARE TAKEN AT CENTER OF TOP LANDING OR TREAD AND ARE APPROXIMATE. STAIR LENGTHS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY USING FIELD MEASUREMENTS AND ADJUST AS NECESSARY. SEE SHEETS J4 - J6 FOR DETAILS.

507 (2) PEDESTRIAN RAILING

STATION "E"		LENGTH (FT)	OFFSET	REMARKS
FROM	TO			
15+10.1	15+51.6	40.5	LT	INSTALLED ON MSE WALL #2
26+69.8	28+18.9	250.5	LT	INSTALLED ON MSE WALL #5
37+40.0	37+62.0	22.0	LT	INSTALLED ON MSE WALL #6

511 (1) MECHANICALLY STABILIZED EARTH WALL

WALL ID #	STATION "E"		LENGTH (FT)	OFFSET	EXPOSED WALL FACE AREA (SF)	REMARKS
	FROM	TO				
1	10+33	10+42	13.1	RT	35	REMOVE AND RECONSTRUCT EXISTING WALL
2	15+10	15+51	40.5	LT	65	PEDESTRIAN RAILING INSTALLED ON WALL
3	19+95	24+50	457.3	LT	2,825	
4	26+05	26+52	61.5	LT	225	
5	26+69	28+19	150.4	LT	900	PEDESTRIAN RAILING INSTALLED ON WALL
6	37+40	37+62	21.5	LT	145	PEDESTRIAN RAILING INSTALLED ON WALL

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA
DARRYL G LESTER
3/7/2018
CE-11514
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
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EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

SUMMARIES

TILE | Q:\Wrk\68029\Planset\68029_01-08 SUMS.dwg | DESIGNED D.B., D.L. | CHECKED K. K. | DRAFTED R. G. | DATE 3/7/2018 3:04 PM | LAYOUT D1

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	D2	7

603 (21) CORRUGATED POLYETHYLENE PIPE

PIPE NO.	SIZE (IN)	INLET			OUTLET			LENGTH (FT)	GRADE %	REMARKS
		STATION	OFFSET	INVERT	STATION	OFFSET	INVERT			
DP-1	12	11+84.6	19.0 RT	25.9	12+06.1	19.3 RT	25.8	21.8	0.46%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-2	18	12+71.0	18.9 RT	24.9	12+96.3	19.1 RT	24.6	25.8	1.08%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-3	18	22+40.6	20.6 RT	53.5	22+13.5	19.2 RT	53.3	27.1	0.63%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-4	18	22+99.5	20.7 RT	55.0	22+61.9	21.0 RT	54.5	37.6	1.20%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-5	12	25+07.9	17.3 RT	51.8	25+39.8	17.4 RT	51.2	31.3	1.92%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-6	12	25+68.3	18.0 RT	50.7	25+83.2	17.4 RT	50.5	15.0	1.34%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-7	12	26+02.8	17.7 RT	50.2	26+47.8	17.4 RT	49.8	45.0	0.89%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-9	12	"G1" 11+88.8	6.7 RT	99.3	"G1" 11+88.9	9.9 LT	97.8	16.7	9.16%	INSTALL CLASS I RIPRAP AT OUTLET OF PIPE. INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-10	12	"G1" 12+20.6	6.7 RT	40.2	"G1" 12+13.8	6.7 RT	39.9	6.9	4.35%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-11	18	31+61.2	21.1 RT	61.0	30+77.0	20.3 RT	57.7	83.8	3.94%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-12	18	32+07.2	20.9 RT	62.5	31+63.7	21.0 RT	61.1	43.6	3.14%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-13	18	35+49.7	22.9 RT	63.5	36+07.8	23.6 RT	61.9	59.1	2.71%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-14	18	36+46.8	26.7 RT	60.7	36+61.9	26.6 RT	60.3	15.6	2.57%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-15	18	36+64.7	26.6 RT	60.0	37+08.7	25.3 RT	59.1	45.2	1.99%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-16	18	38+19.4	19.7 RT	59.1	37+86.9	24.2 RT	58.7	32.8	1.22%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-17	18	38+90.1	19.0 RT	59.2	38+59.6	20.4 RT	58.8	30.6	1.31%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-18	18	39+63.3	19.0 RT	61.2	39+28.4	19.0 RT	60.1	34.8	3.10%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-19	18	41+10.8	19.8 RT	67.6	40+80.4	19.0 RT	66.2	30.5	4.59%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-20	18	44+50.6	19.2 RT	77.9	44+03.3	19.1 RT	76.6	44.3	2.93%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-21	18	44+35.7	21.5 LT	77.7	44+08.1	23.0 LT	77.2	29.8	1.68%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-22	18	44+96.1	19.2 LT	80.5	44+66.0	20.5 LT	79.3	30.5	3.93%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-23	18	45+59.1	22.0 RT	82.2	44+87.1	20.1 RT	79.6	72.1	3.61%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-24	18	45+62.1	19.8 LT	82.3	45+21.7	19.4 LT	81.8	40.4	1.24%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-25	18	46+66.7	21.2 LT	87.0	45+65.7	19.8 LT	82.4	101.2	4.55%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-26	18	46+32.1	21.2 RT	86.2	46+08.7	21.1 RT	85.1	23.3	4.71%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-27	18	48+18.5	21.3 RT	92.0	47+52.0	21.4 RT	90.8	66.5	1.80%	(NEW PIPE) INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-28	12	48+22.2	24.3 LT	92.6	47+68.7	23.7 LT	91.7	53.5	1.68%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-29	12	48+80.5	25.2 LT	93.0	48+28.7	24.4 LT	92.7	51.8	0.58%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-30	18	48+72.4	21.8 RT	92.6	48+32.6	21.4 RT	92.2	39.8	1.01%	(NEW PIPE) INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-31	18	49+30.0	21.1 RT	93.0	48+91.6	21.8 RT	92.8	38.4	0.52%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-32	12	49+53.0	24.6 LT	93.4	49+07.1	25.5 LT	93.2	45.9	0.44%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-33	12	49+74.0	20.7 RT	94.0	49+42.9	21.1 RT	93.4	31.1	1.93%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-34	18	50+76.0	24.9 LT	93.6	51+19.5	24.2 LT	93.4	42.7	0.47%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-35	18	51+02.2	19.2 RT	93.3	51+33.8	19.0 RT	92.7	31.6	1.90%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-36	18	51+77.8	19.0 RT	91.6	51+88.2	19.0 RT	91.3	10.3	2.90%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

SUMMARIES

FILE | Q:\Wrg\68029\Planset\68029_D1-D8 SUMS.dwg | DATE | 4/6/2018 2:56 PM | LAYOUT | D2 | DESIGNED | D.B., D.L. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	D3	7

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DATE	4/6/2018 2:56 PM
LAYOUT	D3
DESIGNED	D.B., D.L.
CHECKED	K. K.
DRAFTED	R. G.

603 (21) CORRUGATED POLYETHYLENE PIPE

PIPE NO.	SIZE (IN)	INLET			OUTLET			LENGTH (FT)	GRADE %	REMARKS
		STATION	OFFSET	INVERT	STATION	OFFSET	INVERT			
DP-37	18	51+97.4	19.0 RT	91.1	52+40.6	19.0 RT	89.9	43.3	2.82%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP 38	18	52+01.5	23.1 LT	91.4	52+31.7	22.2 LT	90.3	30.2	3.65%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-39	18	53+35.3	19.0 RT	87.3	54+07.7	19.8 RT	86.4	72.4	1.24%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-40	18	53+72.2	23.9 LT	86.2	54+07.4	21.8 LT	85.9	35.3	0.85%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-41	18	54+14.3	19.5 RT	86.1	54+40.7	19.0 RT	85.3	26.4	3.03%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-42	18	54+28.7	20.0 LT	85.4	55+01.8	19.4 LT	84.3	73.1	1.50%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-43	18	54+56.3	19.0 RT	85.0	54+94.0	21.5 RT	84.7	37.8	0.79%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-44	18	55+53.7	19.6 LT	83.5	55+83.4	18.9 LT	82.9	29.7	2.02%	INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
P-1	18	13+18.2	19.6 RT	24.0	13+18.7	23.9 RT	23.8	43.5	0.57%	INSTALL HEADWALL AT PIPE OUTLET
P-2	18	S-1		23.1	S-2		22.4	30.0	2.33%	
P-3	18	S-2		22.3	S-3		21.2	206.2	0.53%	
P-4	24	15+75.3	27.3 RT	26.8	S-3		25.0	42.4	4.34%	
P-5	24	S-3		21.1	15+78.3	44.4 LT	20.8	29.5	1.02%	
P-6	24	18+61.7	20.6 RT	40.9	S-4		40.7	35.6	0.67%	
P-7	24	S-4		40.6	18+62.5	36.9 LT	40.4	21.9	0.91%	
P-8	18	S-5		49.6	19+70.0	18.1 RT	49.0	36.4	1.57%	
P-9	18	19+96.1	33.0 RT	-	S-5		50.8	12.5	-	CONNECT INLET TO EXISTING CULVERT AT RIGHT-OF-WAY
P-10	18	20+55.8	20.0 RT	51.3	S-5		49.6	46.0	3.65%	
P-11	24	S-6		52.1	21+30.6	37.0 LT	46.1	57.8	10.37%	INSTALL RIPRAP AT PIPE OUTLET
P-12	18	21+65.6	20.0 RT	52.4	S-6		52.2	38.9	0.51%	
P-13	18	S-7B		48.0	S-7A		46.0	21.4	9.34%	
P-14A	24	26+86.6	18.0 RT	49.4	S-7A		47.2	23.6	9.30%	
P-14B	24	S-7A		41.1	26+85.1	59.1 LT	40.5	53.6	1.04%	INSTALL RIPRAP AT PIPE OUTLET
P-15	24	30+72	19.6 RT	57.3	S-11		57.0	47.5	0.63%	
P-16	24	S-11		54.8	S-8		45.5	62.4	14.83%	
P-17	24	S-8		45.5	S-9		43.4	50.1	4.11%	
P-18	24	S-9		43.4	S-10		27.0	31.1	52.82%	
P-19	24	S-10		25.9	"EA" 11+90.3	-	20.3	44.1	12.78%	INSTALL CLASS II & IV RIPRAP AT OUTLET OF PIPE
P-20	18	S-12		58.0	37+68	30.2 LT	57.7	24.2	1.24%	
P-21	18	43+80.2	18.7 RT	75.8	43+85.0	30.1 LT	75.0	49.0	1.63%	

603 (22) DUCTILE IRON PIPE

PIPE NO.	SIZE (IN)	INLET			OUTLET			LENGTH (FT)	GRADE %	REMARKS
		STATION	OFFSET	INVERT	STATION	OFFSET	INVERT			
DP-8	12	27+24.8	18.3 RT	50.8	27+02.8	18.0 RT	50.5	22.0	1.46%	USE 12" DIP, CLASS 50, AWWAC151 & C110 FOR CULVERT. INSTALL CONCRETE HEADWALL @ EACH END OF PIPE
DP-45	12	28+38.0	16.5 RT	53.4	27+75.0	17.53 RT	50.8	62.5	4.05%	USE 12" DIP, CLASS 50, AWWAC151 & C110 FOR CULVERT. INSTALL CONCRETE HEADWALL @ EACH END OF PIPE. GRADE DITCH @ INLET TO DRAIN.

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA
49TH
DARRYL G. LESTER
4/1/2018
CE-11514
PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
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EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

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604 (3) RECONSTRUCT EXISTING MANHOLE

STATION	EXISTING OFFSET	STRUCTURE	NEW OFFSET	REMARKS
22+26	16.90' LT	SSMH FRAME	17.40' LT	ROTATE CONE AND ADJUST FRAME TO CLEAR CURB AND GUTTER
24+88	16.64' LT	SSMH FRAME	17.40' LT	ROTATE CONE AND ADJUST FRAME TO CLEAR CURB AND GUTTER
28+47	15.60' LT	SSMH FRAME	13.80' LT	ROTATE CONE 180 DEG TO BE CLOSEST TO EVERGREEN ROAD. INSTALL NEW LADDERS. FRAME LOCATED IN GUTTER. SEE SHEET J2.
30+80	16.00' LT	SSCO FRAME	16.42' LT	EXCAVATE CO DOWN TO ELBOW AND REROUTE SO CO FRAME IN SIDEWALK
31+82	17.02' LT	SSMH FRAME	17.40' LT	ROTATE CONE AND ADJUST FRAME TO CLEAR CURB AND GUTTER
34+38	16.84' LT	SSMH FRAME	17.40' LT	ROTATE CONE AND ADJUST FRAME TO CLEAR CURB AND GUTTER
36+95	14.90' LT	SSMH FRAME	13.10' LT	ROTATE CONE 180 DEG TO BE CLOSEST TO EVERGREEN ROAD. INSTALL NEW LADDERS. FRAME LOCATED IN GUTTER. SEE SHEET J2.
38+15	15.82' LT	SSMH FRAME	14.30' LT	ROTATE CONE 180 DEG TO BE CLOSEST TO EVERGREEN ROAD. INSTALL NEW LADDERS. FRAME LOCATED IN GUTTER. SEE SHEET J2.

NOTE: IF ROTATING CONE DOES NOT PROVIDE ADEQUATE CLEARANCE FROM CURB AND GUTTER, ADJUST CURB AND GUTTER OFFSET MAXIMUM OF 6" USING 100' CURB TAPERS ON EACH SIDE OF SHIFT LOCATION.

604 (4) ADJUST EXISTING MANHOLE

STATION	OFFSET	TYPE	REMARKS
10+20.9	21.7' RT	INLET	
14+19.8	3.0' LT	SSMH	
15+53.5	11.3' RT	SSMH	
18+15.8	25.3' LT	SSMH	
19+77.7	17.9' LT	SSMH	
19+89.2	25.0' RT	SSMH	
33+87.8	28.6' LT	SSMH	
40+96.8	15.3' LT	SSMH	
42+16.9	21.8' lt	SSMH	
44+34.5	15.9' LT	SSMH	
46+12.4	16.8' LT	SSMH	
47+75.4	16.0' RT	SSMH	
47+78.2	18.0' LT	SSMH	
50+71.2	18.3' LT	SSMH	

NOTES:
1. STORM DRAIN GRATE ELEVATION AT EDGE OF ASPHALT. SEE "D" STANDARD DRAWINGS FOR TOP OF CASTING ELEVATION PLACEMENT.

604 (8) JUNCTION BOX, TYPE 1A

STATION	OFFSET	REMARKS
27+03.4	30.1' LT	PROTECT PERFORATED PIPE CLEANOUT
28+49.7	49.0' LT	PROTECT PRIVATE WELL

604 (1-48) 48 INCH STORM SEWER MANHOLE

STRUCT. NO.	TYPE	FRAME OR LID	STATION	OFFSET (FT)	TOP OF CASTING ELEV. (FT)	SUMP ELEV. (FT)	REMARKS
S-3	48" SDMH	STD CURB INLET	15+77.0	15.0' LT	30.02	19.6	18-INCH SUMP
S-7A	48" SDMH	LID	26+86.7	5.5' LT	51.95	39.6	18-INCH SUMP
S-11	48" SDMH	LID	30+58.6	26.0' LT	61.43	53.3	18-INCH SUMP
S-10	48" SDMH	LID	"EA" 11+46.6	-	32.51	24.4	18-INCH SUMP

604 (1-72) 72 INCH STORM SEWER MANHOLE

STRUCT. NO.	TYPE	FRAME OR LID	STATION	OFFSET (FT)	TOP OF CASTING ELEV. (FT)	SUMP ELEV. (FT)	REMARKS
S-5	72" SDMH	LID	20+08.5	25.0' RT	53.22	48.1	18-INCH SUMP

604 (5) INLET, TYPE A

STRUCT. NO.	TYPE	FRAME OR LID	STATION	OFFSET (FT)	TOP OF CASTING ELEV. (FT)	SUMP ELEV. (FT)	REMARKS
S-1	TYPE A INLET	GUTTER INLET	13+67.2	15.0' RT	26.59	21.6	18-INCH SUMP
S-2	TYPE A INLET	STD CURB INLET	13+67.2	15.0' LT	25.83	20.8	18-INCH SUMP
S-4	TYPE A INLET	STD CURB INLET	18+62.2	15.0' LT	45.79	39.5	12-INCH SUMP
S-6	TYPE A INLET	FIELD INLET	21.26.63	20.3' RT	55.10	50.6	18-INCH SUMP
S-7B	TYPE A INLET	STD CURB INLET	26+87.6	15.0' LT	51.62	46.5	18-INCH SUMP
S-8	TYPE A INLET	LID	"EA"10+70.1	-	49.88	44.0	18-INCH SUMP
S-9	TYPE A INLET	LID	"EA" 11+20.2	-	47.78	41.9	18-INCH SUMP
S-12	TYPE A INLET	STD CURB INLET	37+05.8	15.0' LT	61.10	57.9	NO SUMP DUE TO UNDERLYING SEWER LINE

606 (1) W-BEAM GUARDRAIL INSTALLATION

STATION FROM	STATION TO	OFFSET (FT)	LENGTH (FT)	REMARKS
15+51	19+38	21 LT	227	8' POSTS. RUN INCLUDES DOWNSTREAM END ANCHORS.
10+52.4, 7.1' LT	10+72.5, 6.5' LT	LT	20	AT DRIVEWAY 19+50 LT. USE 8' POSTS
21+10	24+38	21 LT	430	RUN INCLUDES DOWNSTREAM END ANCHORS
37+51	37+89	16 RT	38	RUN INCLUDES DOWNSTREAM END ANCHOR.

606 (6) REMOVING AND DISPOSING GUARDRAIL

STATION FROM	STATION TO	OFFSET	LENGTH (FT)	REMARKS
14+28	14+76	LT	57	
15+04	19+27	LT	438	
19+79	20+05	LT	26	
19+91	24+31	LT	440	
37+07	38+12	LT	114	
37+13	37+90	RT	89	

606 (13) PARALLEL GUARDRAIL TERMINAL

STATION	OFFSET (FT)	REMARKS
37+14	16 RT	37.5' LENGTH

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

SUMMARIES

DESIGNED D.B., D.L. | DRAFTED R. G. | CHECKED K. K. | LAYOUT D4 | DATE 7/20/2017 10:49 AM | FILE D:\Wrg\680229\Plansel\680229_01-08 SUMS.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	D5	7

608 (1b) CONCRETE SIDEWALK, 6 INCHES THICK

STATION FROM	STATION TO	LENGTH (FT)	WIDTH (FT)	AREA (SY)	OFFSET	REMARKS
10+20.6	10+36.1	34.1	5.0	17.1	LT	FERRY TERMINAL INTERSECTION
10+96.0	11+33.8	37.8	5.0	21.0	LT	"E" LINE
12+11.4	12+83.3	70.6	5.0	39.1	LT	"E" LINE
14+08.5	14+38.4	29.4	5.0	16.3	LT	"E" LINE
14+76.2	15+14.6	37.7	5.0	20.9	LT	"E" LINE
19+42.0	19+85.3	44.6	5.0	24.9	LT	"E" LINE
24+50.0	25+25.8	76.3	5.0	42.4	LT	"E" LINE
25+55.5	25+83.6	28.1	5.0	15.6	LT	"E" LINE
26+20.6	26+69.8	49.2	5.0	27.3	LT	"E" LINE
28+84.4	29+19.6	35.4	5.0	19.7	LT	"E" LINE
29+72.0	30+21.1	49.4	5.0	27.4	LT	"E" LINE
30+66.3	31+10.0	44.0	5.0	24.5	LT	"E" LINE
33+72.9	34+63.1	91.6	5.0	54.9	LT	"E" LINE

608 (6) CURB RAMP

STATION	OFFSET		REMARKS
10+39.2	16.1	LT	INTERSECTION OF EVERGREEN AVE. & SECOND ST
10+39.4	16.0	RT	INTERSECTION OF EVERGREEN AVE. & SECOND ST
41+00.3	28.3	LT	INTERSECTION OF EVERGREEN AVE. & GRAVE ST

STATION AND OFFSET TAKEN AT CENTER OF RAMP AT TOP BACK OF CURB

609 (2) CURB AND GUTTER

STATION FROM	STATION TO	LENGTH (FT)	OFFSET	REMARKS
10+20.6	41+03.6	3174.0	LT	
10+22.4	10+42.2	37.2	RT	
10+42.2	11+43.7	104.6	RT	
13+22.4	15+51.6	233.0	RT	
27+76.5	31+59.0	382.2	RT	

SIDEWALK PULLOUT DATA AT POWER POLES

EXISTING POLE STA. LINE "E"	*OFFSET TO BACK OF SIDEWALK (ft) FROM LINE "E" CL	POLE RELOCATION STA. LINE "E"	POLE RELOCATION OFFSET TO FACE OF POLE (ft) FROM LINE "E" CL	REMARKS
21+18.7	23.50 LT	21+18.7	18.00 LT	POWER POLE RELOCATION TO BE PERFORMED BY OTHERS, SEE SECTION 651
22+79.2	23.50 LT	22+79.2	18.00 LT	POWER POLE RELOCATION TO BE PERFORMED BY OTHERS, SEE SECTION 651
24+40.6	23.50 LT	24+25.0	18.00 LT	POWER POLE RELOCATION TO BE PERFORMED BY OTHERS, SEE SECTION 651
25+96.1	24.50 LT	NA	NA	POWER POLE TO REMAIN IN PLACE, CONSTRUCT PULL OUT PER DETAIL
27+79.7	23.50 LT	27+80.0	18.00 LT	POWER POLE REPLACED BY OTHERS, SEE SECTION 651
29+59.6	23.50 LT	NA	NA	POWER POLE TO REMAIN IN PLACE, CONSTRUCT PULL OUT PER DETAIL
31+71.3	23.50 LT	NA	NA	POWER POLE TO REMAIN IN PLACE, CONSTRUCT PULL OUT PER DETAIL
34+14.0	23.00 LT	NA	NA	POWER POLE TO REMAIN IN PLACE, CONSTRUCT PULL OUT PER DETAIL
38+53.5	23.00 LT	NA	NA	POWER POLE TO REMAIN IN PLACE. CONSTRUCT PULL OUT PER DETAIL
40+05.8	23.75 LT	NA	NA	POWER POLE TO REMAIN IN PLACE, CONSTRUCT PULL OUT PER DETAIL
SEE SHEET M3, LAYOUT POINT SHOWN ON PULL OUT DETAIL				

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA 49TH DARRYL G. LESTER 6/21/2017 CE-11914 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

SUMMARIES

FILE: G:\Wrg\68029\Planset\68029_01-DB SUMS.dwg | DATE: 6/21/2017 1:33 PM | LAYOUT: D5 | DESIGNED: D.B., D.L. | CHECKED: K. K. | DRAFTED: R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	D6	7

615 (1) STANDARD SIGN SUMMARY

NO.	LEGEND	STATION	OFFSET	ASDS CODE	WIDTH (IN)	HEIGHT (IN)	AREA (SF)	POSTS	TYPE	FACES	REMARKS
1	STOP	10+43	LT	R1-1	30	30	6.25	1	2.5" PST	N	MOUNT UNDER SIGN 2
2	STIKINE AVE	10+43	LT	D3-1	48	12	4.00			E/W	6-IN UC/4.5 IN LC C-FONT
3	SECOND ST	10+43	LT	D3-1	30	8	1.67			N/S	4-IN UC/3 IN LC C-FONT & MOUNT ABOVE SIGN 2
4	SPEED LIMIT 25	11+45	RT	R2-1	30	36	7.50	1	2.5" PST	S	
5	NO PARKING ON PAVEMENT	11+95	RT	R8-1	24	30	5.00	1	2.5" PST	S	
6	NO PARKING ON PAVEMENT	15+93	RT	R8-1	24	30	5.00	1	2.5" PST	S	
7	STOP	32+00	RT	R1-1	30	30	6.25	1	2.5" PST	E/W	MOUNT UNDER SIGN 8
8	EVERGREEN AVE.	32+00	RT	D3-1	36	8	2.00	1	2.5" PST	N/S	4-IN UC/3 IN LC B-FONT
9	SPRING ST	32+00	RT	D3-1	42	12	3.50	1	2.5" PST	E/W	MOUNT UNDER SIGN 8
10	NO PARKING ON PAVEMENT	35+20	RT	R8-1	24	30	5.00	1	2.5" PST	S	
11	PETROGLYPH BEACH SHS <—	39+80	RT	D7-105L	48" X 36" X 29"		12.00	1	2.5" PST	S	"PETROGLYPH" ON TOP LINE, "BEACH SHS" ON MIDDLE LINE, LEFT ARROW ON BOTTOM LINE. USE 5" UC C-FONT. WHITE LEGEND ON BROWN BACKGROUND.
12	STOP	41+00	LT	R1-1	30	30	6.25	1	2.5" PST	N	MOUNT UNDER SIGN 13
13	GRAVE ST	41+00	LT	D3-1	36	12	3.00			E/W	6-IN UC/4.5 IN LC C-FONT
14	PETROGLYPH BEACH SHS <—	41+90	LT	D7-105L	48" X 36" X 29"		12.00	1	2.5" PST	N	"PETROGLYPH" ON TOP LINE, "BEACH SHS" ON MIDDLE LINE, LEFT ARROW ON BOTTOM LINE. USE 5" UC C-FONT. WHITE LEGEND ON BROWN BACKGROUND.
15	NO PARKING ON PAVEMENT	44+40	RT	R8-1	24	30	5.00	1	2.5" PST	S	
16	NO PARKING ON PAVEMENT	46+75	LT	R8-1	24	30	5.00	1	2.5" PST	E	
17	STOP	47+75	LT	R1-1	30	30	6.25	1	2.5" PST	N	
18	NO PARKING ON PAVEMENT	49+80	RT	R8-1	24	30	5.00	1	2.5"PST	W	
19	SPEED LIMIT 25	57+42	LT	R2-1	30	36	7.50	1	2.5" PST	E	
											NOTE: D3 1 SERIES SIGNS ARE DOUBLE SIDED

627 (6) FIRE HYDRANT RELOCATION

EXISTING LOCATION		NEW LOCATION		
STATION	OFFSET	STATION	OFFSET	REMARKS
36+54	24.47' RT	36+54	30.6 RT	CONSTRUCT HYDRANT PAD, WIDTH = 6', FG: 62.60, SURFACE w/6" BED COURSE
39+36	20' RT	39+36	22.5' RT	CONSTRUCT HYDRANT PAD, WIDTH = 6', FG: 63.5, SURFACE w/6" BED COURSE

627 (10) ADJUSTMENT OF VALVE BOX

STATION	OFFSET	REMARKS
10+27	10.88' RT	ON PAVEMENT
11+44	17.97' LT	ON NEW SIDEWALK
12+06	21.55' LT	ON NEW SIDEWALK
19+93	15.87' RT	DRIVEWAY
19+93	16.00' RT	DRIVEWAY
20+00	30.73' RT	ON P-7
22+22	17.86' RT	DRIVEWAY
22+23	21.30' RT	DRIVEWAY
24+97	9.26' RT	DRIVEWAY
25+02	17.66' RT	IN DITCH
31+83	16.87' RT	SPRING ST -
31+84	18.83' RT	SPRING ST -
31+84	18.92' RT	SPRING ST -
37+64	15.94' RT	DRIVEWAY - WATER FRONT LODGE
36+86	13.36' RT	ON PAVEMENT
38+36	23.70' RT	IN DITCH
41+91	8.27' RT	ON PAVEMENT
41+93	5.10' RT	ON PAVEMENT
44+30	13.50' RT	ON PAVEMENT
44+31	9.80' RT	ON PAVEMENT
50+85	16.14' RT	IN DITCH
50+86	15.71' RT	IN DITCH
55+27	19.58' RT	IN DITCH
55+30	17.41' RT	IN DITCH

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA 49TH DARRYL G. LESTER 6/21/2017 CE-11514 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

SUMMARIES

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	D7	7

FILE	Q:\Wrg\68029\Plansel\68029_D1-D8 SUMS.dwg
DATE	6/27/2017 9:49 AM
LAYOUT	D7
DESIGNED	D.B., D.L.
CHECKED	K. K.
DRAFTED	R. G.

639 (3) APPROACH

STATION	OFFSET LT	OFFSET RT	RADIUS R1	RADIUS R2	DRIVEWAY WIDTH	REMARKS
11+18		19.9'	0	0	31	WITH GUTTER - DRIVEWAY
11+95		19.8'	6	10	12	DRIVEWAY
12+84		20.0'	6	6	14	DRIVEWAY
13+34		20.1'	0	0	24	WITH GUTTER - DRIVEWAY
15+11		29.7'	6	6	48	WITH GUTTER - DRIVEWAY
19+85		29.1'	-	-	19	SEE SECTION 642 OF SPECIAL PROVISIONS - DRIVEWAY
20+34		27.9'	-	-	28	SEE SECTION 642 OF SPECIAL PROVISIONS - DRIVEWAY
21+27		22.0'	6	6	34	DRIVEWAY
22+27		20.6'	6	6	17	DRIVEWAY
22+84		22.0	6	6	20	DRIVEWAY
25+23		23.1'	6	6	23	DRIVEWAY
26+21		20.0'	6	6	29	DRIVEWAY
27+14		20.0'	3	3	18	DRIVEWAY
28+04		19.1'	0	0	36	WITH GUTTER - DRIVEWAY
29+86		19.8'	0	0	37	WITH GUTTER - DRIVEWAY
30+92		22.0'	0	0	15	WITH GUTTER - DRIVEWAY
31+46		23.0'	0	0	18	WITH GUTTER - DRIVEWAY
31+86		38.0'	18	18	21	SPRING STREET
35+84		44.2'	20	20	32	STOUGH'S 1 TRAILER COURT
36+89		59.9'	20	20	27	STOUGH'S 2 TRAILER COURT
38+01		18.0'	3	3	14	DRIVEWAY
38+76		21.0'	6	6	14	DRIVEWAY
39+51		19.6'	6	3	16	DRIVEWAY
41+00		24.0'	3	6	9	DRIVEWAY
41+64	25.0'		5	10	27	DRIVEWAY
42+18	31.7'		10	10	20	DRIVEWAY
42+59	30.2'		10	10	20	DRIVEWAY
44+20	27.4'		10	10	10	DRIVEWAY
44+25		21.5'	10	10	22	DRIVEWAY
44+81	26.9'		10	10	15	DRIVEWAY
45+01		22.0'	3	3	16	DRIVEWAY
45+41		18.0'	3	3	27	DRIVEWAY
45+47	30.5'		6	6	16	DRIVEWAY
46+02	18.5'		6	6	11	DRIVEWAY
46+21		18.0'	3	3	15	DRIVEWAY
46+54	25.8'		6	6	9	DRIVEWAY
47+80		26.1	10	10	38	DRIVEWAY
47+97	20.0'		6	6	48	THIRD AVE
48+52	20.0'		6	6	22	DRIVEWAY
48+55		17.9'	6	6	17	DRIVEWAY
49+09		18.1	6	6	20	DRIVEWAY
49+30	20.0'		0	0	27	DRIVEWAY
49+60		17.7'	6	6	19	DRIVEWAY
49+90	20.0'		6	6	15	DRIVEWAY
50+10		22.0'	3	3	17	DRIVEWAY
51+10	33.2'		6	6	10	DRIVEWAY
51+18		27.3'	3	3	20	DRIVEWAY
52+16	26.0'		6	6	20	DRIVEWAY
52+19		18.0'	3	3	33	DRIVEWAY

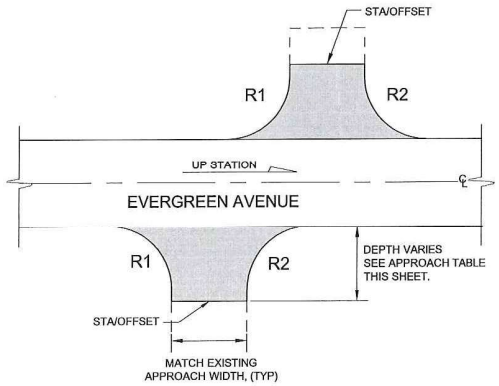
STATION/OFFSET GIVEN IS TO CENTER OF DRIVEWAY.

639 (3) APPROACH

STATION	OFFSET LT	OFFSET RT	RADIUS R1	RADIUS R2	DRIVEWAY WIDTH	REMARKS
53+46		24.0'	3	0	9	DRIVEWAY
53+83		26.0'	0	3	34	DRIVEWAY
53+92	34.0'		6	6	20	CONCRETE - DRIVEWAY
54+26		25.0'	3	3	11	DRIVEWAY
54+48	31.4'		6	6	18	CONCRETE - DRIVEWAY
54+76		18.0'	3	3	26	DRIVEWAY
55+74	32.7'		6	6	16	CONCRETE - DRIVEWAY

642 (8,11) ADJUST EXISTING MONUMENT & CASE

STATION	OFFSET	REMARKS
12+01	0.14' LT	
16+15	0.16' RT	
16+64	0.76' RT	
19+77	0.09' LT	
20+14	0.25' RT	
21+05	0.94' RT	
22+68	0.15' RT	
26+10	0.46' LT	
27+59	0.42' LT	
31+29	0.28' RT	
33+12	0.02' LT	
34+88	0.18' RT	
35+62	0.34' RT	
37+82	0.22' RT	
41+17	0.22' RT	
44+72	0.66' RT	
47+96	0.50' LT	
51+96	1.87' LT	
54+96	2.05' RT	



APPROACH / DRIVEWAY APRON DETAIL

NTS

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA 49TH DARRYL G. LESTER 6/27/2017 CE-11514 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

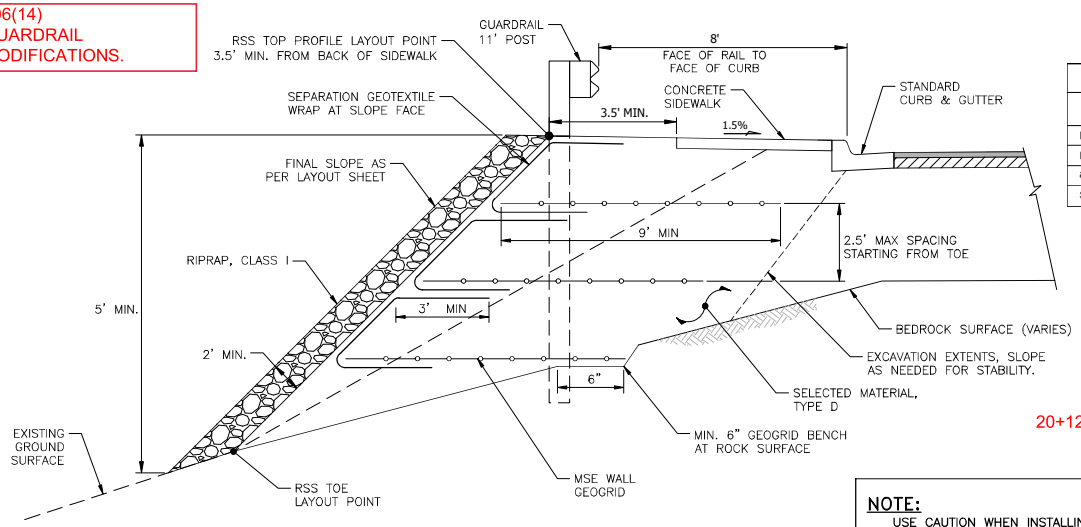
SUMMARIES

606(14)
GUARDRAIL
MODIFICATIONS.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2018	E1	1

THE DETAILS SHOWN REPLACE SPECIFIC DETAILS IN THE ORIGINAL SEALED PLANS.

ORIGINAL DETAIL REMOVED	ORIGINAL PLAN SHEET	REPLACE WITH CORRECTED DETAIL SHOWN
MECHANICALLY STABILIZED EARTH (MSE) WALL TYPICAL SECTION	M1	MECHANICALLY STABILIZED EARTH (MSE) WALL TYPICAL SECTION
REINFORCED SOIL SLOPE (RSS) TYPICAL SECTION	M1	REINFORCED SOIL SLOPE (RSS) TYPICAL SECTION
8' GUARDRAIL POST	B2	11' GUARDRAIL POST
SUMMARY TABLE 606(1) W-BEAM GUARDRAIL INSTALLATION	D4	SUMMARY TABLE 606(1) W-BEAM GUARDRAIL INSTALLATION



20+12

NOTE:
USE CAUTION WHEN INSTALLING
THE POSTS THROUGH THE GEOGRID.

REINFORCED SOIL SLOPE (RSS) TYPICAL SECTION

"E" STA. 15+55.00 TO STA. 18+00.00

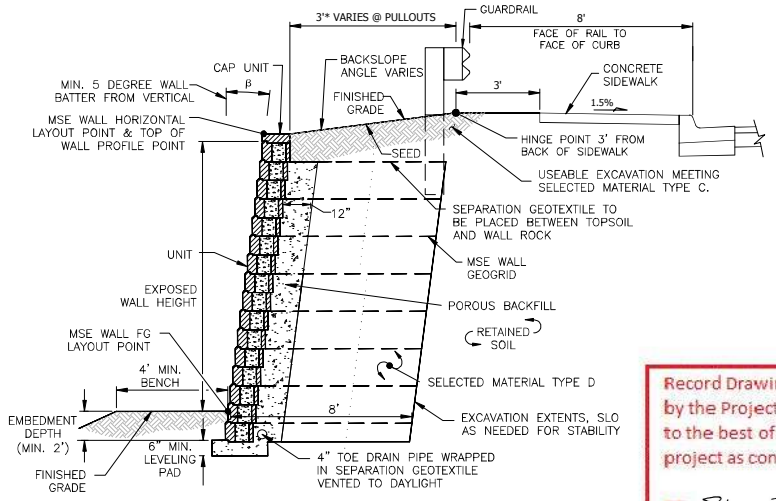
606 (1) W-BEAM GUARDRAIL INSTALLATION

STATION FROM	STATION TO	OFFSET (FT)	LENGTH (FT)	REMARKS
15+51	19+38	23.5 LT	~~227~~ 387'	USE 11' POSTS FROM 15+51 TO 18+40.*USE 6' POSTS FROM 18+40 TO 19+38. SEE DETAIL. RUN INCLUDES DOWNSTREAM END ANCHORS.
10+52.4, 7.1' LT	10+72.5, 6.5' LT	LT	20	AT DRIVEWAY 19+50 LT. USE 8' POSTS. SEE SHEET F13.
~~21+10~~	24+38	23.5 LT	430	RUN INCLUDES DOWNSTREAM END ANCHORS.
3/+51	3/+89	16 RT	38	RUN INCLUDES DOWNSTREAM END ANCHOR.

* Sta: 18+40 to 19+38 RT., based on materials on-hand, option to use 6 or 8 foot posts.

Description:This item provdes compensation for all additional materials & construction cost assoc.W/ the Dept. modifying the guard rail sections in the plans.See Plan sheet E1,identified as attachment No.1 for details in general the Guardrail was to be installed @ the back of the sidewalk in the as-bid plans,& is being modified for installation @ 8' behind the face of curb. Due to the slope requirements behind guardrail post,this modification will require an adjustment to "as-bid" materials. Specificlly:the number of 6' & 8' post quantities , Plus the addition of 11' post.

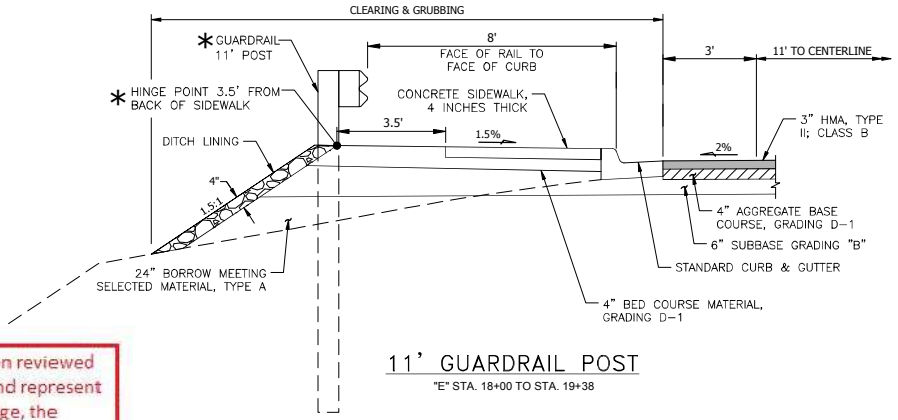
CHANGE ORDER # 13



MECHANICALLY STABILIZED EARTH (MSE) WALL TYPICAL SECTION

WALL #3 "E" STA. 19+95.00 TO STA. 24+50.00
WALL #4 "E" STA. 26+05.72 TO STA. 26+52.22

* BEGINNING AT STA. 18+40, MOVE HINGE POINT OUTWARD TO 3.5' BEHIND FACE OF GUARDRAIL AND BEGIN USING 6' POSTS.



11' GUARDRAIL POST

"E" STA. 18+00 TO STA. 19+38

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

PE Steve Mielke Date 12/30/21

C.O. #13, Attachment No.1.

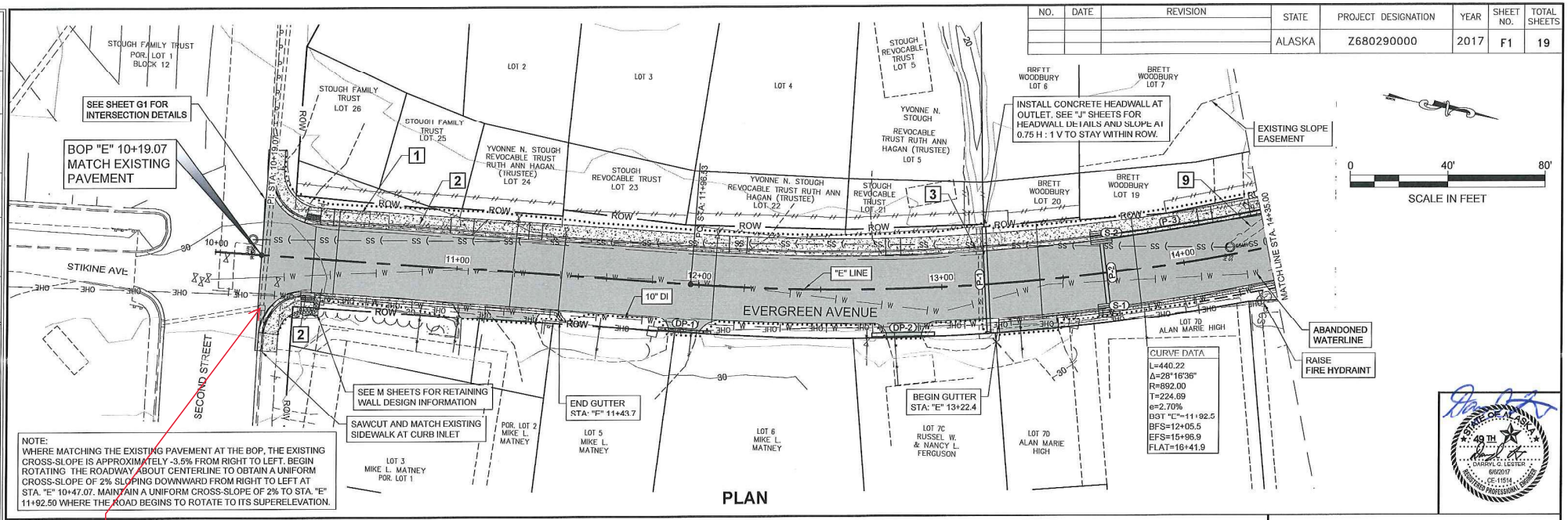
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

RETAINING WALL DETAIL

FILE | Q:\Wrg\68029\Planset\GUARDRAIL\GUARDRAIL.dwg | DATE | 8/2/2018 3:34 PM | LAYOUT | E1 | DESIGNED | DL | L.C., D.B. | DRAFTED | RG

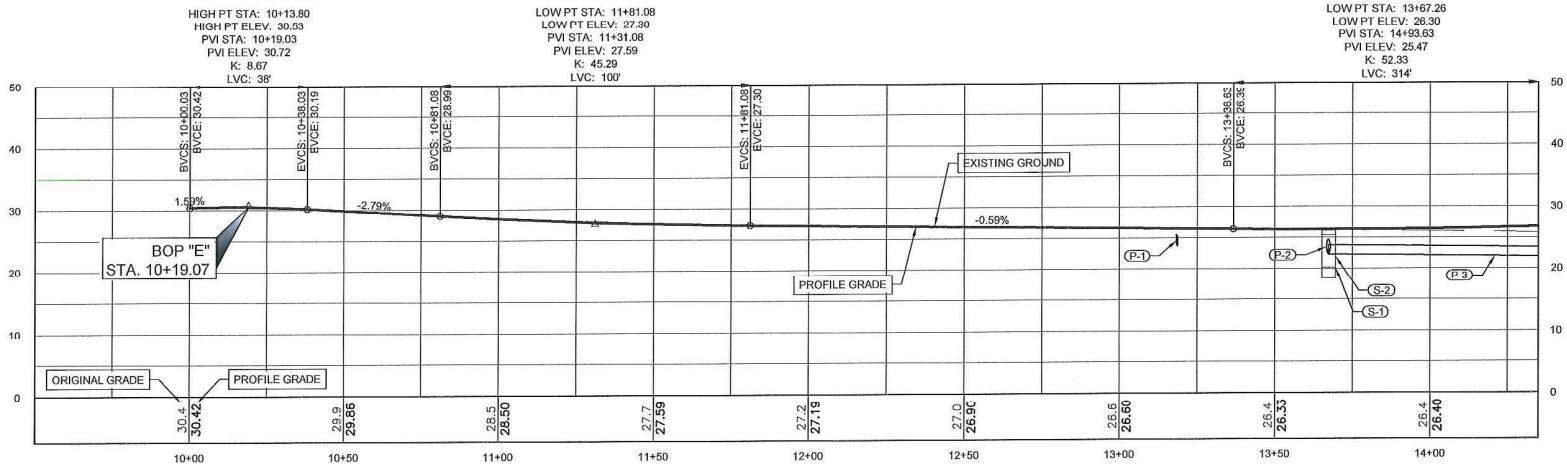
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F1	19



PLAN

604(10A)Modify existing cast-in-place field inlet at Station 10+22, 22' RT. by lowering riser approximately 6" replacing existing slotted drain w/new frame & lid, and setting flush w/finished pavement surface.

PLAN & PROFILE



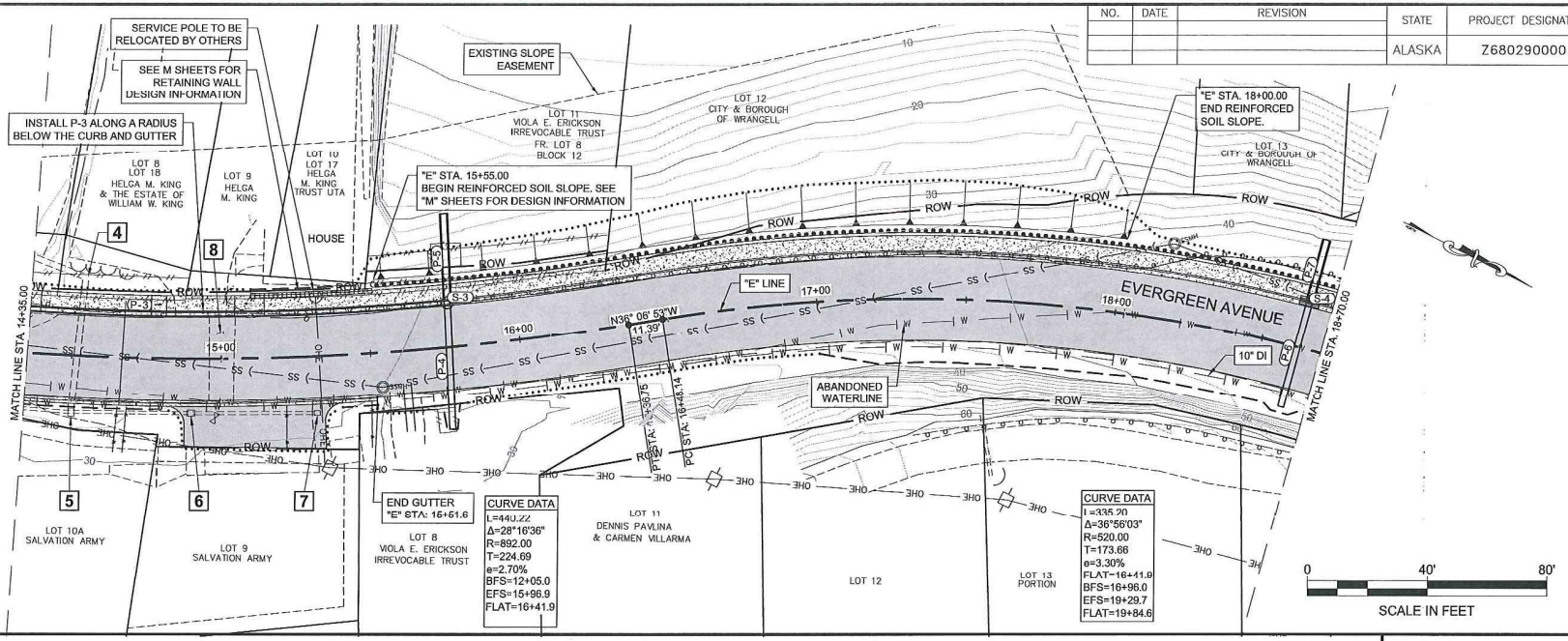
PROFILE

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

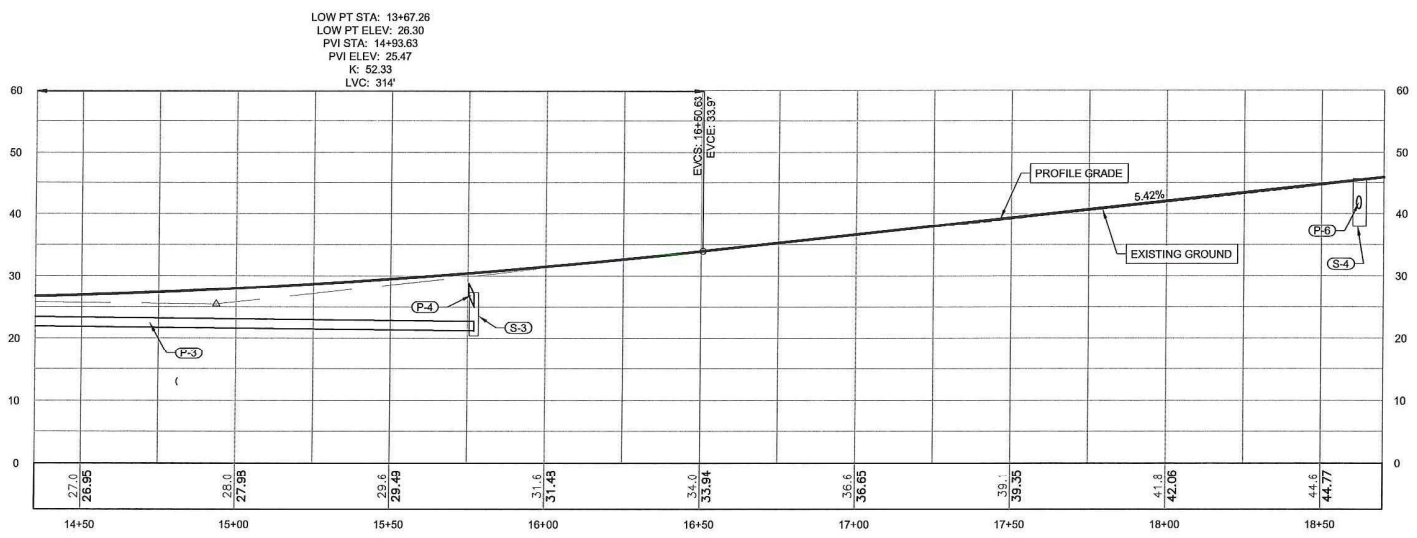
PE Steve Mielke Date 12/30/21

FILE | DRAFTED | CHECKED | DESIGNED | DATE | R. G. | K. K. | D.L. | D.B. | 6/6/2017 3:01 PM | LAYOUT | F1 | C:\Wrg\68029\Planset\68029_F1-F12_P&P.DWG

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F2	19



PLAN & PROFILE



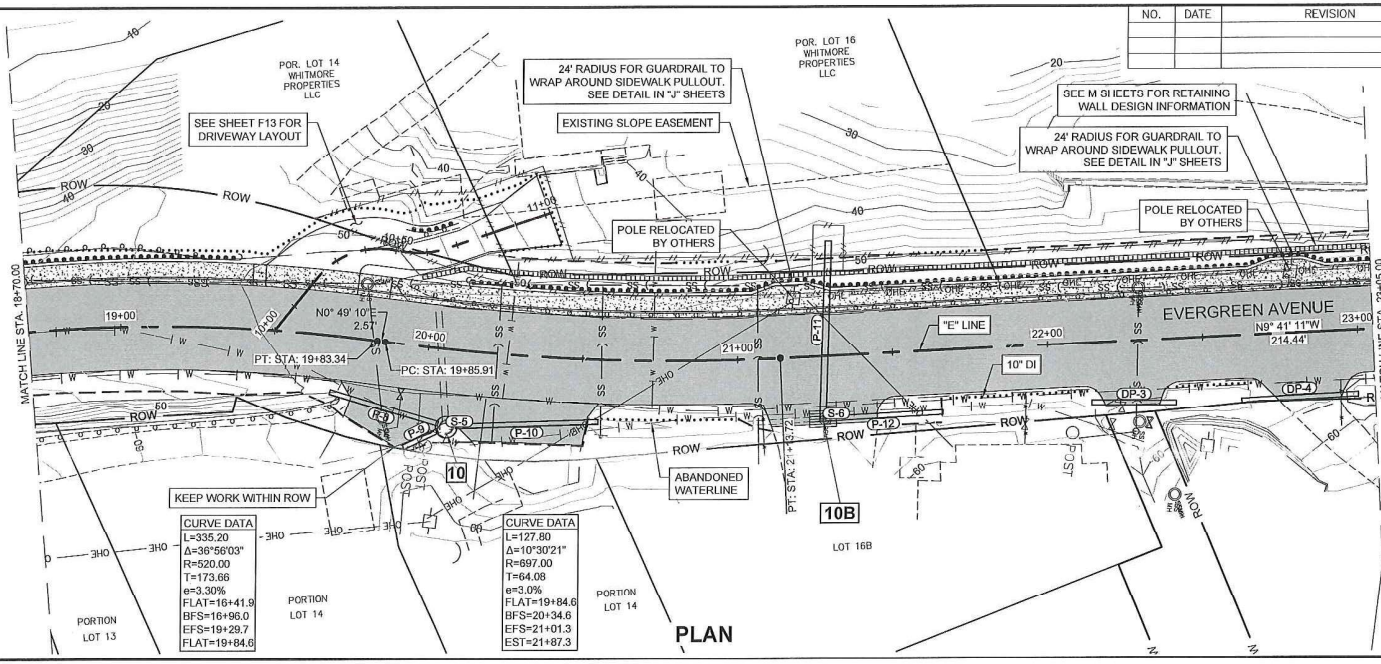
PROFILE

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

PE Steve Mielke Date 12/30/21

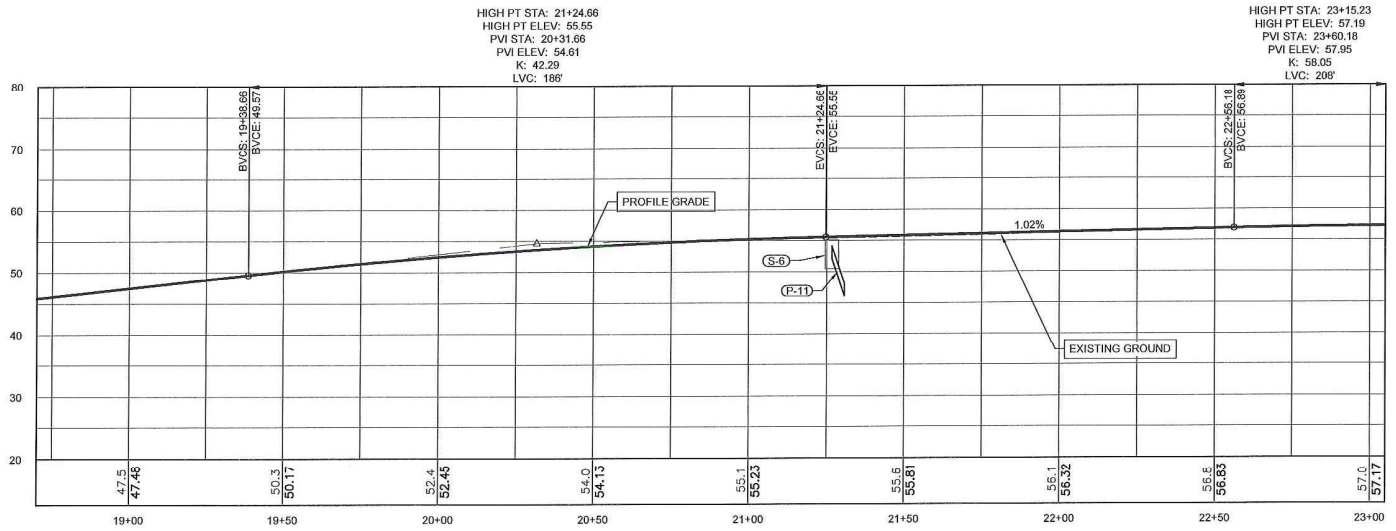
FILE Q:\Wrg\68029\Planset\68029_F1-F12_P&P.DWG | DATE 6/30/2017 11:04 AM | LAYOUT F2 | DESIGNED D.B., D.L. | CHECKED K. K. | DRAFTED R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F3	19



PLAN

PLAN & PROFILE



PROFILE

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

PE Steve Mielke Date 12/30/21

FILE | DATE | LAYOUT | DESIGNED | CHECKED | DRAFTED | R. G.
C:\Wrg\680291\Planset\680291_F1-F12_P&P.DWG | 6/6/2017 3:02 PM | F3 | D.B., D.L. | K. K.

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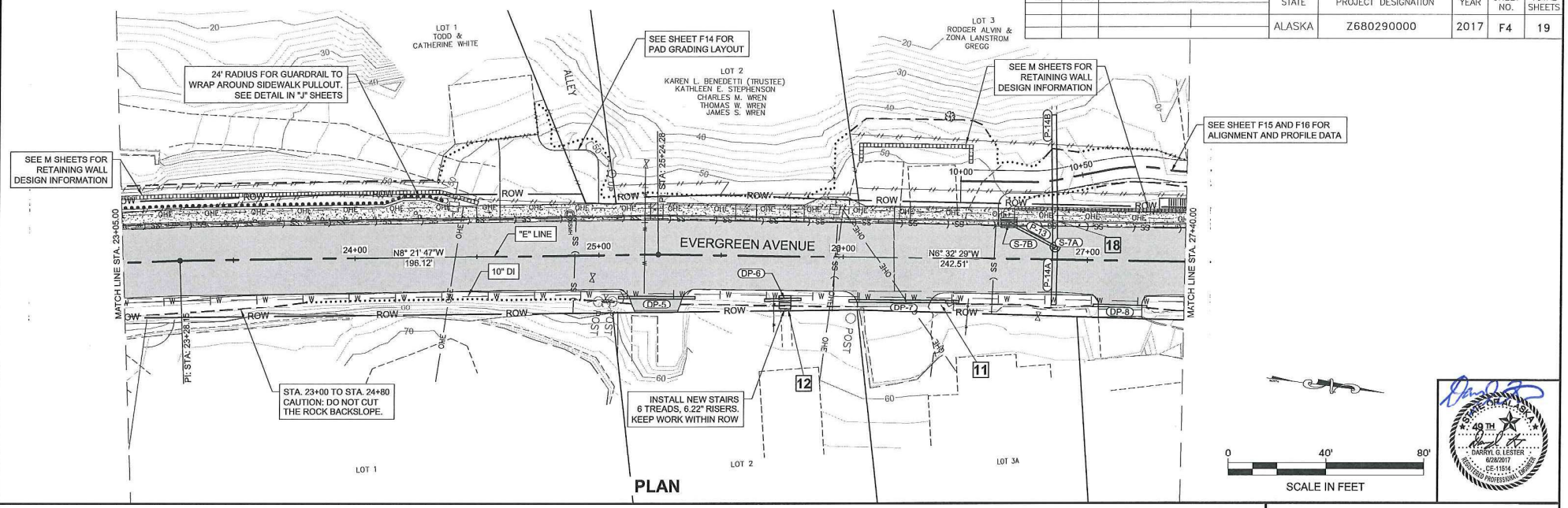
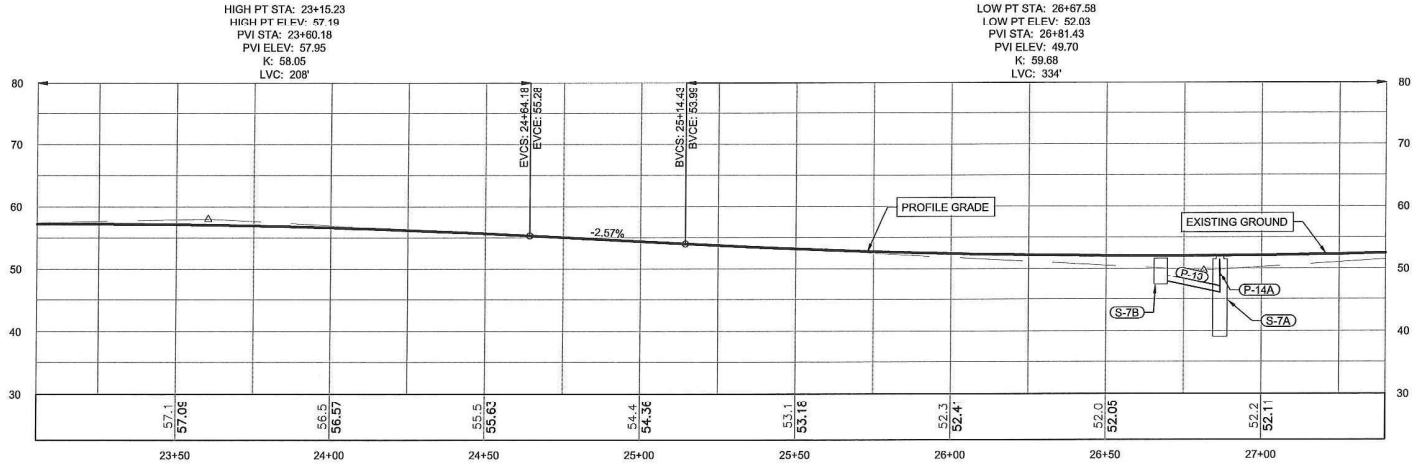


PLAN

PLAN & PROFILE



PROFILE

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

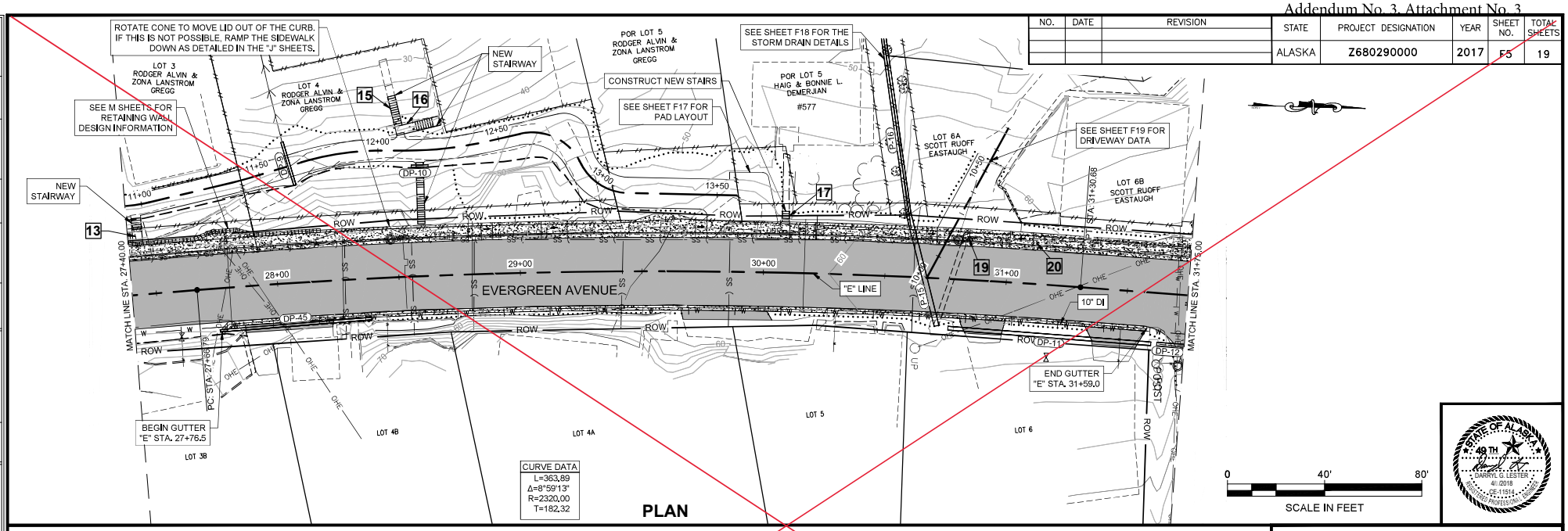
PE Steve Mielke Date 12/30/21

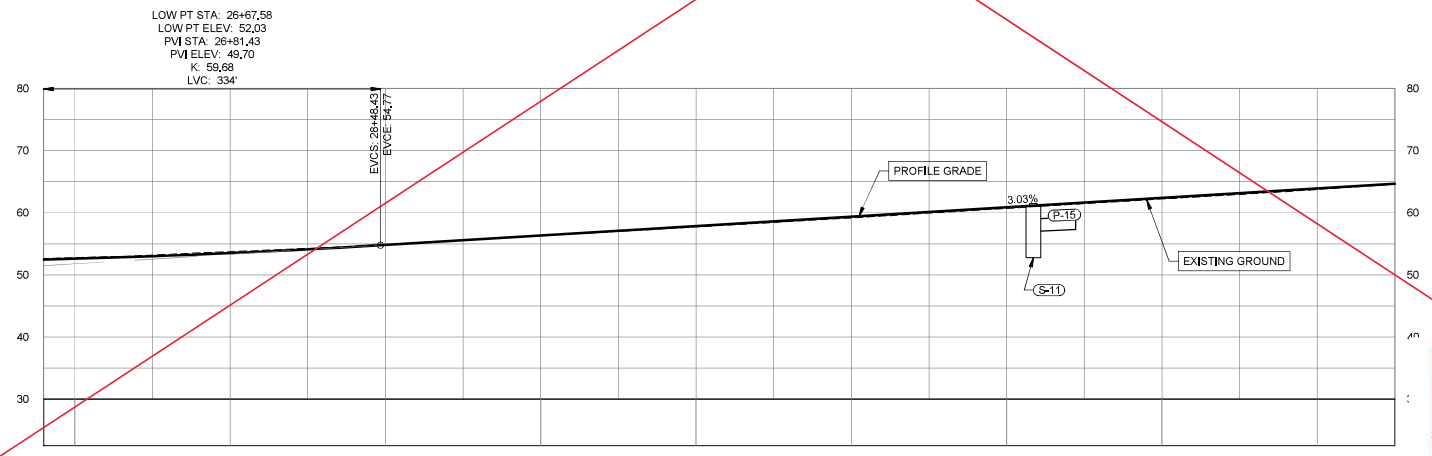
STATE OF ALASKA
49 TH
DARRYL G. LESTER
6/28/2017
CE-11514
REGISTERED PROFESSIONAL ENGINEER

FILE | Q:\Proj\68029\Planset\68029_F1-F12_P&P.DWG | DATE 6/28/2017 12:49 PM | LAYOUT F4 | DESIGNED D.B., D.L. | CHECKED K. K. | DRAFTED R. G.

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z680290000	2017	F5	19





PROFILE

PLAN & PROFILE

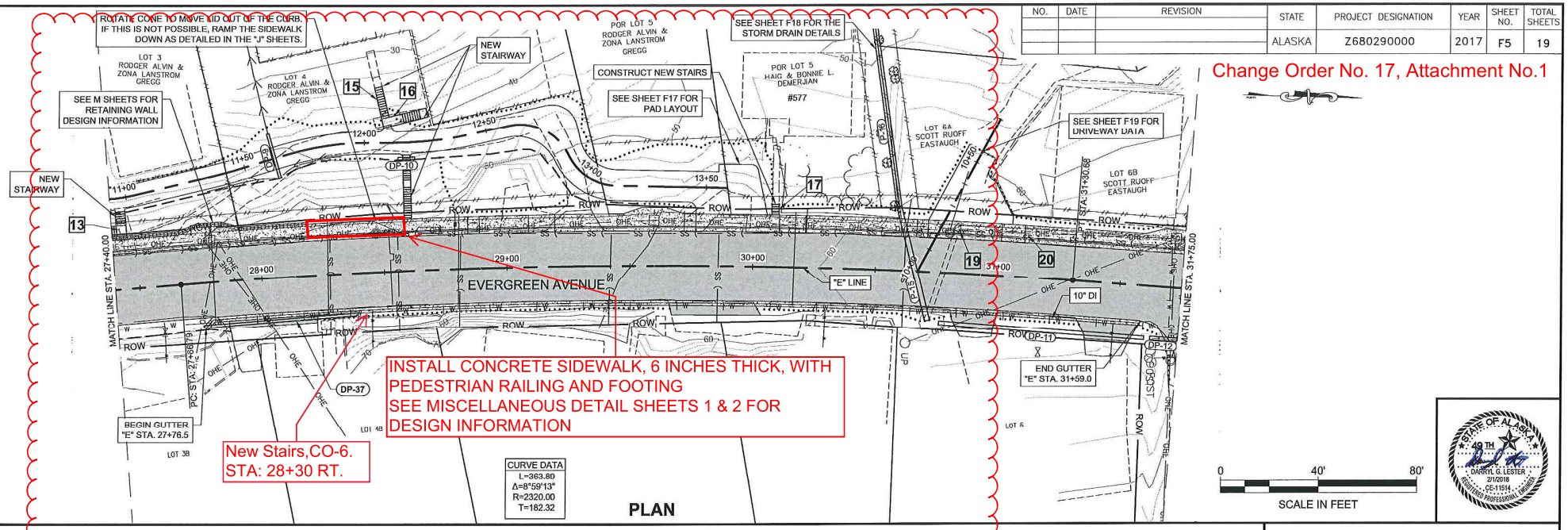
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

FILE | Q:\Wrg\68029\Plotset\68029_F1-F12_P&P.DWG | DATE | 4/3/2018 11:21 AM | LAYOUT | F5 | DESIGNED | D.B., D.L. | CHECKED | K. K. | DRAFTED | R. G.

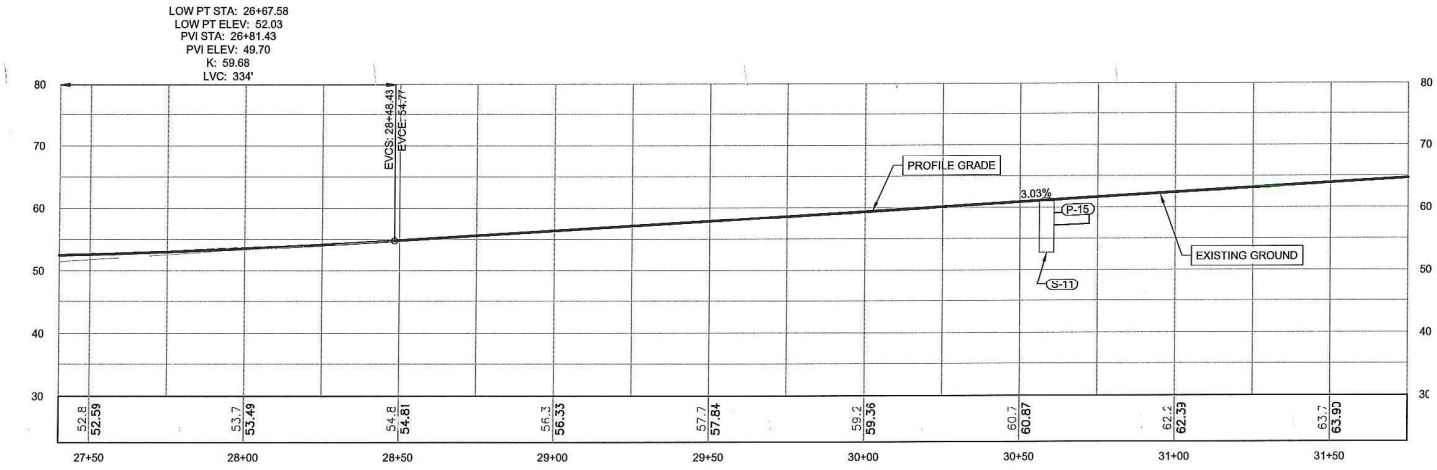
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F5	19

Change Order No. 17, Attachment No.1



PLAN

PLAN & PROFILE

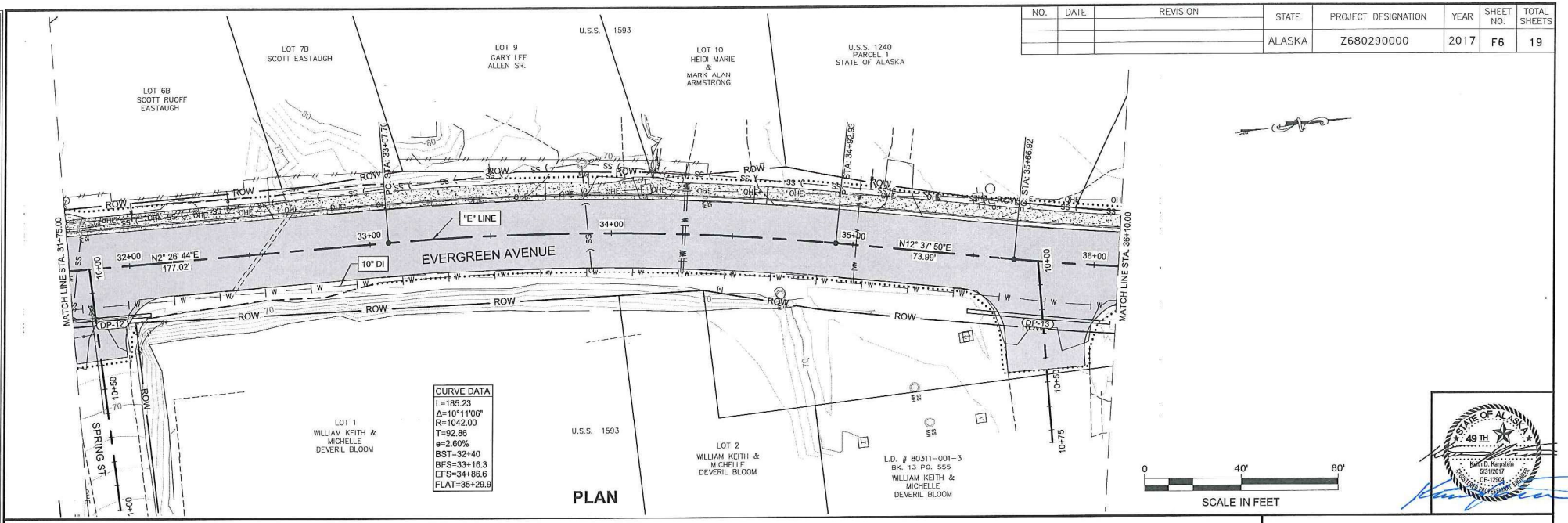


PROFILE

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

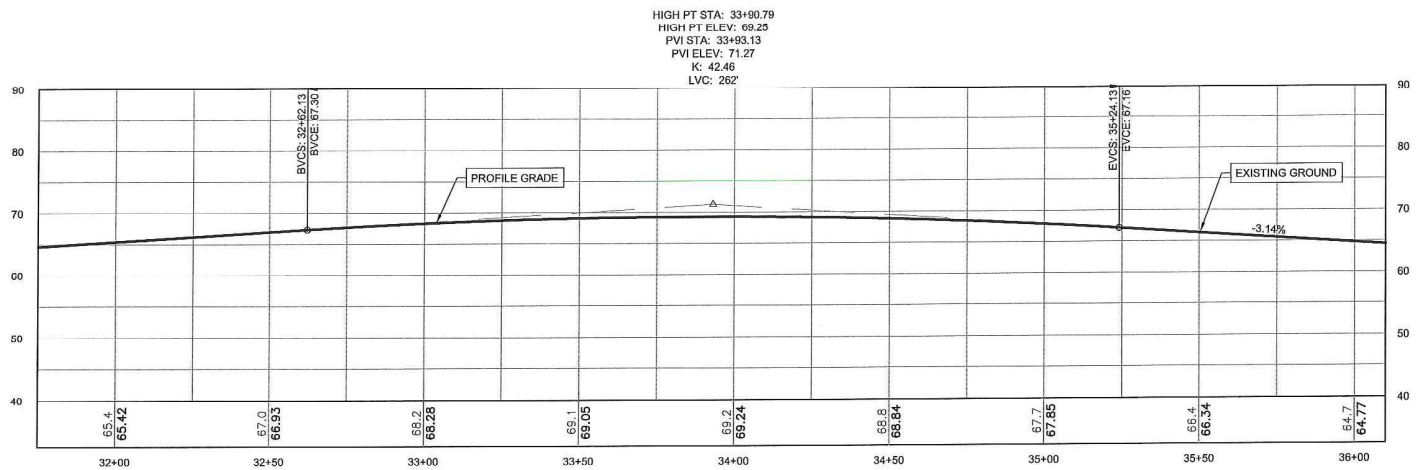
PE Steve Mielke Date 12/30/21

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F6	19



PLAN

PLAN & PROFILE



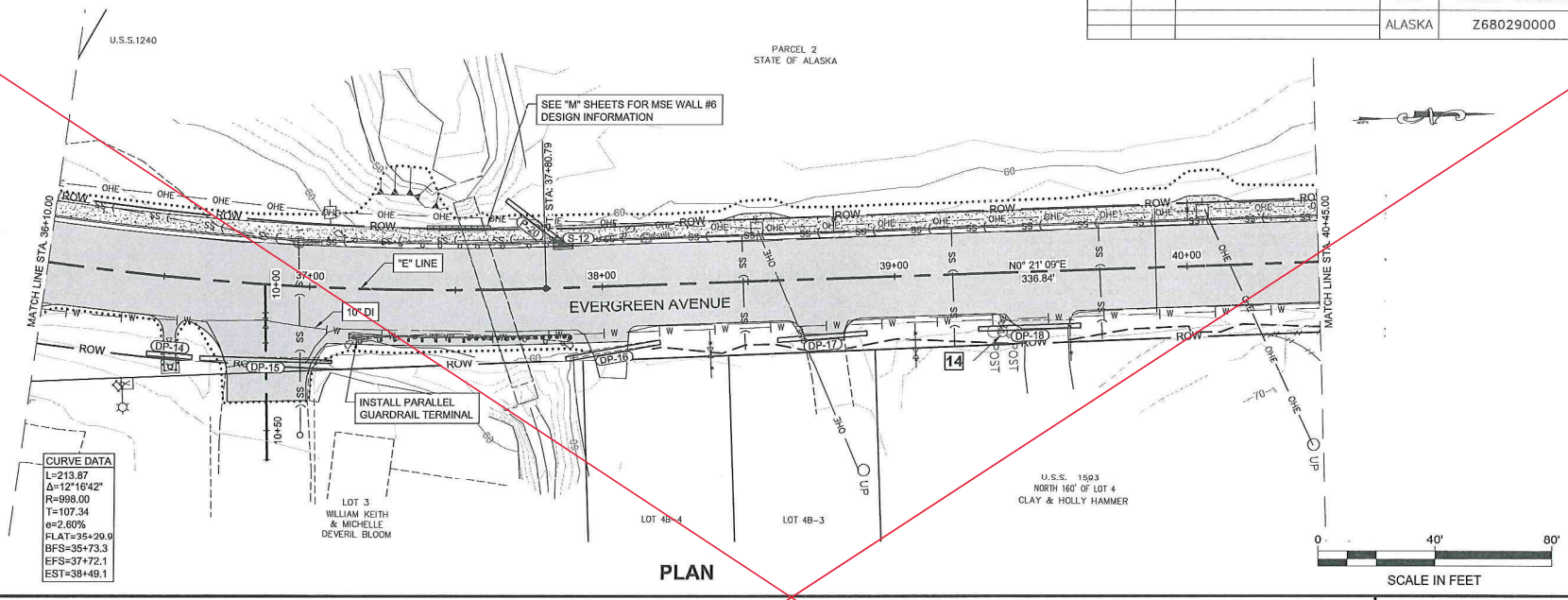
PROFILE

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

PE Steve Mielke Date 12/30/21

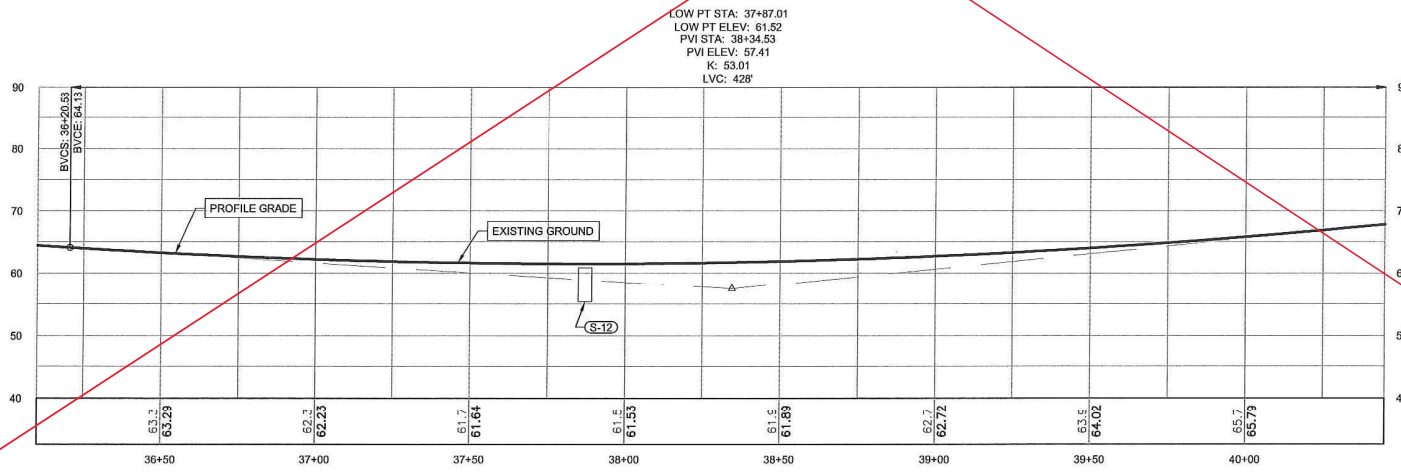
FILE | Q:\Wrg\68029\Planset\68029_F1-12_P&P.DWG | DATE | 5/31/2017 2:44 PM | LAYOUT | F6 | DESIGNED | D.B. | D.L. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F7	19



PLAN

PLAN & PROFILE



PROFILE

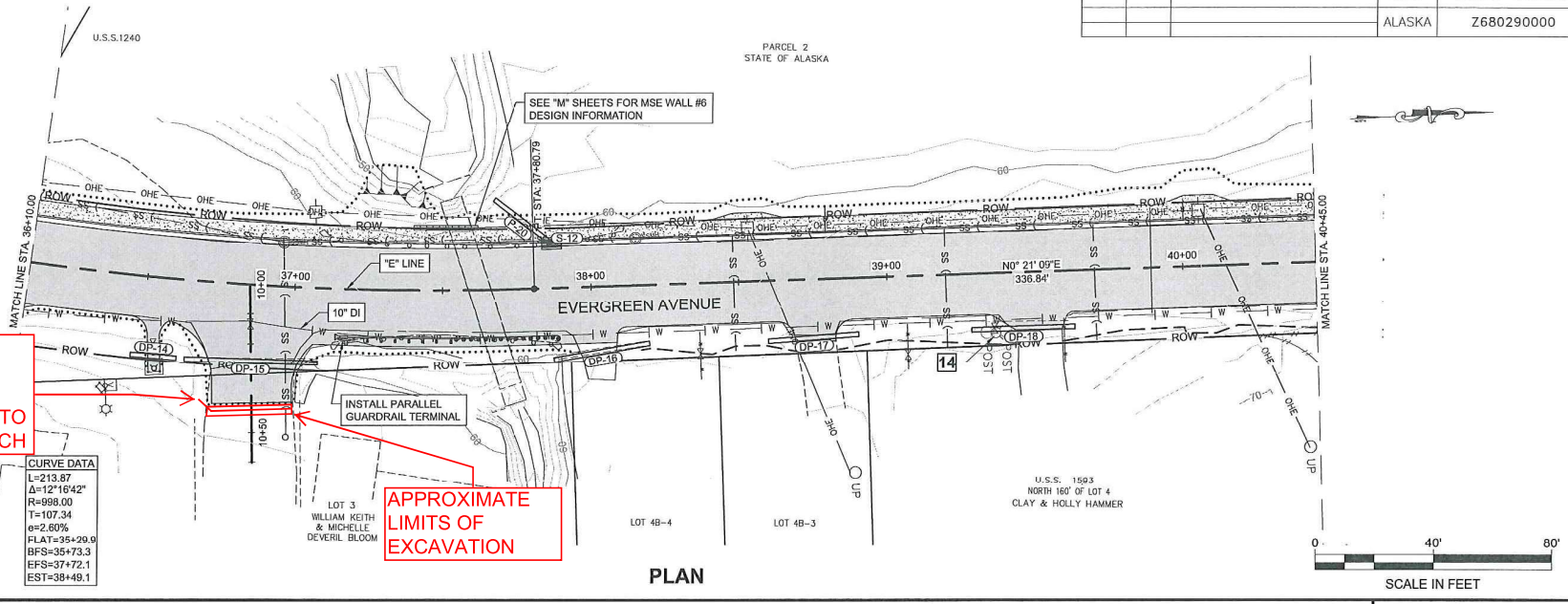
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

FILE Q:\Wrg\68029\Planset\68029_F1-F12_P&P.DWG | DATE 6/27/2017 10:07 AM | LAYOUT F7 | DESIGNED D.B., D.L. | CHECKED K. K. | DRAFTED R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F7	19

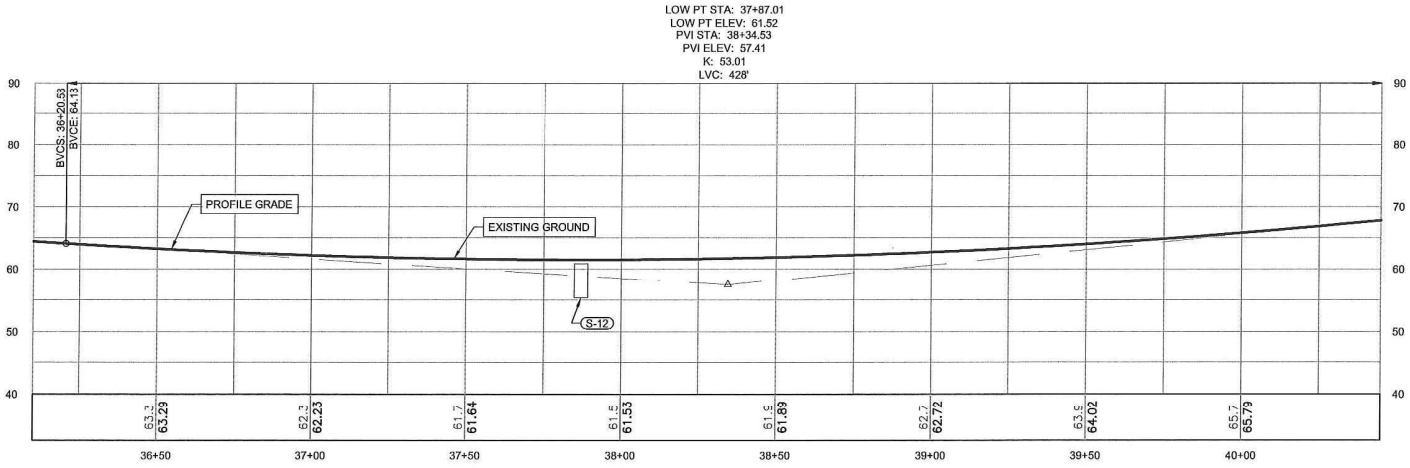
MODIFIED F7



PLAN

ESTABLISH NEW PAY ITEM: 603(23) 4" Perforated pipe.

