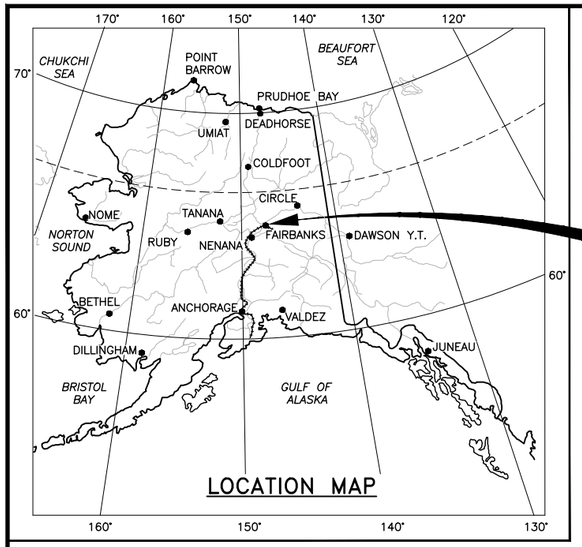
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	A1	167

CDS ROUTE:	175700	MILEPOINT:	0.498	TO	0.203
CDS ROUTE:	176300	MILEPOINT:	2.626	TO	2.824



LOCATION MAP

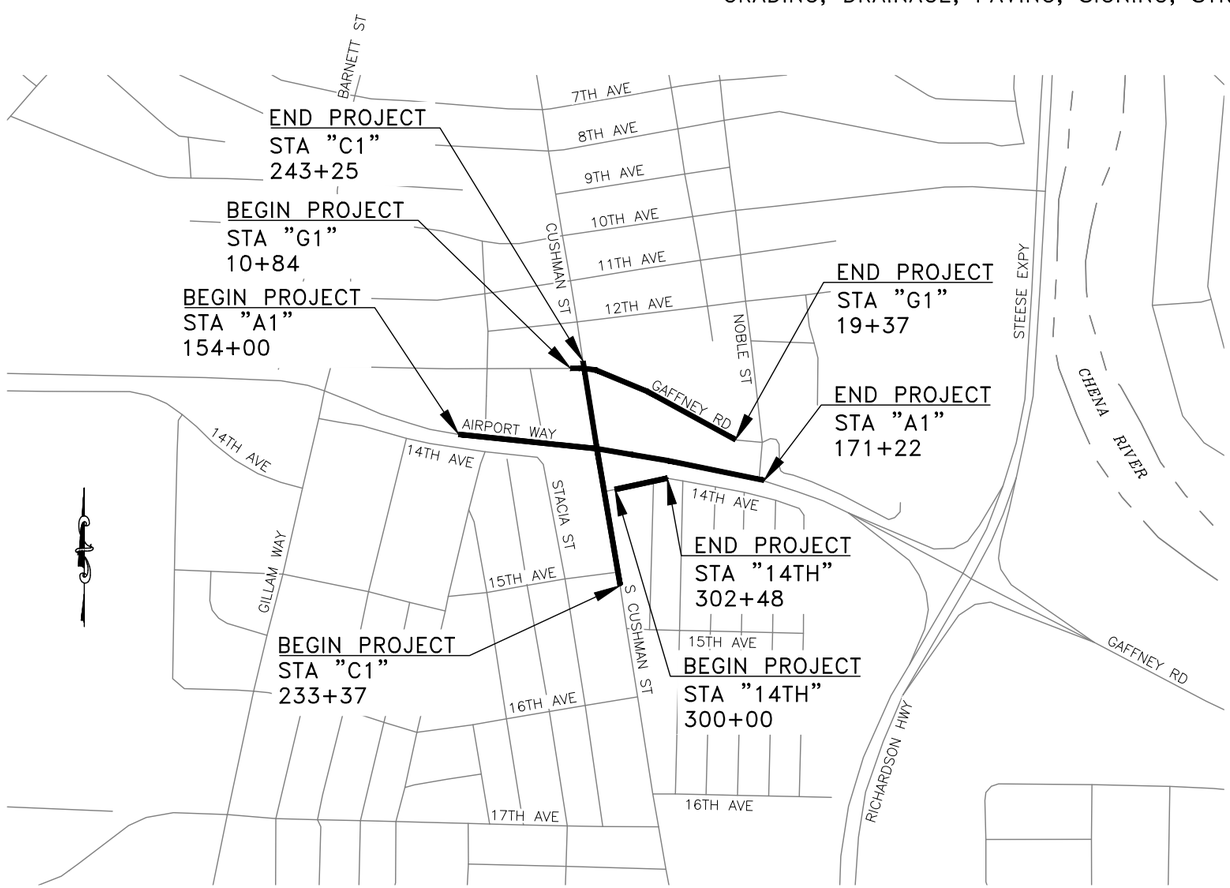
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT

0002312/Z640780000

AIRPORT WAY/CUSHMAN STREET INTERSECTION RECONSTRUCTION

GRADING, DRAINAGE, PAVING, SIGNING, STRIPING, ILLUMINATION & SIGNALIZATION



VICINITY MAP

FAIRBANKS

INDEX OF SHEETS

DESIGN DESIGNATIONS

	AIRPORT WAY	CUSHMAN STREET
ADT (2018)	17,000	8,500
ADT (2040)	20,700	10,360
DHV (%)	2,130 (10.30%)	1,070 (10.30%)
PERCENT TRUCKS (T)	4.8%	3.6%
DIRECTIONAL SPLIT (D)	40/60	40/60
DESIGN SPEED (V)	45 MPH	30 MPH*
DESIGN ESALS (2040)	1,050,000	825,000

*25 MPH NORTH OF AIRPORT WAY

PROJECT SUMMARY

	AIRPORT WAY	CUSHMAN STREET	14TH AVENUE
WIDTH OF PAVEMENT	VARIES	VARIES	VARIES
LENGTH OF PROJECT	1,722'	988'	248'

CARL HEIM, P.E., PROJECT MANAGER

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 Kemp, P.E.
Acting Northern Region Director

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_A1_TITLE-A1 Thu, Dec/22/22 11:39am

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	A2	A4

	RECOVERED	SET
BLM MONUMENT	✠	
GLO MONUMENT	✠	
USC&GS MONUMENT	▲	
PRIMARY MONUMENT	✠	✠
CENTERLINE MONUMENT IN CASING	⊕	⊕
PRIMARY R.O.W. MONUMENT	⊕	⊕
BEARING OBJECT	✳	
MISCELLANEOUS MONUMENT	⊗	
LINE OF SIGHT MONUMENT		⊕
CONCRETE R.O.W. MONUMENT	■	
BENCHMARK		BM
REBAR AND CAP	⊙	⬟
REBAR	⊕	●
IRON PIPE	●	
PK NAIL		▽
SPIKE		×
HUB AND TACK		⊡

