

PROJECT
LOCATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT
HEALY SPUR ROAD REHABILITATION
0638005 / NFHWY00580
GRADING, DRAINAGE, & PAVING

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	A1	37
			CDS ROUTE: 173500		MILEPOINT: 0.00 TO 1.25		

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	LEGEND
A3	PROJECT CONTROL
B1	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES & GENERAL NOTES
E1-E2	CULVERT/DRAINAGE DETAILS & SUMMARY
E3	MISCELLANEOUS DETAILS
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G1-G2	APPROACH SUMMARY & DETAILS
H1-H5	SIGNING & STRIPING
Q1-Q5	ESCP
V1-V14	STANDARD PLANS

THE FOLLOWING STANDARD PLANS APPLY TO THIS PROJECT:
C-04.12, C-05.20,
D-04.22,
I-81.00,
S-00.12, S-01.02, S-05.02, S-30.05, S-31.02,
T-21.04, T-22.04

DESIGN DESIGNATIONS	
ADT (2020)	1,825
ADT (2045)	2,490
DHV (%)	14.10%
PERCENT TRUCKS (T)	15.35%
DIRECTIONAL SPLIT (D)	35/65
DESIGN SPEED (V)	35 MPH
DESIGN ESALS (15 YEARS)	848,943

PROJECT SUMMARY	
WIDTH OF PAVEMENT	34 - 45 FEET
LENGTH OF GRADING	6,550 FEET
LENGTH OF PAVING	6,550 FEET
LENGTH OF PROJECT	6,550 FEET

JENNIFER WRIGHT, P.E., ENGINEERING MANAGER
MARK TREVOR VALLARINO, DESIGNER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED BY: _____ DATE _____
Sarah E. Schacher, P.E.
Preconstruction Engineer, Northern Region

ACCEPTED FOR CONSTRUCTION: _____ DATE _____
Joseph P. Kemp, P.E.
Acting Regional Director, Northern Region

		NO.		DATE		REVISION		STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
								ALASKA	0638005 / NFHWY00580	2022	A2	A3

		RECOVERED		SET		EXISTING		PROPOSED	
BLM MONUMENT						SANITARY SEWER (FLOW DIRECTION →)		→→→ SS →	→→→ SS →
GLO MONUMENT						FUEL LINE		→→→ O →	→→→ O →
USC&GS MONUMENT						GAS LINE		→→→ G →	→→→ G →
PRIMARY MONUMENT							WATER LINE		→→→ W →
CENTERLINE MONUMENT IN CASING							METER, VALVE, FIRE HYDRANT		→→→ W →
PRIMARY R.O.W. MONUMENT							EXISTING STORM DRAIN (FLOW DIRECTION →)		→→→ SD →
BEARING OBJECT								PROPOSED STORM DRAIN	
MISCELLANEOUS MONUMENT									
LINE OF SIGHT MONUMENT							FIBER OPTIC LINE		---FO---
CONCRETE R.O.W. MONUMENT								DIRECT BURIAL TELEPHONE CABLE	
BENCHMARK							DIRECT BURIAL ELECTRIC CABLE		---E---
REBAR AND CAP							ELECTRIC LINE (OVERHEAD)		-----
REBAR							POWER POLE LINE		---[]---
IRON PIPE								JOINT USE POWER & TELEPHONE	
PK NAIL							TELEPHONE POLE LINE		---[]---
SPIKE							POLE ANCHOR		---[]---
HUB AND TACK							STUB POLE (POWER OR TELEPHONE)		---[]---
CONSTRUCTION CENTERLINE								TELEPHONE DUCT	
MISCELLANEOUS CENTERLINE								TELEPHONE PEDESTAL	
STATION EQUATION								BURIED CABLE MARKER	
PROJECT RIGHT-OF-WAY LINE								PIPELINE MARKER OR VALVE	
EXISTING RIGHT-OF-WAY LINE								CATCH BASIN OR DROP INLET	
EXISTING PROPERTY LINE								MANHOLE	
CONTROLLED ACCESS LINE								SANITARY SEWER CLEAN OUT	
UTILITY EASEMENT LINE									
TEMPORARY EASEMENT LINE (TCP OR TCE)									
ACCESS OR SECTION LINE EASEMENT									
PROPOSED CUT SLOPE LIMIT									
PROPOSED FILL SLOPE LIMIT									
SECTION LINE									
1/4 SECTION LINE									
1/16 SECTION LINE									
TOWNSHIP & RANGE LINE									

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

CROSS-BUCK	
FLASHING LIGHT	
CANTILEVER	
SWITCH	

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

ABBREVIATIONS:
APPROX APPROXIMATELY
BOP BEGINNING OF PROJECT
CL CENTERLINE
COM. COMMERCIAL
CSP CORRUGATED STEEL PIPE
CY CUBIC YARD
D DEGREE OF CURVE
E EAST, EASTING
ELE, ELEV ELEVATION
EOP END OF PROJECT
ESCP EROSION SEDIMENT CONTROL PLAN
FG FINISHED GRADE
FT. ' FOOT, FEET
H HORIZONTAL
HW/D HEADWATER TO DIAMETER RATIO
IE INVERT ELEVATION
IN, " INCH, INCHES
L LENGTH OF CURVE
L.C.L LEFT OF CENTERLINE
LT LEFT
LVC LENGTH OF VERTICAL CURVE
MAX MAXIMUM
MIN MINIMUM
N NORTH, NORTHING
NO. NUMBER
NTS NOT TO SCALE
O.C. ON CENTER
PC POINT OF CURVATURE
POT POINT ON TANGENT
PST PERFORATED STEEL TUBE
PT POINT OF TANGENCY
PVI POINT OF VERTICAL INTERSECTION
R RADIUS
RES. RESIDENTIAL
R.C.L RIGHT OF CENTERLINE
RT RIGHT
S SOUTH
SQ. FT. SQUARE FOOT
STA STATION
T TANGENT
TCE TEMPORARY CONSTRUCTION EASEMENT
TS TUBE STEEL
TYP TYPICAL
V VERTICAL
VPC VERTICAL POINT OF CURVATURE
VPI VERTICAL POINT OF INTERSECTION
VPT VERTICAL POINT OF TANGENCY
W WEST
WWR WELDED WIRE REINFORCEMENT
Ø DIAMETER
Δ DELTA ANGLE

LEGEND

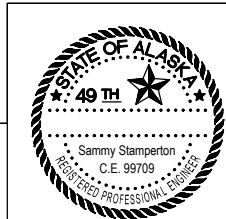
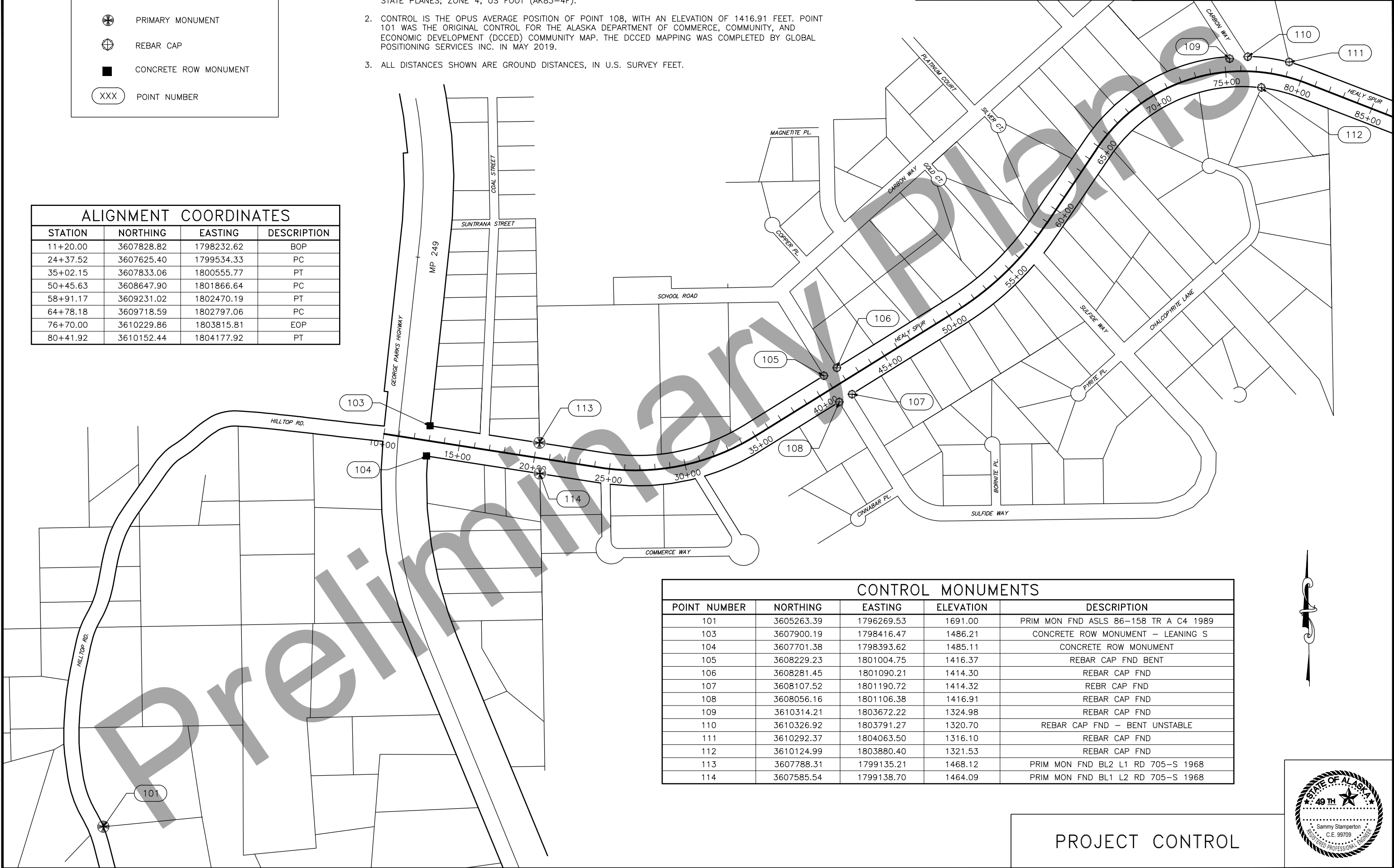
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR_A3-PROJECT CONTROL.Fri, Jun/24/22 11:06am

ALIGNMENT COORDINATES			
STATION	NORTHING	EASTING	DESCRIPTION
11+20.00	3607828.82	1798232.62	BOP
24+37.52	3607625.40	1799534.33	PC
35+02.15	3607833.06	1800555.77	PT
50+45.63	3608647.90	1801866.64	PC
58+91.17	3609231.02	1802470.19	PT
64+78.18	3609718.59	1802797.06	PC
76+70.00	3610229.86	1803815.81	EOP
80+41.92	3610152.44	1804177.92	PT

GENERAL NOTES:

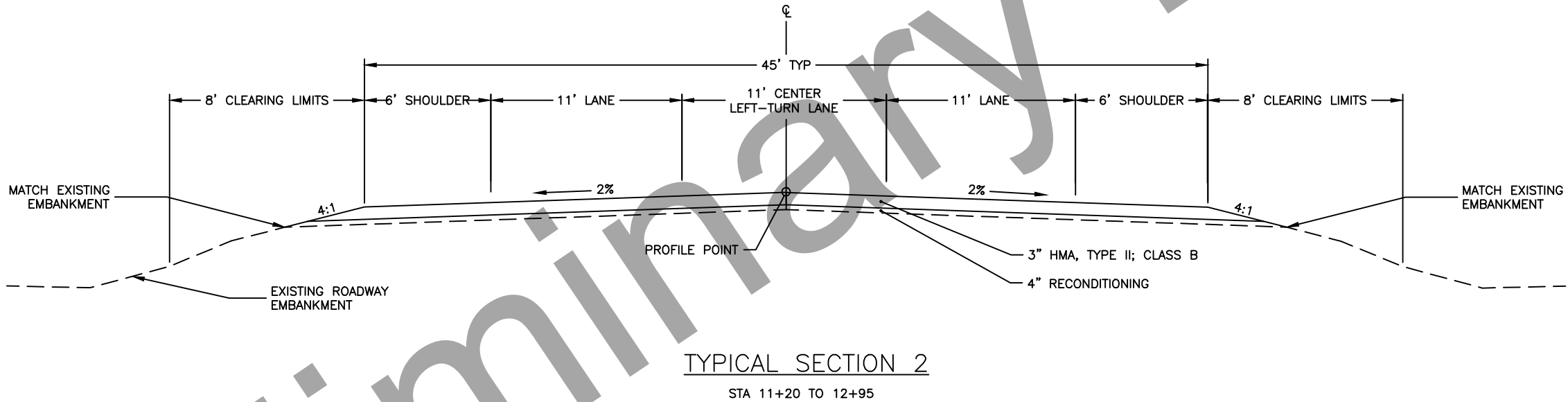
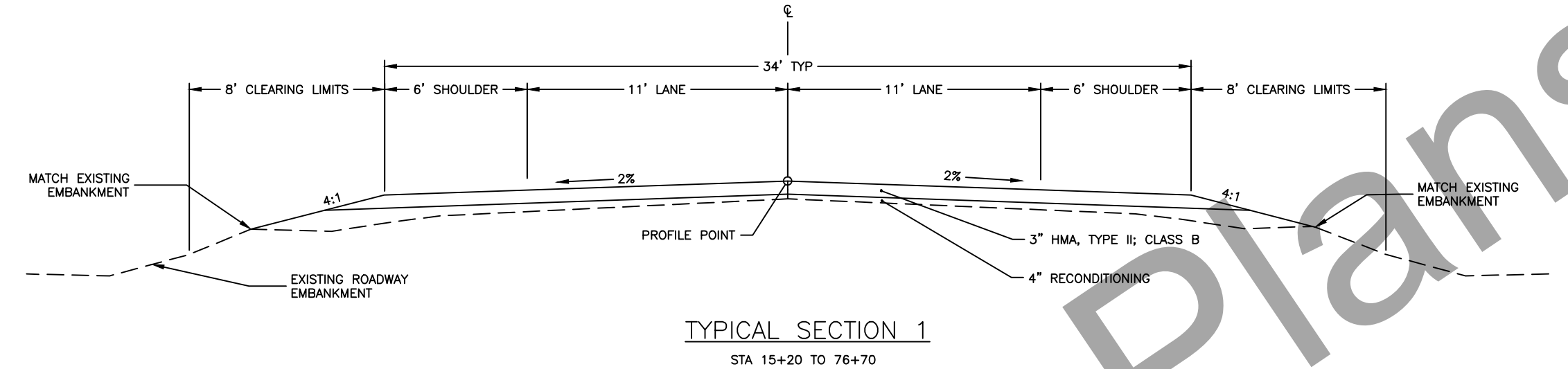
1. THE BASIS OF BEARINGS AND COORDINATES USED FOR THIS DESIGN IS THE NAD83 DATUM, ALASKA STATE PLANES; ZONE 4, US FOOT (AK83-4F).
2. CONTROL IS THE OPUS AVERAGE POSITION OF POINT 108, WITH AN ELEVATION OF 1416.91 FEET. POINT 101 WAS THE ORIGINAL CONTROL FOR THE ALASKA DEPARTMENT OF COMMERCE, COMMUNITY, AND ECONOMIC DEVELOPMENT (DCCED) COMMUNITY MAP. THE DCCED MAPPING WAS COMPLETED BY GLOBAL POSITIONING SERVICES INC. IN MAY 2019.
3. ALL DISTANCES SHOWN ARE GROUND DISTANCES, IN U.S. SURVEY FEET.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	A3	A3



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D:\C3D\HealySpur\Working\HSPUR_B_SHEETS-TYPICAL SECTIONS Mon, Jul/11/22 01:15pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	B1	B1



TYPICAL SECTION GENERAL NOTES

- 1. EXISTING ASPHALT MAY BE REUSED IN THE NEW EMBANKMENT, BUT MUST BE PROCESSED SO THAT 100 PERCENT BY WEIGHT PASSES THE 2-INCH SIEVE AND 95-100 PERCENT BY WEIGHT PASSES THE 1-1/2-INCH SIEVE. PROCESSING AND HANDLING OF THE EXISTING ASPHALT IS SUBSIDIARY TO 303.0001.0000 RECONDITIONING.
- 2. SCARIFY THE EXISTING ROAD SURFACE WITHIN THE EXISTING ROW LIMITS PER SECTION 303 TO A TOTAL DEPTH OF 4-INCHES. REGRADE THE SURFACE TO THE TYPICAL SECTION CROSS SLOPES PRIOR TO ADDING HMA. USE AGGREGATE BASE COURSE MATERIAL TO RE-ESTABLISH ROADWAY WIDTH AND CROWN, AS DIRECTED BY THE ENGINEER.
- 3. TRANSITION BETWEEN TYPICAL SECTION 2 AND TYPICAL SECTION 1 FOLLOWING THE TAPER TABLE TO MATCH EXISTING ROADWAY CONDITIONS. SEE LEFT TURNING LANE TRANSITION DETAIL ON SHEET E3 FOR ADDITIONAL INFORMATION.
- 4. SUPERELEVATION RATES AND TRANSITIONS ARE NOT PROVIDED. CONTRACTOR SHALL REHABILITATE SUPERELEVATIONS TO MATCH EXISTING SLOPE AND ENSURE DRAINAGE TO INLETS IS MAINTAINED. EXISTING SUPERELEVATIONS WILL BE ESTABLISHED IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL BE PAID FOR UNDER 642.0001.0000 CONSTRUCTION SURVEYING.
- 5. SEED ALL DISTURBED AREAS OR AS DIRECTED BY THE ENGINEER.

TAPER TABLE				
BEGIN TAPER	WIDTH (FT)	END TAPER	WIDTH (FT)	SIDE
"H" 12+95	22.5	"H" 15+20	17	RT
"H" 13+70	22.5	"H" 15+20	17	LT

TYPICAL SECTIONS



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D:\C3D\HealySpur\Working\HSPUR_ESTIMATE-ESTIMATE OF QUANTITIES.Fri, Jun/24/22 04:13pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	C1	C1

ESTIMATE OF QUANTITIES			
ITEM NUMBER	PAY ITEM	PAY UNIT	QUANTITY
201.0001.0000	CLEARING	ACRE	3
202.0017.0000	REMOVAL OF CULVERT PIPE	EACH	9
203.0006.0000	BORROW	TON	2,670
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	1,380
303.0001.0000	RECONDITIONING	STA	66
401.0001.002B	HMA, TYPE II; CLASS B	TON	4,690
401.0004.5228	ASPHALT BINDER, GRADE 52-28	TON	270
401.0008.002B	HMA PRICE ADJUSTMENT, TYPE II; CLASS B	CONTINGENT SUM	ALL REQUIRED
401.0009.0000	LONGITUDINAL JOINT DENSITY PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
401.0010.0001	PAVEMENT SMOOTHNESS PRICE ADJUSTMENT, METHOD 1	CONTINGENT SUM	ALL REQUIRED
401.0012.002B	HMA, DRIVEWAY, TYPE II; CLASS B	TON	225
401.0013.0000	JOB MIX DESIGN	EACH	1
603.0001.0018	CSP 18 INCH	EACH	635
603.0001.0024	CSP 24 INCH	LF	237
603.2016.0000	CLEAN CULVERT	EACH	6
613.0002.0000	CULVERT MARKER POST	EACH	12
615.0001.0000	STANDARD SIGN	SF	90.08
618.0002.0000	SEEDING	LB	160
630.0003.0001	GEOTEXTILE, REINFORCEMENT - TYPE 1	SY	500
639.0002.0000	DRIVEWAY, RESIDENTIAL	EACH	11
639.0003.0000	DRIVEWAY, COMMERCIAL	EACH	14
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
640.0004.0000	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
641.0001.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641.0003.0000	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
641.0004.0000	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL ADDITIVES	CONTINGENT SUM	ALL REQUIRED
641.0006.0000	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED
641.0007.0000	SWPPP MANAGER	LUMP SUM	ALL REQUIRED
642.0001.0000	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
642.0003.0000	THREE PERSON SURVEY PARTY	HR	20
643.0002.0000	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643.0025.0000	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED
644.0001.0000	FIELD OFFICE	LUMP SUM	ALL REQUIRED
644.0002.0000	FIELD LABORATORY	LUMP SUM	ALL REQUIRED
644.0006.0000	VEHICLE	LUMP SUM	ALL REQUIRED
646.0001.0000	CPM SCHEDULING	LUMP SUM	ALL REQUIRED
670.0001.0000	PAINTED TRAFFIC MARKINGS	LUMP SUM	ALL REQUIRED

GENERAL NOTES:

- IT IS THE INTENT TO REHABILITATE AND RESURFACE HEALY SPUR ROAD WHILE MAINTAINING THE EXISTING ROADWAY ALIGNMENT AND PROFILE IN A MANNER THAT WILL PROMOTE POSITIVE DRAINAGE. LOCATIONS, DIMENSIONS, AND QUANTITIES ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- PERFORM ALL WORK WITHIN THE EXISTING RIGHT-OF-WAY. STAKE THE ROW LINE FOR ANY WORK BEYOND THE ROADWAY EMBANKMENT TO AVOID TRESPASSING.
- FUEL STORAGE WILL NOT BE ALLOWED WITHIN 100-FT OF WATER BODIES AND MUST HAVE SECONDARY CONTAINMENT.
- ALL UNUSABLE WASTE MATERIAL IS TO BE DISPOSED OF OUTSIDE THE PROJECT LIMITS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING WASTE DISPOSAL SITES AT AREAS APPROVED BY THE ENGINEER.
- MAINTAIN THRU TRAFFIC AT ALL TIMES FOR ALL ROADS THROUGHOUT THE DURATION OF THE PROJECT.

UTILITY NOTES:

- BURIED UTILITIES EXIST THROUGHOUT THE PROJECT AREA. UTILITY LOCATIONS ARE APPROXIMATE. LOCATE AND PROTECT ALL EXISTING UTILITIES WITHIN THE PROJECT LIMITS FROM CONSTRUCTION DAMAGE PRIOR TO BEGINNING ANY GROUND DISTURBING WORK OR CLEARING. CONTACT THE DIGLINE (1-800-478-3121) OR THE UTILITY COMPANIES FOR LOCATES.
- PROTECT, OR REMOVE AND REPLACE EXISTING UTILITY MARKER POSTS. THIS WORK IS SUBSIDIARY TO OTHER PAY ITEMS.