PLAN & PROFILE



PROFILE

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

PE Steve Mielke Date 12/30/21

FILE Q:\Wrg\68029\Planset\68029_F1-F12_P&P.DWG | DATE 6/27/2017 10:07 AM | LAYOUT F7 | DESIGNED D.B., D.L. | CHECKED K. K. | DRAFTED R. G.

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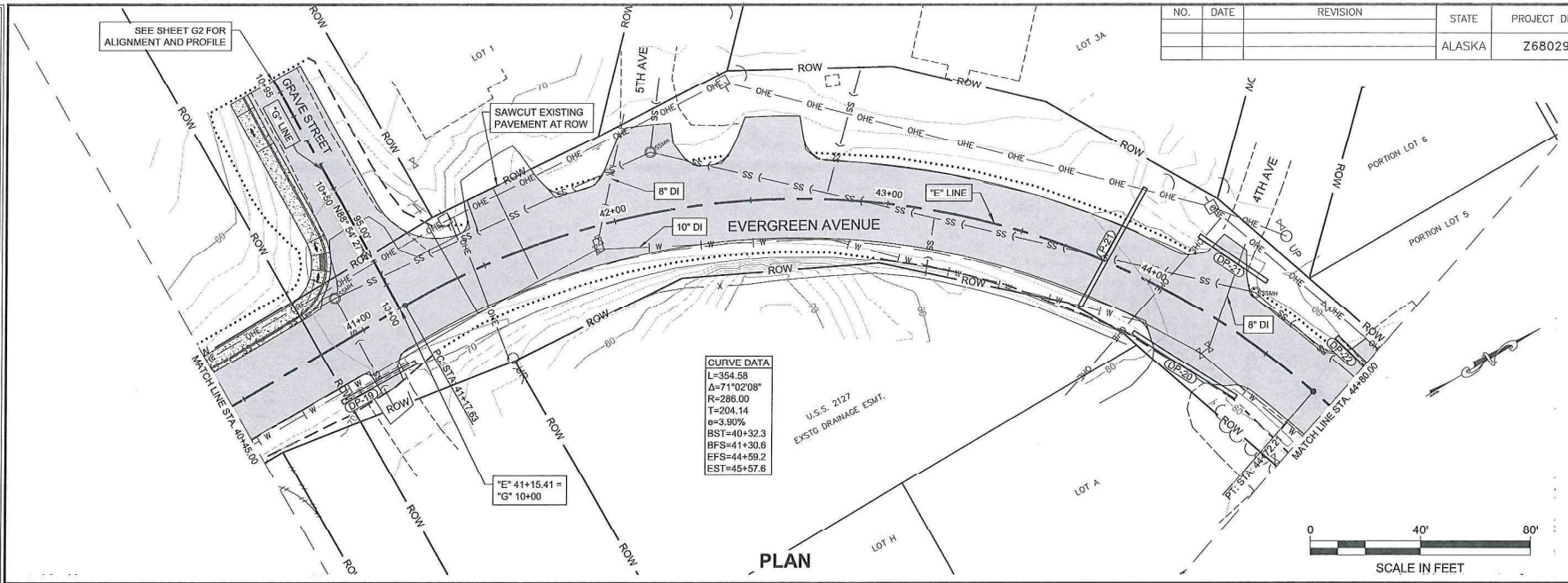
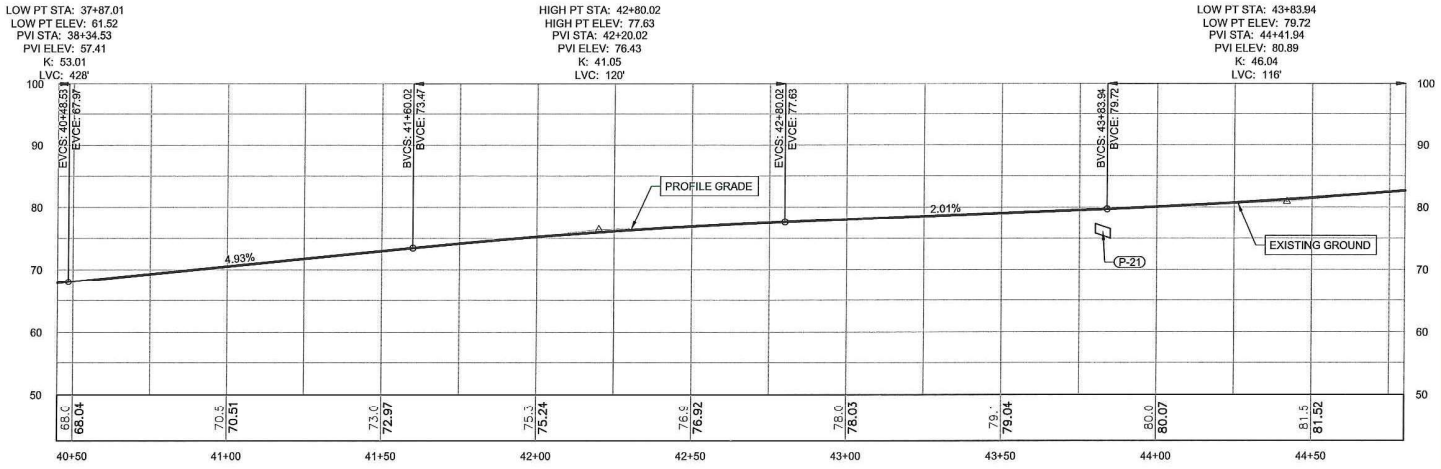


PLAN

PLAN & PROFILE



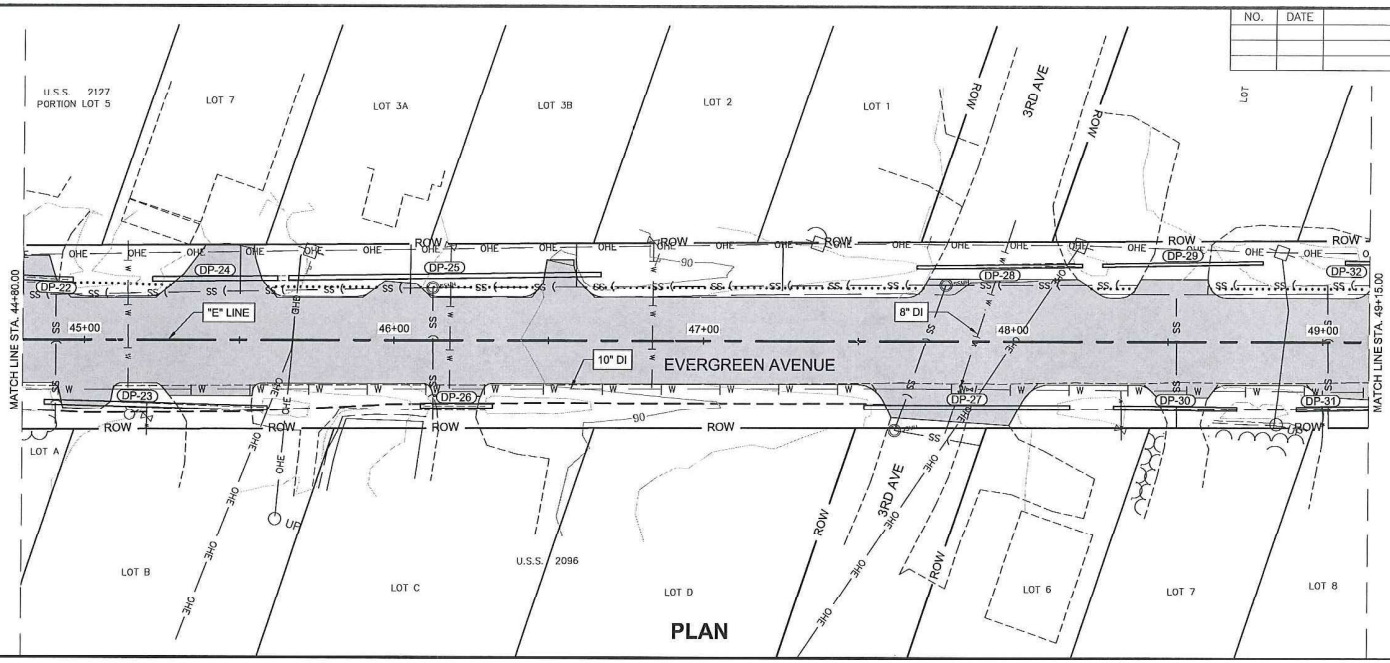
PROFILE

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

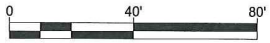
PE Steve Mielke Date 12/30/21

FILE | C:\Wrg\68029\Planset\68029_F1-F12_P&P.DWG | DATE | 6/22/2017 12:59 PM | LAYOUT | F8 | DESIGNED | D.B., D.L. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F9	19

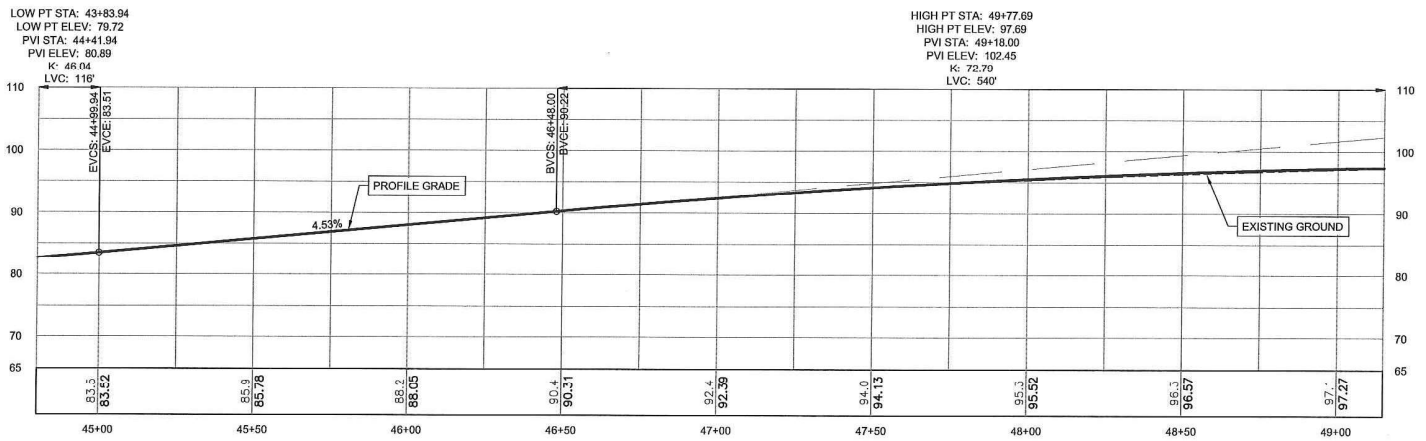


PLAN



SCALE IN FEET

PLAN & PROFILE



PROFILE

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

PE Steve Mielke Date 12/30/21

FILE | G:\Wrg\68029\Planset\68029_F1-F12_P&P.DWG | DATE | 6/30/2017 12:47 PM | LAYOUT | F9 | DESIGNED | D.B., D.L. | CHECKED | K. K. | DRAFTED | R. G.

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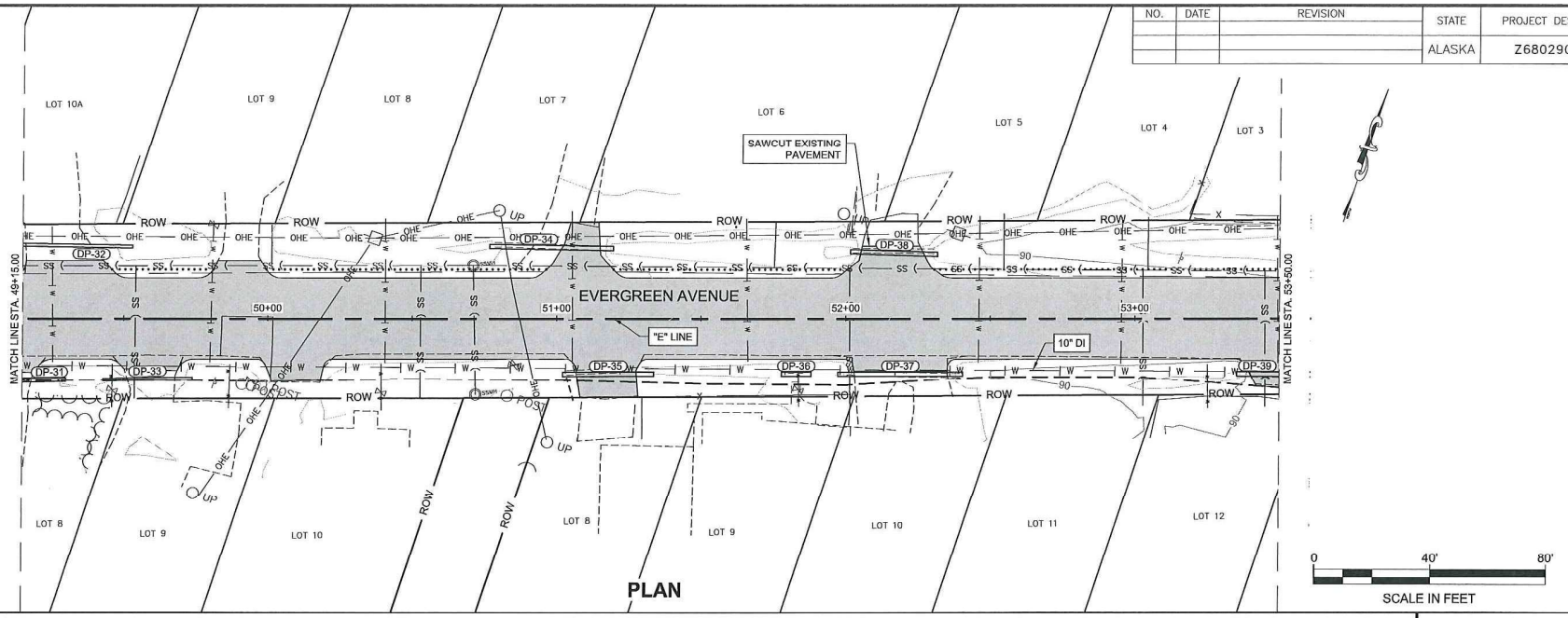


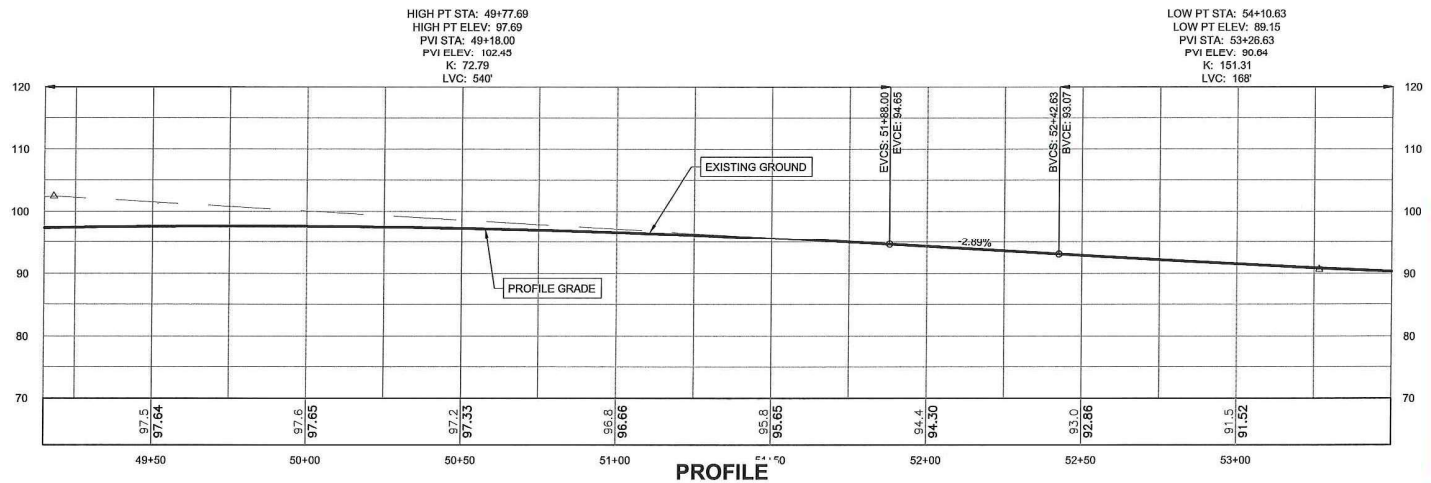
PLAN

0 40' 80'

SCALE IN FEET

STATE OF ALASKA
49TH
DARRYL O. LESTER
6/30/2017
CE-11514
REGISTERED PROFESSIONAL ENGINEER

PLAN & PROFILE



PROFILE

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

PE Steve Mielke Date 12/30/21

FILE | G:\Wrg\68029\Planset\68029_F1-F12_P&P.DWG | DATE | 6/30/2017 12:47 PM | LAYOUT | F10 | DESIGNED | D.B., D.L. | CHECKED | K. K. | DRAFTED | R. G.

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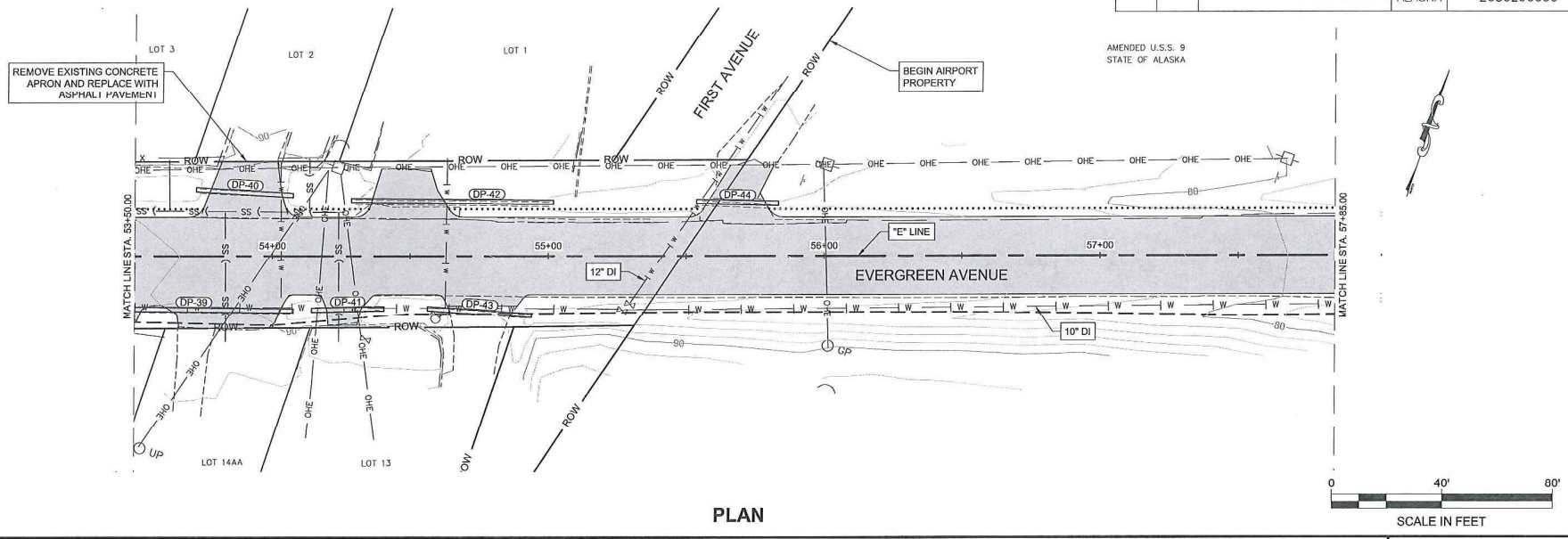
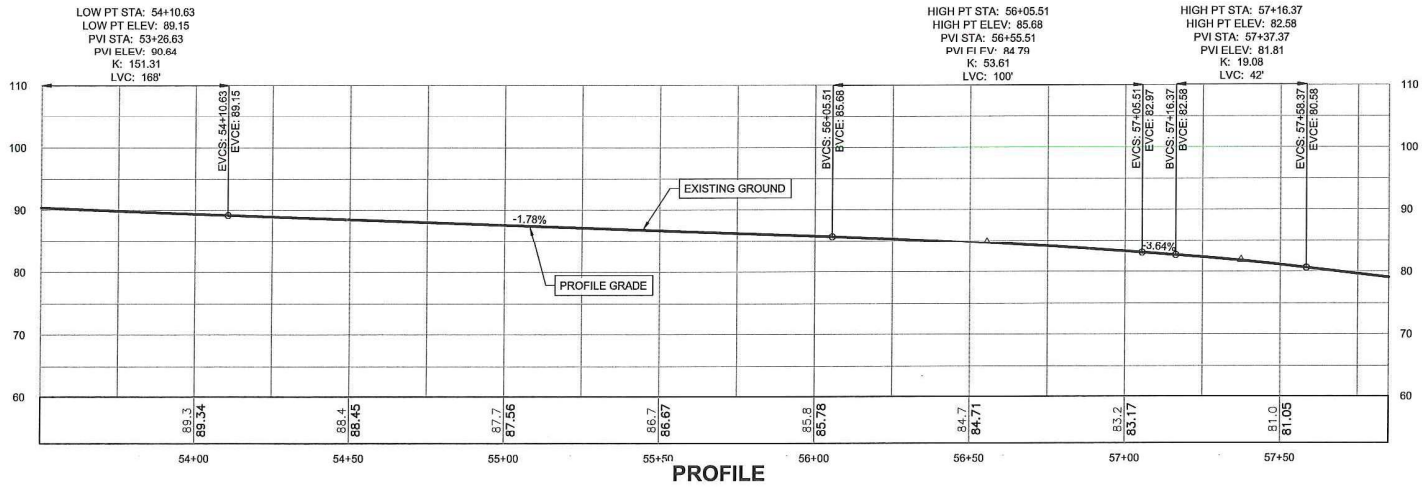


PLAN

PLAN & PROFILE



PROFILE

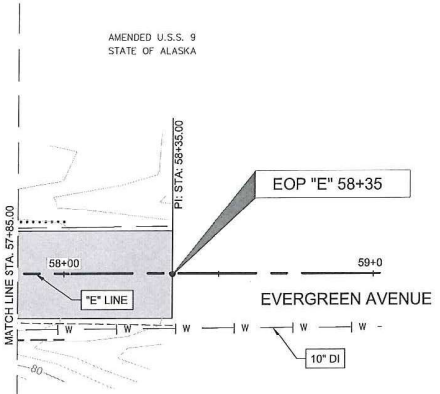
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

STATE OF ALASKA
49 TH
DARRYL O. LESTER
6/22/2017
CE-11514
REGISTERED PROFESSIONAL ENGINEER

FILE | Q:\Wrg\Z68029\Planset\Z68029_F1-F12_P&P.DWG | DATE | 6/22/2017 1:02 PM | LAYOUT | F11 | DESIGNED | D.B., D.L. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F12	19

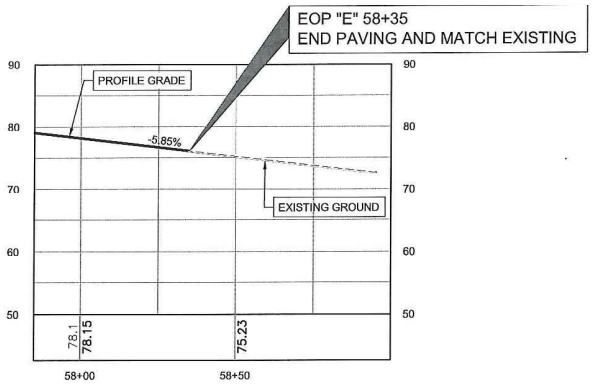


PLAN

0 40' 80'

SCALE IN FEET

PLAN & PROFILE



PROFILE

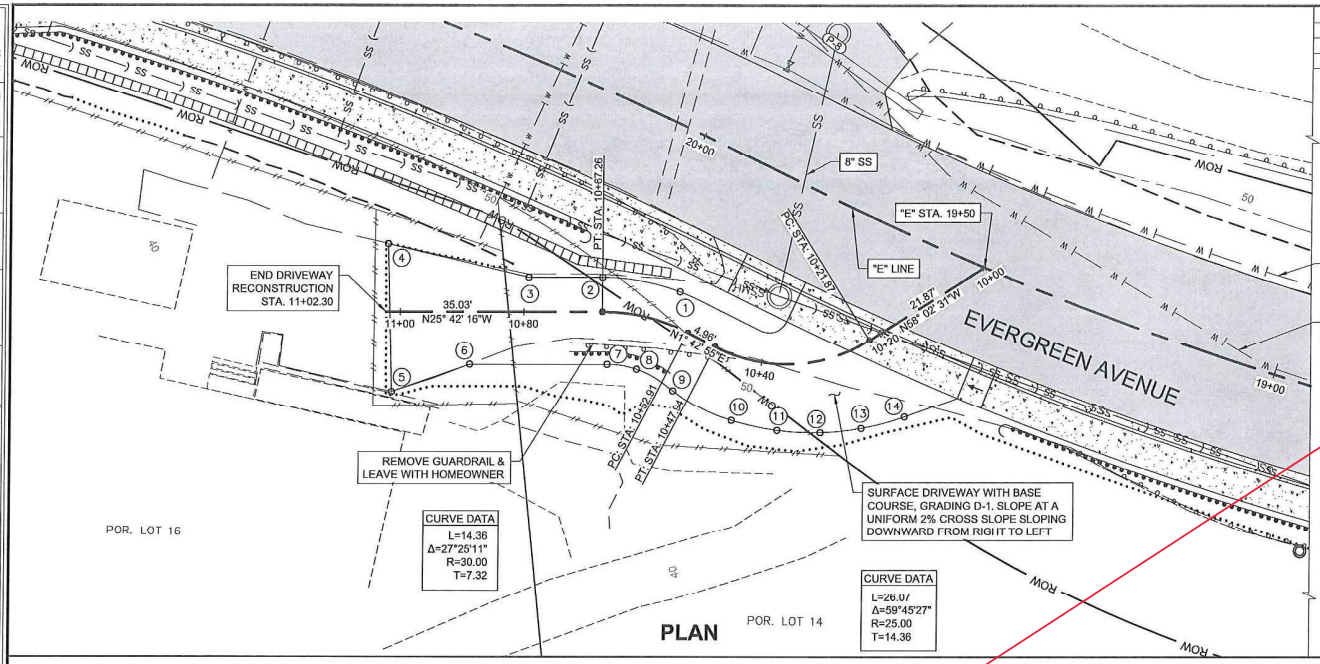
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 2/30/21

FILE | G:\Wrg\68029\Planset\68029_F1-F12_P&P.DWG | DATE | 5/31/2017 2:45 PM | LAYOUT | F12 | DESIGNED | D.B., D.L. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z680290000	2017	F13	19



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

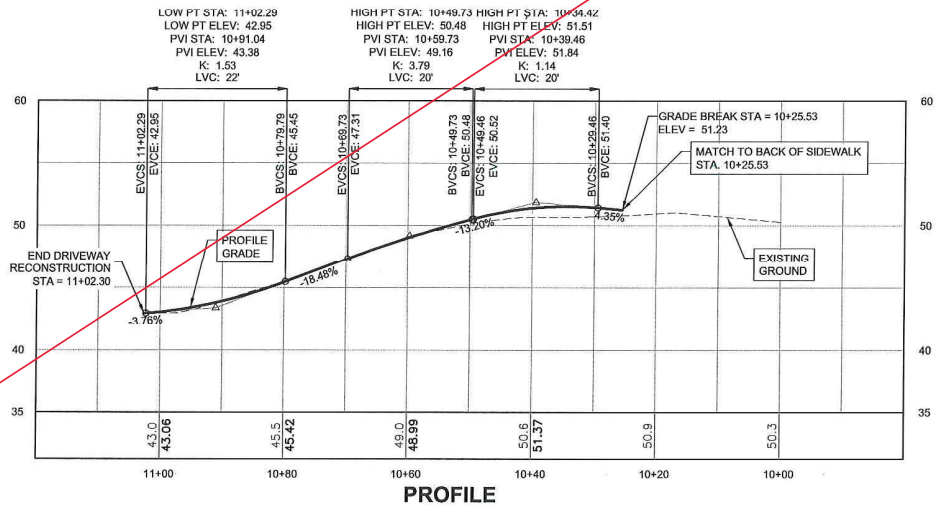
PE Steve Mielke Date 12/30/21

0 20' 40'

SCALE IN FEET

STATE OF ALASKA 49TH DARRYL O. LESTER 6/22/2017 CE-11914 REGISTERED PROFESSIONAL ENGINEER

"E" STA. 19+50 DRIVEWAY PLAN & PROFILE



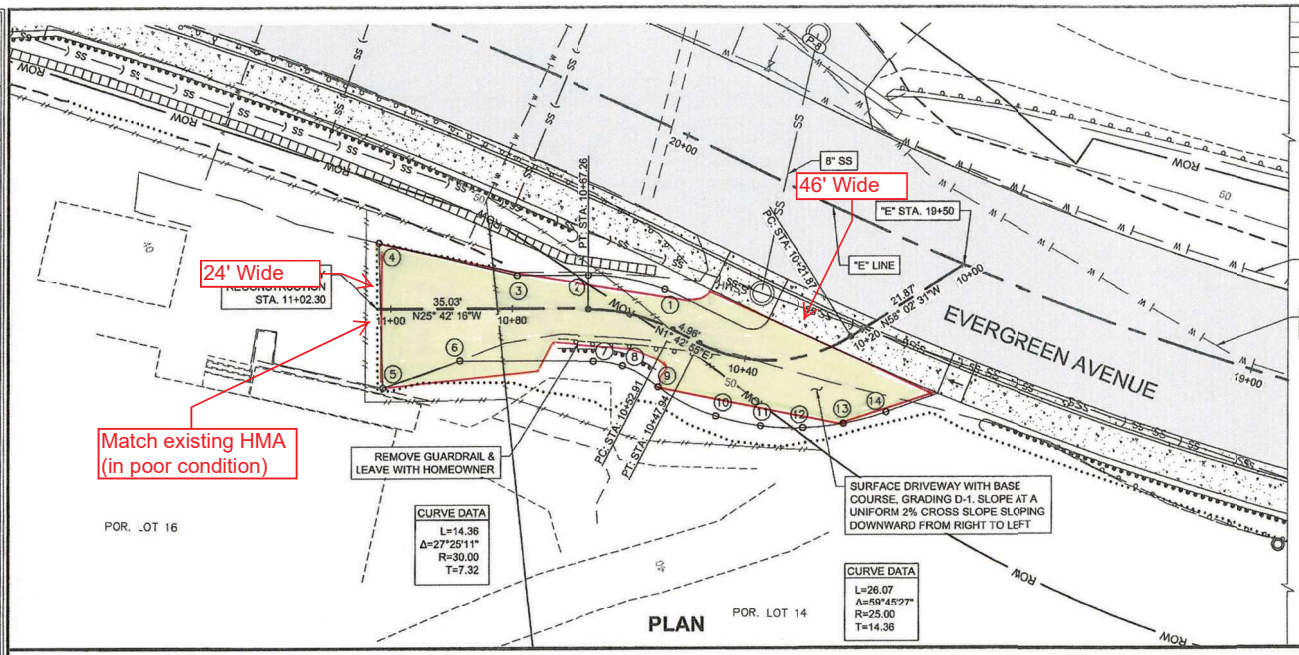
DRIVEWAY 19+50 LT LAYOUT DATA

Pnt #	STA.	OFFSET (ft)	REMARKS
1	10+56.5	5.5 RT	
2	10+67.3	5.5 RT	
3	10+79.3	5.5 RT	
4	11+02.0	10.8 RT	
5	11+01.4	12.8 LT	
6	10+88.8	8.5 LT	
7	10+66.2	8.5 LT	
8	10+57.9	8.5 LT	
9	10+50.8	9.4 LT	
10	10+42.3	10.1 LT	
11	10+37.1	10.7 LT	
12	10+32.3	11.4 LT	
13	10+27.8	12.3 LT	
14	10+23.1	13.5 LT	

FILE G:\Wrg\680290\Planset\680290_F13-Dwy P&P.dwg | DATE 6/22/2017 1:31 PM | LAYOUT F13 | DESIGNED K. K., D.L. | CHECKED K. K., D.L. | DRAFTED R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F13	19

C.O. 19, Attachment #1.

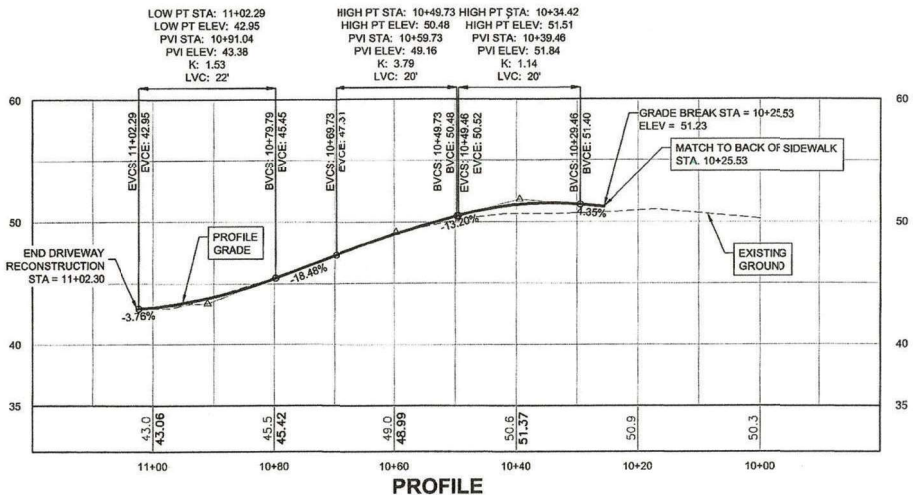


Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

0 20' 40'
SCALE IN FEET

"E" STA. 19+50 DRIVEWAY PLAN & PROFILE

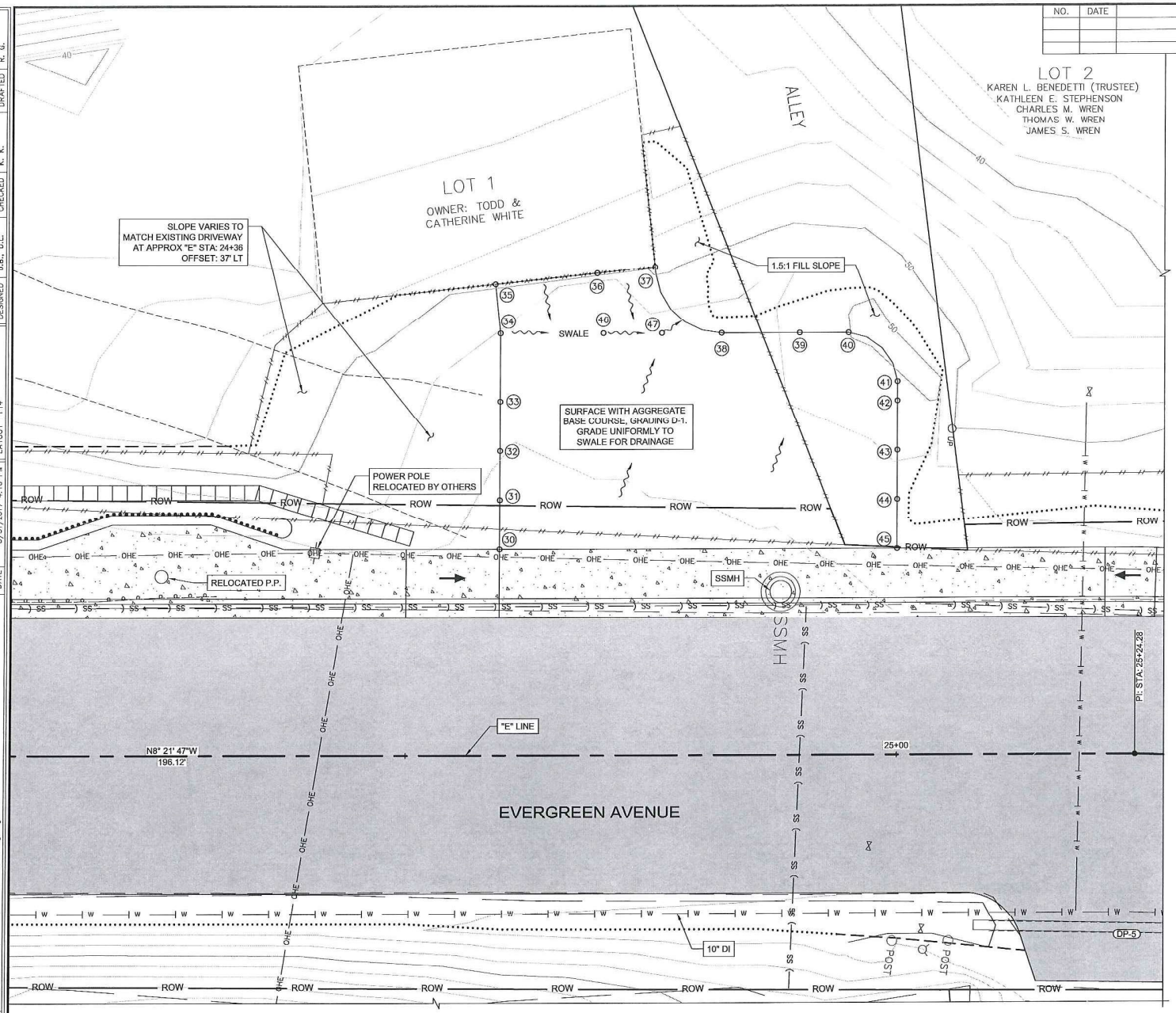


DRIVEWAY 19+50 LT LAYOUT DATA			
Pnt #	STA.	OFFSET (ft)	REMARKS
1	10+56.5	5.5 RT	
2	10+67.3	5.5 RT	
3	10+79.3	5.5 RT	
4	11+02.0	10.8 RT	
5	11+01.4	12.8 LT	
6	10+88.8	8.5 LT	
7	10+66.2	8.5 LT	
8	10+57.9	8.5 LT	
9	10+50.8	9.4 LT	
10	10+42.3	10.1 LT	
11	10+37.1	10.7 LT	
12	10+32.3	11.4 LT	
13	10+27.8	12.3 LT	
14	10+23.1	13.5 LT	

FILE G:\Wrg\68029\Planset\68029_F13-Dwy P&P.dwg | DATE 6/22/2017 1:31 PM | LAYOUT F13 | DESIGNED K. K., D.L. | CHECKED K. K., D.L. | DRAFTED R. G.

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z680290000	2017	F14	19



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

PE Steve Mielke Date 12/30/21

"E" STA. 24+75 LT. PAD GRADING LAYOUT

PARKING PAD 24+50 GRADING LAYOUT POINTS
ALIGNMENT: 'E' EVERGREEN

POINT	STATION	OFFSET	ELEVATION	DESCRIPTION
30	24+59.50	21.00' LT	55.30	BACK OF SIDEWALK
31	24+59.50	26.00' LT	55.07	
32	24+59.50	31.00' LT	54.84	
33	24+59.50	36.00' LT	54.62	
34	24+59.50	42.96' LT	54.30	SWALE
35	24+59.00	47.90' LT	54.40	FOUNDATION WALL
36	24+69.35	49.00' LT	54.40	FOUNDATION WALL
37	24+75.25	49.70' LT	54.40	FOUNDATION WALL
38	24+82.04	42.96' LT	53.81	
39	24+90.00	42.96' LT	53.71	
40	24+95.00	42.96' LT	53.66	
41	25+00.00	37.96' LT	53.75	
42	25+00.00	36.00' LT	53.81	
43	25+00.00	31.00' LT	53.96	
44	25+00.00	26.00' LT	54.11	
45	25+00.00	21.00' LT	54.26	BACK OF SIDEWALK
46	24+70.00	42.96' LT	54.03	SWALE
47	24+75.97	42.96' LT	53.88	SWALE

0 10' 20'
SCALE IN FEET

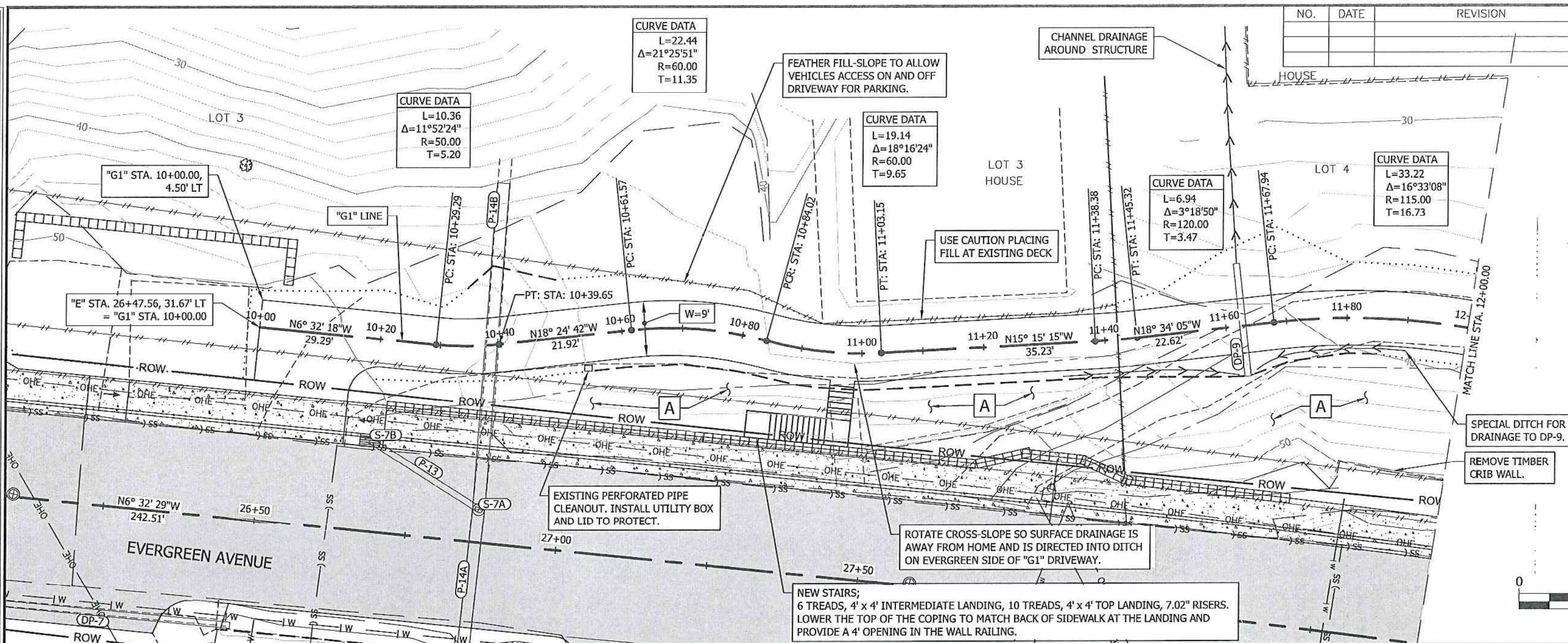
DRAFTED R. G. | CHECKED K. K. | DESIGNED D.B., D.L. | LAYOUT F14 | DATE 5/31/2017 4:16 PM | FILE C:\Proj\68029\Plotset\68029_F14_Grading.dwg

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z680290000	2017	F15	19

NOTE:

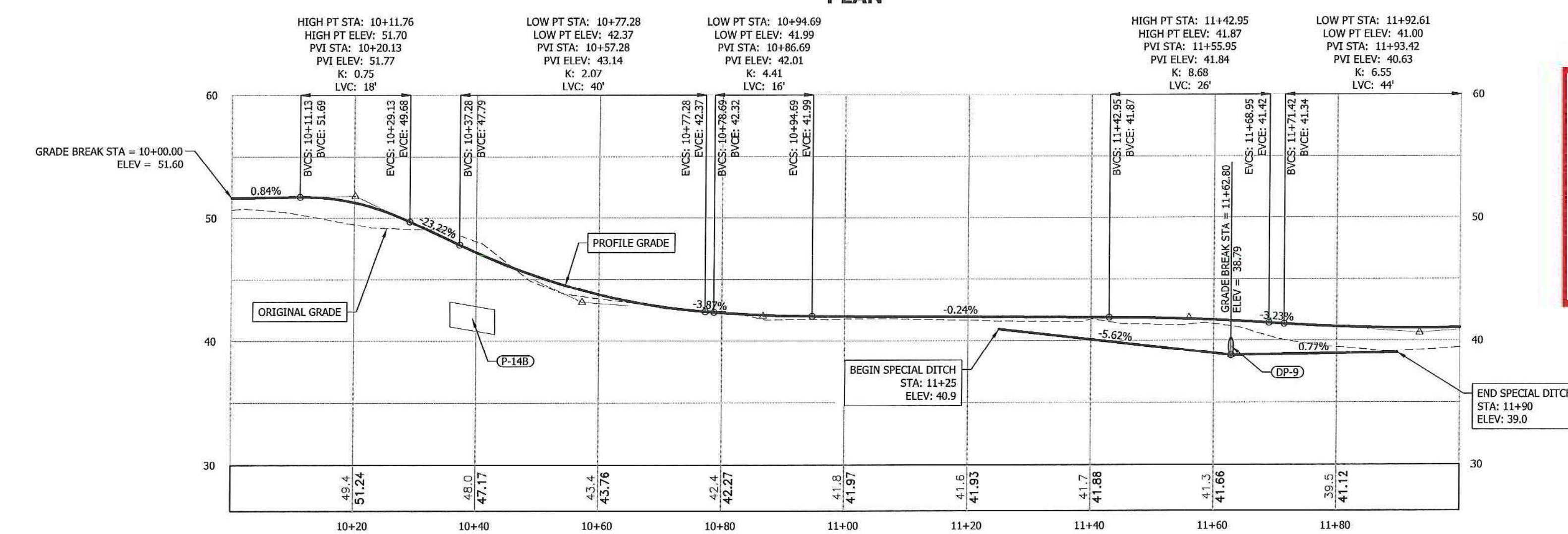
A DRESS SLOPE BETWEEN RETAINING WALL/SIDEWALK AND "G1" DITCH TO A SMOOTH UNIFORM SLOPE. SLOPE NO STEEPER THAN 1.5:1. APPLY SEED AND BFM.



DARRYL G. LESTER 6/23/2017 CE-11514 — STATE OF ALASKA, 49TH, REGISTERED PROFESSIONAL ENGINEER

PLAN

DRIVEWAY PLAN & PROFILE



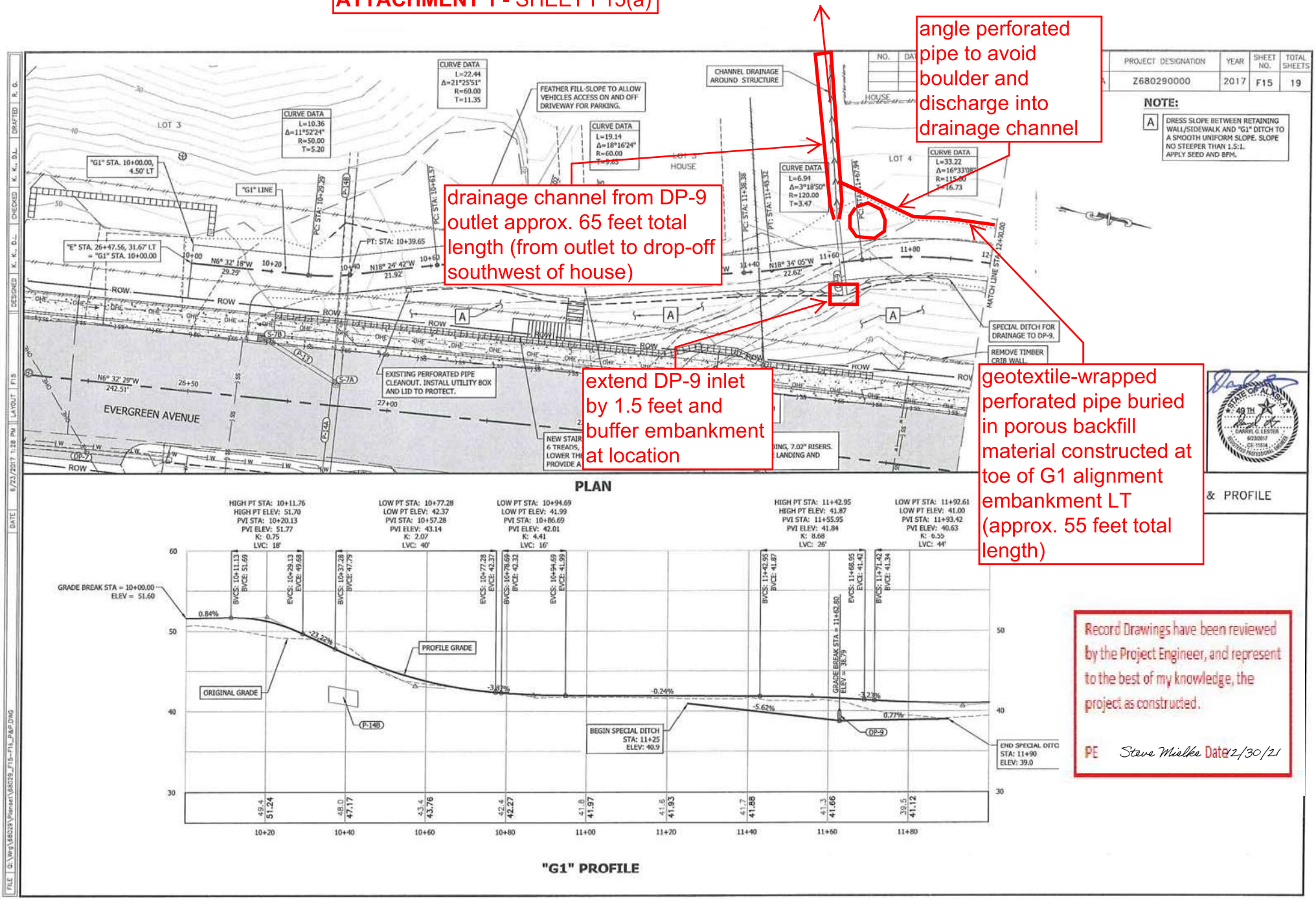
"G1" PROFILE

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

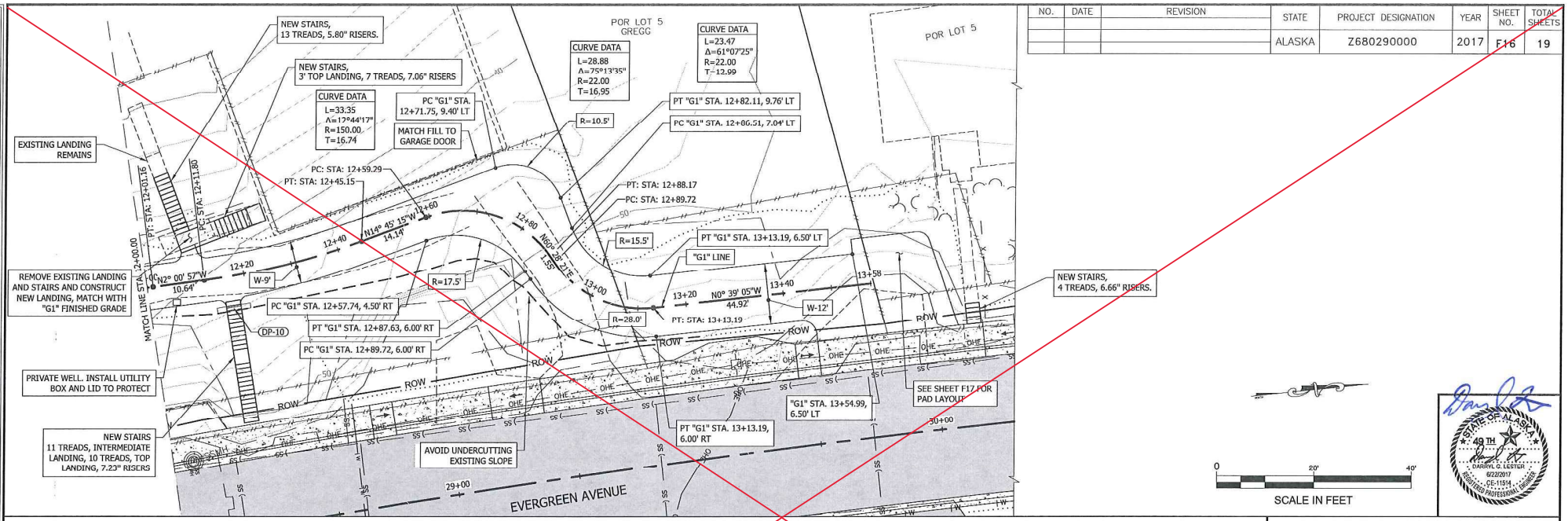
PE Steve Mielke Date 12/30/21

FILE	DATE	DESIGNED	CHECKED	DRAFTED	LAYOUT
Q:\Wrg\68029\Planset\68029_F15-F16_P&P.DWG	6/23/2017 1:28 PM	K. K., D.L.	K. K., D.L.	R. G.	F15

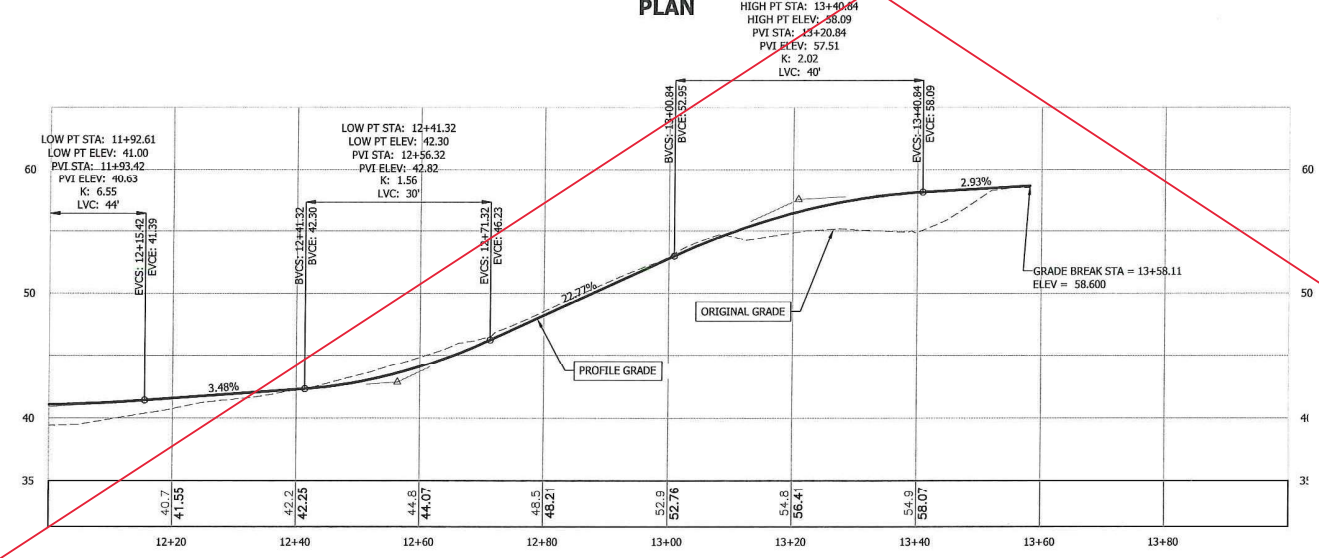
ATTACHMENT 1 - SHEET F15(a)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F16	19



PLAN



"G1" PROFILE

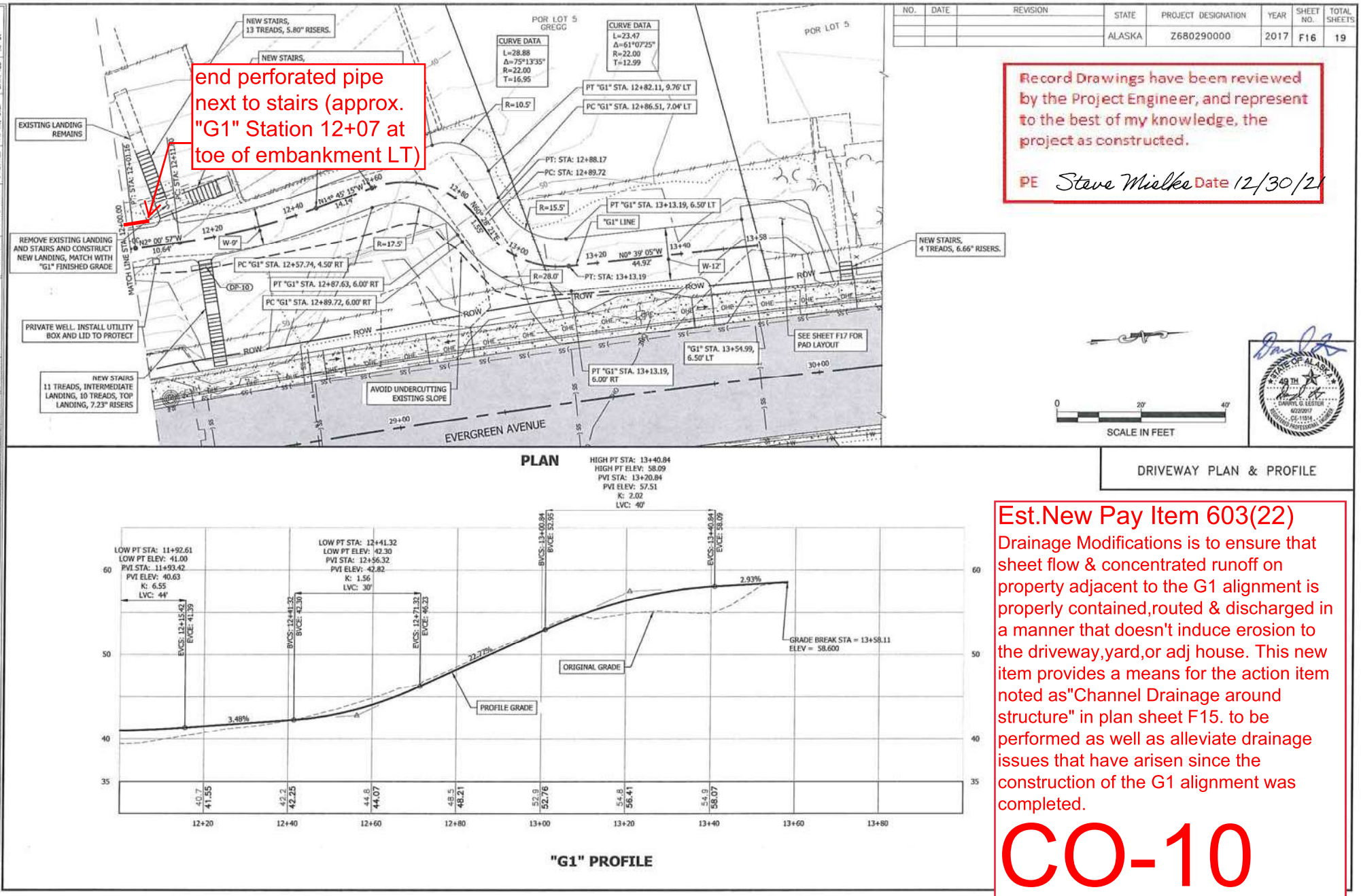
DRIVEWAY PLAN & PROFILE

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

PE Steve Mielke Date 12/30/21

FILE: G:\Wrg\680290\Planset\680290_F15-F16_P&P.DWG | DATE: 6/22/2017 1:40 PM | LAYOUT: F16 | DESIGNED: K. K., D.L. | CHECKED: K. K., D.L. | DRAFTED: R. G.

ATTACHMENT 2 - SHEET F16(a)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F16	19

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

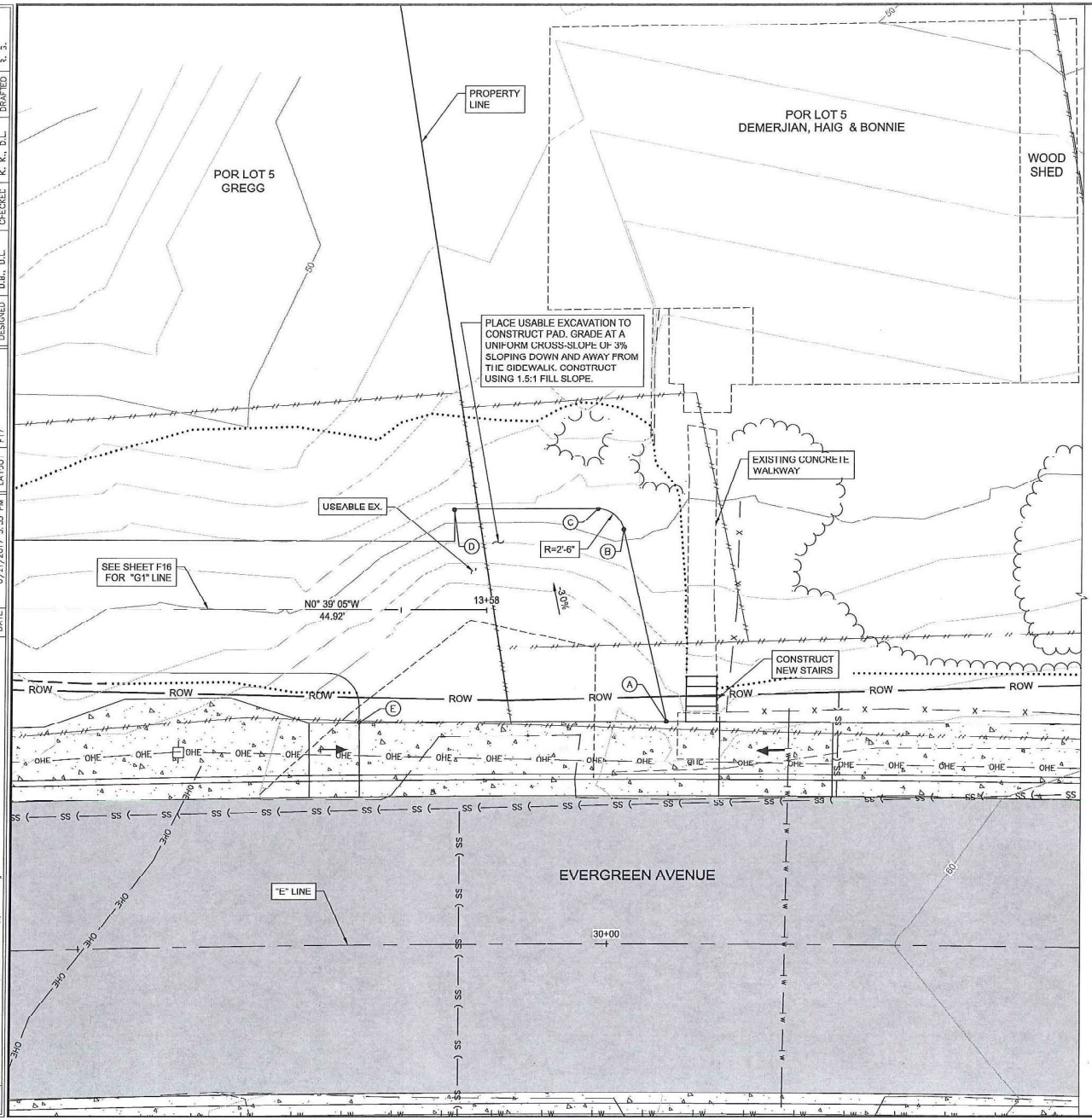
PE Steve Mielke Date 12/30/21

DRIVEWAY PLAN & PROFILE

Est.New Pay Item 603(22)

Drainage Modifications is to ensure that sheet flow & concentrated runoff on property adjacent to the G1 alignment is properly contained,routed & discharged in a manner that doesn't induce erosion to the driveway,yard,or adj house. This new item provides a means for the action item noted as"Channel Drainage around structure" in plan sheet F15. to be performed as well as alleviate drainage issues that have arisen since the construction of the G1 alignment was completed.

CO-10



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F17	19

30+00 APPROACH PAD GRADING LAYOUT POINTS

POINT	STATION	OFFSET	ELEVATION	DESCRIPTION
A	30+05.46	21.00' LT	-	MATCH BACK OF SIDEWALK
B	30+01.36	39.09' LT	58.75	
C	29+98.96	41.03' LT	58.62	
D	29+86.60	41.03' LT	58.22	
E	29+76.66	21.00' LT	-	MATCH BACK OF SIDEWALK

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

PE Steve Mielke Date 12/30/21

0 10' 20'

SCALE IN FEET

STATE OF ALASKA 49TH DARRYL G. LESTER 6/21/2017 CE-11514 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

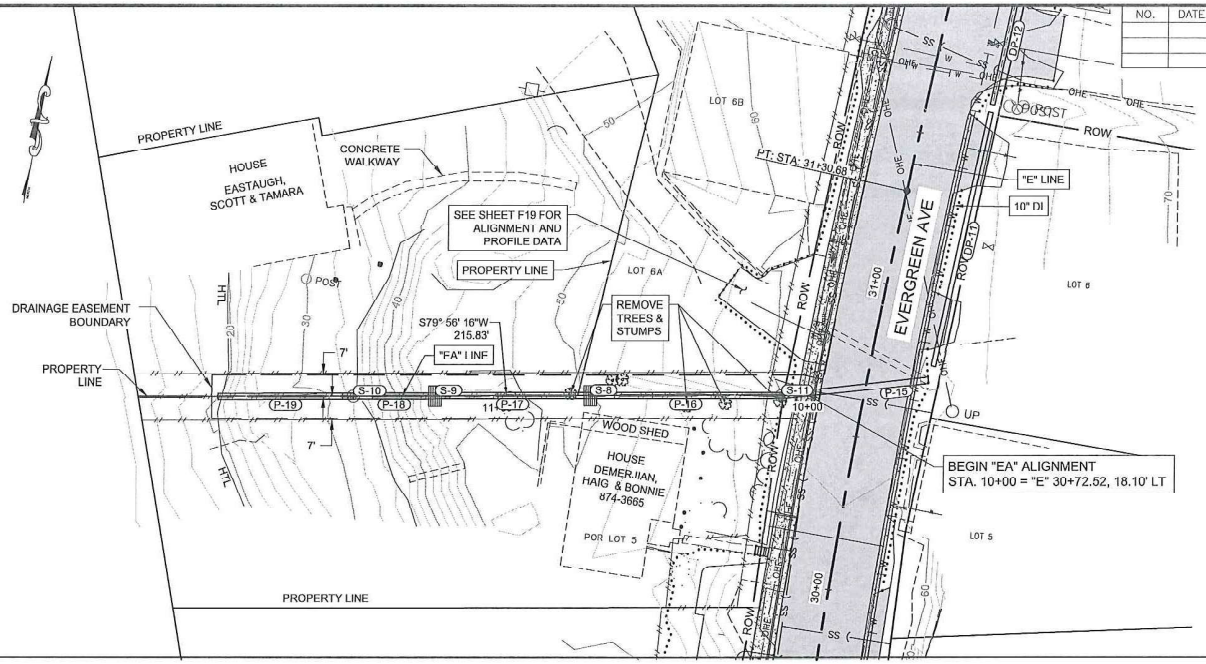
APPROACH PAD PLAN

FILE | Q:\Wrg\Z68029\Plcnset\Z68029_F17_App Pad.dwg | DATE | 6/21/2017 3:33 PM | LAYOUT | F17 | DESIGNED | D.B., D.L. | CHECKED | K. K., D.L. | DRAFTED | S. S.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F18	19

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

PE Steve Mielke Date 12/30/21



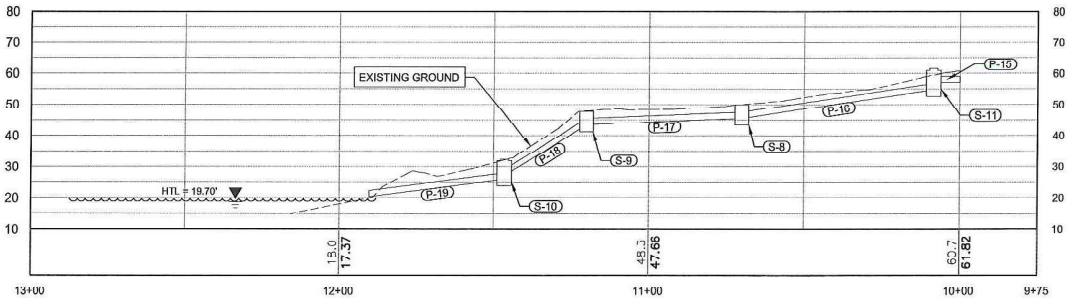
0 40' 80'

SCALE IN FEET

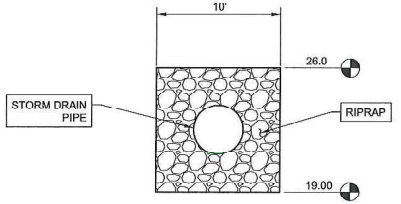
PLAN

STATE OF ALASKA 49TH DARRYL G. LESTER 6/22/2017 LS-11914 REGISTERED PROFESSIONAL ENGINEER

EASTAUGH STORM DRAIN
OUTFALL PLAN & PROFILE

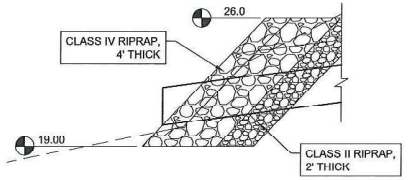


PROFILE



RIPRAP DETAIL

NOT TO SCALE

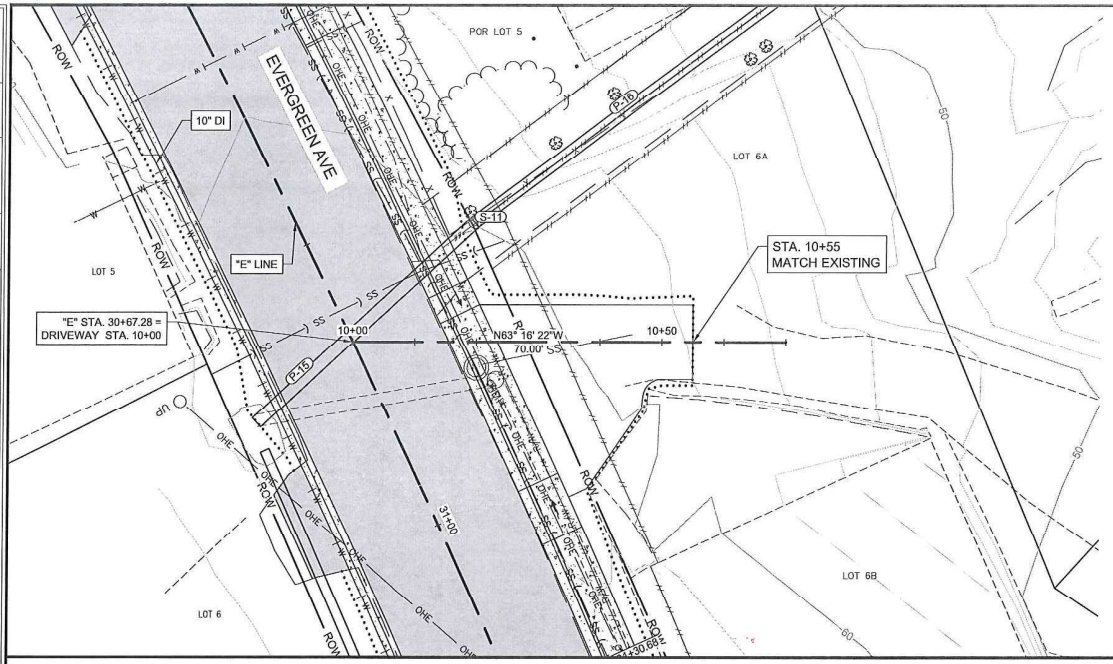


RIPRAP SECTION

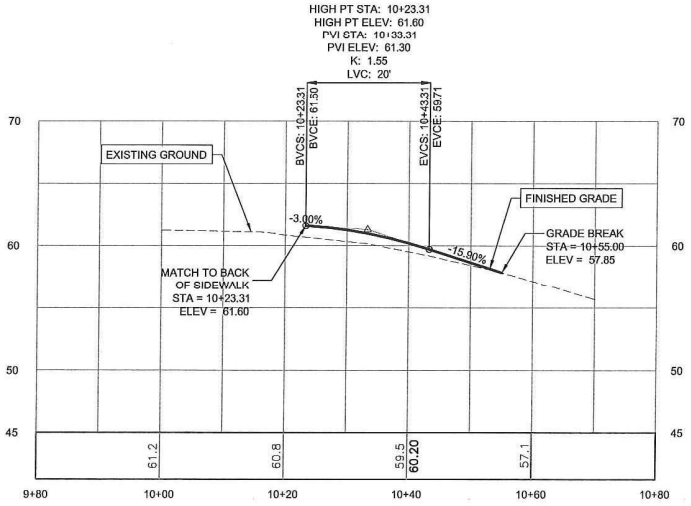
NOT TO SCALE

TITLE | G:\Wrg\58029_Pionet\58029_F18_F19_P-P.dwg | DATE 6/22/2017 2:11 PM | LAYOUT F18 | DESIGNED K. K., D.L. | CHECKED K. K., D.L. | DRAFTED R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F19	19

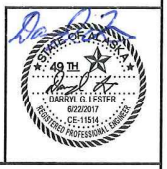


PLAN



"EA" LINE PROFILE

SCALE IN FEET



DRIVEWAY "E" STA. 30+67
PLAN & PROFILE

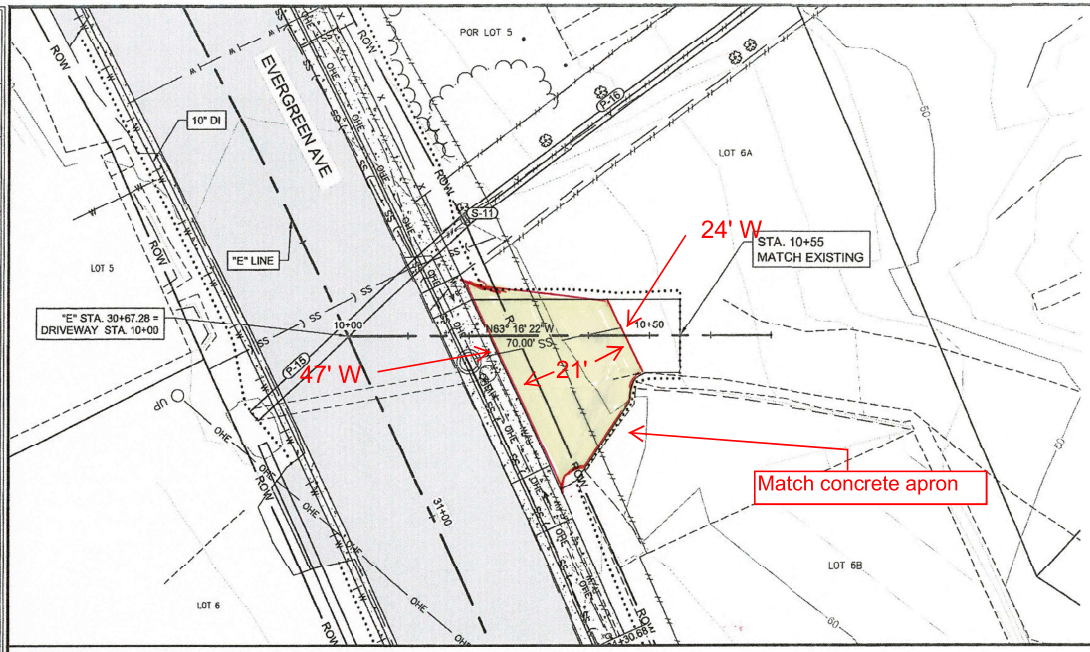
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

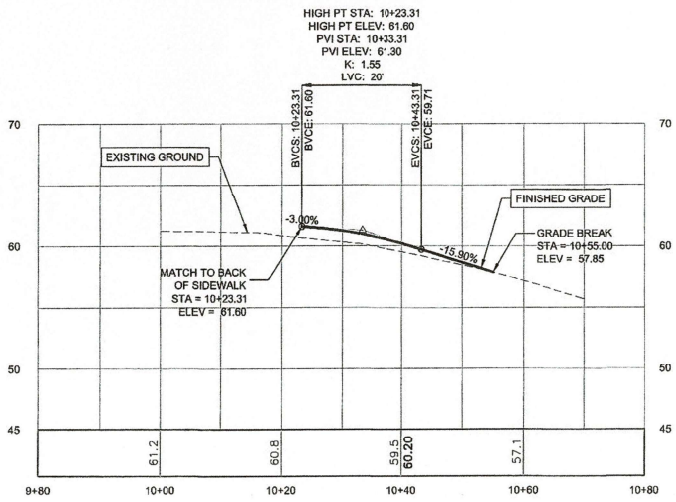
FILE | G:\Wrg\68029\Plansst\68029_F13-F19_P-P.dwg | DATE | 6/22/2017 2:09 PM | LAYOUT | F19 | DESIGNED | K. K., D.L. | CHECKED | K. K., D.L. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	F19	19

C.O. 19. Attachment #2



PLAN



"EA" LINE PROFILE

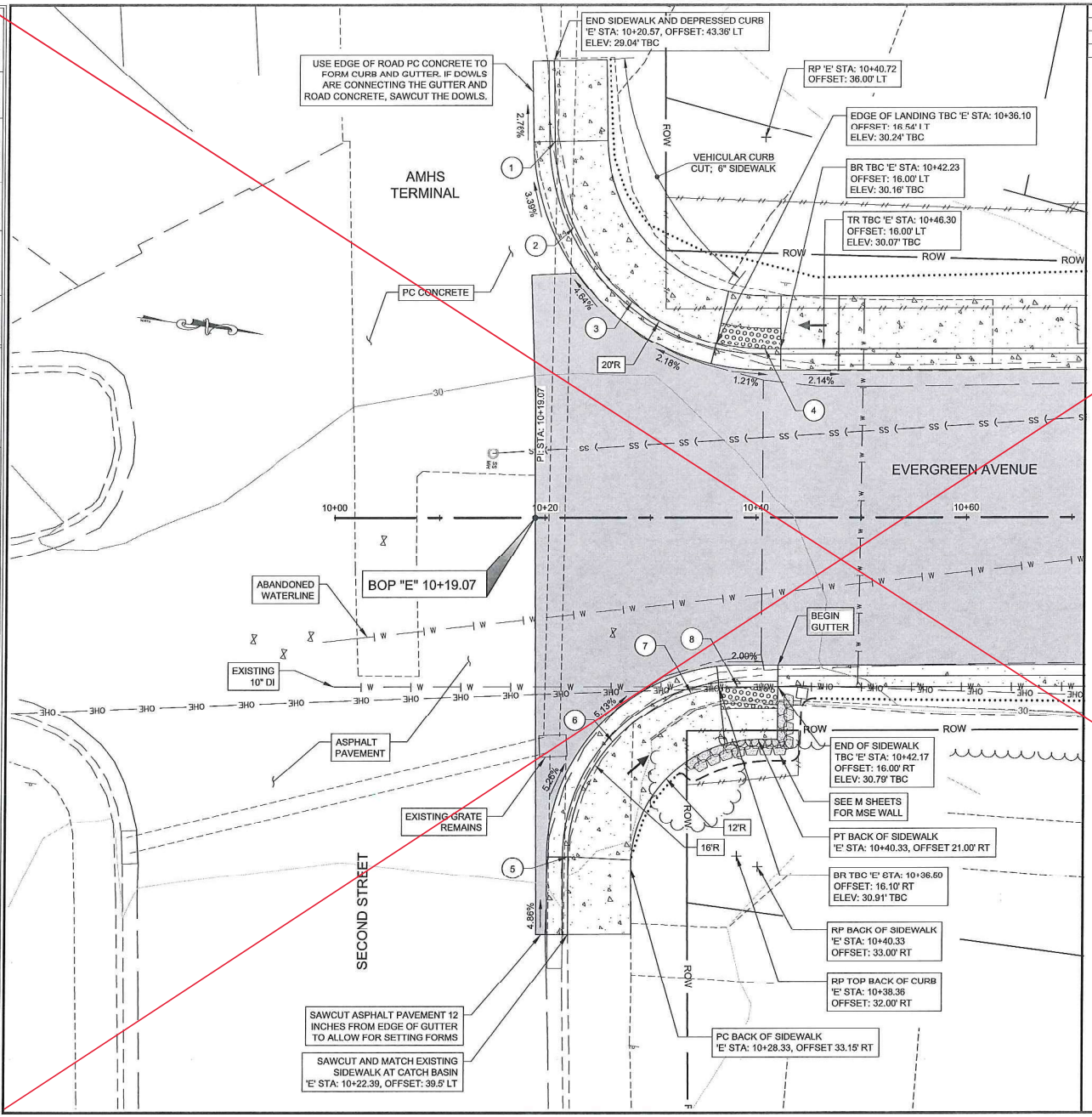
0 20' 40'
SCALE IN FEET

DRIVEWAY "E" STA. 30+67
PLAN & PROFILE

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

PE Steve Mielke Date 12/30/21

FILE | Q:\Wrg\68029\Planset\68029_F18-F19_P-P.dwg | DATE | 6/22/2017 2:09 PM | LAYOUT | F19 | DESIGNED | K. K., D.L. | CHECKED | K. K., D.L. | DRAFTED | R. G.