CONSTRUCTION CENTERLINE — 5+00

MISCELLANEOUS CENTERLINE — 10+00

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

PROJECT RIGHT-OF-WAY LINE — R/W

EXISTING RIGHT-OF-WAY LINE

EXISTING PROPERTY LINE

CONTROLLED ACCESS LINE — C/A

UTILITY EASEMENT LINE — PUE

TEMPORARY CONSTRUCTION EASEMENT (TCE)

TEMPORARY CONSTRUCTION PERMIT (TCP)

ACCESS OR SECTION LINE EASEMENT — ACCESS EASEMENT

PROPOSED CUT SLOPE LIMIT

PROPOSED FILL SLOPE LIMIT

SECTION LINE

1/4 SECTION LINE

1/16 SECTION LINE

GRADE BREAK LINE — GRADE BREAK

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

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)	SS	SS
FUEL LINE	O	O
GAS LINE	G	G
WATER LINE	W	W
METER, VALVE, FIRE HYDRANT	W	W
EXISTING STORM DRAIN (FLOW DIRECTION →)	SD	
PROPOSED STORM DRAIN		S-10, S-11, P-11, P-10
FIBER OPTIC LINE	FO	
DIRECT BURIAL TELEPHONE CABLE	T	ACS T / GCI T
DIRECT BURIAL ELECTRIC CABLE	E	E
ELECTRIC DUCT		UGE
ELECTRIC LINE (OVERHEAD)		
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
COMMUNICATIONS DUCT	T	ACS T / GCI T
COMMUNICATIONS PEDESTAL		T ACS T GCI
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE	MH	MH
SANITARY SEWER CLEAN OUT		
ABANDONED STORM DRAIN		SD
ABANDONED WATER LINE		W
PAD MOUNTED TRANSFORMER		△
ELECTRICAL PEDESTAL		E

	EXISTING	PROPOSED
ROADWAY/PAVEMENT EDGE		
FENCE		
PEDESTRIAN RAIL		
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 = 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, MW	
FUEL TANK FILL PIPE/VENT	P	
SATELLITE DISH	SAT. DISH	
TEST HOLE	TH	
CONIFER TREE		
DECIDUOUS TREE		
GRAVE		
THERMOSIPHON		
PARKING METER		
VEHICLE PLUG-IN		
DELINEATOR/GUIDE MARKER		

	EXISTING	PROPOSED
INTERCONNECT VAULT		IC
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		
RIGID METAL CONDUIT		
LIGHTING CONDUIT		
INTERCONNECT CONDUIT	I/C	I/C
ASPHALT		
PATTERNED CONCRETE		
CONCRETE SIDEWALK		
FINISHED GRADE SURFACE		445
MAJOR CONTOUR LINE		
MINOR CONTOUR LINE		

LEGEND

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_A2_LEGEND-A2 Thu, Dec/22/22 10:33am
(Bill Paddock) KE#. 00385

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	A3	A4

LIST OF ABBREVIATIONS/SYMBOLS

AC	ASPHALT CONCRETE
ADA	AMERICANS WITH DISABILITIES REGULATIONS
ADEC	ALASKA DEPARTMENT OF ENVIROMENTAL CONSERVATION
ADF&G	ALASKA DEPARTMENT OF FISH AND GAME
ADT	AVERAGE DAILY TRAFFIC
AH	AHEAD
APPROX.	APPROXIMATE
ARC	ALASKA RAILROAD CORPORATION
ARR	ALASKA RAILROAD
ATB	ASPHALT TREATED BASE COURSE
&	AND
BFS	BEGIN FULL SUPERELEVATION
BMP	BEST MANAGEMENT PRACTICE
BNC	BEGIN NORMAL CROWN
BP/B.O.P.	BEGINNING OF PROJECT
C	CROSS
C&G	CURB AND GUTTER
CF	CUBIC FOOT
CGP	CONSTRUCTION GENERAL PERMIT
℄	CENTERLINE
CMP	CORRUGATED METAL PIPE
COM.	COMMERCIAL
CRT	CONTROLLED RELEASE TERMINAL
CSP	CORRUGATED STEEL PIPE
D	DEGREE OF CURVATURE, DISTRIBUTION OF TRAFFIC, DIAMETER
Δ	DELTA ANGLE
DB	DITCH BOTTOM
DEC	DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DESC	DESCRIPTION
DHV	DESIGN HOURLY VOLUME
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DIR.	DIRECTION
DOT&PF	DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
E	EAST, EASTING
e	SUPERELEVATION
EA	EACH
ED	ENERGY DISSIPATER
EFS	END FULL SUPERELEVATION
E.G.	FOR EXAMPLE
ELEV	ELEVATION
ENC	END NORMAL CROWN
EP/E.O.P.	END OF PROJECT
EOTW	EDGE OF TRAVELED WAY
ESAL	EQUIVALENT SINGLE AXLE LOAD
ESCP	EROSION AND SEDIMENT CONTROL PLAN
ETC.	ETCETERA
EW OR E.W.	EACH WAY
EX.	EXISTING
°F	DEGREES FAHRENHEIT
FASBC	FOAMED ASPHALT STABILIZED BASE COURSE
FG	FINISHED GRADE
FT OR '	FOOT
GA.	GAUGE
GALV.	GALVANIZED
H	HORIZONTAL
HBO	HEADBOLT OUTLET
HMA	HOT MIX ASPHALT
HMCP	HAZARDOUS MATERIAL CONTROL PLAN
I.A.W	IN ACCORDANCE WITH
I.E.	INVERT ELEVATION
IN OR "	INCH
L	LENGTH OF CURVE, LENGTH
LBS	POUNDS
LF	LINEAR FEET
LO.	LOCATION
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
MAX	MAXIMUM
M.E.	MATCH EXISTING
MIN	MINIMUM
MMA	METHYL METHACRYLATE
MP	MILE POST
MPH	MILES PER HOUR
MTG. HT.	MOUNTING HEIGHT
N	NORTH, NORTHING
N/A	NOT APPLICABLE
N.I.C.	NOT IN CONTRACT
NO. OR #	NUMBER
NPS	NOMINAL PIPE SIZE
NTS OR N.T.S	NOT TO SCALE
NW	NORTHWEST
OC OR O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PERM.	PERMANENT
PL	PASSING LANE
PI	POINT OF INTERSECTION
POC	POINT OF CURVE
PRC	POINT OF REVERSE CURVATURE
PST	PERFORATED STEEL TUBE
PT OR P.T.	POINT OF TANGENCY OR POINT
R	RADIUS OF CURVE
RECP	ROLLED EROSION CONTROL PRODUCT
REQ'D	REQUIRED
RES.	RESIDENTIAL
RMC	RIGID METAL CONDUIT
ROW OR R/W	RIGHT-OF-WAY
RT	RIGHT
S	SOUTH / SLOPE
SD	STORM DRAIN
SE	SOUTHEAST
SF	SQUARE FOOT
SH.	SHOULDER
SPP	STRUCTURAL PLATE PIPE
SPPA	STRUCTURAL PLATE PIPE-ARCH
SS	SANITARY SEWER
SQ.W.	SQUARE FEET
STA.	STATION
STD. DWG.	STANDARD DRAWING
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
SY	SQUARE YARD
T	TANGENT DISTANCE, HEAVY VEHICLE PERCENTAGE
TBC	TOP BACK CURB
TCP	TRAFFIC CONTROL PLAN
TEMP.	TEMPORARY
TOC	TOP OF CASTING
TS	TUBE STEEL
TYP.	TYPICAL
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
USACE	UNITED STATES ARMY CORP OF ENGINEERS
USFWS	UNITED STATES FISH AND WILDLIFE SERVICE
V	DESIGN SPEED/VERTICAL
VMS	VISUAL MESSAGE SIGN
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WEST, WATER
W/	WITH
WSP	WOOD STAVE PIPE
WWM	WELDED WIRE MESH