ESTIMATING FACTORS		
ITEM NUMBER	DESCRIPTION	VALUE
203.0006.0000	BORROW	2.0 TONS / CY
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	2.0 TONS / CY
401.0001.002B	HMA, TYPE II; CLASS B	148 LB / CF
401.0004.5228	ASPHALT BINDER, GRADE 52-28	5.5% OF TOTAL WEIGHT OF 401(1)
618.0002.0000	SEEDING	65 LBS/ACRE

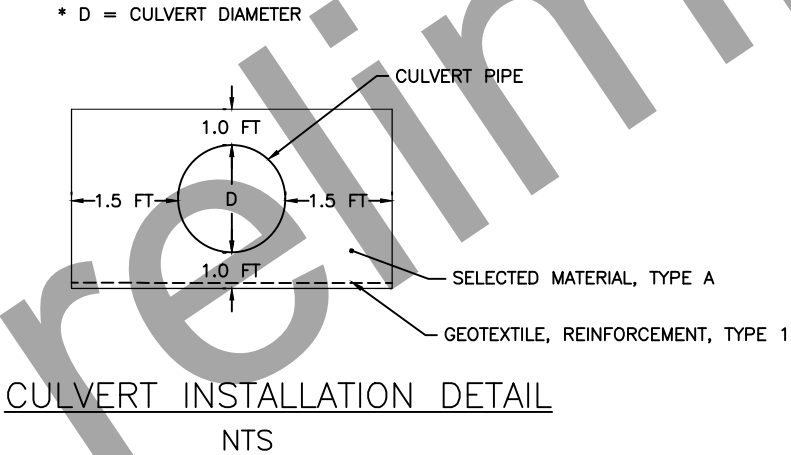
ESTIMATE OF QUANTITIES



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR-E-SHEETS-CULVERT SUMMARY Mon, Jul/11/22 01:17pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	E1	E3

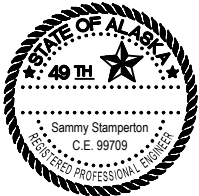
CULVERT SUMMARY																	
CULVERT NO.	PROJECT STATION	EXISTING CULVERT	INLET			OUTLET			REMOVAL OF CULVERT PIPE (EA)	CLEAN EXISTING CSP	603 PAY ITEMS (FT)		CULVERT MARKER POST (EACH)	AS-BUILT INFORMATION			REMARKS
			STATION	OFFSET (FT)	INVERT ELEVATION	STATION	OFFSET (FT)	INVERT ELEVATION			18" CSP	24" CSP		STATION	LATITUDE	LONGITUDE	
1	11+48	24" X 79' CSP	11+44	36 LT	N/A	11+52	45 RT	N/A		X			2				
2	13+30	24" X 61' CSP	13+00	58 LT	N/A	13+61	57 LT	N/A		X							APPROACH - STAMPEDE LODGE
3	15+73	N/A	15+51	60 RT	1476.80	15+95	59 RT	1476.12			43						
4	16+54	24" X 44' CSP	16+24	65 LT	1475.27	16+81	62 LT	1474.64	1			58					COAL STREET INTERSECTION - SEE NOTE 7
5	18+94	24" X 50' CSP	18+69	49 RT	N/A	19+19	48 RT	N/A		X							APPROACH - FIRST STUDENT
6	20+96	24" X 54' CSP	20+70	45 LT	1466.47	21+32	46 LT	1465.06	1		62						M&O STATION ENTRANCE - SEE NOTE 7
7	22+90	CSP DEBRIS	N/A	LT	N/A	N/A	LT	N/A	1								DAMAGED CSP AT OLD APPROACH - REMOVAL ONLY
8	23+95	24" X 84' CSP	23+91	36 LT	1457.71	24+03	58 RT	1456.81	1			95	2				
9	24+91	N/A	24+68	46 LT	1456.29	25+21	46 LT	1455.02			52						M&O STATION EXIT - SEE NOTE 7
10	35+61	36" X 96' CSP	35+71	49 LT	N/A	35+64	47 RT	N/A		X			2				
11	41+21	24" APPROACH CSP	40+91	58 LT	1416.82	41+46	57 LT	1415.30	1		55						HEALY SCHOOL ROAD INTERSECTION - SEE NOTE 7
12	41+29	24" APPROACH CSP	40+92	60 RT	1416.04	41+62	61 RT	1414.91	1		70						1ST SULFIDE WAY INTERSECTION - SEE NOTE 7
13	44+36	N/A	44+11	54 RT	1406.48	44+58	54 RT	1405.88			47						RESIDENTIAL APPROACH
14	47+66	N/A	47+47	47 LT	1397.07	47+89	44 LT	1395.41			42**						RESIDENTIAL APPROACH - TBD
15	48+60	N/A	48+33	55 RT	1394.13	48+78	56 RT	1392.87			45						RESIDENTIAL APPROACH - SEE NOTE 7
16	52+79	N/A	52+56	49 RT	1383.49	52+97	52 RT	1383.05			42						RESIDENTIAL APPROACH
17	53+00	24" X 78' CSP	52+94	36 LT	1383.21	53+09	47 RT	1382.40	1			84	2				OUTLET LOCATION DIFFERS FROM EXISTING
18	56+83	24" APPROACH CSP	56+43	72 RT	1372.85	57+22	69 RT	1371.04	1		82						2ND SULFIDE WAY INTERSECTION
19	61+34	N/A	61+06	53 RT	1360.84	61+54	54 RT	1360.21			48						RESIDENTIAL APPROACH
20	63+94	24" APPROACH CSP	63+73	61 LT	1352.65	64+19	51 LT	1351.81	1		47						RESIDENTIAL APPROACH
21	66+68	24" X 92' CSP	66+89	48 LT	N/A	66+69	43 RT	N/A		X			2				
22	70+93	24" X 106' CSP	70+96	69 LT	N/A	71+08	33 RT	N/A		X			2				INLET IS BURIED
		SUBTOTALS							9	6	635	237	12				



CULVERT NOTES:

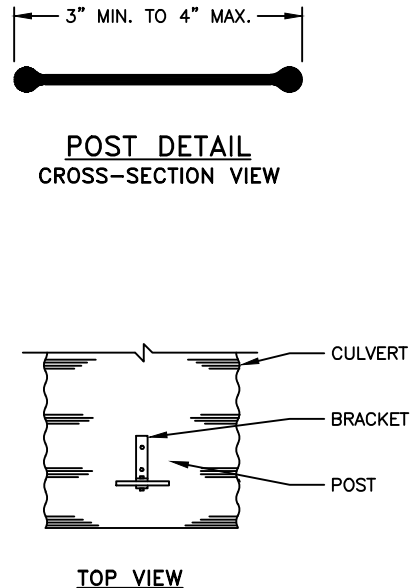
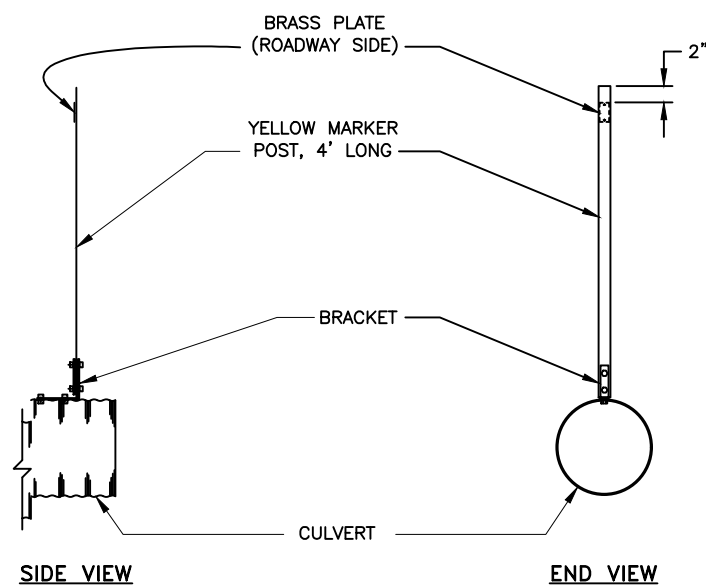
1. THE CONTRACTOR SHALL ENTER AS-BUILT LOCATIONS FOR ALL CULVERTS IN THE CULVERT SUMMARY TABLE. COORDINATES SHALL BE LOCATED AT THE INTERSECTION OF THE CULVERT AND ROAD CENTERLINE. USE NAD83 DATUM FORMATTED TO DECIMAL DEGREES TO A PRECISION OF 5 DECIMAL PLACES (DD°.DDDDD). THIS WORK IS SUBSIDIARY TO 642 SERIES PAY ITEMS.
2. CULVERT LENGTHS AND LOCATIONS ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED IN THE FIELD. THE ENGINEER WILL NEED TO APPROVE ALL ADJUSTMENTS.
3. MINIMUM ALLOWABLE CULVERT CROSS SLOPE IS 0.5%, UNLESS OTHERWISE NOTED ON THE PLANS.
4. FOLLOW MANUFACTURERS INSTALLATION SPECIFICATIONS IN CULVERT INSTALLATIONS. ALL CULVERTS SHALL BE INSTALLED IN EXCAVATIONS ABSENT OF STANDING WATER.
5. NO CULVERT SHALL BE PLACED UNTIL THE BED HAS BEEN APPROVED BY THE ENGINEER.
6. ALL EXCAVATION REQUIRED TO INSTALL CULVERTS IS SUBSIDIARY TO 603 PAY ITEMS.
7. NOTED CULVERTS ARE DEPRESSED 0.50 FT TO MAINTAIN MINIMUM COVER.
8. CULVERTS SHALL RUN OUT AT A 6:1 SLOPE, UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER.
9. CULVERTS SHALL BE INSTALLED IN DRY CONDITIONS.

CULVERT SUMMARY

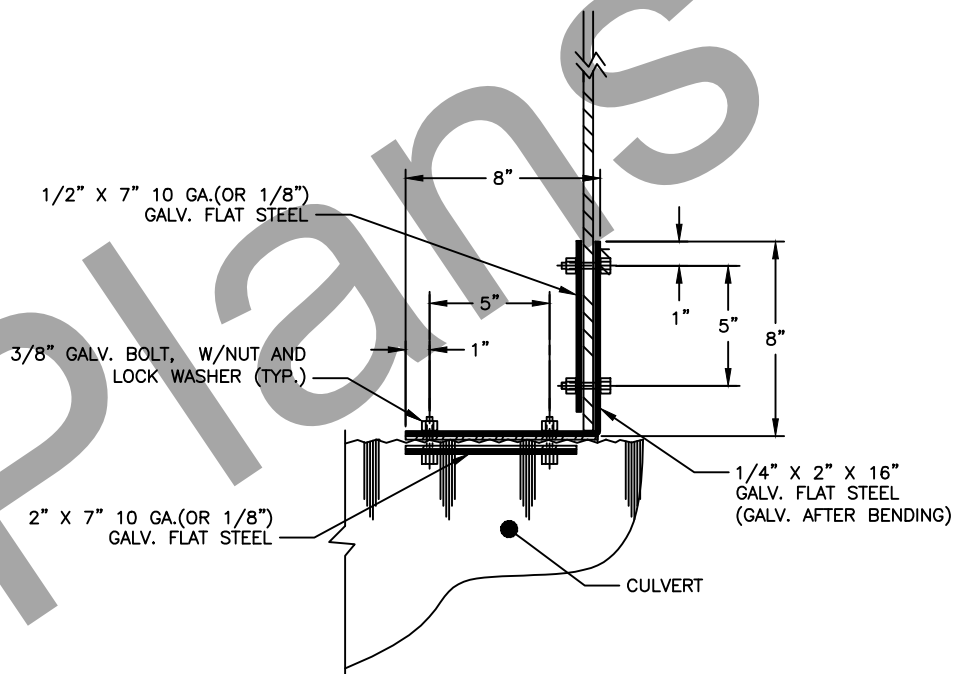


PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR-E-SHEETS-CULVERT MARKER DETAILS Fri, Jun/24/22 10:49am

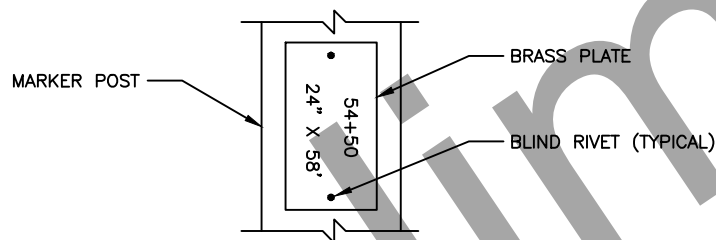
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	E2	E3



CULVERT MARKER POST DETAIL



BRACKET DETAIL



STAMP STATION AND PIPE SIZE, USING 3/8" HIGH MINIMUM LETTERS INTO A 2"x4"x 0.064" THICK BRASS PLATE. FASTEN PLATE TO THE SIDE FACING THE ROADWAY WITH TWO 1/8" BRASS BLIND RIVETS.

BRASS PLATE DETAIL

CULVERT MARKER POSTS NOTES:

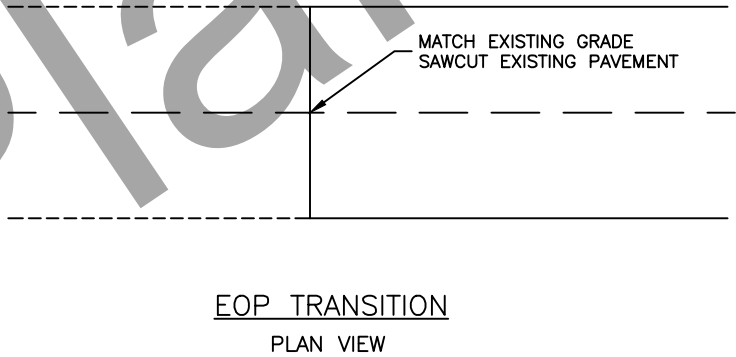
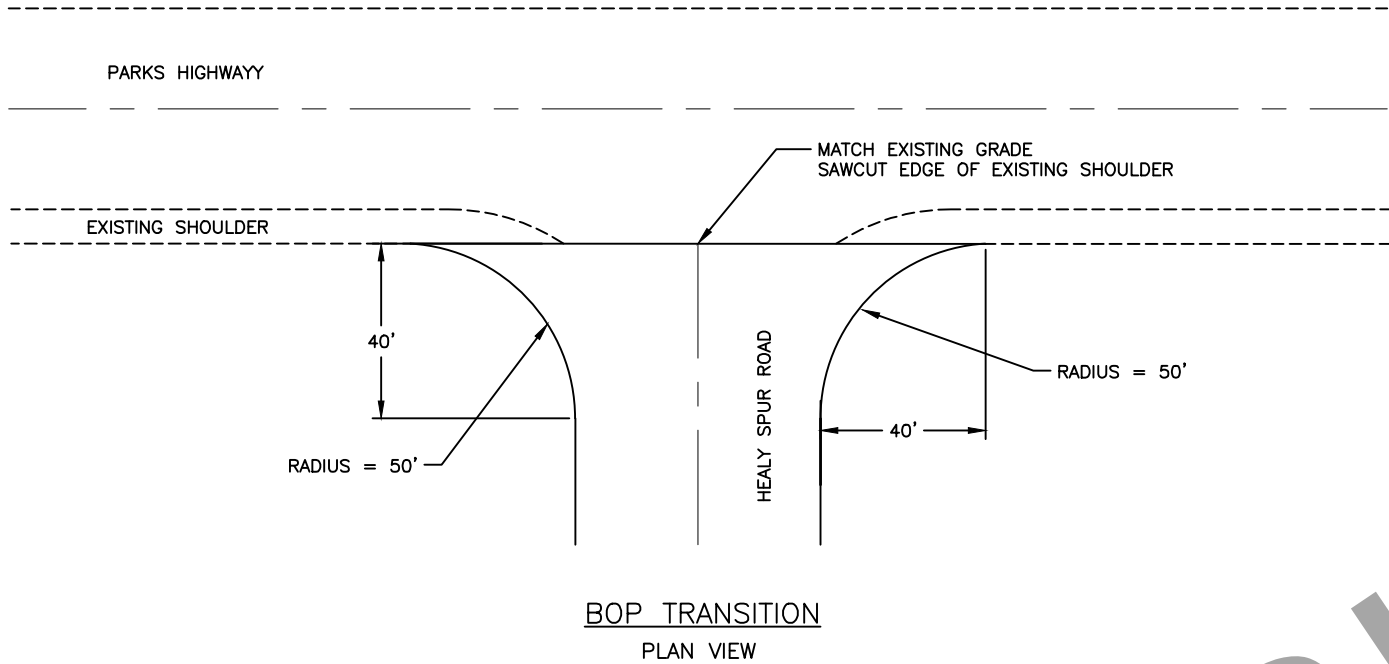
1. DRILL ALL BOLT HOLES. COAT HOLES WITH ZINC RICH PAINT. FLAME CUTTING SHALL NOT BE PERMITTED.
2. GASKET MATERIAL SHALL BE PLACED BETWEEN DISSIMILAR METALS. GASKET MATERIAL SHALL BE APPROVED PRIOR TO INSTALLATION.
3. PLACE MARKER POSTS ON CROSSING CULVERTS ONLY.

CULVERT MARKER DETAILS



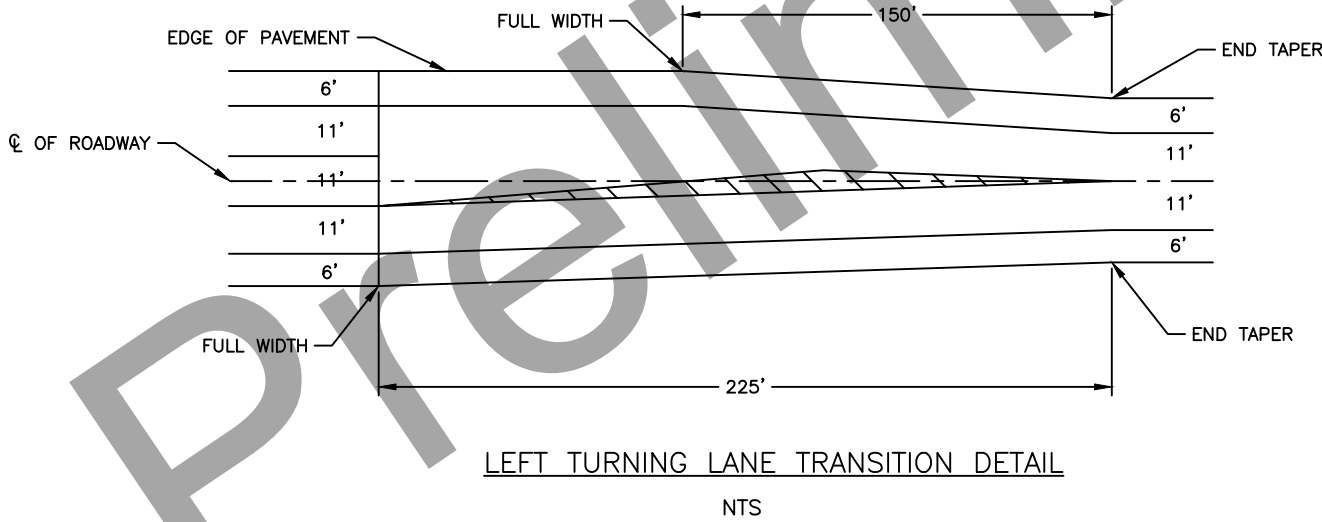
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\CD\HealySpur\Working\HSPUR-E-SHEETS-GENERAL-DETAILS Mon, Jul/11/22 01:17pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	E3	E3



BOP & EOP TRANSITION NOTES:

- WHERE NEW PAVEMENT IS TO BE MATCHED TO EXISTING PAVEMENT, A STRAIGHT SAWCUT SHALL BE MADE AND THE EXISTING PAVEMENT EDGE SHALL BE CLEANED AND APPLIED WITH STE-1 ASPHALT FOR TACK COAT. THIS WORK IS SUBSIDIARY TO ITEM 401.0001.0028 HMA, TYPE II; CLASS B.
- TAPER SHOULDERS OVER 100-FT AND AS DIRECTED BY THE ENGINEER TO MATCH THE WIDTH OF EXISTING SHOULDERS AT EOP TRANSITION.
- EXISTING SHOULDER WIDTHS AT EOP ARE APPROXIMATELY 5-FT ON PROJECT LEFT AND 4-FT ON PROJECT RIGHT.



TURNING LANE TAPER SUMMARY		
LOCATION	BEGIN TAPER	END TAPER
PROJECT LEFT	13+70	15+20
PROJECT RIGHT	12+95	15+20

TURNING LANE TAPER NOTES:

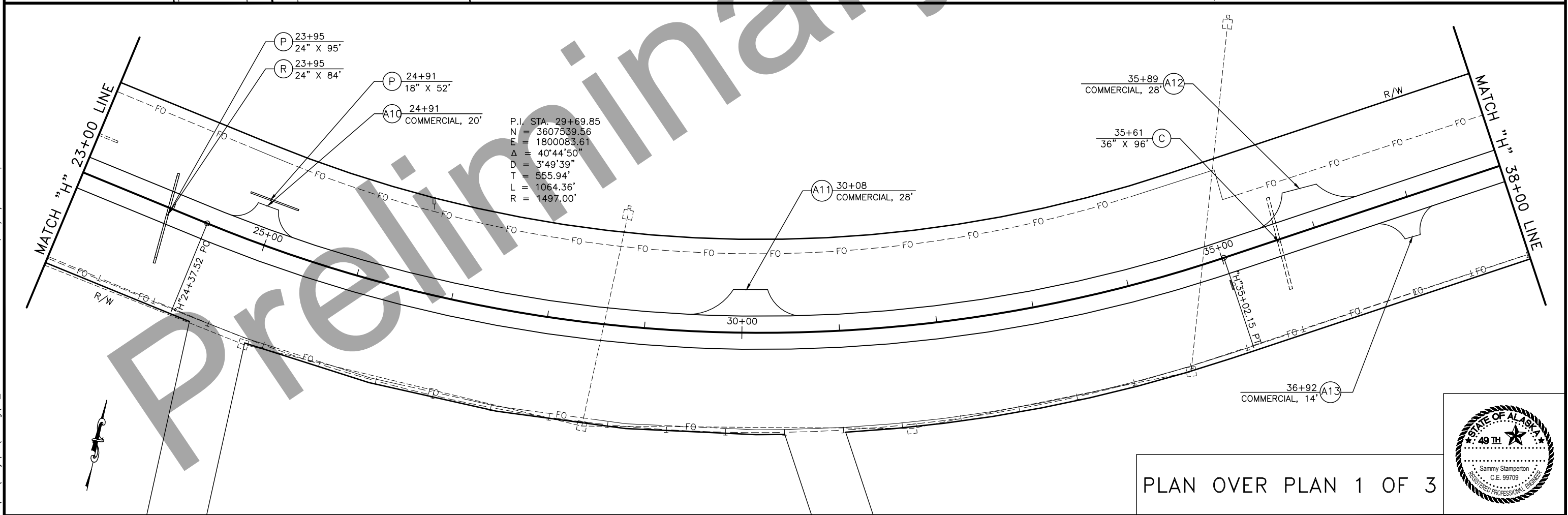
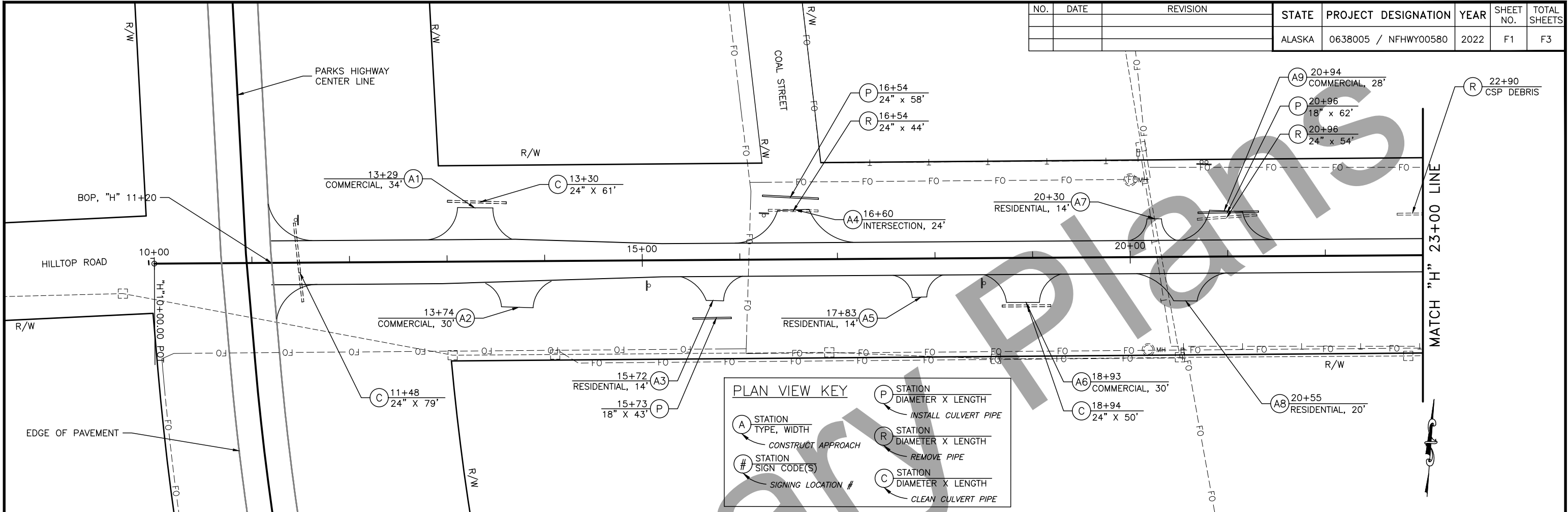
- CONSTRUCT TURNING LANE TRANSITION TO MATCH THE EXISTING TAPER LAYOUT.
- SEE H-SHEETS FOR LEFT TURNING LANE TRANSITION STRIPING DETAILS AND LAYOUT.