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	G1	4

NOTES:

1. CURB AND GUTTER LAYOUT POINT ELEVATIONS ARE TO TOP BACK OF STANDARD CURB AND GUTTER DIMENSIONS, STD. DWG. I-20.20. TOP BACK OF CURB ELEVATIONS SHALL BE ADJUSTED TO CONSTRUCT CURB RAMPS AND LANDINGS.

LAYOUT POINTS ALIGNMENT: 'E' W. McCORMICK				
POINT	STATION	OFFSET	ELEVATION¹	DESCRIPTION
1	10+20.72	35.62' LT	29.25'	PC TBC
2	10+22.57	27.58' LT	29.56'	POC TBC
3	10+28.11	20.47' LT	30.02'	POC TBC
4	10+40.72	16.00' LT	30.19'	PT TBC

LAYOUT POINTS ALIGNMENT: 'E' E. McCORMICK				
POINT	STATION	OFFSET	ELEVATION¹	DESCRIPTION
5	10+22.36	32.07' RT	32.28'	PC TBC, TR TBC
6	10+26.55	21.20' RT	31.58'	POC TBC
7	10+33.97	16.61' RT	31.06'	POC TBC
8	10+38.36	16.00' RT	30.87'	PT TBC

LAYOUT POINT DESCRIPTIONS:

MTE = MATCH TO EXISTING
RP = RADIUS POINT
CR = TOP BACK OF CURB RADIUS
TBC = TOP BACK OF CURB
TR TBC = TOP OF RAMP, TOP BACK OF CURB
BR TBC = BOTTOM OF RAMP, TOP BACK OF CURB
PC TBC = POINT OF CURVATURE, TOP BACK OF CURB
PT TBC = POINT OF TANGENCY, TOP BACK OF CURB
EOP = EDGE OF PAVEMENT

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

PE Steve Mielke Date 12/30/21

0 10' 20'

SCALE IN FEET

STATE OF ALASKA 49TH DARRYL G. LESTER 6/22/2017 CE-11514 REGISTERED PROFESSIONAL ENGINEER

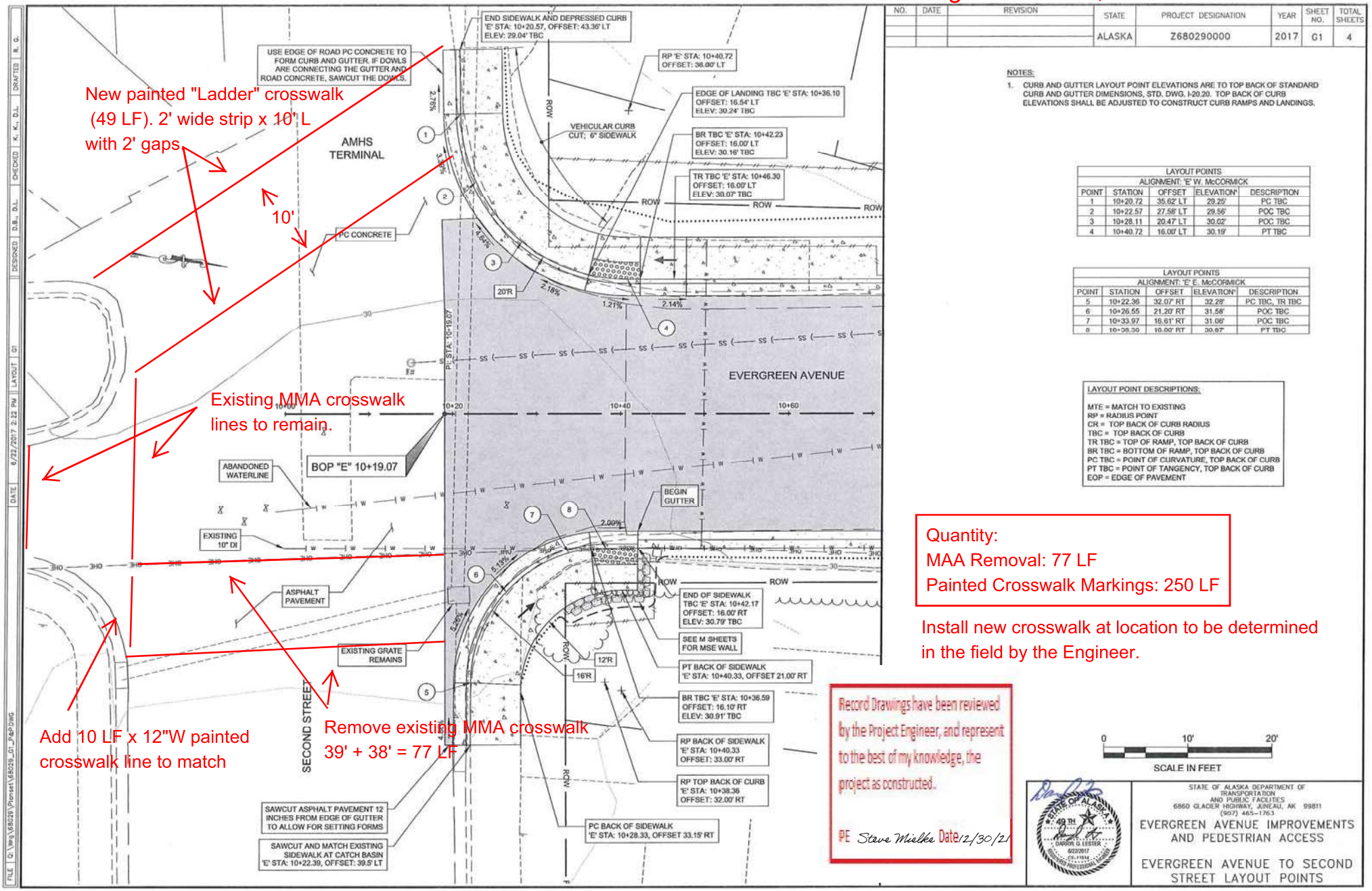
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

EVERGREEN AVENUE TO SECOND STREET LAYOUT POINTS

FILE | Q:\Wrg\680129\Planset\680129_G1_2&P.DWG | DATE | 6/22/2017 2:22 PM | LAYOUT | G1 | DESIGNED | D.B., D.L. | CHECKED | K., K., D.L. | DRAFTED | R. G.

Change Order #12, Attachment No. 1.



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	G1	4

NOTES:

1. CURB AND GUTTER LAYOUT POINT ELEVATIONS ARE TO TOP BACK OF STANDARD CURB AND GUTTER DIMENSIONS, STD. DWG. I-20.20. TOP BACK OF CURB ELEVATIONS SHALL BE ADJUSTED TO CONSTRUCT CURB RAMPS AND LANDINGS.

LAYOUT POINTS
ALIGNMENT: 'E' W. McCORMICK

POINT	STATION	OFFSET	ELEVATION¹	DESCRIPTION
1	10+20.72	35.62' LT	29.25'	PC TBC
2	10+22.57	27.58' LT	29.56'	POC TBC
3	10+28.11	20.47' LT	30.02'	POC TBC
4	10+40.72	16.00' LT	30.19'	PT TBC

LAYOUT POINTS
ALIGNMENT: 'E' E. McCORMICK

POINT	STATION	OFFSET	ELEVATION¹	DESCRIPTION
5	10+22.36	32.07' RT	32.28'	PC TBC, TR TBC
6	10+26.55	21.20' RT	31.58'	POC TBC
7	10+33.97	16.61' RT	31.06'	POC TBC
8	10+38.36	16.00' RT	30.87'	PT TBC

LAYOUT POINT DESCRIPTIONS:

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RP = RADIUS POINT
CR = TOP BACK OF CURB RADIUS
TBC = TOP BACK OF CURB
TR TBC = TOP OF RAMP, TOP BACK OF CURB
BR TBC = BOTTOM OF RAMP, TOP BACK OF CURB
PC TBC = POINT OF CURVATURE, TOP BACK OF CURB
PT TBC = POINT OF TANGENCY, TOP BACK OF CURB
EOP = EDGE OF PAVEMENT

Quantity:
MAA Removal: 77 LF
Painted Crosswalk Markings: 250 LF

Install new crosswalk at location to be determined in the field by the Engineer.

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

PE Steve Mielke Date 12/30/21

0 10' 20'
SCALE IN FEET

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

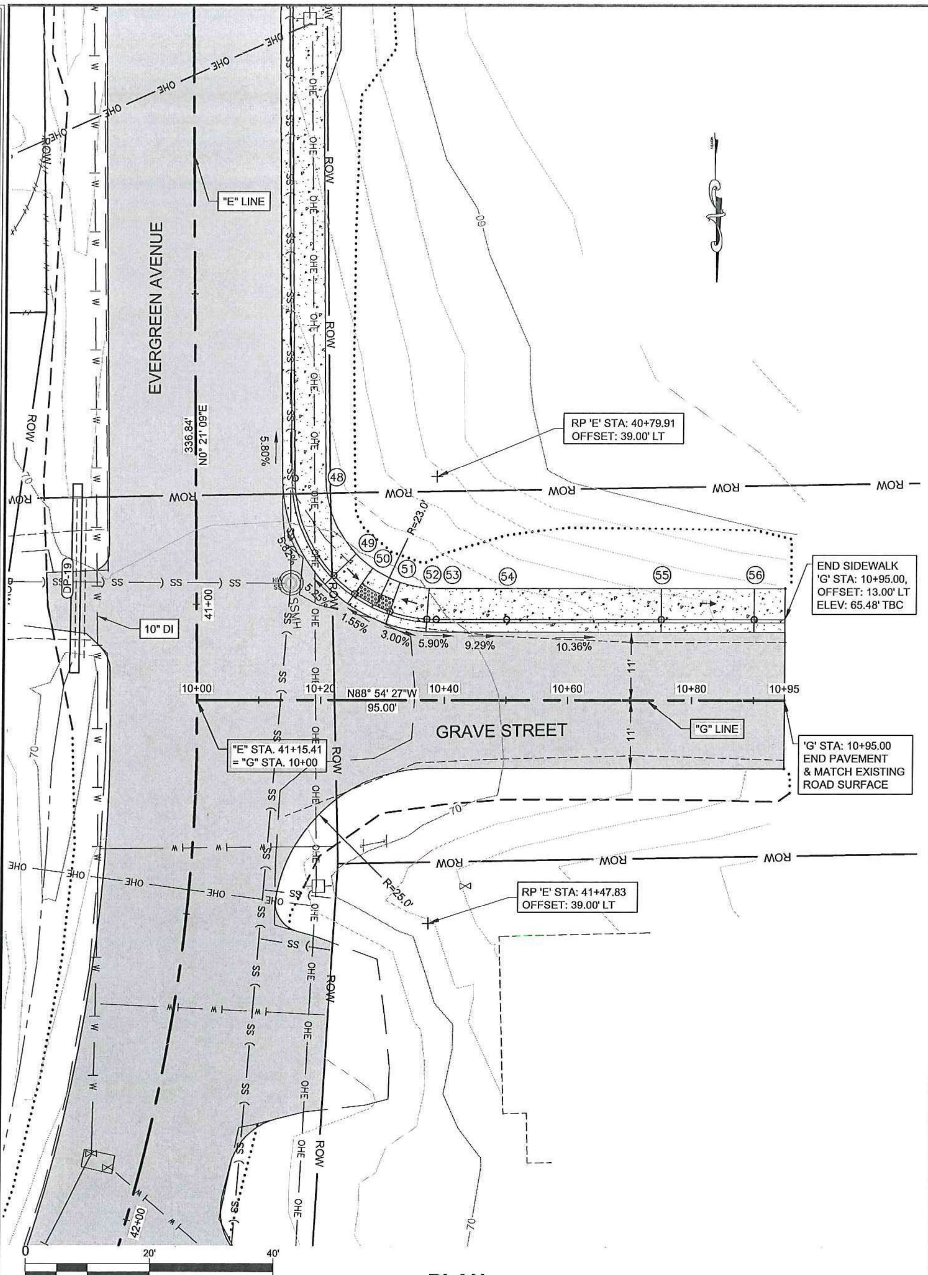
EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

EVERGREEN AVENUE TO SECOND STREET LAYOUT POINTS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z680290000	2017	G2	4

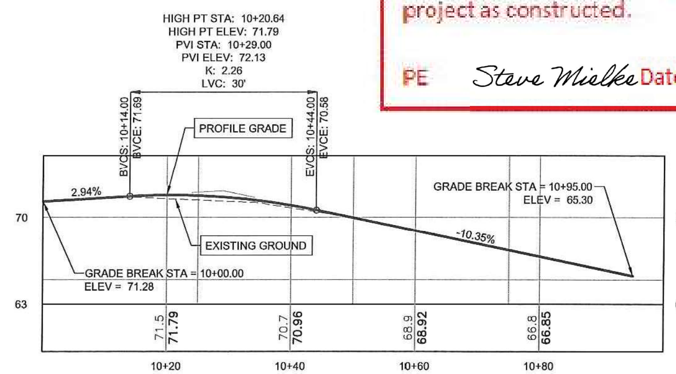
DESIGNED D.B., D.L. | CHECKED K. K., D.L. | DRAFTED R. G. | LAYOUT G2 | DATE 6/22/2017 2:44 PM | FILE Q:\Wrg\68029\Plansets\68029_G2_P&P.DWG



PLAN

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

PE Steve Mielke Date 12/30/21



"G" LINE
GRAVE STREET PROFILE

LAYOUT POINTS				
ALIGNMENT: 'E'				
POINT	STATION	OFFSET	ELEVATION[1]	DESCRIPTION
48	40+79.91	16.00' LT	70.04'	PC TBC
49	40+95.65	22.23' LT	71.14	TR TBC
50	40+98.59	25.59' LT	71.39'	BR TBC
51	41+01.55	31.23' LT	71.50'	BR TBC
52	41+02.84	37.21' LT	71.30'	TR TBC
53	41+02.90	38.70' LT	71.20'	PT TBC

LAYOUT POINTS				
ALIGNMENT: 'G'				
POINT	STATION	OFFSET	ELEVATION[1]	DESCRIPTION
54	10+50.00	13.00' LT	70.14'	PT TBC
55	10+75.00	13.00' LT	67.55'	TR TBC
56	10+90.00	13.00' LT	66.00'	BR TBC

NOTES:

1. CURB AND GUTTER LAYOUT POINT ELEVATIONS ARE TO TOP BACK OF STANDARD CURB AND GUTTER DIMENSIONS, STD. DWG. I-20.20. TOP BACK OF CURB ELEVATIONS SHALL BE ADJUSTED TO CONSTRUCT CURB RAMPS AND LANDINGS.

LAYOUT POINT DESCRIPTIONS:

MTE = MATCH TO EXISTING
RP = RADIUS POINT
CR = TOP BACK OF CURB RADIUS
TBC = TOP BACK OF CURB
TR TBC = TOP OF RAMP, TOP BACK OF CURB
BR TBC = BOTTOM OF RAMP, TOP BACK OF CURB
PC TBC = POINT OF CURVATURE, TOP BACK OF CURB
PT TBC = POINT OF TANGENCY, TOP BACK OF CURB
POC TBC = POINT ON CURVE, TOP BACK OF CURB

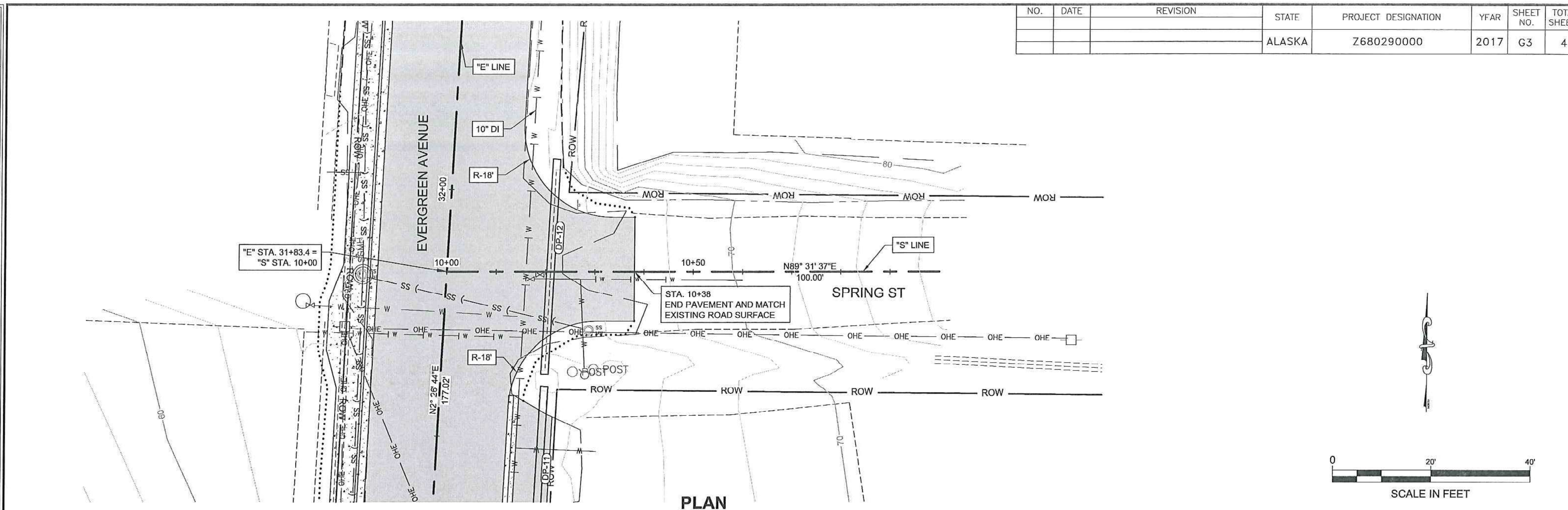
STATE OF ALASKA · 49TH · DARRYL G. LESTER · 6/22/2017 · CE-11514 · REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

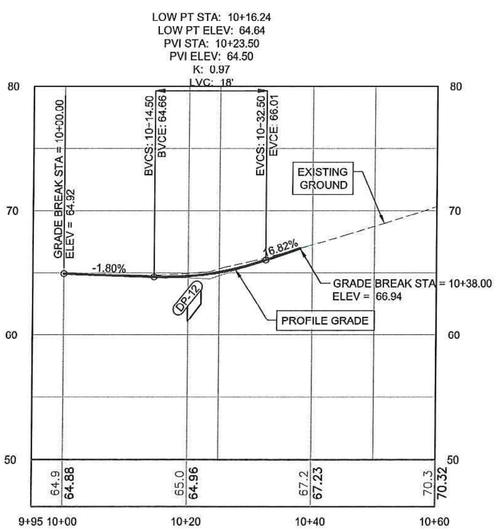
EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

GRAVE STREET PLAN & PROFILE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	G3	4



PLAN



"S" LINE PROFILE

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA · 49TH · DARRYL G. LESTER · 6/22/2017 · CE-11514 · REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

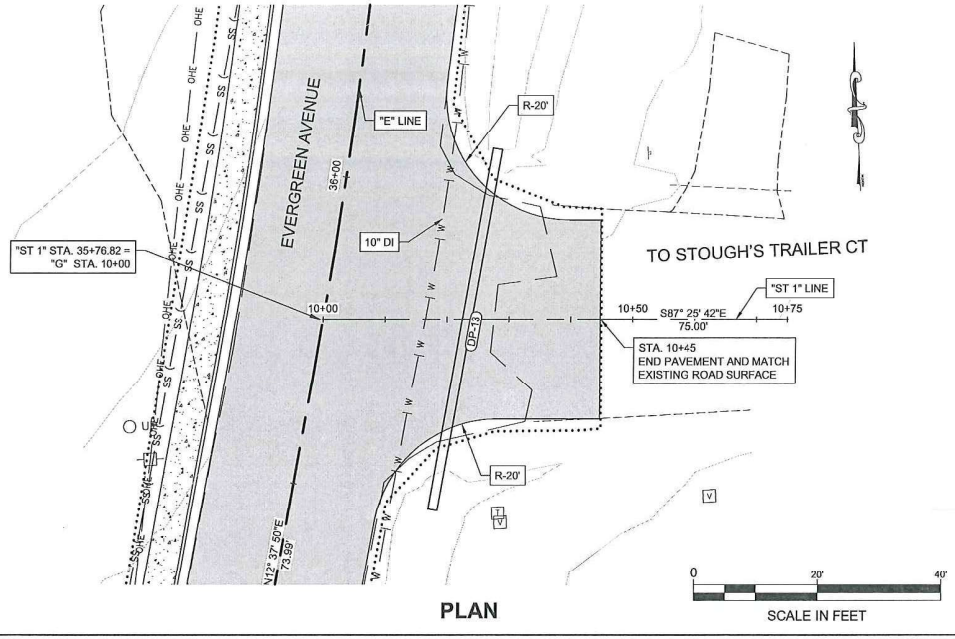
SPRING STREET

DESIGNED D.B., D.L. | CHECKED K. K., D.L. | DRAFTED R. G.

DATE 6/22/2017 3:13 PM | LAYOUT G3

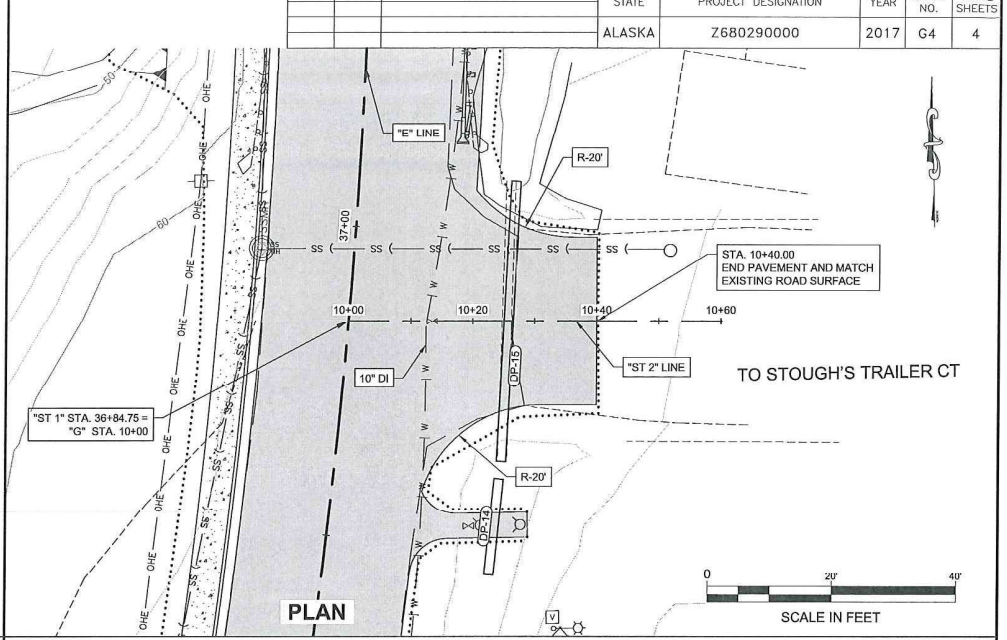
Q:\Wrg\68029\Planset\68029_G3_P&P.DWG

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	G4	4



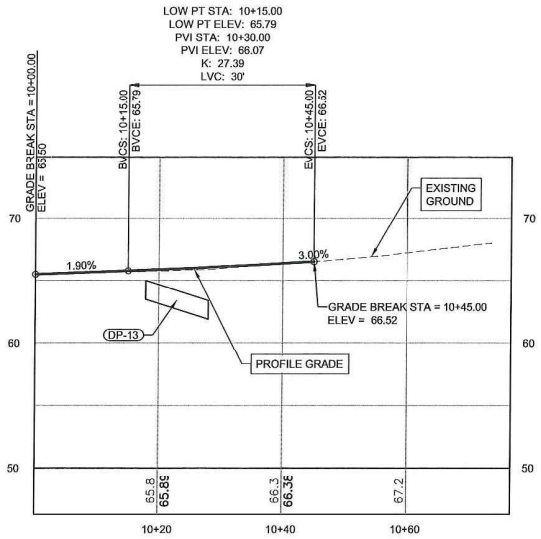
PLAN

SCALE IN FEET

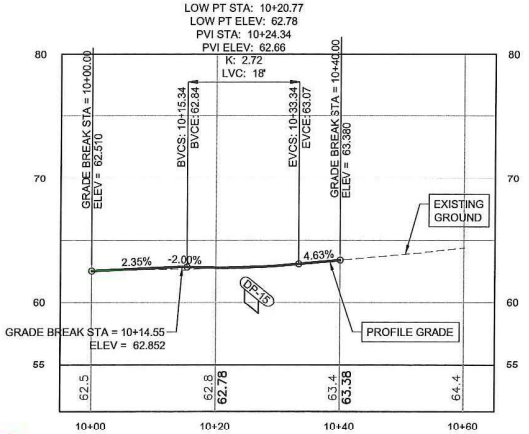


PLAN

SCALE IN FEET



"ST 1" LINE PROFILE



"ST 2" LINE PROFILE

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA
49 TH
DARRYL G LESTER
6/27/2017
CE-11514
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

STOUGH'S TRAILER COURT PLAN & PROFILE

FILE | G:\Wrg\68029\Planset\68029_G4_P&P.DWG | DATE | 6/27/2017 9:34 AM | LAYOUT | G4 | DESIGNED | D.B., D.L. | CHECKED | K. K., D.L. | DRAFTED | R. G.

C.O. #11, Attachment No. 1.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2018	G5	5

Change Order #11. Establish New Item 608(10) Reconstruct BOP. Bulb Out.
Description: Reconstruct existing Concrete Island near BOP. to ADA standards to accommodate relocation of existing crosswalk. Work to include the following:
*Remove and dispose existing concrete sidewalk, curb & gutter as required to reconstruct sidewalk.
* Furnish @ sets of detectable warning tiles as required (to include expedited shipping & handling costs).
* Construct concrete curbs, ramps,landings and sidewalk per the Plans and drawing (Attachment No.1).

CO.#11.

AMHS TERMINAL

ROW

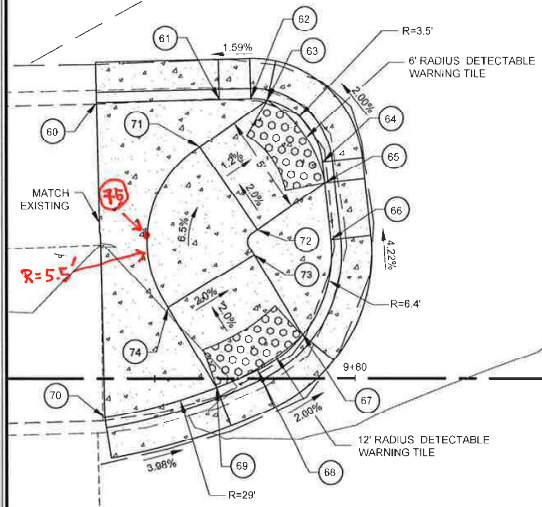
ROW

PC CONCRETE

EVERGREEN AVENUE

SECOND STREET

STIKINE AVE



LAYOUT POINTS
ALIGNMENT 'E'

POINT	STATION	OFFSET	ELEVATION'	DESCRIPTION
POINT NUMBERS 60 - 70 ARE TAKEN AT TOP BACK OF CURB AT STANDARD CURB HEIGHT. SEE NOTE 1.				
60	9+67.12	13.71' LT	29.65	MATCH EXISTING SIDEWALK
61	9+73.24	13.86' LT	29.64'	BEGIN RAMPING UPWARD FROM STREET LEVEL
62	9+74.79	13.89' LT	29.66	PC
63	9+75.61	13.82' LT	29.68	BEGIN LANDING
64	9+78.35	10.77' LT	29.79	PT
65	9+78.47	9.71' LT	29.80'	END LANDING
66	9+78.77	6.90' LT	29.92'	PC
67	9+77.36	2.16' LT	30.20'	BEGIN LANDING
68	9+75.11	0.41' LT	30.28'	PCC
69	9+73.09	0.44' RT	30.30'	END LANDING
70	9+67.52	1.92' RT	30.54'	MATCH EXISTING CURB
POINT NUMBERS 71 - 74 ARE FIELD POINTS TAKEN AT BACK EDGE OF LANDINGS. USE THE ELEVATIONS AS LISTED FOR ACTUAL SIDEWALK ELEVATIONS.				
71	9+72.28	11.52' LT	29.36	BACK OF LANDING
72	9+75.11	7.40' LT	29.46	BACK OF LANDING 7.40' LT
73	9+74.95	6.13' LT	29.71	BACK OF LANDING
74	9+70.68	3.54' LT	29.81'	BACK OF LANDING
75	9+69.65	7.23' LT	29.61'	MIDPOINT

NOTES:

1. CURB AND GUTTER LAYOUT POINT ELEVATIONS ARE TO TOP BACK OF STANDARD CURB AND GUTTER DIMENSIONS, STD. DWG. I-20.20. TOP BACK OF CURB ELEVATIONS SHALL BE ADJUSTED TO CONSTRUCT CURB RAMPS AND LANDINGS.
2. CAREFULLY REMOVE THE EXISTING CURB AND GUTTER FOR THE LIMITS OF RECONSTRUCTING THE RAMPS AND LANDINGS. DO NOT DAMAGE THE ROADWAY PAVEMENT AS IT WILL BE USED AS THE FORM FOR THE FRONT EDGE OF THE GUTTER. THE RADII GIVEN ARE APPROXIMATE TO CLOSELY MATCH THE EXISTING RADII.

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

PE Steve Mielke Date 12/30/21

0 6' 12'
SCALE IN FEET

10-4-18

STATE OF ALASKA
49TH
DARRYL G. LESTER
10/4/2018
CE-11514
REGISTERED PROFESSIONAL ENGINEER
10/4/2018

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

BOP BULB OUT

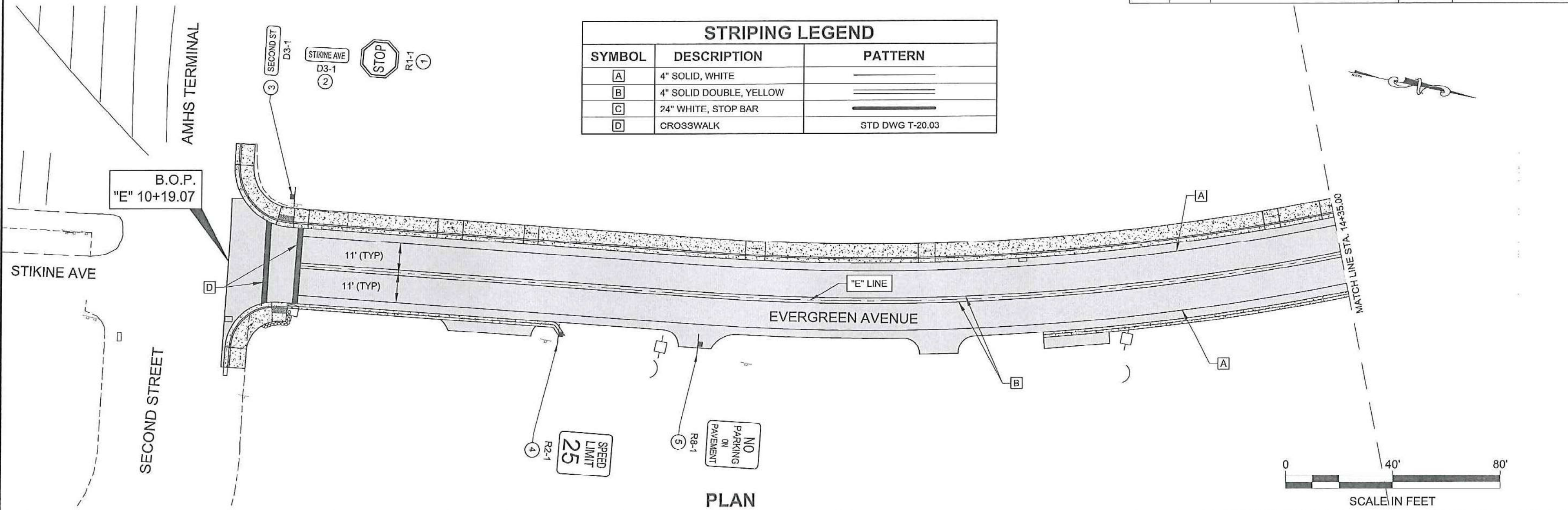
FILE t:\Proj\68029\Planset\68029_GS_P&P.DWG | DATE 10/4/2018 8:39 AM | LAYOUT G5 | DESIGNED D.B. D.L. | CHECKED K. K., D.L. | DRAFTED R. G.

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z680290000	2017	H1	6

STRIPING LEGEND

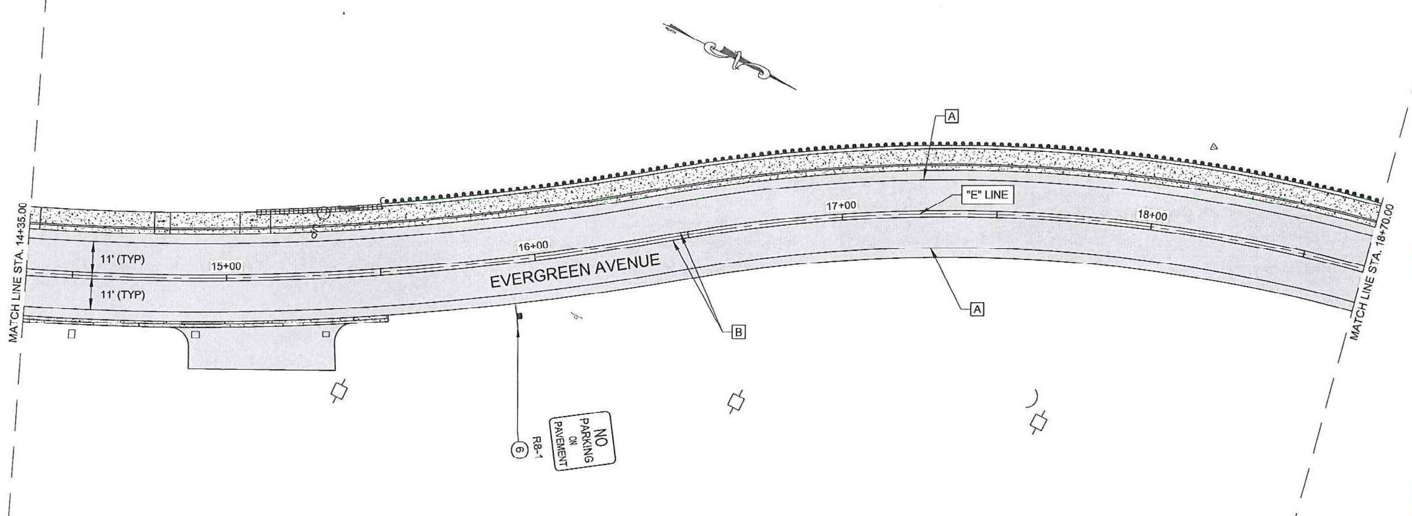
SYMBOL	DESCRIPTION	PATTERN
A	4" SOLID, WHITE	
B	4" SOLID DOUBLE, YELLOW	
C	24" WHITE, STOP BAR	
D	CROSSWALK	STD DWG T-20.03



PLAN

STATE OF ALASKA 49TH David Bruce Epstein 6/9/2017 CE-6866 REGISTERED PROFESSIONAL ENGINEER

SIGNING & STRIPING PLAN



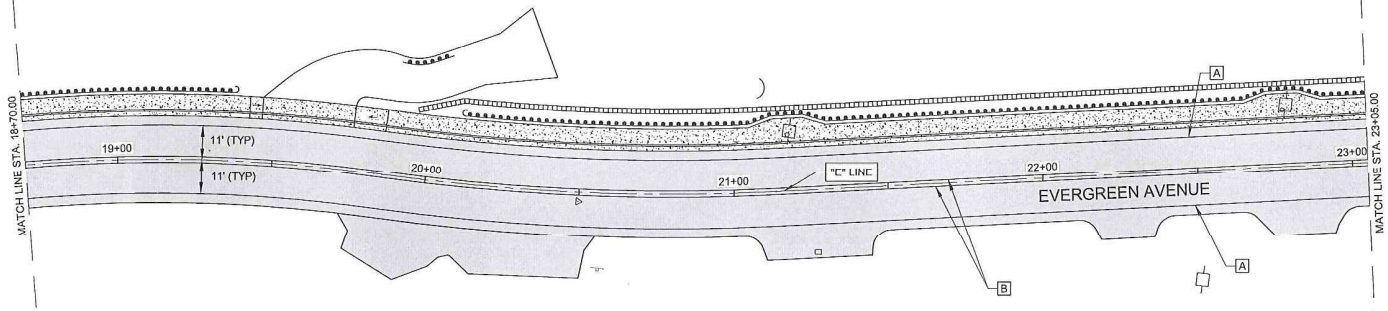
PLAN

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

PE Steve Mielke Date 12/30/21

FILE Q:\Wrg\68029\Planset\68029_H1-H6 SIGNING.dwg | DATE 6/9/2017 11:07 AM | LAYOUT H1 | DESIGNED D.B., D.L. | CHECKED K. K., D.L. | DRAFTED R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	H2	6



PLAN

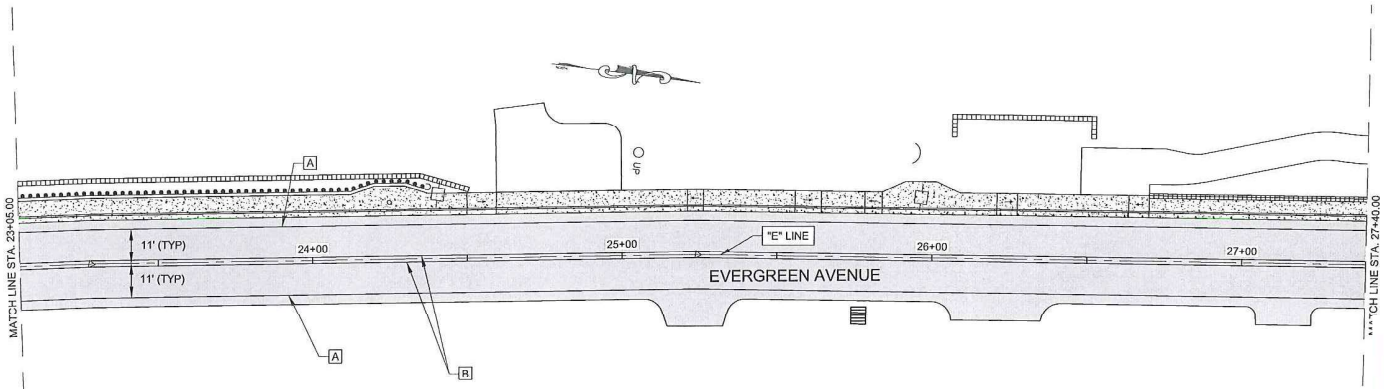
STRIPING LEGEND		
SYMBOL	DESCRIPTION	PATTERN
A	SOLID, WHITE 4"	
B	SOLID DOUBLE, YELLOW 4"	
C	STOP BAR, WHITE 24"	

0 40' 80'

SCALE IN FEET

STATE OF ALASKA 49 TH David Brace Epstein 6/7/2017 CE-6866 REGISTERED PROFESSIONAL ENGINEER

SIGNING & STRIPING PLAN



PLAN

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

PE Steve Mielke Date 12/30/21

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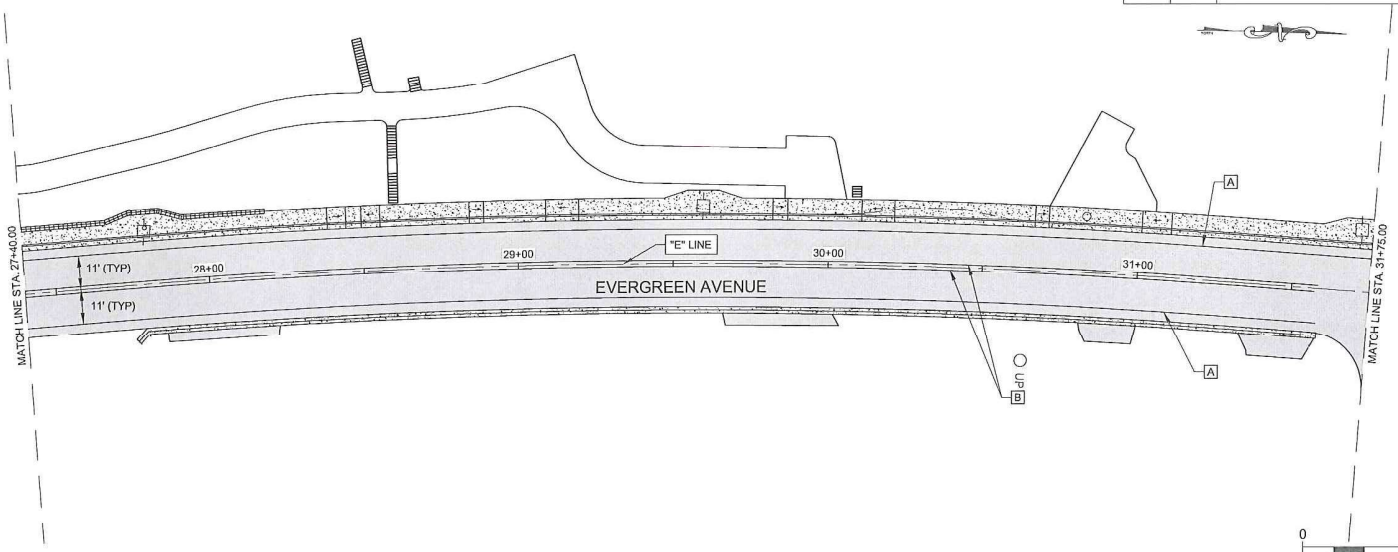
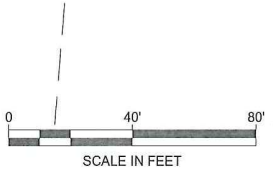
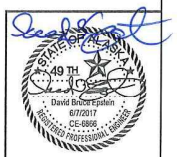
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	H3	6



PLAN

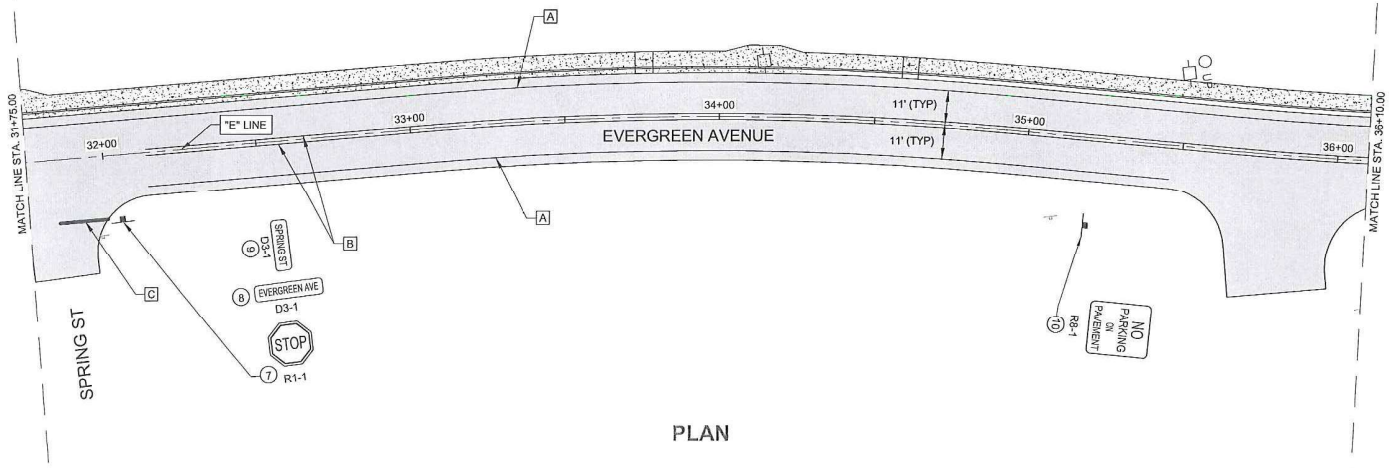


SCALE IN FEET



SIGNING & STRIPING PLAN

STRIPING LEGEND		
SYMBOL	DESCRIPTION	PATTERN
A	SOLID, WHITE 4"	
B	SOLID DOUBLE, YELLOW 4"	
C	STOP BAR, WHITE 24"	



PLAN

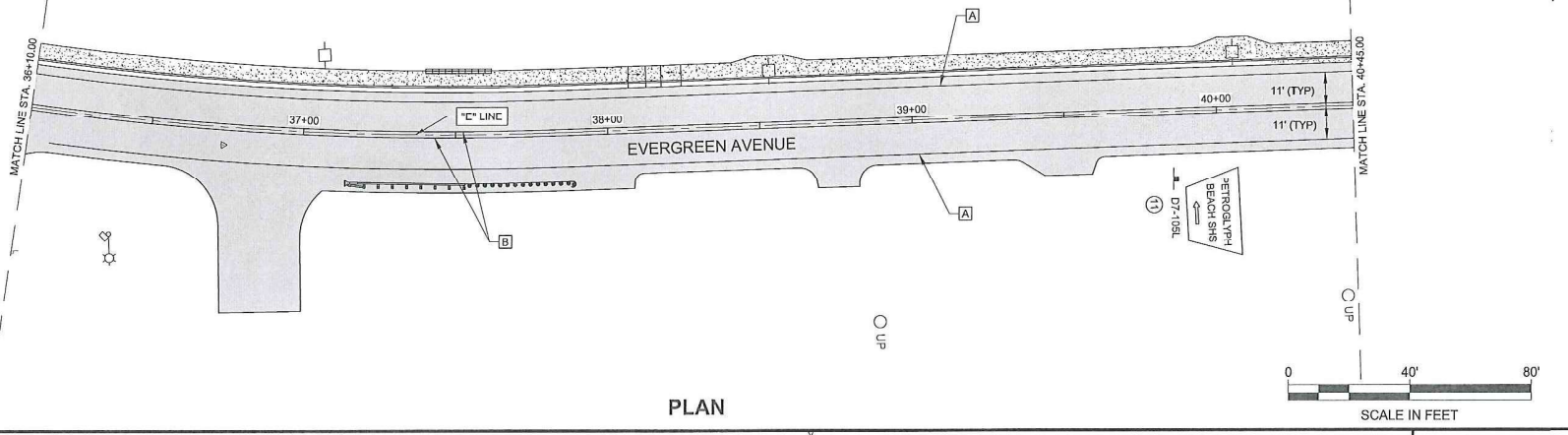
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

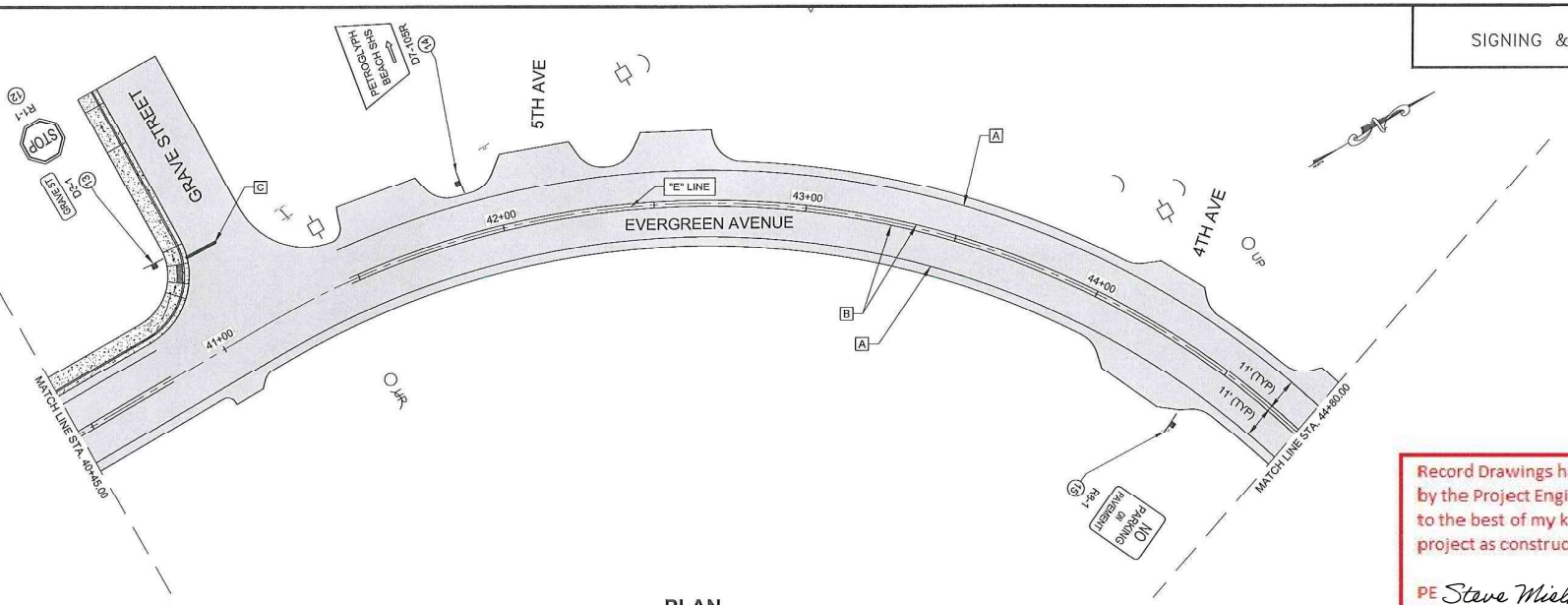
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	H4	6

STRIPING LEGEND

SYMBOL	DESCRIPTION	PATTERN
A	SOLID, WHITE 4"	
B	SOLID DOUBLE, YELLOW 4"	
C	STOP BAR, WHITE 24"	



PLAN



PLAN

SIGNING & STRIPING PLAN

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

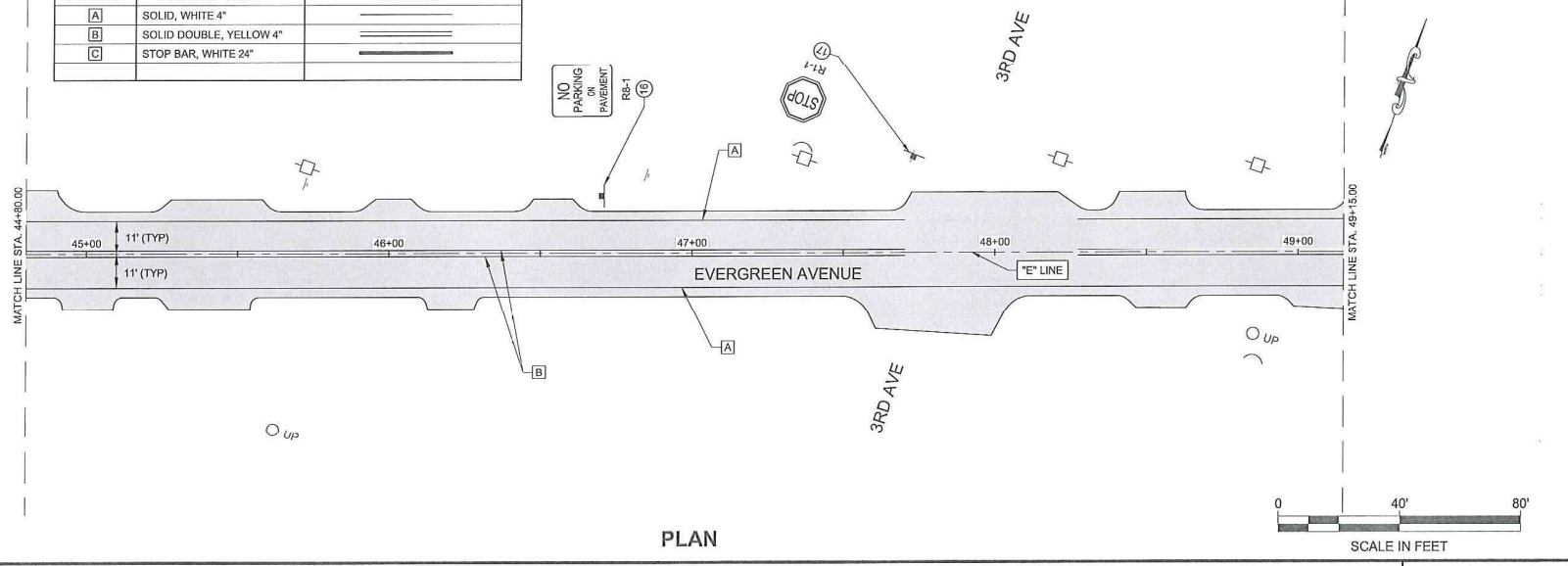
PE Steve Mielke Date 12/30/21

FILE | G:\Wrg\68029\Planset\68029_H1-H6 SIGNING.dwg | DATE | 6/9/2017 11:10 AM | LAYOUT | H4 | DESIGNED | D.B., D.L. | CHECKED | K. K., D.L. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	H5	6

STRIPING LEGEND

SYMBOL	DESCRIPTION	PATTERN
A	SOLID, WHITE 4"	
B	SOLID DOUBLE, YELLOW 4"	
C	STOP BAR, WHITE 24"	



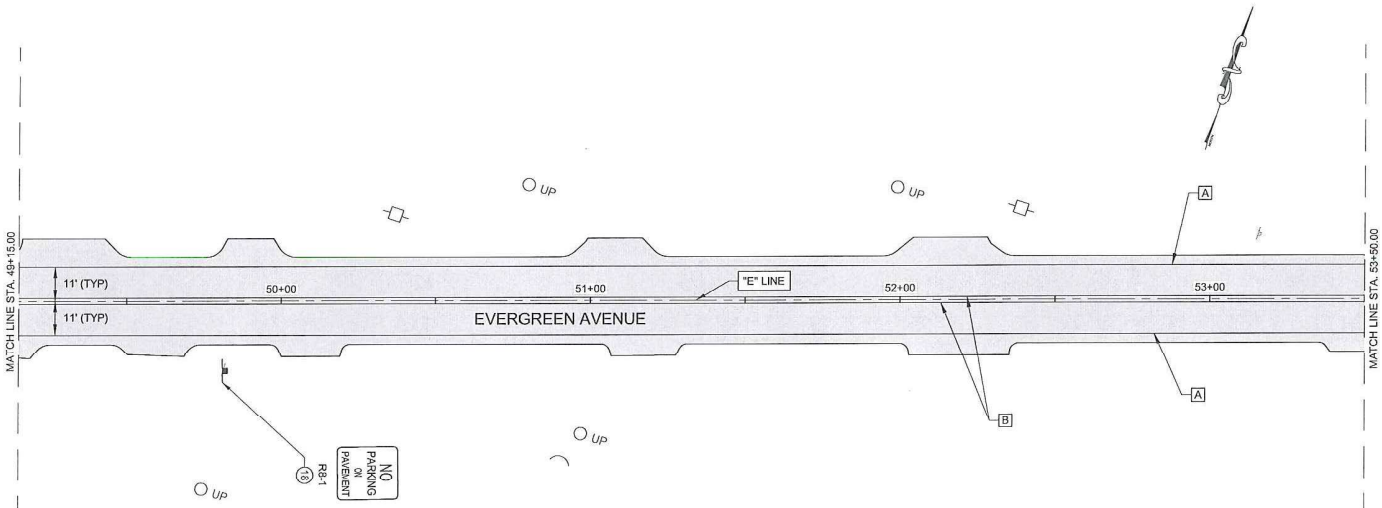
PLAN

0 40' 80'

SCALE IN FEET

STATE OF ALASKA 49 TH David Binder Epstein 6/7/2017 CE-6808 REGISTERED PROFESSIONAL ENGINEER

SIGNING & STRIPING PLAN



PLAN

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

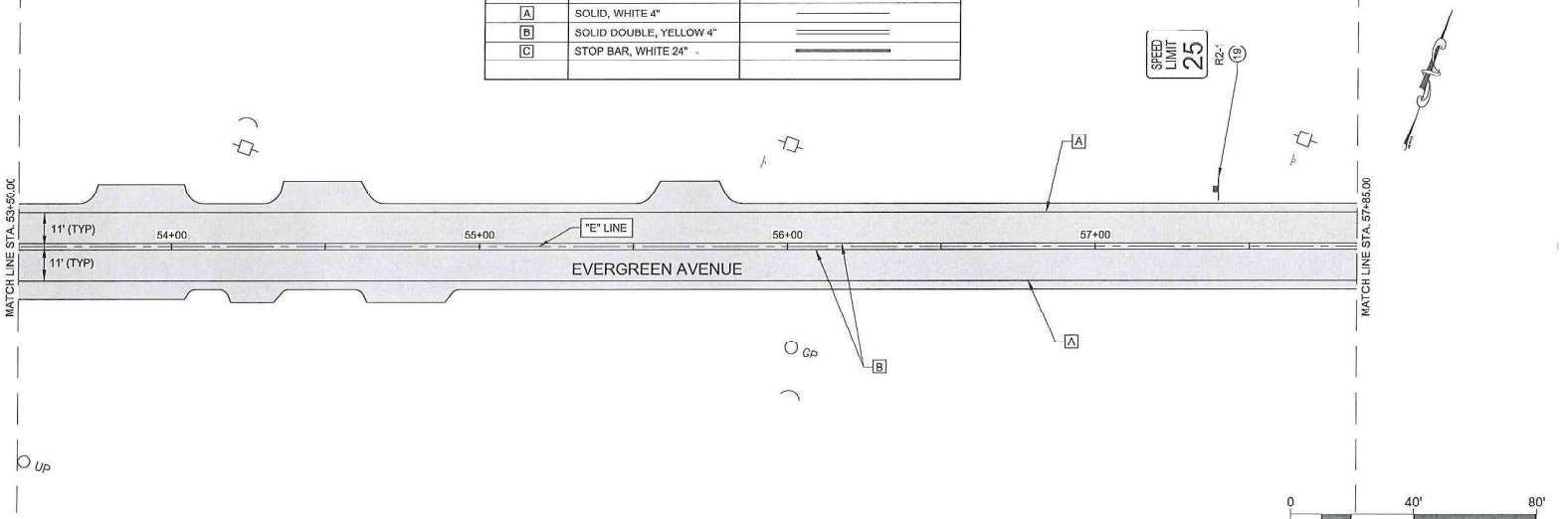
PE Steve Mielke Date 12/30/2

FILE | Q:\Vng\68029\Plotset\68029_H1-H6 SIGNING.dwg | DATE | 6/7/2017 1:44 PM | LAYOUT | H5 | DESIGNED | B.B., D.L. | CHECKED | K., D.L. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	H6	6

STRIPING LEGEND

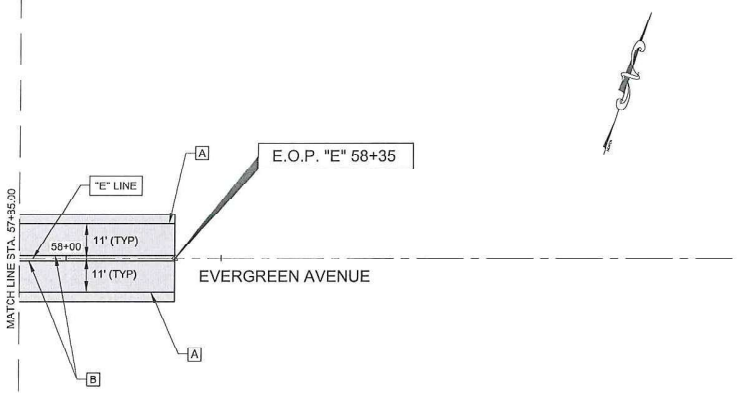
SYMBOL	DESCRIPTION	PATTERN
A	SOLID, WHITE 4"	
B	SOLID DOUBLE, YELLOW 4"	
C	STOP BAR, WHITE 24"	



PLAN

STATE OF ALASKA 49TH
David Bruce Epstein
8/1/2017
CE-6866
REGISTERED PROFESSIONAL ENGINEER

SIGNING & STRIPING PLAN



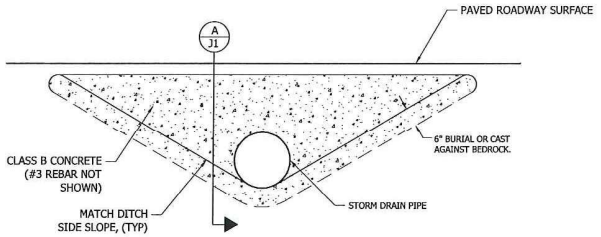
PLAN

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

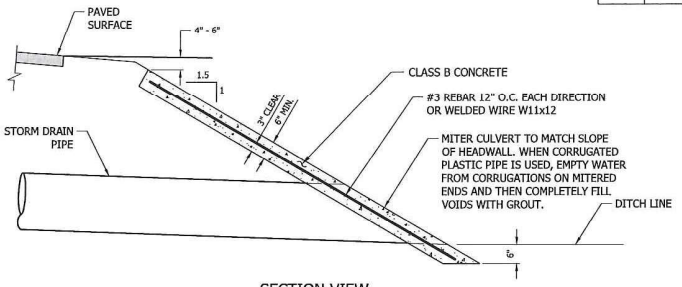
PE Steve Mielke Date 12/30/21

FILE | Q:\Wrg\68325\Plotset\68029_sh1--H6 SIGNING.dwg | DATE | 6/7/2017 1:44 PM | LAYOUT | H6 | DESIGNED | D.B.. D.L. | CHECKED | K.. K.,. D.L.. | DRAFTED | R. G.

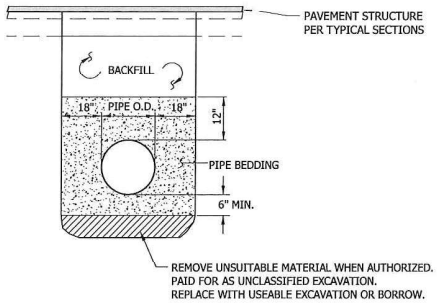
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	J1	6



CULVERT HEADWALL DETAIL
NTS



A SECTION VIEW

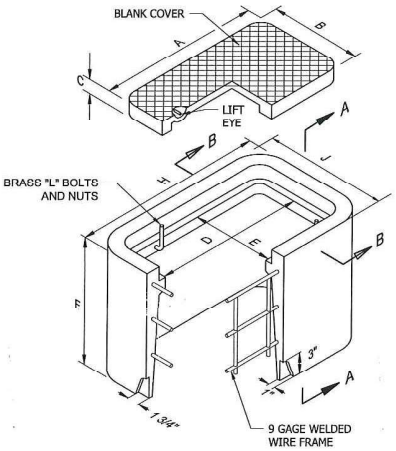


CULVERT BEDDING/BACKFILL DETAIL
NTS

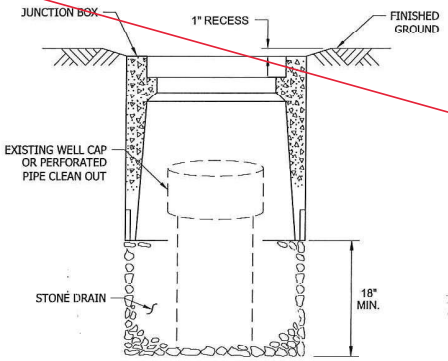
Est.New Pay Item 627(12) furnish Valve boxes. furnish Twelve (12) ea.;36" valve box bottom,16"valve box top, and "Water" valve box cover. CHANGE ORDER # 5.

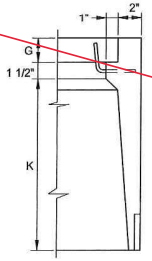
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

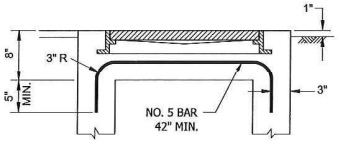


DIMENSIONS (IN.)	
TYPE I-A	
A	22 3/4
B	13 1/4
C	2
D	21 1/4
E	11 3/4
F	18
G	2
H	27 1/4
J	17 3/4
K	14 1/2

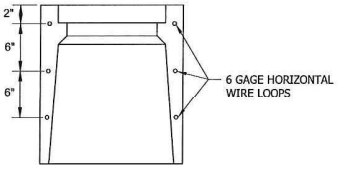




SECTION A-A

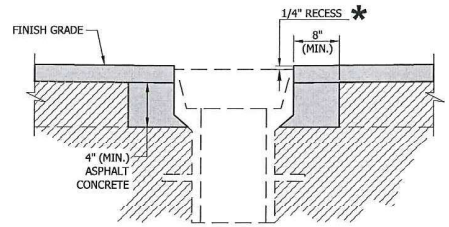


SECTION B-B



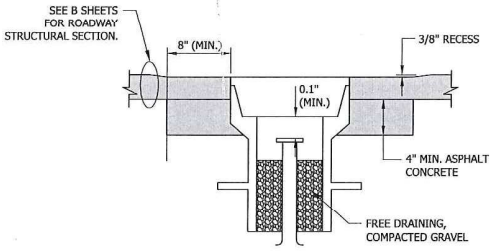
ALTERNATE REINFORCING

TYPE I-A JUNCTION BOX
NTS



* MATCH ROADWAY CROSS SLOPE

VALVE BOX ADJUSTMENT DETAIL
NTS
RECESS TOLERANCE: 1/8", -0"



MONUMENT & MONUMENT CASE DETAIL
NTS

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

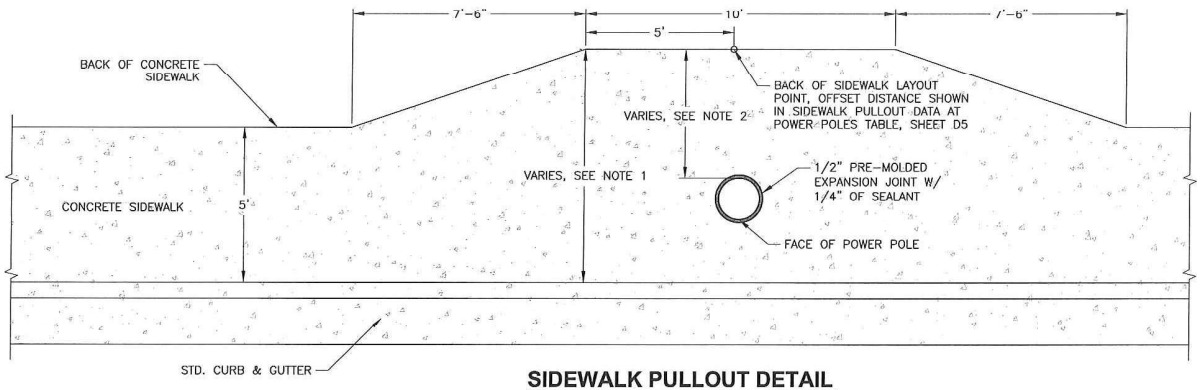
EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

MISCELLANEOUS DETAILS

STATE OF ALASKA 49TH DARRYL G. LESTER 3/6/2018 CE-11514 REGISTERED PROFESSIONAL ENGINEER

FILE | Q:\Wrq\68029\Planset\68029_J1-J2_Dets.dwg | DATE | 3/6/2018 8:42 AM | LAYOUT | J1 | DESIGNED | D.B., D.L. | CHECKED | K. K., D.L. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	J2	6

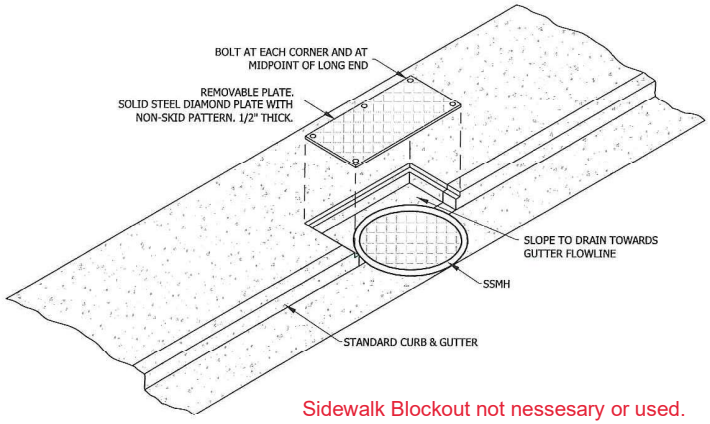


SIDEWALK PULLOUT DETAIL

NTS

SIDEWALK PULLOUT NOTES:

1. DIMENSIONS VARY TO BACK OF SIDEWALK PER EACH INDIVIDUAL POWER POLE. FOR POWER POLES TO BE RELOCATED BY OTHERS PER SECTION 651 THIS DIMENSION SHOULD BE 7.5 FEET. FOR POWER POLES TO REMAIN IN PLACE OFFSET TO BACK OF SIDEWALK FROM LINE "E" CENTER LINE SHOWN IN SIDEWALK PULLOUT DATA AT POWER POLES TABLE, SHEET D5.
2. DIMENSIONS VARY TO BACK OF SIDEWALK PER EACH INDIVIDUAL POWER POLE. PRIOR TO POURING CONCRETE SIDEWALK VERIFY A MINIMUM DIMENSION OF 4 FEET IS PROVIDED BEHIND POWER POLE TO ALLOW FOR PLOWING EQUIPMENT AND ADA ACCESS.



Sidewalk Blockout not nessesary or used.

SIDEWALK BLOCKOUT FOR MANHOLE

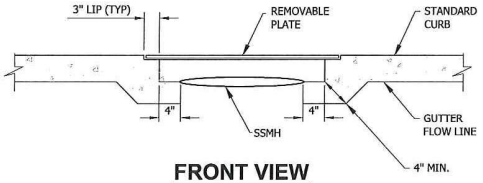
NTS

NOTES:

1. ROTATE CONE TO MOVE LID OUT OF CURB FACE. IF ROTATING THE CONE WILL NOT PROVIDE ADEQUATE CLEARANCE FROM CURB FACE, ADJUST CURB AND GUTTER OFFSET A MAXIMUM OF 6" USING 100' CURB TAPERS ON EACH SIDE OF SHIFT LOCATION.
2. IF ROTATING THE CONE AND OFFSETTING THE CURB AND GUTTER WILL NOT PROVIDE ADEQUATE CLEARANCE, CONSTRUCT BLOCKOUT WITH REMOVABLE PLATE AS DETAILED.

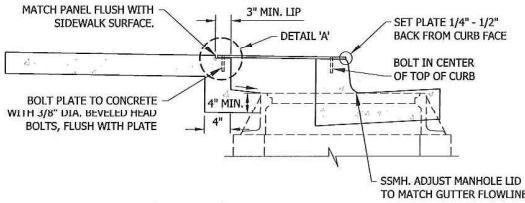
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21



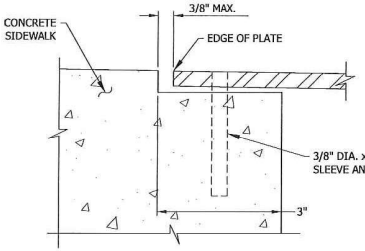
FRONT VIEW

NTS



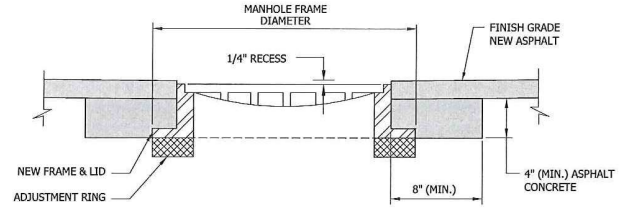
SECTION VIEW

NTS



DETAIL A

NTS



SANITARY SEWER MANHOLE ADJUSTMENT DETAIL

NTS

GENERAL NOTES:

1. NEW MANHOLE CASTINGS MUST COMPLY WITH BUY AMERICA PROVISIONS PER SECTION 106 OF STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ADJUSTMENT NOTES:

1. MANHOLE CASTING SHALL BE ADJUSTED TO CONFORM WITH SLOPE AND GRADE OF PROPOSED PAVEMENT USING A TAPERED RISER CONFIGURATION. NO SHIMMING WILL BE ALLOWED.
2. ADJUSTING RINGS SHALL BE PROPERLY SIZED FOR THE EXISTING CONE OR FLAT TOP OPENING, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
3. INSTALLATION OF FRAME, COVER, AND ADJUSTMENT RINGS, ONTO THE EXISTING STRUCTURE SHALL BE WATER-TIGHT.
. WHEN ADJUSTING TO SIDEWALK SURFACE, ELIMINATE 1/4" RECESS AND MATCH FLUSH WITH SURFACE.

CONSTRUCTION SEQUENCING NOTES:

. RAISE, LOWER OR RECONSTRUCT MANHOLES AS REQUIRED. INSTALL STEEL PLATE OVER MANHOLE OPENING AS A TEMPORARY MEASURE.
. PRIOR TO FINAL PAVING, REMOVE STEEL PLATE AND INSTALL NEW RISERS, FRAME AND LID. ADJUST FRAMES TO FINISHED GRADE.
. CONSTRUCT 4" OF ASPHALT CONCRETE PAVEMENT IN PAVEMENT REMOVAL AREA AROUND FRAME.
. CONSTRUCT FINAL ASPHALT CONCRETE PAVEMENT.