GENERAL NOTES:

1. PRINT OR REPRODUCE PLANS IN COLOR TO MAINTAIN CLARITY OF WORK SHOWN.
2. THE LOCATION, SIZE, AND NUMBER OF EXISTING UTILITIES SHOWN IN THE PLANS ARE NOT EXACT. OBTAIN UTILITY LOCATES AT LEAST 48 HOURS PRIOR TO COMMENCING WORK. VERIFY THE LOCATIONS OF BURIED UTILITIES IN THE FIELD PER THE SPECIAL PROVISIONS AND RECORD ANY CHANGES ON THE CONTRACTOR'S RECORD DRAWINGS. OBTAINING UTILITY LOCATES IS SUBSIDIARY TO OTHER WORK ITEMS.
3. HAND DIG WITHIN TWO FEET OF BURIED UTILITIES.
4. SUPPORT AND PROTECT UNDERGROUND UTILITIES, CONDUITS, AND STRUCTURES NOT SCHEDULED FOR DEMOLITION OR ABANDONMENT.
5. SAW CUT ALL MATCH LINES WHERE NEW CONSTRUCTION ABUTS EXISTING ASPHALT PAVEMENT. APPLY STE-1 ASPHALT FOR TACK COAT ON THE VERTICAL FACE OF ALL SAW CUT ASPHALT.
6. SAW CUT CONCRETE (SIDEWALK, CURB AND GUTTER, DRIVEWAY, ETC.) AT THE NEAREST JOINT AT OR BEYOND MATCH LIMITS OR AS DIRECTED BY THE ENGINEER.
7. PRIOR TO PAVING, ADJUST ALL MANHOLES TO BE 3/8" BELOW FINAL FINISHED GRADE SURFACE.
8. PLACE 4 IN OF TOPSOIL AND SEED TO AREAS DISTURBED BY CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.

BEFORE YOU DIG
CALL FOR FREE
UNDERGROUND
LOCATION

Locate Call Center of Alaska
Statewide.....800-478-3121
will notify subscribed utilities only. Other utilities need to be contacted individually.