DETAILS

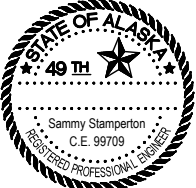


PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\Hedy\Spur\Working\EG_CLIPPED-PLAN OVER PLAN 1 OF 3 Mon, Jul/11/22 01:08pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	F1	F3

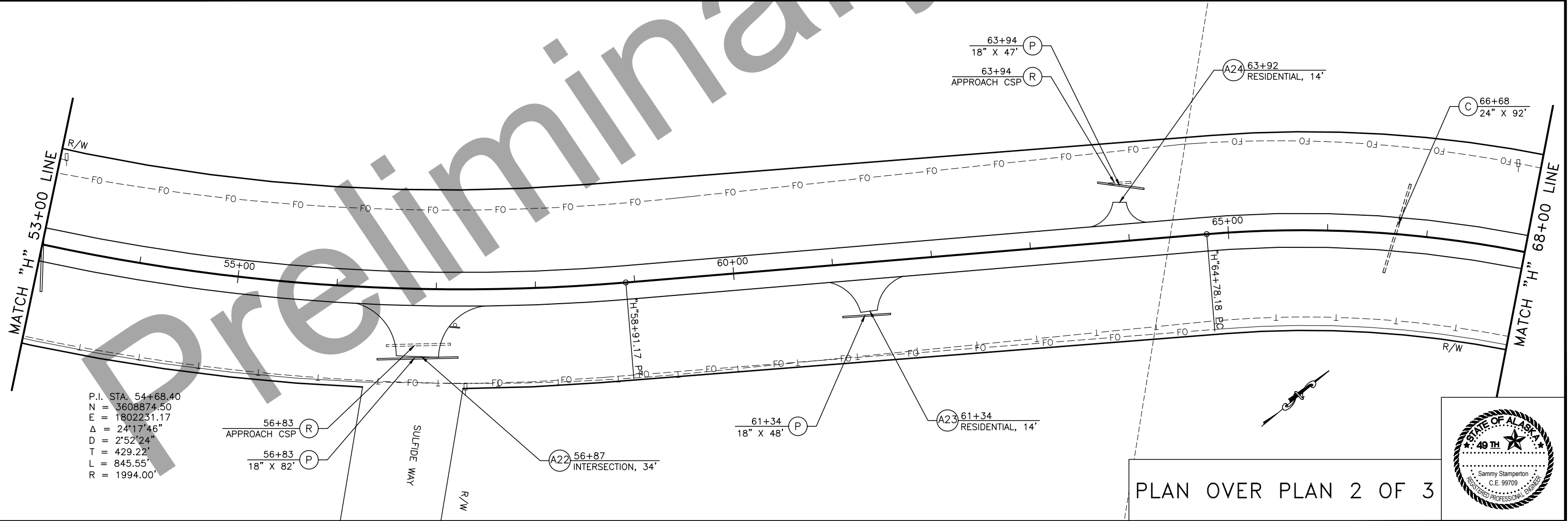
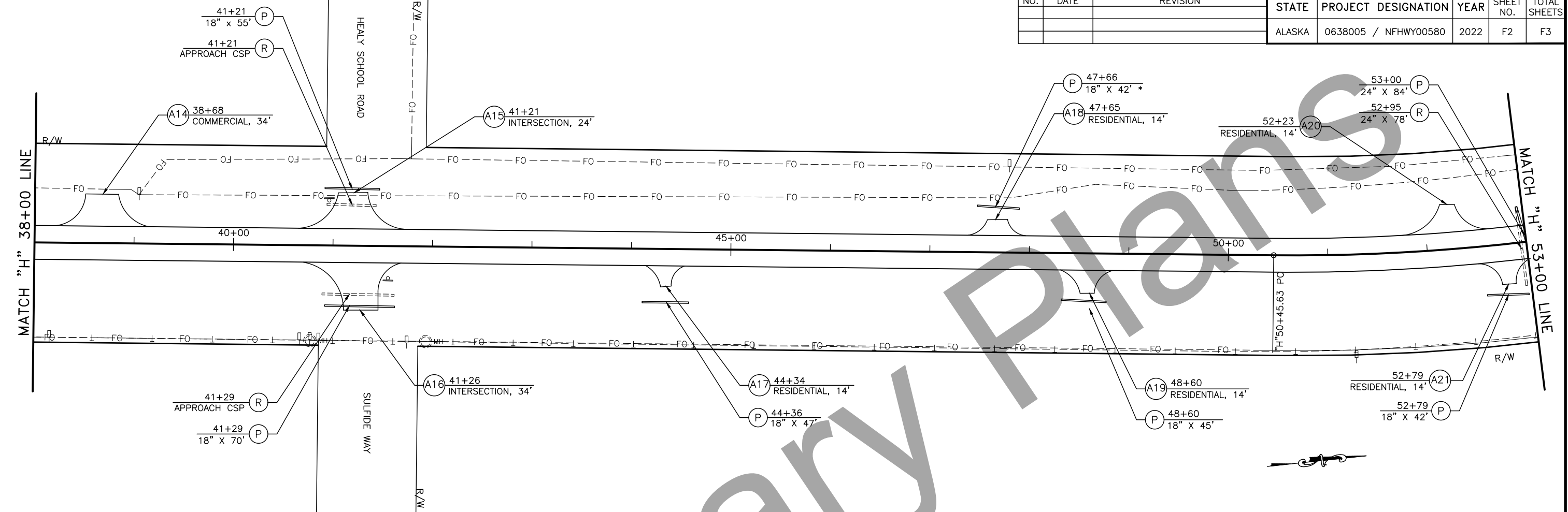


PLAN OVER PLAN 1 OF 3



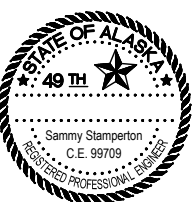
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\EG_CLIPPED-PLAN OVER PLAN 2 OF 3 Mon, Jul/11/22 01:08pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	F2	F3



P.I. STA. 54+68.40
N = 3608874.50
E = 1802231.17
Δ = 24°17'46"
D = 2°52'24"
T = 429.22'
L = 845.55'
R = 1994.00'

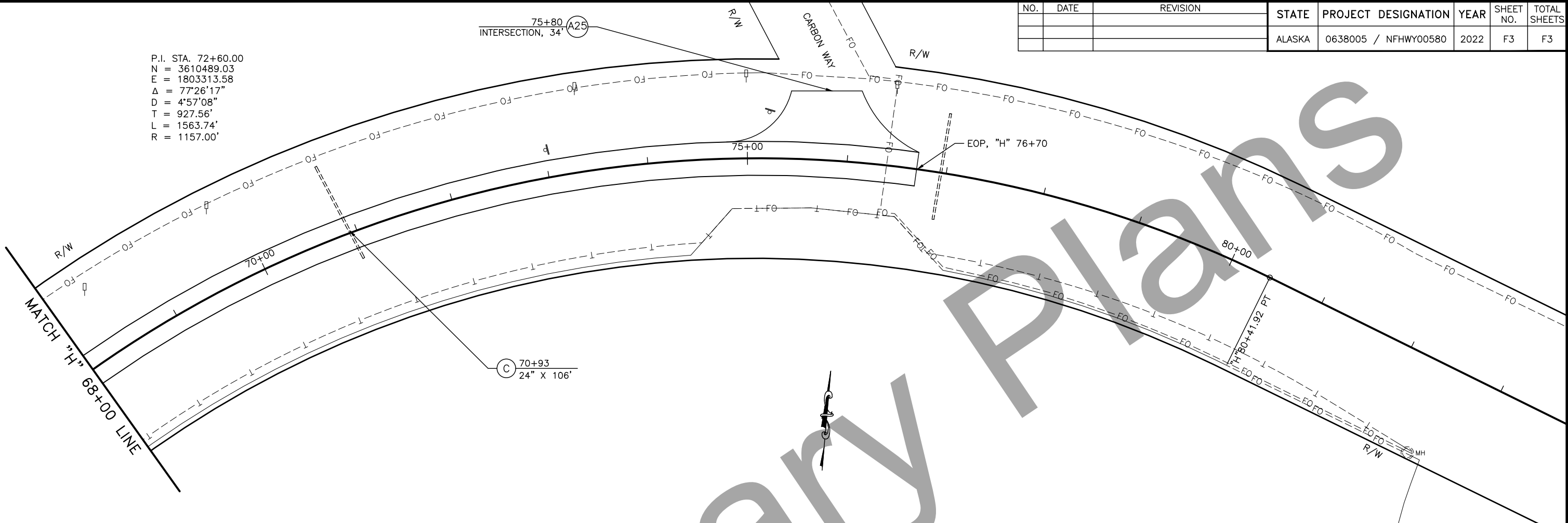
PLAN OVER PLAN 2 OF 3



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\EG_CLIPPED-PLAN OVER PLAN 3 OF 3 Mon, Jul/11/22 01:08pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	F3	F3

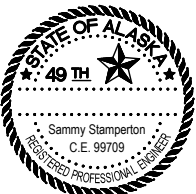
P.I. STA. 72+60.00
N = 3610489.03
E = 1803313.58
Δ = 77°26'17"
D = 4°57'08"
T = 927.56'
L = 1563.74'
R = 1157.00'



PLAN VIEW KEY	
STATION TYPE, WIDTH CONSTRUCT APPROACH	STATION DIAMETER X LENGTH INSTALL CULVERT PIPE
STATION SIGN CODE(S) SIGNING LOCATION #	STATION DIAMETER X LENGTH REMOVE PIPE
	STATION DIAMETER X LENGTH CLEAN CULVERT PIPE

NOTES FOR ALL PLAN OVER PLAN SHEETS

- ALL R/W LINES ARE SHOWN FOR VISUAL PURPOSES ONLY.
- SEE CULVERT SHEETS FOR INFORMATION ON REMOVAL, CLEANING, AND PLACEMENT OF CULVERTS.
- SEE APPROACH DETAIL SHEETS FOR ADDITIONAL APPROACH SUMMARIES AND CONSTRUCTION DETAILS.



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	G1	G2

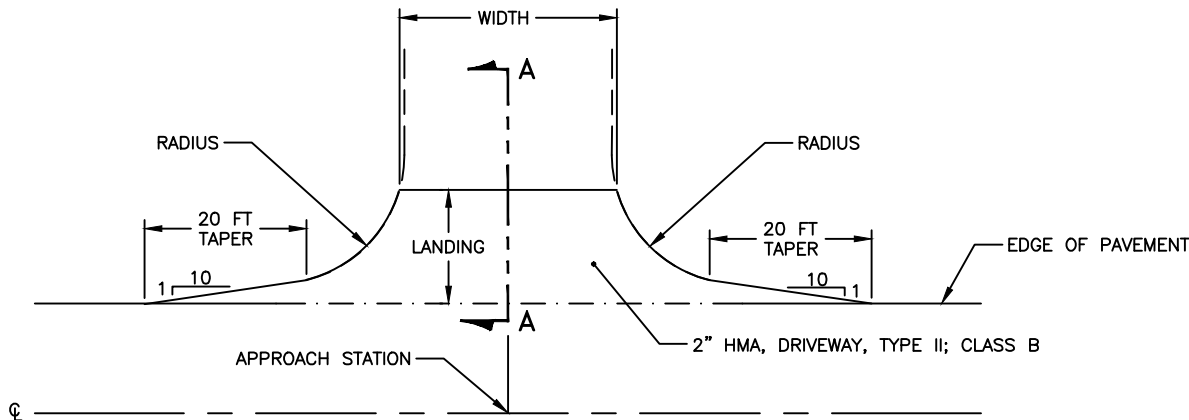
639 – APPROACH SUMMARY											
APPROACH	CENTERLINE STATION	LT	RT	WIDTH (FT)	RADIUS (FT)	LANDING (FT)	TRANSITION (FT)	TRANSITION GRADE (%)	APPROACH TYPE	EXISTING APPROACH	REMARKS
A1	13+29	X		34	40	30	20	-5.0	COMMERCIAL	PAVED	STAMPEDE LODGE
A2	13+74		X	30	40	16	20	-9.0	COMMERCIAL	PAVED	DENALI TOTEM INN
A3	15+72		X	14	20	12	30	-8.0	RESIDENTIAL	NOT PAVED	REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A4	16+60	X		24	40	20	40	-6.0	COMMERCIAL	PAVED	COAL STREET INTERSECTION – REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A5	17+83		X	14	20	12	25	-8.0	RESIDENTIAL	NOT PAVED	
A6	18+93		X	30	40	20	50	-6.5	COMMERCIAL	NOT PAVED	FIRST STUDENT
A7	20+30	X		14	20	12	45	-7.5	RESIDENTIAL	NOT PAVED	UNMARKED UTILITY ACCESS ROAD – REMOVE FROM PROJECT**
A8	20+55		X	20	20	12	25	-8.0	RESIDENTIAL	HALF PAVED	UNMARKED UTILITY ACCESS ROAD
A9	20+94	X		28	40	30	30	-4.5	COMMERCIAL	NOT PAVED	DOT M&O STATION ENTRANCE – REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A10	24+91	X		20	40	20	35	-4.5	COMMERCIAL	NOT PAVED	DOT M&O STATION EXIT – REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A11	30+08	X		28	40	12	30	-9.0	COMMERCIAL	NOT PAVED	DENALI CHAMBER OF COMMERCE
A12	35+89	X		28	40	16	30	-8.5	COMMERCIAL	NOT PAVED	TRI-VALLEY COMMUNITY CENTER #1
A13	36+92		X	16	40	12	35	-10.0	COMMERCIAL	PAVED	DENALI DOME HOME B&B
A14	38+68	X		34	40	16	25	-5.0	COMMERCIAL	PAVED	TRI-VALLEY COMMUNITY CENTER #2
A15	41+21	X		20	40	25	20	-1.0	COMMERCIAL	PAVED	HEALY SCHOOL ROAD INTERSECTION – REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A16	41+26		X	34	40	16	15	-1.5	COMMERCIAL	NOT PAVED	SULFIDE WAY INTERSECTION #1 – REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A17	44+34		X	14	20	12	10	-4.0	RESIDENTIAL	NOT PAVED	REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A18	47+65	X		14	20	12	20	-5.0	RESIDENTIAL	NOT PAVED	
A19	48+60		X	14	20	12	35	-5.0	RESIDENTIAL	NOT PAVED	REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A20	52+23	X		14	20	12	30	-4.5	RESIDENTIAL	NOT PAVED	
A21	52+79		X	14	20	12	30	-7.5	RESIDENTIAL	NOT PAVED	REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A22	56+87		X	34	40	16	40	-7.0	COMMERCIAL	NOT PAVED	SULFIDE WAY INTERSECTION #2 – REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A23	61+34		X	14	20	12	5	-6.00	RESIDENTIAL	NOT PAVED	REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A24	63+92	X		14	20	12	30	-10.5	RESIDENTIAL	NOT PAVED	REQUIRES CROSSING CULVERT (SEE CULVERT SUMMARY)
A25	75+80	X		42	40	30	50	-7.5	COMMERCIAL	NOT PAVED	CARBON WAY INTERSECTION – GRADE EXTRA MATERIAL FROM EXISTING APPROACH

APPROACH NOTES:

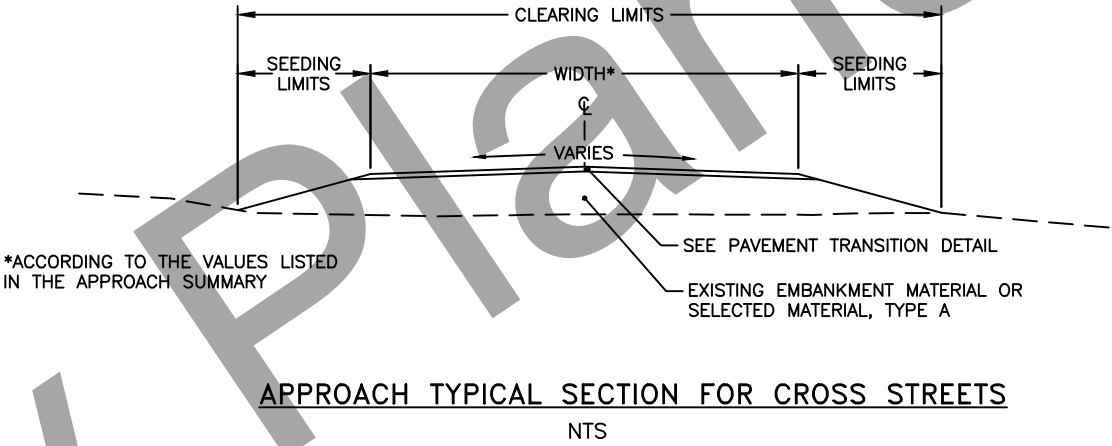
- REMOVAL OF EXISTING APPROACH EMBANKMENT WILL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO THE APPROACH PAY ITEMS.
- LANDING GRADES SHALL BE A MINIMUM OF -0.1% TO MAXIMUM OF -2.0%. THE LANDING GRADE WILL NEED TO BE FIELD FIT BASED ON EXISTING CONDITIONS.
- APPROACH WIDTHS, APRON LENGTHS, TRANSITIONS, AND RADII MAY BE ADJUSTED TO MATCH EXISTING CONDITIONS, AS DIRECTED BY THE ENGINEER.
- BLEND AND GRADE FOR A SMOOTH TRANSITION BETWEEN THE APPROACH AND THE EXISTING GROUND. PROFILE GRADES MAY CHANGE THROUGHOUT THE LENGTH OF THE APPROACH PROFILE.
- APPROACH FILL SLOPE SHALL BE 6H:1V BETWEEN THE ROAD SHOULDER AND LANDING. ADJUST THE APPROACH SIDE SLOPES BEYOND THE LANDING TO BE STEEPER WHEN WHEN DESIRED SIDE SLOPES WILL NOT BE ACHIEVABLE, AND AS DIRECTED BY THE ENGINEER. RE-GRADEING APPROACH SLOPES IS SUBSIDIARY TO 639 PAY ITEMS. ALL MATERIALS WILL BE PAID FOR UNDER THEIR RESPECTIVE BID ITEMS.
- PAVE FULL APPROACH FOR A2, A4, A13, A14, AND A15 TO MATCH EXISTING PAVEMENT.
- APPROACH RADIUS BEGINS AT THE END OF TAPER.
- GRADE SURROUNDING AREA TO DRAIN AS NEEDED TO ENSURE POSITIVE DRAINAGE AWAY FROM THE ROADWAY AND APPROACH EMBANKMENTS.

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR-G-APPROACH-DETAILS-APPROACH DETAILS Mon, Jul/11/22 01:19pm

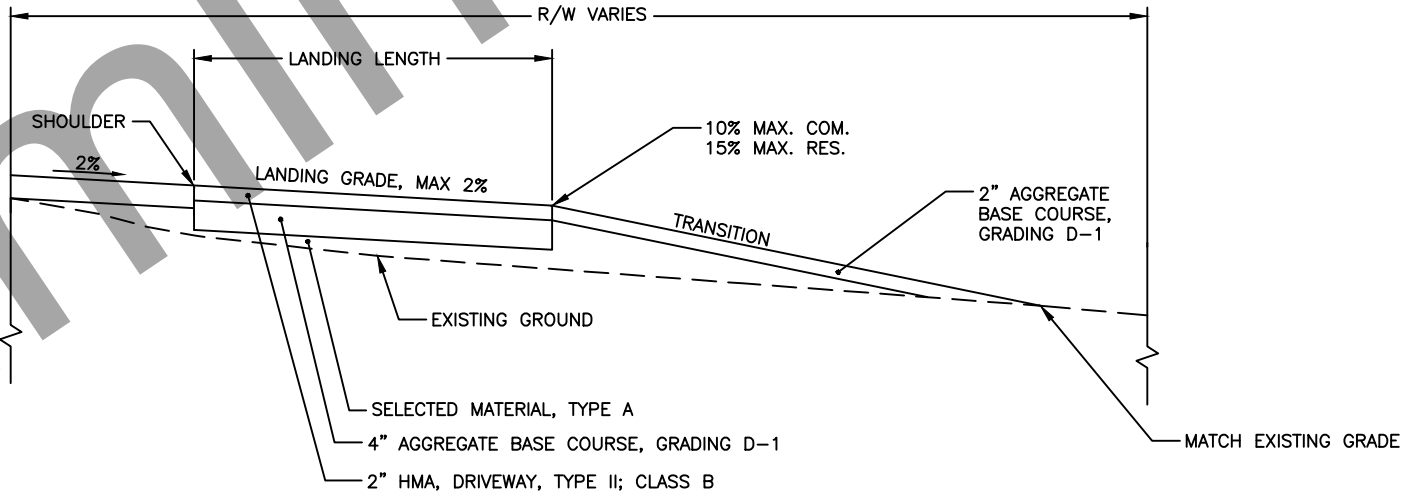
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	G2	G2



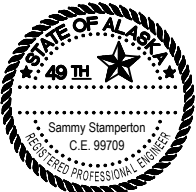
TYPICAL APPROACH DETAIL
NTS



- APPROACH DETAIL NOTES:
- USE 2% CROSS SLOPE FOR APPROACH TYPICAL SECTION AT PAVED CROSS STREETS AND 3% CROSS SLOPE FOR GRAVEL CROSS STREETS.



SECTION A-A PAVEMENT TRANSITION DETAIL
NTS



SIGNING SUMMARY															
LOC. NO.	STATION	LOCATION		ASDS CODE	LEGEND	SIZE H X V (INCHES)	BRACING/ FRAMING		AREA (SQ.FT.)	MTG. HGT. (FT.)	DIR.	POST			REMARKS
		LT.	RT.				BRACED	FRAMED				TYPE	SIZE (INCHES)	NO.	
1	11+45	X		D3-100	Parks Hwy	30 X 8	X		1.67		E	PST	2.5	1	4C/3C LETTERING
				D3-100	Parks Hwy	30 X 8	X		1.67						6C/4.5C LETTERING
				D3-100	Healy Spur Rd	48 X 12	X		4.00						
				D3-100	Healy Spur Rd	48 X 12	X		4.00						
				R1-1	STOP	36 X 36	X		9.00						
2	14+90				ADOPT A HIGHWAY										REMOVE EXISTING
					GOLDEN VALLEY ELECTRIC ASSOCIATION										
3	16+27	X		D3-100	Healy Spur Rd	36 X 8	X		2.00		N	PST	2.5	1	4C/3C LETTERING
				D3-100	Healy Spur Rd	36 X 8	X		2.00						6C/4.5C LETTERING
				D3-100	Coal St	30 X 12	X		2.50						
				D3-100	Coal St	30 X 12	X		2.50						
				R1-1	STOP	30 X 30	X		6.25						
4	18+47		X	R2-1	SPEED LIMIT 35	24 X 30			5.00		W	PST	2.5	1	
5	34+61		X	D9-104	TROOPERS (Symbol)	24 X 24			4.00		S	PST	2.5	1	
				D9-301	<	24 X 6			1.00						BLUE BACKGROUND
6	40+95	X		D3-100	Healy Spur Rd	36 X 8	X				N	PST	2.5	1	RETAIN EXISTING
				D3-100	Healy Spur Rd	36 X 8	X								
				D3-100	Healy Scholl Rd	48 X 12	X								
				D3-100	Healy School Rd	48 X 12	X								
				R1-1	STOP	30 X 30	X								
7	41+61		X	D3-100	Healy Spur Rd	36 X 8	X		2.00		N	PST	2.5	1	4C/3C LETTERING
				D3-100	Healy Spur Rd	36 X 8	X		2.00						6C/4.5C LETTERING
				D3-100	Sulfide Way	42 X 12	X		3.50						
				D3-100	Sulfide Way	42 X 12	X		3.50						
				R1-1	STOP	30 X 30	X		6.25						
8	57+20		X	D3-100	Healy Spur Rd	36 X 8	X		2.00		N	PST	2.5	1	4C/3C LETTERING
				D3-100	Healy Spur Rd	36 X 8	X		2.00						6C/4.5C LETTERING
				D3-100	Sulfide Way	42 X 12	X		3.50						
				D3-100	Sulfide Way	42 X 12	X		3.50						
				R1-1	STOP	30 X 30	X		6.25						
9	73+00	X		R2-1	SPEED LIMIT 35	24 X 30			5.00		E	PST	2.5	1	
10	75+12	X		D3-100	Healy Spur Rd	36 X 8	X				N	PST	2.5	1	RETAIN EXISTING
				D3-100	Healy Spur Rd	36 X 8	X								
				D3-100	Carbon Way	42 X 12	X								
				D3-100	Carbon Way	42 X 12	X								
				R1-1	STOP	36 X 36	X								
11	76+65*		X	R2-1	SPEED LIMIT 45	24 X 30			5.00		W	PST	2.5	1	
SUBTOTAL = 90.08															

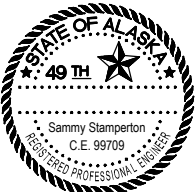
NOTES:

- REMOVE AND DISPOSE OF ALL EXISTING SIGNS AND SIGN FOUNDATIONS WITHIN THE PROJECT LIMITS, EXCEPT THOSE DESIGNATED FOR REINSTALLATION, SALVAGE OR OTHERWISE NOTED.
- MOUNTING HEIGHTS ARE PER STANDARD PLAN S-05.02 UNLESS OTHERWISE NOTED.
- DETERMINE POST LENGTHS IN THE FIELD. DO NOT EXTEND POSTS ABOVE TOP OF SIGN.
- INSTALL PST SIGN POSTS WITH SLEEVE TYPE SOIL EMBEDMENT. EMBED PST IN SLEEVE 12"-24" PER STANDARD PLAN S-30.05. ATTACH THE SIGN POST TO THE SLEEVE USING GALVANIZED 3/8" BOLT, NUT, SPLIT LOCK WASHER AND TWO FLAT WASHERS. (CONFIRM THIS)***
- 1/4" X 1-1/2" ALUMINUM ALLOY 6061-T6 BAR MAY ALSO BE USED TO FABRICATE SIGN BRACES AS SHOWN ON STANDARD PLAN S-01.02.
- ATTACH ALL SIGNS TO THEIR SUPPORTS WITH 3/8" BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO PST POSTS WITH ALUMINUM DRIVE RIVETS. WIND WASHERS ARE NOT REQUIRED WITH DRIVE RIVETS. INCLUDE SPLIT LOCK WASHERS WHEN BOLTS ARE USED.
- ALL FASTENER HARDWARE SHALL MEET THE REQUIREMENTS OF THE "FASTENER SPECIFICATION TABLE" UNDER SECTION 730-2.07 OF THE SSHC.
- STOP (R1-1) AND YIELD (R1-2) SIGN LOCATIONS, ESPECIALLY THOSE AT LARGE RADIUS INTERSECTIONS, MAY NEED ADJUSTMENT IN THE FIELD. THE ENGINEER WILL APPROVE FINAL LOCATIONS.
- INSTALL D3-100 SIGNS ABOVE THEIR RESPECTIVE STOP SIGNS. WHEN TWO D3-100 SERIES SIGNS ARE TO BE LOCATED ON THE SAME POST, INSTALL THE CROSS-STREET PANEL IN THE LOWER POSITION.
- D3-100 SERIES SIGNS REQUIRE TWO SEPARATE SINGLE SIDED PANELS. END-BRACE PANELS PER SMALL STREET NAME SIGN BRACING DETAILS IN STANDARD PLAN S-01.01.
- MAINTAIN EXISTING SIGNS UNTIL NEW SIGNS ARE INSTALLED. DO NOT LEAVE DUPLICATE OR CONFLICTING SIGNING UP AT ANY TIME.
- ALL SIGNS NOTED FOR REMOVAL AND REINSTALLATION SHALL BE REPLACED AT THE CONTRACTORS EXPENSE IF THEY ARE DAMAGED DURING THE RELOCATION EFFORT.
- USE SERIES C LETTERS FOR D3-100 SERIES SIGNS UNLESS OTHERWISE NOTED. USE 4.5" FOR DIMENSION "E" FOR 12" D3-100 SIGNS. THE LETTERING INDICATING THE TYPE OF STREET (SUCH AS ST, AVE, OR RD) WILL BE UPPER CASE AND LOWER CASE. THIS MODIFIES THE ASDS.
- USE A 3" HORIZONTAL SPACING BETWEEN WORDS, BETWEEN CARDINAL DIRECTIONS AND WORDS, AND BETWEEN WORDS AND NUMBERS ON D3-100 AND D3-100A SIGNS UNLESS OTHERWISE NOTED.
- LOCATE AND PROTECT ALL NEW AND EXISTING UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO: PIPELINES, INTERCONNECT CABLES, SIGNAL SYSTEMS, LIGHTING SYSTEMS, STORM AND SANITARY SEWERS, WATER SYSTEMS, AND TELEPHONE AND ELECTRICAL CABLES, PRIOR TO INSTALLING SIGN POSTS. NOT ALL EXISTING UTILITIES MAY BE SHOWN ON THE PLANS.
- CLEARING, AS DIRECTED BY THE ENGINEER, MAY BE REQUIRED TO ENSURE ADEQUATE VISIBILITY OF SIGNS. THIS WORK IS SUBSIDIARY TO PAY ITEM 615.0001.0000.
- ADHESIVE TAPE IS NOT PERMITTED. THIS MODIFIES STANDARD PLAN S-00.12

POST TYPE LEGEND:

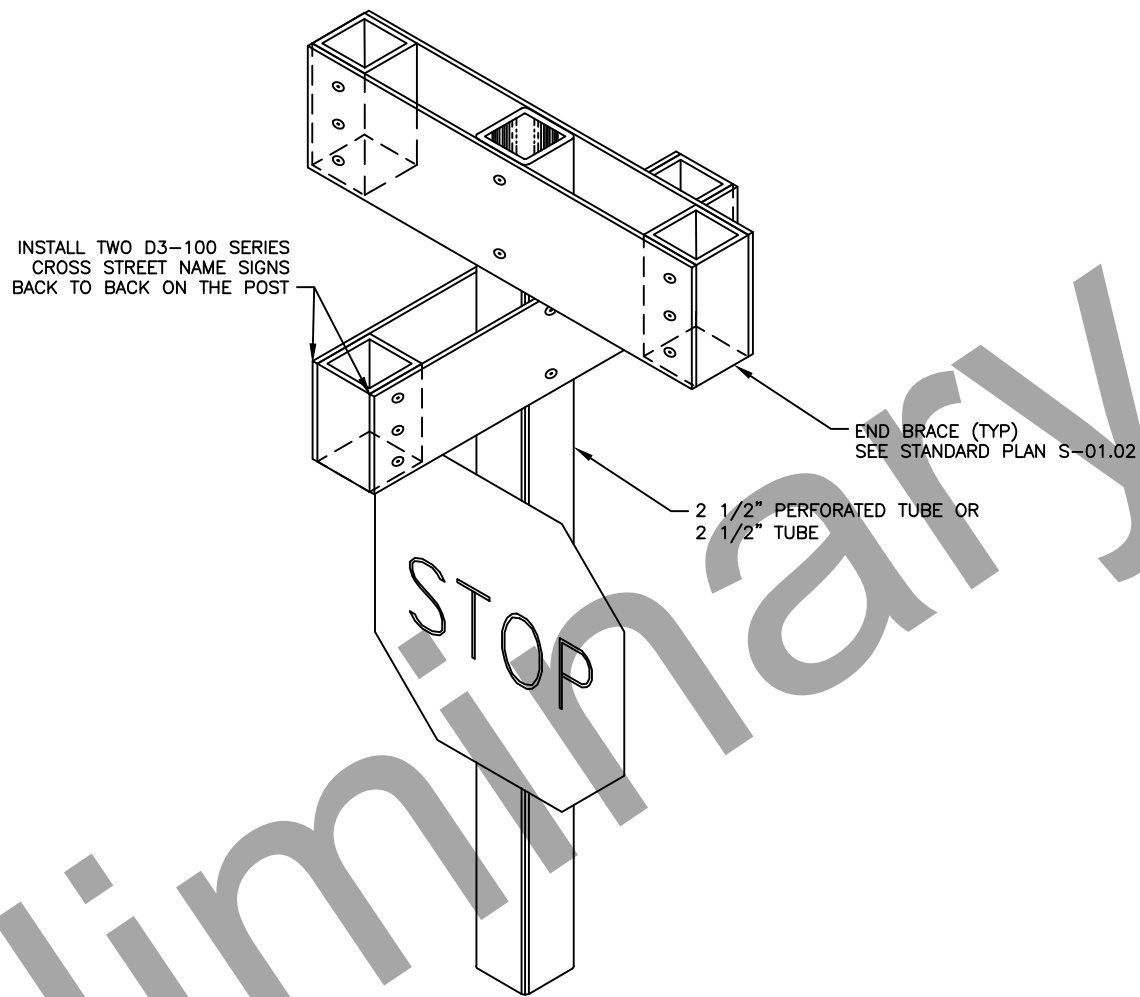
- PST = PERFORATED STEEL TUBE
TS = TUBE STEEL (SQUARE STRUCTURAL STEEL TUBING)
W_X_ = WIDE FLANGE

SIGN SUMMARY



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR_H_SHEETS-SIGNING DETAILS Fri, Jun/24/22 11:00am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	H2	H5

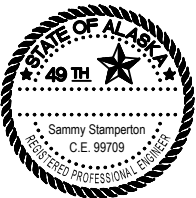


NOTES:

1. VERTICALLY SEPARATE R1-1 (STOP) SIGN AND ALL OTHER SIGN ASSEMBLIES MOUNTED ON THE SAME POST BY 2 1/2 INCHES.

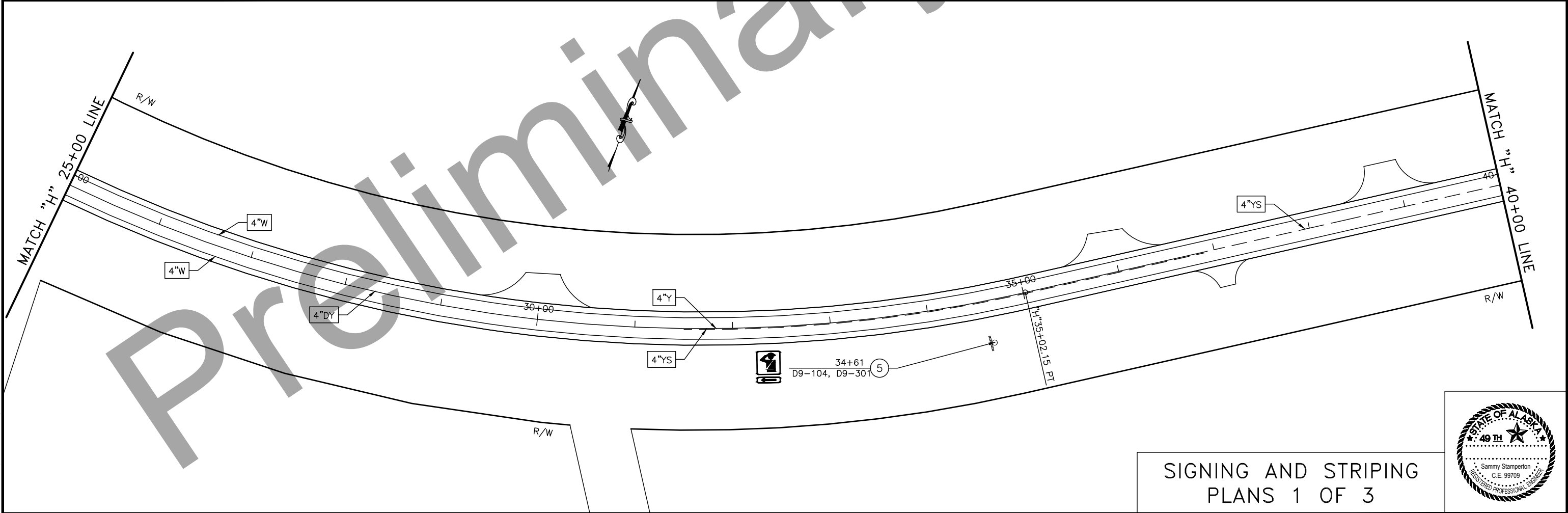
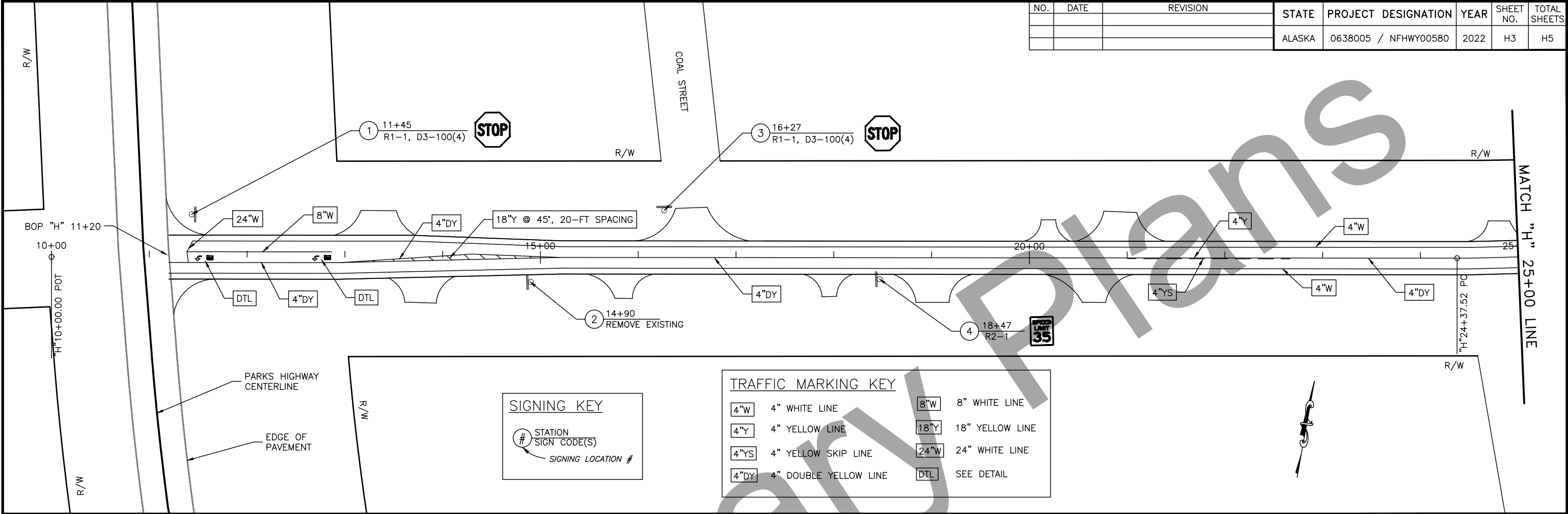
STREET NAME SIGN MOUNTING DETAIL

SIGNING DETAILS

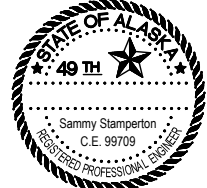


PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR_H_SIGN_SHEETS-SIGNING AND STRIPING PLANS 1 OF 3 Mon, Jul/11/22 01:13pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	H3	H5

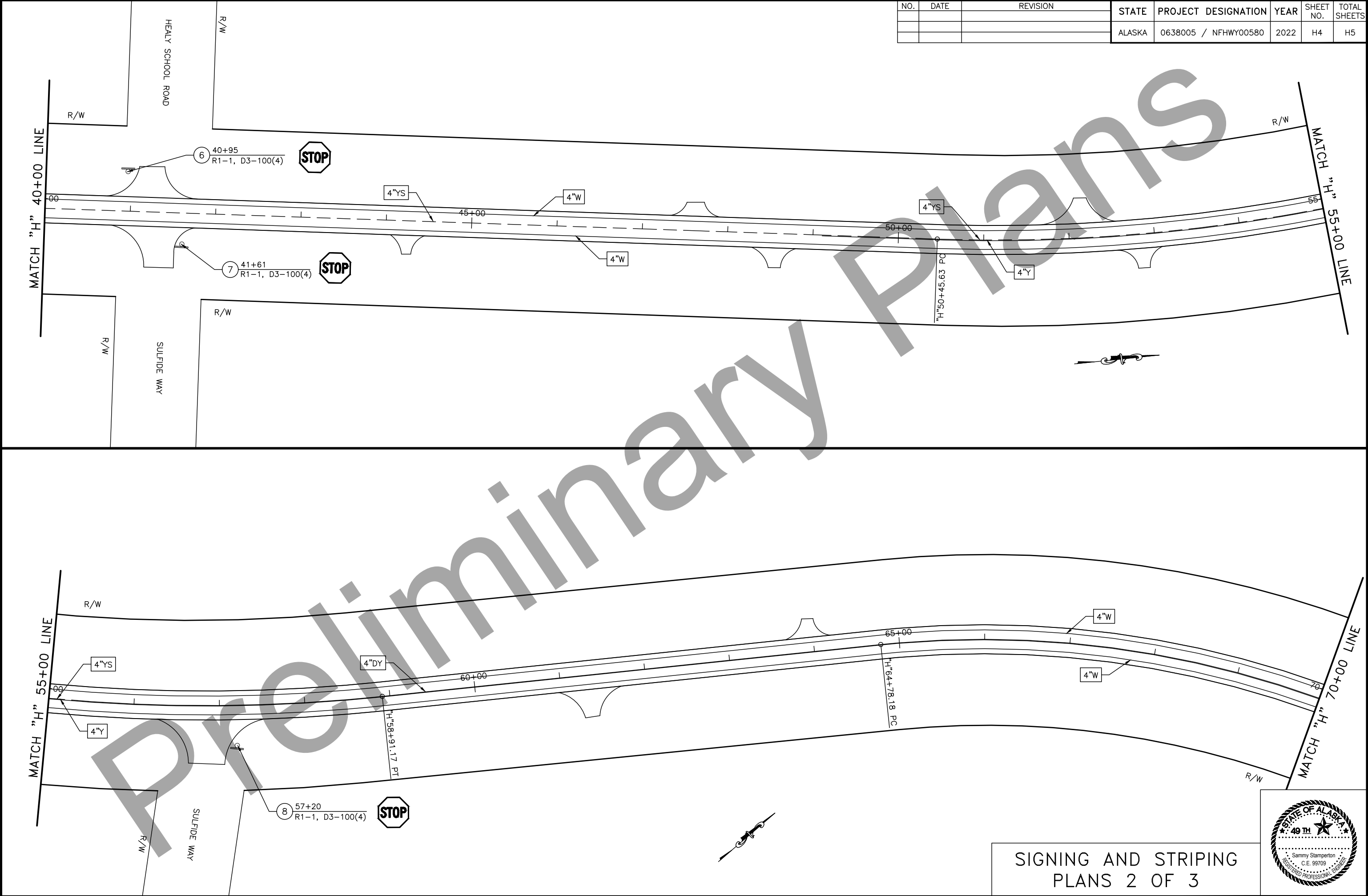


SIGNING AND STRIPING
PLANS 1 OF 3



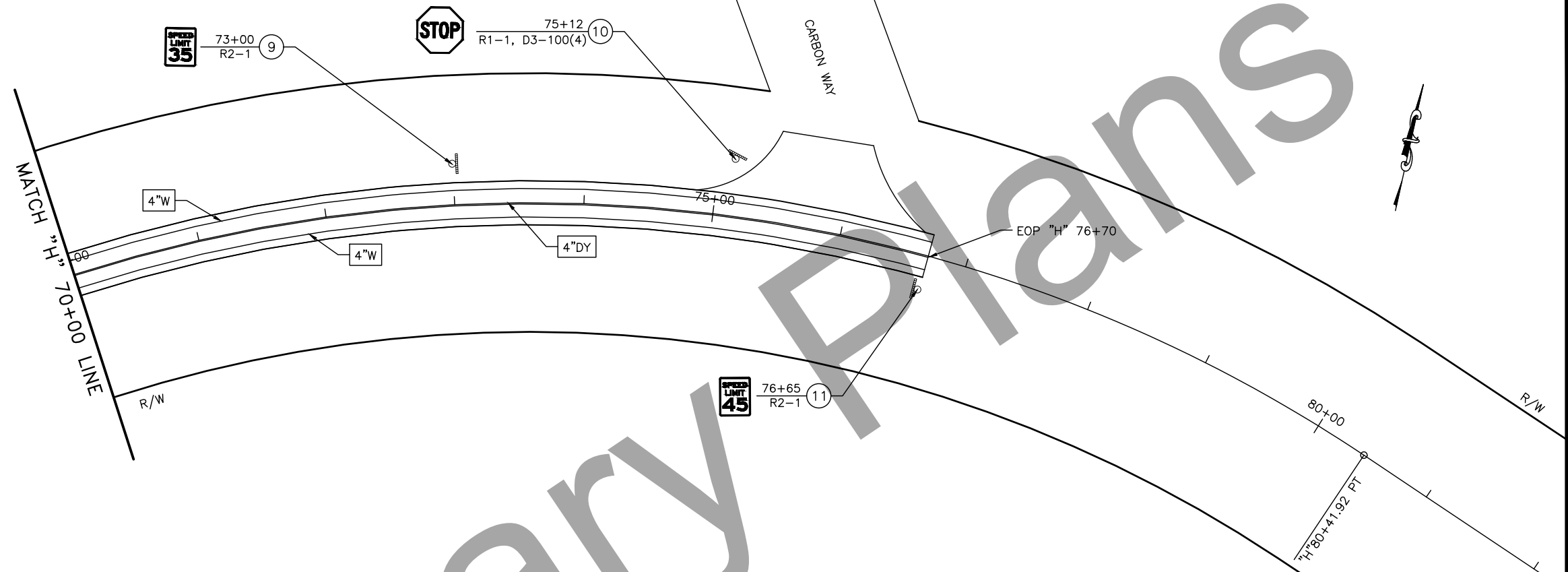
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR_H_SIGN_SHEETS-SIGNING AND STRIPING PLANS 2 OF 3 Mon, Jul/11/22 01:13pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	H4	H5



SIGNING AND STRIPING
PLANS 2 OF 3



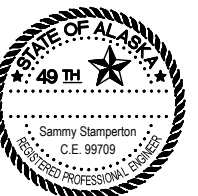


4"W	4" WHITE LINE
8"W	8" WHITE LINE
4"Y	4" YELLOW LINE
4"YS	4" YELLOW SKIP LINE
4"DY	4" DOUBLE YELLOW LINE
18"Y	18" YELLOW LINE
24"W	24" WHITE LINE
DTL	SEE DETAIL

PAINTED TRAFFIC MARKINGS SUMMARY		
DESCRIPTION	LENGTH (LF)	REMARKS
4" WHITE	12,550	
8" WHITE	150	
4" YELLOW	1,310	
4" DOUBLE YELLOW	4,250	
4" YELLOW SKIP	2,530	
18" YELLOW	50	TURNING LANE TAPER
24" WHITE	22	PARKS HIGHWAY INTERSECTION
LEFT TURNING ARROW SYMBOL	-	2 (EACH)

1. IF NEW AND EXISTING MARKINGS ARE NOT ALIGNED AT THE MATCH LINE, TRANSITION BETWEEN THE TWO USING A 100:1 TAPER.
2. PAVEMENT MARKINGS WILL BE PLACED IN ACCORDANCE WITH STANDARD DRAWING T-21.04 AND SECTION 670.
3. A 10FT/30FT STRIPE SKIP RATIO SHALL BE USED FOR THIS PROJECT. **
4. MATCH EXISTING LANE AND SHOULDER WIDTHS FOR ALL STRIPING ON APPROACH STREETS.

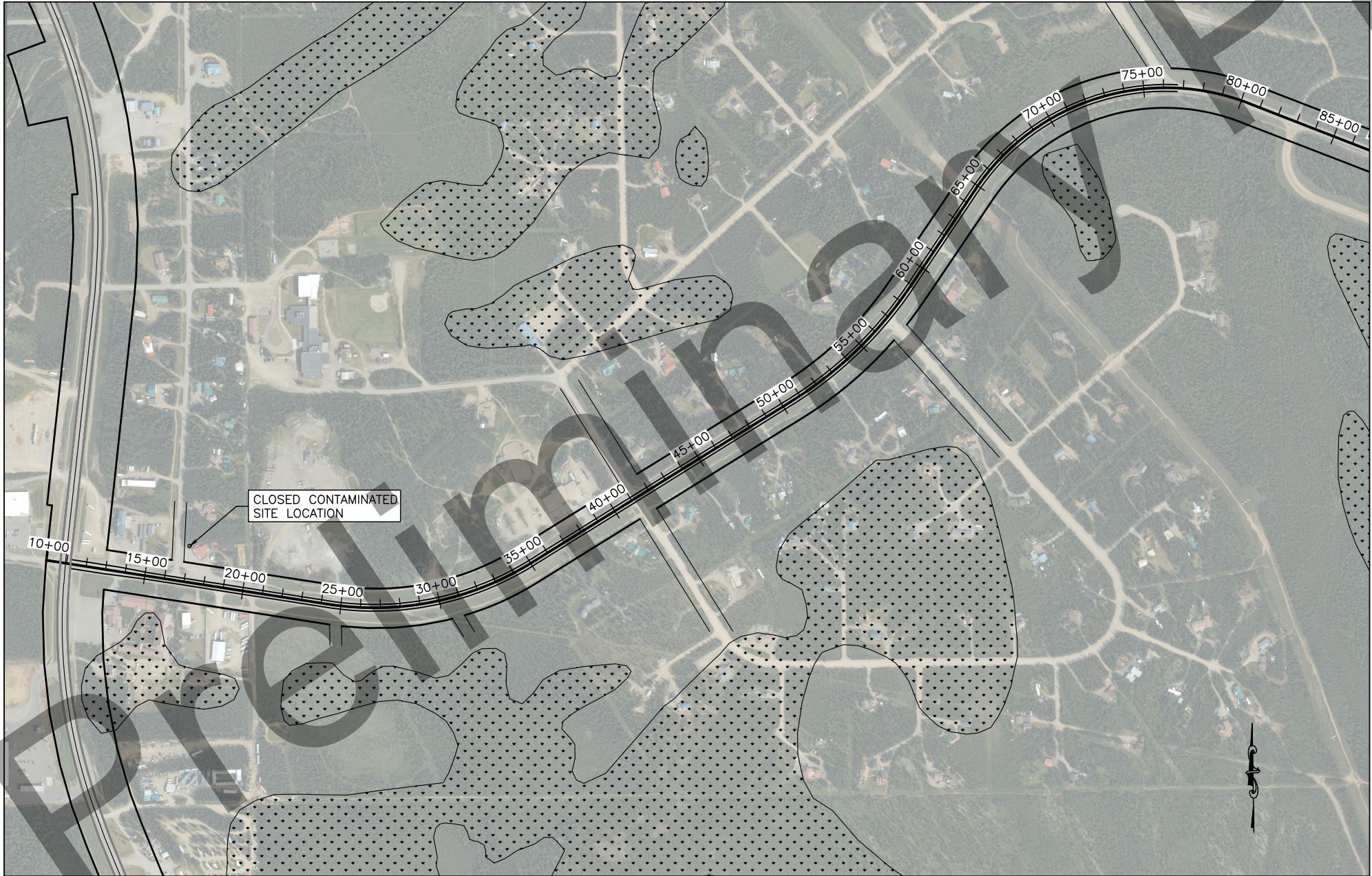
SIGNING AND STRIPING
PLANS 3 OF 3



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR_Q_SHEETS-ESCP 1 OF 5 Mon, Jul/11/22 01:21pm

ESCP GENERAL NOTES:

1. THIS ESCP IS A GENERAL PLAN FOR GUIDING THE DEVELOPMENT OF THE CONTRACTOR'S SWPPP. THE CONTRACTOR IS EXPECTED TO PROVIDE ADDITIONAL DETAILS AND BMPS BASED ON THE CONTRACTORS ACTUAL SCHEDULE AND CONSTRUCTION METHODS, AS REQUIRED TO COMPLY WITH THE CONSTRUCTION GENERAL PERMIT AND SECTION 641 OF THE PROJECT SPECIFICATIONS.
2. CONSTRUCTION ENTRANCE/EXIT MUST BE ESTABLISHED TO MINIMIZE OFF-SITE IMPACTS.
3. INSTALL PERIMETER CONTROL BMP WHEN WORKING WITHIN 25 FEET OF SURFACE WATERS AND ALONG WETLANDS WHERE A 25 FOOT VEGETATIVE BUFFER IS NOT RETAINED.
4. IF EXCAVATION DE-WATERING WILL OCCUR WITHIN 1,500FT OF AN ADEC IDENTIFIED CONTAMINATED SITE, THEN THE PROJECT MUST COMPLY WITH THE ADEC EXCAVATION DE-WATERING GENERAL PERMIT.
5. ALL IN-WATER WORK MUST BE ISOLATED FROM WATERS OF THE U.S. USING APPROPRIATE BMPS. ISOLATION METHODS MAY INCLUDE:
 - 5.1. SILT CURTAINS
 - 5.2. COFFERDAMS
 - 5.3. DIVERSIONS
 - 5.4. OTHER METHODS APPROVED BY THE ENGINEER
6. INLET / OUTLET PROTECTION REQUIRED FOR ALL CULVERTS, CROSSING CULVERT PROTECTION IS SHOWN ON THE ESCP SHEETS, DRIVEWAY CULVERTS ARE NOT SHOWN FOR VISUAL CLARIFICATION.
7. AREAS OF DISTURBANCE, TEMPORARY AND PERMANENT STABILIZATION, WILL BE MARKED AS WORK PROCEEDS AND ADDED TO THE LEGEND.
8. REFER TO APPENDIX A OF THE CONTRACT FOR ENVIRONMENTAL PERMIT INFORMATION.
9. REFER TO APPENDIX C OF THE CONTRACT FOR THE ESCP TEMPLATE.