STATE OF ALASKA 49TH DARRYL G. LESTER 7/6/2017 CE-11514 REGISTERED PROFESSIONAL ENGINEER

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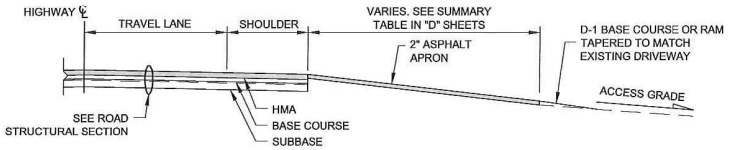
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

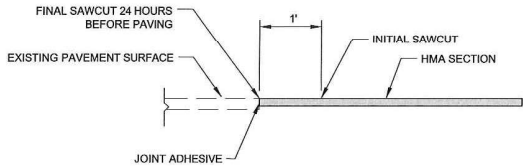
MISCELLANEOUS DETAILS

FILE | Q:\Wrq\68029\Planset\68029_J1-J2_Dets.dwg | LAYOUT | J2 | DATE | 7/6/2017 8:12 AM | DESIGNED | D.B., D.L. | CHECKED | K. K., D.L. | DRAFTED | R. G.

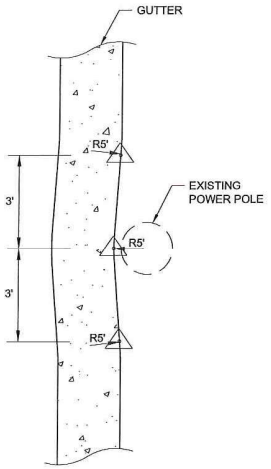
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	J3	6



UNPAVED DRIVEWAY APRON
NTS

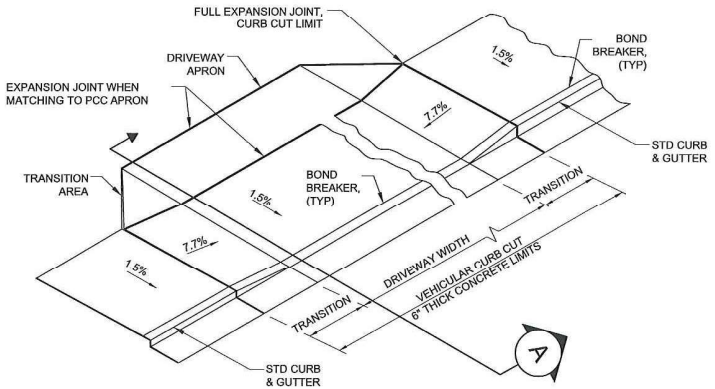


DRIVEWAY, BOP & EOP PAVEMENT MATCH DETAIL
NTS

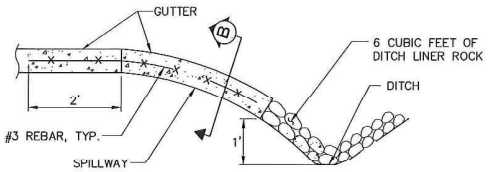


NOTE:
IF POWER POLE INTRUDES 2" OR LESS INTO THE SIDE OF GUTTER, DON'T OFFSET GUTTER, INSTEAD CAST GUTTER AROUND POWER POLE.

GUTTER OFFSET FOR POWER POLE PLAN
NTS

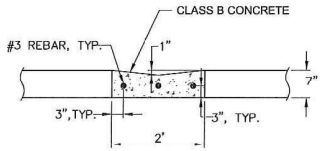


DRIVEWAY RAMP DETAIL
NTS



SPILLWAY DETAIL
NTS

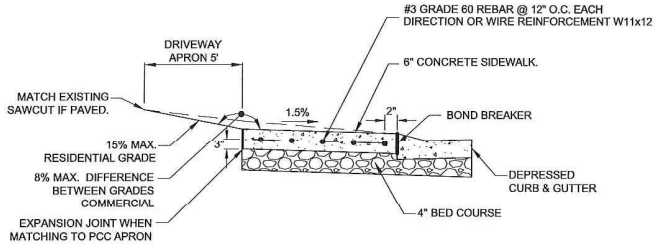
NOTE:
1. INSTALL SPILLWAYS AT THE END OF GUTTER SECTIONS WHERE DRAINAGE GETS DIRECTED INTO THE DITCH.



SECTION (B)
NTS

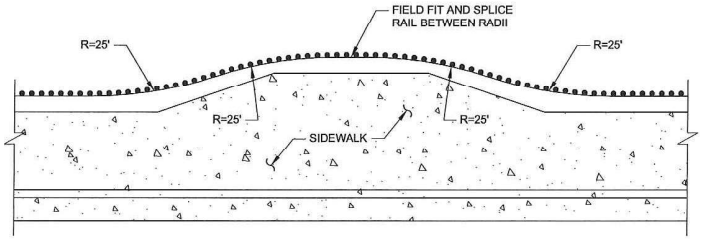
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

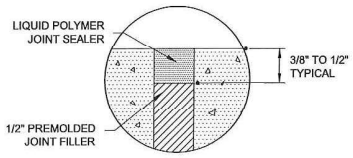


(A) DRIVEWAY APRON SECTION
NTS

DRIVEWAY APRON NOTES:
1. WHEN REQUIRED TO SAWCUT TO MATCH TO EXISTING DRIVE, CONSTRUCT APRON OF SAME MATERIAL AS EXISTING DRIVE. FOR EXISTING ASPHALT PAVEMENT DRIVES, CONSTRUCT APRON WITH 2" ASPHALT CONCRETE. FOR PCC DRIVES, CONSTRUCT APRON WITH MINIMUM 6" CLASS A CONCRETE OR MATCH EXISTING WHEN GREATER THAN 6" THICK.
2. USE ADOBE BLOCKS 2' O.C. EACH DIRECTION TO HOLD CONCRETE REINFORCEMENT IN PLACE.



GUARDRAIL RADIUS AT SIDEWALK PULLOUT
NTS



EXPANSION JOINT DETAIL
NTS

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EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

MISCELLANEOUS DETAILS

STATE OF ALASKA 49TH DARRYL G. LESTER 7/20/2017 CE-11514 REGISTERED PROFESSIONAL ENGINEER

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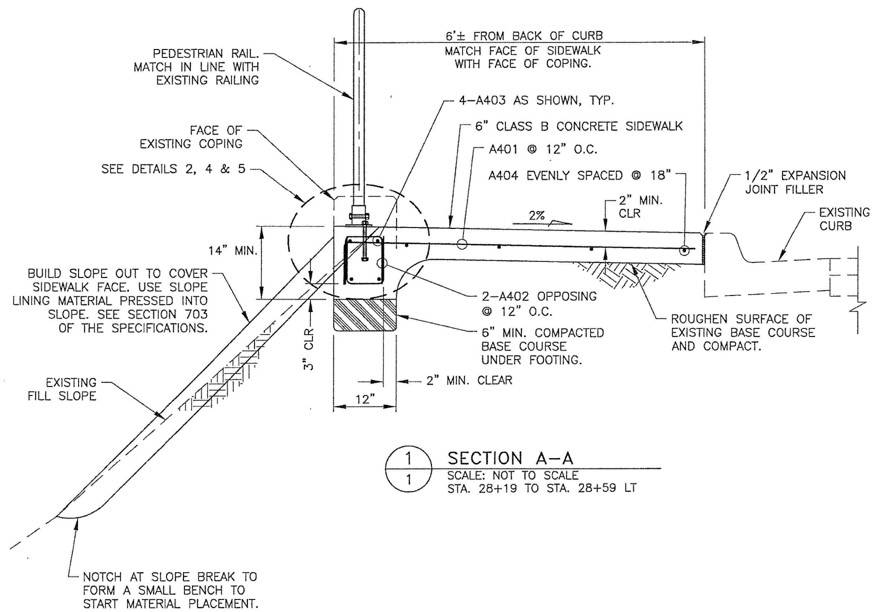
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2018	1	2

Change Order No. 17, Attachment No. 2.



1/1 SECTION A–A
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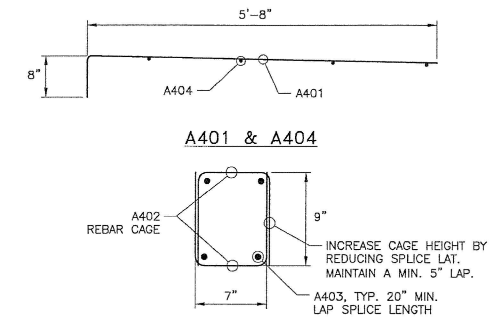
STA. 28+19 TO STA. 28+59 LT



2/1 REBAR DETAIL
SCALE: NOT TO SCALE
SEE NOTE 1

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

PE Steve Mielke Date 12/30/21

SIDEWALK NOTES:

1. CONSTRUCT THE FOOTING DEPTH A MINIMUM OF 14 INCHES AS SHOWN. INCREASE FOOTING DEPTH AS FIELD CONDITIONS REQUIRE TO CONSTRUCT ON A FIRM AND STABLE SUBBASE. INCREASE A402 REBAR CAGE HEIGHT AS NECESSARY.
2. PROVIDE A FULL DEPTH EXPANSION JOINT AT 20 FEET MAXIMUM SPACING. EXPANSION JOINTS MUST FALL WITHIN THE PEDESTRIAN RAILING SPANS THAT HAVE THE SPLICE JOINT.
3. PROVIDE CRACK CONTROL JOINTS AT INTERVALS MATCHING THE CONTROL JOINTS IN THE EXISTING SIDEWALK.
4. BROOM FINISH THE SIDEWALK SURFACE PERPENDICULAR TO TRAFFIC. MATCH THE APPEARANCE OF THE EXISTING SIDEWALK.
5. PICKETS SHALL BE PLUMB.

STATE OF ALASKA 49TH Lorenzo Gonzalez, P.E. CE10155 REGISTERED PROFESSIONAL ENGINEER 1/28/19

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EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

MISCELLANEOUS DETAIL

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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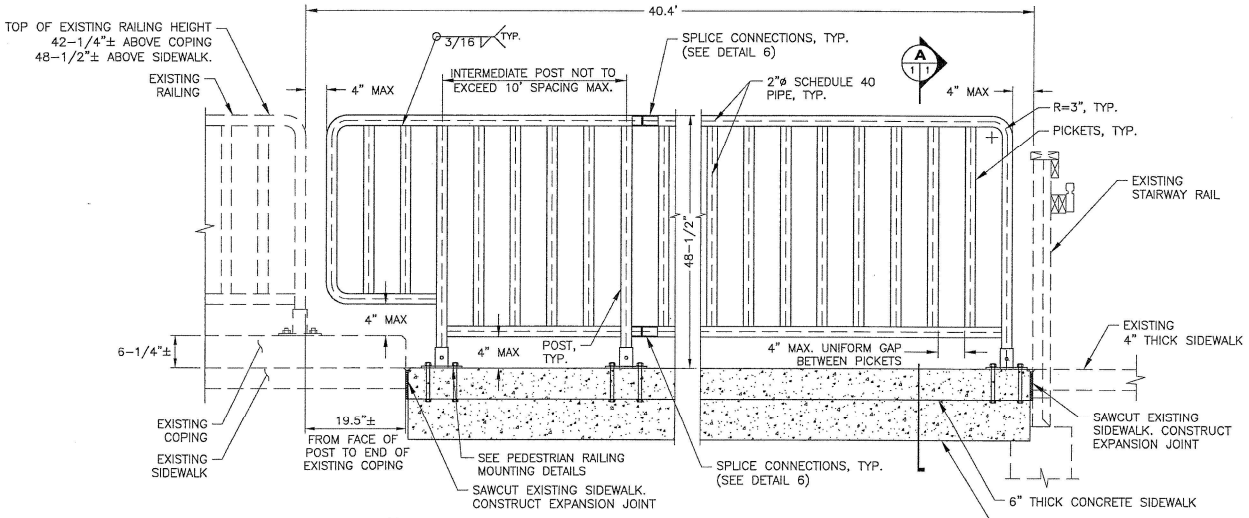
Change Order No. 17, Attachment No. 3.



3/2 PEDESTRIAN RAILING ELEVATION DETAIL
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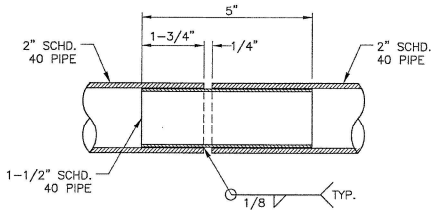
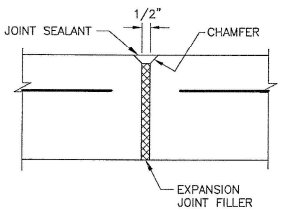


6/2 SPLICE DETAIL
SCALE: NOT TO SCALE
SEE NOTE 2 ON SHEET 1.



7/2 EXPANSION JOINT DETAIL
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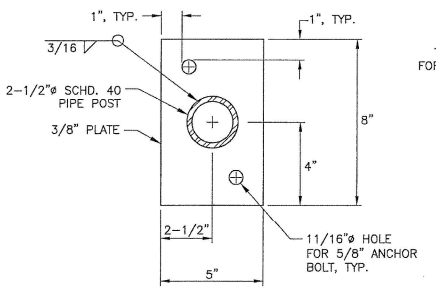
SEE NOTE 2 ON SHEET 1.



4/2 BASE PLATE DETAIL
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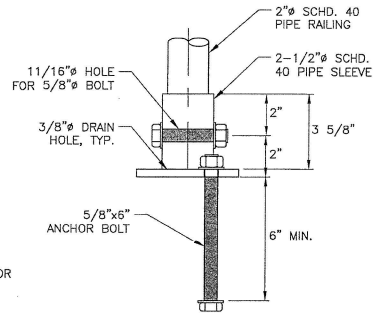

5/2 RAIL MOUNTING DETAIL
SCALE: NOT TO SCALE

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA
49TH
DARRYL G. LESTER
CE-11514
REGISTERED PROFESSIONAL ENGINEER
12-23-19

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EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

MISCELLANEOUS DETAIL

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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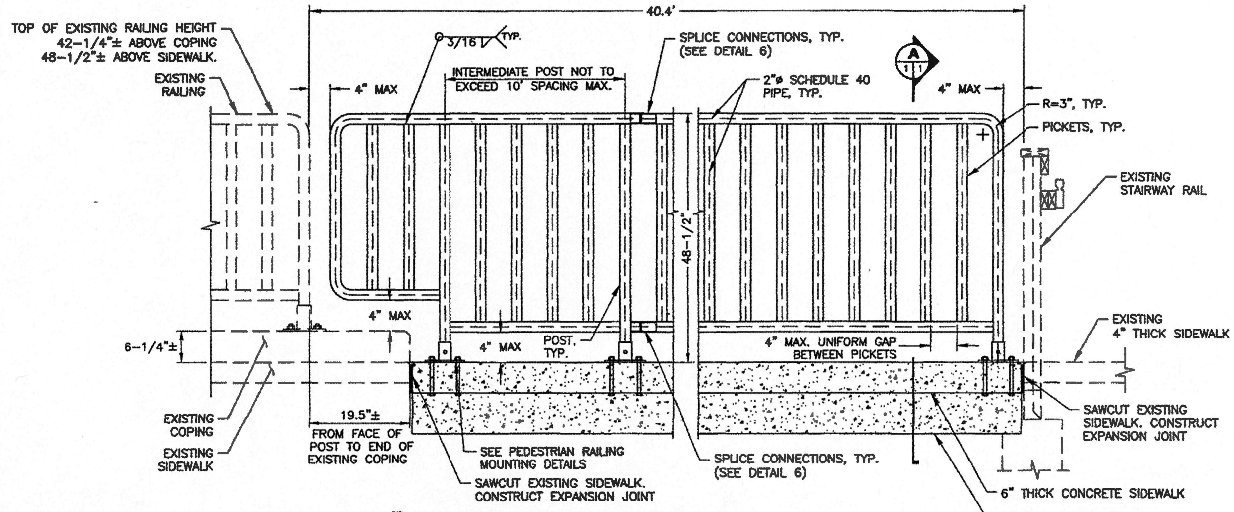
Change Order No. 18, Attachment No. 1.
Replaces Attachment No. 3 in C.O. #17.



3/2 PEDESTRIAN RAILING ELEVATION DETAIL
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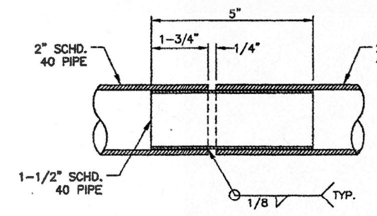

6/2 SPLICE DETAIL
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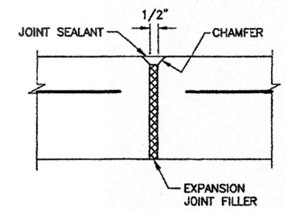
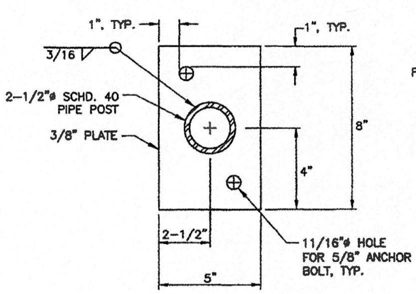
SEE NOTE 2 ON SHEET 1.



7/2 EXPANSION JOINT DETAIL
SCALE: NOT TO SCALE
SEE NOTE 2 ON SHEET 1.



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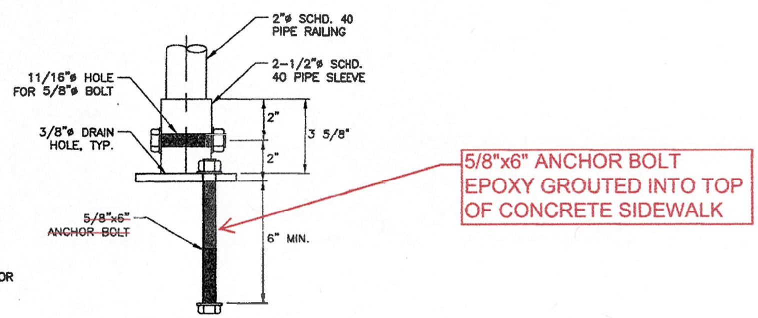

5/2 RAIL MOUNTING DETAIL
SCALE: NOT TO SCALE

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

PE Steve Mielke Date 12/30/21

1-28-19

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EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

MISCELLANEOUS DETAIL

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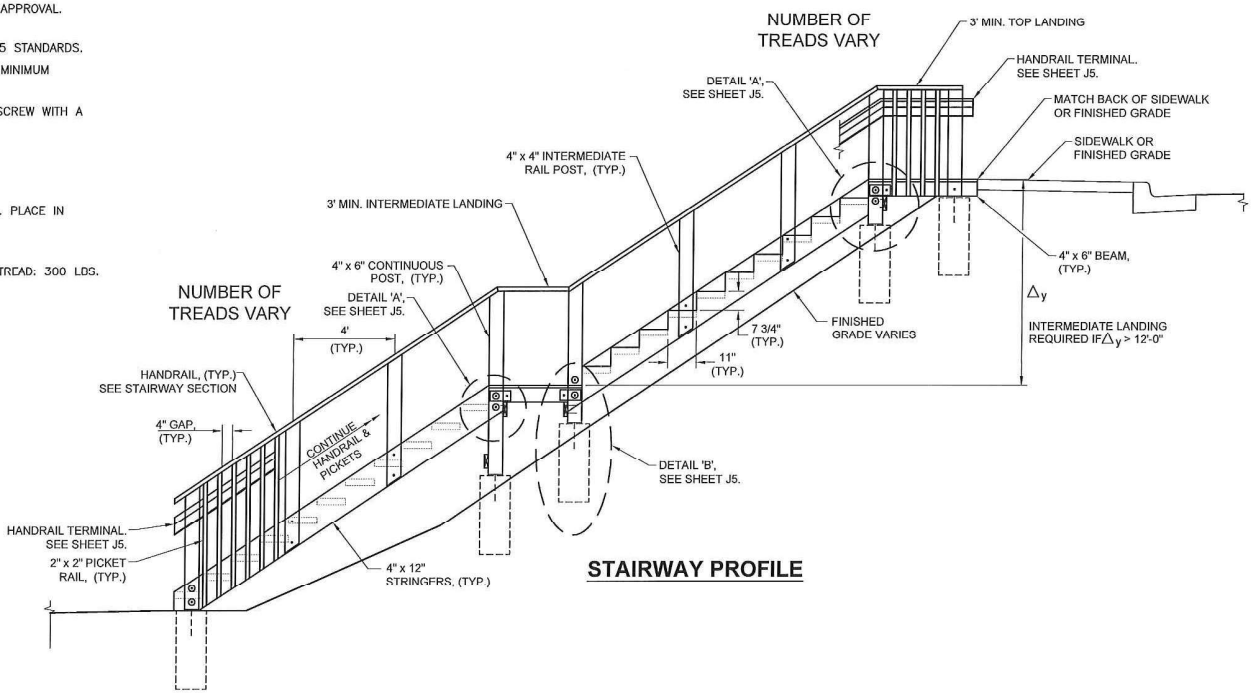
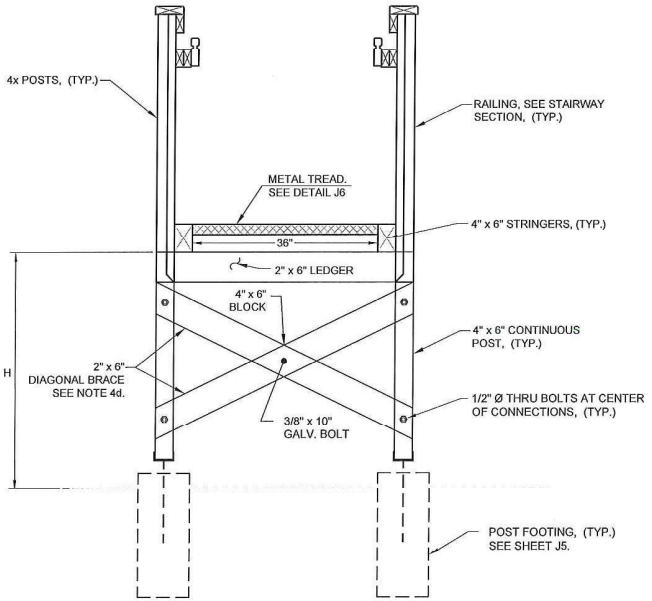
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	J4	6

NOTES:

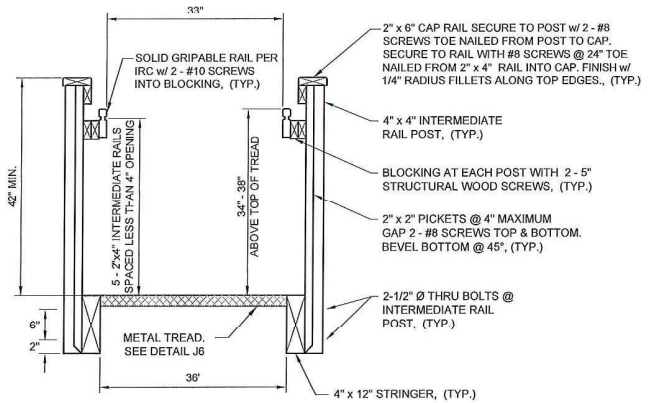
1. CONSTRUCT STAIRS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC), 2015.
2. PRIOR TO CONSTRUCTION SUBMIT CONSTRUCTION WORKING DRAWINGS BASED ON FIELD MEASUREMENTS FOR APPROVAL.
3. MATERIALS:
   - LUMBER: HF NO.2 OR BETTER. PRESSURE TREATED w/ ACQ, 0.4 pcf, IN ACCORDANCE WITH AWPA C-15 STANDARDS.
   - POST BASES: 5,000 LB. MIN. DOWNLOAD CAPACITY. GALVANIZED OR CORROSION RESISTANT PROVIDE A MINIMUM 1" SPACE ABOVE THE FOOTING SURFACE.
   - STRUCTURAL WOOD SCREWS: USE 1/4"ø HIGH STRENGTH CORROSION RESISTANT OR STAINLESS STEEL SCREW WITH A MINIMUM ALLOWABLE SHEAR STRENGTH OF 800 LBS.
   - BOLTS: ASTM A307 GALVANIZED.
   - SPLIT RINGS: SAE 1010 CARBON STEEL, GALVANIZED.
   - MISC. HARDWARE: GALVANIZED IN ACCORDANCE WITH ASTM A-153.
   - CONCRETE: MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 4,000 psi IN ACCORDANCE WITH ASTM C387. PLACE IN ACCORDANCE WITH MANUFACTURER'S ACCOMMODATIONS.
   - REINFORCING STEEL: ASTM A615, Fy = 40 ksi
   - STEEL GRATING: MATCH DIMENSIONS ON PLANS. SERRATED SURFACE MINIMUM ALLOWADLE CAPACITY OF TREAD: 300 LBS. CONCENTRATED LOAD AT MIDDLE OF 34 INCH SPAN.
4. CONSTRUCTION:
   a. TREAT ALL CUT ENDS AND DRILLED HOLES IN ACCORDANCE WITH AWPA M-4 STANDARDS.
   b. PRE-DRILL ALL BOARDS BEFORE FASTENING UNLESS USING SELF DRIVEN SCREWS.
   c. WOOD HANDRAILS AND CAP RAIL SHALL BE SMOOTH AND SPLINTER FREE.
   d. WHERE "H" IS 18" TO 6', ONE PANEL OF "X" BRACING SHALL BE USED. WHERE "H" EXCEEDS 6', TWO PANELS OF "X" BRACING SHALL BE USED.
   e. USE MALLEABLE IRON WASHERS ON BOLTS HEADS AND NUTS BEARING ON WOOD.
   f. FOOTINGS SHALL BE ON UNDISTURBED EARTH WITH A MINIMUM PRESUMPTIVE LOAD BEARING CAPACITY OF 3,000 psf, AS APPROVED BY THE ENGINEER.



STAIRWAY PROFILE



LANDING SECTION



STAIRWAY SECTION

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

PE Steve Mielke Date 12/30/24

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STAIRWAY PROFILE

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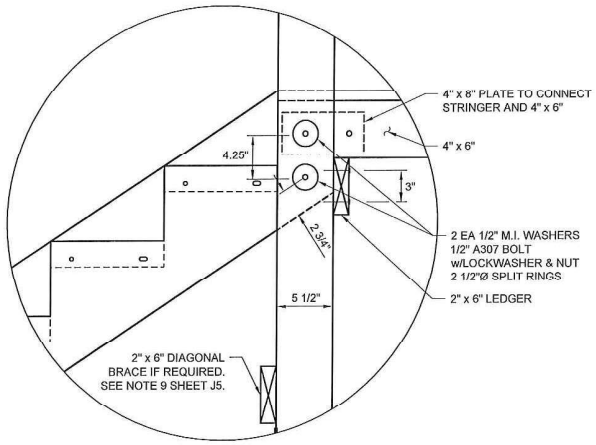
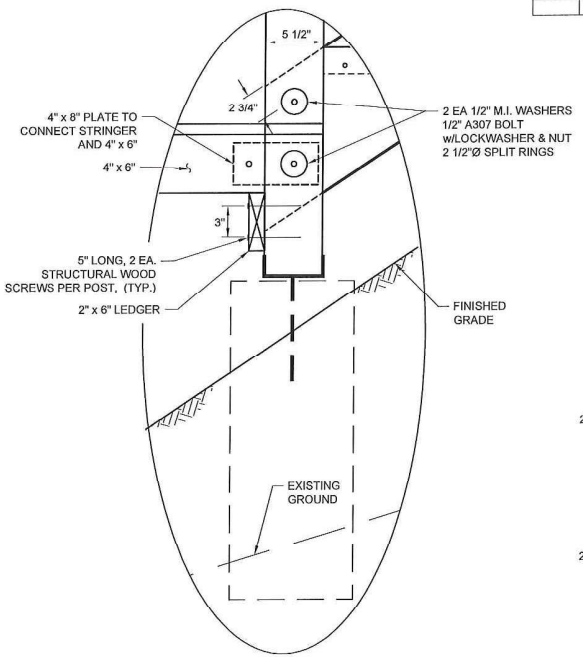


DETAIL A



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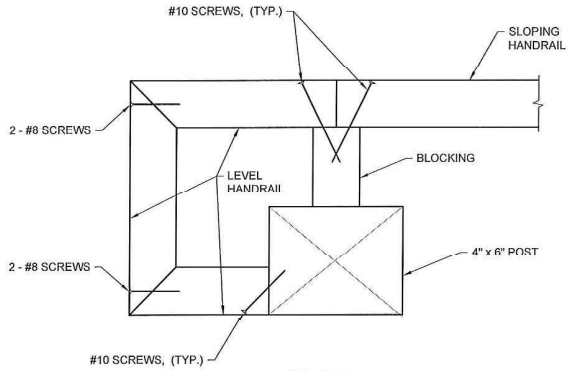
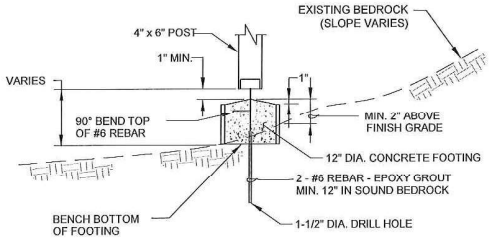


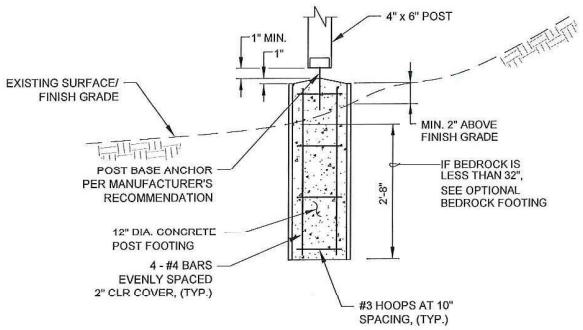
PLAN

HANDRAIL TERMINAL DETAIL



NOTE: REINFORCING NOT SHOWN FOR CLARITY.

OPTIONAL BEDROCK FOOTING



STAIRWAY POST FOOTING

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

PE Steve Mielke Date 12/30/21

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EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

STAIRWAY DETAILS

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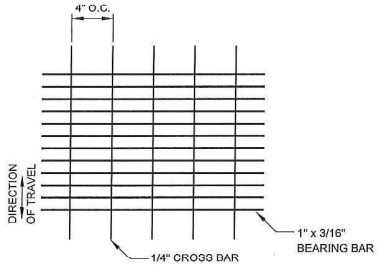
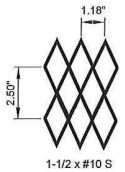
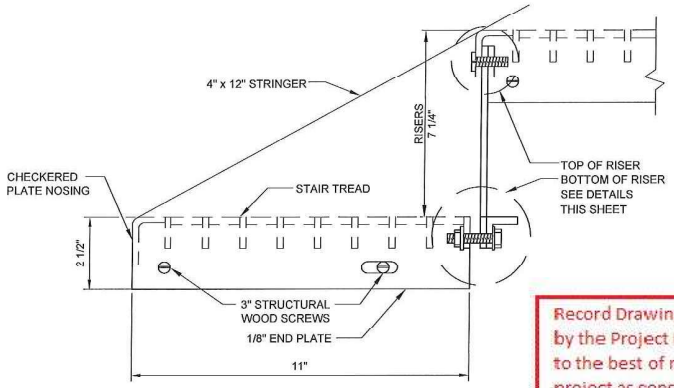


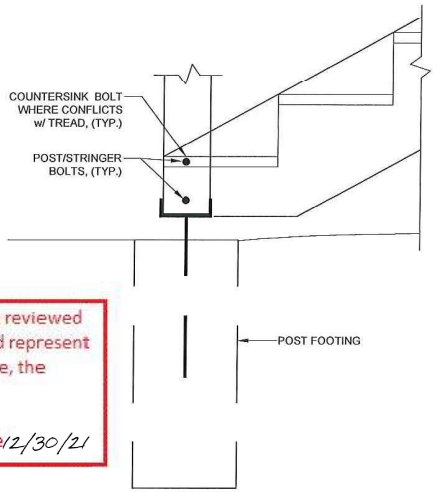
STAIR TREAD & LANDING
(19W4)



EXPANDED METAL RISER



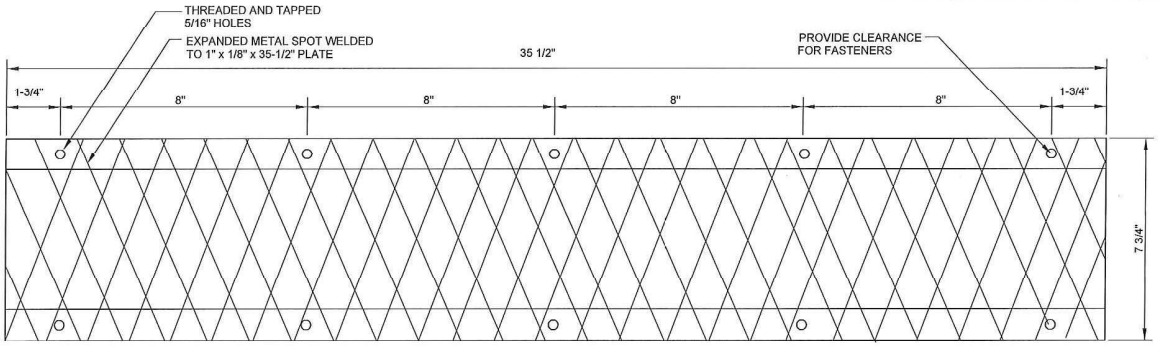
TREAD AND RISER PROFILE



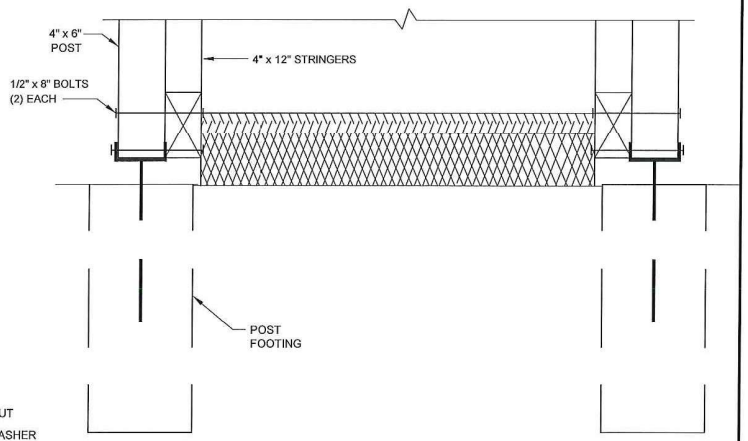
BOTTOM OF STAIRWAY PROFILE

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

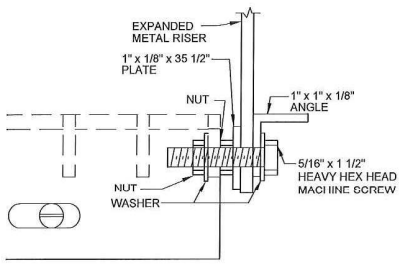
PE Steve Mielke Date 12/30/21



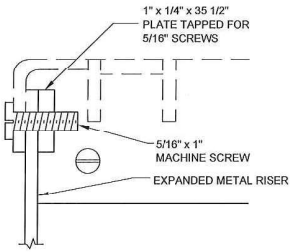
RISER



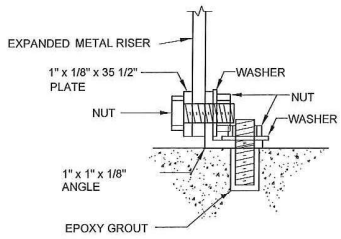
BOTTOM OF STAIRWAY SECTION



TYPICAL BOTTOM OF RISER



TYPICAL TOP OF RISER



BOTTOM RISER TO CONCRETE CONNECTION

STATE OF ALASKA
LOREN GEHRING, P.E.
AELC10155
REGISTERED PROFESSIONAL ENGINEER
03/30/18

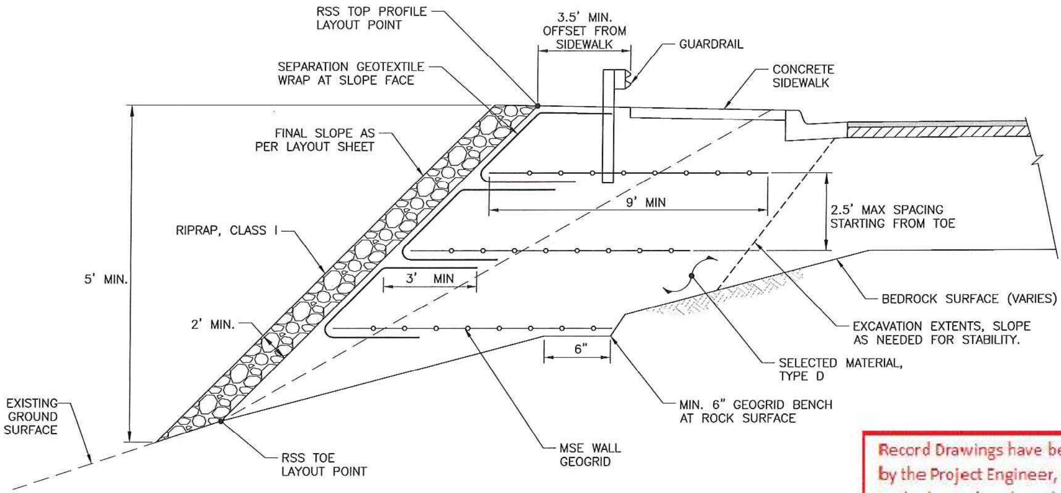
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

STAIRWAY DETAILS

FILE Q:\Wrg\68029\Planset\68029_J5-J6_Stair Details.dwg | DATE 3/9/2018 2:39 PM | LAYOUT J6 | DESIGNED D.B., D.L. | CHECKED K. K., D.L. | DRAFTED R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	M1	9



REINFORCED SOIL SLOPE (RSS) TYPICAL SECTION

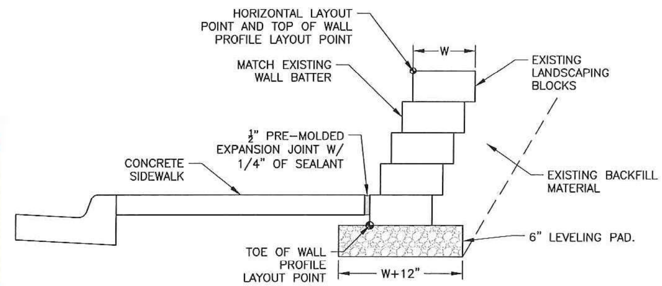
"E" STA. 15+55.00 TO STA. 18+00.00

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

PE *Steve Mielke* Date 12/30/21

RSS NOTES:

1. GEOGRID REINFORCEMENT AND GEOTEXTILE WRAP IS ONLY NEEDED FOR SLOPES GREATER THAN 5 FEET IN HEIGHT.
2. EXTEND GEOGRID A MINIMUM OF 9' FROM THE FACE OF THE TYPE D MATERIAL OR UNTIL BEDROCK IS ENCOUNTERED. BENCH GEOGRID INTO BEDROCK IF ENCOUNTERED. GEOGRID CAN BE OMITTED IN LOCATIONS WHERE THE ROCK SURFACE WOULD RESULT IN GEOGRID LENGTHS LESS THAN TWO FEET.
3. INSTALL GEOGRID AND GEOTEXTILE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.



LANDSCAPING RETAINING WALL DETAIL

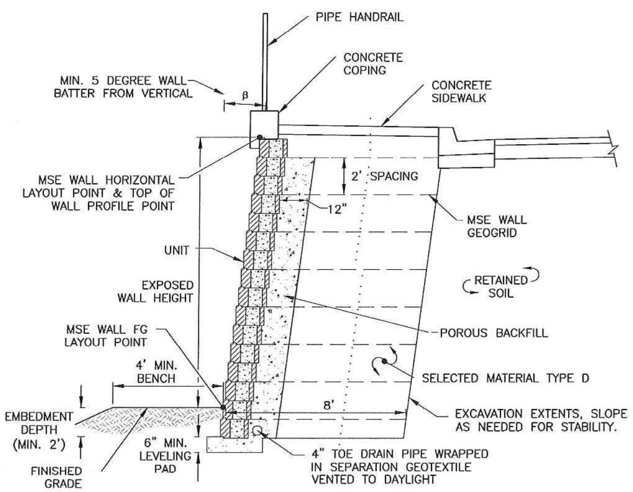
WALL #1 "E" STA. 10+33.35 TO STA. 10+42.18

LANDSCAPING RETAINING WALL NOTES:

1. REMOVE AND RECONSTRUCT EXISTING LANDSCAPING WALL PER LAYOUT SHOWN ON SHEET M4.
2. REMOVE STORE AND REUSE EXISTING BACKFILL MATERIAL AS NECESSARY TO RELOCATE WALL.
3. LANDSCAPING RETAINING WALL SHALL BE PAID FOR PER SECTION 511

MSE NOTES:

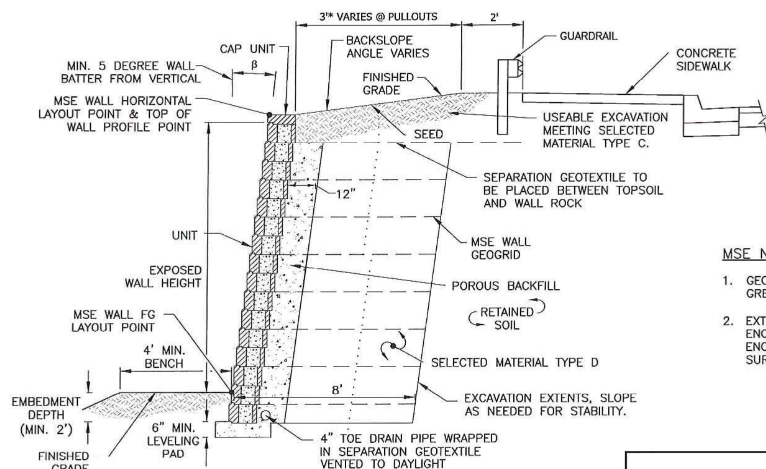
1. GEOGRID REINFORCEMENT IS ONLY NEEDED IN WALLS WITH AN EXPOSED HEIGHT GREATER THAN 4 FEET.
2. EXTEND GEOGRID A MINIMUM OF 8' FROM WALL FACE OR UNTIL BEDROCK IS ENCOUNTERED. BENCH GEOGRID INTO BEDROCK A MINIMUM OF SIX INCHES IF ENCOUNTERED. GEOGRID CAN BE OMITTED IN LOCATIONS WHERE THE ROCK SURFACE WOULD RESULT IN GEOGRID LENGTHS LESS THAN TWO FEET.



MECHANICALLY STABILIZED EARTH (MSE) WALL HANDRAIL TYPICAL SECTION

WALL #2 "E" STA. 15+10.05 TO STA. 15+51.56

WALL #5 "E" STA. 26+69.77 TO STA. 28+18.86



MECHANICALLY STABILIZED EARTH (MSE) WALL TYPICAL SECTION

WALL #3 "E" STA. 19+95.00 TO STA. 24+50.00

WALL #4 "E" STA. 26+05.72 TO STA. 26+52.22

PLANS DEVELOPED BY:
GOLDER ASSOCIATES INC.
2121 ABBOTT ROAD, SUITE 100
ANCHORAGE, AK 99507
(907) 344-6001
AECC311

STATE OF ALASKA 49TH JOHN D. THORNLEY CE-12484 REGISTERED PROFESSIONAL ENGINEER

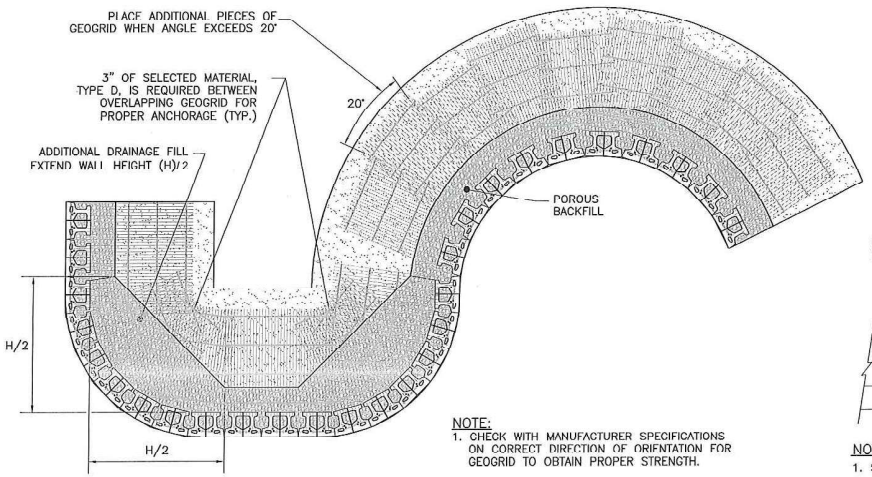
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

RETAINING WALL DETAIL

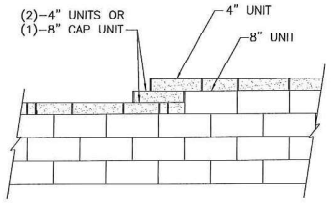
FILE Q:\Wrg\68029\Planset\68029_M1-M2_Ret Wall Dets.dwg | DATE 7/20/2017 11:00 AM | LAYOUT M1 | DESIGNED L.C., D.B. | CHECKED K. K. | DRAFTED R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	M2	9



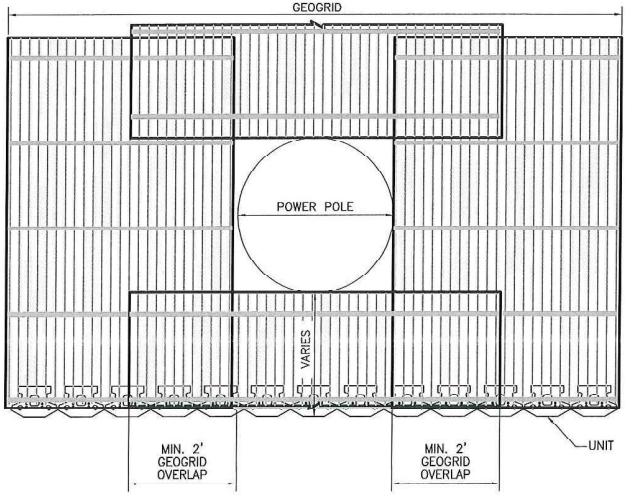
NOTE:
1. CHECK WITH MANUFACTURER SPECIFICATIONS ON CORRECT DIRECTION OF ORIENTATION FOR GEOGRID TO OBTAIN PROPER STRENGTH.

GEOGRID INSTALLATION ON CURVES
NTS



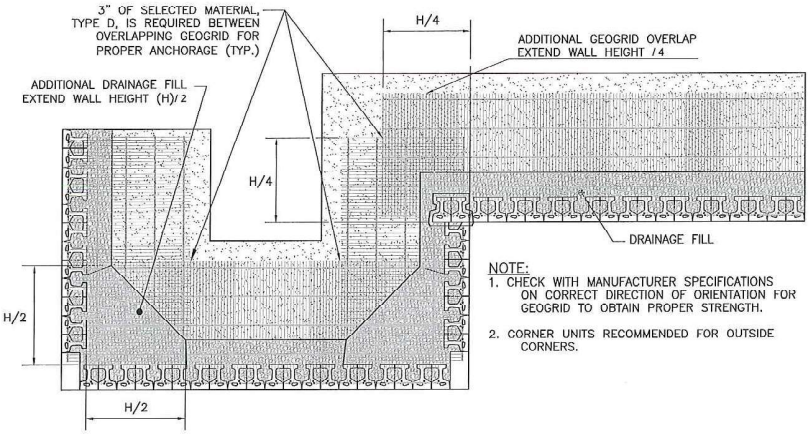
NOTE:
1. SECURE ALL CAP UNITS WITH CONCRETE ADHESIVE.

TOP OF WALL STEPS
NTS



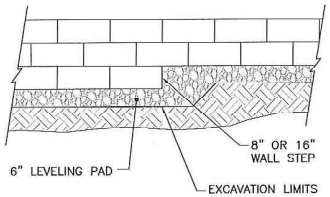
POWER POLE GRID OBSTRUCTION PLAN DETAIL 1
NTS

NOTE:
1. ALL GEOGRID SHALL BE PLACED IN THE SAME DIRECTION OR ORIENTATION.



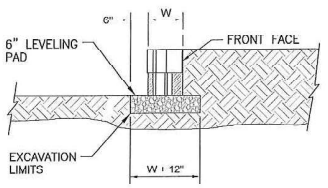
NOTE:
1. CHECK WITH MANUFACTURER SPECIFICATIONS ON CORRECT DIRECTION OF ORIENTATION FOR GEOGRID TO OBTAIN PROPER STRENGTH.
2. CORNER UNITS RECOMMENDED FOR OUTSIDE CORNERS.

GEOGRID INSTALLATION AT CORNERS
NTS



ELEVATION

NOTE:
1. THE LEVELING PAD IS TO BE CONSTRUCTED OF D–1 BASE COURSE OR CONCRETE.



SECTION

LEVELING PAD DETAIL
NTS

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

PE Steve Mielke Date 12/30/21

PLANS DEVELOPED BY:
GOLDER ASSOCIATES INC.
2121 ABBOTT ROAD, SUITE 100
ANCHORAGE, AK 99507
(907) 344-6001
AECC311

STATE OF ALASKA
49TH
JOHN D. DAFFILEY
CE-12484
REGISTERED PROFESSIONAL ENGINEER

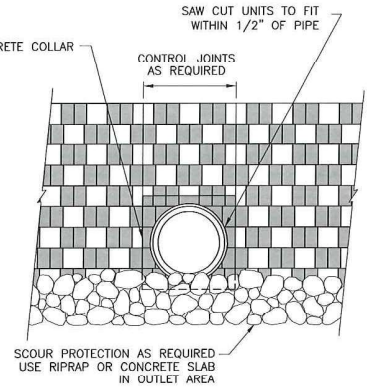
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

RETAINING WALL DETAIL

FILE | C:\Wrg\80229\Planset\88229_M1-M2_Ret Wall Dets.dwg | DATE | 6/16/2017 9:18 AM | LAYOUT | M2 | DESIGNED | D.B. | L.C. | CHECKED | K. K. | DRAFTED | R. G.

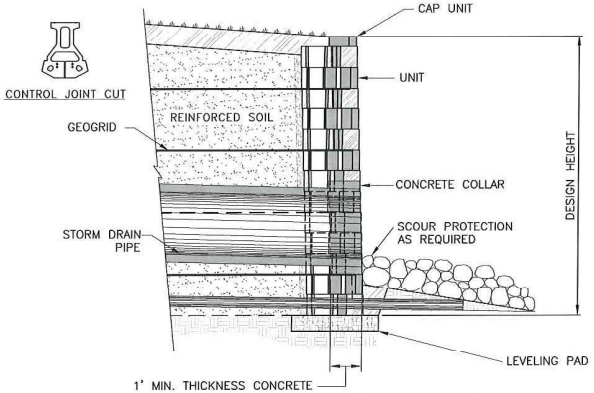
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	M3	9



TYPICAL PIPE OUTLET DETAIL

NTS

NOTE:
A CONCRETE COLLAR SHALL BE CAST AROUND PIPE FOR EASE OF CONSTRUCTION AND APPEARANCE.

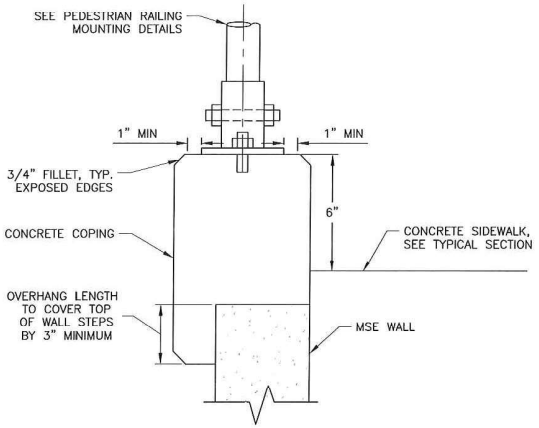


TYPICAL PIPE OUTLET SECTION

NTS

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

PE Steve Mielke Date 2/30/21

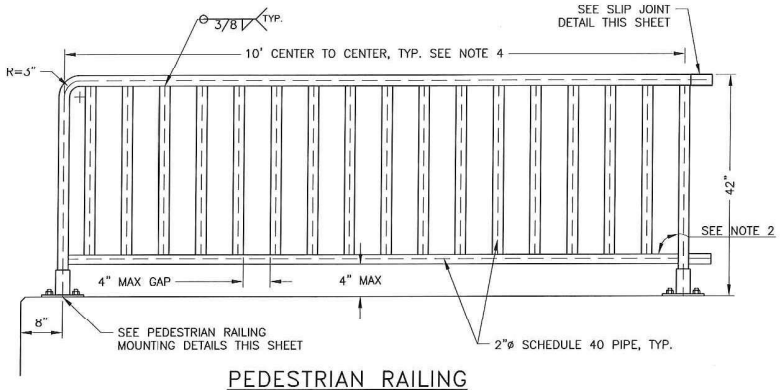


CONCRETE COPING DETAIL

NTS

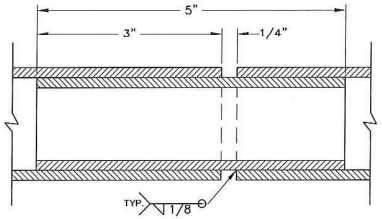
CONCRETE COPING NOTES:

1. DEVELOP SPECIFIC COPING DETAILS FOR CONTRACTOR SELECTED WALL SYSTEM.
2. DIMENSIONS SHOWN ARE REQUIRED CONSTRAINTS.



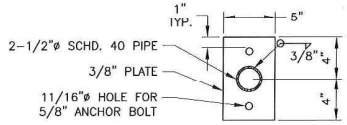
PEDESTRIAN RAILING ELEVATION DETAIL

NTS



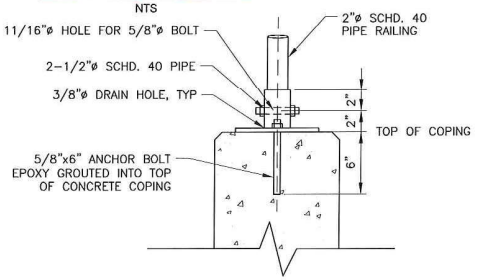
SLIP JOINT DETAIL

NTS



PEDESTRIAN RAILING MOUNTING PLAN DETAIL

NTS



PEDESTRIAN RAILING MOUNTING DETAIL

NTS

PEDESTRIAN RAILING NOTES:

1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL PIPE HANDRAIL PRIOR TO FABRICATION FOR THE ENGINEER'S REVIEW AND APPROVAL.
2. FABRICATE SO ALL VERTICAL RAILING MEMBERS ARE PLUMB AFTER INSTALLATION. CONSIDER THE GRADE OF THE WALL WHEN FABRICATING.
3. RAILING PANELS SHALL BE SPLICED USING SLIP JOINT TO PROVIDE CONTINUOUS RAILING. SEE DETAIL.
4. USE 7.5' RAIL SEGMENT AT SIDEWALK PULLOUT TRANSITIONS.
5. USE SINGLE RAIL SEGMENTS FOR RAIL CHANGE OF DIRECTION AT SIDEWALK PULLOUT TRANSITION WITH 4" MAX GAP BETWEEN FINAL VERTICAL RAIL SEGMENTS.
6. OVERALL LENGTH OF RAILING SEGMENT MAY BE LIMITED DUE TO CONFIGURATION OF WALL. SEE M-SHEETS FOR MSE WALL PLANS.
7. ALL RAILING MEMBERS AND ASSOCIATED HARDWARE SHALL BE GALVANIZED.
8. RAILING SHALL BE CENTERED IN TOP OF COPING.
9. ALL VERTICAL MEMBERS SHALL BE SPACED TO MAINTAIN A UNIFORM GAP.
10. VERIFY ALL CONTROLLING DIMENSIONS IN THE FIELD BEFORE ORDERING OR FABRICATING ANY MATERIAL.
11. CUT ALL BOLT ENDS SO THEY DO NOT EXTEND MORE THAN 1/4" BEYOND NUTS.

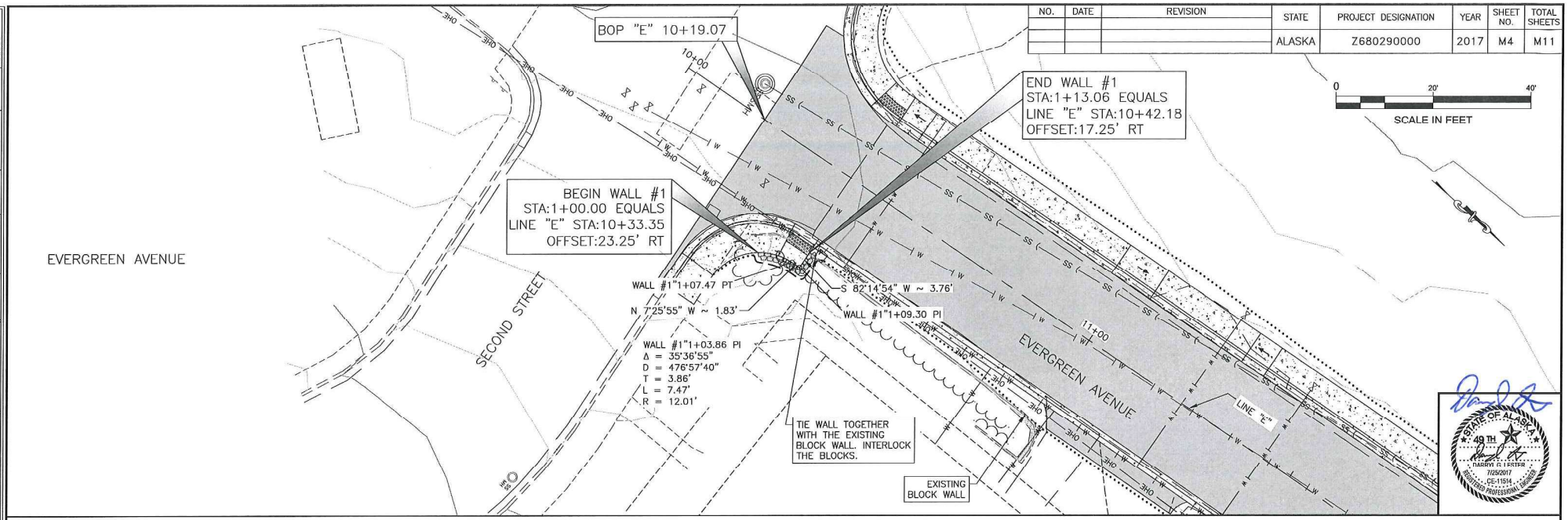
STATE OF ALASKA
DARRYL G. LESTER
7/24/2017
CE-1514
REGISTERED PROFESSIONAL ENGINEER

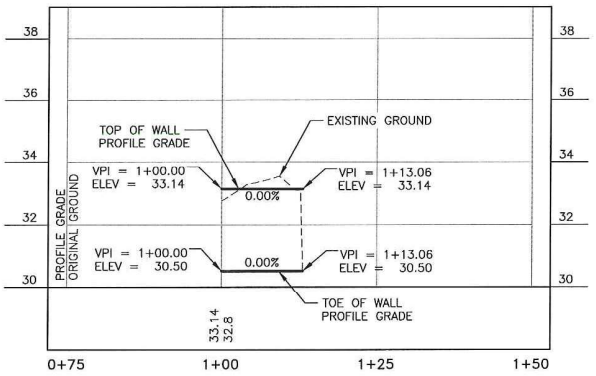
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

RETAINING WALL DETAIL

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	M4	M11





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

PE Steve Mielke Date 12/30/21

FILE | G:\Wrg\68029\Planset\68029_M4-M11_Ref Wel P&P.dwg | DATE | 7/25/2017 11:16 | LAYOUT | M4 | DESIGNED | ## | CHECKED | ## | DRAFTED | ####

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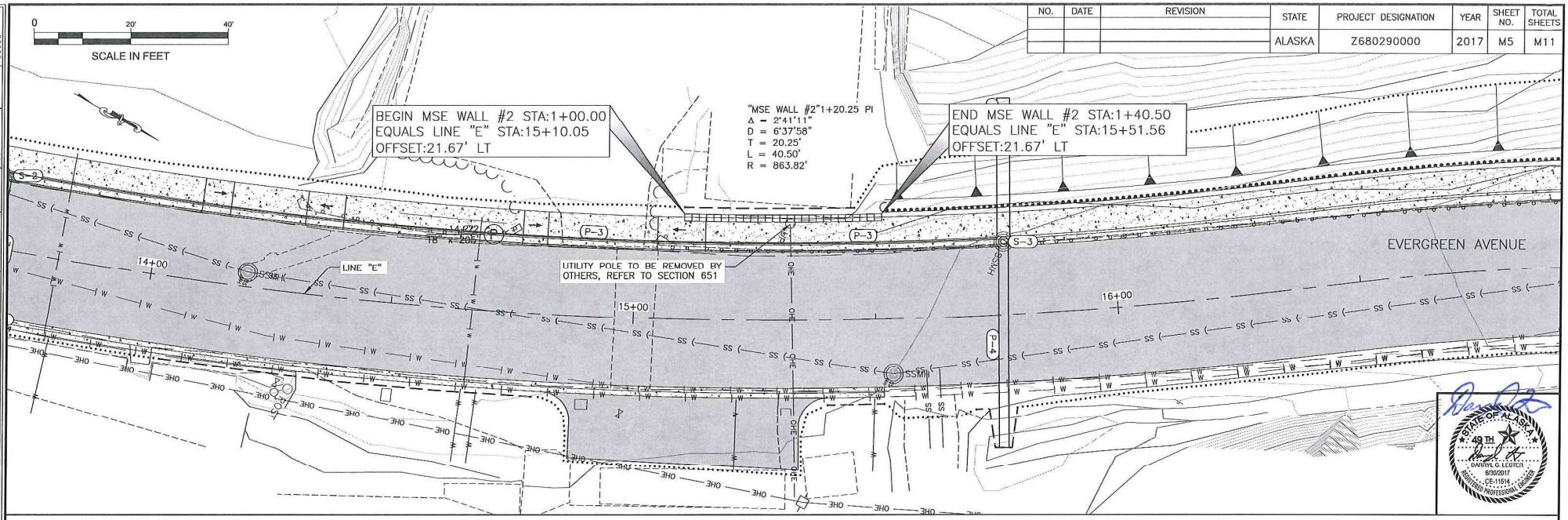
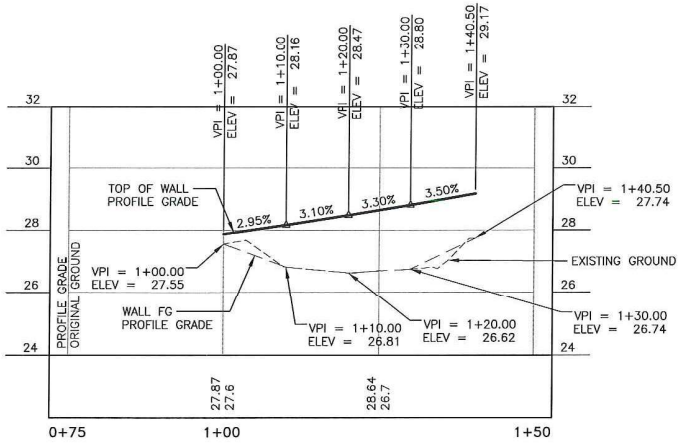
			ALASKA	Z680290000	2017	M5	M11

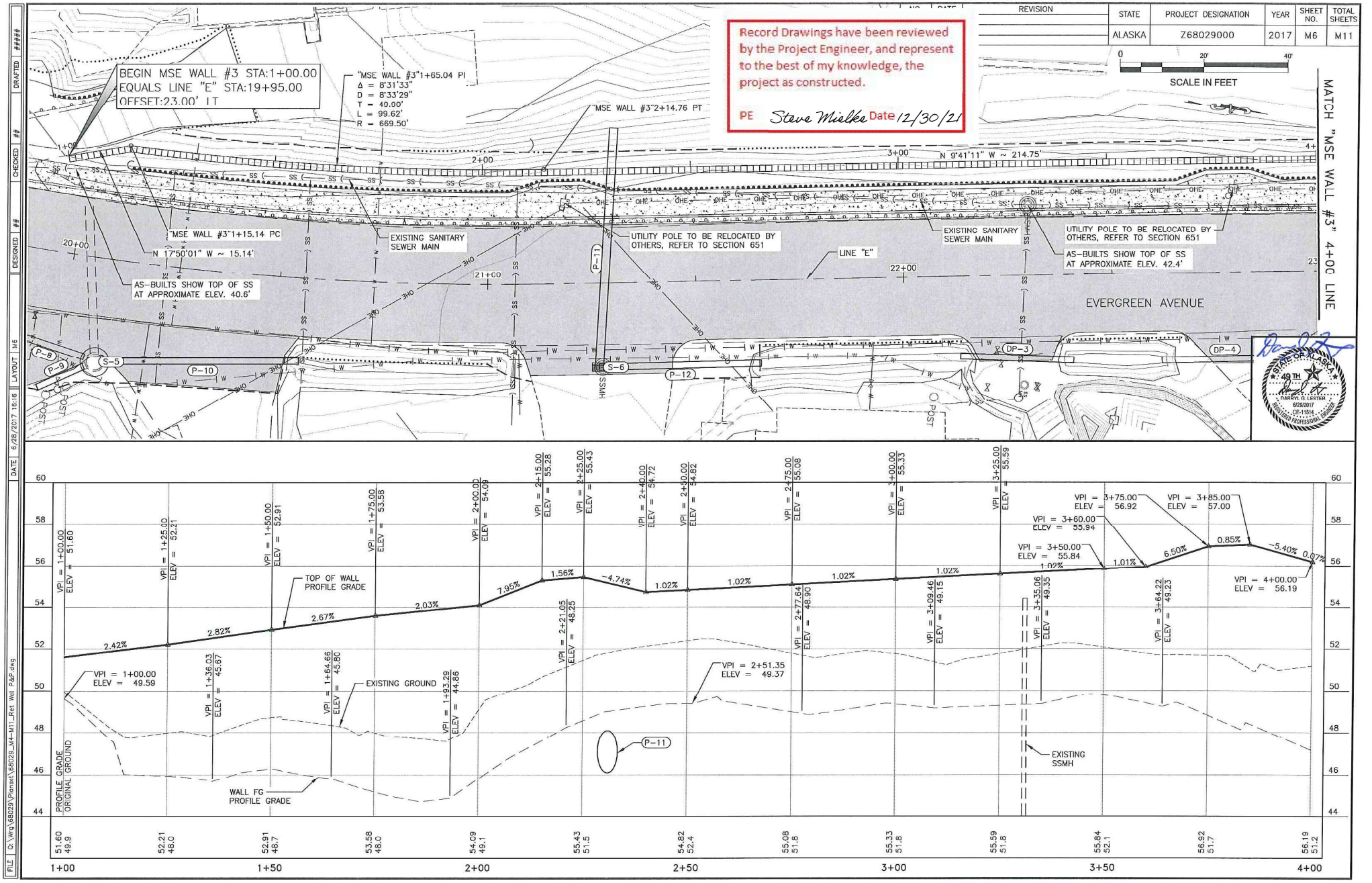




Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

FILE | Q:\Wrk\68029\Planset\68029_M4-M11_Ret Wall P&P.dwg | DATE | 6/30/2017 7:34 | LAYOUT | M5 | DESIGNED | ## | CHECKED | ## | DRAFTED | #####



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

PE Steve Mielke Date 12/30/21

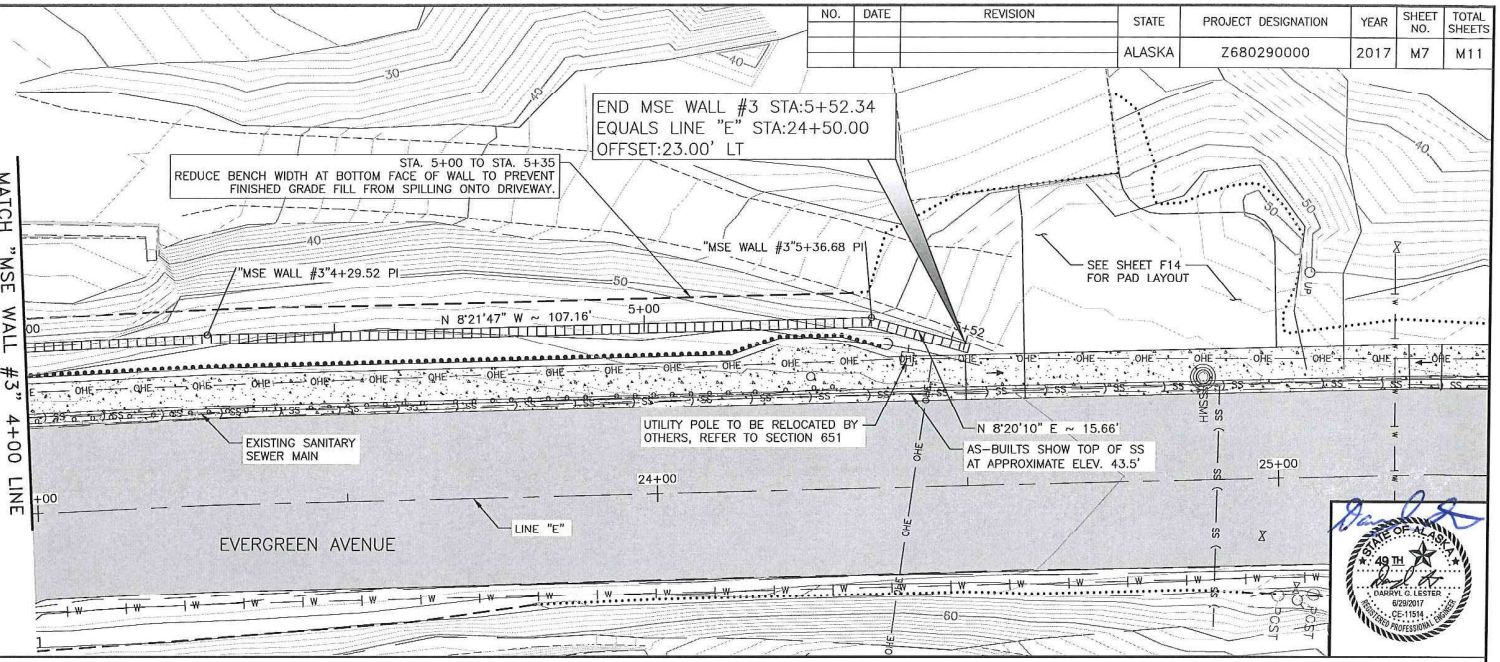
REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
	ALASKA	Z68029000	2017	M6	M11

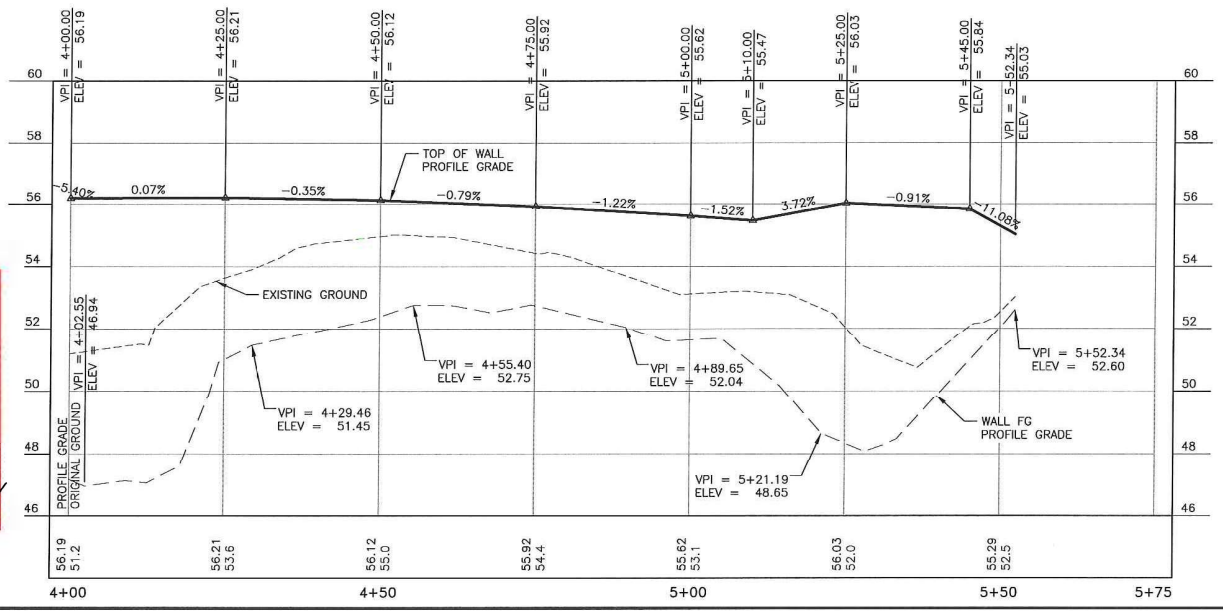
STATE OF ALASKA
49TH
DARRYL G. LESTER
6/28/2017
CE-11514
REGISTERED PROFESSIONAL ENGINEER

FILE | Q:\Proj\68029\Project\68029_M4-M11_Ret. Wall P&P.dwg | DATE | 6/28/2017 16:16 | LAYOUT | M6 | DESIGNED | ## | CHECKED | ## | DRAFTED | #####

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	M7	M11

0 20' 40'
SCALE IN FEET





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

PE Steve Mielke Date 12/30/17

STATE OF ALASKA 49TH DARRYL G. LESTER 6/28/2017 CE-11514 REGISTERED PROFESSIONAL ENGINEER

FILE | G:\Wrg\68029\Project\68029_M4-M11_Ret. Wall P&P.dwg | DATE | 6/28/2017 16:16 | LAYOUT | M7 | DESIGNED | ## | CHECKED | ## | DRAFTED | ####

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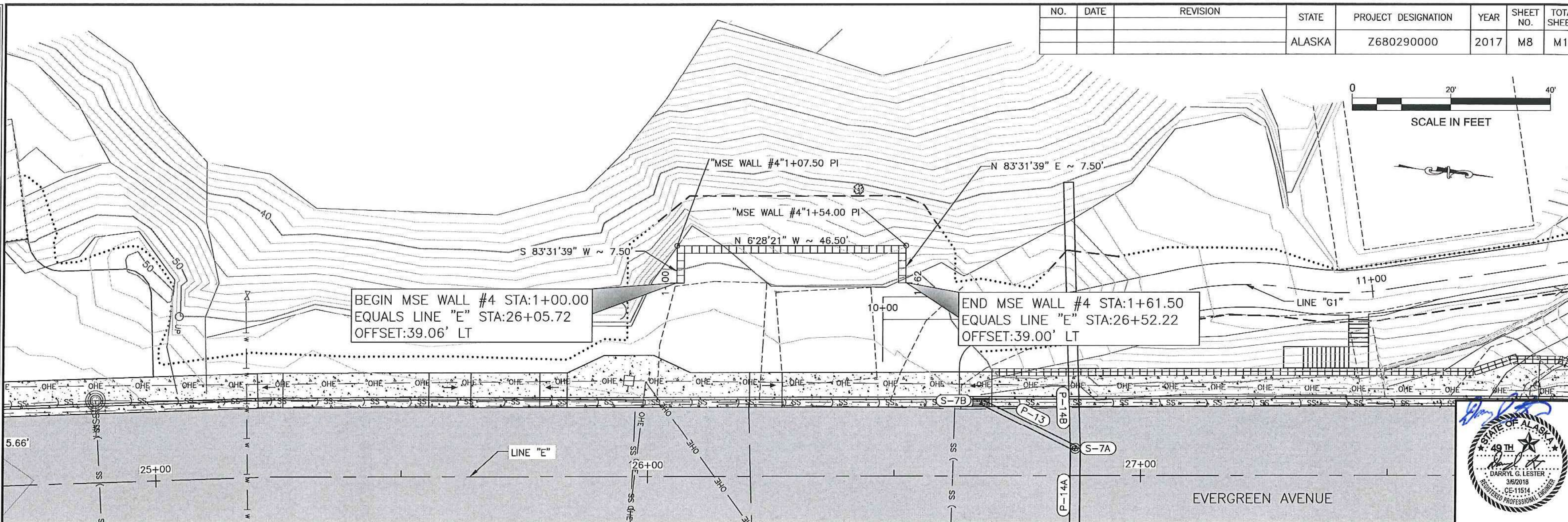
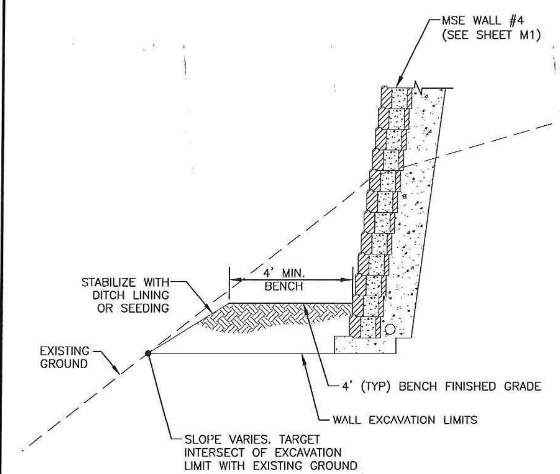
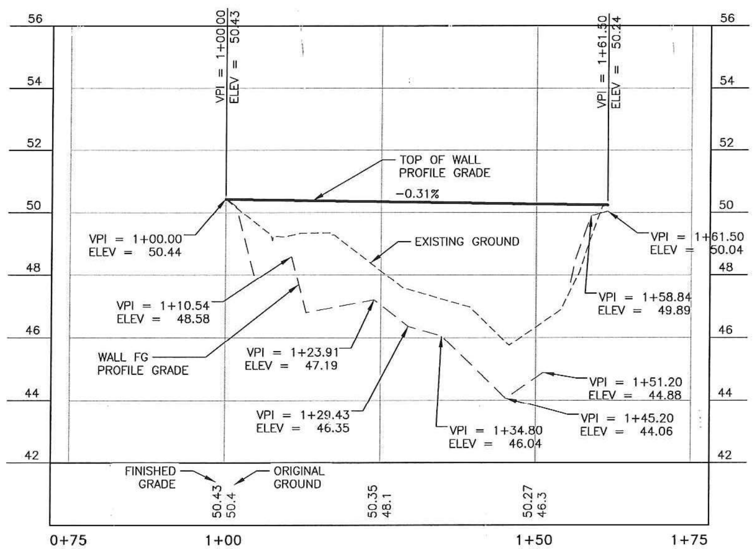