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

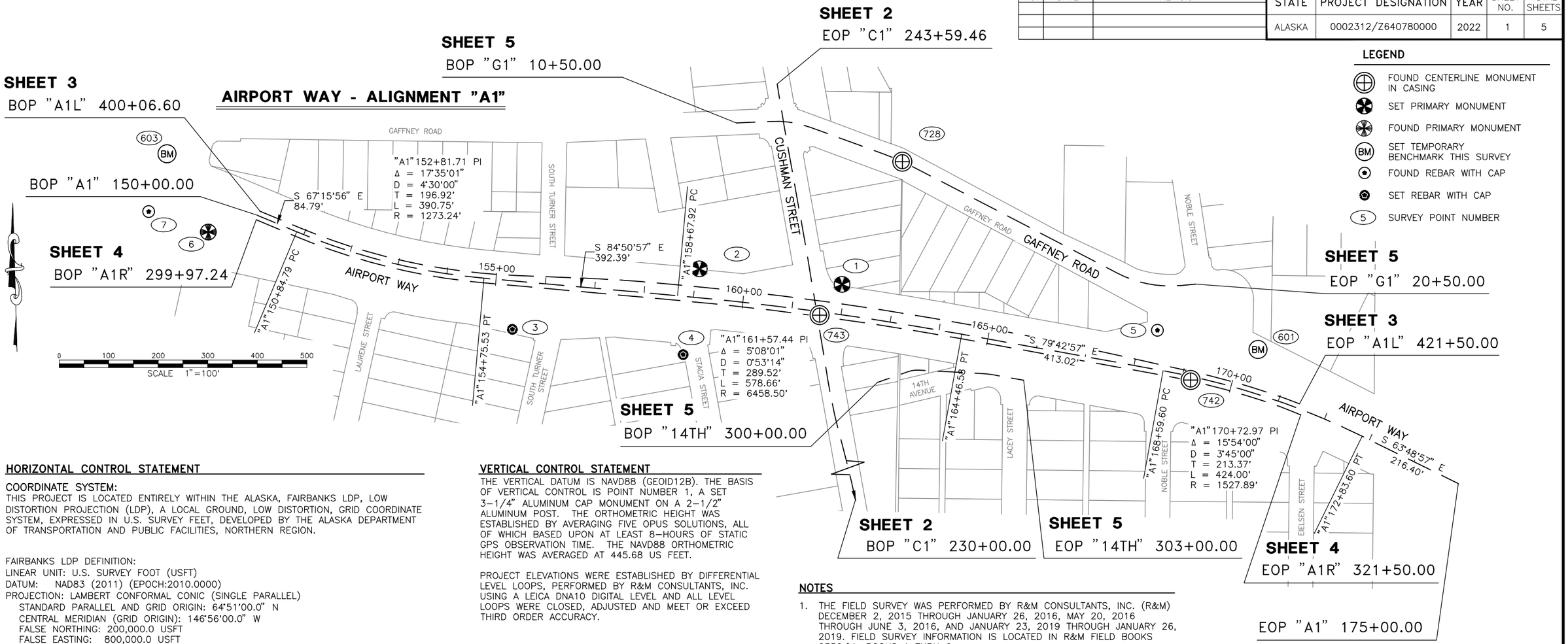
12/22/2022

ABBREVIATIONS

(Craig Knight) KE#: 00385

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	1	5



LEGEND

- FOUND CENTERLINE MONUMENT IN CASING
- SET PRIMARY MONUMENT
- FOUND PRIMARY MONUMENT
- BM SET TEMPORARY BENCHMARK THIS SURVEY
- FOUND REBAR WITH CAP
- SET REBAR WITH CAP
- 5 SURVEY POINT NUMBER

HORIZONTAL CONTROL STATEMENT

COORDINATE SYSTEM:
THIS PROJECT IS LOCATED ENTIRELY WITHIN THE ALASKA, FAIRBANKS LDP, LOW DISTORTION PROJECTION (LDP), A LOCAL GROUND, LOW DISTORTION, GRID COORDINATE SYSTEM, EXPRESSED IN U.S. SURVEY FEET, DEVELOPED BY THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES, NORTHERN REGION.

FAIRBANKS LDP DEFINITION:
LINEAR UNIT: U.S. SURVEY FOOT (USFT)
DATUM: NAD83 (2011) (EPOCH:2010.0000)
PROJECTION: LAMBERT CONFORMAL CONIC (SINGLE PARALLEL)
STANDARD PARALLEL AND GRID ORIGIN: 64°51'00.0" N
CENTRAL MERIDIAN (GRID ORIGIN): 146°56'00.0" W
FALSE NORTHING: 200,000.0 USFT
FALSE EASTING: 800,000.0 USFT
STANDARD PARALLEL SCALE: 1.00003 (EXACT)

BASIS OF COORDINATES:
THE BASIS OF COORDINATES IS POINT NUMBER 1, A SET 3–1/4" ALUMINUM CAP MONUMENT ON A 2–1/2" ALUMINUM POST. THE GEODETIC POSITION WAS ESTABLISHED BY AVERAGING FIVE OPUS SOLUTIONS, ALL OF WHICH BASED UPON AT LEAST 8–HOURS OF STATIC GPS OBSERVATION TIME. SAID BASIS OF COORDINATES HAS THE FOLLOWING COORDINATES:

NAD83(2011)(2010.0000) GEODETIC COORDINATES (AVERAGED):
LAT. = 64°50'11.14441" NORTH
LONG. = 147°43'03.85626" WEST
ORTHOMETRIC HEIGHT = 445.68 US FEET (NAVD88/GEOID12B)

PROJECT COORDINATES:
N. = 195,792.7166 US FEET, E. = 677,851.3241 US FEET

BASIS OF BEARINGS:
PROJECT BEARINGS ARE FAIRBANKS LDP GRID BEARINGS.

VERTICAL CONTROL STATEMENT

THE VERTICAL DATUM IS NAVD88 (GEOID12B). THE BASIS OF VERTICAL CONTROL IS POINT NUMBER 1, A SET 3–1/4" ALUMINUM CAP MONUMENT ON A 2–1/2" ALUMINUM POST. THE ORTHOMETRIC HEIGHT WAS ESTABLISHED BY AVERAGING FIVE OPUS SOLUTIONS, ALL OF WHICH BASED UPON AT LEAST 8–HOURS OF STATIC GPS OBSERVATION TIME. THE NAVD88 ORTHOMETRIC HEIGHT WAS AVERAGED AT 445.68 US FEET.

PROJECT ELEVATIONS WERE ESTABLISHED BY DIFFERENTIAL LEVEL LOOPS, PERFORMED BY R&M CONSULTANTS, INC. USING A LEICA DNA10 DIGITAL LEVEL AND ALL LEVEL LOOPS WERE CLOSED, ADJUSTED AND MEET OR EXCEED THIRD ORDER ACCURACY.

AIRPORT WAY ALIGNMENT "A1"		
STATION	NORTHING	EASTING
BOP 150+00.00	195931.7368	676672.7806
PC 150+84.79	195898.9697	676750.9810
PT 154+75.53	195805.1889	677128.7283
PC 158+67.92	195769.9614	677519.5326
PT 164+46.58	195692.2801	678092.7564
PC 168+59.60	195618.5430	678499.1401
PT 172+83.60	195486.2985	678900.5560
EOP 175+00.00	195390.8087	679094.7522

NOTES

1. THE FIELD SURVEY WAS PERFORMED BY R&M CONSULTANTS, INC. (R&M) DECEMBER 2, 2015 THROUGH JANUARY 26, 2016, MAY 20, 2016 THROUGH JUNE 3, 2016, AND JANUARY 23, 2019 THROUGH JANUARY 26, 2019. FIELD SURVEY INFORMATION IS LOCATED IN R&M FIELD BOOKS 2336.01, BOOKS 1 THRU 6.
2. ALL DISTANCES SHOWN ARE GROUND DISTANCES IN U.S. SURVEY FEET.
3. VERIFY HORIZONTAL AND VERTICAL CONTROL PRIOR TO USE.
4. BACKGROUND MAPPING IS SHOWN FOR ORIENTATION PURPOSES ONLY.