VICINITY MAP

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	Q1	Q5

LEGEND:	
WETLANDS	
APPROACH	
CULVERT	
RIPRAP	
REVEGETATIVE EFFORT	
PERIMETER CONTROL	
INLET PROTECTION	
OUTLET PROTECTION	
EXISTING SURFACE FLOW DIRECTION	
CHECK DAMS OR OTHER VELOCITY CONTROL BMPS	
CONSTRUCTION ENTRANCE AND EXIT	

ENVIRONMENTAL COMMITMENTS:

1. ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH THE MIGRATORY BIRD TREATY ACT. AVOID LAND DISTURBANCE AND VEGETATION CLEARING BETWEEN MAY 1 TO JULY 15 TO COMPLY WITH THE USFWS MIGRATORY BIRD TREATY ACT TIMING RECOMMENDATIONS FOR THE PROJECT AREA.
2. AVOID DISTURBANCE OF THE CLOSED CONTAMINATED SITE WITH INSTITUTIONAL CONTROLS LOCATED AT THE INTERSECTION OF HEALY SPUR ROAD AND COAL STREET. IF A CONTAMINATION OCCURS DURING THE PROJECT, OR A SOIL CONTAMINATED SITE ENCOUNTERED, CONTACT THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC).
3. THERE ARE WETLANDS PRESENT WITHIN THE BOUNDARIES OF THE PANGUINGUE CREEK PIT, MS 37-2-143-2. AVOID USE OF THE NORTHERNMOST CORNER OF PANGUINGUE CREEK PIT TO AVOID DISTURBANCE OF WETLAND AREAS.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	Q2	Q5

MS 37-2-143-2 – PANGUINGUE CREEK PIT

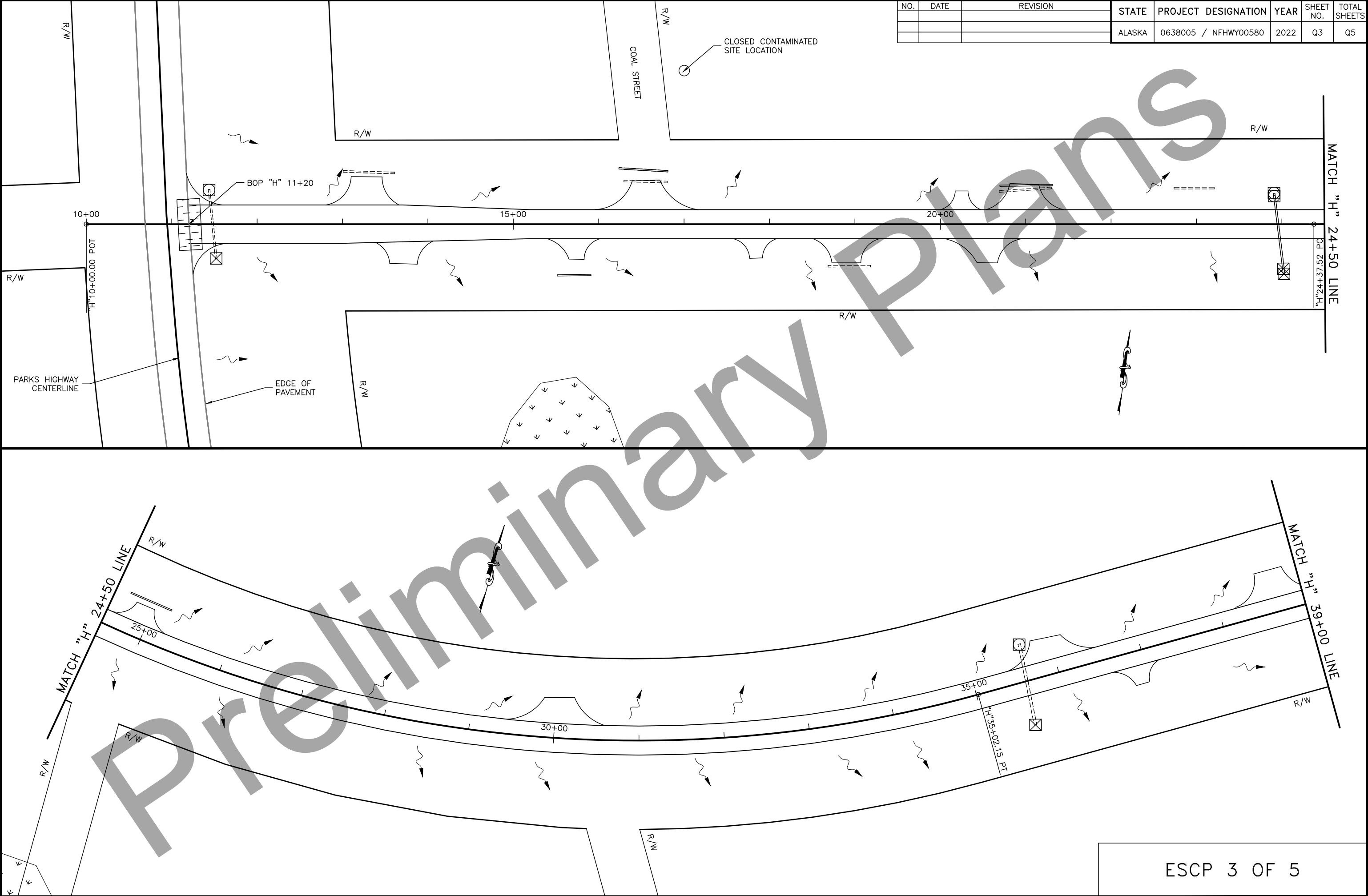


- NOTES:
1. THE PANGUINGUE CREEK PIT (MS 37-2-143-2) MATERIAL SITE WAS INCLUDED WITH THE PROJECT'S ENVIRONMENTAL PHASE. THIS MATERIAL SITE WILL BE LISTED AS AVAILABLE, BUT USE IS NOT MANDATORY.
 2. TOTAL PERMITTED AREA IS APPROXIMATELY 22.5 ACRES.
 3. THERE ARE WETLANDS PRESENT WITHIN THE BOUNDARIES OF MS 37-2-143-2 AT THE NORTHERN MOST CORNER. DO NOT DISTURB THIS AREA (TOTAL WETLAND AREA IS APPROXIMATELY 1.8 ACRES).
 4. CONTACT M&O (MAINTENANCE AND OPERATIONS DISTRICT SUPERINTENDENT, 907-451-5280) PRIOR TO USING MS 37-2-143-2.
 5. SEE SHEET Q1 FOR ADDITIONAL ESCP NOTES.

MS 37-2-143-2 IS LOCATED AT APPROXIMATELY MP 252.5 OF THE PARKS HIGHWAY

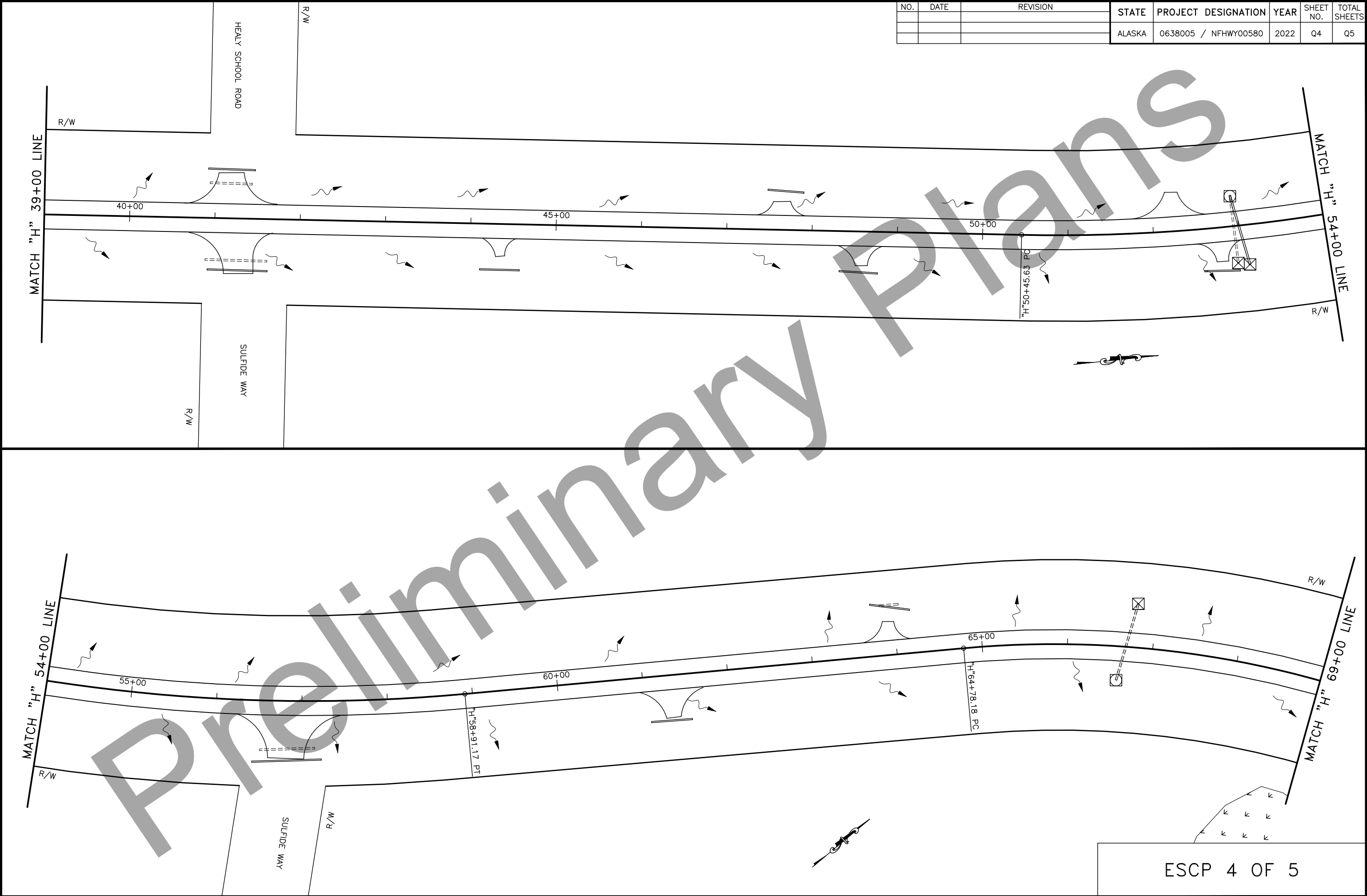
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR_Q_POP_SHEETS-ESCP 3 OF 5 Mon, Jul/11/22 01:12pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	Q3	Q5



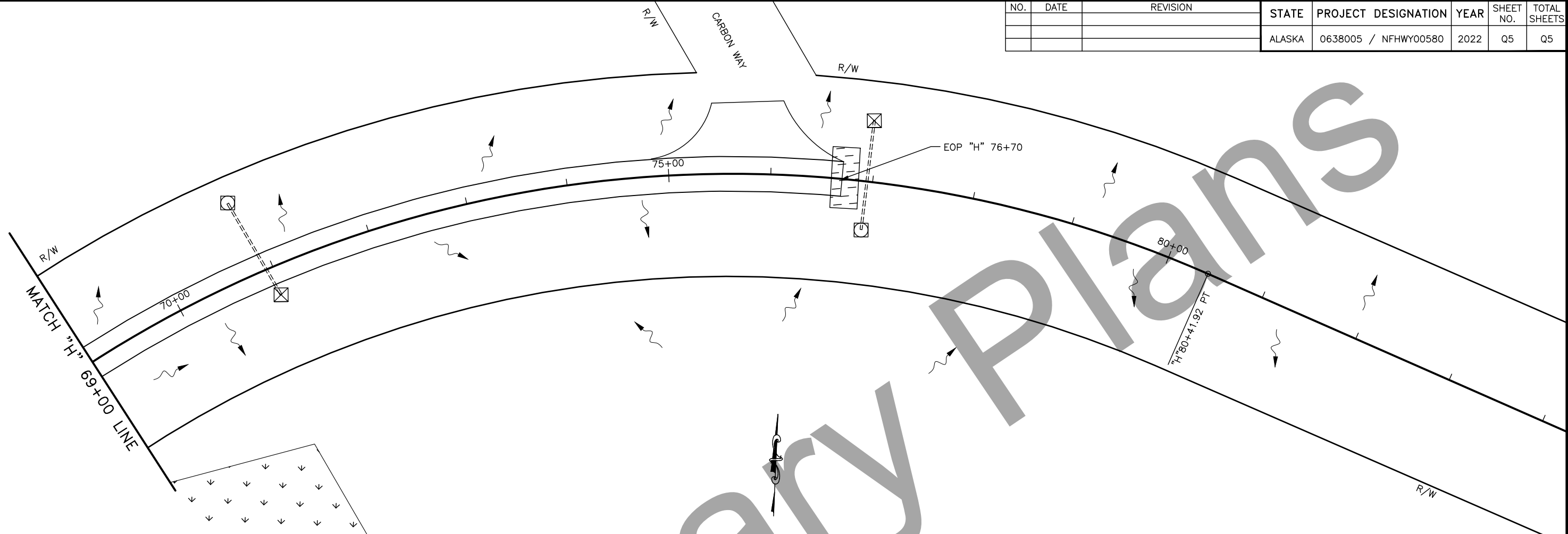
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR_Q_POP_SHEETS-ESCP 4 OF 5 Mon, Jul/11/22 01:12pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	Q4	Q5

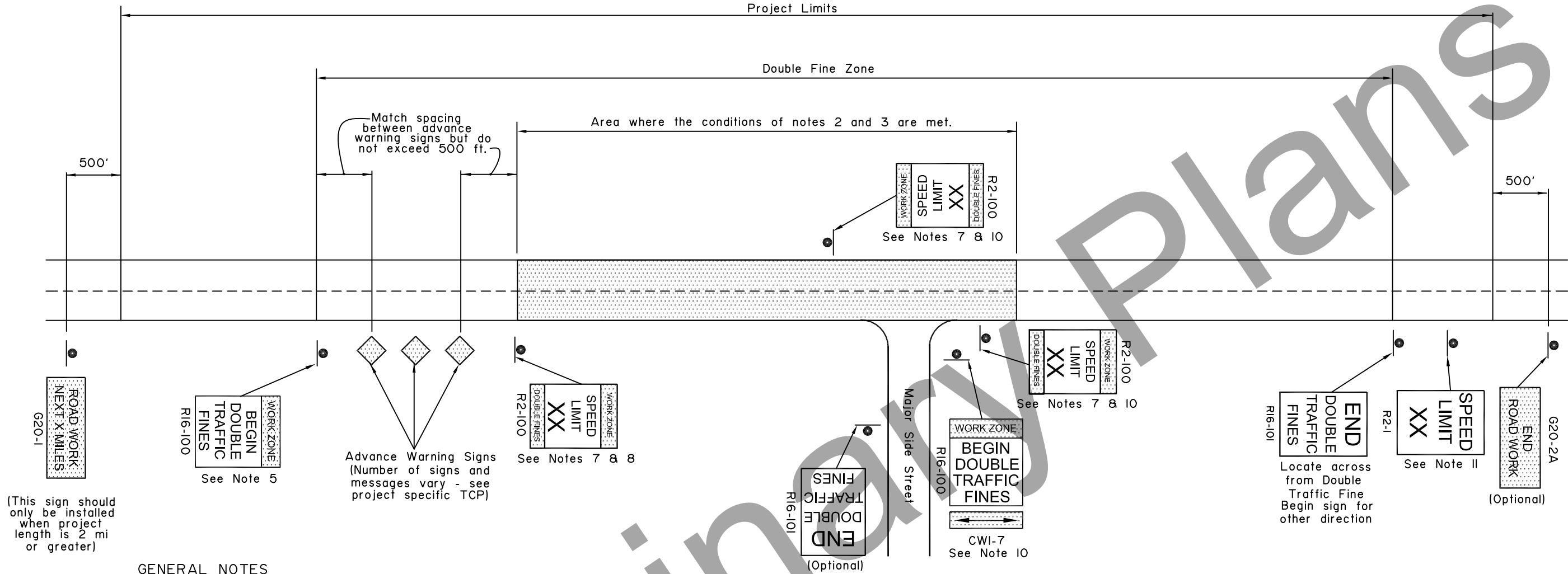


PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
D:\C3D\HealySpur\Working\HSPUR_Q_POP_SHEETS-ESCP 5 OF 5 Mon, Jul/11/22 01:12pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0638005 / NFHWY00580	2022	Q5	Q5



LEGEND:	
WETLANDS	
APPROACH	
CULVERT	
RIPRAP	
REVEGETATIVE EFFORT	
PERIMETER CONTROL	
INLET PROTECTION	
OUTLET PROTECTION	
EXISTING SURFACE FLOW DIRECTION	
CHECK DAMS OR OTHER VELOCITY CONTROL BMPs	
CONSTRUCTION ENTRANCE AND EXIT	



GENERAL NOTES

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

2. Double fine signs shall be used only where one or more of the following conditions exist:

a. Active work areas (where road workers and/or machines are presently working on or adjacent to a road)

b. Detours on new temporary roads built for that purpose (this does not include detours on existing streets)

c. Sections of paved roads where pavement has been removed.

d. Roads being paved where unmatched asphalt lifts result in a vertical lip between lanes.

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

a. If the project is 2 miles or shorter in length, the entire project may be posted for double fines when the above conditions exist on any part of the project.

b. When the above conditions exist at multiple locations separated by less than 2 miles, the locations and the intervening segments may be posted as a single double fine zone.

4. Double fine signs shall be removed or covered when work activity ceases for more than two days and conditions b, c, or d of note 2 are not met.

5. The R16-100 "BEGIN" sign may be used in place of the first advance warning sign. However, when this is done, the appropriate advance warning sign must be reinstalled when the double fine sign is taken down or covered.

6. When a double fine zone is longer than 2 miles, work zone speed limit signs shall be posted at spacings not greater than 2 miles within the double fine zone.

7. "Work zone speed limit signs", as used here, refer either to 1) R2-100 signs or 2) standard R2-1 regulatory speed limit signs with CW20-102 "DOUBLE FINES" plates mounted below.

8. The limit shown on work zone speed limit signs shall be either the existing limit before construction or, if a work zone speed limit order has been approved in accordance with ADOT&PF Procedure 05.05.020 PDR, a reduced limit.

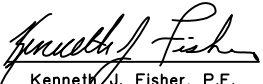
9. All existing regulatory speed limit signs within double fine zones shall either be replaced with R2-100 signs or supplemented with CW20-102 plates.

10. Signs shall be installed at major intersections within the double fine zone to warn entering drivers of double fines. This may be done with a R16-100 sign with a CW1-7 arrow panel on the side street or with two work zone speed limit signs on the main street on either side of the intersection. Use of R16-100 signs on side streets eliminates the need for "Road Work Ahead" signs on those streets. If the speed limit has been reduced, the two work zone speed limit signs are mandatory.

11. At the end of each double fine zone, install an R2-1 sign showing the speed limit for the road beyond the double fine zone.
- State of Alaska DOT&PF

ALASKA STANDARD PLAN

LOCATION OF
DOUBLE TRAFFIC
FINE SIGNS

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

Adoption Date: 02/08/2019

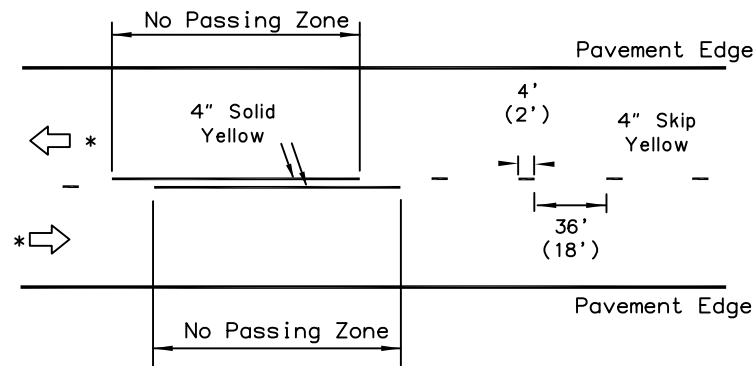
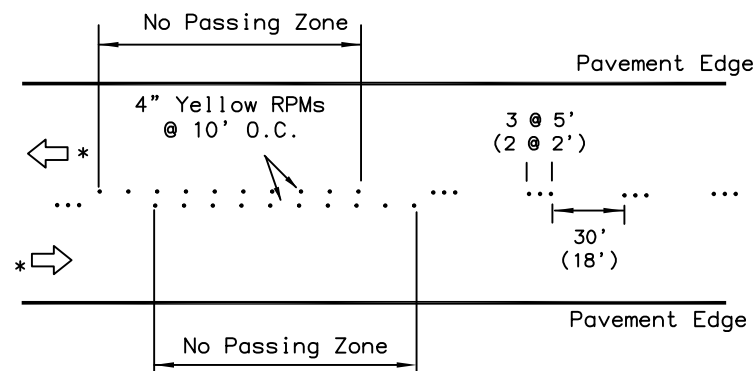
Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029
- C-04.12

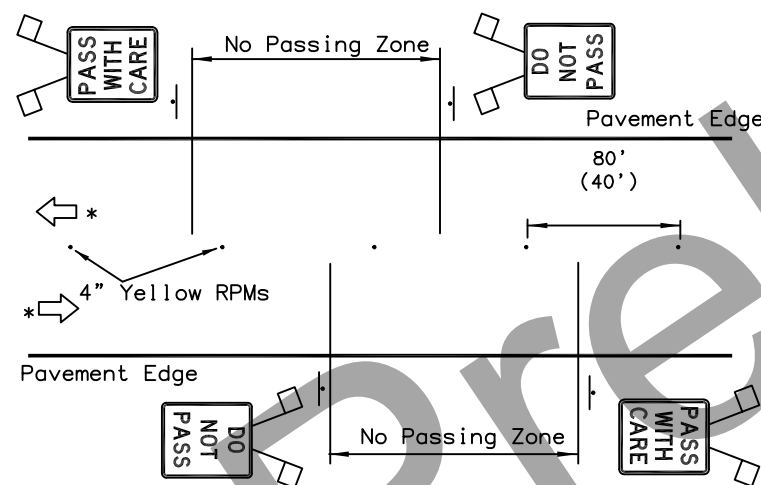
C-05.20

SHEET
| of |**GENERAL NOTES:**

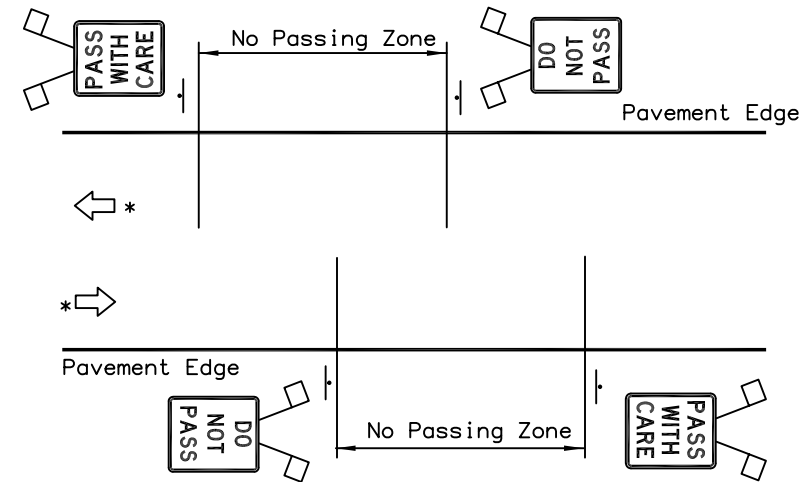
1. Final pavement markings conforming to Part 3 of the Alaska Traffic Manual should be installed before paved roads are open to public travel. If that is not practical, install interim pavement markings as shown on this drawing. Maintain interim pavement markings until final pavement markings are installed.
2. No interim pavement markings are required:
 - a. on projects that will not have permanent markings when finished.
 - b. in work zones that are open to public travel for no more than one work shift during daytime or for no more than one hour at night.
 - c. where DO NOT PASS and PASS WITH CARE signs are installed on two lane roads as shown in Detail C, no pavement markings are required:
 - 1) for 3 days if seasonal ADT is above 2000, or
 - 2) for 1 month if seasonal ADT is below 2000.
3. Interim pavement markings should not be in place longer than 14 calendar days before being replaced with permanent markings conforming to Part 3 of the Alaska Traffic Manual unless the Engineer provides written approval.
4. Where R4-1 DO NOT PASS signs are used, install at the beginning of no passing zones and at no more than 1500' spacings within no passing zones.
5. Install high level warning devices on all DO NOT PASS and PASS WITH CARE signs.
6. Offset temporary markings 8"-12" from the future location of permanent markings if applied on the same lift of pavement.
7. Dimensions in parenthesis apply to curves with a radius of 1000 feet or less or where posted speed limit is 30 mph or less.