FINISH GROUND TYPICAL

NTS



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

PE Steve Mielke Date 12/30/21

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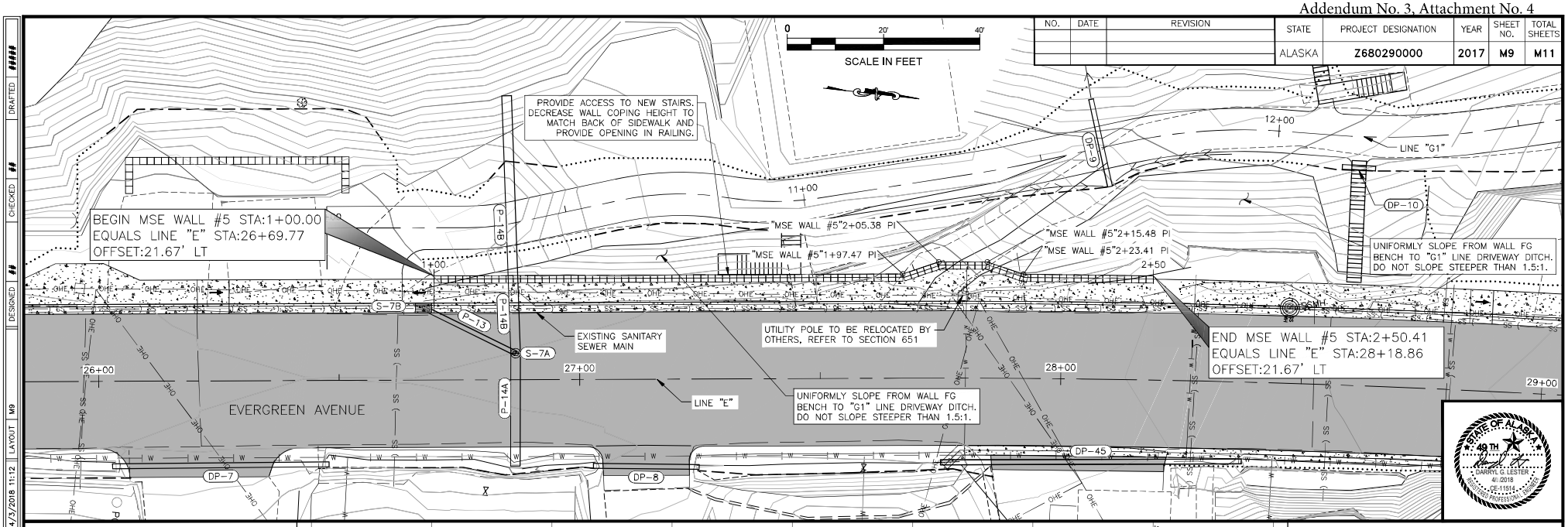
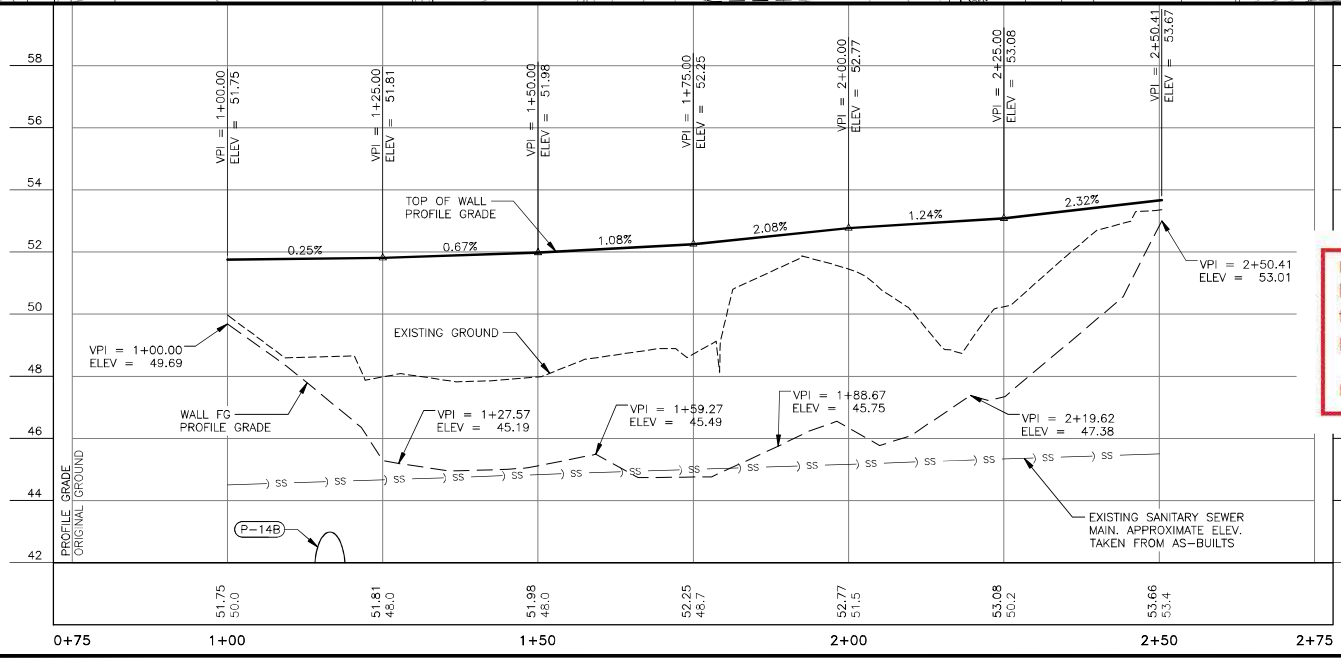
LAYOUT M8
DESIGNED ##
CHECKED ##
DRAFTED ####

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z680290000	2017	M9	M11





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

PE Steve Mielke Date 12/30/21

FILE Q:\Wrg\68029\Plonset\68029_M4-M11_Ret Wall P&P.dwg
DATE 4/3/2018 11:12
LAYOUT M9
DESIGNED ##
CHECKED ##
DRAFTED ####

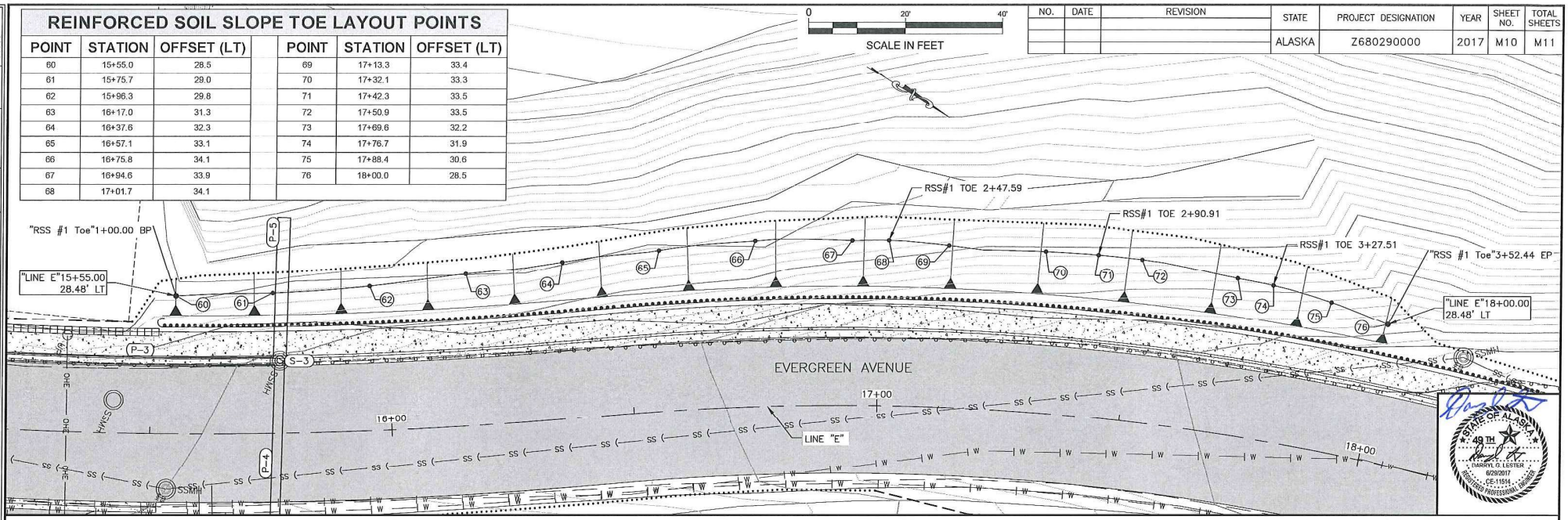
REINFORCED SOIL SLOPE TOE LAYOUT POINTS

POINT	STATION	OFFSET (LT)	POINT	STATION	OFFSET (LT)
60	15+55.0	28.5	69	17+13.3	33.4
61	15+75.7	29.0	70	17+32.1	33.3
62	15+96.3	29.8	71	17+42.3	33.5
63	16+17.0	31.3	72	17+50.9	33.5
64	16+37.6	32.3	73	17+69.6	32.2
65	16+57.1	33.1	74	17+76.7	31.9
66	16+75.8	34.1	75	17+88.4	30.6
67	16+94.6	33.9	76	18+00.0	28.5
68	17+01.7	34.1			

SCALE IN FEET 0 20' 40'

NO.	DATE	REVISION

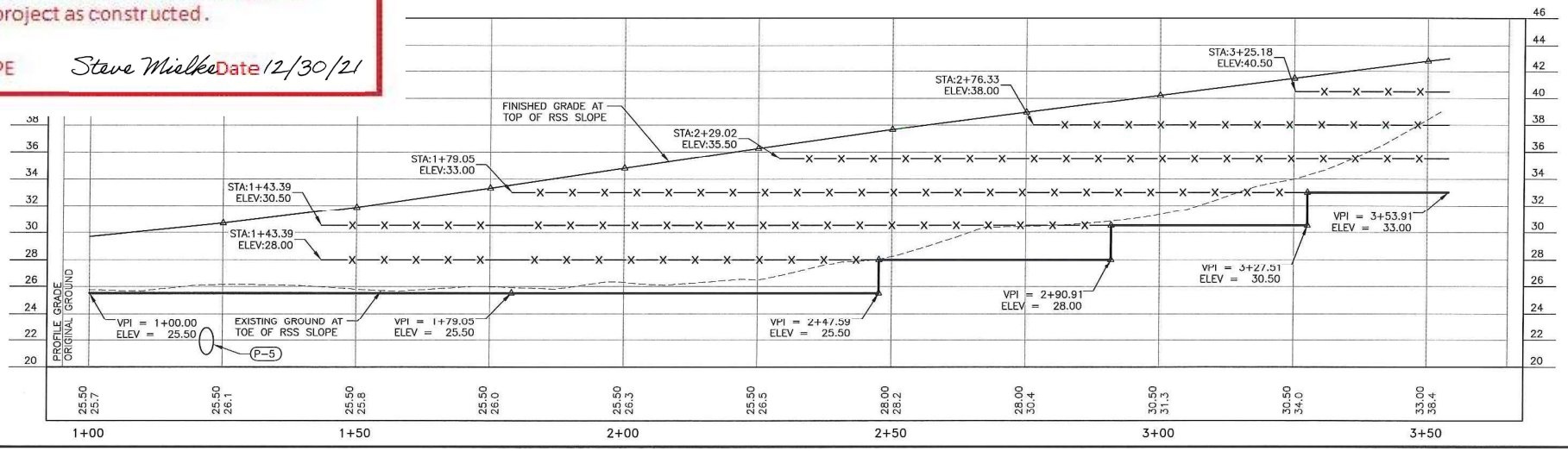
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z680290000	2017	M10	M11



STATE OF ALASKA 49TH DARRYL O. LESTER 6/29/2017 CE-11514 REGISTERED PROFESSIONAL ENGINEER

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

PE Steve Mielke Date 12/30/21



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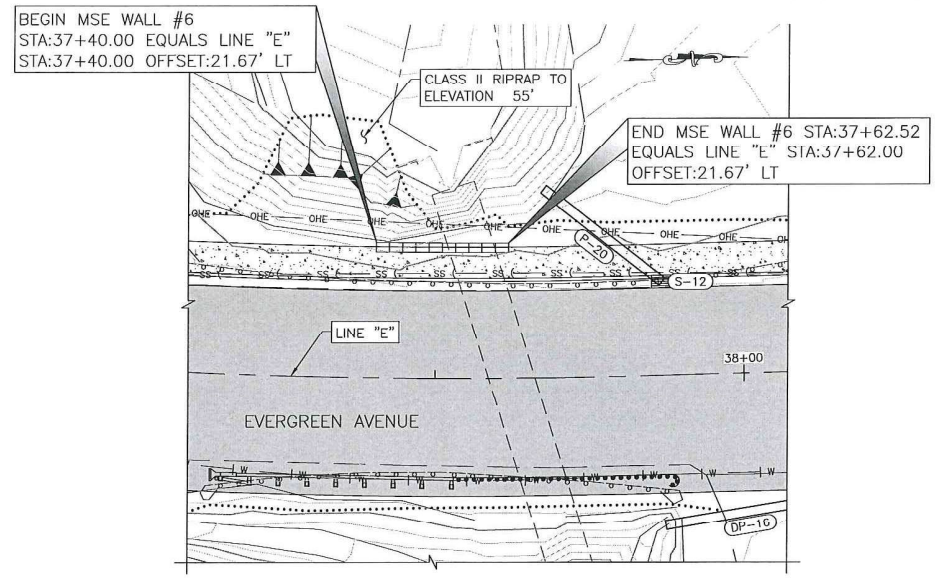
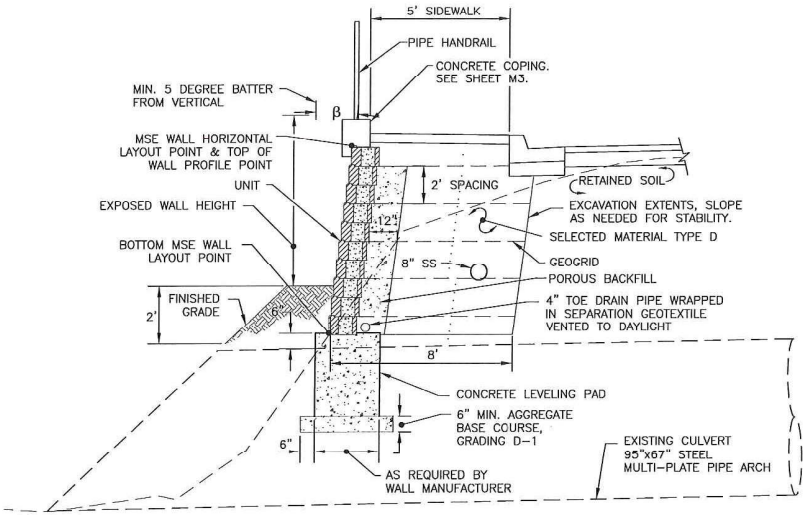
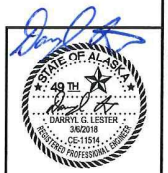
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	M11	M11



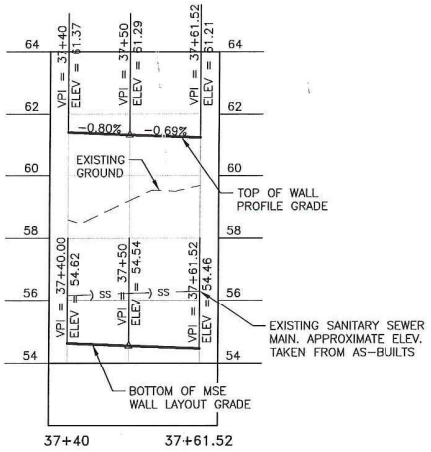
PLAN



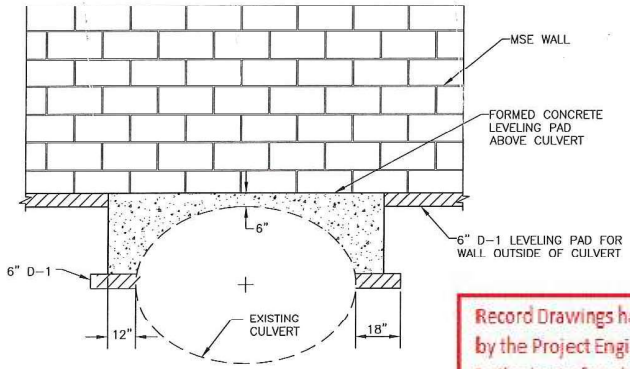
SECTION VIEW



MSE WALL #6 PLAN & PROFILE



PROFILE



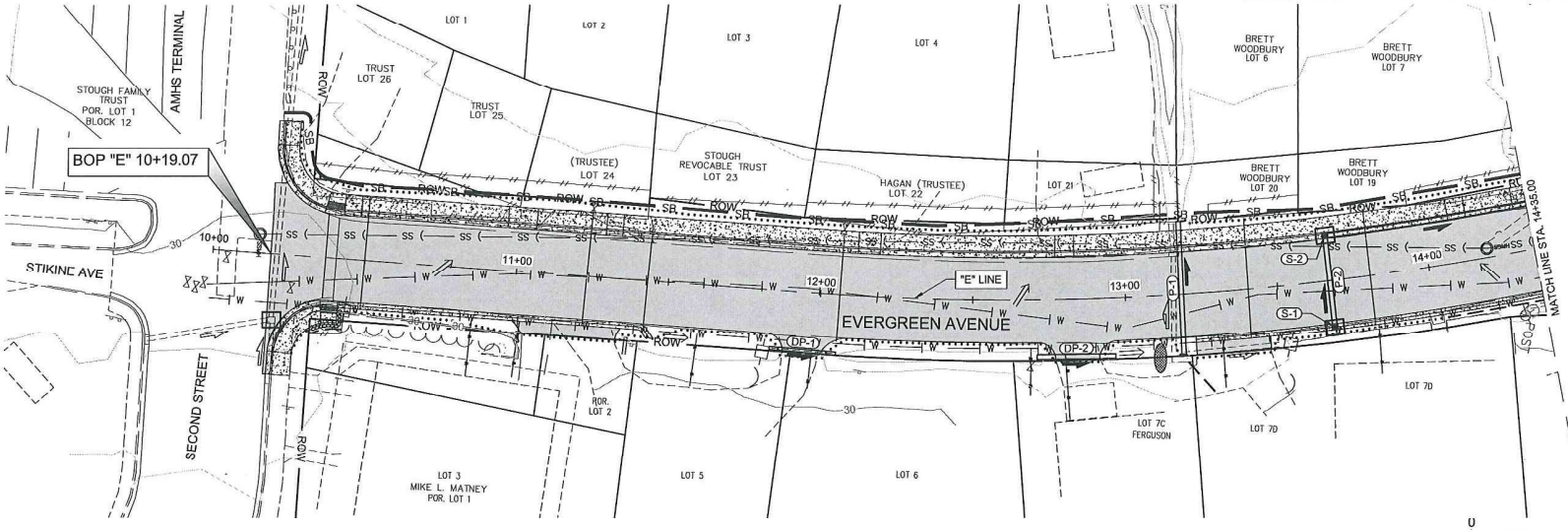
ELEVATION VIEW

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

PE Steve Mielke Date 12/30/21

FILE | O:\Wrg\68029\Plnset\68029_M4-M11_Ret Wal P&P.dwg | DATE | 3/6/2018 1:58 PM | LAYOUT | M11 | DESIGNED | K. K., D.L. | CHECKED | K. K., D.L. | DRAFTED | K. K., D.L. | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	P1	7



ESCP LEGEND

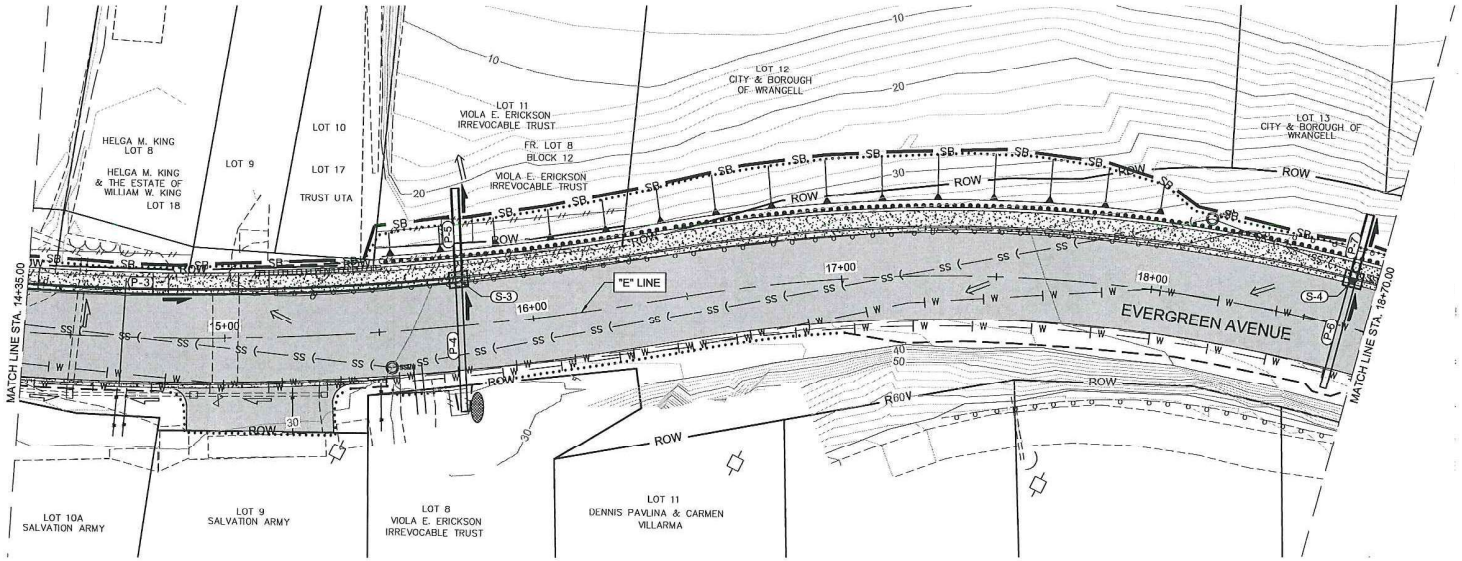
- SB — SEDIMENT BARRIER
- EXISTING CULVERT FLOW
- CULVERT FLOW DIRECTION
- SURFACE FLOW DIRECTION
- TEMPORARY CHECK DAM
- INLET PROTECTION

0 40' 80'

SCALE IN FEET

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

EROSION & SEDIMENT CONTROL PLAN



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

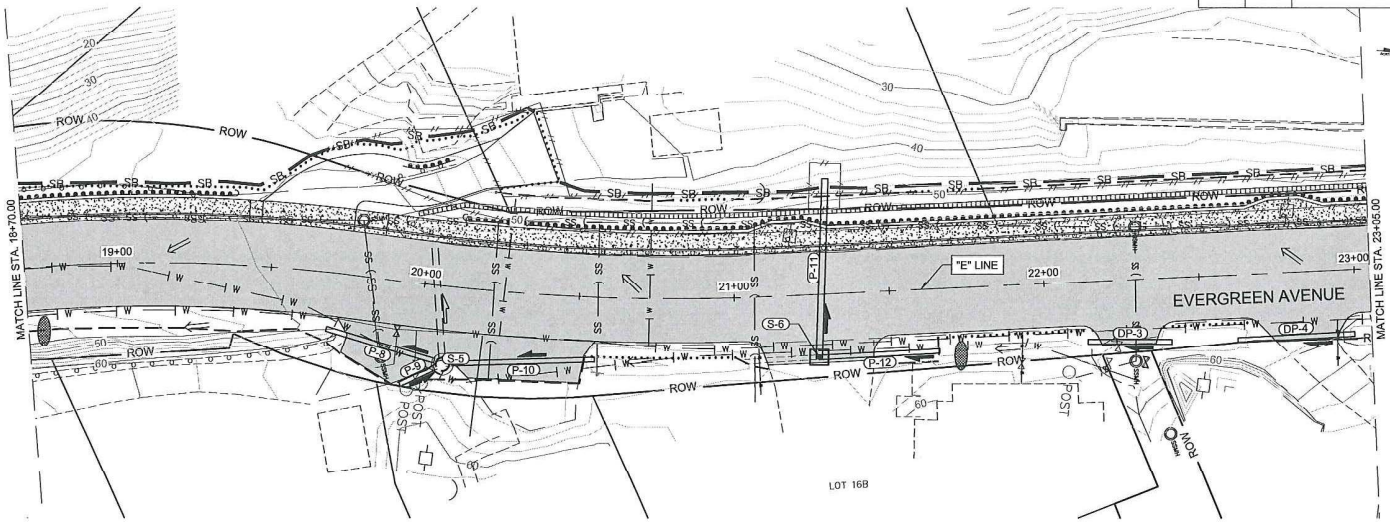
PE Steve Mielke Date 2/30/21

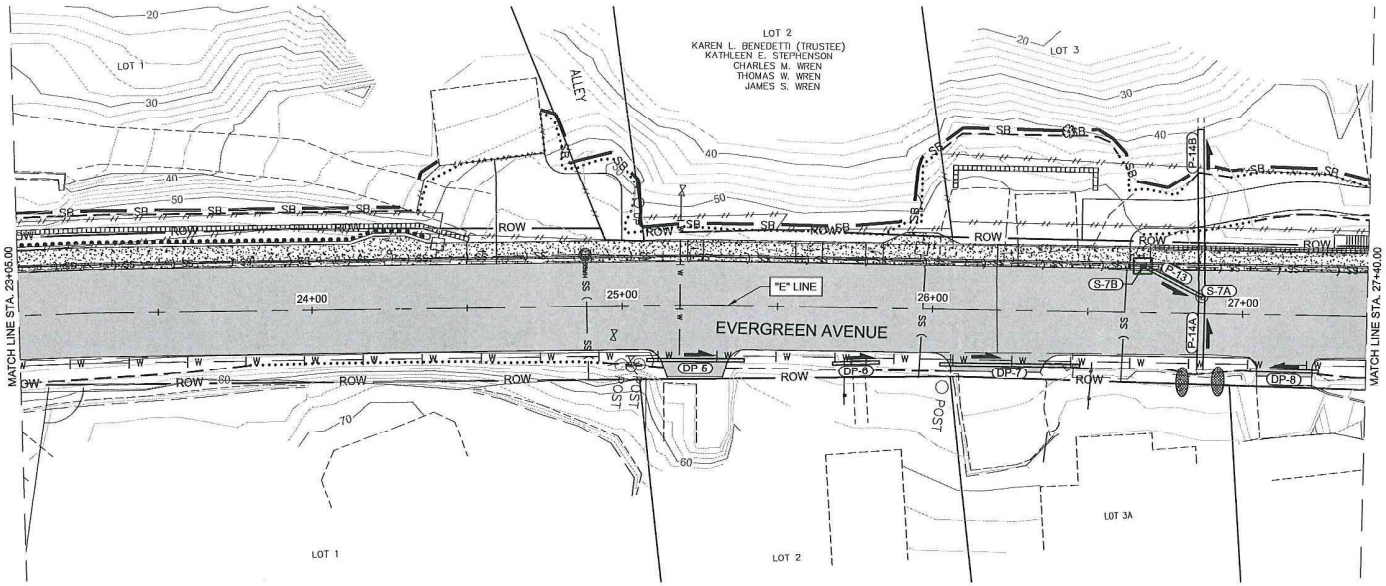
GENERAL NOTES:

1. THE LOCATIONS OF TEMPORARY EROSION & SEDIMENT POLLUTION CONTROLS ARE RECOMMENDATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE AND IMPLEMENT A SWPPP ACCORDING TO SECTION 641 OF THE SPECS.
2. INSTALL EROSION AND SEDIMENT CONTROL DEVICES BEFORE BEGINNING GROUND DISTURBING ACTIVITIES.
3. WHEN INSTALLING FIBER ROLLS FIRMLY SECURE AND PROVIDE CONTINUOUS CONTACT WITH THE SURFACE ON WHICH IT IS INSTALLED.
4. EROSION CONTROL MEASURES WILL BE EVALUATED BY THE ENGINEER BASED ON EFFECTIVENESS. THOSE FOUND INEFFECTIVE MUST BE REPLACED OR REPAIRED WITHIN 24 HOURS FOLLOWING NOTIFICATION.
5. MAINTAIN DEVICES. MONITOR DAILY.
6. SEE SECTION 201 OF THE SPECIAL PROVISIONS FOR THE TIME RESTRICTIONS ON CLEARING AND GRUBBING.

FILE | G:\Wrg\680290\Planset\680290_P1-P7_ESCP.dwg | DATE | 6/30/2017 3:04 PM | LAYOUT | P1 | DESIGNED | D.B. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	P2	7





0 40' 80'

SCALE IN FEET

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

EROSION & SEDIMENT CONTROL PLAN

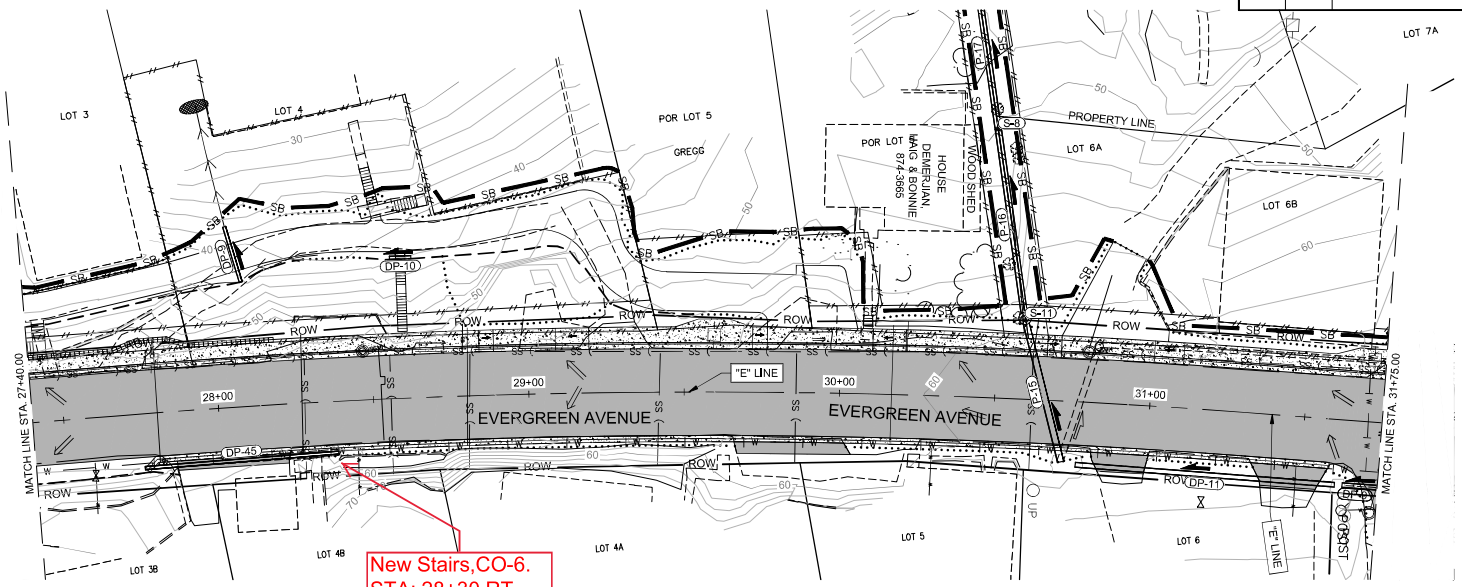
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

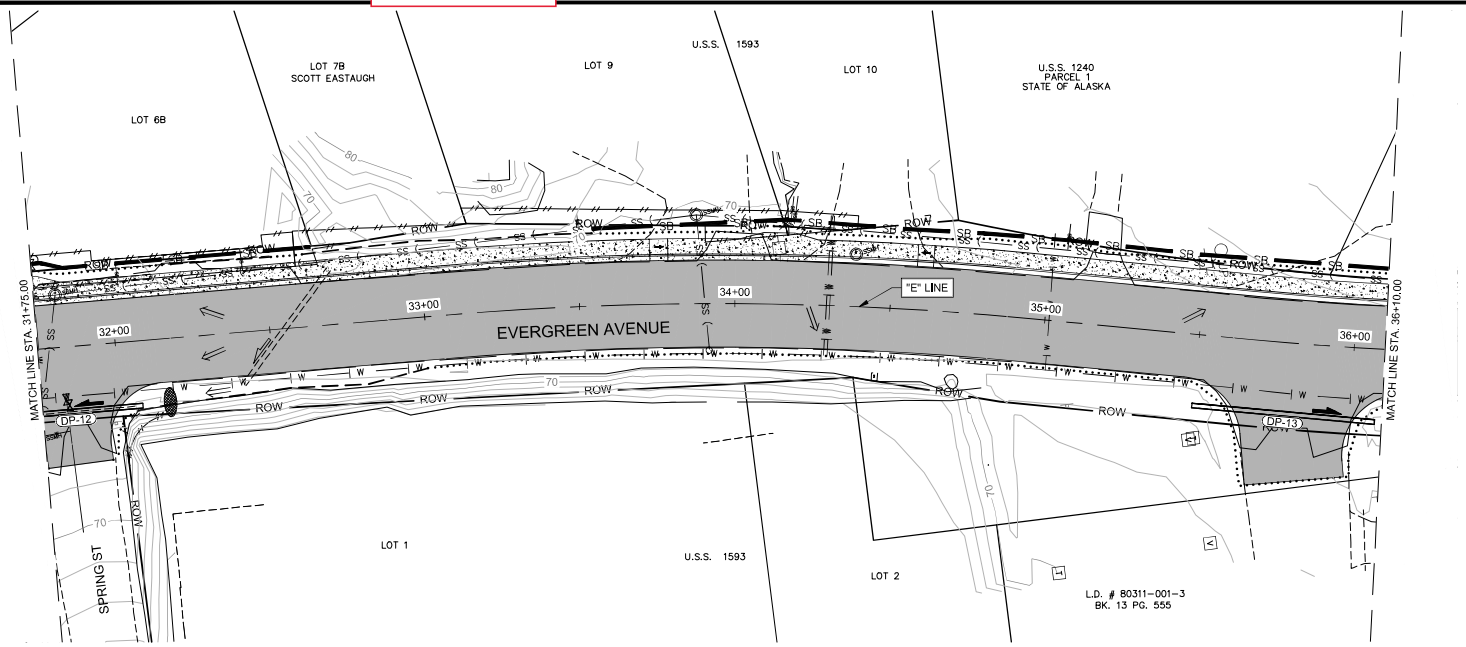
PE Steve Mielke Date 12/30/21

FILE | G:\Wrg\68029\Planset\68029_P1--P7_ESCP.dwg | DATE | 6/30/2017 3:04 PM | LAYOUT | P2 | DESIGNED | D.B. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z680290000	2017	P3	7





0 40' 80'

SCALE IN FEET

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

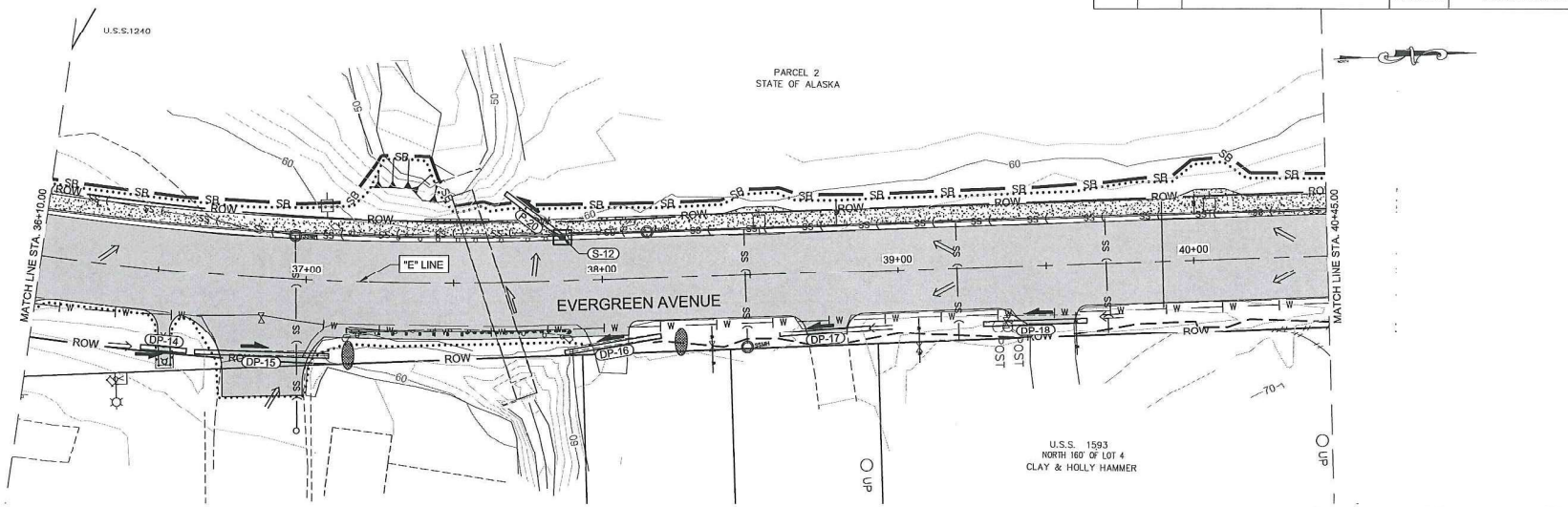
EROSION & SEDIMENT CONTROL PLAN

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

PE Steve Mielke Date 2/30/21

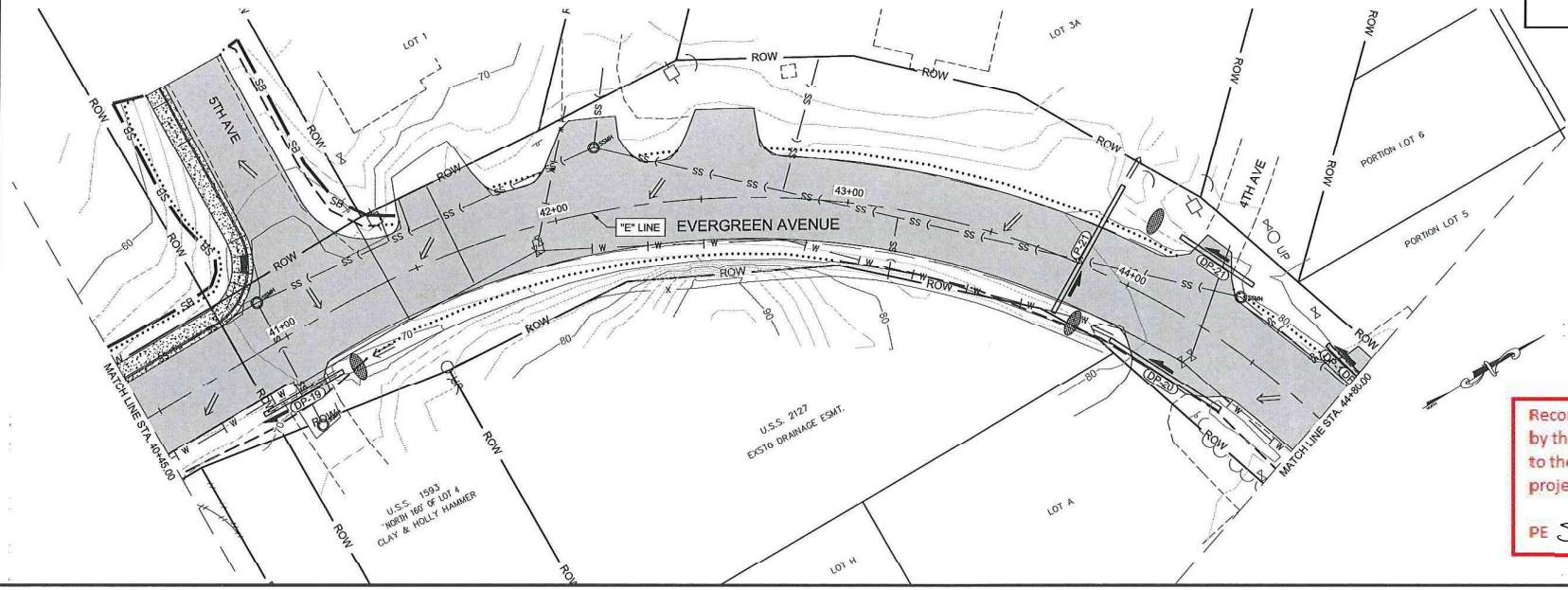
FILE | Q:\Wrg\68029\Planset\68029_P1-P7_ESCP.dwg | DATE | 4/3/2018 11:28 AM | LAYOUT | P3 | DESIGNED | D.B. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	P4	7



ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.7.5 DATED NOVEMBER 15, 2013

EROSION & SEDIMENT CONTROL PLAN



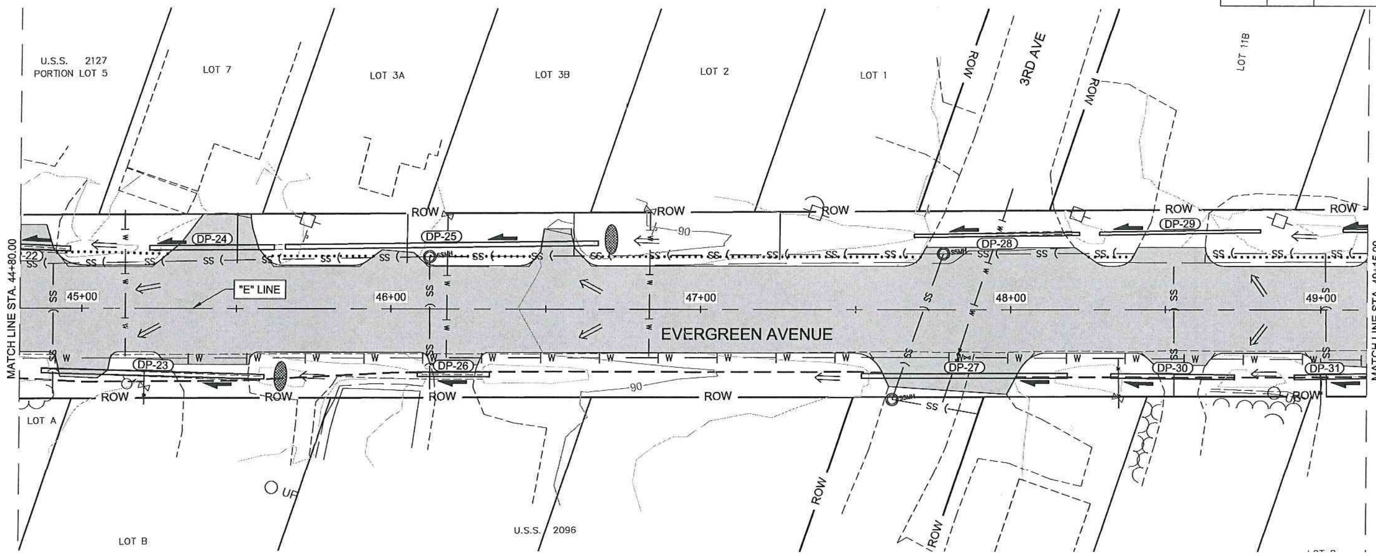
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

FILE G:\Wrk\68029\Planset\68029_P1-P7_ESCP.dwg | DATE 6/30/2017 3:06 PM | LAYOUT P4 | DESIGNED D.B. | CHECKED K. K. | DRAFTED R. G.

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z680290000	2017	P5	7

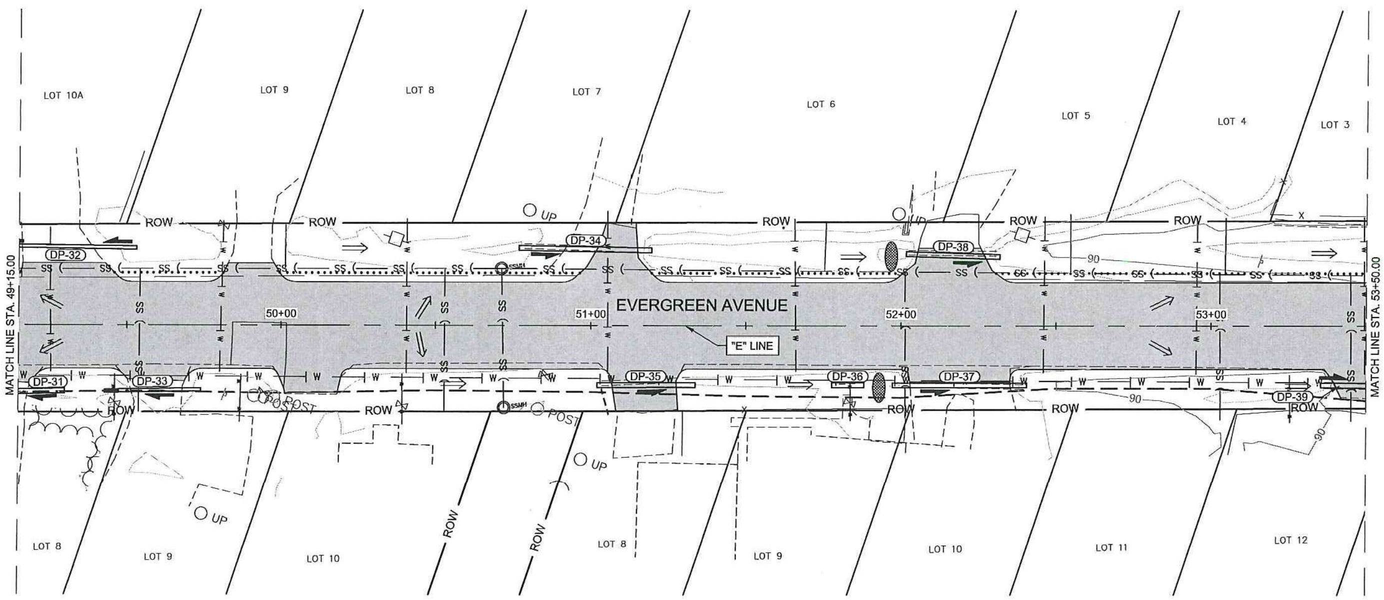


0 40' 80'

SCALE IN FEET

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

EROSION & SEDIMENT CONTROL PLAN



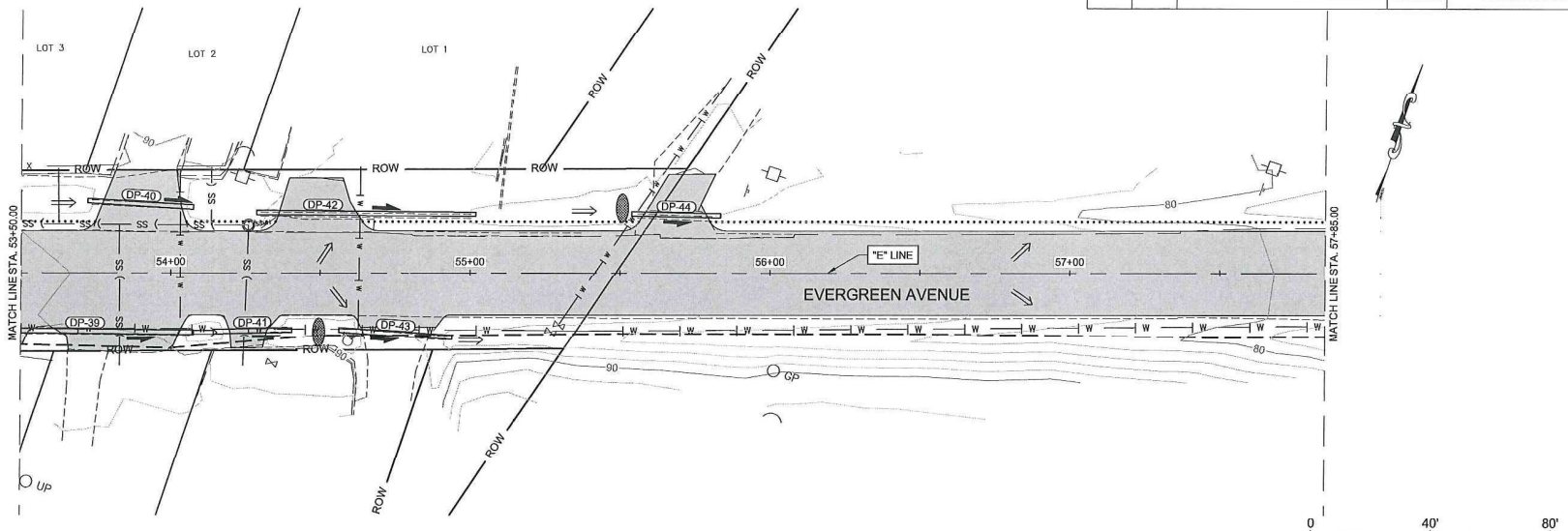
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE *Steve Mielke* Date 12/30/21

DATE 6/30/2017 3:06 PM | LAYOUT P5 | DESIGNED D.B. | CHECKED K.K. | DRAFTED R.G.

FILE Q:\Wrg\68029\Planset\68029_P1-P7_ESCP.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	P6	7

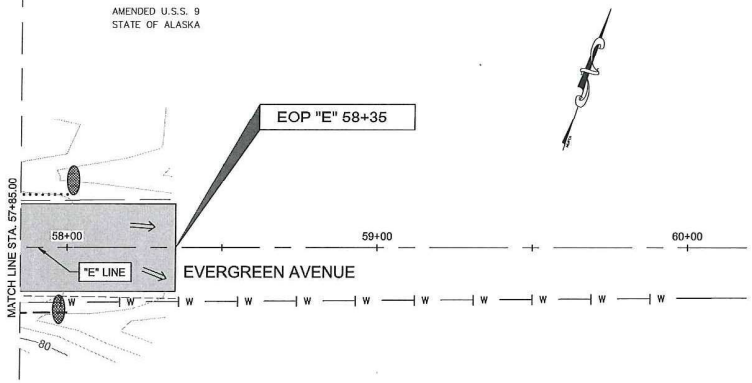


0 40' 80'

SCALE IN FEET

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

EROSION & SEDIMENT CONTROL PLAN

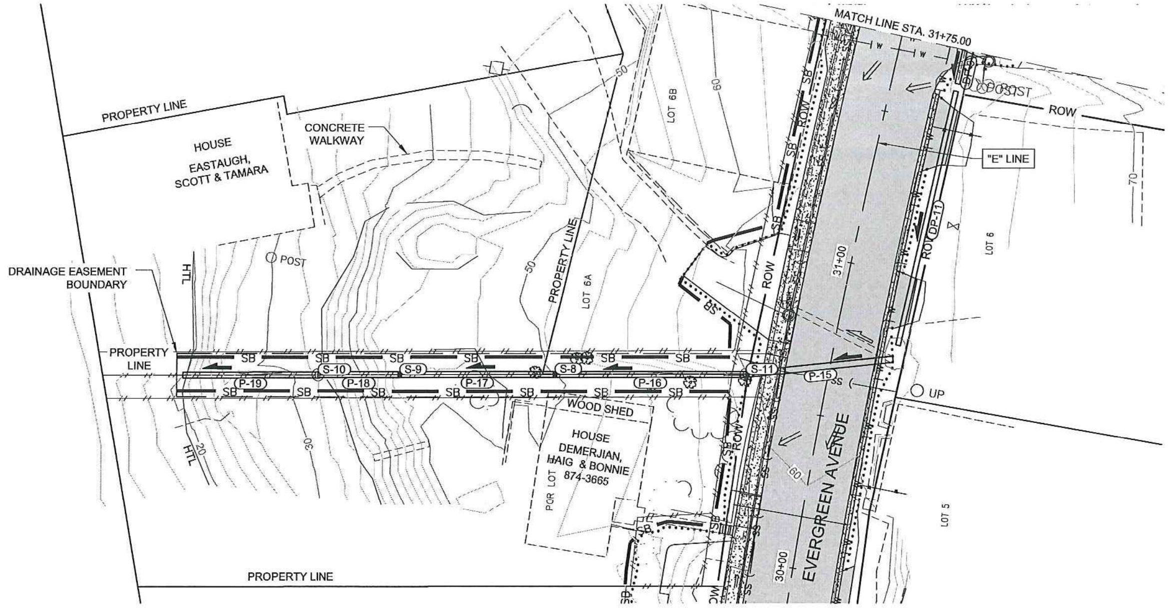


Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

FILE Q:\Wrg\680293\Project\680293_P1-P7_ESCP.dwg | DATE 6/30/2017 3:07 PM | LAYOUT P6 | DESIGNED D.B. | CHECKED K. K. | DRAFTED R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	P7	7



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

0 40' 80'
SCALE IN FEET

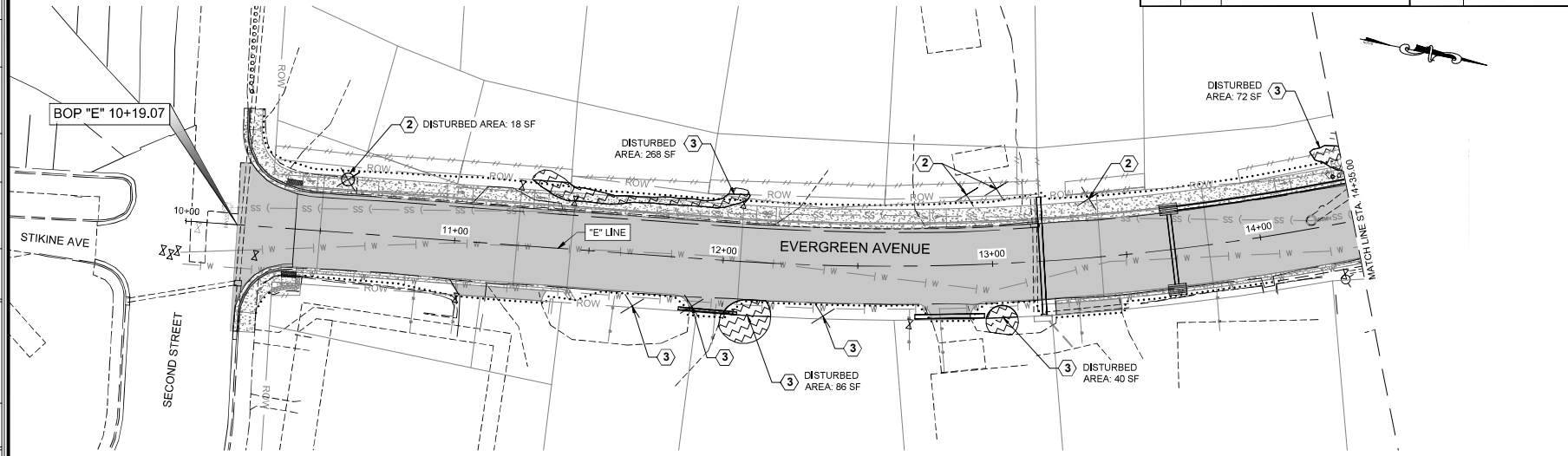
EROSION & SEDIMENT CONTROL PLAN

DESIGNED D.B. | CHECKED K. K. | DRAFTED R. G.
DATE 6/30/2017 3:08 PM | LAYOUT P7
FILE Q:\Wrg\68029\Planset\68029_P1-P7_ESCP.dwg

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

PE Steve Mielke Date 12/30/21

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	Q1	6



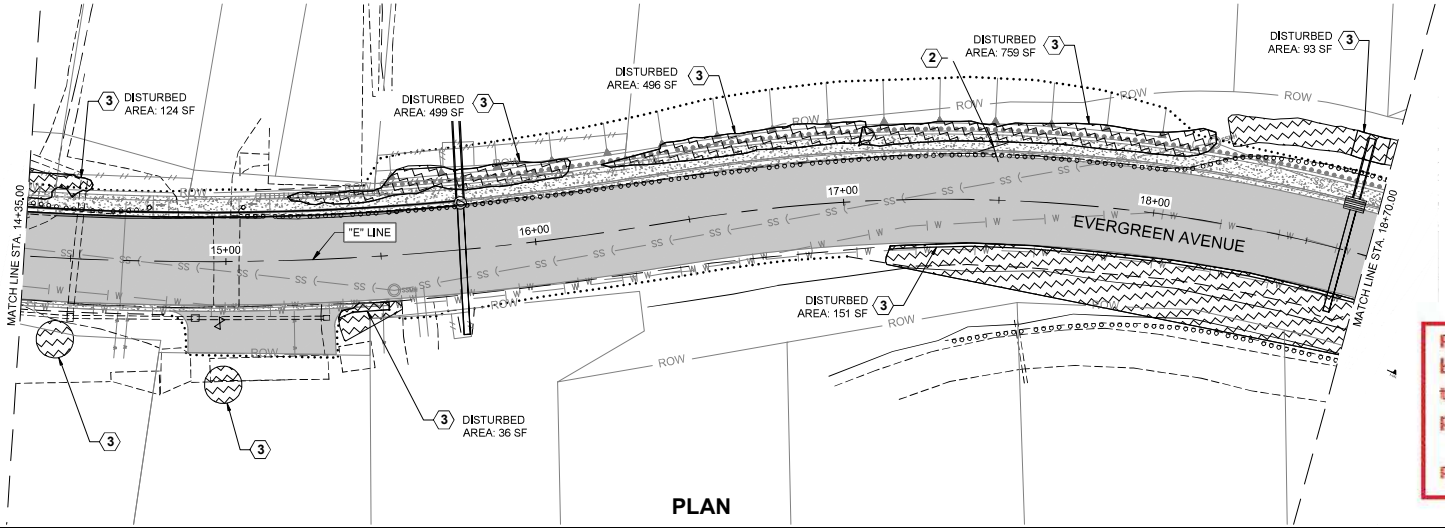
PLAN

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

INVASIVE SPECIES PLAN

INVASIVE SPECIES

NO.	SCIENTIFIC NAME	COMMON NAME	ABREVIATION	REMARKS
1	Fatsia Japonica	Paperplant	FAJA	
2	Hieracium Aurantiacum	Orange Hawkweed	HIAU	
3	Hieracium Caespitosum	Meadow Hawkweed	HICA	



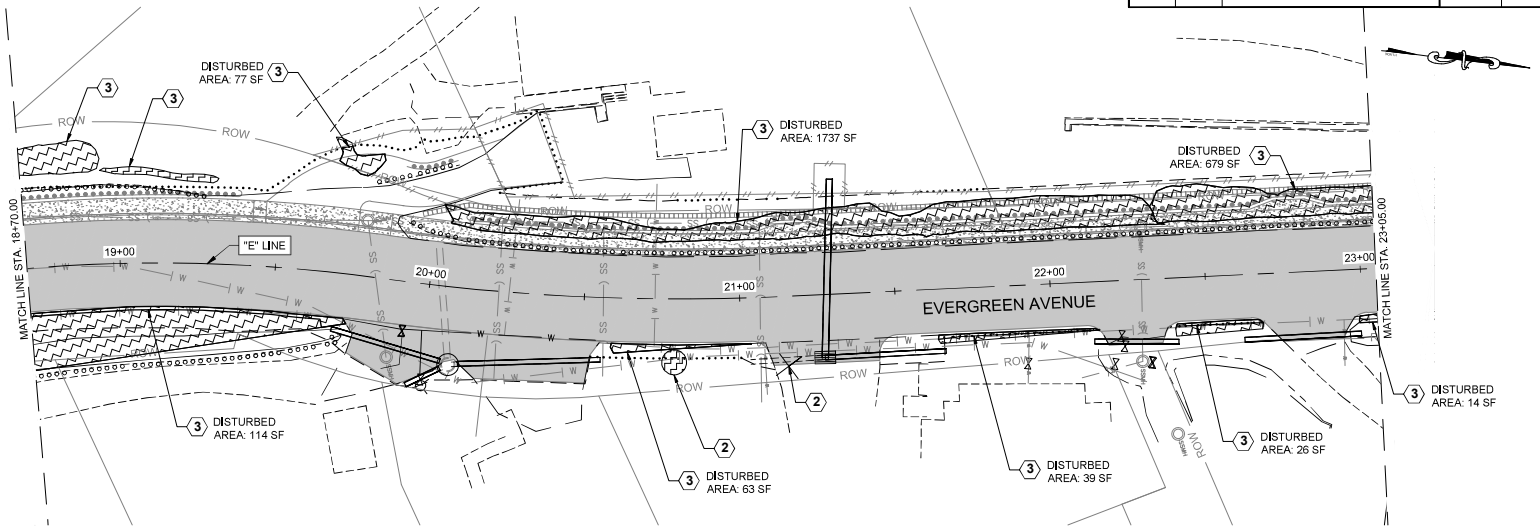
PLAN

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

PE Steve Mielke Date 12/30/21

FILE | q:\Wrg\68029\Planset\68029_01-Q6_Inv Species.dwg | DATE | 4/3/2018 3:59 PM | LAYOUT | Q1 | DESIGNED | D.B. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	Q2	6



PLAN

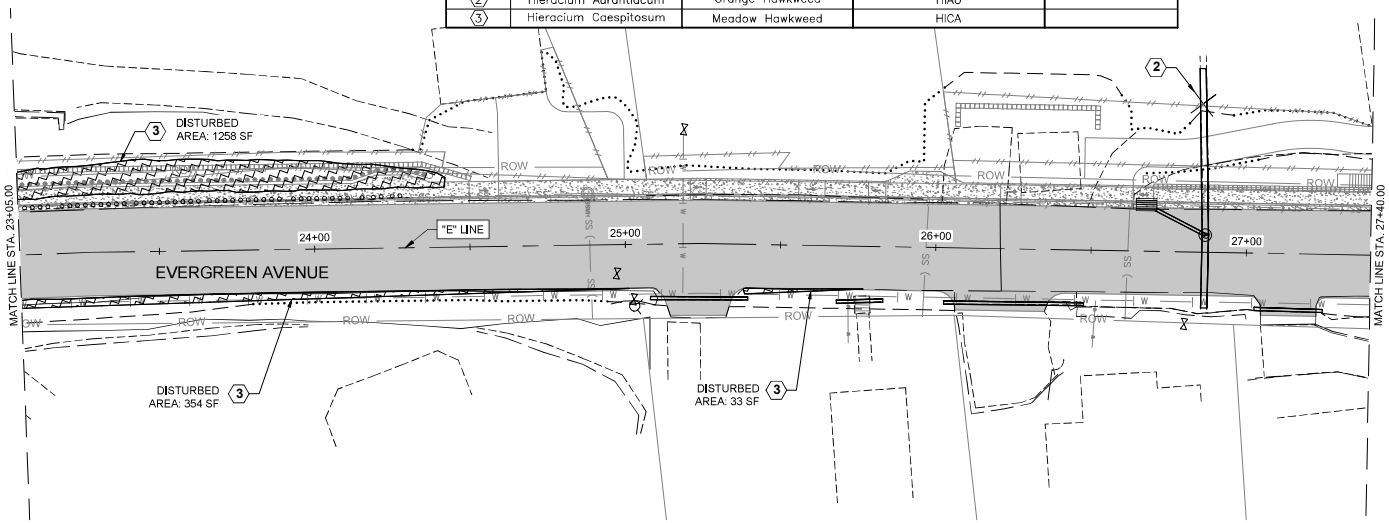
0 40' 80'

SCALE IN FEET

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

INVASIVE SPECIES PLAN

INVASIVE SPECIES				
NO.	SCIENTIFIC NAME	COMMON NAME	ABREVIATION	REMARKS
1	Fatsia Japonica	Paperplant	FAJA	
2	Hieracium Aurantiacum	Orange Hawkweed	HIAU	
3	Hieracium Caespitosum	Meadow Hawkweed	HICA	



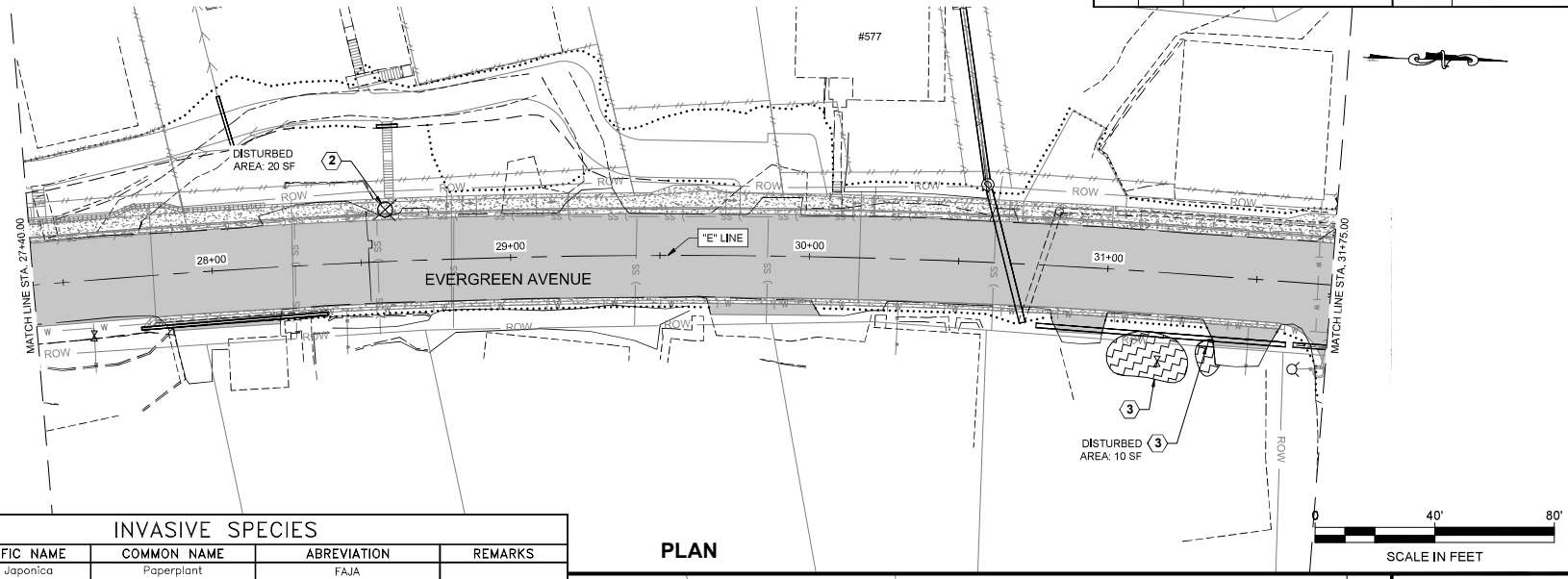
PLAN

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

PE Steve Mielke Date 12/30/21

FILE | q:\Wrg\68029\Planset\68029_01-Q6_Inv Species.dwg | DATE | 4/3/2018 3:59 PM | LAYOUT | Q2 | DESIGNED | D.B. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	Q3	6

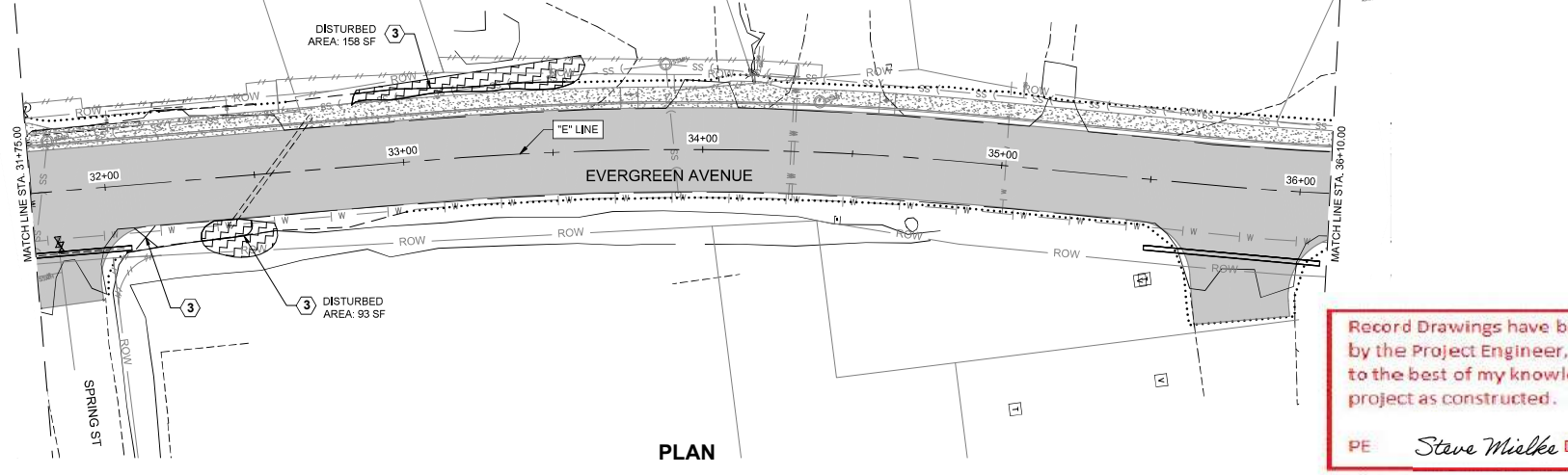


PLAN

INVASIVE SPECIES				
NO.	SCIENTIFIC NAME	COMMON NAME	ABREVIATION	REMARKS
1	Fatsia Japonica	Paperplant	FAJA	
2	Hieracium Aurantiacum	Orange Hawkweed	HIAU	
3	Hieracium Caespitosum	Meadow Hawkweed	HICA	

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

INVASIVE SPECIES PLAN



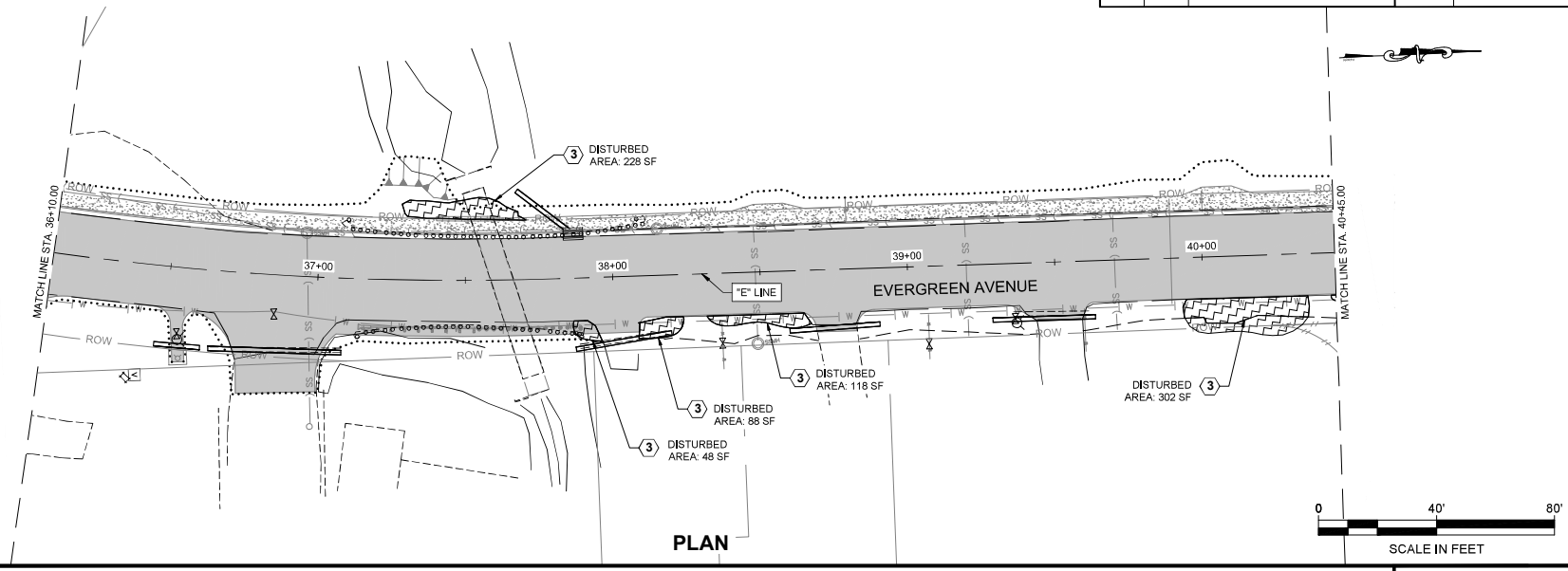
PLAN

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

PE Steve Mielke Date 12/30/21

FILE | q:\Wrg\68029\Planset\68029_01-Q6_Inv Species.dwg | DATE | 4/3/2018 3:59 PM | LAYOUT | Q3 | DESIGNED | D.B. | CHECKED | K. K. | DRAFTED | R. G.

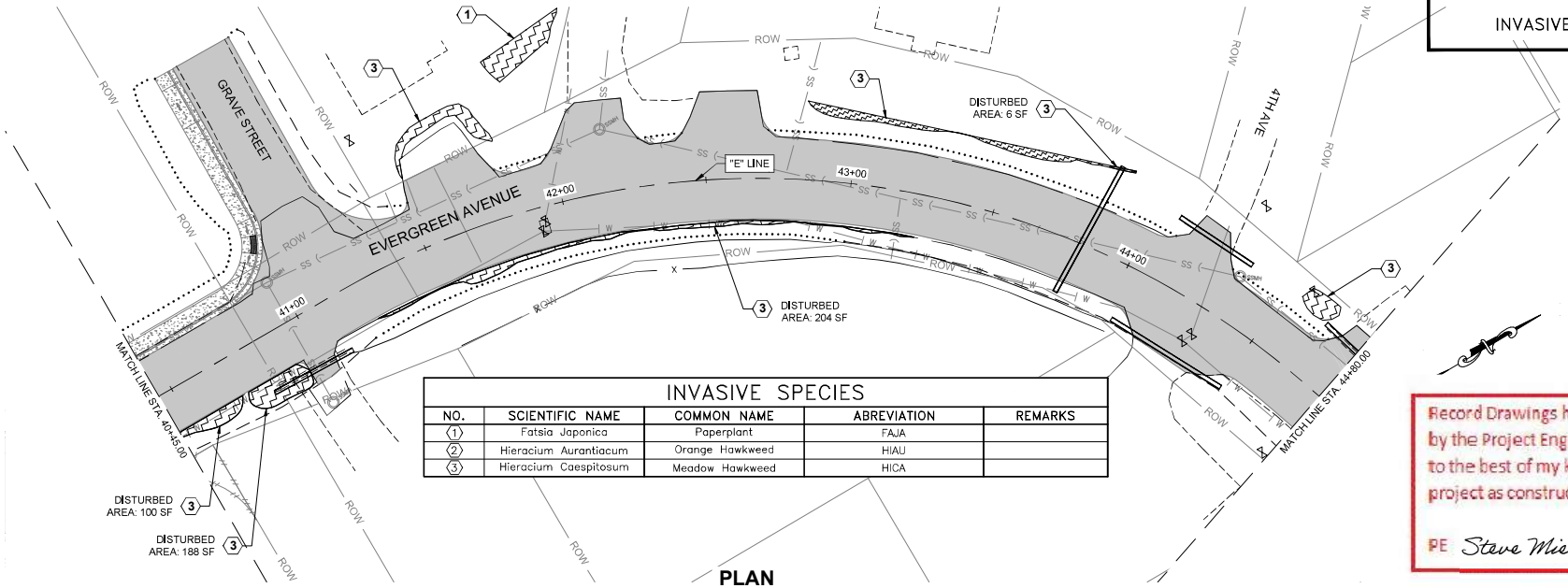
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	Q4	6



PLAN

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

INVASIVE SPECIES PLAN



PLAN

INVASIVE SPECIES

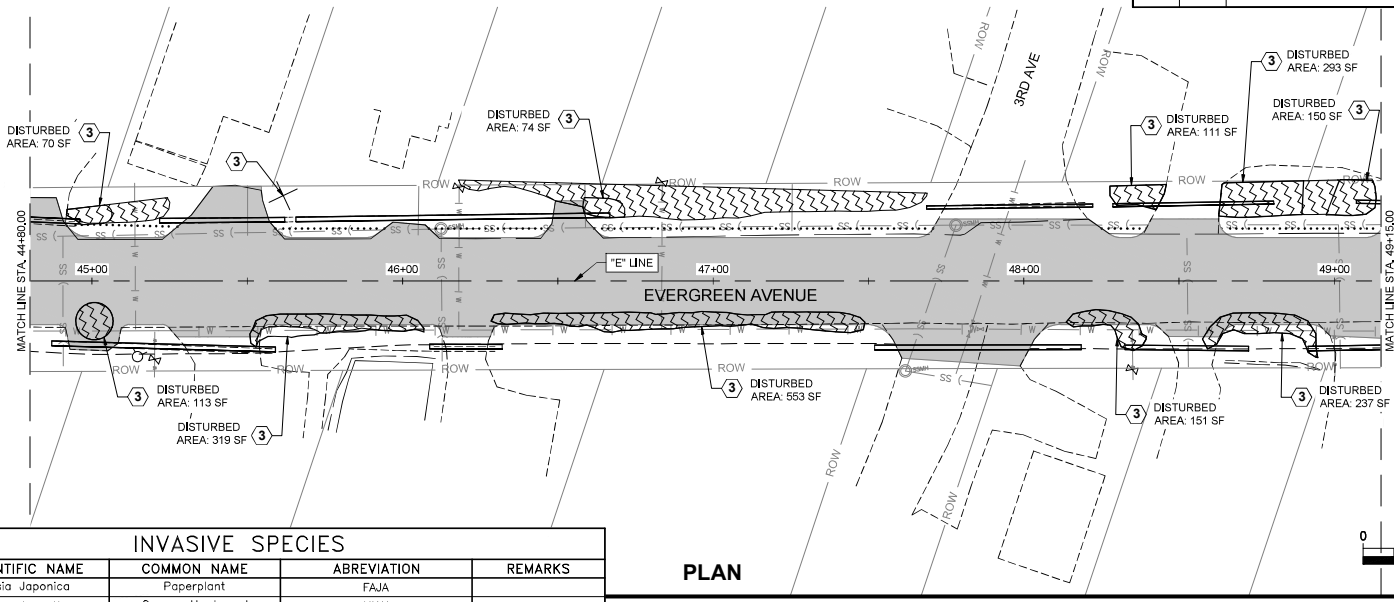
NO.	SCIENTIFIC NAME	COMMON NAME	ABREVIATION	REMARKS
1	Fatsia Japonica	Paperplant	FAJA	
2	Hieracium Aurantiacum	Orange Hawkweed	HIAU	
3	Hieracium Caespitosum	Meadow Hawkweed	HICA	

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

PE Steve Mielke Date 12/30/21

FILE | q:\Wrg\68029\Planset\68029_01-Q6_Inv Species.dwg | DATE | 4/3/2018 3:59 PM | LAYOUT | Q4 | DESIGNED | D.B. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	Q5	6



PLAN

0 40' 80'

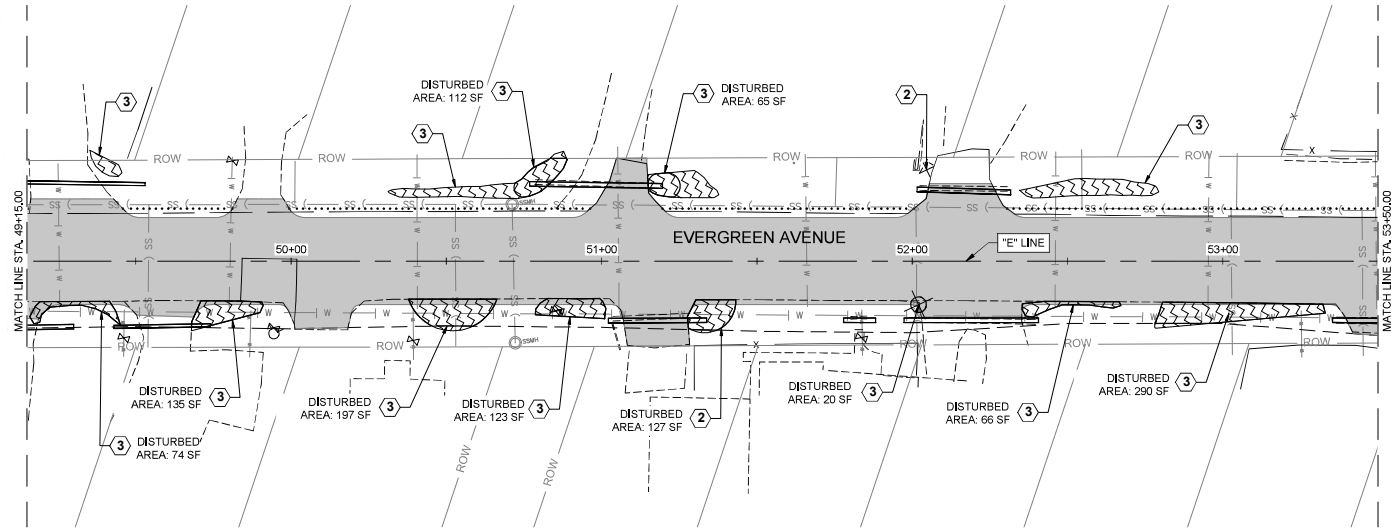
SCALE IN FEET

INVASIVE SPECIES

NO.	SCIENTIFIC NAME	COMMON NAME	ABREVIATION	REMARKS
1	Fatsia Japonica	Paperplant	FAJA	
2	Hieracium Aurantiacum	Orange Hawkweed	HIAU	
3	Hieracium Caespitosum	Meadow Hawkweed	HICA	

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

INVASIVE SPECIES PLAN



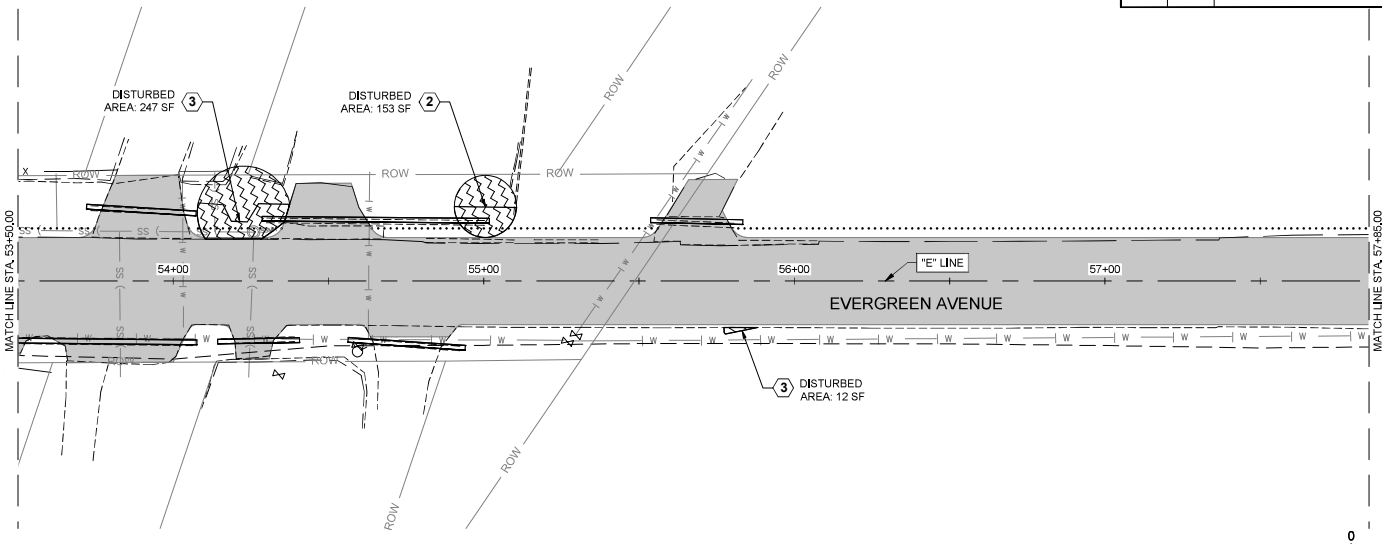
PLAN

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

PE Steve Mielke Date 12/30/21

FILE | q:\Wrg\68029\Planset\68029_01-Q6_Inv Species.dwg | DATE | 4/3/2018 4:00 PM | LAYOUT | Q5 | DESIGNED | D.B. | CHECKED | K. K. | DRAFTED | R. G.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	Q6	6



PLAN

0 40' 80'

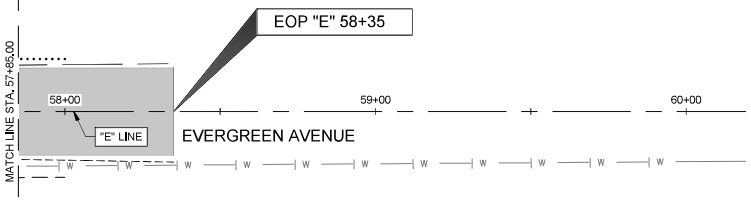
SCALE IN FEET

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

INVASIVE SPECIES PLAN

INVASIVE SPECIES

NO.	SCIENTIFIC NAME	COMMON NAME	ABREVIATION	REMARKS
1	Fatsia Japonica	Paperplant	FAJA	
2	Hieracium Aurantiacum	Orange Hawkweed	HIAU	
3	Hieracium Caespitosum	Meadow Hawkweed	HICA	



PLAN

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

PE Steve Mielke Date 12/30/21

FILE q:\Wrg\68029\Planset\68029_01-Q6_Inv Species.dwg | DATE 4/3/2018 4:00 PM | LAYOUT Q6 | DESIGNED D.B. | CHECKED K. K. | DRAFTED R. G.