VERTICAL CONTROL

POINT	PROJECT (GROUND) COORDINATES		ELEVATION	AIRPORT WAY		DESCRIPTION
	NORTHING	EASTING		"A1" STATION	"A1" OFFSET	
601	195661	678690	447.40	170+31	86 Lt	SCRIBED "X" ON TOP NORTHEAST FLANGE BOLT OF FIRE HYDRANT
603	196056	676489	444.36	N/A	N/A	SCRIBED "X" ON SOUTHEAST BOLT AT BASE OF TRAFFIC SIGNAL POLE

HORIZONTAL CONTROL

POINT	PROJECT (GROUND) COORDINATES		ELEVATION	AIRPORT WAY		DESCRIPTION
	NORTHING	EASTING		"A1" STATION	"A1" OFFSET	
1	195792.7166	677851.3241	445.68	161+93.41	60.73 Lt	SET 3 1/4" ALUMINUM CAP MONUMENT
2	195824.0581	677563.4653	444.43	159+06.48	57.94 Lt	SET 3 1/4" ALUMINUM CAP MONUMENT
3	195701.9936	677186.1366	443.09	155+41.97	97.62 Rt	SET 2" ALUMINUM CAP ON 5/8" REBAR
4	195651.0180	677530.6555	442.80	158+90.08	117.43 Rt	SET 2" ALUMINUM CAP ON 5/8" REBAR
5	195700.1396	678487.6707	444.66	168+33.75	78.24 Lt	FND PLASTIC CAP ON REBAR
6	195898.3098	676572.7548	442.99	N/A	N/A	FND 3 1/4" ALUMINUM CAP
7	195939.7033	676452.4775	442.17	N/A	N/A	FND PLASTIC CAP ON REBAR
728	196040.1645	677972.9921	--	162+75.19	323.30 Lt	FND 3 1/4" ALUMINUM CAP MONUMENT
742	195599.5959	678554.7262	--	169+17.98	7.61 Rt	FND 2 1/2" ALUMINUM CAP MONUMENT
743	195730.5941	677806.0396	--	161+57.22	7.02 Rt	FND 2 1/2" BRASS CAP MONUMENT

WHETHER LISTED OR NOT, ALL MONUMENTS OR PROPERTY MARKERS, CORNERS, OR ACCESSORIES, WHICH WILL BE DISTURBED OR BURIED, SHALL BE REFERENCED AND RE–ESTABLISHED IN THEIR ORIGINAL POSITION (A.S. 19.10.260) AND RECORDED (A.S. 34.65.040).

SURVEY CONTROL SHEET

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

STATE OF ALASKA
49TH
X/XX/2020
PLANS-IN-HAND
EILER
2042
Professional Land Surveyor

12/15/2022

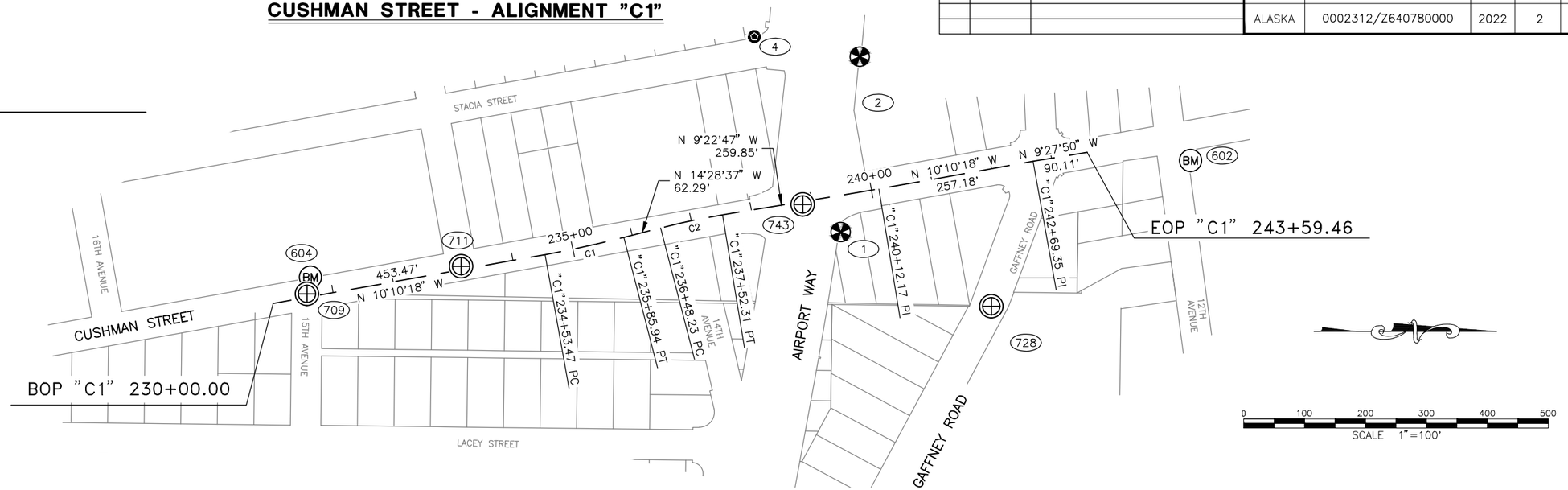
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	2	5

CUSHMAN STREET - ALIGNMENT "C1"

LEGEND

- FOUND CENTERLINE MONUMENT IN CASING
- SET PRIMARY MONUMENT
- BM SET TEMPORARY BENCHMARK THIS SURVEY
- 1 SURVEY POINT NUMBER



CUSHMAN STREET ALIGNMENT "C1"		
STATION	NORTHING	EASTING
BOP 230+00.00	194861.1149	677968.2500
PC 234+53.47	195307.4531	677888.1701
PT 235+85.94	195436.8462	677859.9006
PC 236+48.23	195497.1562	677844.3293
PT 237+52.31	195598.9607	677822.8232
PI 240+12.17	195855.3386	677780.4733
PI 242+69.35	196108.4800	677735.0558
EOP 243+59.46	196197.3636	677720.2392

CURVE TABLE					
C#	DELTA	RADIUS	ARC LENGTH	CHORD	CHORD BEARING
C1	4°18'19"	1763.00'	132.48'	132.45'	N 12°19'27" W
C2	5°05'50"	1170.00'	104.09'	104.05'	N 11°55'42" W

CAP DETAILS

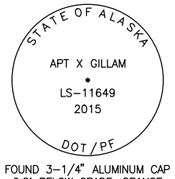
1 — SET 3-1/4" ALUMINUM CAP ON A 2-1/2" X 30" ALUMINUM POST 0.4' BELOW GRADE, MAGNET SET AT BASE OF MON.

2 — SET 3-1/4" ALUMINUM CAP ON A 2-1/2" X 30" ALUMINUM POST 0.3' BELOW GRADE, MAGNET SET AT BASE OF MON.

3 — SET 2" ALCAP ON 5/8" X 30" REBAR 0.3' BELOW GRADE.

4 — SET 2" ALCAP ON 5/8" X 30" REBAR 0.3' BELOW GRADE.

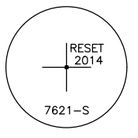
5 — FOUND 1" YELLOW PLASTIC CAP 0.1' BELOW GRADE.