**Striping****Temporary Raised Pavement Markers****DETAIL A**

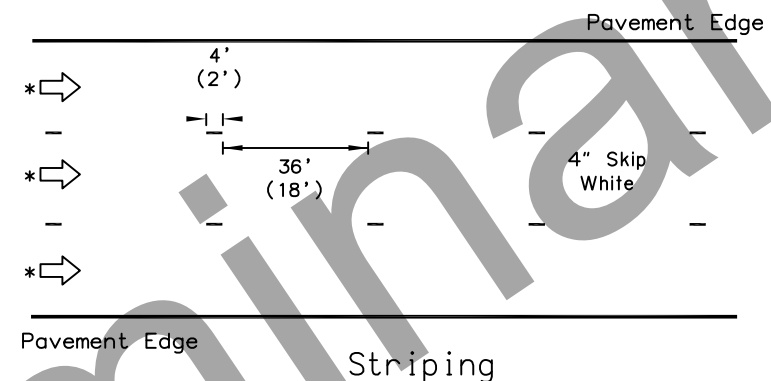
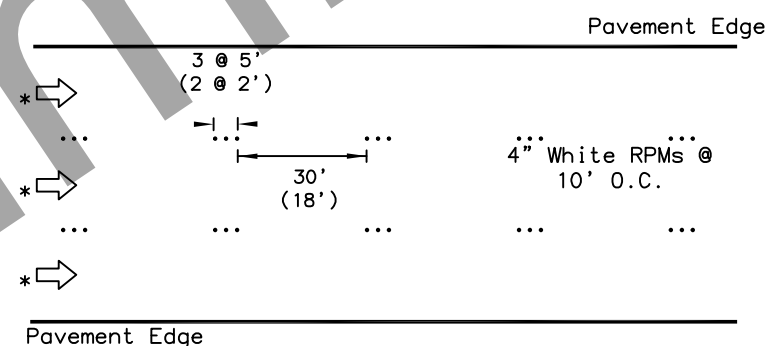
Two-lane road: No Passing Zones indicated with pavement markings.

**DETAIL B**

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

**DETAIL C**

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

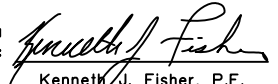
**Striping****Temporary Raised Pavement Markers****DETAIL D**

Multilane one-way road: Lane dividing lines

* Direction of Travel

State of Alaska DOT&PF
ALASKA STANDARD PLAN

**INTERIM
PAVEMENT MARKINGS**

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

Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

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

C-05.20

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 Plan D-01 "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 bottom 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 deflection.
7. These tables have been developed for an HL-93 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 2017 AASHTO "LRFD Bridge Design Specifications".

Minimum & Maximum Cover for 2 2/3" X 1/2" Aluminum Pipe						
Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
12	12	100+	100+	100+	100+	100+
15	12	100	100+	100+	100+	100+
18	12	83	100+	100+	100+	100+
21	12	71	89	100+	100+	100+
24	12	62	78	100+	100+	100+
27	12		69	97	100+	100+
30	12		62	87	100+	100+
36	12		51	73	94	100+
42	12			62	80	100+
48	12			54	70	85
54	15			48	62	76
60	15				52	64
66	18					52
72	18					43

Minimum & Maximum Cover for 3" x 1" Aluminum Pipe						
Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
30	12	57	72	100+	100+	100+
36	12	47	60	84	100+	100+
42	12	40	51	72	96	100+
48	12	35	44	62	84	99
54	15	31	39	55	74	88
60	15	28	35	50	67	79
66	18	25	32	45	61	72
72	18	23	29	41	56	66
78	21		27	38	51	61
84	21			35	48	56
90	24			33	44	52
96	24			31	41	49
102	24				39	46
108	24				37	43
114	24					39
120	24					36

Minimum & Maximum Cover for 9" X 2 1/2" Aluminum Structural Plate Pipe*			
Thickness		0.125	0.150
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)
84	18	31	
90	18	27	
96	18	27	
102	18	24	
108	18	24	
114	18	21	
120	24	21	
126	24	19	
132	30	19	
138	30	18	
144	30	18	
150	30		22
156	30		22
162	36		20
168	36		20

*5.33 - 3/4" dia. steel bolts per foot.

CORRUGATED CIRCULAR ALUMINUM PIPE

CORRUGATED ALUMINUM PIPE-ARCH

Minimum & Maximum Cover for 2 2/3" X 1/2" Aluminum Pipe-Arch					
				2 Tons/Sf Corner Bearing Pressure	
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)
17	13	3 4/8	16 (0.060)	12	13
21	15	4 1/8	16 (0.060)	12	12
24	18	4 7/8	16 (0.060)	12	12
28	20	5 4/8	14 (0.075)	12	12
35	24	6 7/8	14 (0.075)	12	12
42	29	8 2/8	12 (0.105)	12	12
49	33	9 5/8	12 (0.105)	15	12
57	38	11	10 (0.135)	15	12
64	43	12 3/8	10 (0.135)	18	12
71	47	13 6/8	8 (0.164)	18	12

Minimum & Maximum Cover for 3" x 1" Aluminum Pipe-Arch					
				2 Tons/Sf Corner Bearing Pressure	
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)
60	46	18 6/8	14 (0.075)	15	20
66	51	20 6/8	14 (0.075)	18	20
73	55	22 7/8	14 (0.075)	21	20
81	59	20 7/8	12 (0.105)	21	16
87	63	22 7/8	12 (0.105)	24	16
95	67	24 3/8	12 (0.105)	24	16
103	71	26 1/8	10 (0.135)	24	16
112	75	27 6/8	8 (0.164)	24	16

Minimum & Maximum Cover for 9" x 2 1/2" Aluminum Multiplate Pipe-Arch*					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	2 Tons/Sf Corner Bearing Pressure Max. Cover (Ft)
6-7	5-8	31.75	0.125	24	24
6-11	5-9	31.75	0.125	24	24
7-3	5-11	31.75	0.125	24	18
7-9	6-0	31.75	0.125	24	18
8-5	6-3	31.75	0.125	24	16
9-3	6-5	31.75	0.125	24	15
10-3	6-9	31.75	0.125	30	13
10-9	6-10	31.75	0.125	30	13
11-5	7-1	31.75	0.125	30	13
12-7	7-5	31.75	0.125	30	11
12-11	7-6	31.75	0.125	30	11
13-1	8-2	31.75	0.125	30	11
13-11	8-5	31.75	0.125	36	10
14-8	9-8	31.75	0.125	36	9
15-4	10-0	31.75	0.150	36	8
16-1	10-4	31.75	0.150	36	8
16-9	10-8	31.75	0.150	42	7
17-3	11-0	31.75	0.150	42	7
18-0	11-4	31.75	0.175	42	7
18-8	11-8	31.75	0.175	42	7

*5.33 - 3/4" dia. steel bolts per foot.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

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

Adoption Date: 7/17/2020

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

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

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 Plan D-01 "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 bottom 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 deflection.
7.

These tables have been developed for an HL-93 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 2017 AASHTO "LRFD Bridge Design Specifications".

CORRUGATED CIRCULAR STEEL PIPE

CORRUGATED STEEL PIPE-ARCH

Minimum & Maximum Cover for 6" x 2" Steel Multiplate Pipe*							
Gage		I2	I0	8	7	5	3
Thickness		0.111	0.140	0.170	0.188	0.218	0.249
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
60	I2	46	67	87	100	100+	100+
66	I2	42	60	79	91	100+	100+
72	I2	38	55	73	83	100+	100+
78	I2	35	51	67	77	93	100+
84	I2	32	47	62	71	86	100+
90	I2	30	44	58	67	80	95
96	I2	28	41	54	62	75	89
102	I8	27	39	51	59	71	84
108	I8	25	37	48	55	67	79
114	I8	24	35	45	52	63	75
120	I8	22	33	43	50	60	71
126	I8	21	31	41	47	57	68
132	I8	20	30	39	45	54	64
138	I8	19	28	37	43	52	62
144	I8	18	27	36	41	50	59

*4 - 3/4" dia. steel bolts per foot.

Minimum & Maximum Cover for 2 2/3" X 1/2" Steel Pipe-Arch					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)
17	13	3 4/8	16 (0.060)	12	11
21	15	4 1/8	16 (0.060)	12	11
24	18	4 7/8	16 (0.060)	12	11
28	20	5 4/8	16 (0.060)	12	11
35	24	6 7/8	16 (0.060)	12	11
42	29	8 2/8	16 (0.060)	12	11
49	33	9 5/8	14 (0.075)	12	11
57	38	11	12 (0.109)	12	11
64	43	12 3/8	12 (0.109)	12	11
71	47	13 6/8	10 (0.138)	12	11
77	52	15 1/8	10 (0.138)	12	11
83	57	16 4/8	8 (0.168)	12	11

Minimum & Maximum Cover for 3" X 1" Steel Pipe-Arch					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)
53	41	10 2/8	14 (0.079)	12	10
60	46	18 6/8	14 (0.079)	15	29
66	51	20 6/8	14 (0.079)	15	29
73	55	22 7/8	14 (0.079)	18	18
81	59	20 7/8	14 (0.079)	18	15
87	63	22 7/8	14 (0.079)	18	15
95	67	24 3/8	14 (0.079)	18	15
103	71	26 1/8	14 (0.079)	18	14
112	75	27 6/8	14 (0.079)	21	14
117	79	29 4/8	12 (0.109)	21	14
128	83	31 2/8	10 (0.138)	24	14
137	87	33	10 (0.138)	24	14
142	91	34 6/8	10 (0.138)	24	13
150	96	36	10 (0.138)	30	13
157	96	38	10 (0.138)	30	13
164	105	40	10 (0.138)	30	14
171	110	41	10 (0.138)	30	13

Minimum & Maximum Cover for 5" X 1" Steel Pipe-Arch					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)
53	41	10 2/8	14 (0.079)	12	10
60	46	18 6/8	14 (0.079)	15	29
66	51	20 6/8	14 (0.079)	15	29
73	55	22 7/8	14 (0.079)	18	18
81	59	20 7/8	14 (0.079)	18	15
87	63	22 7/8	14 (0.079)	18	15
95	67	24 3/8	14 (0.079)	18	15
103	71	26 1/8	14 (0.079)	18	14
112	75	27 6/8	14 (0.079)	21	14
117	79	29 4/8	12 (0.109)	21	14
128	83	31 2/8	10 (0.138)	24	14
137	87	33	10 (0.138)	24	14
142	91	34 6/8	10 (0.138)	24	13
150	96	36	10 (0.138)	30	13
157	96	38	10 (0.138)	30	13
164	105	40	10 (0.138)	30	14
171	110	41	10 (0.138)	30	13

Minimum & Maximum Cover for Steel Multiplate Pipe-Arch 6" x 2" *					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Gage (In)	Min. Cover (In)	Max. Cover (Ft)
6-1	4-7	18	12 (0.111)	12	14
7-0	5-1	18	12 (0.111)	12	12
7-11	5-7	18	12 (0.111)	12	10
8-10	6-1	18	12 (0.111)	18	9
9-9	6-7	18	12 (0.111)	18	8
10-11	7-1	18	12 (0.111)	18	6
11-10	7-7	18	12 (0.111)	18	5
12-10	8-4	18	12 (0.111)	24	5
13-3	9-4	31	10 (0.140)	24	11
14-2	9-10	31	10 (0.140)	24	10
15-4	10-4	31	10 (0.140)	24	9
16-3	10-10	31	10 (0.140)	30	8
17-2	11-4	31	10 (0.140)	30	8
18-1	11-10	31	10 (0.140)	30	7
19-3	12-4	31	10 (0.140)	30	7
19-11	12-10	31	10 (0.140)	30	6
20-7	13-2	31	10 (0.140)	36	6

*4 - 3/4" dia. steel bolts per foot.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

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

Adoption Date: 7/17/2020

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

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

GENERAL NOTES

Maximum Cover for Type S Corrugated Polyethylene Pipe	
Size (in)	Max. Cover (ft)
12	24
15	25
18	24
24	20
30	20
36	18
42	16
48	17

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 Plan D-01 "Culvert Pipe & Arch Installation Details".
3. Pipe cover height is measured from top of the pipe to top of rigid pavement, or to the bottom 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.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

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

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

D-04.22

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 Plan D-01 "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 bottom 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 HL-93 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 2017 AASHTO "LRFD Bridge Design Specifications".

Minimum & Maximum Cover for Aluminum Spiral Rib Circular Pipe*						
Gage		I6		I4	I2	I0
Thickness		0.064		0.079	0.109	0.138
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
18	12	43	61			
21	12	38	52	84		
24	12	33	45	73		
30	15	26	36	58		
36	18	21	30	49	69	
42	21		25	41	59	
48	24			36	51	
54	24			32	46	
60	24			29	41	
66	24				37	
72	30				34	

* $\frac{3}{4}$ x $\frac{3}{4}$ x $7\frac{1}{2}$ in. Corrugations

Minimum & Maximum Cover for Aluminum Spiral Rib Pipe-Arch*							
Gage			I6	I4	I2	I0	
Thickness			0.060	0.075	0.105	0.135	
Span (Ft.-In.)	Rise (Ft.-In.)	Min. Cover (In)	Max. Cover (Ft)				
20	16	12	16				
23	19	12	15				
27	21	15	13	13			
33	26	18	13	13	13		
40	31	21		13	13		
46	36	24			13	13	
53	41	24			13	13	
60	46	24			13	13	
66	51	24				13	

* $\frac{3}{4}$ x $\frac{3}{4}$ x $7\frac{1}{2}$ in. Corrugations

ALUMINUM SPIRAL RIB PIPE

STEEL SPIRAL RIB PIPE

Minimum & Maximum Cover for Steel and Aluminized Steel Spiral Rib Circular Pipe*						
Gage		I6		I4	I2	I0
Thickness		0.064		0.079	0.109	0.138
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
18	12	91				
24	12	68	95	100+		
30	12	54	76	100+		
36	12	45	63	100+		
42	12	38	54	90		
48	12	33	47	79		
54	18	30	42	70		
60	18	27	38	63	92	
66	18	24	34	57	83	
72	18		31	52	76	
78	24		29	48	70	
84	24		27	45	65	
90	24			42	61	
96	24			39	56	
102	30			36	50	
108	30			32	45	

* $\frac{3}{4}$ x $\frac{3}{4}$ x $7\frac{1}{2}$ in. Corrugations.

Minimum & Maximum Cover for Steel Spiral Rib Pipe-Arch*						
2 Tons/Sf Corner Bearing Pressure						
Thickness			0.064	0.079	0.109	
Span (Ft.-In.)	Rise (Ft.-In.)	Min. Cover (In)	Max. Cover (Ft)			
20	16	12	13			
23	19	12	13			
27	21	12	11			
33	26	12	11			
40	31	12	11			
46	36	12	11			
53	41	18		11		
60	46	18		19		
66	51	18		19		
73	55	18			18	
81	59	18			15	
87	63	18			15	
95	67	18			15	

* $\frac{3}{4}$ x $\frac{3}{4}$ x $7\frac{1}{2}$ in. Corrugations

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

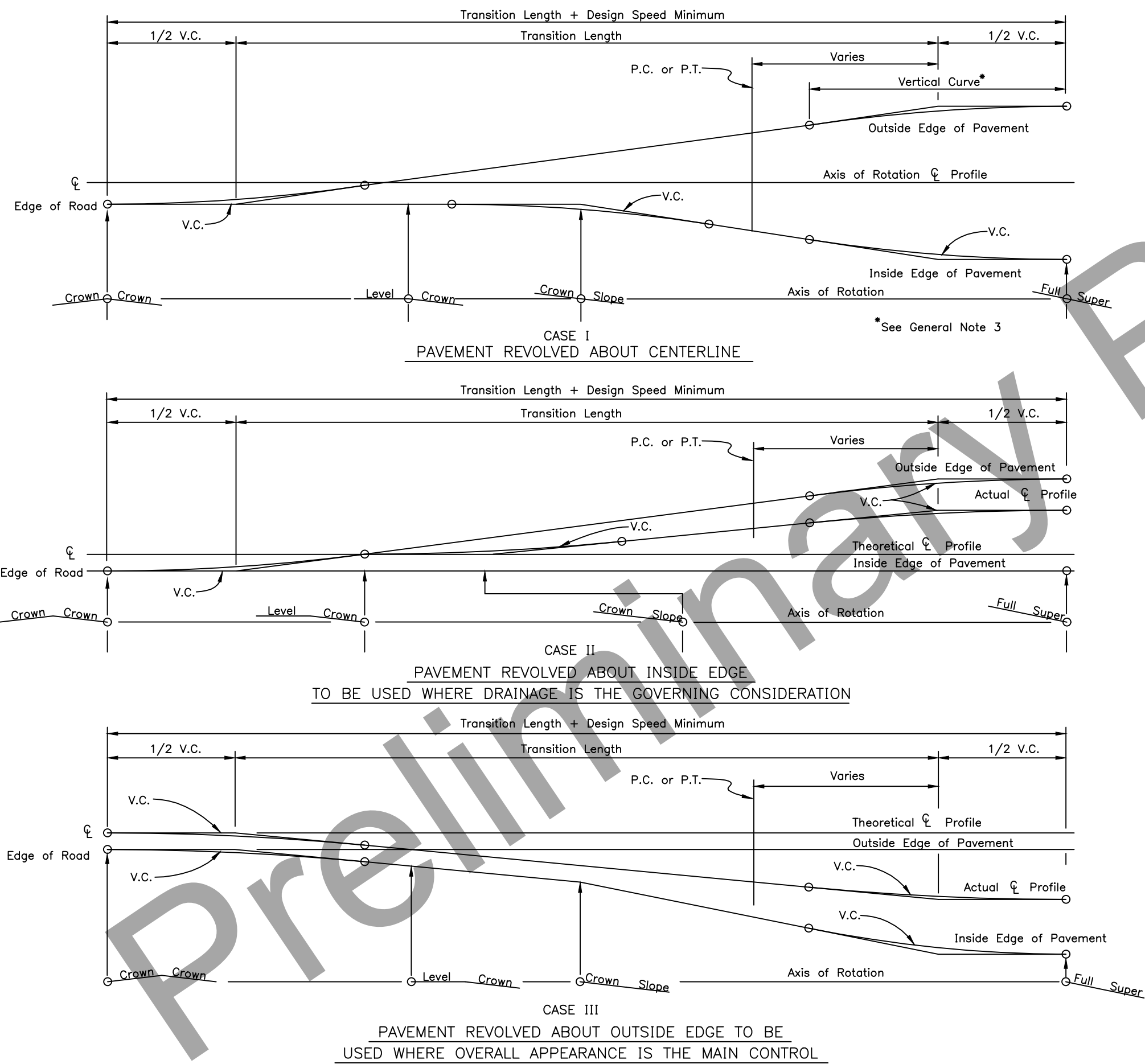
Adopted as an Alaska
Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

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

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

- 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.



State of Alaska DOT&PF
ALASKA STANDARD PLAN

SUPERELEVATION
TRANSITION

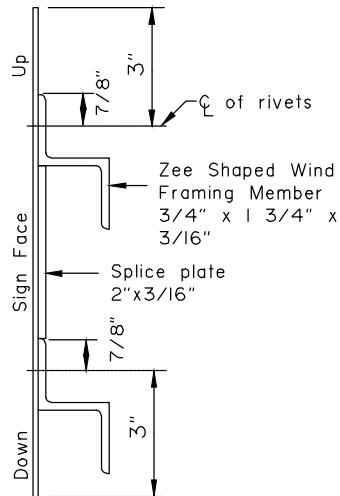
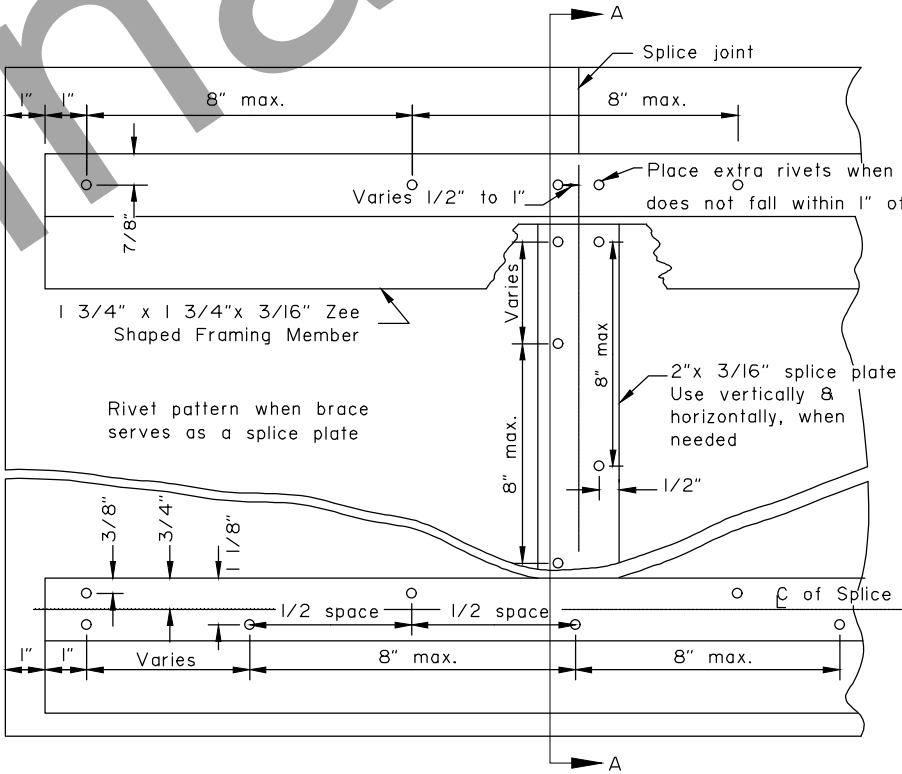
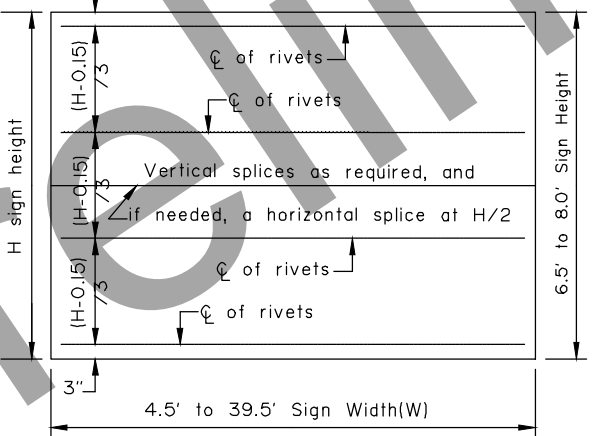
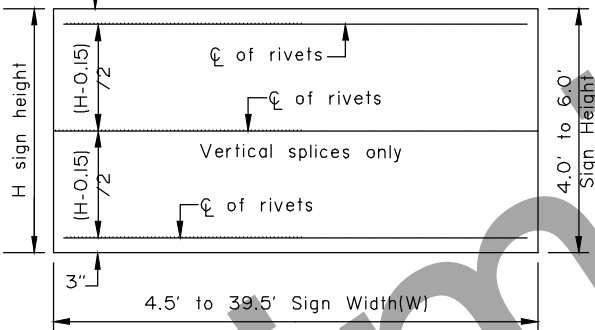
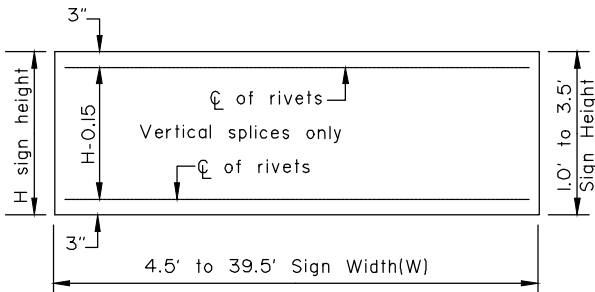
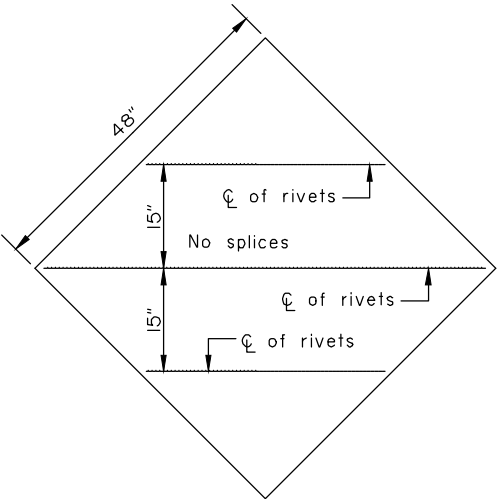
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Chief Engineer