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

PE Steve Mielke Date 12/30/21

PROJECT DESIGNATION	SHEET NO.	TOTAL SHEETS
PROJECT NO. Z680290000	1	10

PARCEL TABLE

PARCEL	OWNER	AREA	REMAIN	RECORDING DATA
DELETED	Stough Family Trust	DELETED	DELETED	
E-2	Stough Family Trust	23 S.F.	1378 S.F.	
TCE-2A	Stough Family Trust	117 S.F.		
E-3	Yvonne Stough Revocable Trust	196 S.F.	1263 S.F.	
TCE-3A	Yvonne Stough Revocable Trust	206 S.F.		
TCE-4A	Yvonne Stough Revocable Trust	103 S.F.		
E-5	Yvonne Stough Revocable Trust	156 S.F.	1314 S.F.	
TCE-5A	Yvonne Stough Revocable Trust	327 S.F.		
E-9	Yvonne Stough Revocable Trust	89 S.F.	1063 S.F.	
TCE-8A	Yvonne Stough Revocable Trust	284 S.F.		
DELETED	Yvonne Stough Revocable Trust	DELETED	DELETED	
DELETED	Yvonne Stough Revocable Trust	DELETED	DELETED	
E-7	Brett Woodbury	15 S.F.	726 S.F.	
TCE-7A	Brett Woodbury	148 S.F.		
DELETED	Brett Woodbury	DELETED	DELETED	
DELETED	Brett Woodbury	DELETED	DELETED	
E-8	Brett Woodbury	88 S.F.	1534 S.F.	
TCE-8A	Brett Woodbury	237 S.F.		
E-9	Helga M. King	110 S.F.	552 S.F.	
TCE-9A	Helga M. King	211 S.F.		
E-10	Helga M. King	145 S.F.	264 S.F.	
TCE-10A	Helga M. King	144 S.F.		
E-24	Mike L. Matney	50 S.F.	1594 S.F.	
TCE-24A	Mike L. Matney	90 S.F.		
TCP-24B	Mike L. Matney	61 S.F.		
TCP-25	Mike L. Matney	152 S.F.		
TCP-28	Mike L. Matney	8 S.F.		
TCP-27	Mike L. Matney	23 S.F.		
E-28	Russel W. & Nancy L. Ferguson	14 S.F.	3590 S.F.	
TCE-28A	Russel W. & Nancy L. Ferguson	69 S.F.		
TCP-28B	Russel W. & Nancy L. Ferguson	151 S.F.		
TCP-29	Alan Marie High	141 S.F.		
E-37	Stough Family Trust	393 S.F.	424 S.F.	
TCE-37A	Stough Family Trust	237 S.F.		

LEGEND

- DOT/PF CENTERLINE BRASS CAP RECOVERED
- GLO/BLM ROCK MONUMENT RECOVERED
- BPR BRASS CAP MONUMENT RECOVERED
- SECONDARY MONUMENT RECOVERED
- N58°20'00"E DATA OF RECORD
- EXISTING RIGHT-OF-WAY
- PARCEL REQUIRED

20 15 10 5 0 20 40 60

GRAPHIC SCALE IN FEET

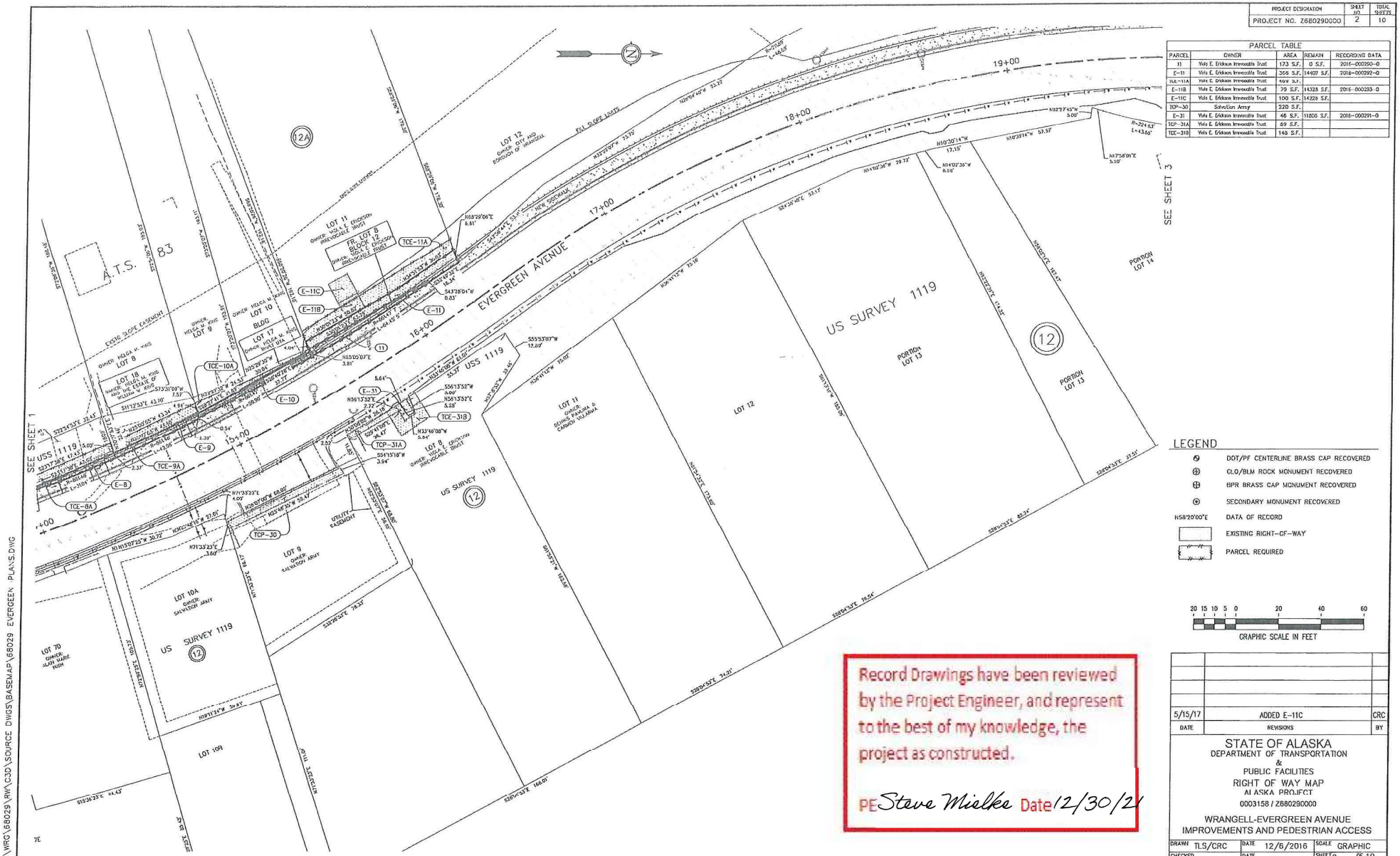
DATE	REVISIONS	BY
1/26/17	DELETED E-6B, E-6C, E-7B AND E-7C	CRC
12/2/16	REVISED E-6C AND E-7C	CRC
9/29/16	DELETED PARCEL 1, ADDED E-37, TCE-37A	CRC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT
0003158 / Z680290000

WRANGELL-EVERGREEN AVENUE
IMPROVEMENTS AND PEDESTRIAN ACCESS

DRAWN	TLS/CRC	DATE	12/6/2016	SCALE	GRAPHIC
CHECKED		DATE		SHEET 1	OF 10

Q:\WRG\680290\PW\C3D\SOURCE DWGS\BASEMAP\680290 EVERGREEN PLANS.DWG



PROJECT DESIGNATION	SHEET NO	TOTAL SHEETS
PROJECT NO. Z680290000	2	10

PARCEL TABLE

PARCEL	OWNER	AREA	REMAIN	RECORDING DATA
11	Viola E. Erickson Irrevocable Trust	173 S.F.	0 S.F.	2016-000290-0
E-11	Viola E. Erickson Irrevocable Trust	356 S.F.	14407 S.F.	2016-000292-0
TLE-11A	Viola E. Erickson Irrevocable Trust	449 S.F.		
E-11B	Viola E. Erickson Irrevocable Trust	79 S.F.	14328 S.F.	2016-000293-0
E-11C	Viola E. Erickson Irrevocable Trust	100 S.F.	14228 S.F.	
TCP-30	Salvation Army	220 S.F.		
E-31	Viola E. Erickson Irrevocable Trust	46 S.F.	11200 S.F.	2016-000291-0
TCP-31A	Viola E. Erickson Irrevocable Trust	69 S.F.		
TCE-31B	Viola E. Erickson Irrevocable Trust	146 S.F.		

LEGEND

- DOT/PF CENTERLINE BRASS CAP RECOVERED
- CLO/BLM ROCK MONUMENT RECOVERED
- BPR BRASS CAP MONUMENT RECOVERED
- SECONDARY MONUMENT RECOVERED
- N58°20'00"E DATA OF RECORD
- EXISTING RIGHT-OF-WAY
- PARCEL REQUIRED

20 15 10 5 0 20 40 60

GRAPHIC SCALE IN FEET

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

PE Steve Mielke Date 12/30/21

DATE	REVISIONS	BY
5/15/17	ADDED E-11C	CRC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT
0003158 / Z680290000

WRANGELL-EVERGREEN AVENUE
IMPROVEMENTS AND PEDESTRIAN ACCESS

DRAWN	TLS/CRC	DATE	12/6/2016	SCALE	GRAPHIC
CHECKED		DATE		SHEET	2 OF 10

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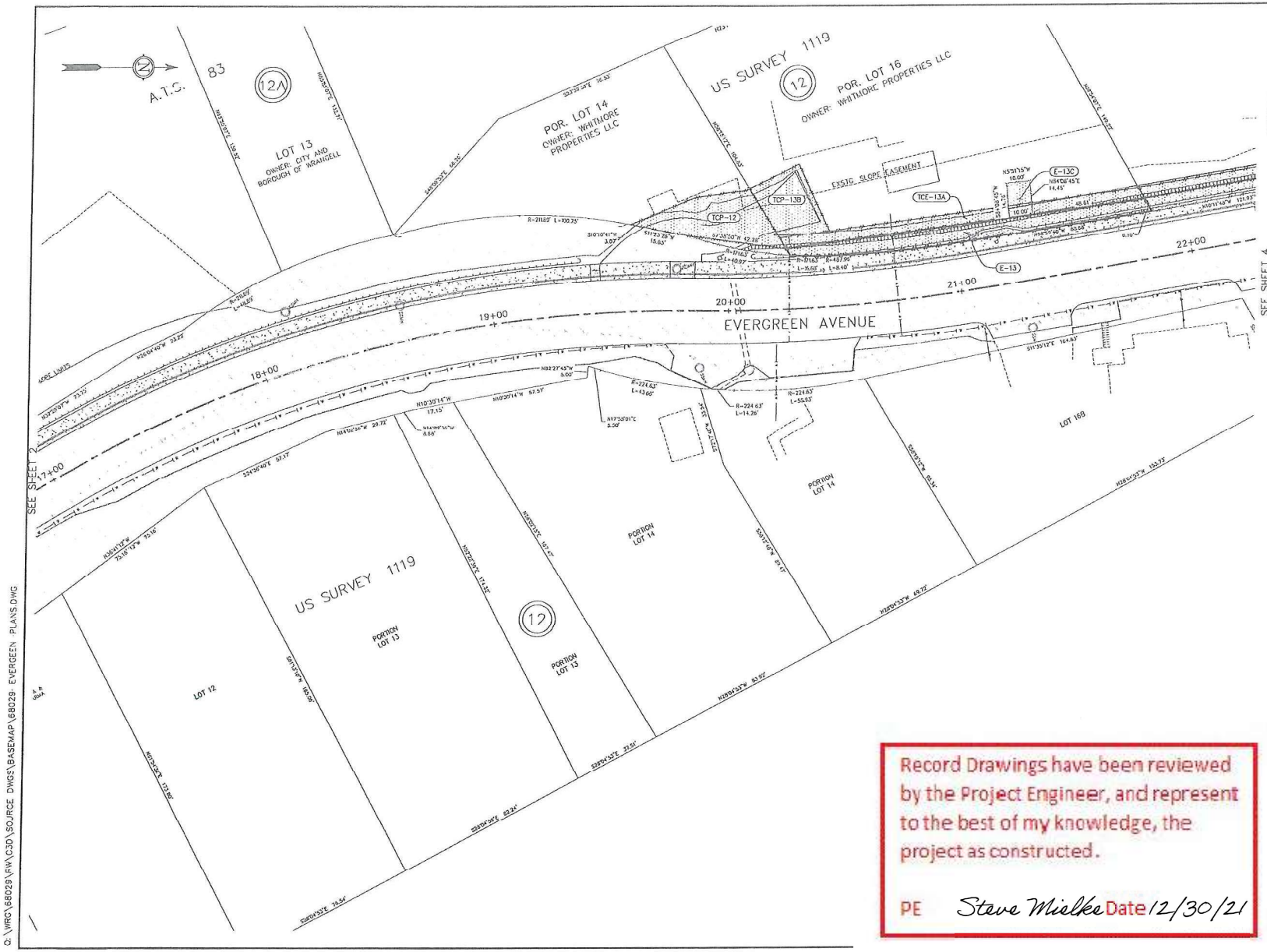

PROJECT DESIGNATION	SHEET NO.	TOTAL SHEETS
PROJECT NO. Z680290000	3	10

PARCEL TABLE

PARCEL	OWNER	AREA	REMAIN	RECORDING DATA
TCP-12	Whitmore Properties LLC	875 S.F.		
E-12A	DELETED			
E-12B	Whitmore Properties LLC	97 S.F.	6963 S.F.	
E-13	Whitmore Properties LLC	1016 S.F.	17600 S.F.	
TCE-13A	Whitmore Properties LLC	776 S.F.		
TCP-13B	Whitmore Properties LLC	810 S.F.		
E-13C	Whitmore Properties LLC	146 S.F.	17454 S.F.	

LEGEND

- DOT/PF CENTERLINE BRASS CAP RECOVERED
- GLO/BLM ROCK MONUMENT RECOVERED
- BPR BRASS CAP MONUMENT RECOVERED
- SECONDARY MONUMENT RECOVERED
- N58°20'00"E DATA OF RECORD
- EXISTING RIGHT-OF-WAY
- PARCEL REQUIRED

20 15 10 5 0 20 40 60
GRAPHIC SCALE IN FEET

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

PE Steve Mielke Date 12/30/21

DATE	REVISIONS	BY
3/30/17	DELETED E-12A	CRC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT
0003158 / Z680290000

WRANGELL-EVERGREEN AVENUE
IMPROVEMENTS AND PEDESTRIAN ACCESS

DRAWN	TLS/CRC	DATE	12/6/2016	SCALE	GRAPHIC
CHECKED		DATE		SHEET	3 OF 10

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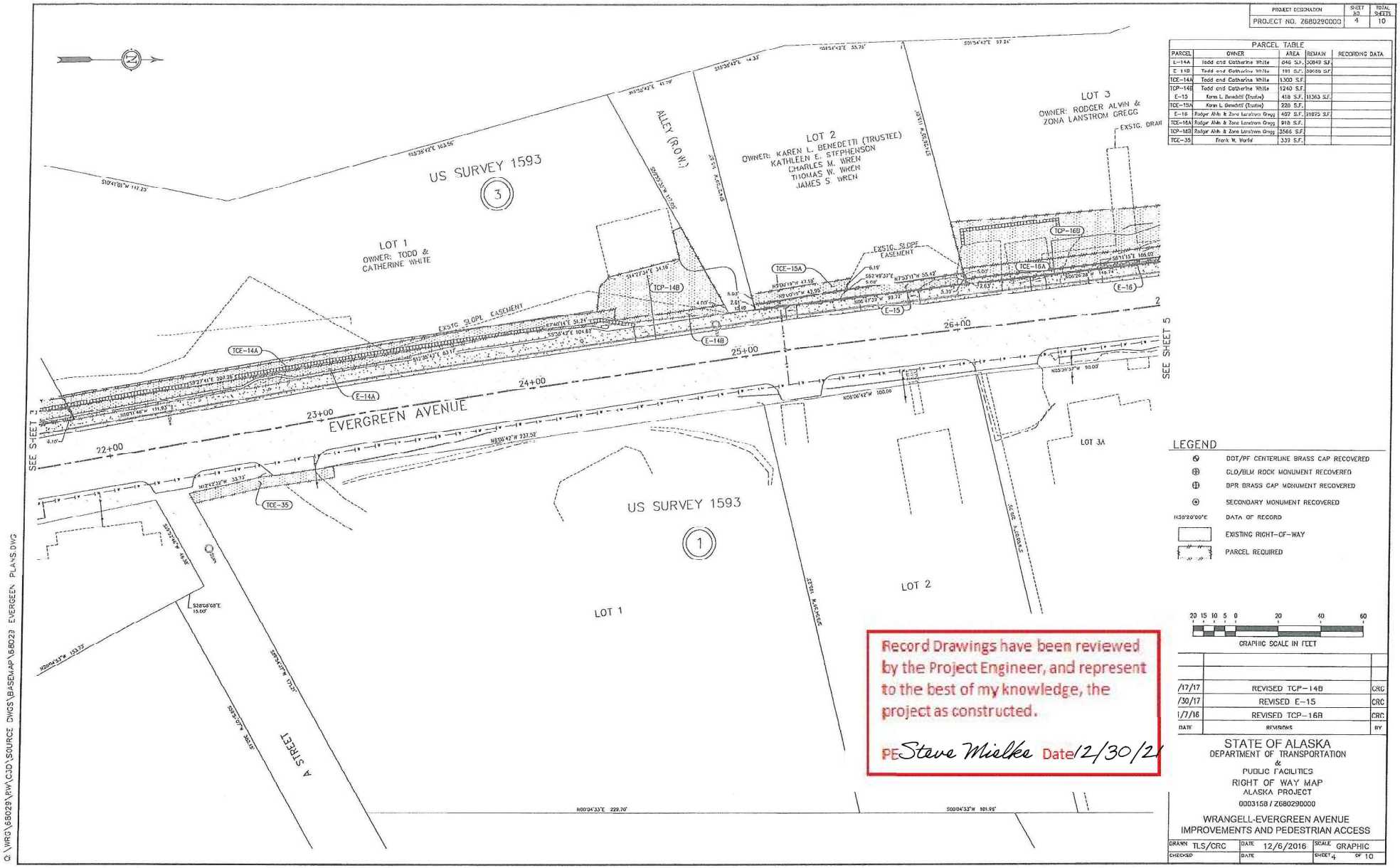

PROJECT DESIGNATION	SHEET NO.	TOTAL SHEETS
PROJECT NO. Z680290000	4	10

PARCEL TABLE

PARCEL	OWNER	AREA	REMAIN	RECORDING DATA
E-14A	Todd and Catherine White	646 S.F.	30849 S.F.	
E-14B	Todd and Catherine White	191 S.F.	39658 S.F.	
TCE-14A	Todd and Catherine White	1300 S.F.		
TCP-14B	Todd and Catherine White	1240 S.F.		
E-15	Karen L. Benedetti (Trustee)	418 S.F.	11363 S.F.	
TCE-15A	Karen L. Benedetti (Trustee)	228 S.F.		
E-16	Rodger Alvin & Zona Lanstrom Gregg	407 S.F.	21875 S.F.	
TCE-16A	Rodger Alvin & Zona Lanstrom Gregg	918 S.F.		
TCP-16B	Rodger Alvin & Zona Lanstrom Gregg	3566 S.F.		
TCE-35	Frank W. Warfel	339 S.F.		

LEGEND

- DOT/PF CENTERLINE BRASS CAP RECOVERED
- GLO/BLM ROCK MONUMENT RECOVERED
- BPR BRASS CAP MONUMENT RECOVERED
- SECONDARY MONUMENT RECOVERED
- N30°20'00"E DATA OF RECORD
- EXISTING RIGHT-OF-WAY
- PARCEL REQUIRED

20 15 10 5 0 20 40 60

GRAPHIC SCALE IN FEET

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

PE Steve Mielke Date 12/30/2

DATE	REVISIONS	BY
/17/17	REVISED TCP-14B	CRC
/30/17	REVISED E-15	CRC
1/7/16	REVISED TCP-16B	CRC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT
0003158 / Z680290000

WRANGELL-EVERGREEN AVENUE
IMPROVEMENTS AND PEDESTRIAN ACCESS

DRAWN	TLS/CRC	DATE	12/6/2016	SCALE	GRAPHIC
CHECKED		DATE		SHEET 4	OF 10

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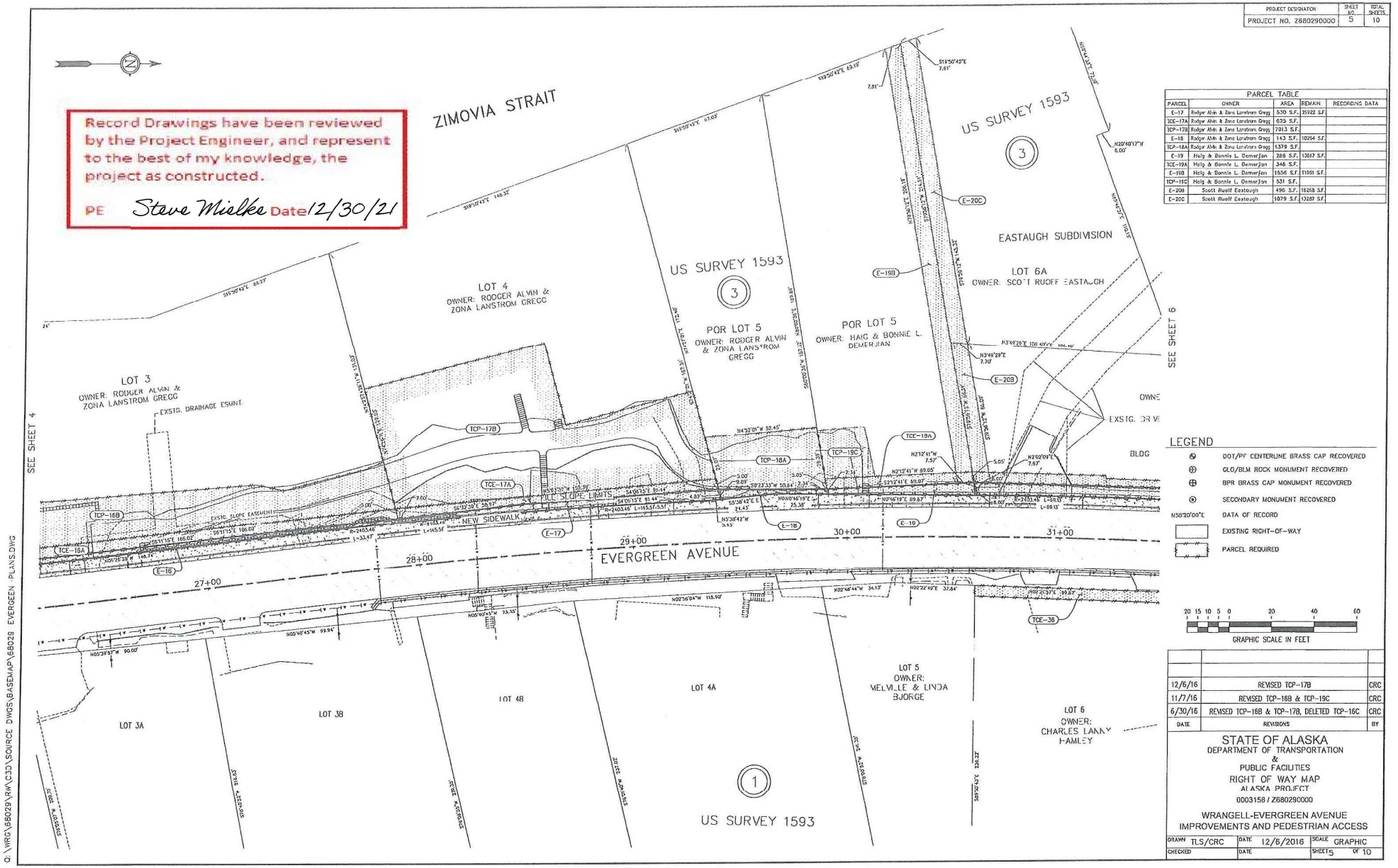

PROJECT DESIGNATION	SHEET NO.	TOTAL SHEETS
PROJECT NO. Z680290000	5	10

PARCEL TABLE

PARCEL	OWNER	AREA	REMAIN	RECORDING DATA
E-17	Rodger Alvin & Zona Lanstrom Gregg	530 S.F.	21922 S.F.	
TCE-17A	Rodger Alvin & Zona Lanstrom Gregg	625 S.F.		
TCP-17B	Rodger Alvin & Zona Lanstrom Gregg	7913 S.F.		
E-18	Rodger Alvin & Zona Lanstrom Gregg	143 S.F.	10264 S.F.	
TCP-18A	Rodger Alvin & Zona Lanstrom Gregg	1379 S.F.		
E-19	Haig & Bonnie L. Demerjian	285 S.F.	13617 S.F.	
TCE-19A	Haig & Bonnie L. Demerjian	346 S.F.		
E-19B	Haig & Bonnie L. Demerjian	1556 S.F.	11951 S.F.	
TCP-19C	Haig & Bonnie L. Demerjian	531 S.F.		
E-20B	Scott Ruoff Eastaugh	496 S.F.	16258 S.F.	
E-20C	Scott Ruoff Eastaugh	1979 S.F.	13207 S.F.	

12/6/16	REVISED TCP-17B	CRC
11/7/16	REVISED TCP-16B & TCP-19C	CRC
6/30/16	REVISED TCP-16B & TCP-17B, DELETED TCP-16C	CRC
DATE	REVISIONS	BY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT
0003158 / Z680290000

WRANGELL-EVERGREEN AVENUE
IMPROVEMENTS AND PEDESTRIAN ACCESS

DRAWN	TLS/CRC	DATE	12/6/2016	SCALE	GRAPHIC
CHECKED		DATE		SHEET	5 OF 10

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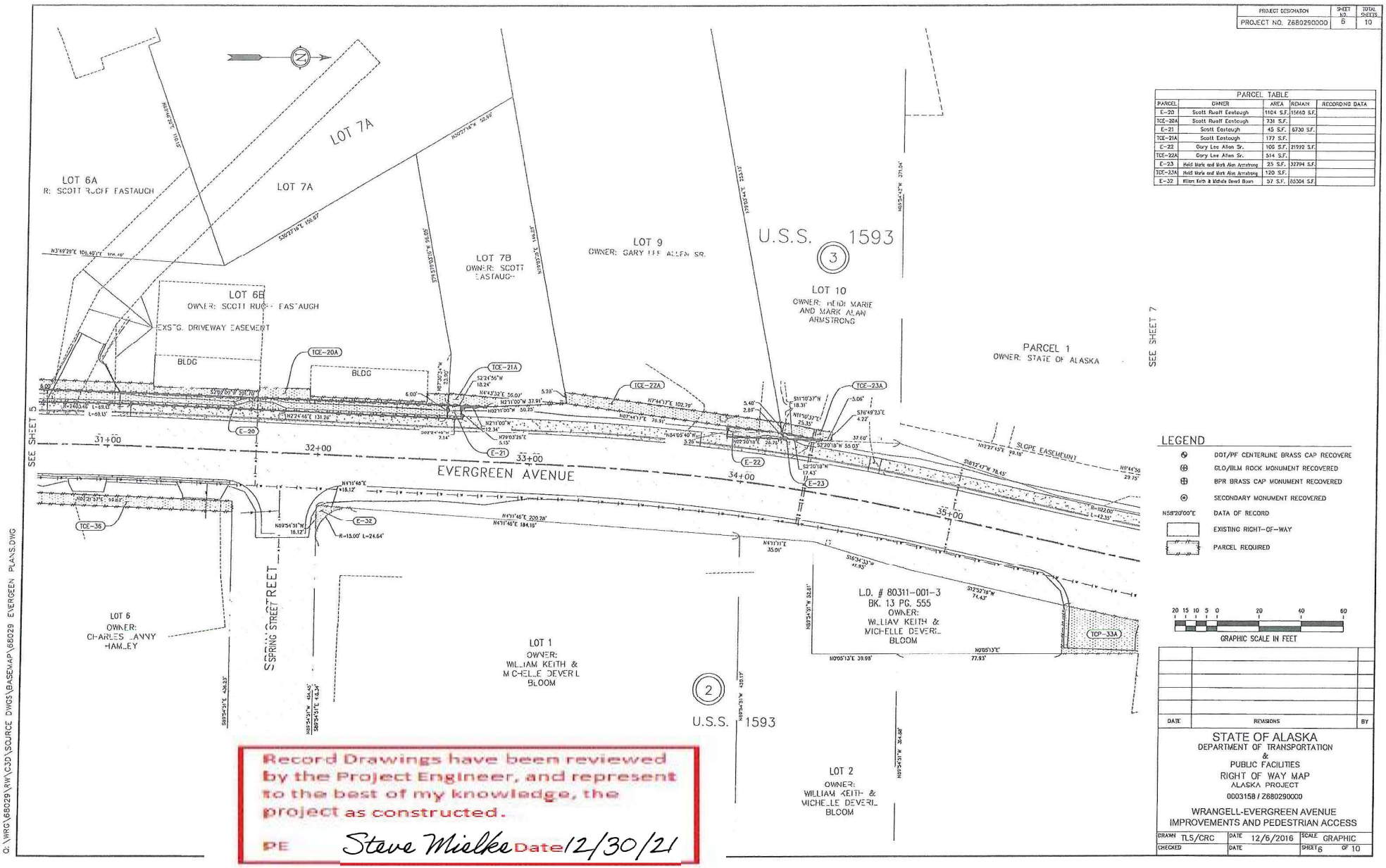

PROJECT DESIGNATION	SHEET NO.	TOTAL SHEETS
PROJECT NO. Z680290000	6	10

PARCEL TABLE

PARCEL	OWNER	AREA	REMAIN	RECORDING DATA
E-20	Scott Ruoff Eastaugh	1104 S.F.	15660 S.F.	
TCE-20A	Scott Ruoff Eastaugh	731 S.F.		
E-21	Scott Eastaugh	45 S.F.	6730 S.F.	
TCE-21A	Scott Eastaugh	172 S.F.		
E-22	Gary Lee Allen Sr.	105 S.F.	21992 S.F.	
TCE-22A	Gary Lee Allen Sr.	514 S.F.		
E-23	Heidi Marie and Mark Alan Armstrong	25 S.F.	32794 S.F.	
TCE-23A	Heidi Marie and Mark Alan Armstrong	120 S.F.		
E-32	Wilson Keith & Michelle Deverl Bloom	57 S.F.	85304 S.F.	

LEGEND

- DOT/PF CENTERLINE BRASS CAP RECOVERED
- GLO/BLM ROCK MONUMENT RECOVERED
- BPR BRASS CAP MONUMENT RECOVERED
- SECONDARY MONUMENT RECOVERED
- N58°20'00"E DATA OF RECORD
- EXISTING RIGHT-OF-WAY
- PARCEL REQUIRED

20 15 10 5 0 20 40 60
GRAPHIC SCALE IN FEET

DATE	REVISIONS	BY

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT
0003158 / Z680290000

WRANGELL-EVERGREEN AVENUE
IMPROVEMENTS AND PEDESTRIAN ACCESS

DRAWN	TLS/CRC	DATE	12/6/2016	SCALE	GRAPHIC
CHECKED		DATE		SHEET	6 OF 10

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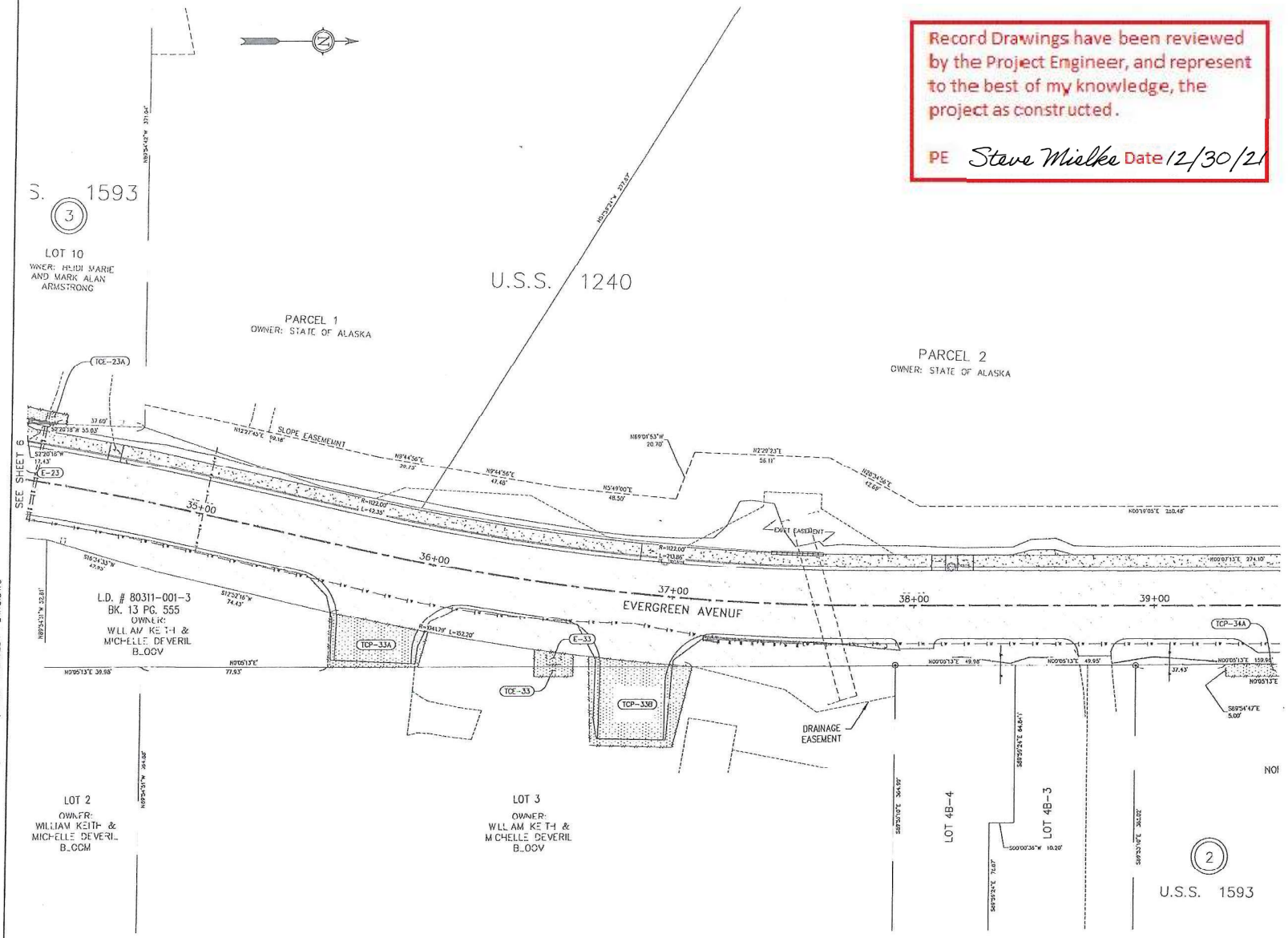
PROJECT DESIGNATION	SHEET NO	TOTAL SHEETS
PROJECT NO. Z680290000	7	10

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

PE Steve Mielke Date 12/30/21

PARCEL TABLE				
PARCEL	OWNER	AREA	REMAIN	RECORDING DATA
E-33	William Keith & Michelle Deveril Bloom	31 S.F.	117510 S.F.	
TCE-33	William Keith & Michelle Deveril Bloom	131 S.F.		
TCP-33A	William Keith & Michelle Deveril Bloom	731 S.F.		
TCP-33B	William Keith & Michelle Deveril Bloom	1338 S.F.		



LEGEND

- DOT/PF CENTERLINE BRASS CAP RECOVERED
- GLO/BLM ROCK MONUMENT RECOVERED
- BPR BRASS CAP MONUMENT RECOVERED
- SECONDARY MONUMENT RECOVERED
- N58°20'00"E DATA OF RECORD
- EXISTING RIGHT-OF-WAY
- PARCEL REQUIRED

20 15 10 5 0 20 40 60

GRAPHIC SCALE IN FEET

DATE	REVISIONS	BY
7/5/16	ADDED E-33, TCE-33, REVISED TCP-33	CRC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT
0003158 / Z680290000

WRANGELL-EVERGREEN AVENUE
IMPROVEMENTS AND PEDESTRIAN ACCESS

DRAWN	TLS/CRC	DATE	12/6/2016	SCALE	GRAPHIC
CHECKED		DATE		SHEET	7 OF 10

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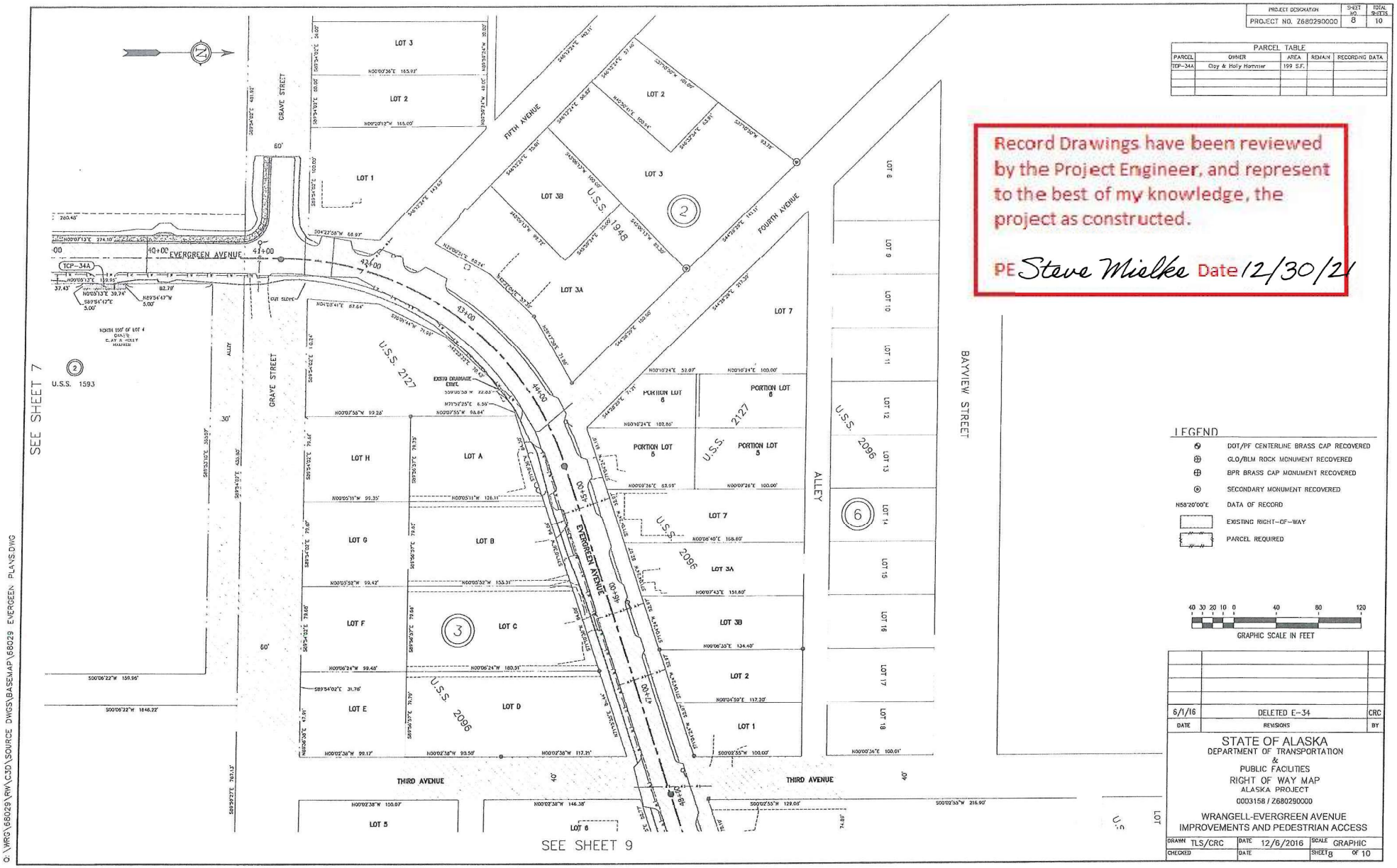


PROJECT DESIGNATION	SHEET NO.	TOTAL SHEETS
PROJECT NO. Z680290000	8	10

PARCEL TABLE

PARCEL	OWNER	AREA	REMARK	RECORDING DATA
TCP-34A	Clay & Holly Hammer	199 S.F.		

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

PE Steve Mielke Date 12/30/16

LEGEND

- DOT/PF CENTERLINE BRASS CAP RECOVERED
- GLO/BLM ROCK MONUMENT RECOVERED
- BPR BRASS CAP MONUMENT RECOVERED
- SECONDARY MONUMENT RECOVERED
- N58°20'00"E DATA OF RECORD
- EXISTING RIGHT-OF-WAY
- PARCEL REQUIRED

40 30 20 10 0 40 80 120
GRAPHIC SCALE IN FEET

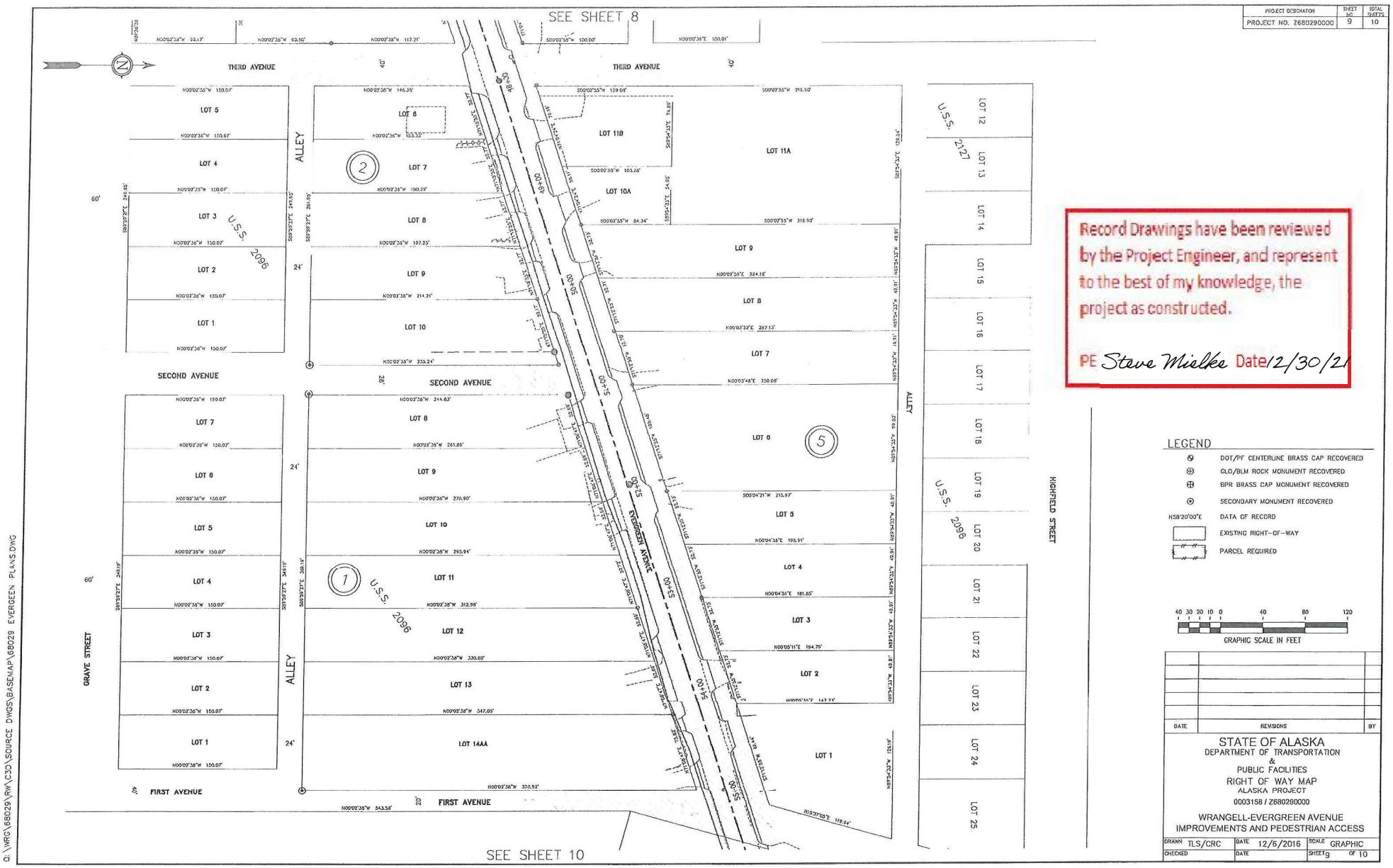
DATE	REVISIONS	BY
6/1/16	DELETED E-34	CRC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT
0003158 / Z680290000

WRANGELL-EVERGREEN AVENUE
IMPROVEMENTS AND PEDESTRIAN ACCESS

DRAWN	TLS/CRC	DATE	12/6/2016	SCALE	GRAPHIC
CHECKED		DATE		SHEET	8 OF 10

Q:\WRG\68029\RW\C3D\SOURCE DWGS\BASEMAP\68029 EVERGREEN PLANS.DWG



PROJECT DESIGNATION	SHEET NO.	TOTAL SHEETS
PROJECT NO. Z680290000	9	10

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

PE Steve Mielke Date 12/30/21

LEGEND

- DOT/PF CENTERLINE BRASS CAP RECOVERED
- GLO/BLM ROCK MONUMENT RECOVERED
- BPR BRASS CAP MONUMENT RECOVERED
- SECONDARY MONUMENT RECOVERED
- N58°20'00"E DATA OF RECORD
- EXISTING RIGHT-OF-WAY
- PARCEL REQUIRED

40 30 20 10 0 40 80 120

GRAPHIC SCALE IN FEET

DATE	REVISIONS	BY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT
0003158 / Z680290000

WRANGELL-EVERGREEN AVENUE
IMPROVEMENTS AND PEDESTRIAN ACCESS

DRAWN	TLS/CRC	DATE	12/6/2016	SCALE	GRAPHIC
CHECKED		DATE		SHEET 9	OF 10

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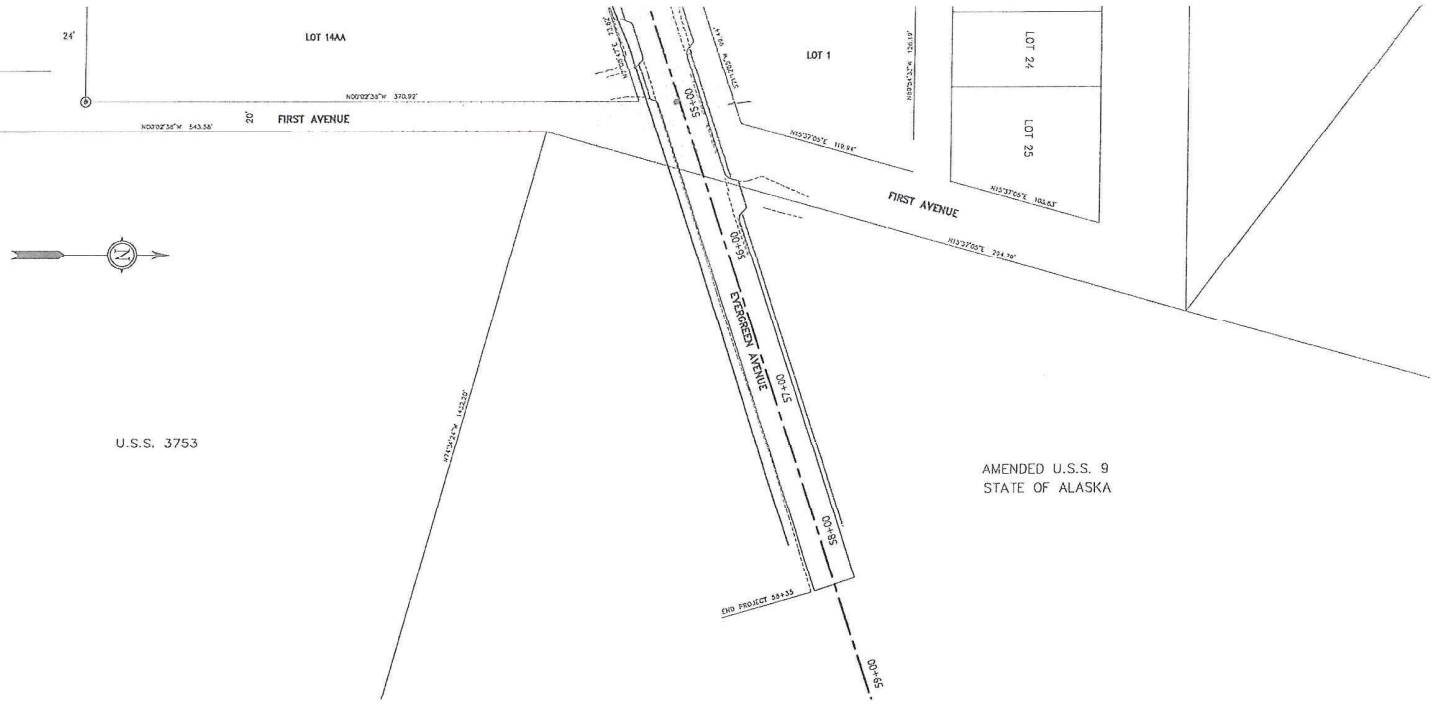
SEE SHEET 9



LEGEND

- DOT/PF CENTERLINE BRASS CAP RECOVERED
- GLO/BLM ROCK MONUMENT RECOVERED
- BPR BRASS CAP MONUMENT RECOVERED
- SECONDARY MONUMENT RECOVERED
- N58°20'00"E — DATA OF RECORD
- EXISTING RIGHT-OF-WAY
- PARCEL REQUIRED

40 30 20 10 0 40 80 120

GRAPHIC SCALE IN FEET

DATE	REVISIONS	BY

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

PE Steve Mielke Date 12/30/21

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT
0003158 / Z680290000

WRANGELL-EVERGREEN AVENUE
IMPROVEMENTS AND PEDESTRIAN ACCESS

DRAWN	TLS/CRC	DATE	12/6/2016	SCALE	GRAPHIC
CHECKED		DATE		SHEET	10 OF 10

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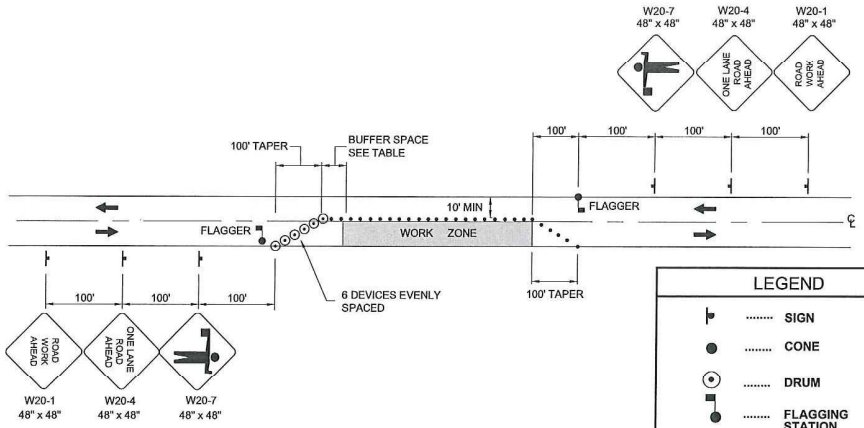
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z680290000	2017	T1	1

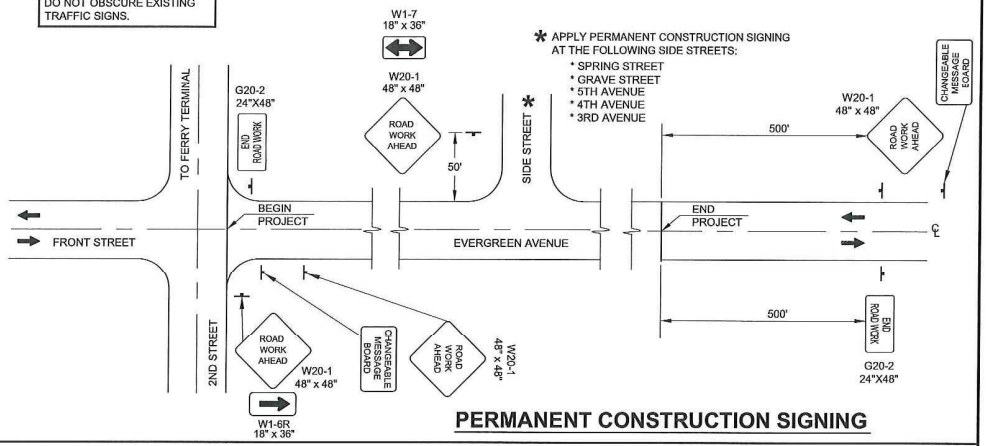


TWO LANE ROADWAY-SINGLE LANE CLOSURE

LEGEND

- SIGN
- CONE
- DRUM
- FLAGGING STATION
- HIGH LEVEL WARNING DEVICES

CONSTRUCTION SIGNS SHALL BE PLACED SUCH THAT THEY DO NOT OBSCURE EXISTING TRAFFIC SIGNS.



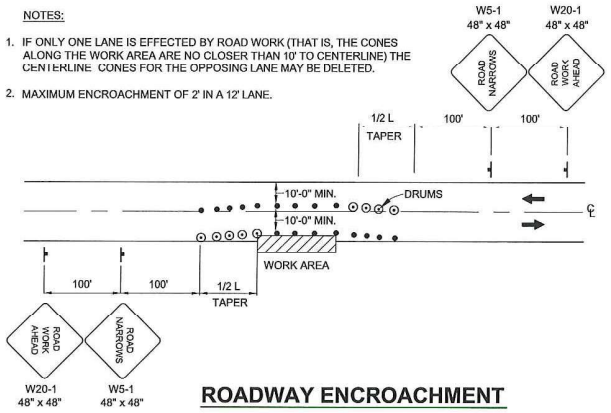
* APPLY PERMANENT CONSTRUCTION SIGNING AT THE FOLLOWING SIDE STREETS:

- SPRING STREET
- GRAVE STREET
- 5TH AVENUE
- 4TH AVENUE
- 3RD AVENUE

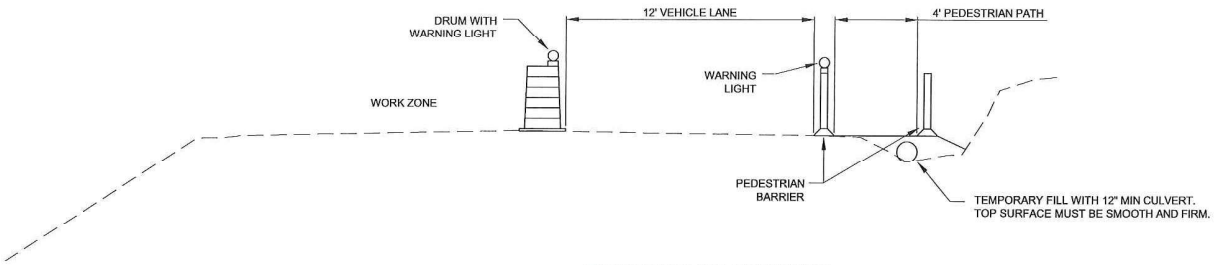
PERMANENT CONSTRUCTION SIGNING

NOTES:

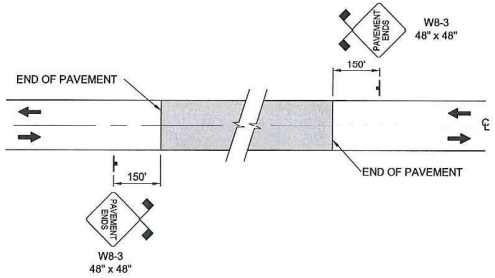
1. IF ONLY ONE LANE IS EFFECTED BY ROAD WORK (THAT IS, THE CONES ALONG THE WORK AREA ARE NO CLOSER THAN 10' TO CENTERLINE) THE CENTERLINE CONES FOR THE OPPOSING LANE MAY BE DELETED.
2. MAXIMUM ENCROACHMENT OF 2' IN A 12' LANE.



ROADWAY ENCROACHMENT



PEDESTRIAN ROUTING



SIGNING FOR UNPAVED AREA

TRAFFIC CONTROL NOTES

1. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0".
2. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
3. DRIVEWAYS MAY BE CLOSED DURING ACTUAL WORK ON A GIVEN DRIVEWAY, PROVIDED THAT THE CLOSURE DOES NOT EXCEED 8 HOURS AND THE AFFECTED RESIDENTS HAVE BEEN GIVEN 24 HOURS NOTICE OF THE CLOSURE.
4. REFERENCE THE REQUIREMENTS OF SUBSECTION 643-3.03.

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)
25 OR BELOW	105	115	125	6	6	6	25	50	155
30	150	165	180	6	7	7	30	60	200

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

PE Steve Mielke Date 12/30/21

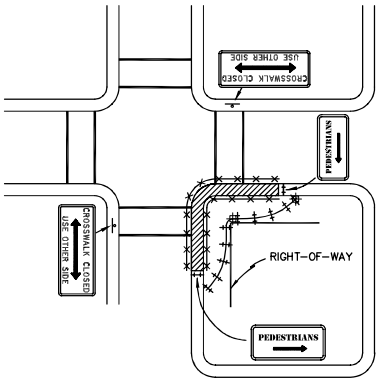
TCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1400.3.5 DATED JANUARY 30, 2012.

TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

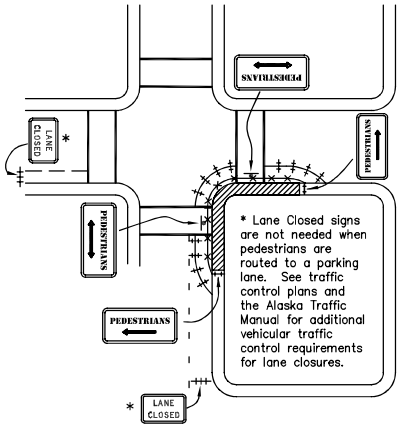
EVERGREEN AVENUE IMPROVEMENTS AND PEDESTRIAN ACCESS

TRAFFIC CONTROL PLAN

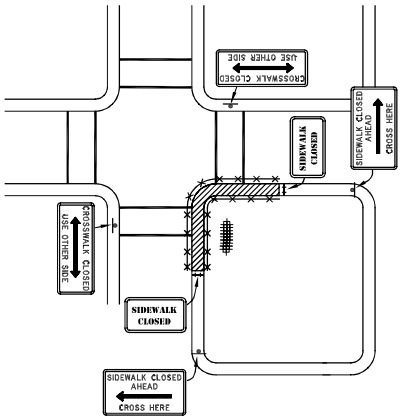
P.E. | G:\Wrg\68029\Planset\68029_T1_Traff-Cntl.dwg | DATE | 7/18/2017 1:43 PM | LAYOUT | T1 | DES'GNED | D.B., D.L. | CHECKED | K. K. | DRAFTED | R. G.



A. Detour Away From Road



B. Detour to Closed Parking or Travel Lane



C. Detour to Other Side

INTERSECTION SIDEWALK PATHWAY OR SHOULDER CLOSURE

A to C In Order of Preference

NOTES.

1. Provide pedestrian traffic control devices when sidewalks or pathways are closed to pedestrians and where required by the Plans or Specifications.

2. Avoid routing pedestrians across roads unnecessarily. Use detail C or F only when it is not practical to use detail A, B, D, or E.

3. Maintain a minimum pedestrian facility width of 5 feet or the width of the facility that existed before construction, whichever is less.

4. Where the posted speed limit exceeds 45 MPH, separate pedestrians from roadway edge of pavement or face of curb by at least 5'. Where that is not feasible, install portable concrete barrier between pedestrians and the road.

5. When pedestrian traffic control devices required by the current traffic control plan are not in place or are temporarily removed, provide a worker to direct pedestrians through the work area.

6. Cover pedestrian traffic signal displays controlling closed crosswalks.

7. This sheet focuses on traffic control devices for pedestrians. Look elsewhere for vehicular traffic control requirements.

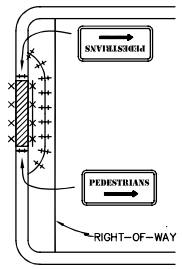
8. When using details C and F, route pedestrians to the best crossing point near the work area.

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

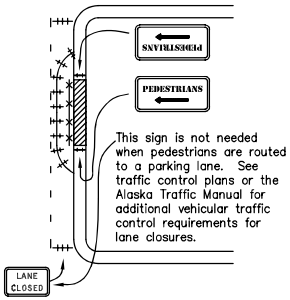
PE Steve Mielke Date 12/30/21

LEGEND:

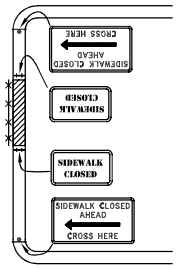
- Type II Barricade or Tubular Marker
- Type III Barricade
- Safety Fence
- Sign
- Work Area



D. Detour Away From Road



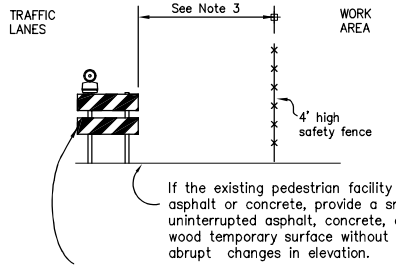
E. Detour to Closed Parking or Travel Lane



F. Detour to Other Side

MID-BLOCK SIDEWALK PATHWAY OR SHOULDER CLOSURE

D to F In Order of Preference



Type II barricades or tubular markers with flagger tape strung between them. A 4' high safety fence may be used instead of tape when greater control of pedestrian routing is desirable.

PEDESTRIAN DETOUR TYPICAL SECTION

REVISIONS		
Date	Description	By

Sheet 1 of 1

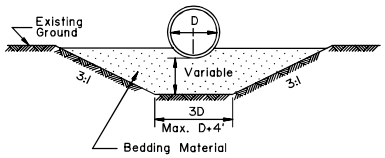
State of Alaska
Department of Transportation
& Public Facilities

PEDESTRIAN TRAFFIC CONTROL

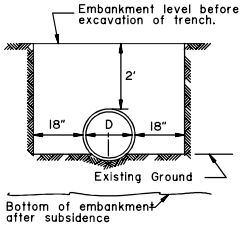
APPROVED
Date 5/15/01

D-01.02

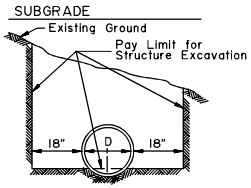
SHEET | of |



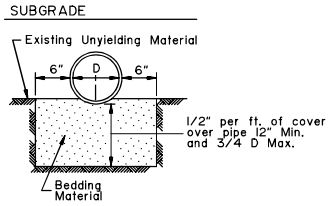
TYPE "A"
FOUNDATION STABILIZATION
To be used in unstable areas as directed by the Engineer.



TYPE "B"



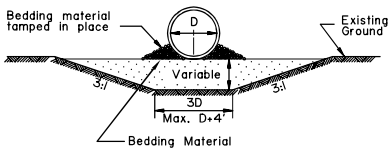
TYPE "C"



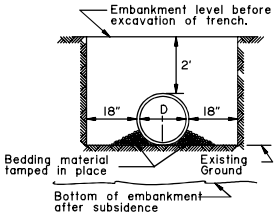
TYPE "D"
ROCK OR UNYIELDING MATERIAL

GENERAL NOTES:

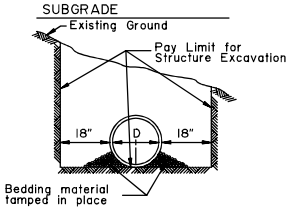
1. Sidefill shall be placed and compacted with care under haunches of pipe and shall be brought up evenly and simultaneously on both sides of pipe to 1 foot above the top of the full length of the pipe.
2. Alternate installation methods may only be used when specified or approved by the Engineer.



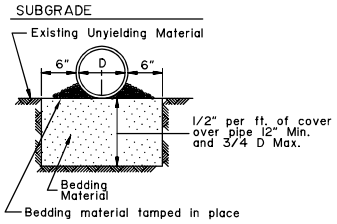
'ALTERNATE'
TYPE "A"
FOUNDATION STABILIZATION
To be used in unstable areas as directed by the Engineer.



'ALTERNATE'
TYPE "B"

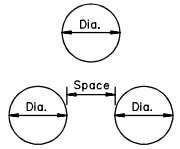


'ALTERNATE'
TYPE "C"



'ALTERNATE' TYPE "D"
ROCK OR UNYIELDING MATERIAL

D = Nominal Pipe Diameter



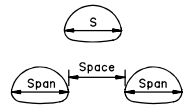
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Dia. of pipe or 3', whichever is less.

CULVERT PIPE

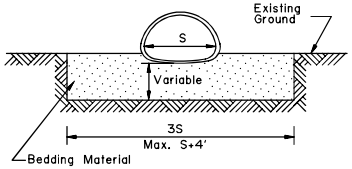
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

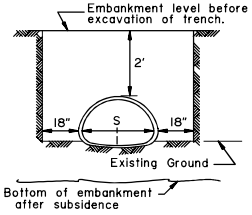
S = Nominal Pipe Arch Span



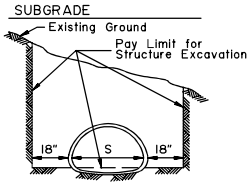
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Span of pipe arch or 3', whichever is less.



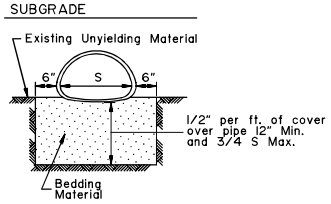
TYPE "A"
FOUNDATION STABILIZATION
To be used in unstable areas as directed by the Engineer.



TYPE "B"



TYPE "C"



TYPE "D"
ROCK OR UNYIELDING MATERIAL

ARCH

REVISIONS		
Date	Description	By
12/1/87	Delete ref. to Specs.	GDO
4/1/93	Delete Alt. Arch	GDO

State of Alaska
Department of Transportation & Public Facilities

CULVERT PIPE & ARCH INSTALLATION DETAILS

APPROVED
Date 7/15/82

D-01.02

D-04.21

Minimum & Maximum Cover For 2 2/3" x 1/2" Aluminum Pipe

GAGE	0.060"		0.075"		0.105"		0.135"		0.164"	
Dia. (in)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)
12	12	100+	12	100+	12	100+	12	100+	12	100+
15	12	94	12	100+	12	100+	12	100+	12	100+
18	12	75	12	94	12	100+	12	100+	12	100+
21	12	65	12	82	12	100+	12	100+	12	100+
24	12	56	12	71	12	99	12	100+	12	100+
27	12	48	12	63	12	89	12	100+	12	100+
30			12	56	12	79	12	100+	12	100+
36			12	47	12	66	12	85	12	100+
42			12	55	12	56	12	73	12	100+
48			12	47	12	49	12	63	12	78
54					15	43	15	56	15	69
60							15	50	15	62
66							18	44	18	56
72									18	45

Minimum & Maximum Cover For 3" x 1" Aluminum Pipe

GAGE	0.060"		0.075"		0.105"		0.135"		0.164"	
Dia. (in)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)
30	12	52	12	65						
36	12	43	12	54	12	100+	12	100+	12	100+
42	12	36	12	46	12	65	12	100+	12	100+
48	12	32	12	40	12	57	12	73	12	100+
54	15	28	15	35	15	50	12	65	12	100+
60	15	25	15	32	15	45	15	58	15	72
66	18	23	18	28	18	41	18	53	18	65
72	18	21	18	26	18	37	18	48	18	59
78			21	24	21	34	21	44	21	55
84					21	31	21	41	21	57
90					24	29	24	38	21	47
96					24	27	24	36	24	44
102							24	33	24	41
108							24	31	24	39
114									24	37
120									24	35

Minimum & Maximum Cover For 9" x 2 1/2" Aluminum Structural Plate Pipe *

GAGE	0.100"		0.125"		0.150"		0.175"		0.200"		0.225"		0.250"	
Dia. (in)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)
60	12	29 31	12	38 45	12	49 60	12	58 70	12	58 81	12	58 92	12	58 100+
66	12	26 28	12	35 41	12	44 54	12	53 64	12	53 74	12	53 84	12	53 94
72	13	24 25	12	32 37	12	41 50	12	48 58	12	48 67	12	48 77	12	48 86
78	14	22 23	12	29 35	12	37 46	12	45 54	12	45 62	12	45 71	12	45 79
84	15	20 22	13	27 32	12	35 42	12	41 50	12	41 58	12	41 66	12	41 73
90	16	19 20	14	25 30	13	32 40	12	39 47	12	39 54	12	39 61	12	39 68
96	17	18 19	15	24 28	14	30 37	13	36 44	12	36 50	12	36 57	12	36 64
102	18	17 18	16	22 26	15	29 35	14	34 41	13	34 47	13	34 54	13	34 60
108	19	16 17	17	21 25	16	27 33	14	32 39	14	32 45	14	32 51	14	32 57
114	20	15 16	18	20 23	16	25 31	15	30 37	15	30 42	15	30 48	15	30 54
120	21	14 15	19	19 22	17	24 30	16	29 35	15	29 40	15	29 46	15	29 51
126	22	13 14	20	18 21	18	23 28	17	27 33	16	27 38	16	27 44	16	27 49
132	23	13 14	21	17 20	19	22 27	18	26 32	17	26 37	17	26 42	17	26 47
138	24	12 13	22	16 19	20	21 26	18	25 30	18	25 35	18	25 40	18	25 44
144	25	12 12	22	16 18	21	20 25	19	24 29	18	24 33	18	24 38	18	24 43
150			23	15 18	21	19 24	20	23 28	19	23 32	19	23 36	19	23 41
156			24	14 17	22	18 23	21	22 27	20	22 31	20	22 35	20	22 39
162					23	18 22	21	21 26	21	21 30	21	21 34	21	21 38
168					24	17 21	22	20 25	21	20 29	21	20 33	21	20 36
174					25	17 20	23	20 24	22	20 28	22	20 31	22	20 35
180							24	19 23	23	19 27	23	19 30	23	19 34

*Longitudinal seams use (5 1/3) 3/4" dia. bolts per foot.

58 / 100+ — Upper figure for pipe with aluminum bolts. (FOR TABLE ABOVE ONLY.) Lower figure for pipe with galvanized steel bolts.

CORRUGATED CIRCULAR ALUMINUM PIPE

CORRUGATED ALUMINUM PIPE-ARCH

GENERAL NOTES:

1. All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
2. The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
3. No more than one type of pipe may be used on any single installation or installation grouping.
4. All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
5. See Standard Drawing "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
6. Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the top of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflecton.
7. These tables have been developed for an H-20 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2000 AASHTO "LRFD Bridge Design Specifications".

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

PE Steve Mielke Date 12/30/21

Minimum & Maximum Cover For 2 2/3" x 1/2" Aluminum Pipe-Arch

Span x Rise (in. x in.)	Corner Radius (in)	Minimum Gage (in)	Min. Cover (in)	Max. Cover (Ft) 2 Tons Corner Bearing Pressure	Max. Cover (Ft) 3 Tons Corner Bearing Pressure ⊘
17 x 13	3	0.060	12	13	20
21 x 15	3	0.060	12	12	19
24 x 18	3	0.060	12	11	16
28 x 20	3	0.075	12	10	16
35 x 24	3	0.075	12	9	14
42 x 29	3 1/2	0.105	12	7	13
49 x 33	4	0.105	15	6	12
57 x 38	5	0.135	15	6	12
64 x 43	6	0.135	18	6	12
71 x 47	7	0.164	18	6	12

Minimum & Maximum Cover For 3" x 1" Aluminum Pipe-Arch

Span x Rise (in. x in.)	Corner Radius (in)	Minimum Gage (in)	Min. Cover (in)	Max. Cover (Ft) 2 Tons Corner Bearing Pressure	Max. Cover (Ft) 3 Tons Corner Bearing Pressure ⊘
40 x 31	5	0.075	30	8	12
46 x 36	6	0.075	24	8	13
53 x 41	7	0.075	24	8	13
60 x 46	8	0.075	24	13	20
66 x 51	9	0.075	18	13	20
73 x 55	12	0.075	18	16	24
81 x 59	14	0.105	18	14	22
87 x 63	14	0.105	18	13	20
95 x 67	16	0.105	18	12	18
103 x 71	16	0.135	24	11	17
112 x 75	18	0.164	24	10	16
117 x 79	18	0.164	24	10	15

Minimum & Maximum Cover For 9" x 2 1/2" Aluminum Structural Plate Pipe-Arch*

Span x Rise (Ft-In x Ft-In)	Corner Radius (in)	Minimum Gage (in)	Min. Cover (ft)	Max. Cover in Feet For Soil Bearing Capacity of: 2 Tons/ft²	3 Tons/ft²
5 - 11 x 5 - 5	31.8	0.100	2	24**	24**
6 - 11 x 5 - 9	31.8	0.100	2	22**	22**
7 - 3 x 5 - 11	31.8	0.100	2	20**	20**
7 - 9 x 6 - 0	31.8	0.100	2	28**	18 **
8 - 5 x 6 - 3	31.8	0.100	2	17 **	17 **
9 - 3 x 6 - 5	31.8	0.100	2	15 **	15 **
10 - 3 x 6 - 9	31.8	0.100	2	14 **	14 **
10 - 9 x 6 - 10	31.8	0.100	2	13 **	13 **
11 - 5 x 7 - 1	31.8	0.100	2	12 **	12 **
12 - 7 x 7 - 5	31.8	0.125	2	14	16 **
12 - 11 x 7 - 6	31.8	0.150	2	13	14 **
13 - 1 x 8 - 2	31.8	0.150	2	13	18 **
13 - 11 x 8 - 5	31.8	0.150	2	12	17 **
14 - 8 x 9 - 8	31.8	0.175	2	12	18
15 - 4 x 10 - 0	31.8	0.175	2	11	17
16 - 1 x 10 - 4	31.8	0.200	2	10	16
16 - 9 x 10 - 8	31.8	0.200	2.17	10	15
17 - 3 x 11 - 0	31.8	0.225	2.25	10	15
18 - 0 x 11 - 4	31.8	0.255	2.25	9	14
18 - 8 x 11 - 8	31.8	0.250	2.33	9	14

*Longitudinal seams use (5 1/3) 3/4" dia. bolts per foot.

**Fill limited by the seam strength of the bolts. 3/4" dia. bolts per foot.

METAL THICKNESSES & GAGES

ALUMINUM	GAGE NO. (For Info Only)
0.060	16
0.075	14
0.105	12
0.135	10
0.164	8

⊘ This column shall not be used unless specified on the plans or approved by the Regional Geotechnical Engineer.

REVISIONS		
Date	Description	By
8/10/00	Pipe Tables & G. Notes.	DFD
10/31/03	Pipe Table Updates & New Sheet 4	LRG

Sheet 1 of 4

State of Alaska
Department of Transportation & Public Facilities

PIPE AND ARCH TABLES

APPROVED — Lars R. Gregovich CE-8065 — Date 10/31/03

D-04.21

D-04.21

Minimum & Maximum Cover For 2 2/3" x 1/2" Steel Pipe

GAGE	0.064"		0.079"		0.109"		0.138"		0.168"	
Dia. (In)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)
12	12	100+	12	100+	12	100+	12	100+	12	100+
15	12	100+	12	100+	12	100+	12	100+	12	100+
18	12	100+	12	100+	12	100+	12	100+	12	100+
21	12	100+	12	100+	12	100+	12	100+	12	100+
24	12	100+	12	100+	12	100+	12	100+	12	100+
27	12	100+	12	100+	12	100+	12	100+	12	100+
30	12	99	12	100+	12	100+	12	100+	12	100+
36	12	83	12	100+	12	100+	12	100+	12	100+
42	12	71	12	88	12	100+	12	100+	12	100+
48	12	62	12	77	12	100+	12	100+	12	100+
54			12	66	12	93	12	100+	12	100+
60					12	79	12	100+	12	100+
66					12	68	12	88	12	100+
72							12	75	12	93
78									12	79
84									12	66

Minimum & Maximum Cover For 3" x 1" Steel Pipe

GAGE	0.064"		0.079"		0.109"		0.138"		0.168"	
Dia. (In)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)
36	12		12		12	100+	12	100+	12	100+
42	12		12		12	100+	12	100+	12	100+
48	12		12	76	12	100+	12	100+	12	100+
54	12	63	12	79	12	100+	12	100+	12	100+
60	12	56	12	71	12	99	12	100+	12	100+
66	12	52	12	64	12	90	12	100+	12	100+
72	12	47	12	59	12	82	12	100+	12	100+
78	12	44	12	54	12	77	12	98	12	100+
84	12	41	12	51	12	71	12	92	12	100+
90	12	37	12	47	12	67	12	86	12	100+
96	12	35	12	44	12	62	12	80	12	98
102	18	33	18	42	18	59	18	76	18	93
108			18	40	18	55	18	71	18	87
114			18	36	18	51	18	66	18	80
120			18	34	18	46	18	61	18	75
126					18	44	18	56	18	70
132					18	41	18	53	18	64
138					18	37	18	49	18	60
144							18	44	18	55
150									18	52

Minimum & Maximum Cover For 5" x 1" Steel Pipe*

GAGE	0.064"		0.079"		0.109"		0.138"		0.168"	
Dia. (In)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)
36	12	81	12	90	12	100+	12	100+	12	100+
42	12	71	12	77	12	100+	12	100+	12	100+
48	12	62	12	68	12	100+	12	100+	12	100+
54	12	56	12	70	12	98	12	100+	12	100+
60	12	50	12	63	12	88	12	100+	12	100+
66	12	46	12	57	12	80	12	100+	12	100+
72	12	42	12	52	12	73	12	95	12	100+
78	12	39	12	48	12	68	12	87	12	100+
84	12	36	12	45	12	63	12	81	12	99
90	12	33	12	42	12	59	12	76	12	93
96	12	31	12	39	12	55	12	71	12	87
102	18	29	18	37	18	52	18	67	18	82
108			18	35	18	49	18	63	18	77
114			18	32	18	45	18	58	18	71
120			18	30	18	41	18	54	18	66
126					18	39	18	50	18	62
132					18	36	18	47	18	57
138					18	33	18	43	18	53
144							18	39	18	49
150									19	47

*Table for pipe with helical lockseams or helical welded seams ONLY.

Minimum & Maximum Cover For 6" x 2" Steel Structural Plate Pipe**

GAGE	ALL	0.111"	0.140"	0.170"	0.188"	0.218"	0.249"	0.280"
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
60	12	46	68	90	100+	100+	100+	100+
66	12	42	62	81	93	100+	100+	100+
72	12	38	57	75	86	100+	100+	100+
78	12	35	52	69	79	95	100+	100+
84	12	33	49	64	73	88	100+	100+
90	12	31	45	60	68	82	97	100+
96	12	29	43	56	64	77	91	100+
102	18	27	40	52	60	73	86	94
108	18	25	38	50	57	69	81	88
114	18	24	36	47	54	65	77	84
120	18	23	34	45	51	62	73	80
126	18	22	32	42	49	59	69	76
132	18	21	31	40	46	56	66	72
138	18	20	29	39	44	54	63	69
144	18	19	28	37	43	51	61	66
150	24	18	27	36	41	49	58	64
156	24	17	26	34	39	47	56	61
162	24	17	25	33	38	46	54	59
168	24	16	24	32	36	44	52	57
174	24	16	23	31	35	42	50	55
180	24	15	22	30	34	41	48	53
186	24	15	22	29	33	40	47	51
192	24		21	28	32	38	45	50
198	30		20	27	31	37	44	48
204	30		20	26	30	36	43	47
210	30		19	25	29	35	41	45
216	30			25	28	34	40	44
222	30			24	27	33	39	43
228	30			23	27	32	38	42
234	30			23	26	31	37	41
240	30				25	31	36	40
246	36				25	30	35	39
252	36					29	34	38
258	36					28	34	37
264	36					28	33	36
270	36					27	32	35
276	36						31	34
282	36						31	34
288	42						30	33
294	42							32
300	42							32
306	42							31
312	42							30

**Longitudinal seams use (4) 3/4" dia. bolts per foot.

GENERAL NOTES

1. All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
2. The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
3. No more than one type of pipe may be used on any single installation or installation grouping.
4. All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
5. See Standard Drawing "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
6. Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the top of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflecton.
7. These tables have been developed for an H-20 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2000 AASHTO "LRFD Bridge Design Specifications".