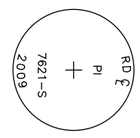
6 — FOUND 3-1/4" ALUMINUM CAP 0.2' BELOW GRADE, ORANGE CARSONITE MARKER BEARS SOUTH 2.2' FROM MONUMENT.

7 — FOUND 1" YELLOW PLASTIC CAP 0.1' BELOW GRADE.

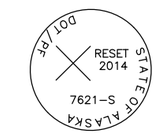
709 — FOUND 2" BRASS CAP INSIDE A MONUMENT CASE, CAP IS 0.5' BELOW RIM.



711 — FOUND 2" BRASS CAP INSIDE A MONUMENT CASE, CAP IS 0.4' BELOW RIM.



728 — FOUND 3-1/4" ALUMINUM CAP INSIDE A MONUMENT CASE, CAP IS 0.2' BELOW RIM.



742 — FOUND 2-1/2" ALUMINUM CAP INSIDE A MONUMENT CASE, CAP IS 0.7' BELOW RIM.

VERTICAL CONTROL						
POINT	PROJECT (GROUND) COORDINATES		ELEVATION	CUSHMAN STREET		DESCRIPTION
	NORTHING	EASTING		"C1" STATION	"C1" OFFSET	
602	196367	677734	445.79	N/A	N/A	SCRIBED "X" ON TOP NORTHWEST FLANGE BOLT OF FIRE HYDRANT
604	194922	677925	445.77	230+68	31 Lt	SCRIBED "X" ON NORTHEAST BOLT AT BASE OF METAL LUMINAIRE

HORIZONTAL CONTROL						
POINT	PROJECT (GROUND) COORDINATES		ELEVATION	CUSHMAN STREET		DESCRIPTION
	NORTHING	EASTING		"C1" STATION	"C1" OFFSET	
1	195792.7166	677851.3241	445.68	239+38.84	59.70 Rt	SET 3 1/4" ALUMINUM CAP MONUMENT
2	195824.0581	677563.4653	444.43	240+19.70	219.12 Lt	SET 3 1/4" ALUMINUM CAP MONUMENT
709	194916.7731	677952.5747	--	230+57.55	5.60 Lt	FND 2" BRASS CAP MONUMENT
711	195169.9143	677907.2588	--	233+14.72	5.50 Lt	FND 2" BRASS CAP MONUMENT
728	196040.1645	677972.9921	--	241+60.09	222.13 Rt	FND 3 1/4" ALUMINUM CAP MONUMENT
743	195730.5941	677806.0396	--	238+84.92	4.89 Rt	FND 2 1/2" BRASS CAP MONUMENT

WHETHER LISTED OR NOT, ALL MONUMENTS OR PROPERTY MARKERS, CORNERS, OR ACCESSORIES, WHICH WILL BE DISTURBED OR BURIED, SHALL BE REFERENCED AND RE-ESTABLISHED IN THEIR ORIGINAL POSITION (A.S. 19.10.260) AND RECORDED (A.S. 34.65.040).

SURVEY CONTROL SHEET

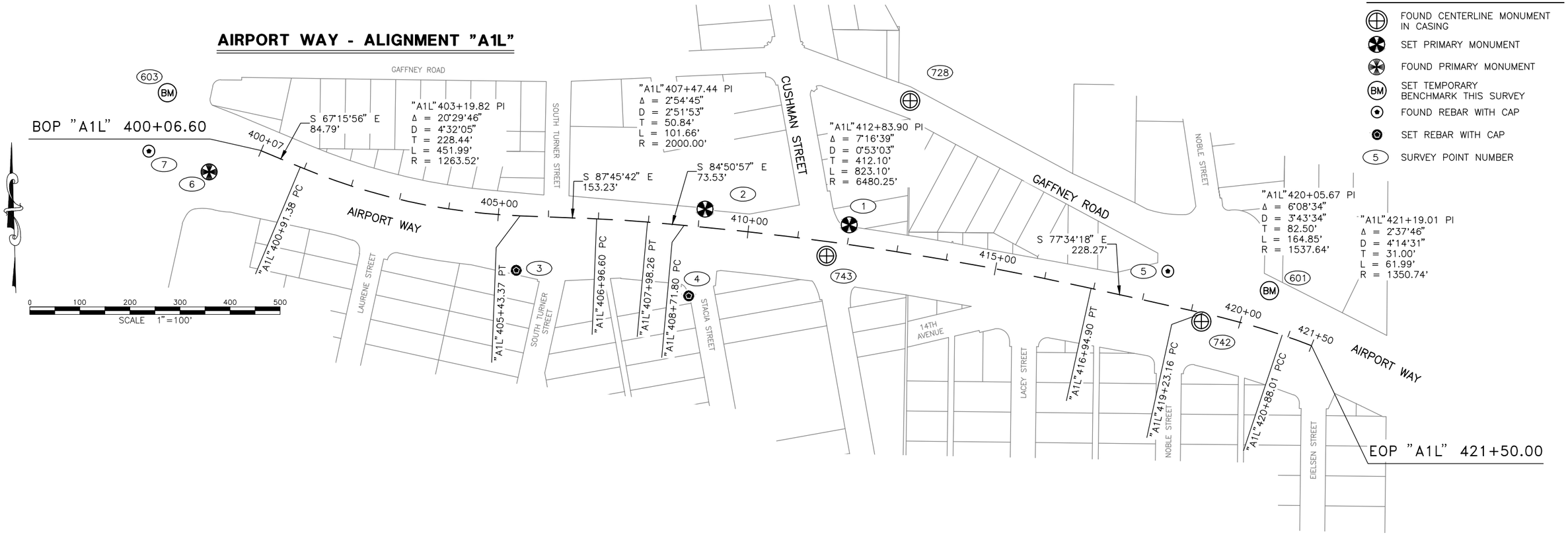
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/15/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	3	5

AIRPORT WAY - ALIGNMENT "A1L"



LEGEND

- FOUND CENTERLINE MONUMENT IN CASING
- SET PRIMARY MONUMENT
- FOUND PRIMARY MONUMENT
- (BM) SET TEMPORARY BENCHMARK THIS SURVEY
- FOUND REBAR WITH CAP
- SET REBAR WITH CAP
- (5) SURVEY POINT NUMBER