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Last Code and Stds. Review
By: KLK Date: 7/8/2020
Next Code and Standards Review Date: 7/8/2030

GENERAL NOTES

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



SECTION A-A

RIVET DETAIL FOR ZEE SHAPED WIND FRAMING & SPLICE PLATE

WIND FRAMING LOCATIONS

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

Note: Drawing not to scale

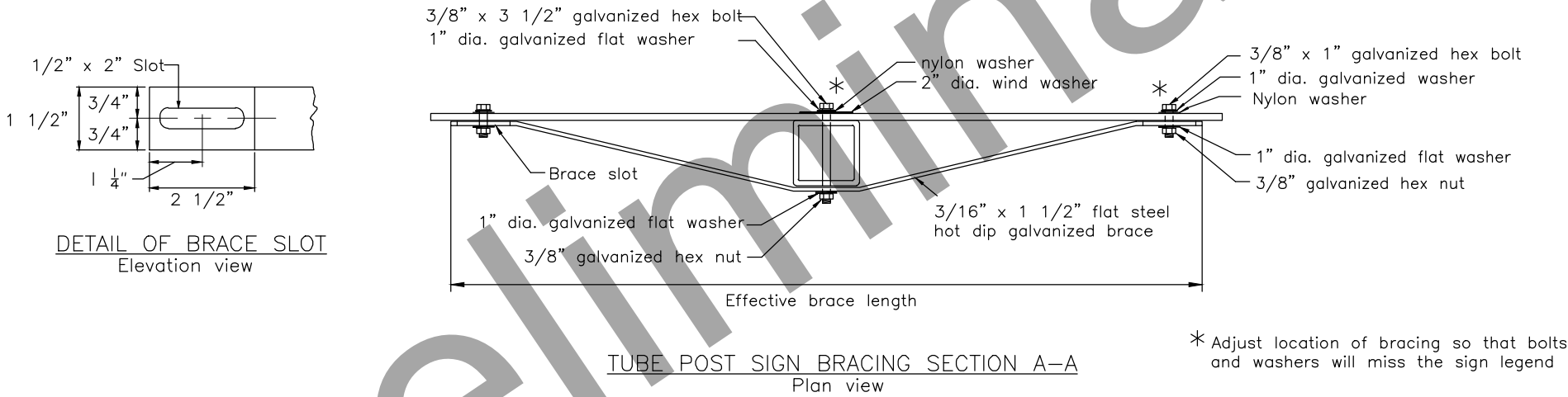
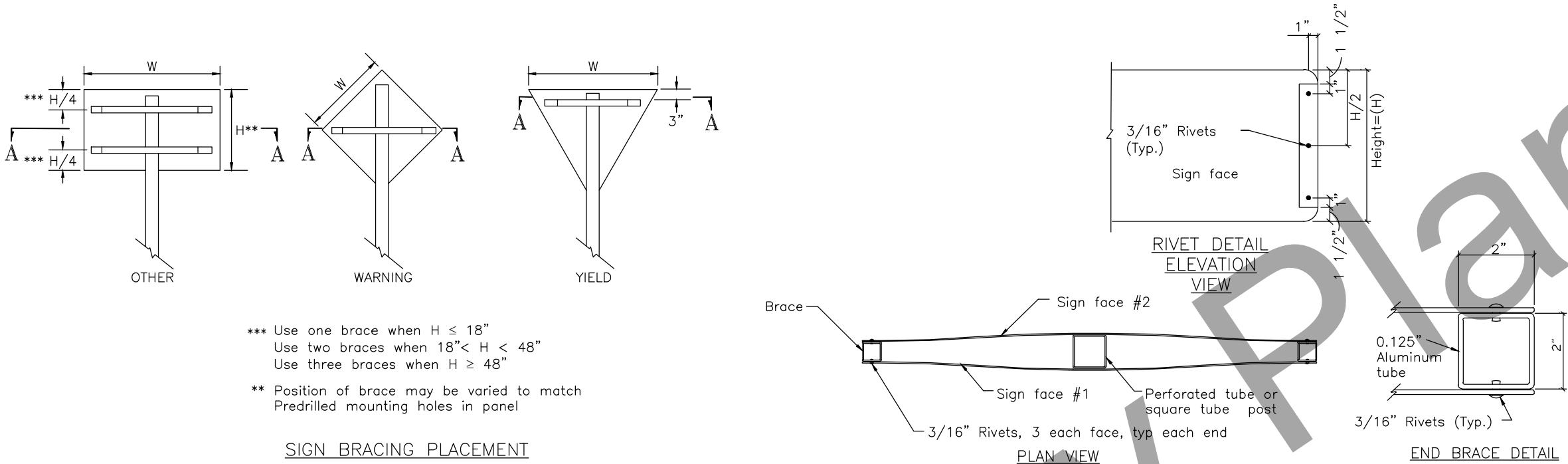
State of Alaska DOT&PF
ALASKA STANDARD PLAN
SIGN FRAMING

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

Adoption Date: 7/17/2020

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

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



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

< 30" No bracing required and use square tube

Note: Drawing not to scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN

BRACING FOR SIGNS
MOUNTED ON SINGLE POST

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

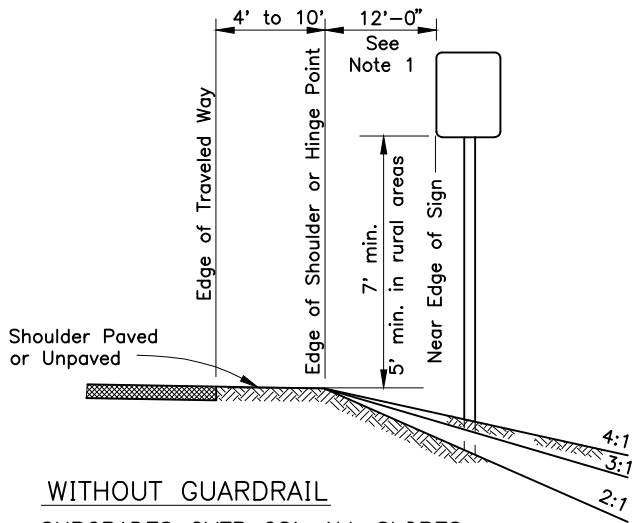
Adoption Date: 7/17/2020

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

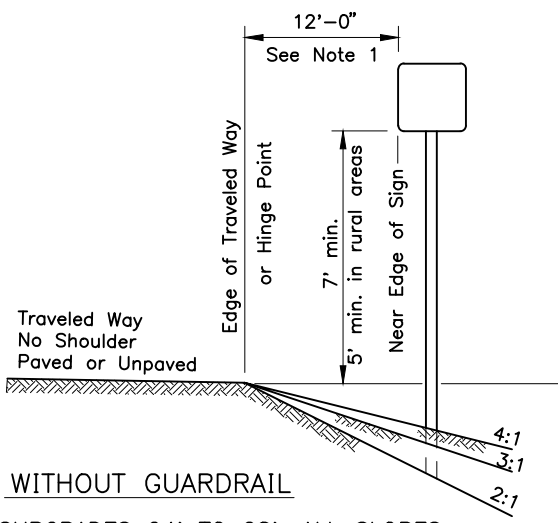
Next Code and Standards Review date: 7/8/2030

GENERAL NOTES

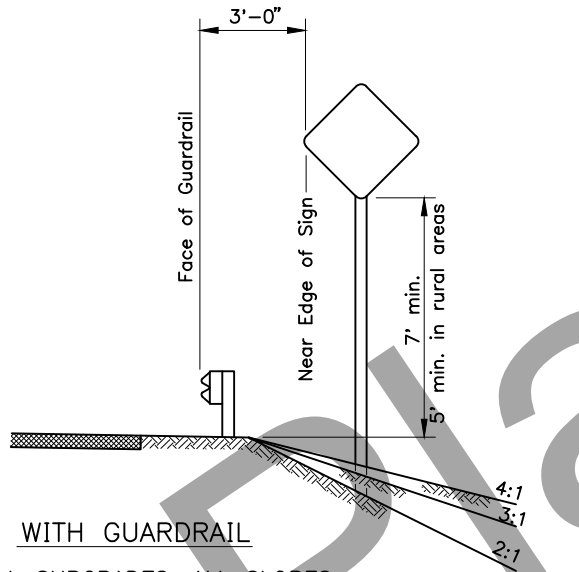
1. Unless shown otherwise on the plans, the standard sign offset is 12'. The minimum is 6' where shoulder width is 6' or greater.
2. Add 6" to mounting height on unpaved roads.
3. If signs extend over bike paths, the minimum vertical clearance is 8' 0".
4. When signs are placed 30' or more from the edge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



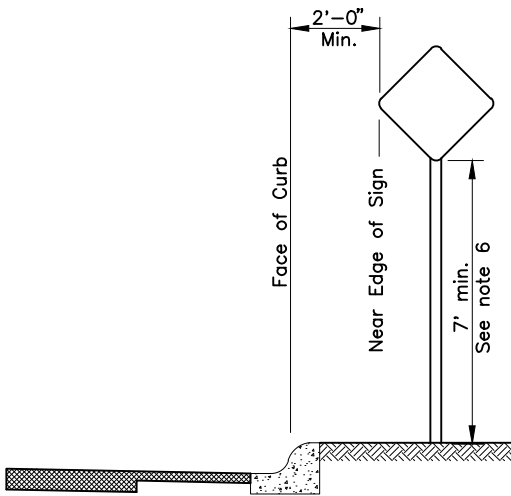
WITHOUT GUARDRAIL
SUBGRADES OVER 28', ALL SLOPES



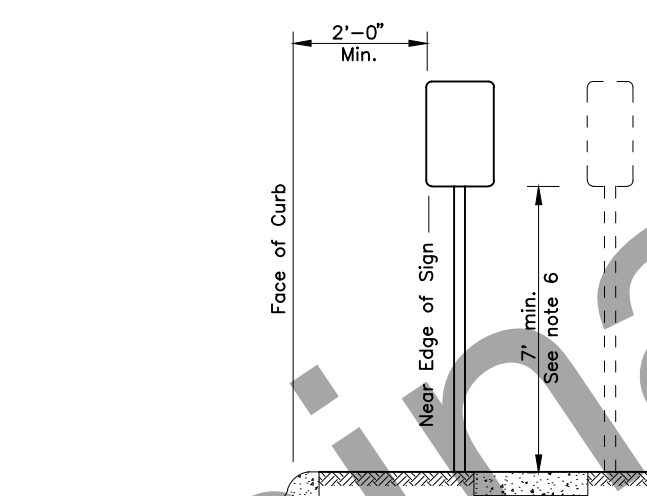
WITHOUT GUARDRAIL
SUBGRADES 24' TO 28', ALL SLOPES



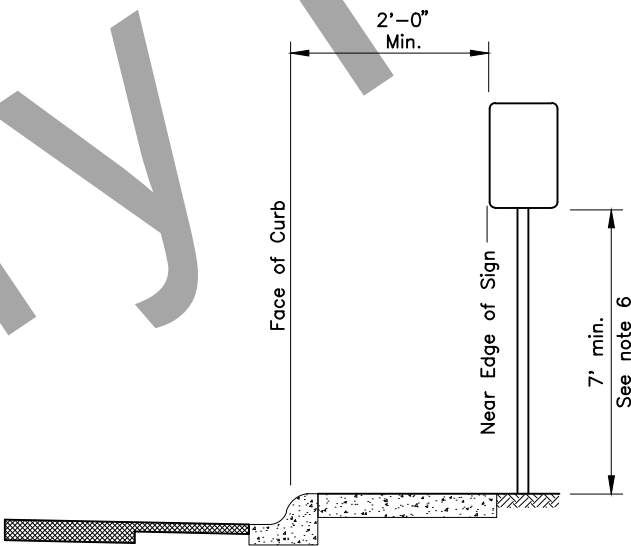
WITH GUARDRAIL
ALL SUBGRADES, ALL SLOPES



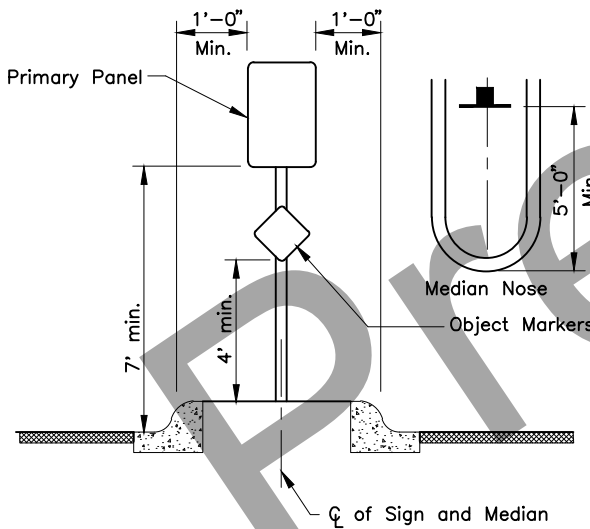
CURB WITHOUT SIDEWALK



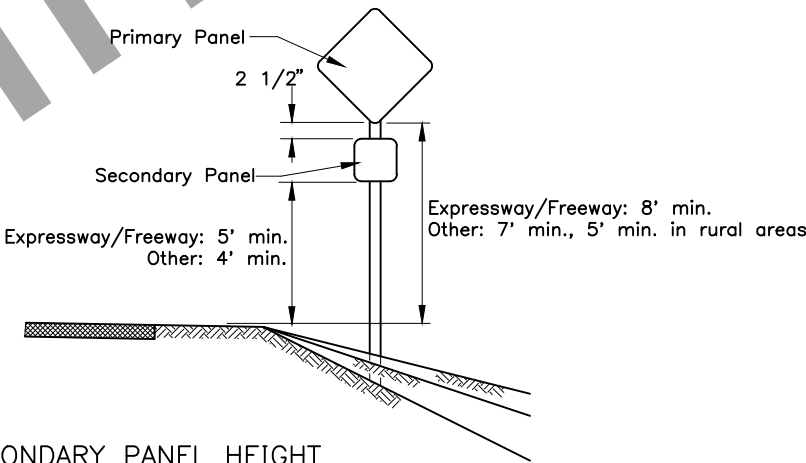
CURB WITH PARKWAY AND SIDEWALK
(If R/W width permits, signs should be placed behind sidewalk.)



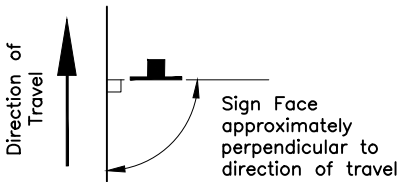
CURB WITH SIDEWALK WITHOUT PARKWAY



RAISED MEDIANS
Minimum 4' Width for Signing



SECONDARY PANEL HEIGHT
ALL TWO PANEL MOUNTING



SIGN POSITIONING

State of Alaska DOT&PF
ALASKA STANDARD PLAN

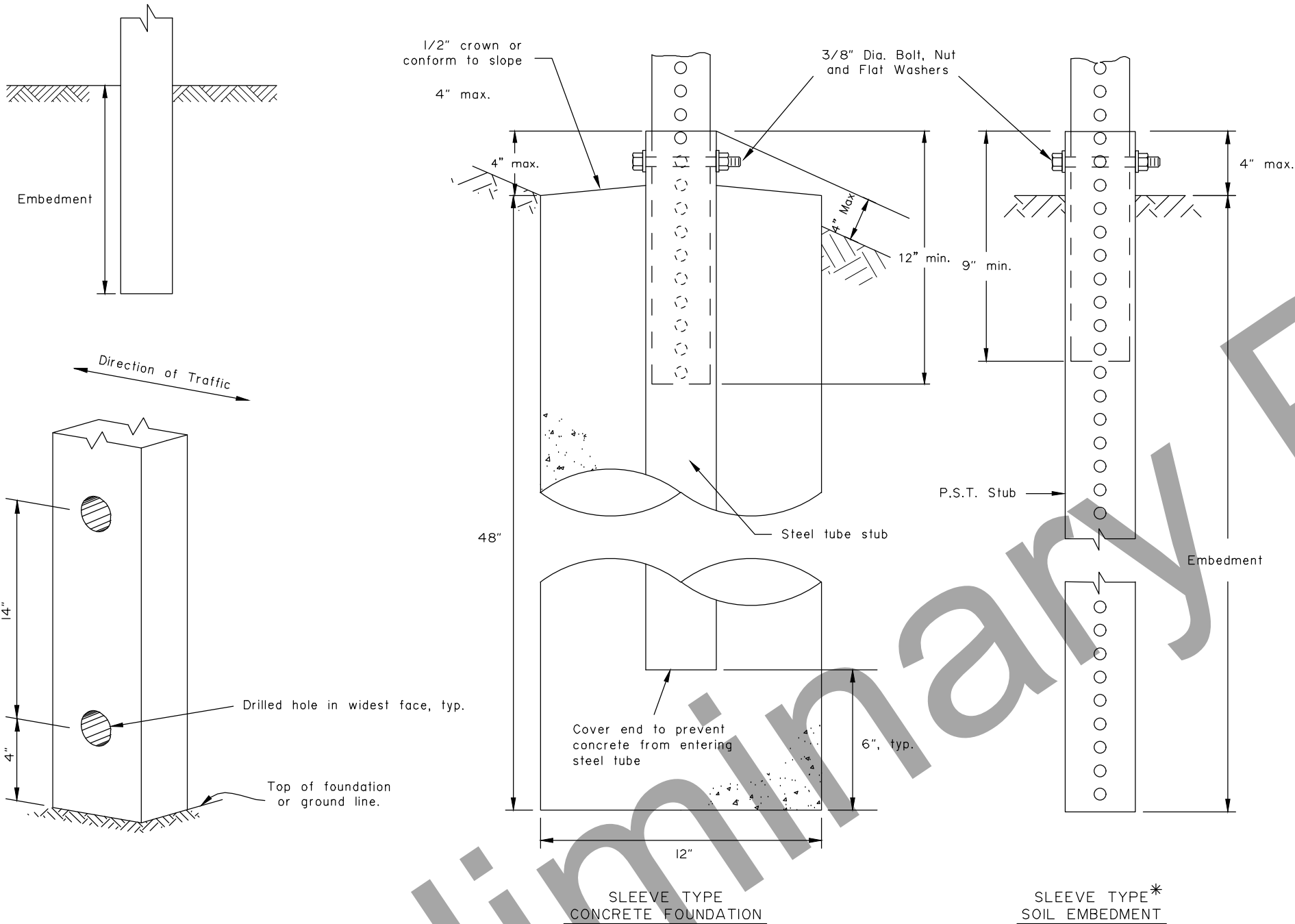
POST MOUNTED SIGN
OFFSET AND HEIGHT

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

Adoption Date: 7/17/2020

Last Code and Stds. Review
By:KLK Date: 7/8/2020
Next Code and Standards Review Date: 7/8/2030

S-05.02



GENERAL NOTES:

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

SIGN POST SPACING NOTES:

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

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

* Embedment depth applies in both strong and weak soil.

WOOD POSTS

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

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

PERFORATED STEEL TUBE (PST) POSTS

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

TUBE SIGN POST SPACING

Note: Drawing not to scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN
LIGHT SIGN STRUCTURE
POST EMBEDMENT

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

Adoption Date: 7/17/2020

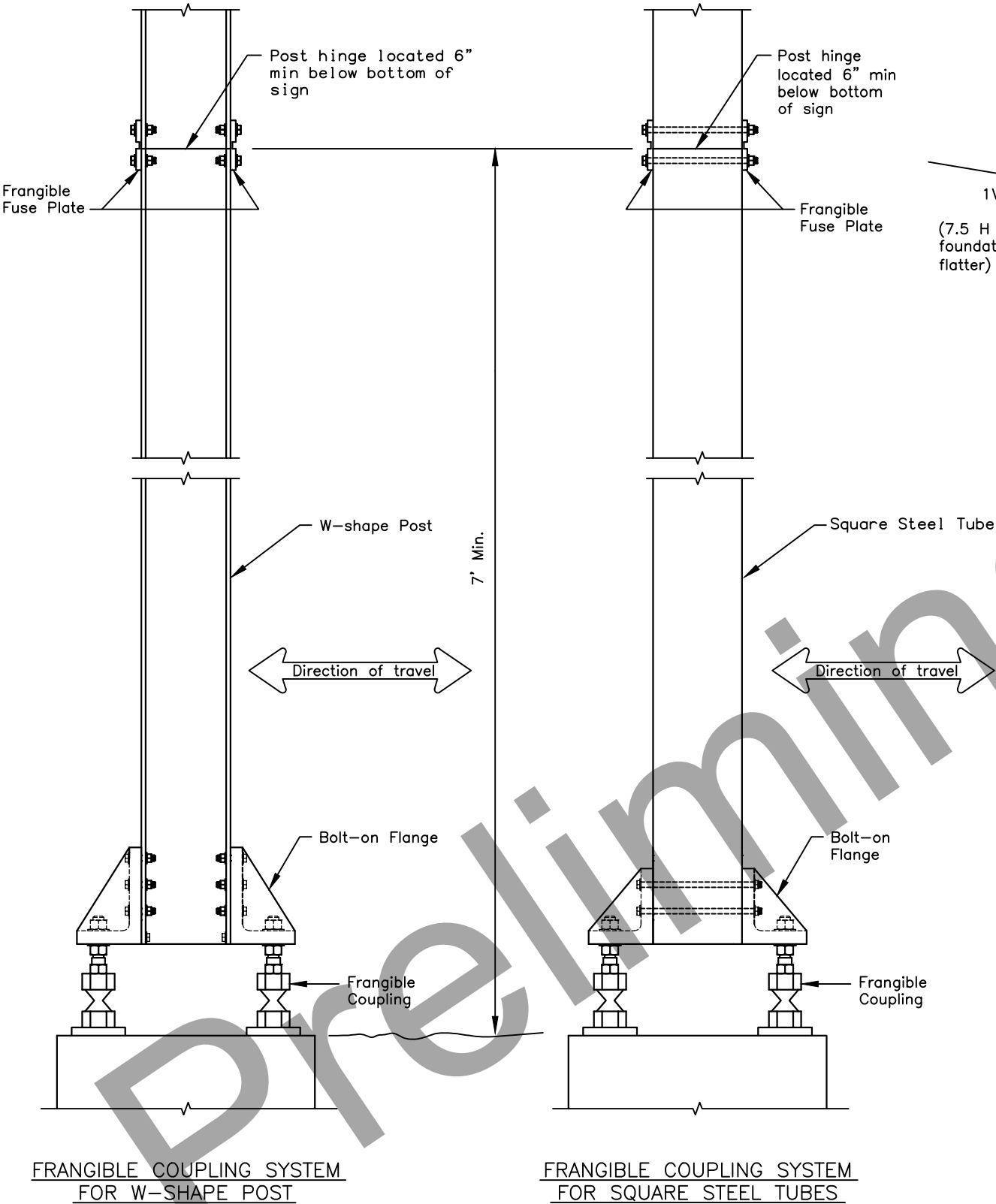
Last Code and Stds. Review
By: WTH Date: 7/8/2020

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

GENERAL NOTES

1. Furnish sign posts with NCHRP 350 compliant frangible couplings designed to break away safely when struck from any direction. There is no MASH compliant device at this time. See SPDR report for more info.
2. Furnish frangible coupling systems with bolt-on flanges.
3. Details on this sheet illustrate only the general components of a frangible coupling system, and are not intended to specify a particular product.
4. Install frangible fuse plates as specified by the manufacturer and hinged joints when multiple posts are used to support a sign. Do not use round pipes.
5. Install the components of the breakaway system, including hinges, in accordance with the written instructions of the system manufacturer.
6. Use Class A, B or W concrete conforming to Sections 501 or 550 of the Standard Specifications. Furnish ASTM A615 grade 60 steel bars for concrete reinforcement conforming to AASHTO M31.
7. Spiral reinforcing steel may be substituted for hoops in concrete foundation. Spiral option shall consist of #3 plain spiral with 6" pitch with three flat turns at the top and one flat turn at the bottom.
8. Install the concrete anchors using a rigid template. Locate the anchors on centers and within tolerances specified by the manufacturer.
9. Install the anchors in fresh concrete as recommended by the manufacturer. Adjust the template's final position until it is level. Remove and replace all foundations that need more than 2 shims under any 1 coupling or more than a total of 3 shims under any pair of couplings to plumb the post.
10. Drill the holes for attaching brackets before the sign posts are hot dip galvanized. Test fit templates in the holes to ensure the brackets can be installed square to the posts.
11. Special grading detail and/or shielding may be required to maintain 4" maximum clear distance.