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

PE Steve Mielke Date 12/30/21

— CORRUGATED CIRCULAR STEEL PIPE —

— CORRUGATED STEEL PIPE-ARCH —

Minimum & Maximum Cover For 2 2/3" x 1/2" Steel Pipe-Arch

Span x Rise (In. x In.)	Corner Radius (In)	Minimum Gage (In)	Min. Cover (In)	Max. Cover (Ft) 2 Tons Corner Bearing Pressure	Max. Cover (Ft) 3 Tons Corner @ Bearing Pressure
17 x 13	3	0.064	12	16	18
21 x 15	3	0.064	12	15	14
24 x 18	3	0.064	12	15	13
28 x 20	3	0.064	12	15	11
35 x 24	3	0.064	12	15	7
42 x 29	3 1/2	0.064	12	15	7
49 x 33	4	0.079	12	15	6
57 x 38	5	0.109	12	15	8
64 x 43	6	0.109	12	15	9
71 x 47	7	0.138	12	15	10
77 x 52	8	0.168	12	15	10
83 x 57	9	0.168	12	15	10

Minimum & Maximum Cover For 3" x 1" Steel Pipe-Arch

Span x Rise (In. x In.)	Corner Radius (In)	Minimum Gage (In)	Min. Cover (In)	Max. Cover (Ft) 2 Tons Corner Bearing Pressure	Max. Cover (Ft) 3 Tons Corner @ Bearing Pressure
40 x 31	5	0.079	12	25	12
46 x 36	6	0.079	12	25	13
53 x 41	7	0.079	12	25	13
60 x 46	8	0.079	15	25	13
66 x 51	9	0.079	15	25	13
73 x 55	12	0.079	18	24	16
81 x 59	14	0.079	18	21	17
87 x 63	14	0.079	18	20	16
95 x 67	16	0.079	18	20	17
103 x 71	16	0.079	18	20	15
112 x 75	18	0.079	21	20	16
117 x 79	18	0.109	21	19	15
128 x 83	18	0.138	24	19	14
137 x 87	18	0.138	24	19	13
142 x 91	18	0.138	24	19	12
150 x 96	18	0.138	30	19	
157 x 96	18	0.138	30	19	
164 x 105	18	0.138	30	19	
171 x 110	18	0.138	30	19	

Minimum & Maximum Cover For 5" x 1" Steel Pipe-Arch

Span x Rise (In. x In.)	Corner Radius (In)	Minimum Gage (In)	Min. Cover (In)	Max. Cover (Ft) 2 Tons Corner Bearing Pressure	Max. Cover (Ft) 3 Tons Corner @ Bearing Pressure
40 x 31	5	0.109	12	25	12
46 x 36	6	0.109	15	25	13
53 x 41	7	0.109	15	25	13
60 x 46	8	0.109	18	25	13
66 x 51	9	0.109	18	25	13
73 x 55	12	0.109	18	24	16
81 x 59	14	0.109	18	21	17
87 x 63	14	0.109	18	20	16
95 x 67	16	0.109	18	20	17
103 x 71	16	0.109	18	20	15
112 x 75	18	0.109	21	20	16
117 x 79	18	0.109	21	19	15
128 x 83	18	0.109	24	19	14
137 x 87	18	0.109	24	19	13
142 x 91	18	0.109	24	19	12
150 x 96	18	0.138	30	19	
157 x 96	18	0.138	30	19	
164 x 105	18	0.138	30	19	
171 x 110	18	0.138	30	19	

Minimum & Maximum Cover For 6" x 2" Steel Structural Plate Pipe-Arch**

Span x Rise (Ft-In x Ft-In)	Corner Radius (In)	Minimum Gage (In)	Min. Cover (In)	Max. Cover (Ft)	2 Tons Corner Bearing Pressure Min. Cover (In)	2 Tons Corner Bearing Pressure Max. Cover (Ft)	3 Tons Corner Bearing Pressure @ Min. Cover (In)	3 Tons Corner Bearing Pressure @ Max. Cover (Ft)
6-1 x 4-7	18	0.111	18	16	12	24		
7-0 x 5-1	18	0.111	18	14	12	21		
7-11 x 5-7	18	0.111	18	13	12	19		
8-10 x 6-1	18	0.111	24	11	18	17		
9-9 x 6-7	18	0.111	24	10	18	15		
10-11 x 7-1	18	0.111	24	9	18	14		
11-10 x 7-7	18	0.111	24	7	18	13		
12-10 x 8-4	18	0.111	30	6	24	12		
14-1 x 8-9	18	0.111	30	5	24	11		
15-4 x 9-3	18	0.111	NS	NS	24	10		
15-10 x 9-10	18	0.111	NS	NS	24	9		
16-7 x 10-1	18	0.111	NS	NS	24	9		
13-3 x 9-4	31	0.111	24	13	24	17		
14-2 x 9-10	31	0.111	24	12	24	16		
15-4 x 10-4	31	0.111	24	11	24	15		
16-3 x 10-10	31	0.111	24	11	24	14		
17-2 x 11-4	31	0.111	30	10	30	13		
18-1 x 11-10	31	0.111	30	10	30	12		
19-3 x 12-4	31	0.111	30	9	30	13		
19-11 x 12-10	31	0.140	30	9	30	13		
20-7 x 13-2	31	0.140	36	7	36	13		

NS = Not Suitable

@ This column shall not be used unless specified on the plans or approved by the Region Geotechnical Engineer.

**Longitudinal seams use (4) 3/4" dia. bolts per foot.

METAL THICKNESSES & GAGES

STEEL		GAGE NO. (For Info Only)
ZINC COATED	UNCOATED	
0.064	0.0598	16
0.079	0.0747	14
0.109	0.1047	12
0.138	0.1345	10
0.168	0.1644	8
0.188	0.1838	7
0.218	0.2145	5
0.249	0.2451	3
0.280	0.2758	1

REVISIONS		
Date	Description	By
8/10/00	Pipe Tables & G. Notes.	DFD
10/31/03	Pipe Table Updates & New Sheet 4.	LRG

Sheet 2 of 4

State of Alaska
Department of Transportation & Public Facilities

PIPE AND ARCH TABLES

APPROVED
Lars R. Gregovich
CE-8065
Date 10/31/03

D-04.21

D-04.21

Maximum Cover for Type S Corrugated Polyethelene Pipe	
Size (in.)	Max. Cover (ft.)
12	30.0
15	30.0
18	30.0
24	30.0
30	30.0
36	30.0
40	20.0
48	20.0

GENERAL NOTES

1. All materials and workmanship shall be in accordance with the State of Alaska Standard Specifications for Highway Construction.

2. For foundation and structural backfill details see Standard Drawing "Culvert Pipe & Arch Installation Details".

3. Pipe cover height is measured from top of the pipe to top of rigid pavement, or to the top of subgrade for flexible pavement. In all cases the minimum cover shall be no less than 2 ft. Where loads traverse the culvert during construction minimum cover shall be no less than 4 ft.

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By
10/31/03	New Sheet 4.	LRG

Sheet 3 of 4

State of Alaska
Department of Transportation
& Public Facilities

PIPE AND ARCH TABLES

APPROVED
Date 10/31/03

D-04.20

D-04.21

ALUMINUM SPIRAL RIB PIPE

Minimum & Maximum Cover For Aluminum Spiral Rib Circular Pipe*

GAGE	0.060"		0.075"		0.105"		0.135"	
Dia. (in)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)
12	24	35	24	50				
18	24	34	24	49				
24	24	25	24	36	24	63	24	82
30	24	19	24	28	24	50	24	65
36	24	15	24	24	24	41	24	54
42			24	19	24	35	24	46
48			24	17	24	30	24	40
54			24	14	24	27	24	35
60			24	12	24	24	24	30

*¾ x ¾ x 7½ in. or ¾ x 1 x 11½ in. Corrugations

Minimum & Maximum Cover For Aluminum Spiral Rib Pipe-Arch*

		Soil Corner Bearing Capacity of 2 Tons/ s.f.		
		0.060"	0.075"	0.105"
Span x Rise (in. x in.)	Min. Cover (in.)	Max. Cover (ft.)	Max. Cover (ft.)	Max. Cover (ft.)
20 x 16	12	13		
23 x 19	12	14		
27 x 21	12	13		
33 x 26	12	13		
40 x 31	12	13		
46 x 36	12	14		
53 x 41	18		13	
60 x 46	18		20	
66 x 51	18		21	
73 x 55	18			21
81 x 59	18			17
87 x 63	18			17
95 x 67	18			17

*¾ x ¾ x 7½ in. or ¾ x 1 x 11½ in. Corrugations

STEEL SPIRAL RIB PIPE

Minimum & Maximum Cover For Steel and Aluminized Steel Spiral Rib Circular Pipe*

GAGE	0.064"		0.079"		0.109"		0.138"**	
Dia. (in)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)
18	12							
24	12	51	12	72	12	121		
30	12	41	12	58	12	97		
36	12	34	12	48	12	81		
42	12	29	12	41	12	69		
48	12	26	12	36	12	61		
54	18	23	18	32	18	54		
60	18	21	18	29	18	49	18	73
66	18	19	18	26	18	44	18	65
72			18	24	18	40	18	59
78			24	22	24	37	24	55
84			24	21	24	35	24	52
90					24	32	24	47
96					24	30	24	44
102					30	29	30	43
108					30	27	30	41

*¾ x ¾ x 7½ in. or ¾ x 1 x 11½ in. Corrugations
**¾ x ¾ x 7½ in. Corrugations Only.

Minimum & Maximum Cover For Steel Spiral Rib Arch-Pipe*

		Soil Corner Bearing Capacity of 2 Tons/ s.f.		
		0.064"	0.079"	0.109"
Span x Rise (in. x in.)	Min. Cover (in.)	Max. Cover (ft.)	Max. Cover (ft.)	Max. Cover (ft.)
20 x 16	12	13		
23 x 19	12	14		
27 x 21	12	13		
33 x 26	12	13		
40 x 31	12	13		
46 x 36	12	14		
53 x 41	18		13	
60 x 46	18		20	
66 x 51	18		21	
73 x 55	18			21
81 x 59	18			17
87 x 63	18			17
95 x 67	18			17

*¾ x ¾ x 7½ in. or ¾ x 1 x 11½ in. Corrugations

GENERAL NOTES

1. All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
2. The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
3. No more than one type of pipe may be used on any single installation or installation grouping.
4. All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
5. See Standard Drawing "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
6. Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the top of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflecton.
7. These tables have been developed for an H-20 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2000 AASHTO "LRFD Bridge Design Specifications".

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By
8/10/00	Pipe Tables & G. Notes.	DFD
10/31/03	New Sheet 4.	LRG

Sheet 4 of 4

State of Alaska
Department of Transportation
& Public Facilities

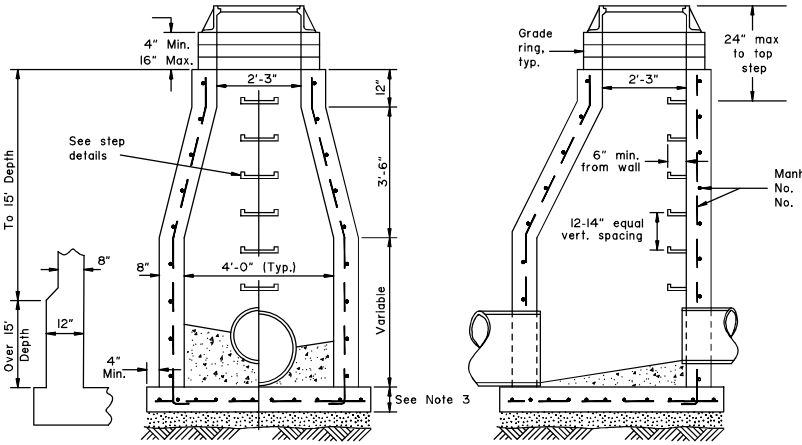
PIPE AND ARCH TABLES

APPROVED
Date 10/31/03

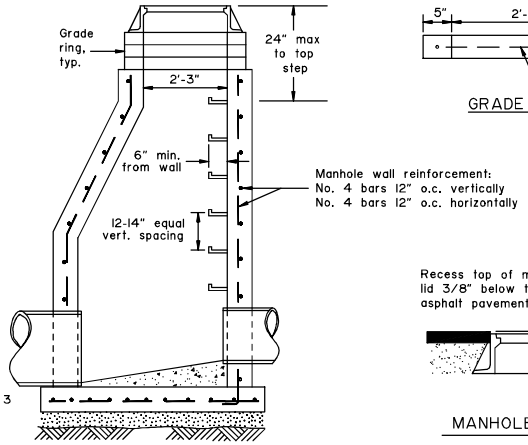
D-04.21

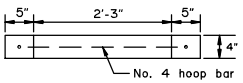
D-20.04

SHEET | of |

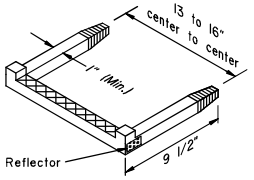


CAST-IN-PLACE MANHOLE

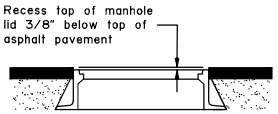




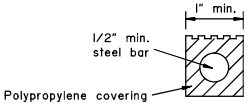
GRADE RING



STEP DETAIL



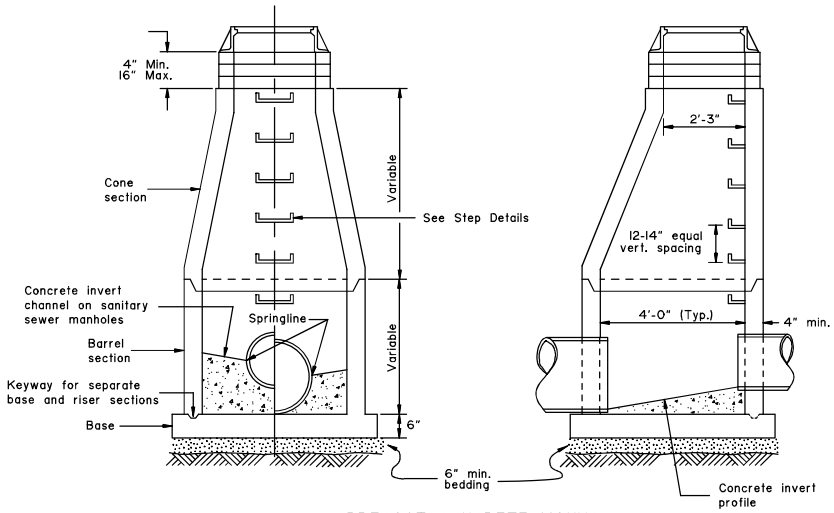
MANHOLE IN PAVEMENT



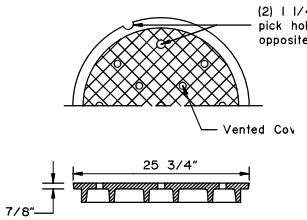
STEP CROSS SECTION

GENERAL NOTES:

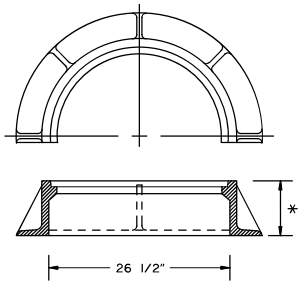
1. Either precast or cast-in-place manholes may be used.
2. Details for manhole frame, cover and step are generic in nature and may vary from shown depending on manufacturer
3. Use 8" thick cast-in-place concrete bases for depths less than 15' and 12" thick bases for depths 15' or greater.
4. Manhole frames shall have a depth of 6" unless specified otherwise on the plans.
5. Step requirements:
   a. 18" max. vertical clearance to bottom of manhole or concrete invert.
   b. 3" minimum embedment.
   c. 1,500 lb. min. pullout force.
   d. ASTM A-615 grade 60 steel bar.
   e. Injection molded polypropylene covering meeting ASTM D-41010
   f. Slip resistant foot tread with "wings" to prevent feet from sliding off the edge.
   g. Reflectors at step corners



PRECAST CONCRETE MANHOLE



MANHOLE COVER



MANHOLE FRAME

MANHOLE FRAME & COVER MINIMUM WEIGHT		
* Depth	6"	380 lbs
	7"	400 lbs
	8"	440 lbs
	9"	470 lbs
	10"	500 lbs

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By
9/15/91	Added grade rings	GDO
3/15/99	Remove steps in rings	EMR
1/16/17	Revised concrete/rebar	LRG

State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

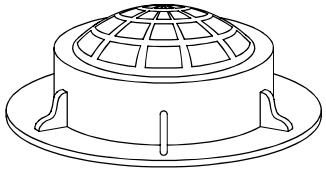
MANHOLES, FRAME AND COVER

STATE OF ALASKA — U.S.A. — LICENSED PROFESSIONAL ENGINEER — CE-8015 — Jan 11, 2017

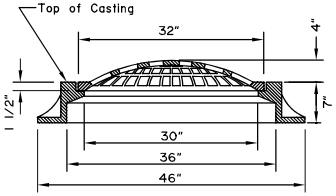
Eff. Date: 1/16/17

D-20.04

D-22.01

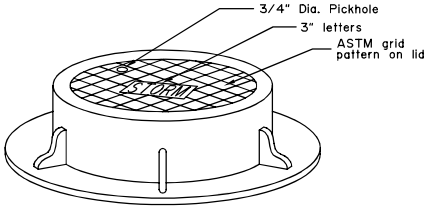


Surround field inlets with a 24" wide rock rubble collar 10" deep, 3" maximum size rock.



FIELD INLET FRAME & GRATE

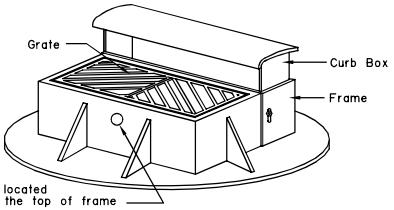
To be supplied for storm drain manholes where field inlets are specified. Field inlet frame and grate shall have a Minimum total weight of 525 lb.



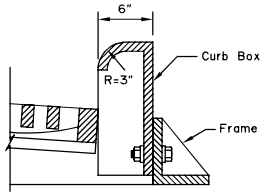
MANHOLE LID FRAME AND GRATE

NOTES:

1. Details shown are to indicate general design only. Dimensions and design may vary among the manufacturers, except that inlet grate shall be within ¼"± of dimensions shown on this drawing.
2. Manhole lids shall be 32" in diameter and may be used with field inlet frames.
3. Type A field inlet frame inside dimensions shall be 24" x 36". Lugs will not protrude outside the concrete surface of the inlet box.
4. Grates shall be bicycle safe. Where high capacity grates are called for on the plans, they shall conform to Std. Dwg. D-25.
5. Frame and grate casting types are identified by the following abbreviations:
   C.I. = Curb Inlet
   F.I. = Field Inlet
   M.H. = Manhole
6. Flowline depression shall conform to Std. Dwg. D-23 for an on grade or sag point conditions.
7. These are the default frames and grates to be used unless shown otherwise on the drainage plans or drainage structure summary.



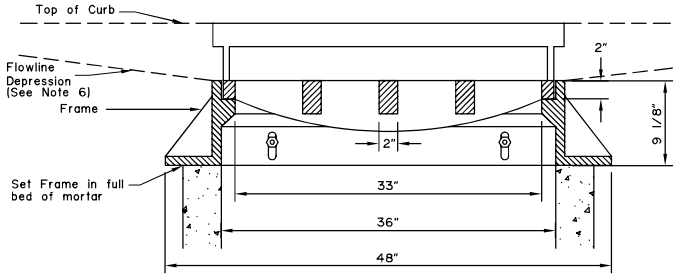
NOTE:
Curb Box, Grate and frame shall have a minimum total weight of 725 lb.



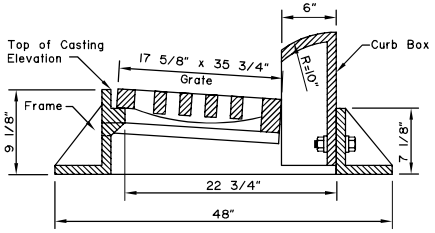
SIDE VIEW
MOUNTABLE CURB AND GUTTER

REQUIRED FRAME AND GRATES
(See Note 7)

STRUCTURE	INLET TYPE	CURB TYPE	TYPE FRAME AND GRATE
INLET BOX, TYPE A	Curb	Mountable	Standard Curb Inlet
	Curb	Expressway	Mountable Curb Inlet
	Curb	Rolled Curb	Depressed Inlet
	Field	------	Field Inlet
STORM DRAIN MANHOLES, TYPE I, II AND III	Curb	Mountable	Mountable Curb Inlet
	Curb	Expressway	Expressway Curb Inlet
	Curb	Rolled Curb	Depressed Inlet
	Field	------	Field Inlet
	Manhole Lids	------	Field Inlet Frame, Solid MH. Lid



FRONT VIEW



SIDE VIEW
EXPRESSWAY CURB AND GUTTER

CURB INLET FRAME AND GRATE

To be supplied for storm drain manholes Type I, Type II and Type III where curb inlets are specified.

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

PE Steve Mielke Date 12/30/21

NOT TO SCALE

REVISIONS		
Date	Description	By
10/31/03	Misc. Revisions/ Corrections	LRG

Sheet 1 of 1

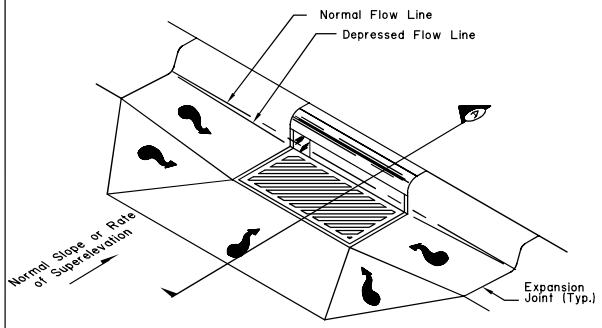
State of Alaska
Department of Transportation & Public Facilities

STORMDRAIN MANHOLE FRAME AND GRATE DETAILS

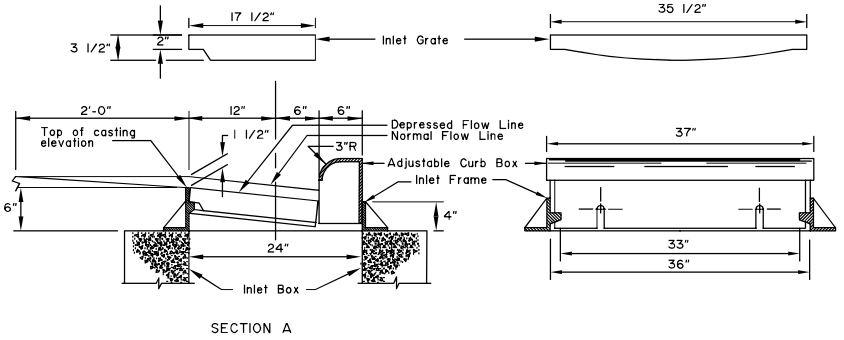
APPROVED
Date 10/31/03

D-22.01

D-23.01



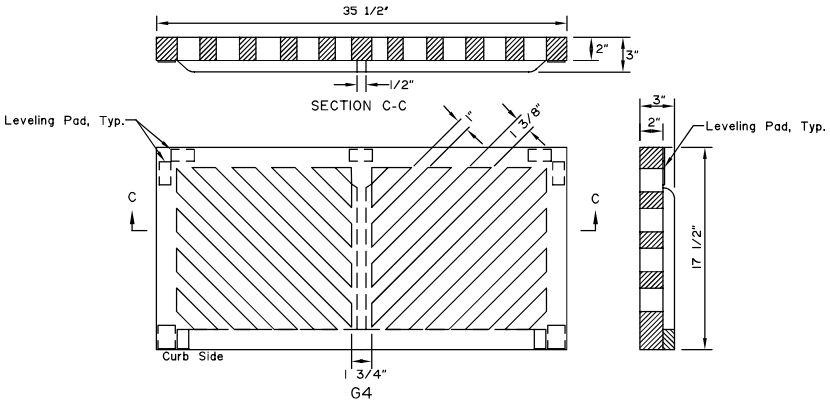
STANDARD CURB INLET INSTALLATION

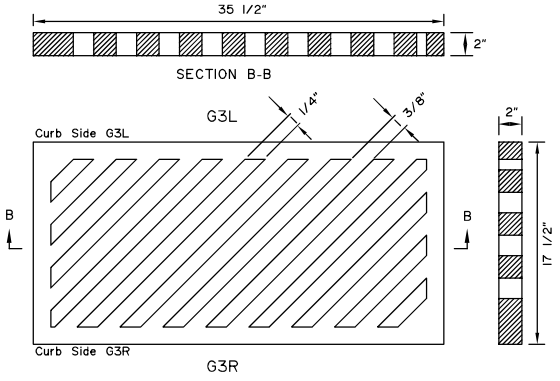


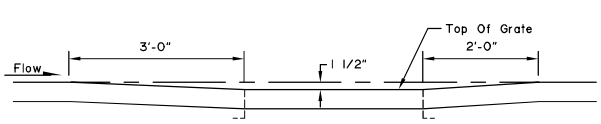
SECTION A

GENERAL NOTES:

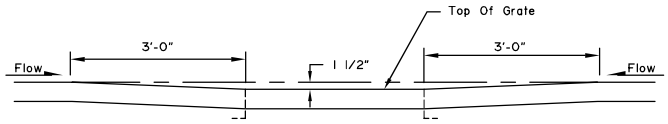
1. Details shown are to indicate general design only. Dimensions and design may vary among the manufacturers.
2. Minimum casting weight shall be 330 lbs for Curb Inlet Frame with Curb Box and 200 lbs. for Inlet Grate.
3. The outside dimensions of Inlet Grate shall be 35 1/2" x 17 1/2" and all grates shall be inter-changeable.
4. Minimum drainage area of Inlet Grate shall be 255 square inches.
5. Inlet Grate type G-3R or G-3L shall be used in all cases except where drainage is from both directions, in which case type G-4 shall be used.







ON GRADE



AT LOW POINT

DEPRESSION IN FLOW LINE AT INLET CONSTRUCTION DETAILS

NOT TO SCALE

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By
10/31/03	Misc. Minor Corrections	LRG

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

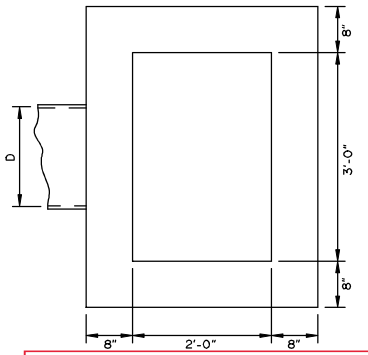
CURB INLET BOX
FRAME & GRATE

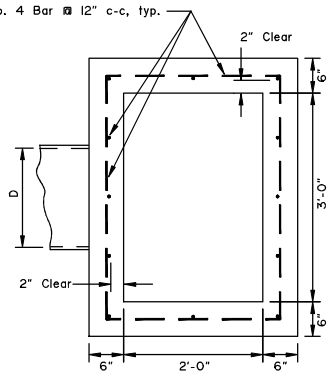
APPROVED
Lars R. Gregovich
CE-8065
Date 10/31/03

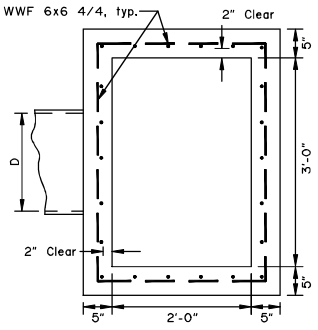
D-23.01

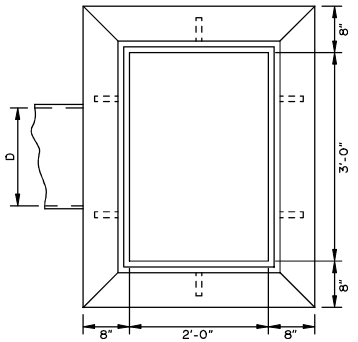
D-26.03

SHEET | of |





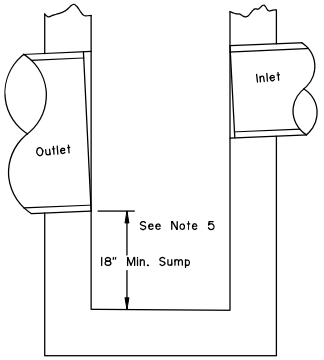




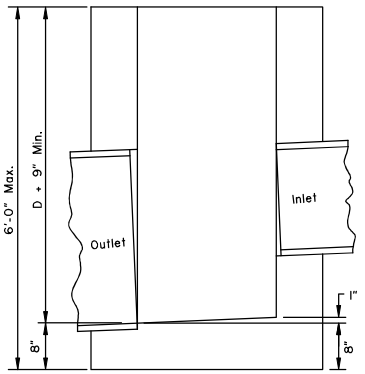
604-2.01 Materials.Replace Concrete section 550.Class B with the following: Concrete: Section 550.class B except coarse aggregate gradation, AASHTO M43, No.8 may be used for precast concrete inlet boxes,junction boxes, and manholes.

GENERAL NOTES:

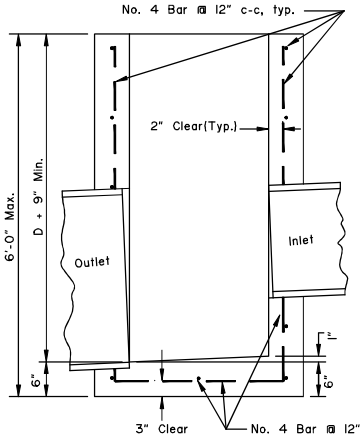
1. Install inlet boxes parallel to the curb line.
2. The plans will indicate which inlet boxes require a sump.
3. Shape floors to drain.
4. Use Grade 40 minimum reinforcing steel.



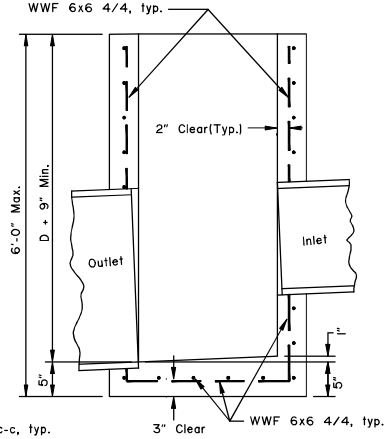
SUMP DETAIL



CAST IN PLACE

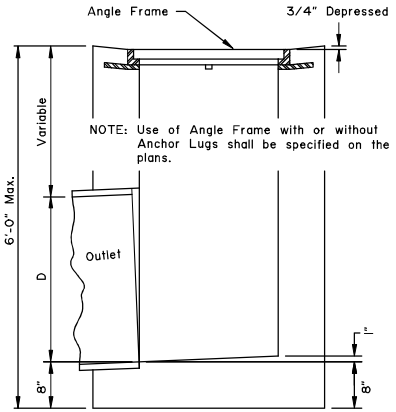


REINFORCED CAST IN PLACE



PRECAST

TYPE "A" CONCRETE INLET BOXES



FIELD INLET BOX CAST* IN PLACE

* May be Precast or Reinforced Cast-In-Place Box.

REVISIONS		
Date	Description	By
3/1/83	Gen. notes revision	
1/1/96	Added 6'0" Box Ht.	GDO
1/16/17	Removed conc. class	LRG

State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

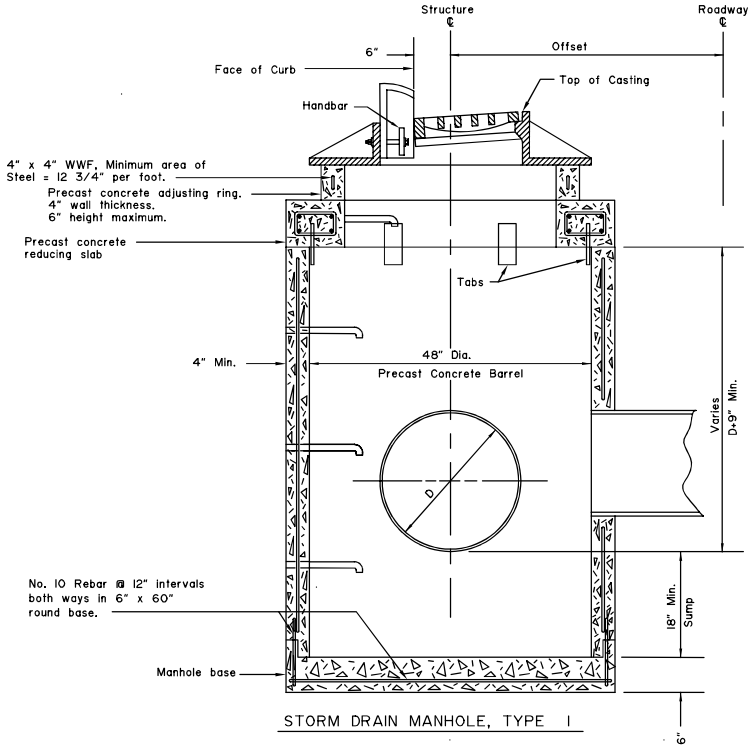
TYPE "A" INLET BOXES

Eff. Date: 1/16/17

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

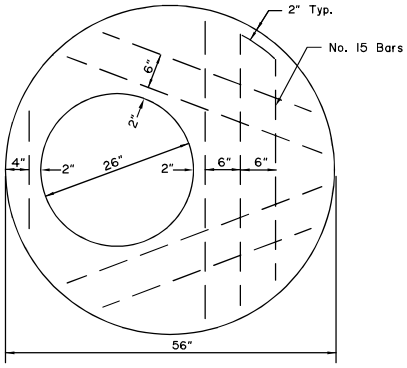
PE Steve Mielke Date 12/30/21

D-26.03

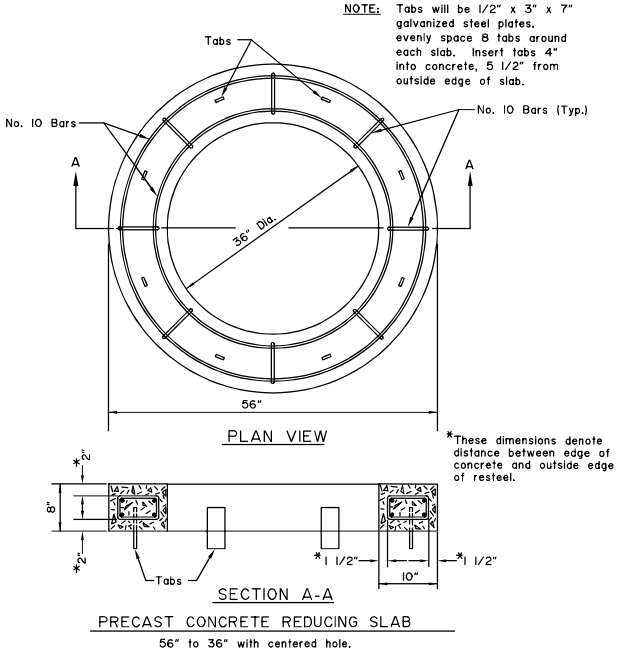


STORM DRAIN MANHOLE, TYPE I

604-2.01 Materials.Replace Concrete section 550.Class B with the following: Concrete: Section 550.class B except coarse aggregate gradation, AASHTO M43, No.8 may be used for precast concrete inlet boxes,junction boxes, and manholes.



PRECAST CONCRETE REDUCING SLAB
56" to 26" with offset hole.



PRECAST CONCRETE REDUCING SLAB
56" to 36" with centered hole.

GENERAL NOTES:

1. All drainage structures and appurtenances shall meet the requirements of ASTM C-478.
2. Minimum steel required for barrel as per ASTM-478 shall be imbedded in base so that the first barrel section is connected to the base by continuous steel.
3. Cast-In-Place structures may be used if approved by the Engineer.
4. All blockouts shall be formed.
5. All storm drain manholes and inlets shall have 18" minimum sumps. Manholes with petroleum separators shall have 24" minimum sumps.
6. Steps shall be placed 12" O.C. on the unobstructed side of the structure, 20" from top of casting and 18" maximum from manhole base.
7. On storm drain manhole, type I structures, primary pipes not to exceed 30" C.M.P. or 27" rigid concrete pipe with included angle between pipes no less than 135 degrees or primary pipes not to exceed 24" C.M.P. or 21" rigid concrete pipe with included angle no less than 135 degrees.
8. Offsets are measured from ℄ of the road to ℄ of the structure.
9. The precast concrete reducing slab with a 26" opening is to be used with the depressed inlet frame in the rolled curb areas.

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By

State of Alaska
Department of Transportation & Public Facilities

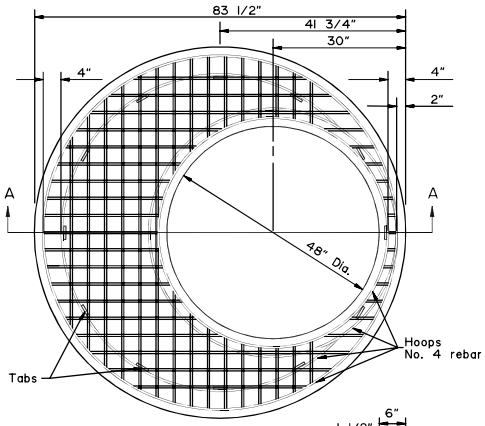
48" STORM DRAIN MANHOLE

APPROVED
Date 3/15/99

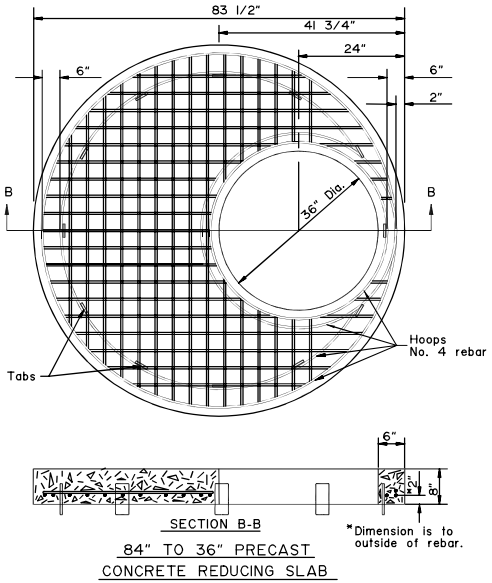
D-36.00

SHEET | of |

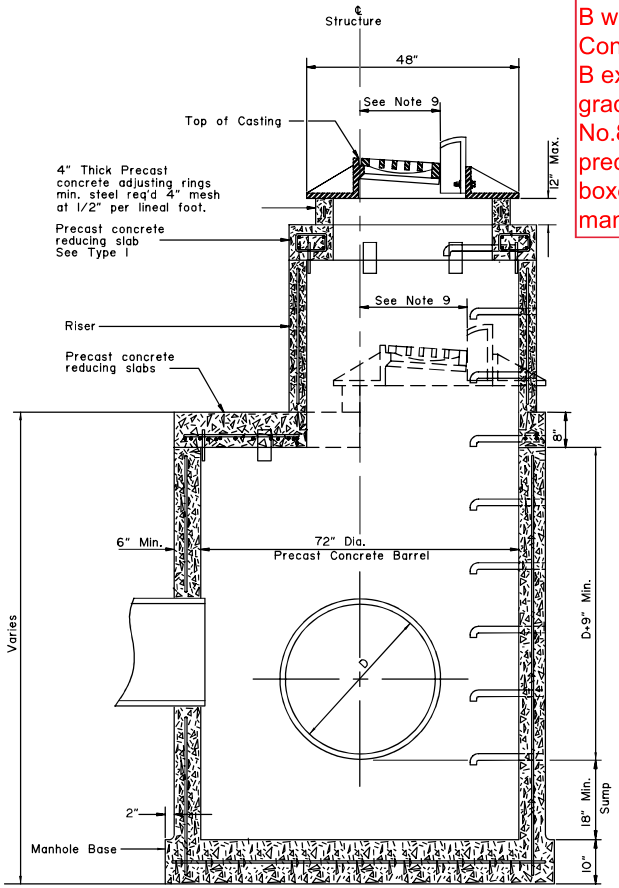
604-2.01 Materials.Replace Concrete section 550.Class B with the following: Concrete: Section 550.class B except coarse aggregate gradation, AASHTO M43, No.8 may be used for precast concrete inlet boxes,junction boxes, and manholes.



84" TO 48" PRECAST CONCRETE REDUCING SLAB



84" TO 36" PRECAST CONCRETE REDUCING SLAB



STORM DRAIN MANHOLE, TYPE II

Without riser.
Pipe Cover* < 75".

With riser.
Pipe Cover* > 75".

*Assuming a 6" Grade Ring and a 3 foot riser.

GENERAL NOTES:

1. All drainage structures and appurtenances shall meet the requirements of ASTM C-478.
2. Minimum steel required for barrel as per ASTM C-478 shall be embedded in base so that the first barrel section is connected to the base by continuous steel.
3. Cast in place structures may be used as approved by the Engineer.
4. All blockouts shall be formed.
5. All storm drain manholes and inlets shall have minimum 18" sumps. Manholes with petroleum separators shall have 24" minimum sumps.
6. Steps shall be placed 12" O.C. on the unobstructed side of the structure, 19" from top of casting and 18" maximum from manhole base.
7. On storm drain manhole, Type II structures, primary pipes not to exceed 42" CMP or 36" reinforced concrete pipe with included angle between pipes no less than 135° or primary pipes not to exceed 36" CMP or 30" reinforced concrete pipe with included angle no less than 135°.
8. Offsets are measured from ℄ of the road to the ℄ of the structure.
9. Distance to ℄ of structure from face of curb is:

STRUCTURE UNDER ROADWAY A	STRUCTURE OUT OF ROADWAY B
X = -24"	X = 12"
X = -18"	X = 16"

Type II Manhole offsets are calculated assuming the minimum riser height is 3 feet.

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

PE Steve Mielke Date 12/30/21

REDUCING SLAB NOTES

1. Use No. 5 for all rebar except stirrups and hoops.
2. All rebar shall be spaced at 5" centers unless otherwise noted.
3. Maintain a minimum of 1 1/2" of concrete cover over all rebar.
4. Tabs will be 1/2"x3"x7" galvanized steel plates. Evenly space 8 tabs around each slab. Insert tabs 4" into concrete, 6 1/2" from outside edge of slab.

REVISIONS		
Date	Description	By

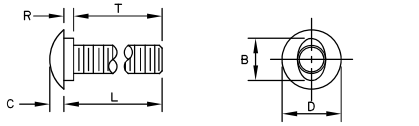
State of Alaska
Department of Transportation & Public Facilities

72" STORM DRAIN MANHOLE

APPROVED

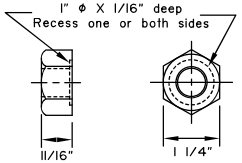
Date 3/15/99

D-36.00

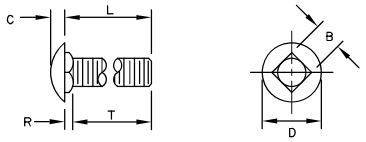


B	C	D	L (Length)	R	T (Thread Length)
15/16"	5/16"	1 5/16" or 1 7/16"	As Required	7/32"	As Required

5/8" BUTTONHEAD BOLT
(FBB01-05)

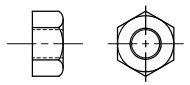


5/8" Dia. RECESSED HEX NUT
(FBB01-05)

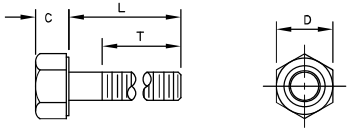


B	C	D	L (Length)	R	T (Thread Length)
5/8"	5/16"	1 5/16"	As Required	3/16"	As Required

5/8" Dia. CARRIAGE BOLT
(FBC10-20)

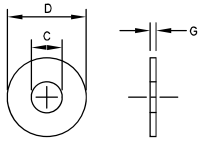


STANDARD HEX NUT



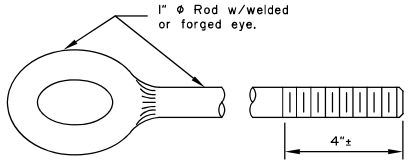
Bolt Size	C	D	L (Length)	T (Thread Length)
5/16"	—	—	1 1/2"	7/8"
5/16"	—	—	1"	1"
3/8"	—	—	7 1/2"	1 1/2"
1/2"	—	—	1 1/2"	1 1/2"
1/2"	—	—	1 1/4"	1 1/4"
5/8" H.S.	5/16"	7/8"	8"	1 1/2"
5/8"-11	—	—	1 1/2"	1 1/2"
3/4"	—	—	1 1/2"	1 1/2"
3/4"	—	—	As Required	2"
3/4" H.S.	15/32"	1 1/4"	2"	1 1/2"

STANDARD HEX BOLTS



For Bolt ϕ	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



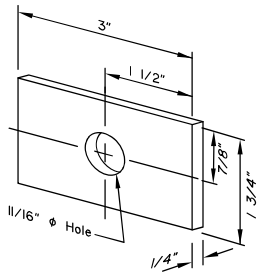
EYE BOLT

GENERAL NOTES:

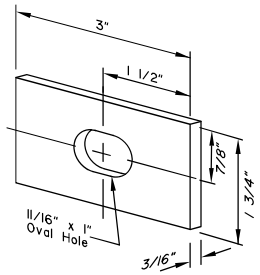
1. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition. Designators given when possible in parentheses.

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

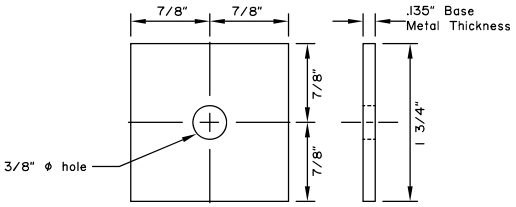
PE Steve Mielke Date 12/30/17



FLAT PLATE WASHER



RECTANGULAR POST BOLT WASHER
(FWR03)



SQUARE STEEL WASHER
(FWR01)

Note: drawing not to scale

REVISIONS		
Date	Description	By
3/15/99	Delete BCT Hardware	KJS
1/16/17	Added Designators	LRG
12/22/17	No changes this sht.	LRG

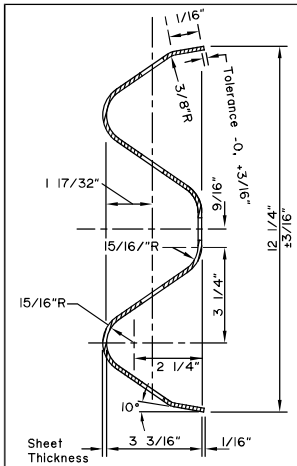
State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

STANDARD GUARDRAIL HARDWARE (NUTS , BOLTS & WASHERS)

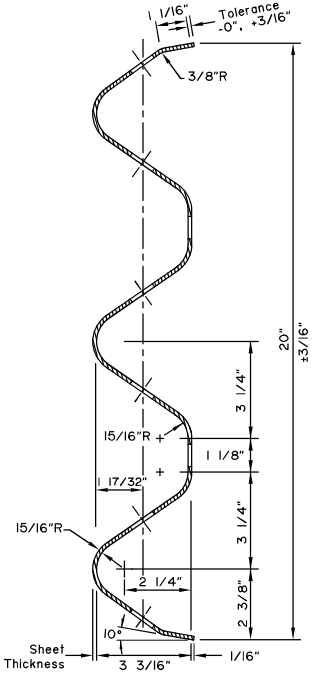
STATE OF ALASKA 49TH R.A. Lars R. Gregovich CE-8065 REGISTERED PROFESSIONAL ENGINEER Dec. 8, 2017

Eff. Date: 12/22/17

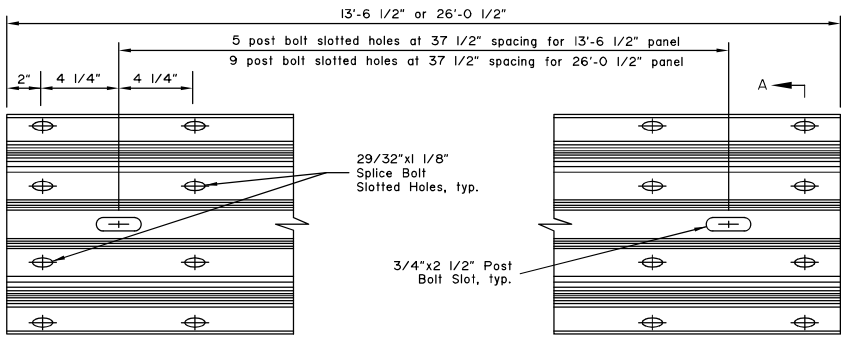
G-00.04



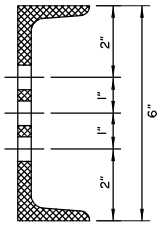
SECTION A-A
(RWM02a-b)



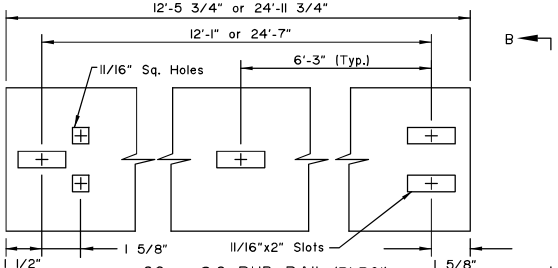
SECTION C-C
(RTM01a-02b)



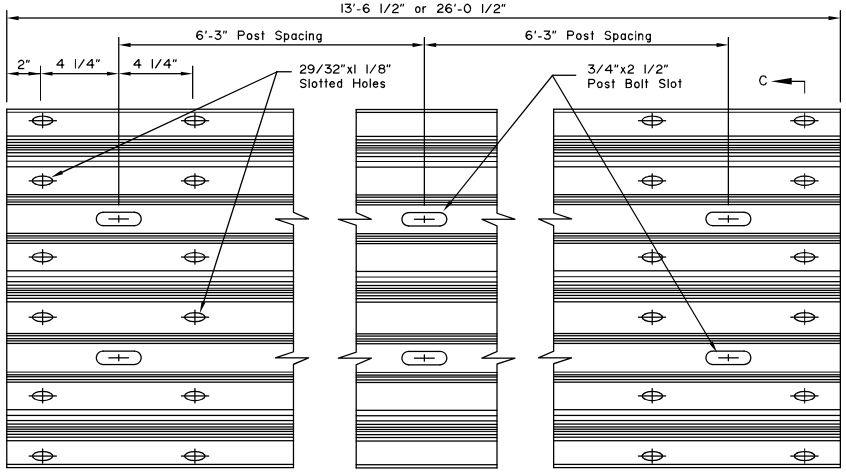
STANDARD W-BEAM PANEL (RWM04a-b)



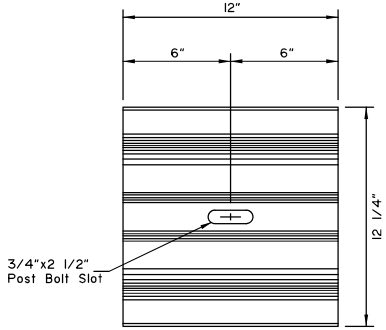
SECTION B-B



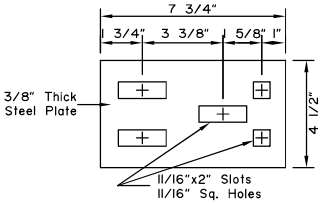
C6 x 8.2 RUB RAIL (RLR01)
ASTM A36 STEEL



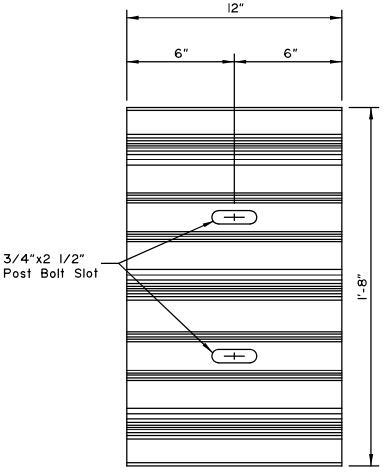
STANDARD THRIE BEAM PANEL (RTM01a-02b)



W-BEAM BACKUP PLATE
(RWB01a-b)



SPLICE PLATE (RLR01)
ASTM A36 STEEL



THRIE BEAM BACKUP PLATE
(RTB01a-02b)

GENERAL NOTES:

1. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition. 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.

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

PE Steve Mielke Date 12/30/17

REVISIONS		
Date	Description	By
4/28/10	Revise general notes	KJS
1/16/17	Fix dimensions in Sections A-A and C-C	LRG
12/22/17	Std w-beam to RWM04	LRG

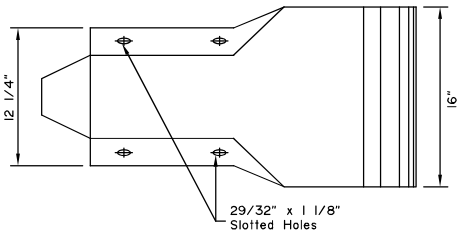
State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

STANDARD GUARDRAIL HARDWARE (RAILS AND SPLICES)

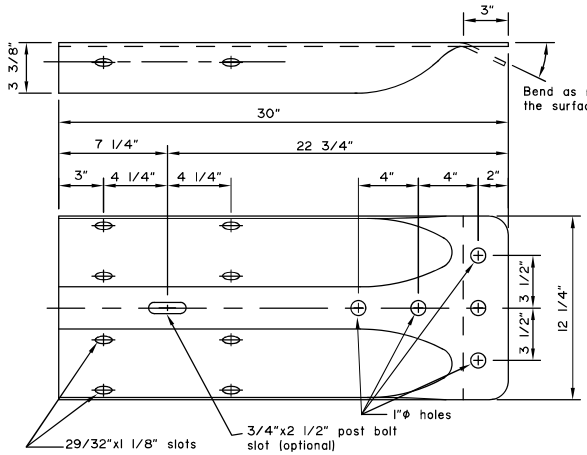
STATE OF ALASKA 49th Lars R. Gregovich CE-6065 REGISTERED PROFESSIONAL ENGINEER Dec. 8, 2017

Eff. Date: 12/22/17

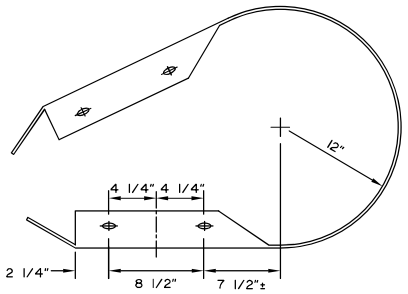
G-00.04



PROFILE

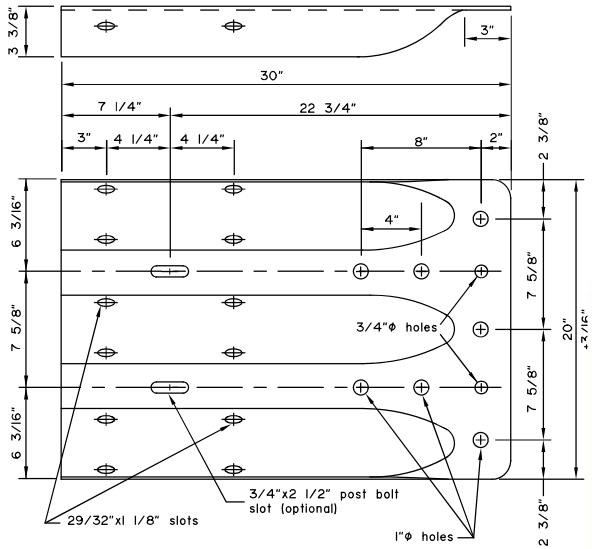


STANDARD W-BEAM TERMINAL CONNECTOR
(RWE02)



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

STANDARD W-BEAM END SECTION
(RWE06)



STANDARD THRIE BEAM TERMINAL CONNECTOR
(RTE01b)

Note: Drawing not to scale

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 AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition. Designators given when possible in parentheses.

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

PE Steve Mielke Date 12/30/17

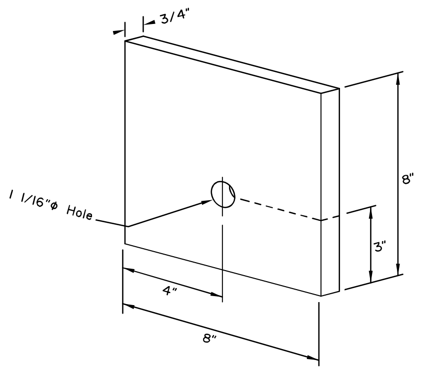
REVISIONS		
Date	Description	By
3/15/99	Delete Thrie end sect.	KJS
1/16/17	Holes added to Thrie	LRG
12/22/17	No changes this sht.	LRG

State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

STANDARD GUARDRAIL HARDWARE (TERMINAL CONNECTORS)

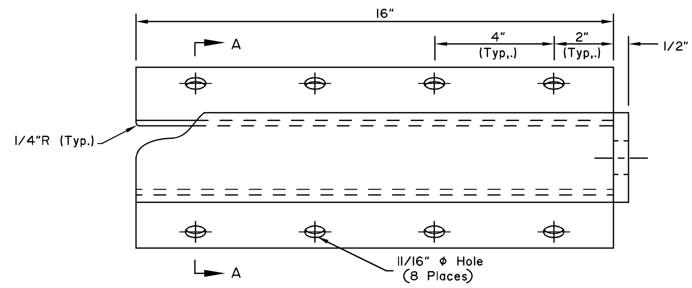
STATE OF ALASKA 49th Lars R. Gregovich CE-9065 REGISTERED PROFESSIONAL ENGINEER Dec. 8, 2017

Eff. Date: 12/22/17



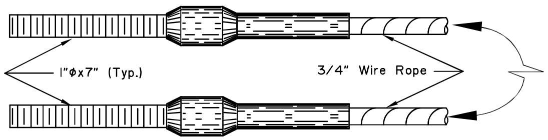
BEARING PLATE for CRT TERMINAL ANCHOR

(FPB01)



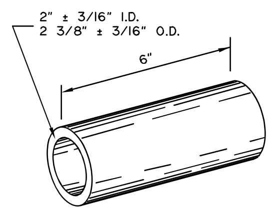
CABLE ANCHOR PLATE

(FPA01)



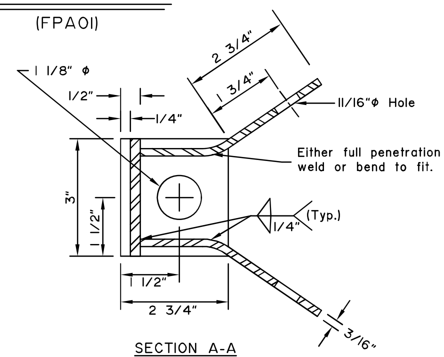
SWAGED FITTING DETAIL

(FCA01-02)



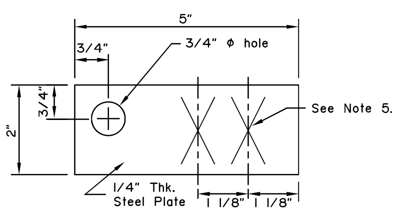
SLEEVE DETAIL

(FMM02)

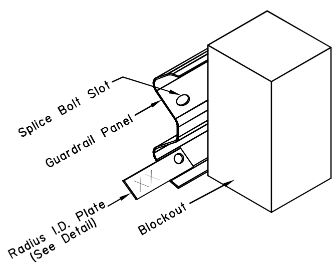


SECTION A-A

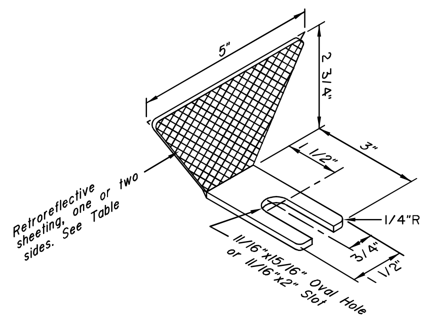
CONTROLLED RELEASE TERMINAL HARDWARE DETAILS



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

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 AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition. Designators given when possible in parentheses.

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

PE Steve Mielke Date 12/30/21

Note: Drawing not to scale

REVISIONS

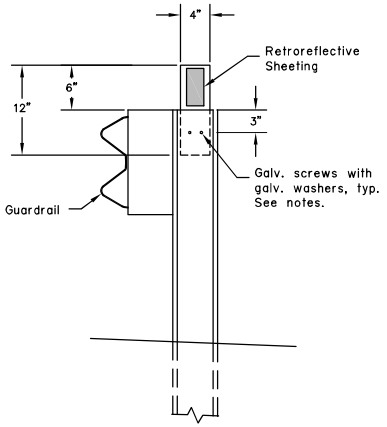
Date	Description	By
3/15/99	Delete BCT Hardware	KJS
1/16/17	Change ASTM in Note 3	LRG
12/22/17	No changes this sht.	LRG

State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

STANDARD GUARDRAIL HARDWARE (MISCELLANEOUS)

Eff. Date: 12/22/17

G-00.04



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 Drawing 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. Predrill or preform 5/16" diameter mounting holes in steel posts by the manufacturer prior to galvanizing. Predrilling or preforming holes not required for wood posts.
6. 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.

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

PE Steve Mielke Date 12/30/21

Note: Drawing not to scale

REVISIONS		
Date	Description	By
12/22/17	New Sht. 5 added	LRG

State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

STANDARD GUARDRAIL HARDWARE (FLEXIBLE DELINEATORS)

STATE OF ALASKA 49th STATE Lars R. Gregovich CE-6065 REGISTERED PROFESSIONAL ENGINEER Dec. 8, 2017

Eff. Date: 12/22/17

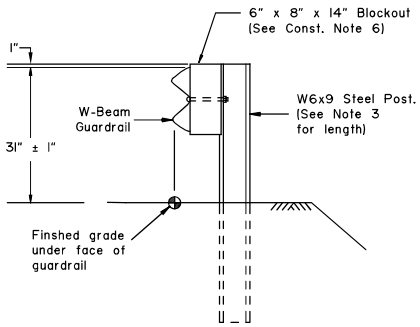
G-00.04

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

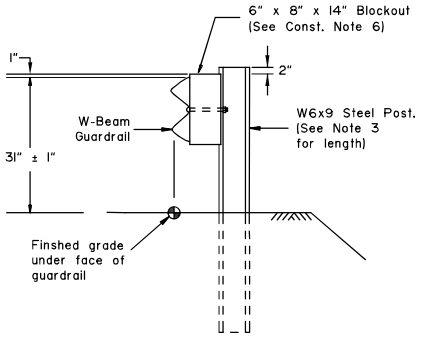
PE Steve Mielke Date 12/30/21

G-05.00S

SHEET 1 of 1

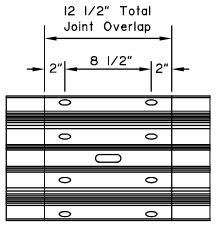


TYPE I POST INSTALLATION



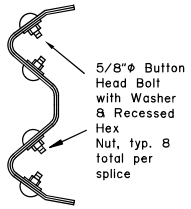
TYPE II POST INSTALLATION

(Facilitates raising rail for future overlays.)

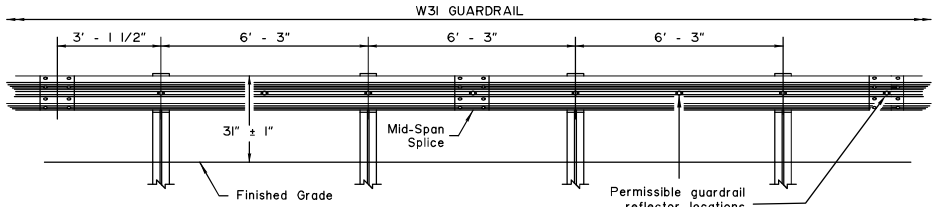


SPLICE DETAIL

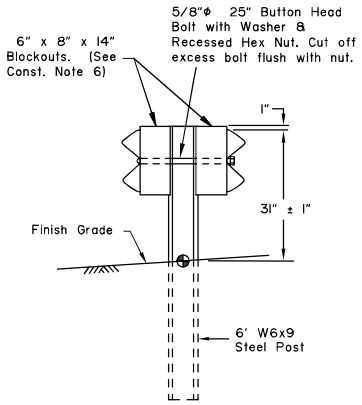
(At mid span between posts only. Bolts not shown for clarity)



SPLICE CROSS-SECTION



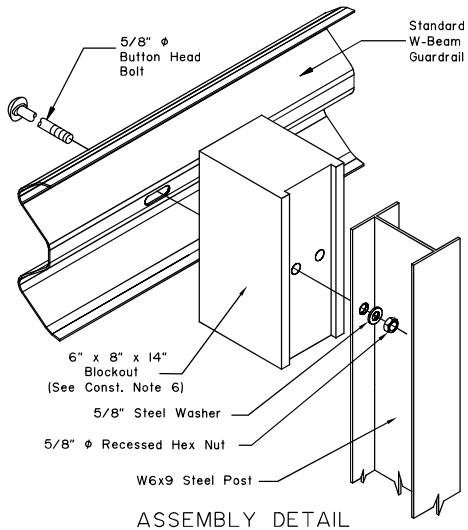
TYPICAL ELEVATION



TYPE IV DOUBLE SIDED INSTALLATION

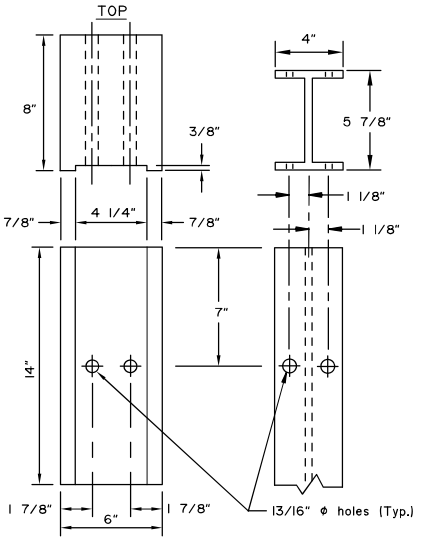
GUARDRAIL REFLECTOR

(See Const. Note 5)



ASSEMBLY DETAIL

(Type I post shown)



CONSTRUCTION NOTES:

1. Provide hardware compliant with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware," latest edition.
2. See Std. Dwg. G-00 for hardware details not shown on this drawing.
3. See Standard Drawing 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 Std. Dwg. 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 Std. Dwg. 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.

REVISIONS		
Date	Description	By

State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

STEEL POST W31 GUARDRAIL

STATE OF ALASKA 49th R.E.A. Lars R. Gregovich CE-8065 REGISTERED PROFESSIONAL ENGINEER Dec. 11, 2017

Eff. Date: 12/22/17

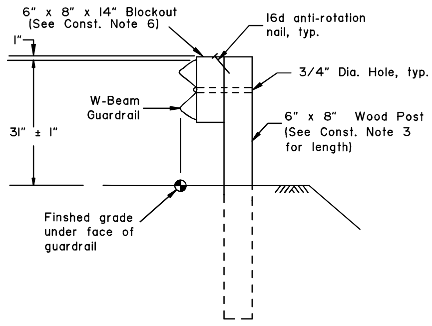
G-05.00S

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

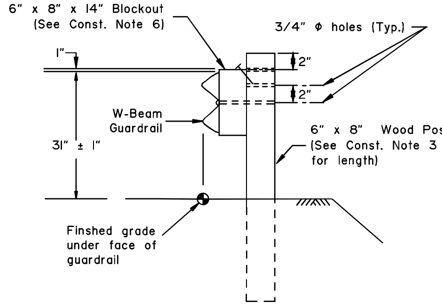
PE Steve Mielke Date 12/30/21

G-05.00W

SHEET 1 of 1

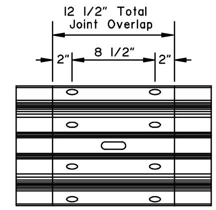


TYPE I POST INSTALLATION



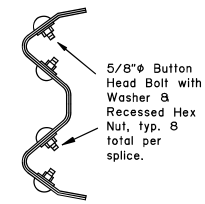
TYPE II POST INSTALLATION

(Facilitates raising rail for future overlays.)

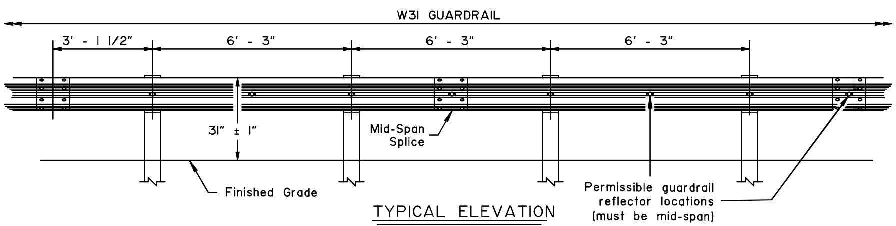


SPLICE DETAIL

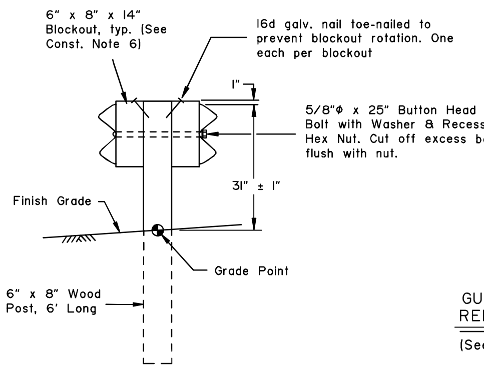
(At mid-span between posts only. Bolts not shown for clarity.)



SPLICE CROSS-SECTION



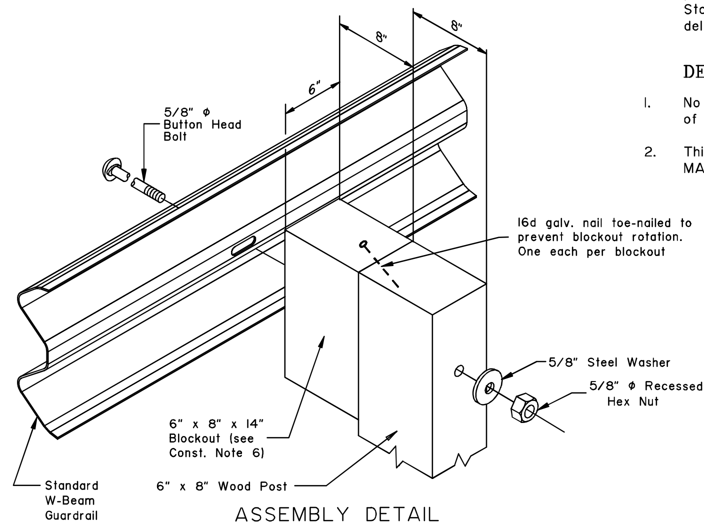
TYPICAL ELEVATION



TYPE IV DOUBLE SIDED INSTALLATION

GUARDRAIL REFLECTOR

(See Note 5)



ASSEMBLY DETAIL

(Type I post shown)

CONSTRUCTION NOTES:

1. Provide hardware compliant with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware," latest edition.
2. See Std. Dwg. G-00 for hardware details.
3. See Std. Dwg. 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 using a 5/8" button head bolt with 5/8" recessed head hex nut and steel washer at the location shown on 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 blockouts designed, tested, and passed per MASH to be used with wood posts.
7. Use 25 linear foot transition panel to match differing height of existing or new rail elements and end treatments. See Std. Dwg. G-11.
8. Install flexible delineators on guardrail posts when called for in the contract. See Std. Dwg. 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.

REVISIONS		
Date	Description	By

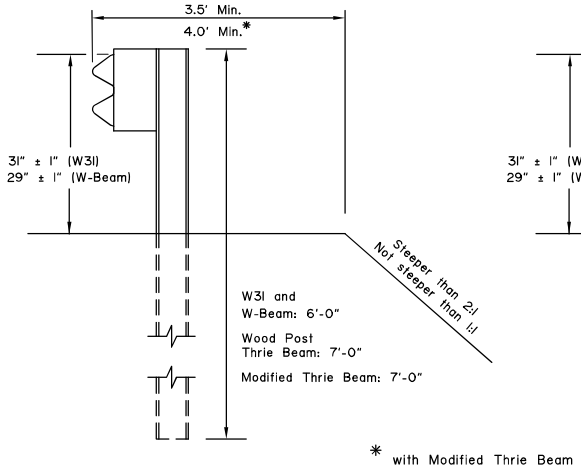
State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

WOOD POST W31 GUARDRAIL

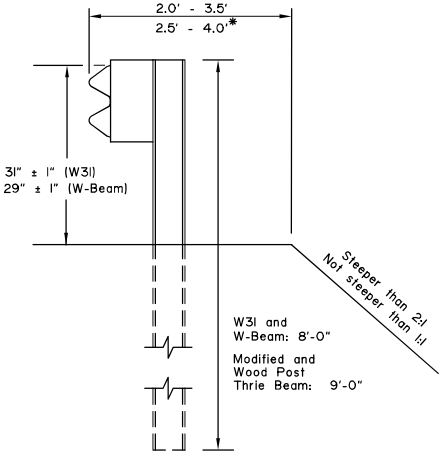
Eff. Date: 12/22/17

Dec. 11, 2017

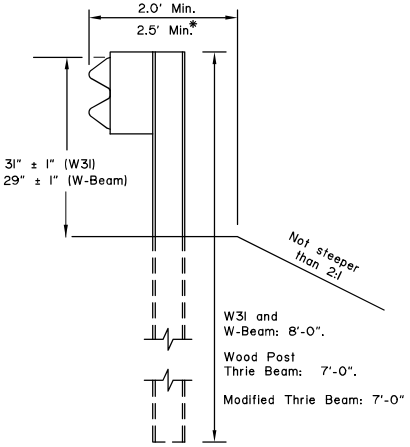
G-05.00W



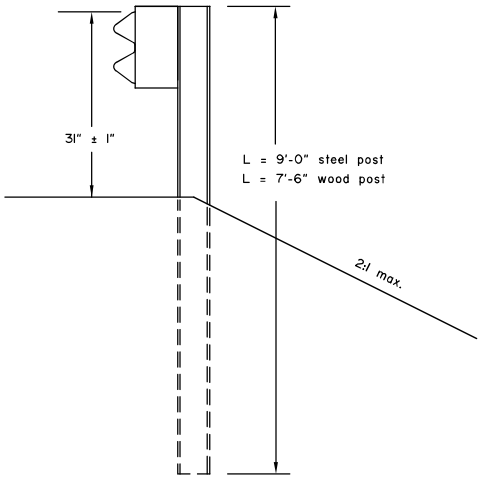
CASE 1



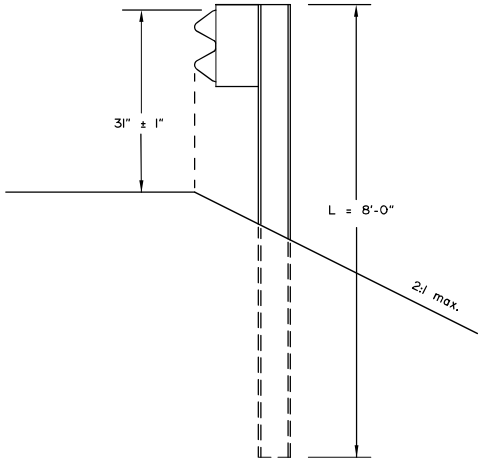
CASE 2



CASE 3



CASE 4
(See Note 5)



CASE 5
(See Note 5)

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.

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By

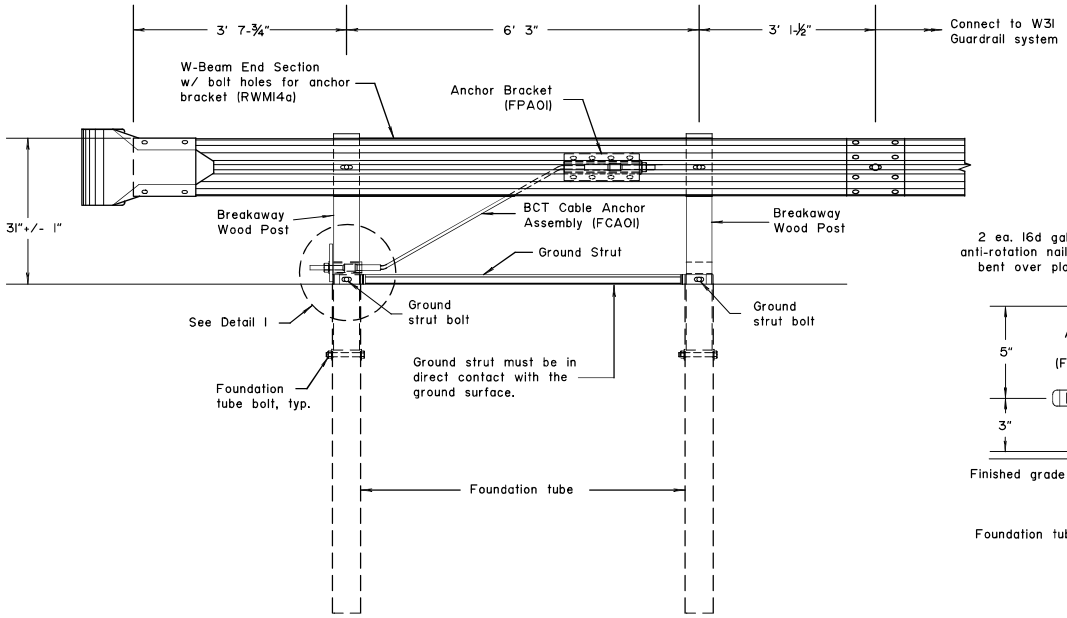
State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

BEAM GUARDRAIL POST INSTALLATION

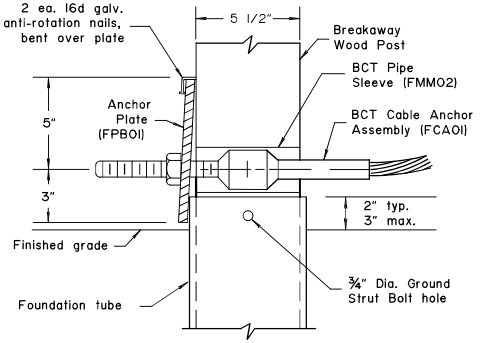
STATE of ALASKA 49th
Lars R. Gregovich
CE-8065
REGISTERED PROFESSIONAL ENGINEER
Jan. 11, 2017

Eff. Date:
12/22/17

G-10.10

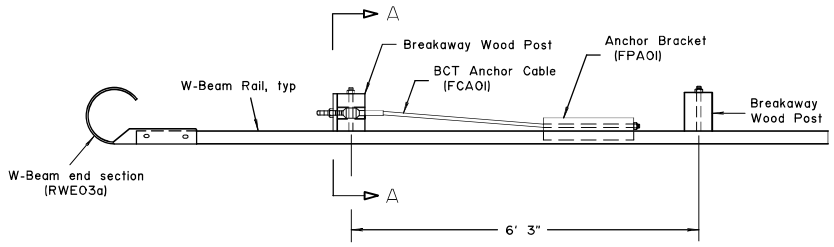


ELEVATION

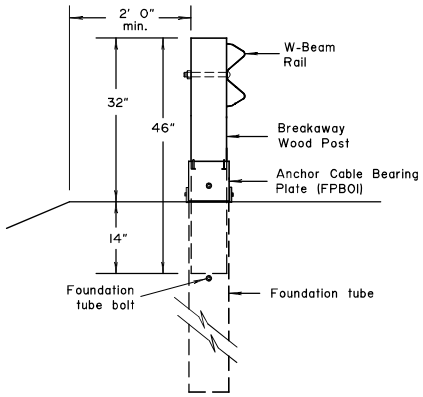


DETAIL 1

(Ground strut not shown for clarity)



PLAN VIEW



SECTION A–A

CONSTRUCTION NOTES

1. All covered hardware must comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition. 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.

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

PE Steve Mielke Date 12/30/21

DESIGN NOTES

1. This design in not crashworthy under MASH and is not intended for locations within the clear zone or where it is likely to be struck head-on by an errant vehicle.
2. This end anchorage is typically used on the downstream end of guardrail runs on one-way roads.