AIRPORT WAY ALIGNMENT "A1L"		
STATION	NORTHING	EASTING
BOP 400+06.60	195940.7293	676676.5486
PC 400+91.38	195898.9697	676750.9810
PT 405+43.37	195810.7597	677193.7026
PC 406+96.60	195804.7754	677346.8082
PT 407+98.26	195798.2252	677448.2491
PC 408+71.80	195791.6236	677521.4853
PT 416+94.90	195665.9343	678334.3714
PC 419+23.16	195616.8071	678557.2899
PT 420+88.01	195572.7751	678716.0682
EOP 421+50.00	195551.6930	678774.3527

HORIZONTAL CONTROL

POINT	PROJECT (GROUND) COORDINATES		ELEVATION	AIRPORT WAY		DESCRIPTION
	NORTHING	EASTING		"A1L" STATION	"A1L" OFFSET	
1	195792.7166	677851.3241	445.68	411+98.38	38.98 Lt	SET 3 1/4" ALUMINUM CAP MONUMENT
2	195824.0581	677563.4653	444.43	409+10.48	36.19 Lt	SET 3 1/4" ALUMINUM CAP MONUMENT
3	195701.9936	677186.1366	443.09	405+40.33	108.98 Rt	SET 2" ALUMINUM CAP ON 5/8" REBAR
4	195651.0180	677530.6555	442.80	408+94.03	139.18 Rt	SET 2" ALUMINUM CAP ON 5/8" REBAR
5	195700.1396	678487.6707	444.66	418+37.24	66.40 Lt	FND PLASTIC CAP ON REBAR
6	195898.3098	676572.7548	442.99	N/A	N/A	FND 3 1/4" ALUMINUM CAP
7	195939.7033	676452.4775	442.17	N/A	N/A	FND PLASTIC CAP ON REBAR
742	195599.5959	678554.7262	--	419+24.38	17.36 Rt	FND 2 1/2" ALUMINUM CAP MONUMENT
743	195730.5941	677806.0396	--	411+62.07	28.77 Rt	FND 2 1/2" BRASS CAP MONUMENT

VERTICAL CONTROL

POINT	PROJECT (GROUND) COORDINATES		ELEVATION	AIRPORT WAY		DESCRIPTION
	NORTHING	EASTING		"A1L" STATION	"A1L" OFFSET	
601	195661	678690	447.40	420+38	77 Lt	SCRIBED "X" ON TOP NORTHEAST FLANGE BOLT OF FIRE HYDRANT
603	196056	676489	444.36	N/A	N/A	SCRIBED "X" ON SOUTHEAST BOLT AT BASE OF TRAFFIC SIGNAL POLE

WHETHER LISTED OR NOT, ALL MONUMENTS OR PROPERTY MARKERS, CORNERS, OR ACCESSORIES, WHICH WILL BE DISTURBED OR BURIED, SHALL BE REFERENCED AND RE-ESTABLISHED IN THEIR ORIGINAL POSITION (A.S. 19.10.260) AND RECORDED (A.S. 34.65.040).

SURVEY CONTROL SHEET

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

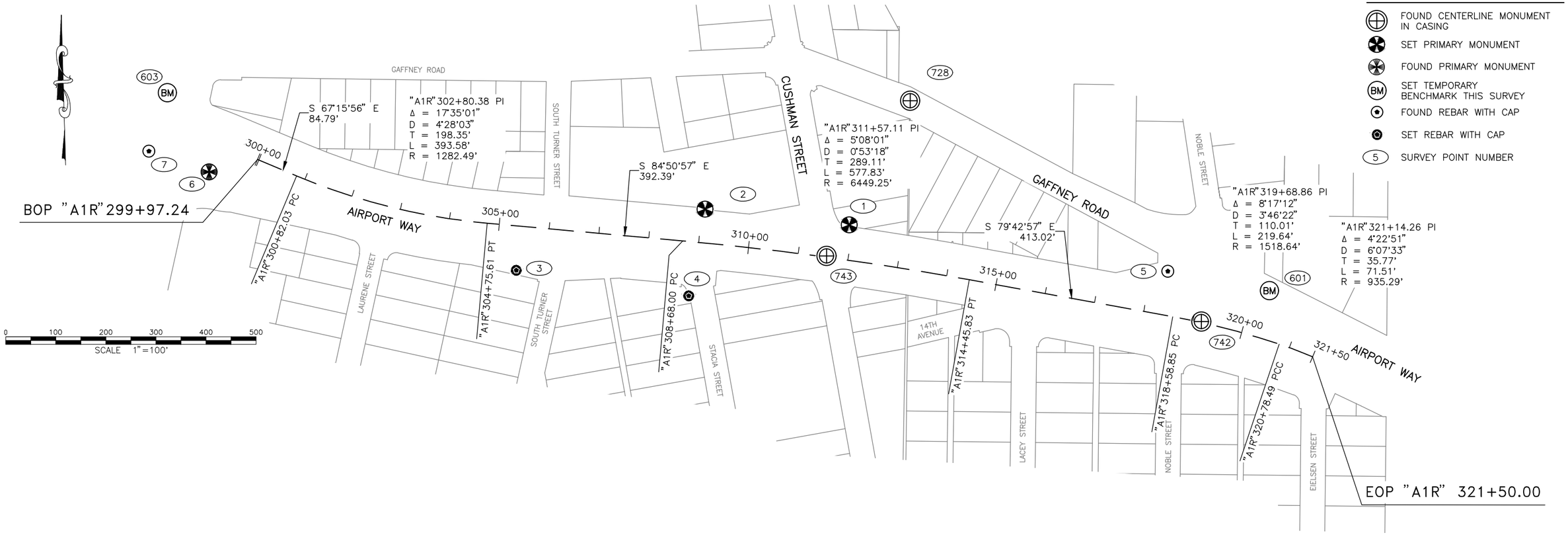
STATE OF ALASKA
49TH
X/XX/2020
PLANS-IN-HAND
EILER
2042
Professional Land Surveyor

12/15/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	4	5

AIRPORT WAY - ALIGNMENT "A1R"



LEGEND

- FOUND CENTERLINE MONUMENT IN CASING
- SET PRIMARY MONUMENT
- FOUND PRIMARY MONUMENT
- (BM) SET TEMPORARY BENCHMARK THIS SURVEY
- FOUND REBAR WITH CAP
- SET REBAR WITH CAP
- (5) SURVEY POINT NUMBER

AIRPORT WAY ALIGNMENT "A1R"		
STATION	NORTHING	EASTING
BOP 299+97.24	195923.2054	676669.2059
PC 300+82.03	195890.4384	676747.4063
PT 304+75.61	195795.9763	677127.8979
PC 308+68.00	195760.7488	677518.7022
PT 314+45.83	195683.1787	678091.1050
PC 318+58.85	195609.4416	678497.4887
PCC 320+78.49	195554.7645	678710.0170
EOP 321+50.00	195529.4218	678776.8680