NOTE:
Install hinges when more than one post is used to support a sign. Do not install hinges on single post installations.



POST SIZE & TYPE	FOUNDATION *			REINFORCEMENT			
	DIA.	MIN. DEPTH	CY ³ CONC.	VERTICAL BARS	HOOPS		
2 1/2" TUBE	1'-6"	6'-0"	0.39	7 #5	5'-6"	10 #4	1'-2"
3" TUBE	1'-6"	6'-0"	0.39	7 #5	5'-6"	10 #4	1'-2"
3 1/2" TUBE	1'-6"	6'-0"	0.39	7 #5	5'-6"	10 #4	1'-2"
4" TUBE	2'-6"	6'-0"	1.09	8 #8	5'-6"	10 #4	2'-2"
4 1/2" TUBE	2'-6"	6'-0"	1.09	8 #8	5'-6"	10 #4	2'-2"
5" TUBE	2'-6"	6'-0"	1.09	8 #8	5'-6"	10 #4	2'-2"
W6 x 9	2'-6"	6'-0"	1.09	8 #8	5'-6"	10 #4	2'-2"
W6 x 12	2'-6"	6'-0"	1.09	8 #8	5'-6"	10 #4	2'-2"
W6 x 15	3'-0"	6'-6"	1.70	8 #11	6'-0"	12 #4	2'-8"
W6 x 30	3'-0"	7'-6"	1.96	8 #11	7'-0"	13 #4	2'-8"

FOUNDATION TABLE

* Foundations sized for use where there are no loose, high moisture, or fine grained soils.

State of Alaska DOT&PF
ALASKA STANDARD PLAN
SIGN POST BASE AND
FOUNDATION

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

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLK, MJM Date: 7/8/2020
Next Code and Standards Review Date: 7/8/2030

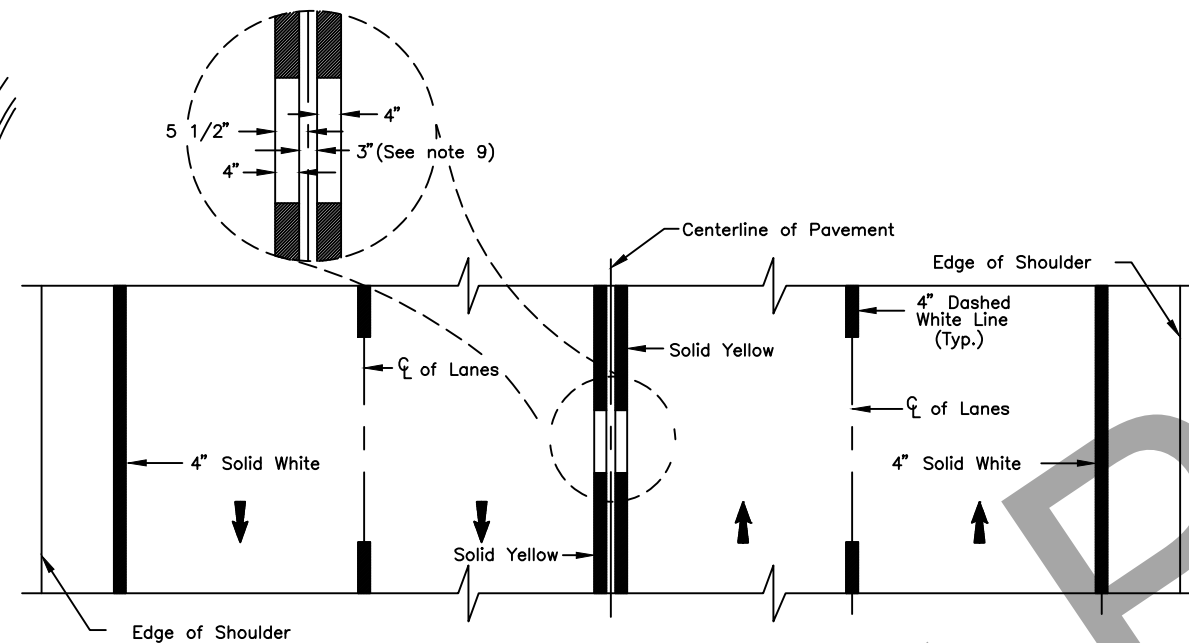
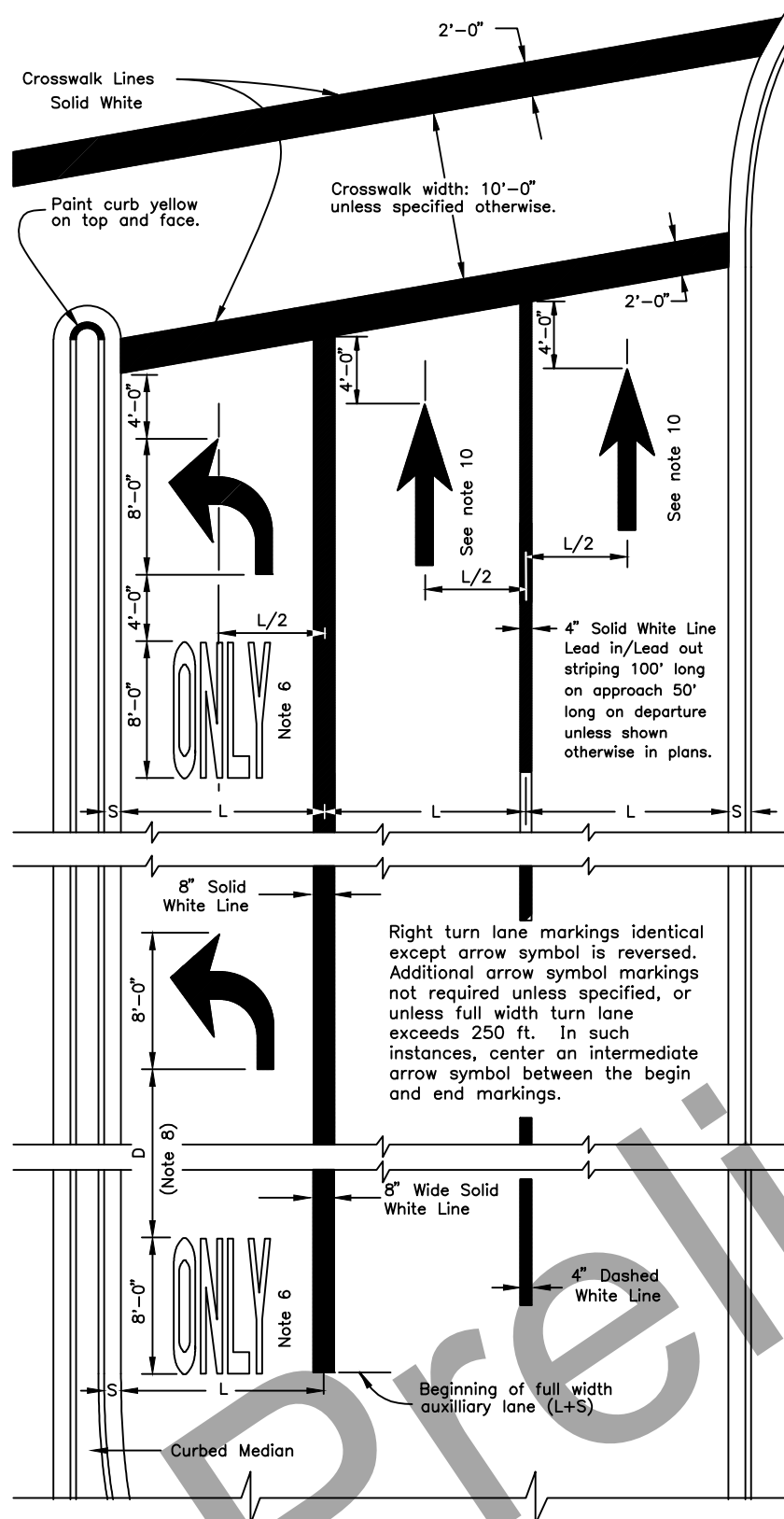
T-21.04

SHEET
1 of 1

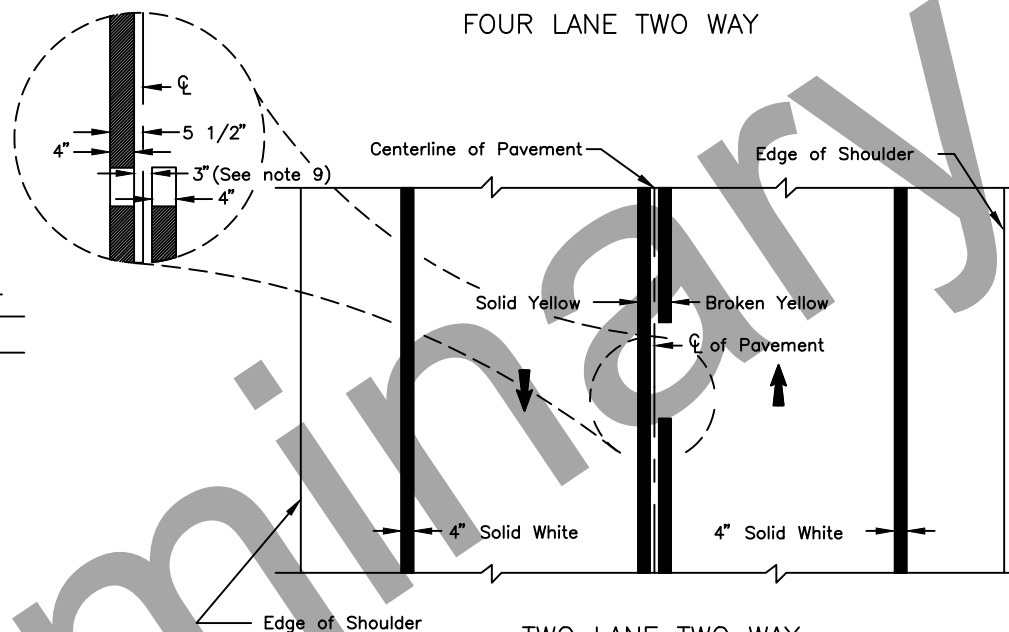
GENERAL NOTES:

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

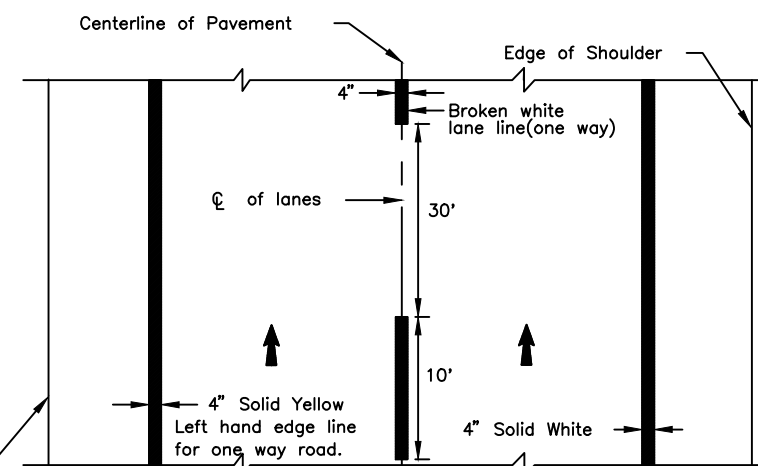
SPEED	D
25 or less	35'
30	45'
35	50'
40	60'
45	65'
50	75'
55 or more	80'



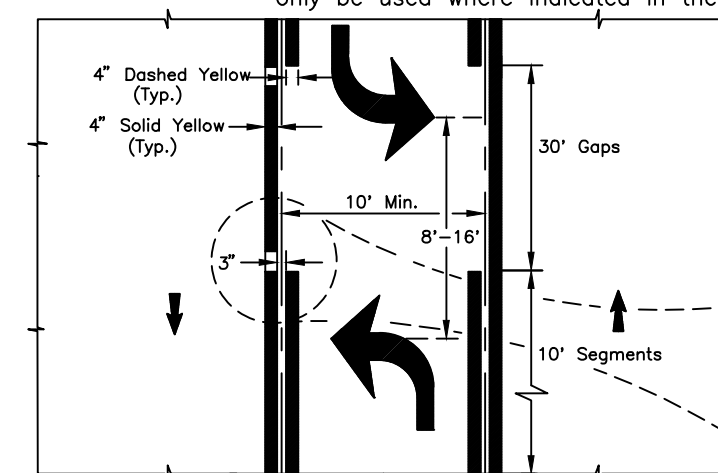
FOUR LANE TWO WAY



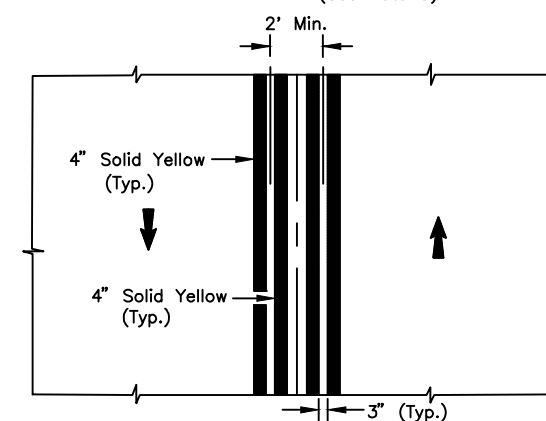
TWO LANE TWO WAY



TWO LANE ONE WAY



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



STRIPED MEDIAN

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PAVEMENT MARKING APPLICATIONS

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

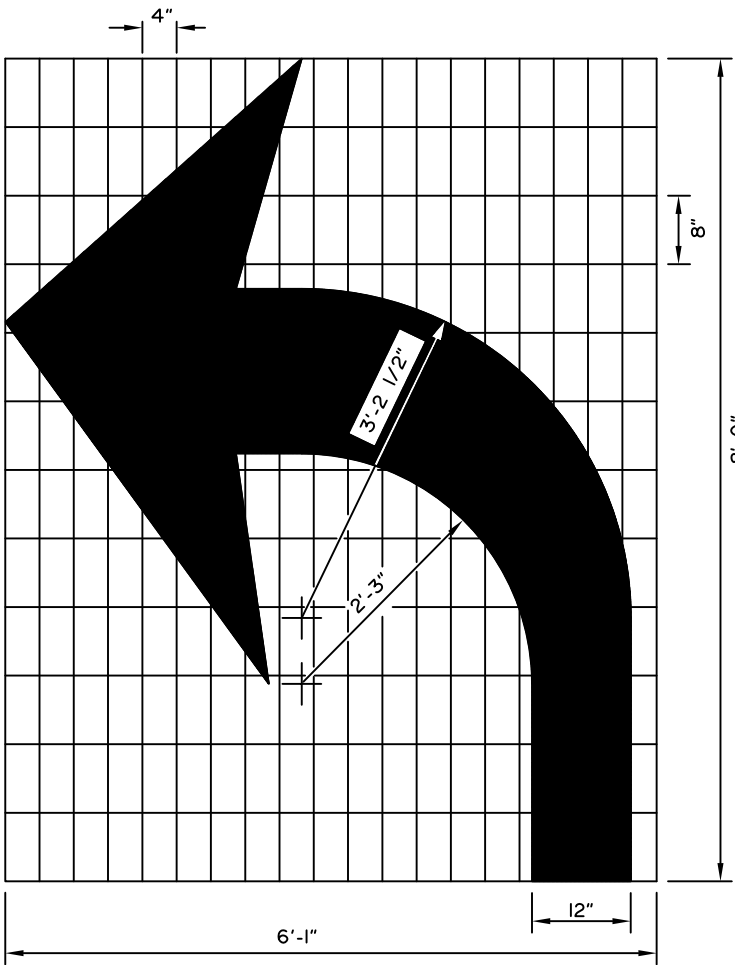
Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLK Date: 7/8/2020
Next Code and Standards Review Date: 7/8/2030

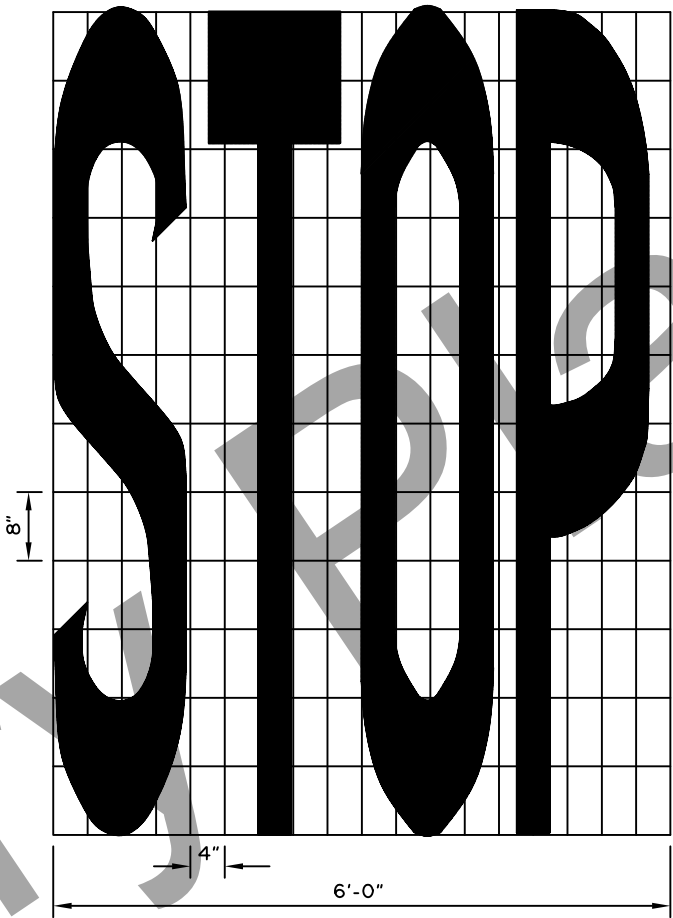
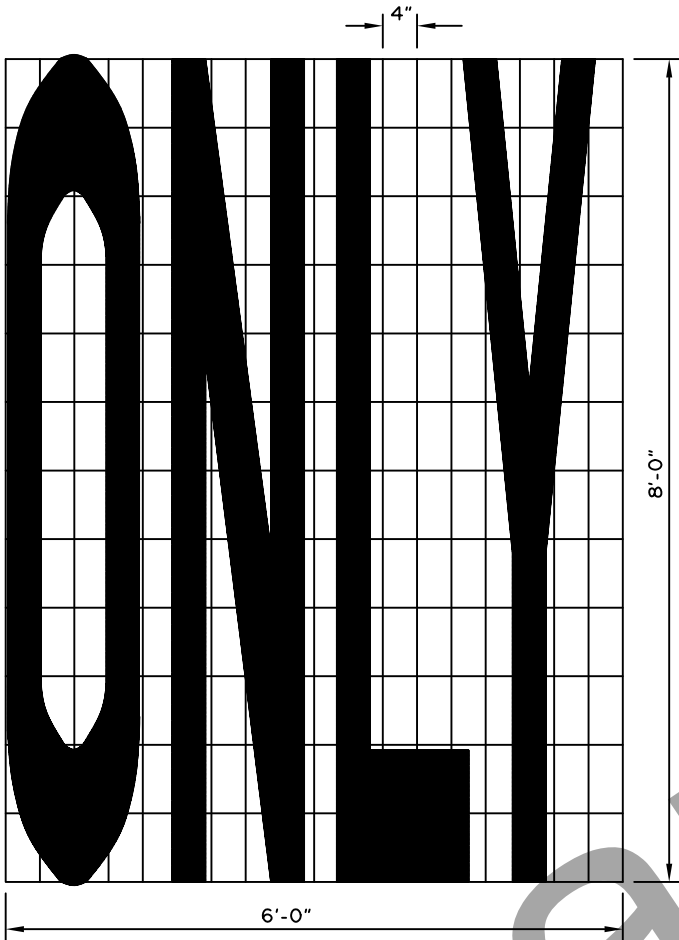
T-21.04

GENERAL NOTES:

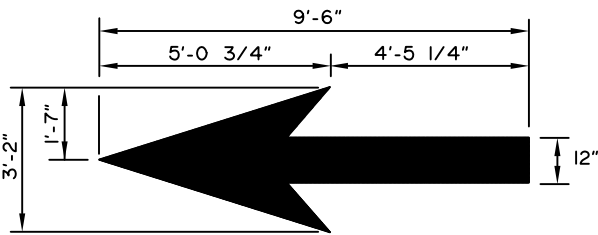
1. All symbols shown shall be white and reflectorized in accordance with the Special Provisions.
2. See the Alaska Sign Design Specifications (ASDS) for lettering and symbols for pavement marking details not provided on this drawing.



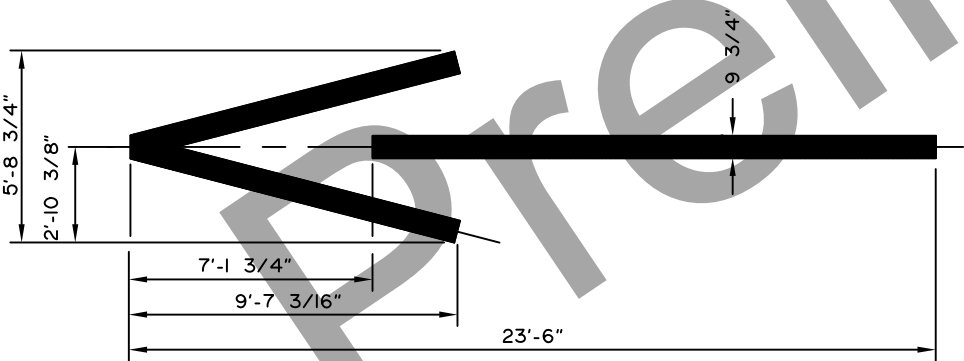
Right turn auxiliary lane usage markings identical except arrow symbol is reversed.



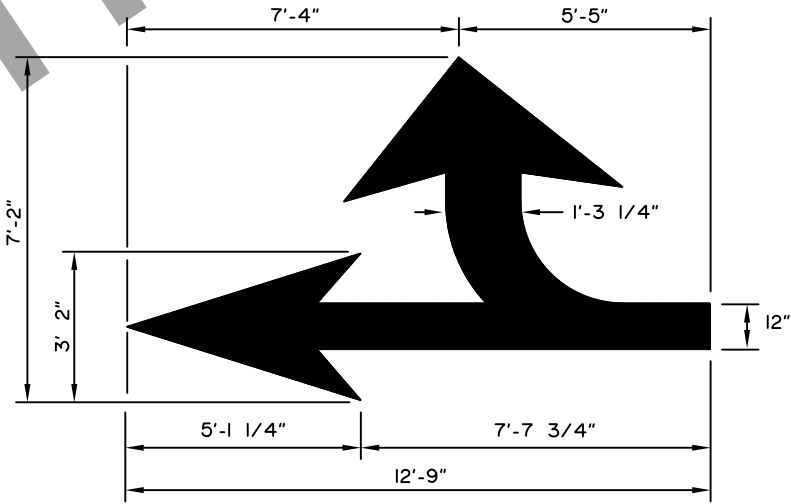
LAYOUT TEMPLATES FOR STENCILS



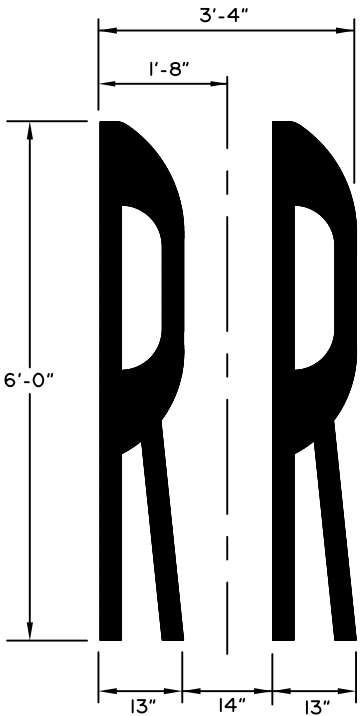
STRAIGHT AHEAD ARROW



WRONG WAY ARROW



COMBINATION ARROW



RAILROAD SYMBOL

State of Alaska DOT&PF
ALASKA STANDARD PLAN
PAVEMENT MARKING
SYMBOL DIMENSIONS

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

Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

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