REVISIONS		
Date	Description	By

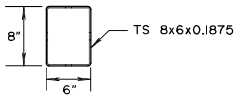
State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

W31 DOWNSTREAM END ANCHOR

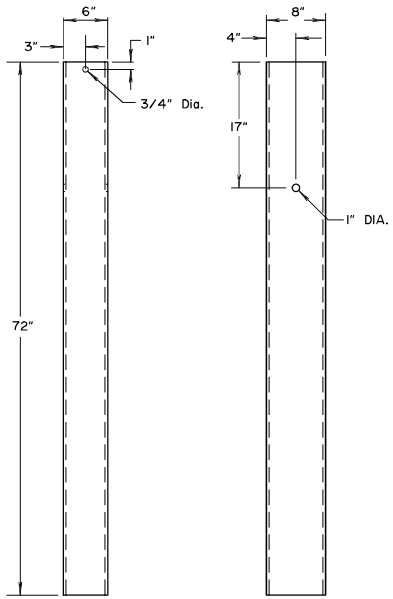
STATE OF ALASKA 49TH R.A. Lars R. Gregovich CE-9065 REGISTERED PROFESSIONAL ENGINEER Dec. 11, 2017

Eff. Date: 12/22/17

Change order # 16. ESTABLISH NEW ITEM: 606(1A)
Description : Wood Post Price Adjustment.



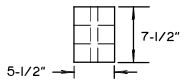
PLAN VIEW



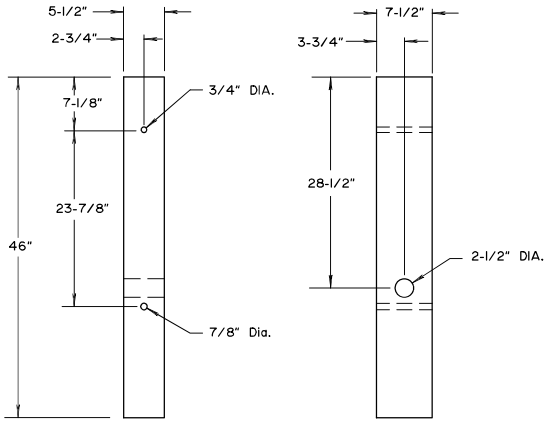
FRONT VIEW SIDE VIEW

FOUNDATION TUBE

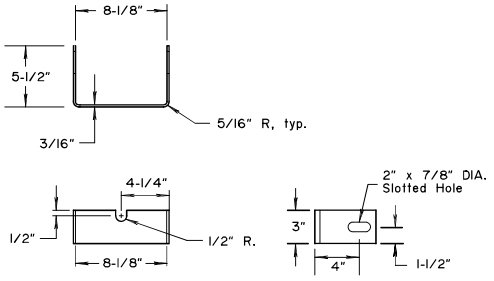
GROUND STRUT SECTION



PLAN VIEW

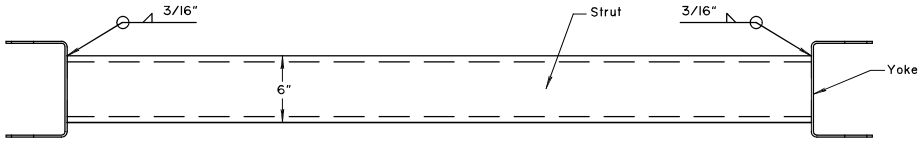


FRONT VIEW SIDE VIEW

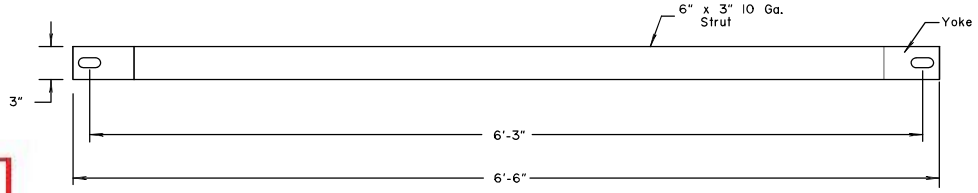


YOKE DETAIL

BREAKAWAY WOOD POST



PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL

CONSTRUCTION NOTES

1. All covered hardware must comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition. Designators are given in parenthesis, when possible.

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By

State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

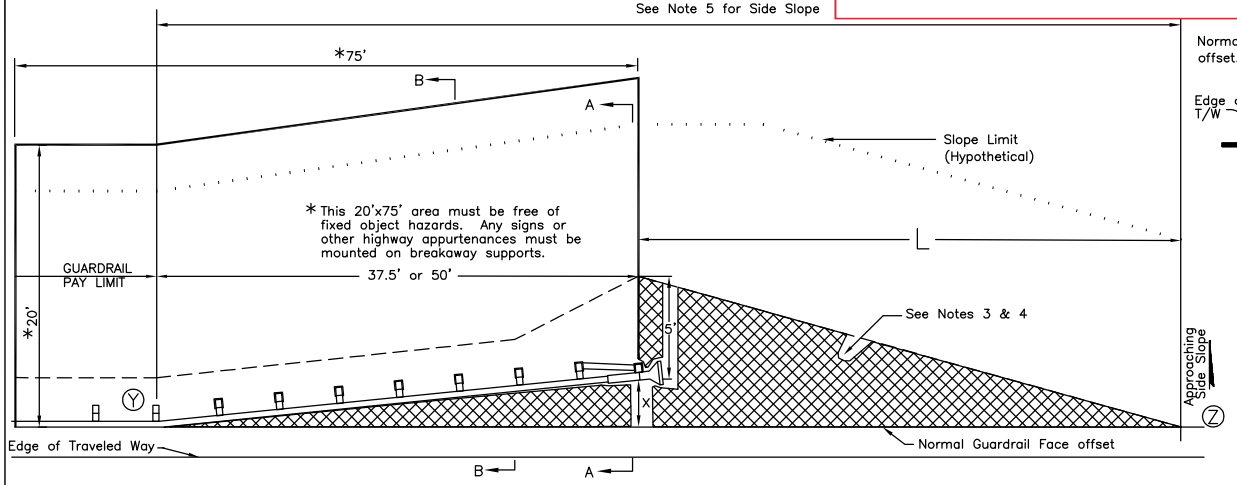
W31 DOWNSTREAM END ANCHOR

Eff. Date: 12/22/17

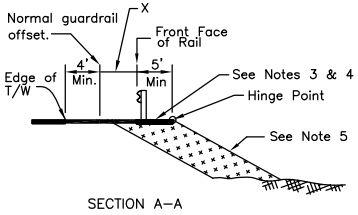
G-14.00

Change order # 16. ESTABLISH NEW ITEM: 606(1A) Description : Wood Post Price Adjustment.

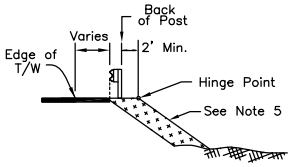
G-20.11



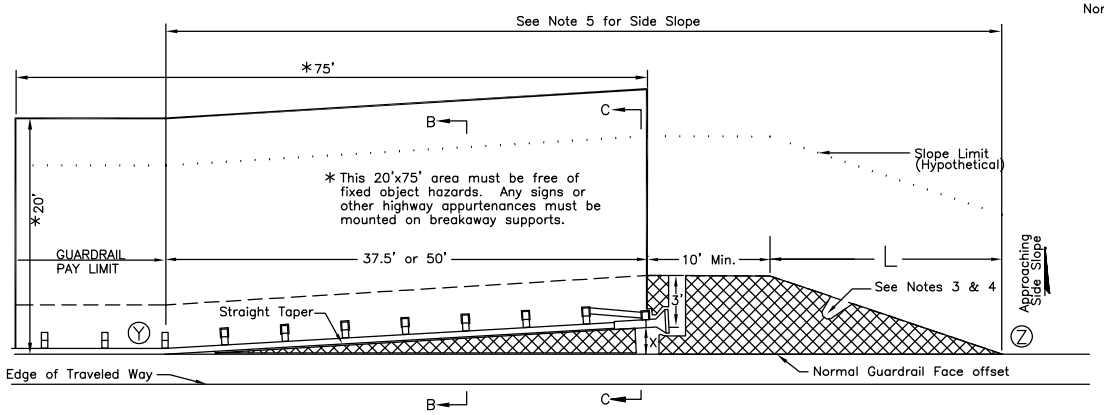
STANDARD GUARDRAIL TERMINAL WIDENING DETAIL



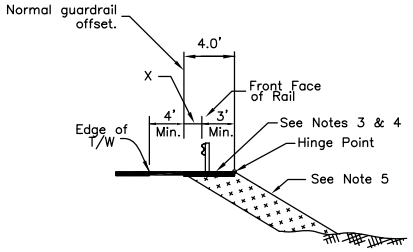
SECTION A–A



SECTION B–B
(Applies to both drawings)



ALTERNATE GUARDRAIL TERMINAL WIDENING DETAIL



SECTION C–C

X: End offset. See manufacturer's information for the range of acceptable (NCHRP 350 or MASH compliant) end offsets for each terminal.

Taper Lengths (L) for Common End Offsets (X)		
End Offset	Standard Detail	Alternate Detail
0'	15.0'	10.0'
1'	17.0'	10.0'
1.5'	20.0'	15.0'
2'	22.0'	15.0'
2.5'	25.0'	15.0'
4'	30.0'	20.0'
Interpolate if the end offset falls between table values		

GENERAL NOTES:

1. The standard detail applies to all approved guardrail terminals, including those with parabolic flares. The alternate detail may only be used with straight terminals. The terminal details shown are for illustration only – see manufacturer's drawings for actual post, rail, etc. drawings.
2. Use the standard detail for all terminals except when upgrading existing non–NCHRP 350 or MASH compliant terminals to NCHRP 350 or MASH compliant terminals where site conditions make the use of the standard detail infeasible. In that case, use the alternate detail.
3. Construct the hatched areas to match the slope of the adjacent shoulder to a maximum slope of 10:1. Maintain 10:1 for steeper shoulders. Match the slope when the shoulder slopes toward the road as well as away from the road.
4. On paved roads, the hatched areas shall be paved. On gravel roads, surface the hatched areas with the same materials used to surface the travel lanes.
5. From point Ⓨ to point Ⓩ make the side slope match the approaching side slope except where it is flatter than 4:1. In that case, the slope may be steepened to 4:1.
6. Attach a flexible marker to the first point (where the flare begins) and the end post of each terminal.
7. The maximum allowable height for foundation tubes or other steel components of terminal post breakaway systems is 4 inches above the surrounding grade.
8. The details on this sheet do not apply to Controlled Release Terminals (G–25) or Downstream End Anchors (G–13).
9. On two–way undivided roads, the details on this sheet do apply to NCHRP 350 or MASH compliant guardrail terminals on both the approach and downstream ends.

REVISIONS		
Date	Description	By
3/6/02	Change ET Offset	KJS
2/28/03	Major Revisions	KJS
4/28/10	Revise General Notes	KJS

Sheet 1 of 1

State of Alaska
Department of Transportation & Public Facilities

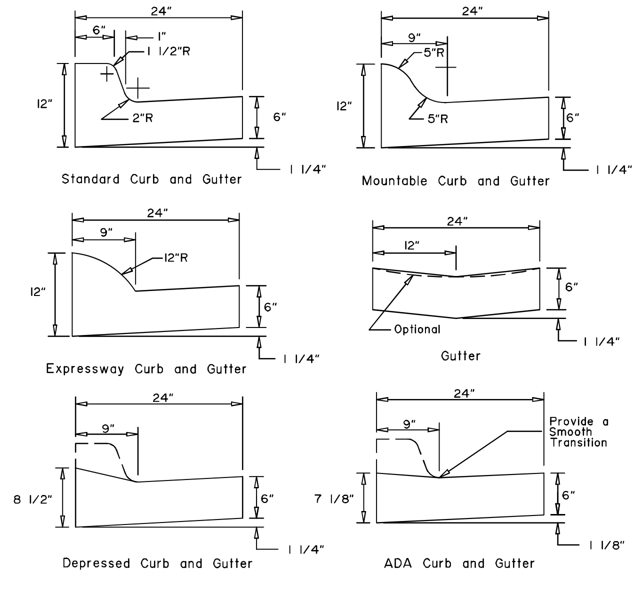
WIDENING FOR GUARDRAIL END TERMINALS

APPROVED 4/28/10
Date 5/31/12

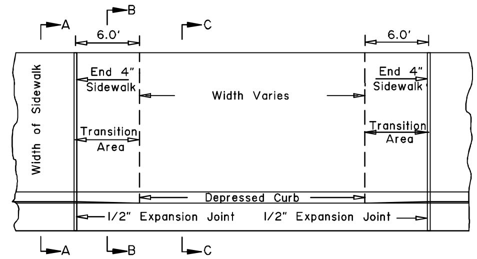
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21

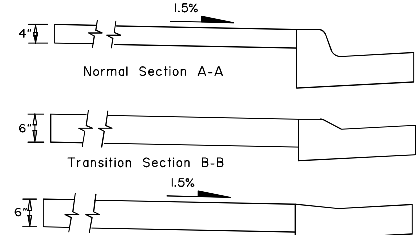
G–20.11



CURB and GUTTER DETAILS



DRIVEWAY CURB CUT DETAILS

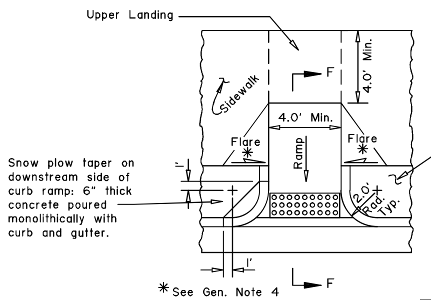


CONSTRUCTION NOTES:

1. Use the type of curb and gutter shown on the plans.
2. Construct ramp runs and landings of concrete, regardless of whether the sidewalk is asphalt or concrete.
3. Construct ramp slopes at a 7.7% nominal grade, or flatter. Ramp slopes may be increased to a maximum of 8.3% when site conditions warrant it. Ramp lengths should be increased to keep grades under the 8.3% maximum, but are not required to exceed 15.0 feet. The resulting ramp grade at a 15.0 foot ramp length is acceptable even if it exceeds 8.3%.
4. Construct flare slopes at 8.3% (measured paralllel to the curb line) or flatter, sidewalk cross slopes at 1.5% nominal (1.0% min. and 2.0% max), and ADA Curb and Gutter gutter pan slopes at 4.7% nominal. Construct grade breaks perpendicular to ramp runs.
5. Do not construct flare slopes steeper than 10.0%, sidewalk cross slopes steeper than 2.0% and ADA Curb and Gutter gutter pan slopes steeper than 5.0%. These are the steepest slopes allowed under the 2006 ADA Standards for Transportation Facilities.
6. Provide a coarse broomed finish on ramp runs perpendicular to the ramp slope.
7. When approved by the Engineer, curb returns may be replaced with flares at locations where access to the side of a ramp run is free of poles, utility boxes, other obstructions, or non-accessible surfaces such as a dirt planter strips. See Standard Drawing I-22 for flare details.
8. Install 24" wide detectable warning tiles for the full width of the ramp. Provide tiles with truncated domes meeting Section 705.1 of the 2006 ADA Standards for Transportation Facilities. Align truncated dome pattern in the predominant direction of wheelchair travel to permit wheels to roll between domes.
9. Maximum cross slope on upper landings, measured in any direction, is 2.0%. Maximum cross slope on ramps is 2.0% measured perpendicular to the ramp run.

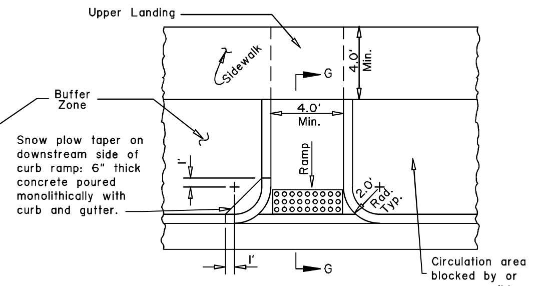
DESIGN NOTES:

1. Use Mountable or Expressway curbs on medians and traffic islands.
2. These details are compliant with the 2006 ADA Standards for Transportation Facilities.

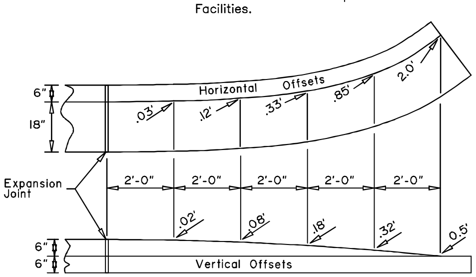


PLAN

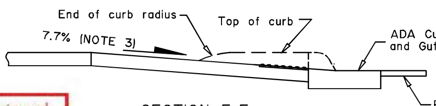
Detectable Warning Tile (see Note 8)



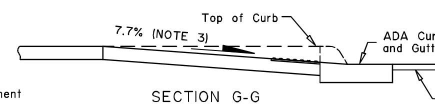
PLAN



CURB and GUTTER TERMINATION TRANSITIONS



SECTION F-F
Returned Curb Ramp with Sidewalk for Pedestrians



SECTION G-G
Returned Curb Ramp for Pedestrians

Note: Drawing not to scale

REVISIONS

Date	Description	By
5/31/12	ADA Updates	JCJ
3/31/15	Slopes and cross slope	JCJ
7/1/16	2006 ADA Stds Update	LRG

State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

CURB CUT, CURB & GUTTER AND CURB RAMP DETAILS

STATE of ALASKA 49th Lars R. Gregovich CE-8065 REGISTERED PROFESSIONAL ENGINEER 6-15-16

Eff. Date: 7/1/16

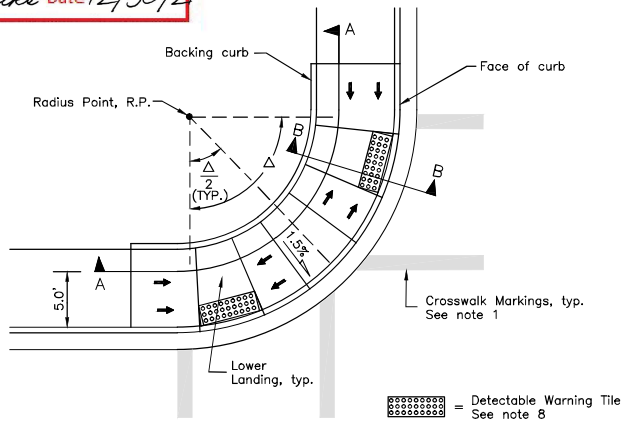
I-20.20

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

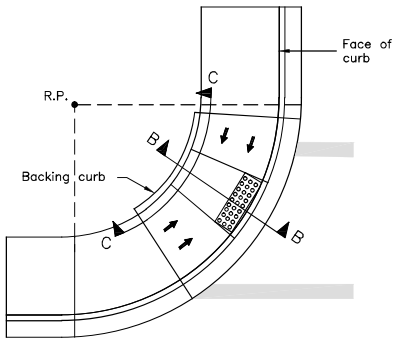
PE Steve Mielke Date 12/30/21

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

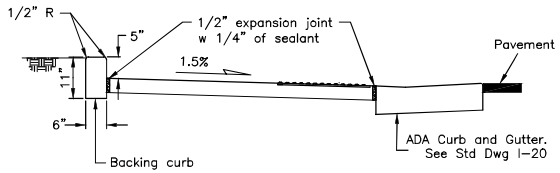
PE Steve Mielke Date 12/30/21



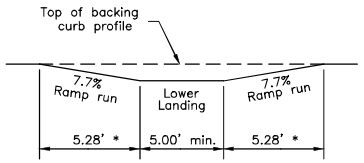
TWO CROSSING DIRECTIONS
At corner



ONE CROSSING DIRECTION
At corner – generic location shown

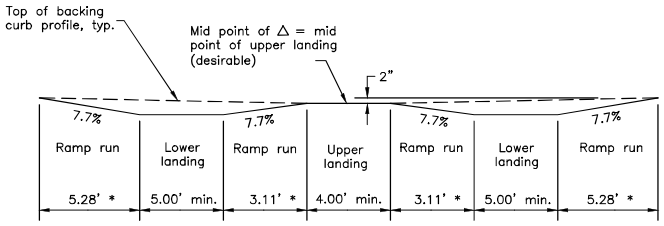


SECTION B–B



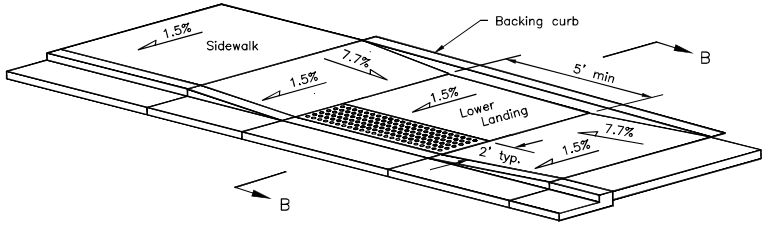
* See Note 5

PROFILE C–C



* See Note 5

PROFILE A–A



MID–BLOCK

Note: Drawing not to scale

CONSTRUCTION NOTES:

1. See plans for ramp type at specific locations. See striping plans for crosswalk layouts.
2. Construct ramp runs and landings of concrete, regardless of whether the sidewalk is asphalt or concrete.
3. When one parallel curb ramp will serve two directions, use the One Crossing Direction detail and refer to the striping plans for crosswalk layouts.
4. Ramp run lengths are shown for a flat sidewalk grade. For other sidewalk grades, increase or decrease ramp and flare lengths to maintain the slopes shown.
5. Construct ramp slopes at a nominal 7.7% grade, or flatter. Ramp slopes may be increased to a maximum of 8.3% when site conditions warrant it. Ramp lengths should be increased to keep grades under the 8.3% maximum, but are not required to exceed 15.0 feet. The resulting ramp grade at a 15.0 foot ramp length is acceptable even if it exceeds 8.3%.
6. Construct sidewalk cross slopes at 1.5% nominal (1.0% min. and 2.0% max).
7. Provide a coarse broomed finish running perpendicular to the curb on ramp runs and upper landings and parallel to the curb on lower landings.
8. Install 24" detectable warning tiles meeting Section 705.1 of the 2006 ADA Standards for Transportation Facilities for the full width of the ramp. Align truncated dome pattern in the predominant direction of wheelchair travel to permit wheels to roll between domes.
9. Maximum cross slope on lower landings is 2.0% as measured in any direction. Maximum cross slope on ramps is 2.0% measured perpendicular to the ramp run.

DESIGN NOTES

1. Parallel curb ramps are typically used when the sidewalk is at least 4' wide but can not be constructed wide enough for perpendicular ramps.
2. When one curb ramp is installed in a curb radius to serve both directions of pedestrian traffic, construct it in accordance with the One Crossing Direction detail.
3. Locate lower landings within the inner edges of marked crosswalks or, if crosswalks are not marked, within the area a standard marked crosswalk would enclose. See Standard Drawing T–23 for standard crosswalk layout.
4. Avoid drainage grates within marked crosswalks or, if crosswalks aren't marked, within the area a standard marked crosswalk would enclose. If a drainage grate is located directly in the pedestrian accessible route (e.g. a wheel chair must pass over it), install a grate meeting the requirements of Section 302.3 of the 2006 ADA Standards.
5. These details are compliant with the 2006 ADA Standards for Transportation Facilities.

REVISIONS		
Date	Description	By
5/31/12	ADA Updates	JCJ
3/31/15	Slopes and cross slope	JCJ
7/1/16	2006 ADA Stds Update	LRG

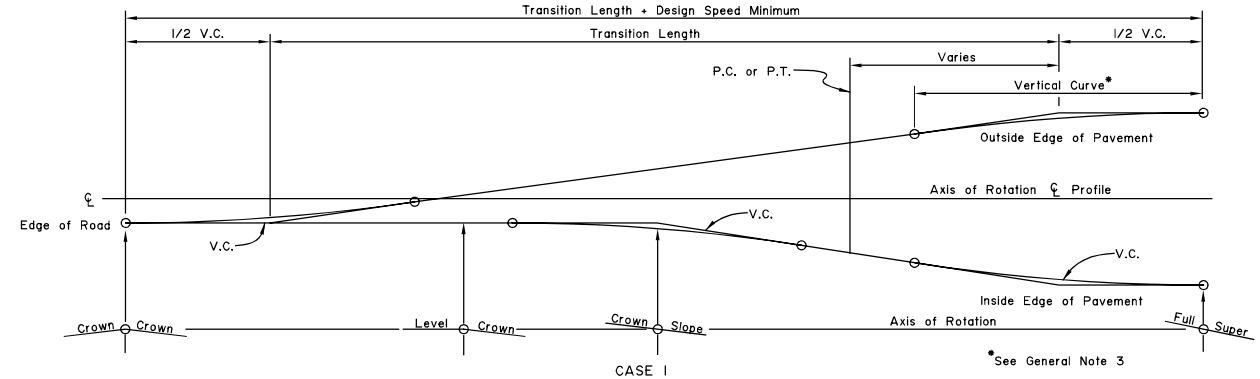
State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465–2960

PARALLEL CURB RAMP

STATE OF ALASKA 49th R A Lars R. Gregovich CE-8065 REGISTERED PROFESSIONAL ENGINEER 6–16–16

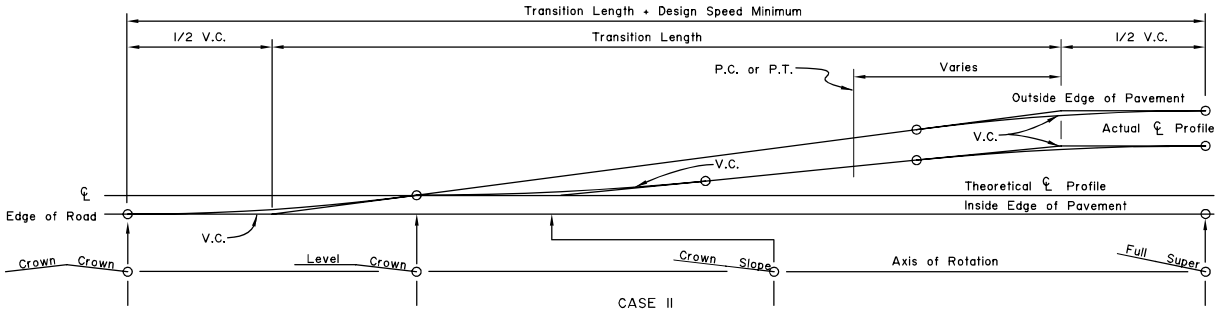
Eff. Date: 7/1/16

I-21.10



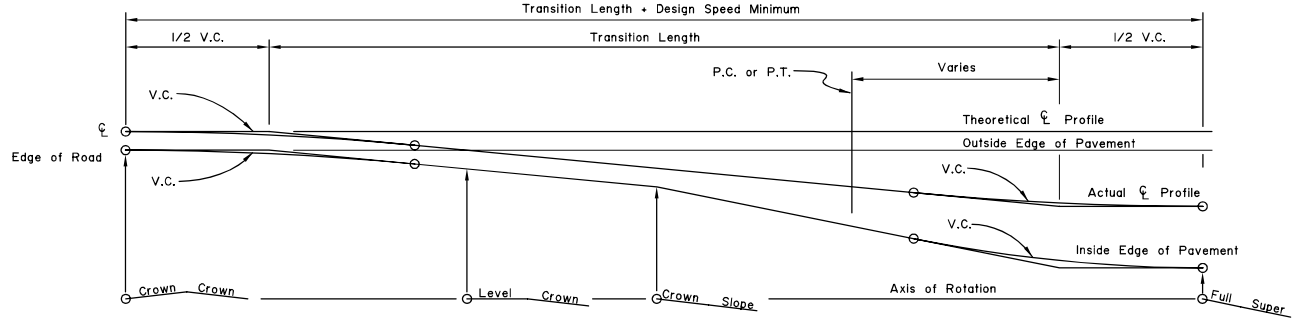
CASE I

PAVEMENT REVOLVED ABOUT CENTERLINE



CASE II

PAVEMENT REVOLVED ABOUT INSIDE EDGE
TO BE USED WHERE DRAINAGE IS THE GOVERNING CONSIDERATION



CASE III

PAVEMENT REVOLVED ABOUT OUTSIDE EDGE TO BE
USED WHERE OVERALL APPEARANCE IS THE MAIN CONTROL

I-81.00

SHEET | of |

GENERAL NOTES:

1. Location of transition length relative to horizontal curves will be shown on the plans or as directed by the Engineer.
2. Widening for guardrail or curvature will not change the location of the axis of rotation.
3. Minimum vertical curve length in feet shall be the numerical value of the design speed in M.P.H.
4. Superelevation shall be built into the subgrade and carried through the shoulders.

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By

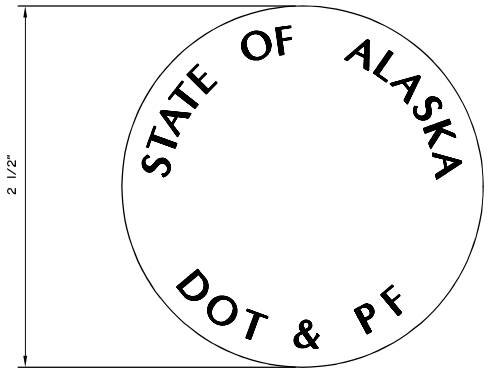
State of Alaska
Department of Transportation
& Public Facilities

SUPERELEVATION TRANSITION

APPROVED

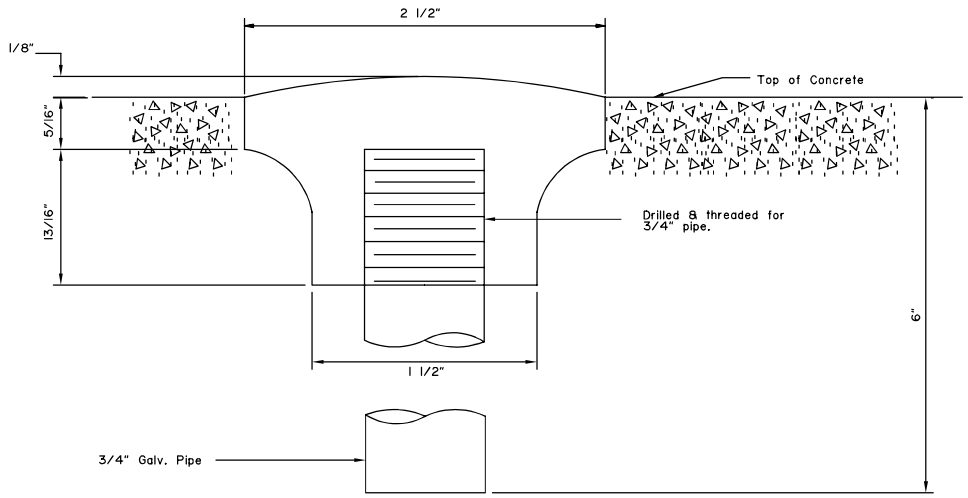
Date 12/1/87

I-81.00



GENERAL NOTES:

1. For Structures under 200' total length: provide 1 monument.
2. For Structures 200' or over: provide 2 Monuments.
3. Monuments shall be located as directed by the Engineer.



SURVEY MONUMENT

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By
5/15/89	Revised Cap Markings	Gdo

State of Alaska
Department of Transportation
& Public Facilities

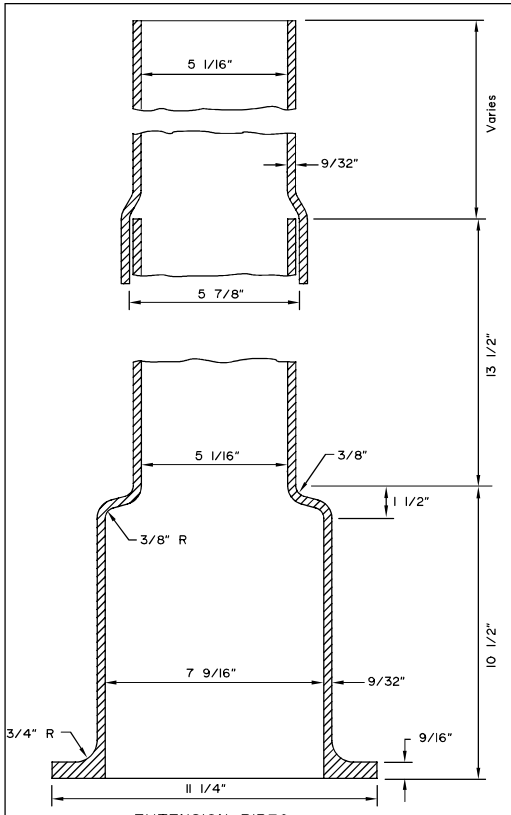
SURVEY MONUMENT

APPROVED
Date 7/15/82

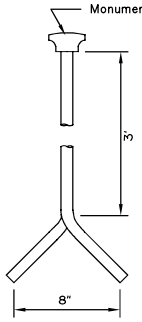
M-13.01

M-16.01

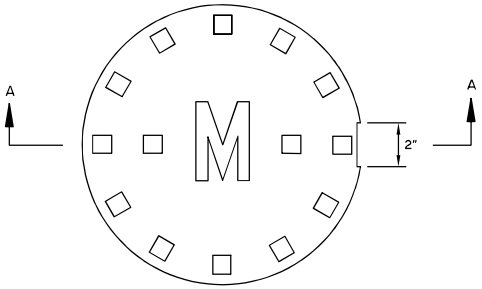
SHEET | of |



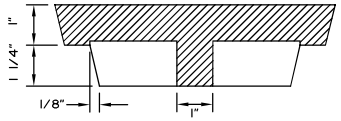
EXTENSION PIPES



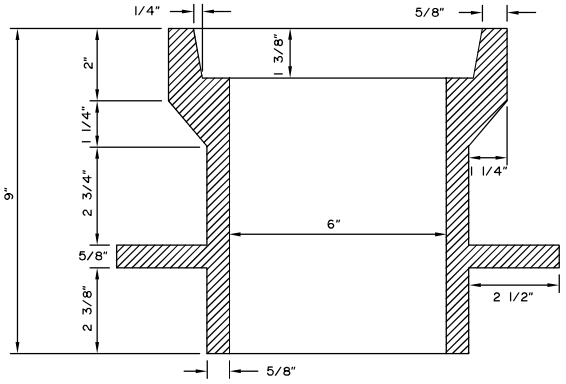
MONUMENT DETAIL



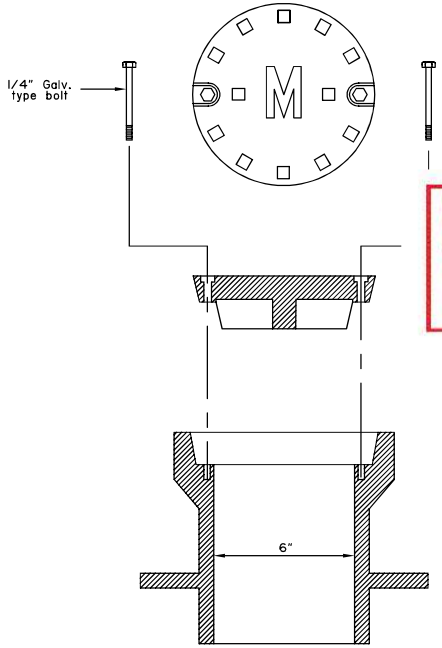
PLAN VIEW ACCESS COVER



SECTION A-A



MONUMENT CASE



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.

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By
5/15/89	Revised Cap Markings	Gdo

State of Alaska
Department of Transportation
& Public Facilities

BRASS CAP MONUMENTS
& MONUMENT CASE

APPROVED

Date July 15, 1982

M-16.01

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

PE Steve Mielke Date 12/30/21

S-00.11

GENERAL NOTES

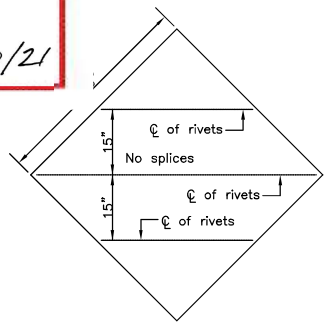
1. See the standard specifications for the aluminum alloys that you may use for sign sheeting and wind framing members.
2. Fabricate all signs from 0.125" thick aluminum sheeting.
3. Sign fabricators may use alternates to the zee shaped framing member with approval of the engineer, if the frame manufacturer 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.

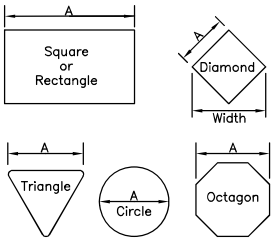
TUBE SIGN POST SPACING

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	

SIGN POST SPACING NOTES:

1. Install sign support in accordance with the table above, 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 Standard Drawing S–30 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 Drawing S–31 for frangible couplings, hinges, and foundations for tube and W–shape sign supports.

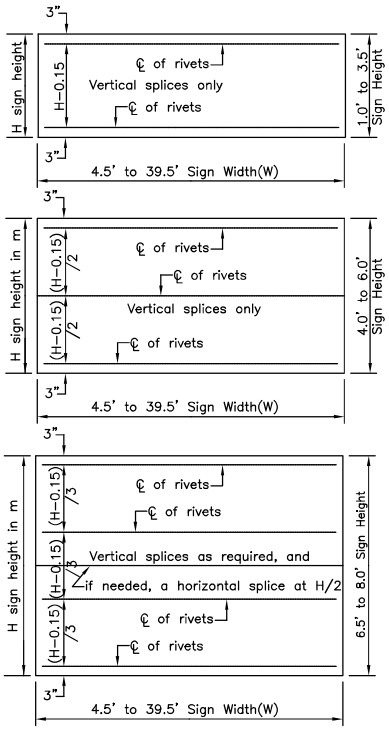




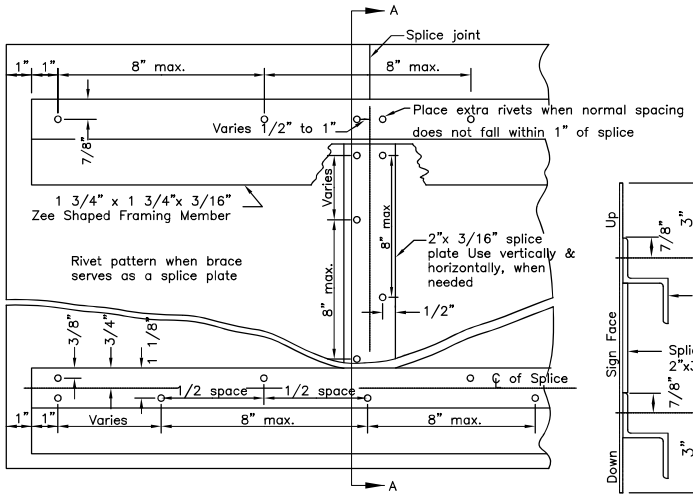
Maximum size unframed signs using 0.125" thick aluminum sheeting.	
Sign Shape	A
Squares, Shields, and Route Markers	48"
Rectangles	48"
Diamonds	48"
Triangles	48"
Rounds and Octagons	48"

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

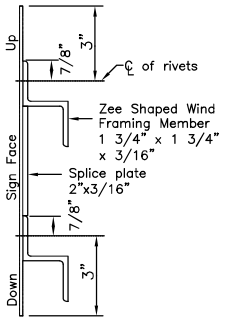
LIGHT SIGNS



WIND FRAMING LOCATIONS



RIVET DETAIL FOR ZEE SHAPED WIND FRAMING & SPLICE PLATE



SECTION A–A

REVISIONS		
Date	Description	By
4/28/10	Delete pipe, rev notes	KJS

Sheet 1 of 1

State of Alaska
Department of Transportation & Public Facilities

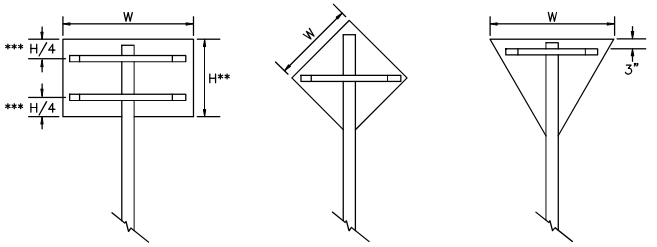
SIGN FRAMING AND POST SPACING

APPROVED 5/31/12

Date

S–00.11

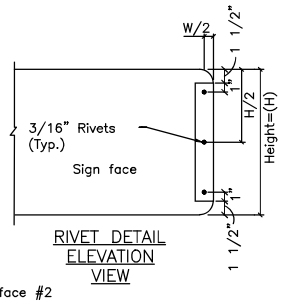
S-01.01



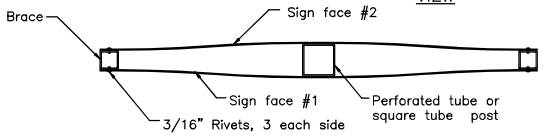
*** Use one brace when H ≤ 18"
Use two braces when 18"< H < 48"
Use three braces when H ≥ 48"

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

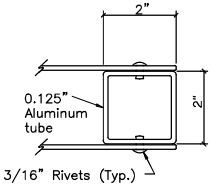
SIGN BRACING PLACEMENT



RIVET DETAIL ELEVATION VIEW

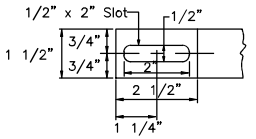


PLAN VIEW

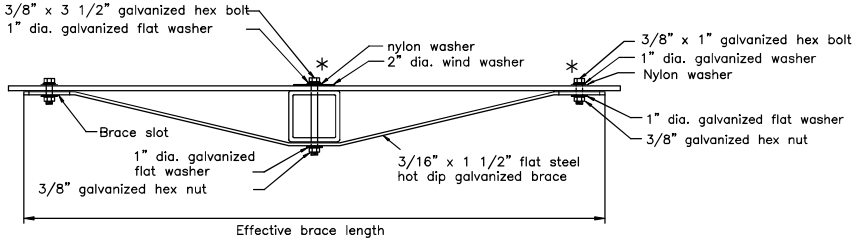


END BRACE DETAIL

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



DETAIL OF BRACE SLOT
Elevation view



TUBE POST SIGN BRACING
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

DRAWING NOT TO SCALE

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

PE Steve Mielke Date 12/30/2

REVISIONS		
Date	Description	By
1/16/17	Bolt size & type	LRG

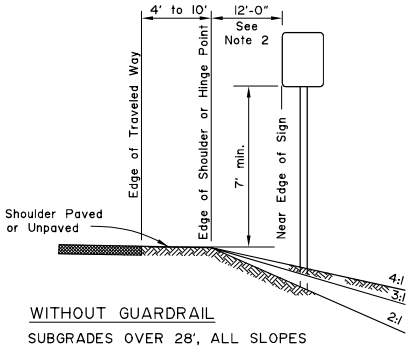
State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

BRACING FOR SIGNS MOUNTED ON SINGLE POST

Eff. Date: 1/16/17

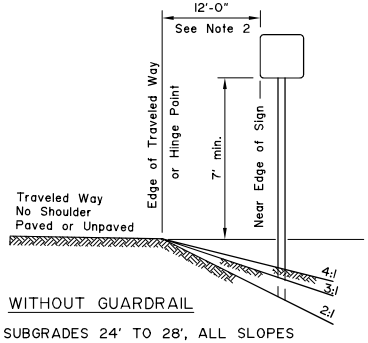
S-01.01

S-05.01



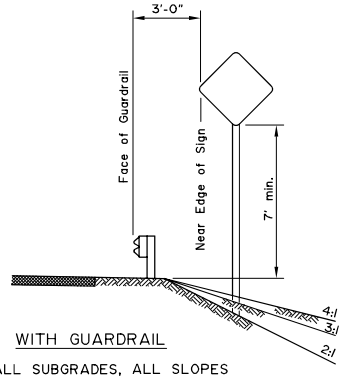
WITHOUT GUARDRAIL

SUBGRADES OVER 28', ALL SLOPES



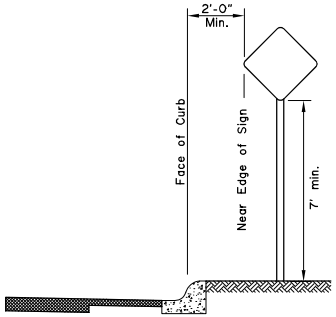
WITHOUT GUARDRAIL

SUBGRADES 24' TO 28', ALL SLOPES

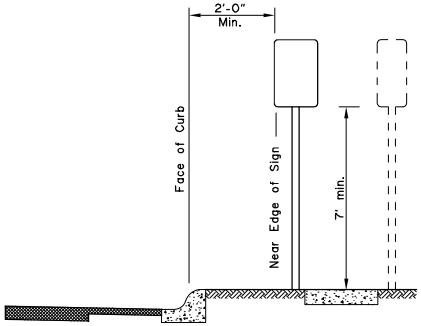


WITH GUARDRAIL

ALL SUBGRADES, ALL SLOPES

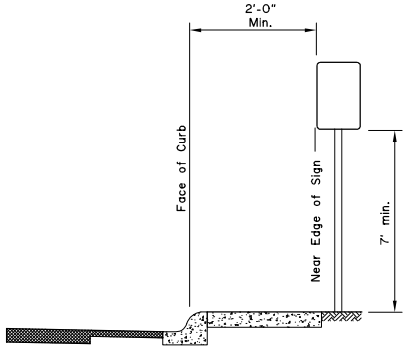


CURB WITHOUT SIDEWALK

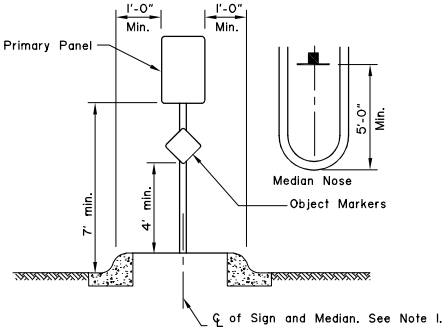


CURB WITH PARKWAY AND SIDEWALK

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

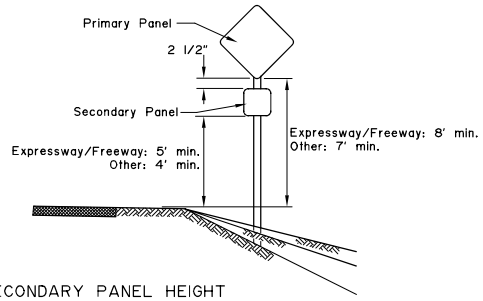


CURB WITH SIDEWALK WITHOUT PARKWAY



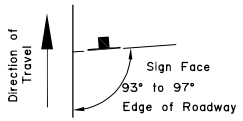
RAISED MEDIANS

Minimum 4' Width for Signing



SECONDARY PANEL HEIGHT

ALL TWO PANEL MOUNTING



SIGN POSITIONING

GENERAL NOTES

1. Unless shown otherwise on the plans, the standard sign offset is 12'. The minimum is 6'.
2. If signs extend over sidewalks, the minimum vertical clearance is 7'-0".
3. Add 6" to mounting height on unpaved roads.
4. If signs extend over bike paths, the minimum vertical clearance is 8' 0".
5. 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.
6. When multiple hinged sign supports are used, mount hinges at least 7' above the ground.

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By
4/3/01	Revised Sign Heights	KJS

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

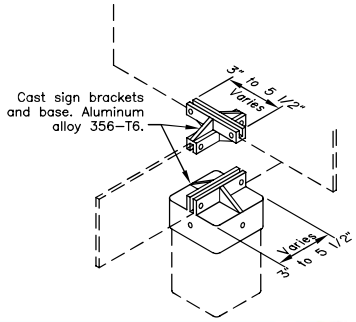
POST MOUNTED SIGN
OFFSET AND HEIGHT

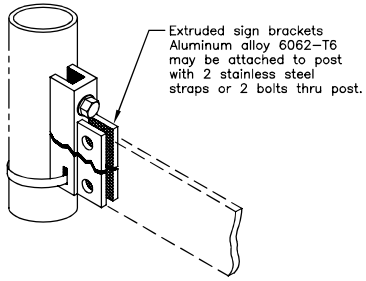
APPROVED

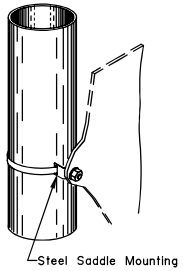
Date 7/15/82

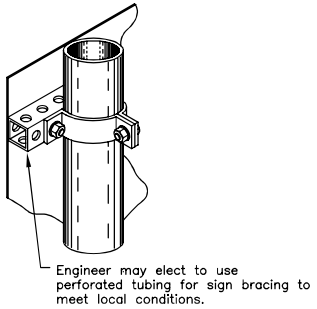
S-05.01

S-20.10



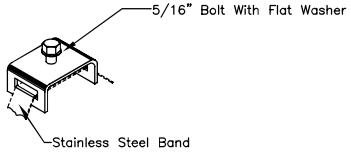


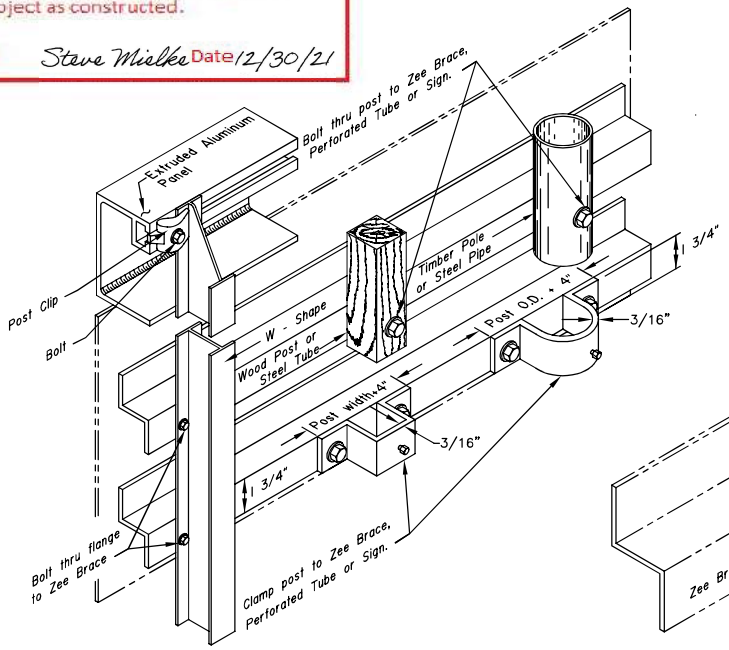


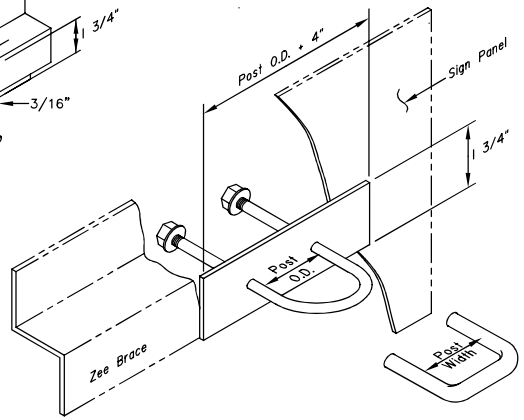


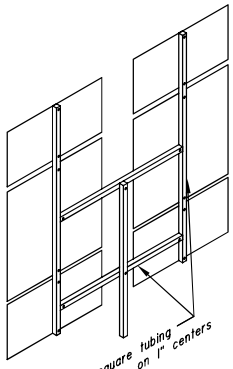
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Steve Mielke Date 12/30/21









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		

REVISIONS		
Date	Description	By

Sheet 1 of 1

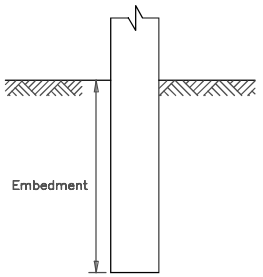
State of Alaska
Department of Transportation
& Public Facilities

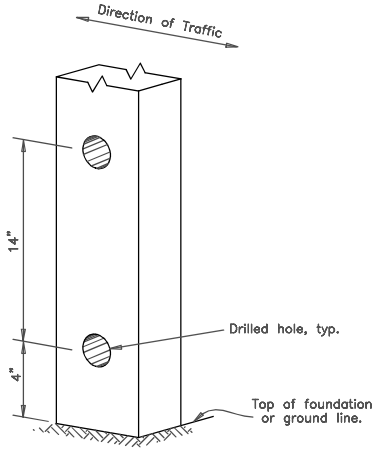
SIGN TO SIGN POST CONNECTIONS

APPROVED
Date 2/28/03

S-20.10

S-30.04

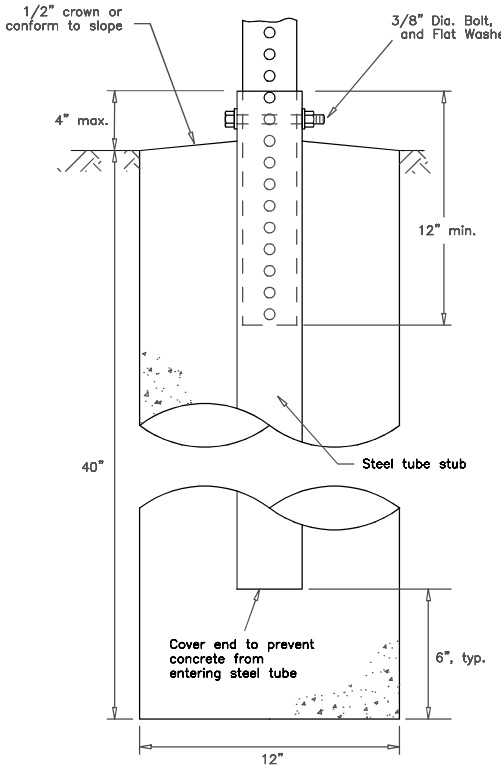




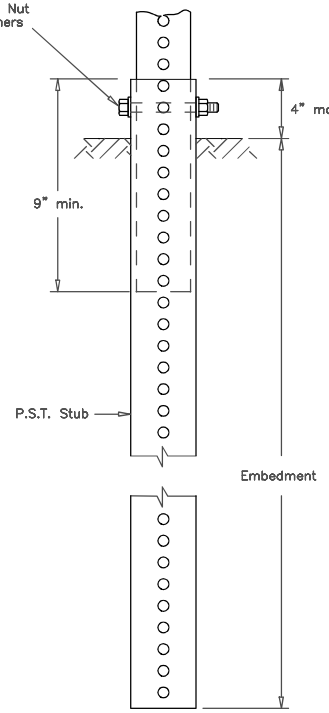
WOOD SIGN POSTS			
SIZE	HOLE DIA.	EMBEDMENT*	NO. OF POSTS WITHIN 7 Ft. PATH
4"x4"	NONE	36"	2
4"x6"	1 1/2"	36"	2
6"x6"	1 1/2"	40"	1
6"x8"	3"	48"	1

* Embedment depth applies in both strong and weak soil.

WOOD POSTS



SLEEVE TYPE
CONCRETE FOUNDATION



SLEEVE TYPE *
SOIL EMBEDMENT

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

GENERAL NOTES:

1. Refer to Std Dwg 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. Do not install wood posts larger than 6"x8".
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.

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By
4/2/01	Revised PST table Added Note 3	KJS
2/12/02	Revised wood posts	KJS
1/16/17	Rev. note 1, et. al.	LRG

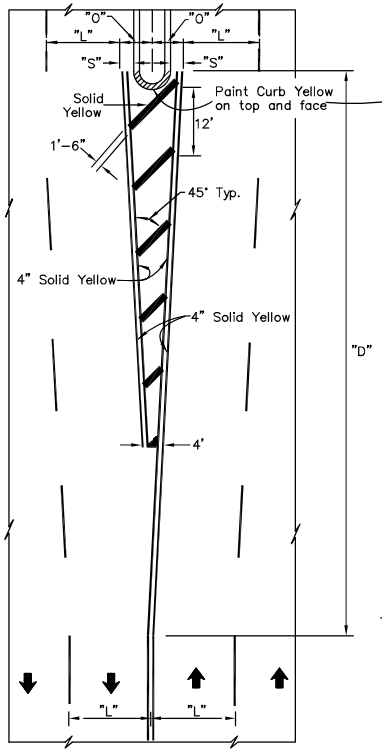
State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

LIGHT SIGN STRUCTURE POST EMBEDMENT

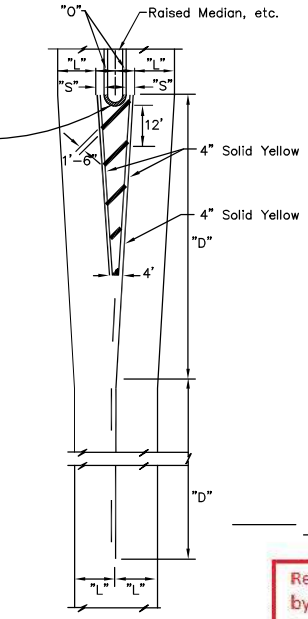
Eff. Date: 1/16/17

S-30.04

T-20.03

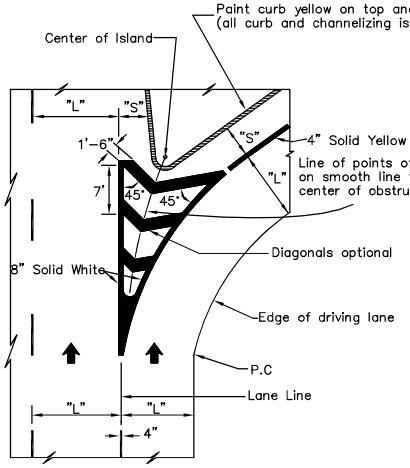


FOUR OR MORE LANES
DRIVE TO RIGHT

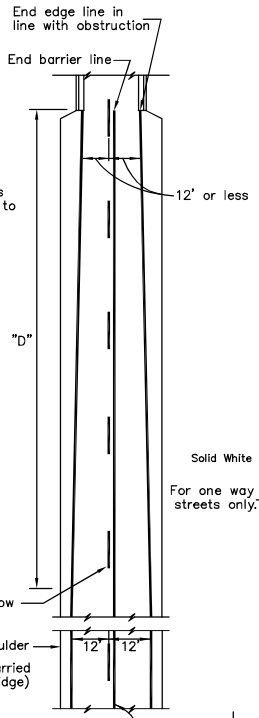


TWO LANES
DRIVE TO RIGHT

White longitudinal and diagonal markers identical to Four Lane Arrangement.

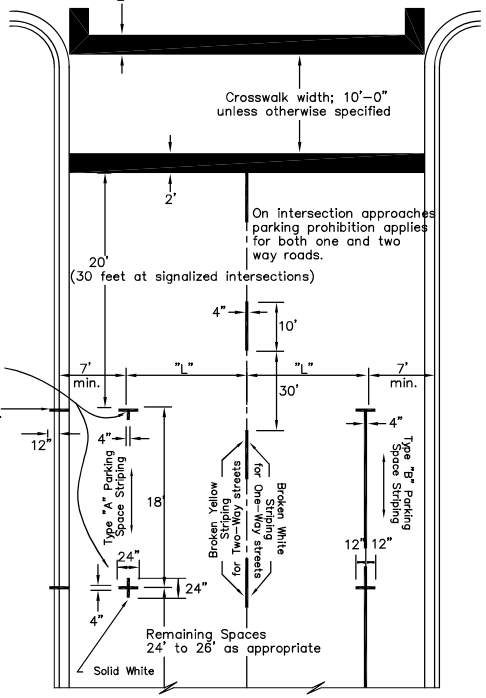


CHANNELIZING ISLAND



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:

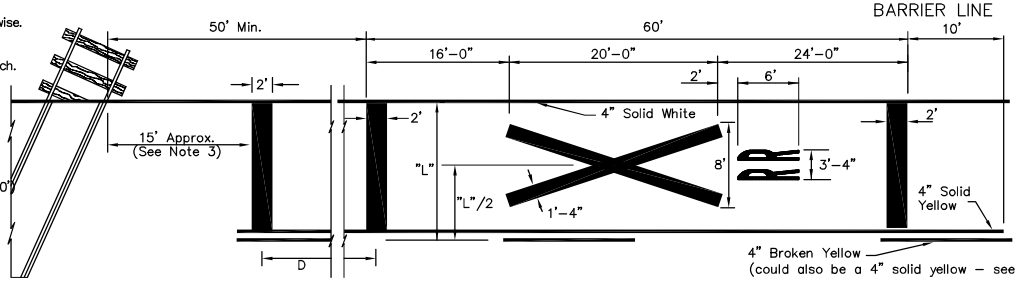
1. "D" = Speed limit (mph) X "O" (offset width in feet) or as indicated on the plans. Minimum "D" = 100 feet urban, 200 feet rural.

APPROACH TO OBSTRUCTIONS

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 designated, otherwise 1 to 2 feet.
2. "L"-driving lane width.
3. See Alaska Traffic Manual for additional instruction and/or restriction on the use of TRAFFIC CONTROL DEVICES.

NOT TO SCALE

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By
2/15/00	Changed "RR" location	KJS
10/31/03	Correct dim / text errors	LRG
4/28/10	Notes/details to MUTCD	KJS

Sheet 1 of 1

State of Alaska
Department of Transportation & Public Facilities

PAVEMENT MARKING APPLICATIONS

APPROVED
4/28/10
Date 5/31/12

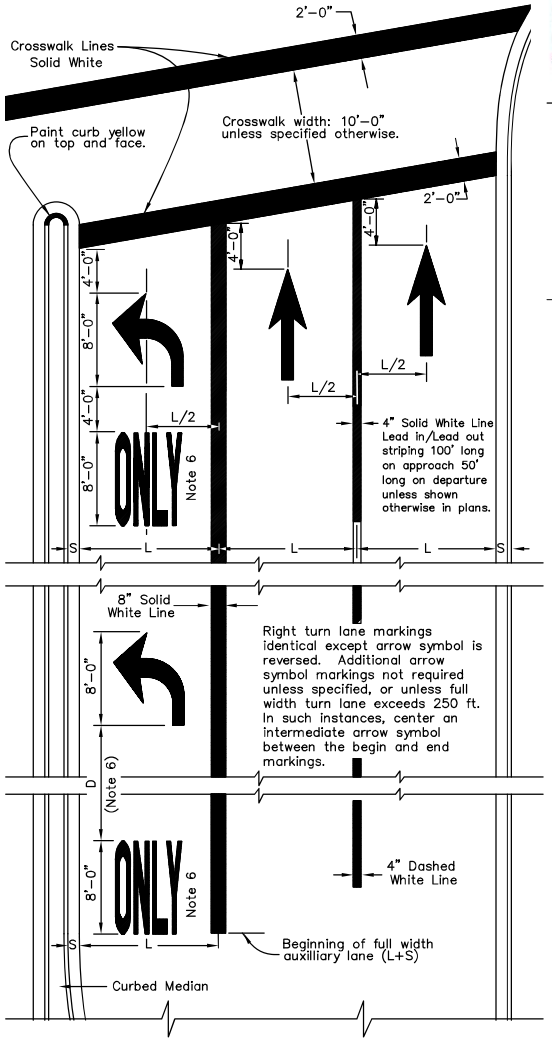
T-20.03

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

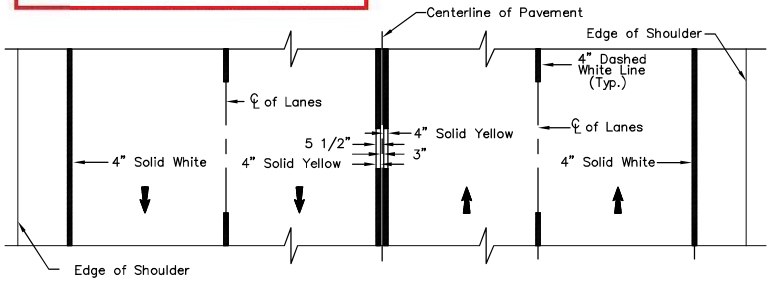
PE Steve Mielke Date 12/30/21

T-21.03

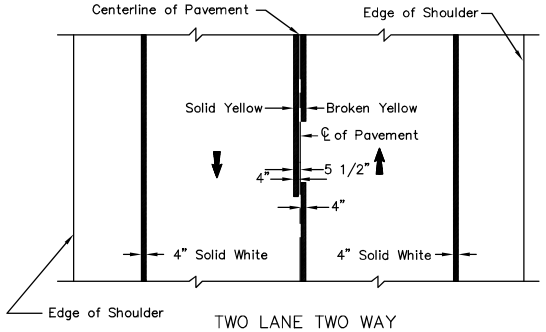
SHEET 1 of 1



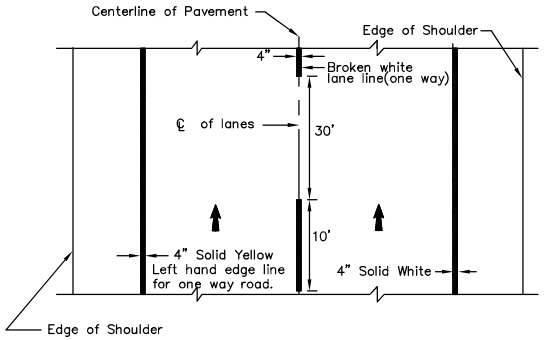
APPROACH TO INTERSECTION



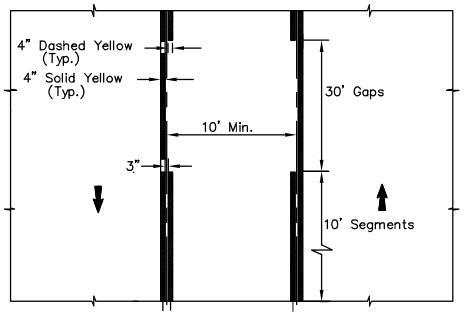
FOUR LANE TWO WAY



TWO LANE TWO WAY

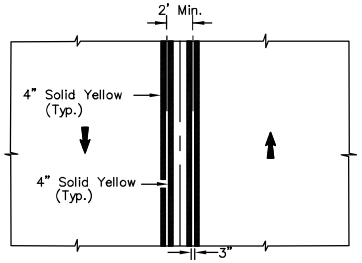


TWO LANE ONE WAY



TWO-WAY LEFT TURN LANE

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. 6. Adjust distance D between ONLY and Turn Arrow based on SPEED vs. D table.

REVISIONS		
Date	Description	By
1/1/86	Arrow Dimension	Gdo
1/1/96	Intersect. Note	Gdo
4/28/10	Details, labels, notes	K.JS

State of Alaska
Department of Transportation & Public Facilities

PAVEMENT MARKING APPLICATIONS

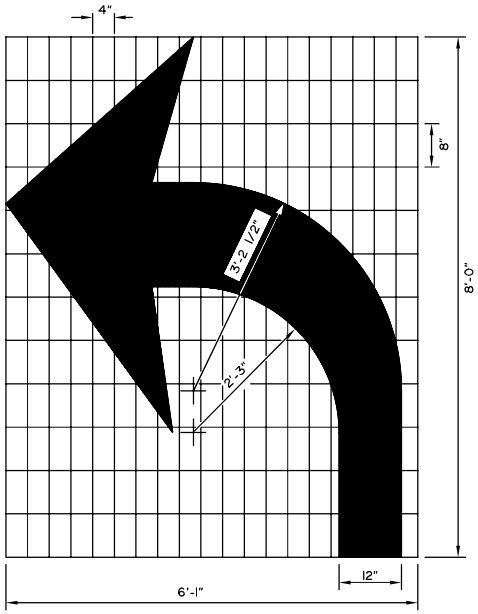
APPROVED 4/28/10

Date 5/31/12

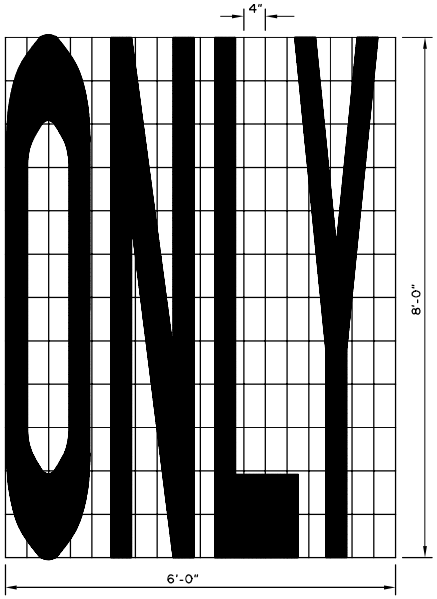
T-21.03

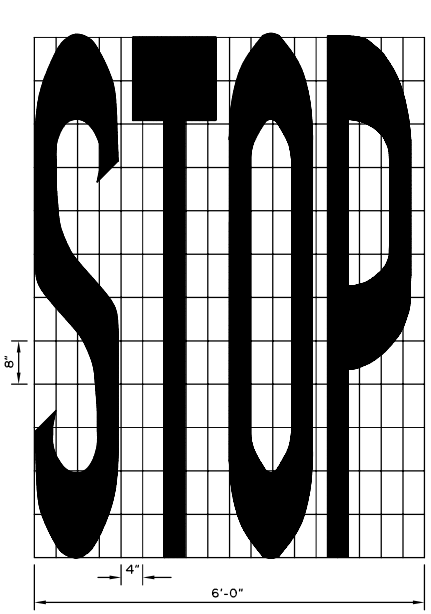
T-22.03

SHEET | of |



Right turn auxilliary lane usage markings identical except arrow symbol is reversed.

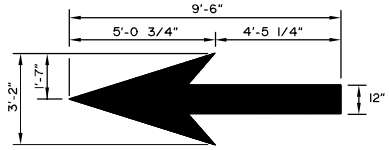




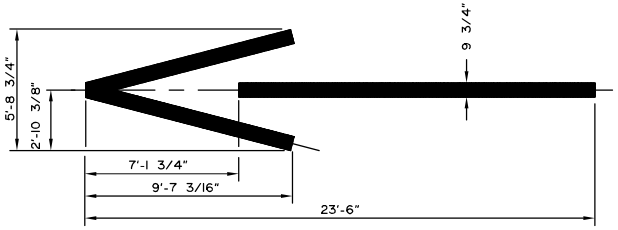
LAYOUT TEMPLATES FOR STENCILS

GENERAL NOTES:

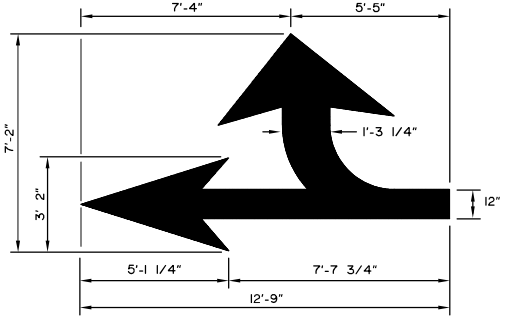
1. All symbols shown shall be white and reflectorized in accordance with the Special Provisions.
2. See "Standard Alphabets for Highway Signs and Pavement Marking" for letter layout.



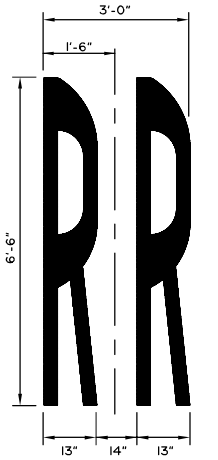
STRAIGHT AHEAD ARROW



WRONG WAY ARROW



COMBINATION ARROW



RAILROAD SYMBOL

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By
1/1/86	Redraft Arrow Dim.	Gdo
4/1/93	Revise Arrow Markings	Gdo
2/15/00	Revise RR Symbol	KJS

State of Alaska
Department of Transportation
& Public Facilities

PAVEMENT MARKING
SYMBOL DIMENSIONS

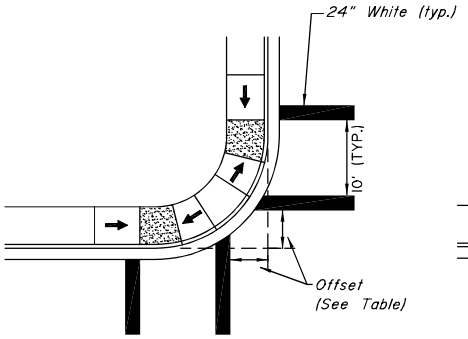
APPROVED

Date 1/1/86

T-22.03

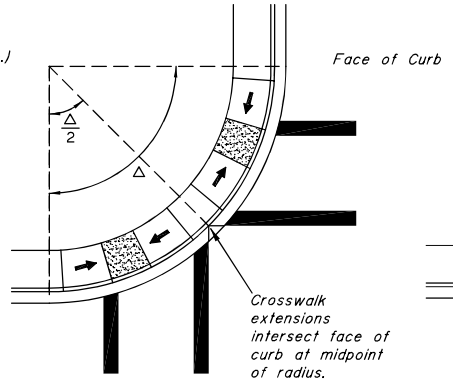
T-23.00

SHEET | of |



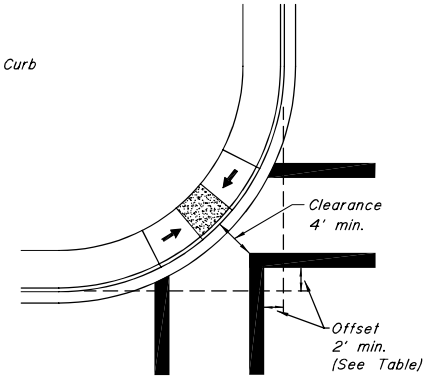
CASE 1

Dual Curb Ramps
Radius ≤ 25'



CASE 2

Dual Curb Ramps
25' < Radius ≤ 50'



CASE 3

Single Central Curb Ramp
25' ≤ Radius ≤ 50'
(Not Recommended)

CASE 1	
Crosswalk Offset From Face of Curb	
Radius (ft.)	Offset (ft.)
5	5
10	6
15	7
20	8
25	9

CASE 3	
Crosswalk Offset From Face of Curb	
Radius (ft)	Offset (ft)
25	2
30	3
35	5
40	6
45	8
50	9

NOTES.

1. The crosswalk locations shown assume a 90-degree intersection - adjust as necessary on skewed intersections to ensure that crosswalk landings (for parallel curb ramps) or ramp runs (for perpendicular curb ramps) fall within the inner edges of crosswalk stripes. If Case 3 (not recommended) is used, the layout should also be adjusted to provide at least the minimum clearance while maximizing the offset.
2. Although border crosswalks are shown, these details apply to ladder crosswalks also. When used, the outside of 10' wide ladder crosswalks should coincide with the inside of border crosswalks as shown here.
3. Border crosswalks should be used at traffic signals or on approaches controlled by stop signs. At other locations, ladder crosswalks should be used.
4. If only one crosswalk connects with a curb radius, it should be located as if there were two connecting crosswalks.
5. These details apply to parallel (shown) as well as perpendicular curb ramps.
6. Case 3, the layout for a single central curb ramp, should be used only when installing two ramps is not feasible. It should not be used for radii under 25 feet. See plans for ramp layout at particular locations.
7. Radius is measured to the face of curb.

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

PE Steve Mielke Date 12/30/21

REVISIONS		
Date	Description	By

State of Alaska
Department of Transportation
& Public Facilities

CROSSWALK LOCATION AT INTERSECTIONS

APPROVED

Date 2/15/00

T-23.00

U-03.01

SHEET 1 of 1

THRUST BLOCK MINIMUM SIZE TABLE

For Bends Greater Than 45°, Tee Branches & Crosses

Pipe Diam. (In.)	Water Pressure in Pipe (P.S.I.) 50 Bearing Area (Sq. Ft.)	50 Concrete Volume (Cu. Ft.)	150 Bearing Area (Sq. Ft.)	150 Concrete Volume (Cu. Ft.)	250 Bearing Area (Sq. Ft.)	250 Concrete Volume (Cu. Ft.)
2	0.5	0.5	0.8	1.0	1.0	1.3
3	0.6	0.8	1.0	1.3	1.1	1.5
4	0.8	1.0	1.6	3.1	1.5	3.0
6	1.0	1.3	1.9	4.0	3.2	7.0
8	1.1	1.5	3.2	7.0	5.4	11.0
10	1.7	3.2	4.9	10.0	8.3	19.0
12	2.4	5.2	7.1	17.0	11.8	24.3
14	3.2	7.0	9.8	21.0	16.1	32.0
16	4.1	8.0	12.3	25.0	20.5	40.0
18	5.4	11.0	16.2	32.0	27.1	50.0
20	6.8	15.0	20.6	40.0	34.4	70.0
24	8.2	19.0	25.3	50.0	42.0	80.0

For Bends 45° or Less

2	0.5	0.5	0.5	0.5	0.6	0.8
3	0.5	0.5	0.7	0.9	0.8	1.0
4	0.5	0.5	0.9	1.1	1.0	1.5
6	0.6	0.8	1.2	2.0	1.7	3.2
8	0.8	1.0	1.8	3.6	2.9	6.0
10	1.0	1.3	2.7	5.8	4.5	9.0
12	1.3	2.5	3.8	7.5	6.4	14.0
14	1.7	3.2	5.2	11.0	8.6	19.0
16	2.2	4.5	6.7	15.0	11.2	24.0
18	2.8	5.9	8.5	19.0	14.1	30.0
20	3.5	7.0	10.5	22.2	17.5	35.0
24	4.2	8.0	12.8	26.0	21.5	40.0

VALVES REQUIRING ANCHORAGE

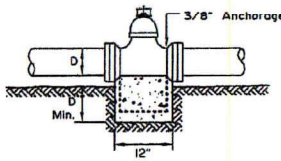
WORKING PRESSURE (P.S.I.)	VALVES REQUIRING ANCHORAGE
50 - 100	12 Inch and up
101 - 150	8 Inch and up
151 - 200	All Sizes

THRUST AT VERTICAL BEND PER DEGREE DEFLECTION AT 100 P.S.I. WATER PRESSURE

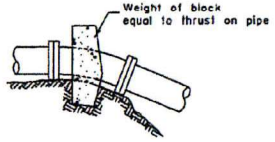
PIPE SIZE	THRUST (LB.)	PIPE SIZE	THRUST (LB.)
4"	35	10"	197
6"	72	12"	278
8"	122	14"	377
		16"	486

GENERAL NOTES:

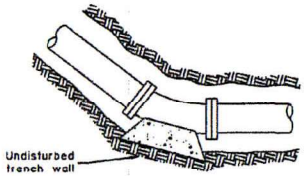
1. Thrust blocks are to be concrete poured in place between the fitting and undisturbed trench wall.
2. Concrete shall be kept centered behind bell of fitting and not obstructing pipe joints.
3. Thrust blocks are required whenever pipe-line changes direction, changes size, dead ends, or develops thrust at valves.
4. Material, behind the thrust blocks, deemed unsuitable by the engineer shall be removed and replaced as directed by the engineer.
5. In impervious soils, a hole shall be dug beneath the hydrant thrust block tp a minimum volume of 7 cubic feet. The hole shall be filled with porous backfill material.
6. Refer to AWWA C600-64 Section II for placement of hydrant
7. Orient hydrant with nozzles facing street.

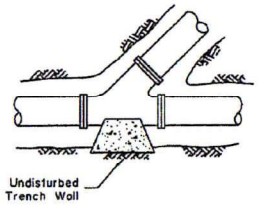


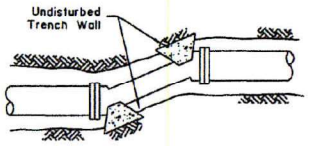
ANCHORAGE OF VALVES

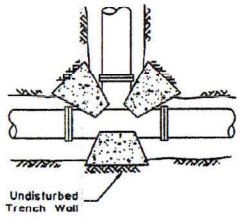


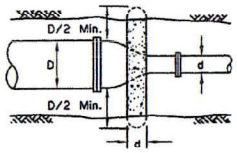
VERTICAL BENDS

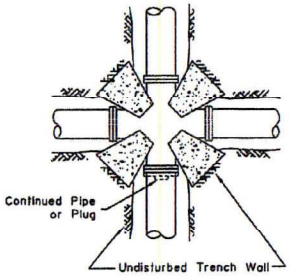




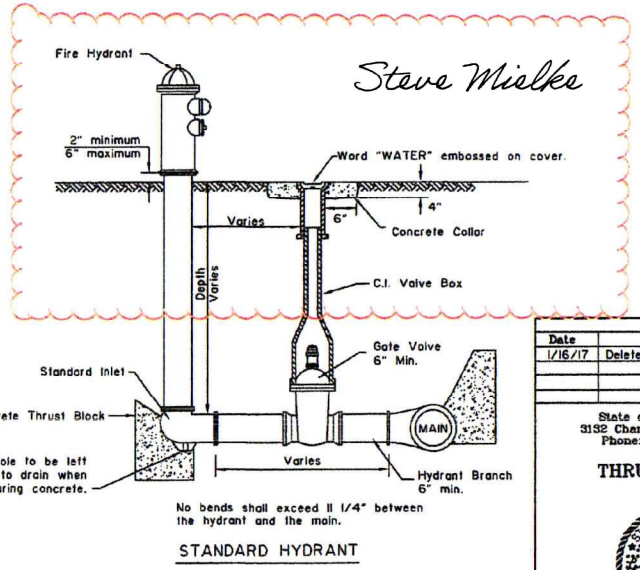








PLACEMENT OF THRUST BLOCKS



STANDARD HYDRANT

Steve Mielke 12/30/21

REVISIONS		
Date	Description	By
1/16/17	Delete Note 7	LRG

State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2980

THRUST BLOCKS

Eff. Date: 1/16/17