HORIZONTAL CONTROL

POINT	PROJECT (GROUND) COORDINATES		ELEVATION	AIRPORT WAY		DESCRIPTION
	NORTHING	EASTING		"A1R" STATION	"A1R OFFSET	
1	195792.7166	677851.3241	445.68	311+93.02	69.98 Lt	SET 3 1/4" ALUMINUM CAP MONUMENT
2	195824.0581	677563.4653	444.43	309+06.50	67.19 Lt	SET 3 1/4" ALUMINUM CAP MONUMENT
3	195701.9936	677186.1366	443.09	305+42.05	88.37 Rt	SET 2" ALUMINUM CAP ON 5/8" REBAR
4	195651.0180	677530.6555	442.80	308+90.13	108.18 Rt	SET 2" ALUMINUM CAP ON 5/8" REBAR
5	195700.1396	678487.6707	444.66	318+33.00	87.49 Lt	FND PLASTIC CAP ON REBAR
6	195898.3098	676572.7548	442.99	N/A	N/A	FND 3 1/4" ALUMINUM CAP
7	195939.7033	676452.4775	442.17	N/A	N/A	FND PLASTIC CAP ON REBAR
742	195599.5959	678554.7262	--	319+16.88	1.64 Lt	FND 2 1/2" ALUMINUM CAP MONUMENT
743	195730.5941	677806.0396	--	311+56.88	2.23 Rt	FND 2 1/2" BRASS CAP MONUMENT

VERTICAL CONTROL

POINT	PROJECT (GROUND) COORDINATES		ELEVATION	AIRPORT WAY		DESCRIPTION
	NORTHING	EASTING		"A1R" STATION	"A1R" OFFSET	
601	195661	678690	447.40	320+29	96 Lt	SCRIBED "X" ON TOP NORTHEAST FLANGE BOLT OF FIRE HYDRANT
603	196056	676489	444.36	N/A	N/A	SCRIBED "X" ON SOUTHEAST BOLT AT BASE OF TRAFFIC SIGNAL POLE

WHETHER LISTED OR NOT, ALL MONUMENTS OR PROPERTY MARKERS, CORNERS, OR ACCESSORIES, WHICH WILL BE DISTURBED OR BURIED, SHALL BE REFERENCED AND RE-ESTABLISHED IN THEIR ORIGINAL POSITION (A.S. 19.10.260) AND RECORDED (A.S. 34.65.040).

SURVEY CONTROL SHEET

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

STATE OF ALASKA 49TH EILER 2042 Professional Land Surveyor
X/XX/2020
PLANS-IN-HAND

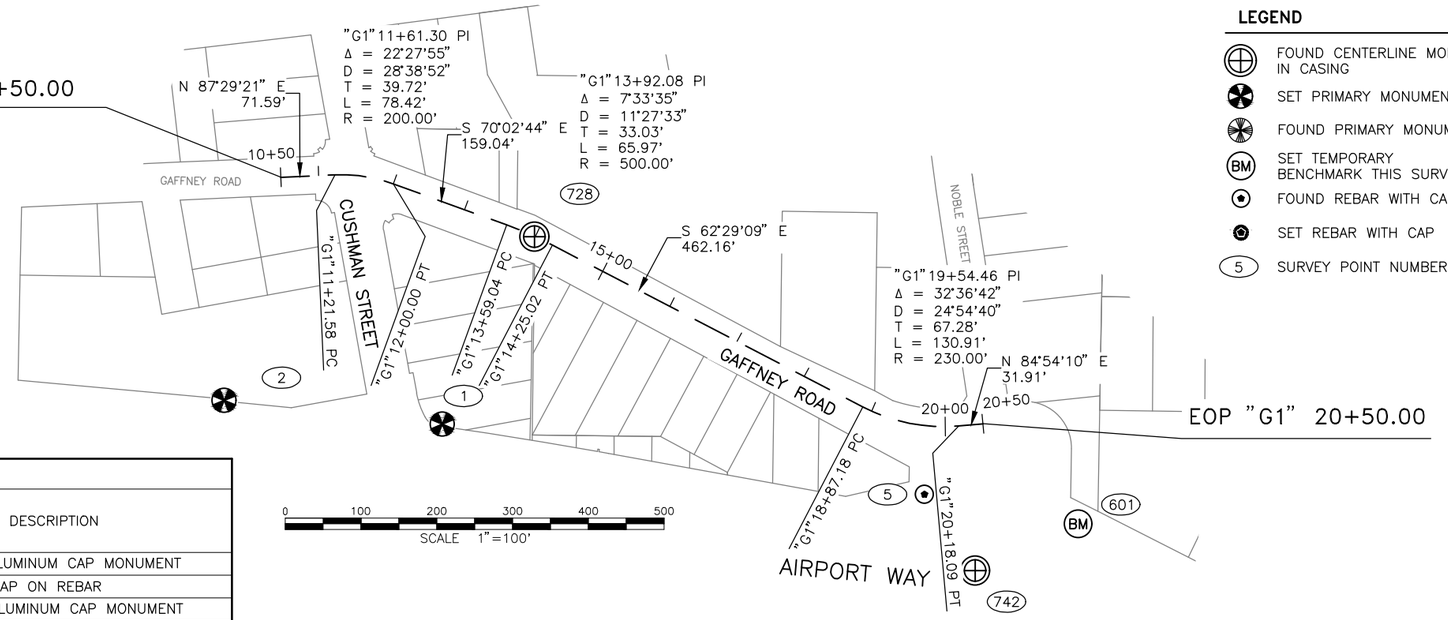
12/15/2022

(Craig Knight) KE#: 00385

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	5	5

GAFFNEY ROAD ALIGNMENT "G1"



GAFFNEY ROAD ALIGNMENT "G1"		
STATION	NORTHING	EASTING
BOP 10+50.00	196118.5714	677638.1109
PC 11+21.58	196121.7075	677709.6276
PT 12+00.00	196109.8923	677786.6441
PC 13+59.04	196055.6130	677936.1446
PT 14+25.02	196029.0805	677996.4883
PC 18+87.18	195815.5761	678406.3775
PT 20+18.09	195790.4718	678533.0655
EOP 20+50.00	195793.3070	678564.8502

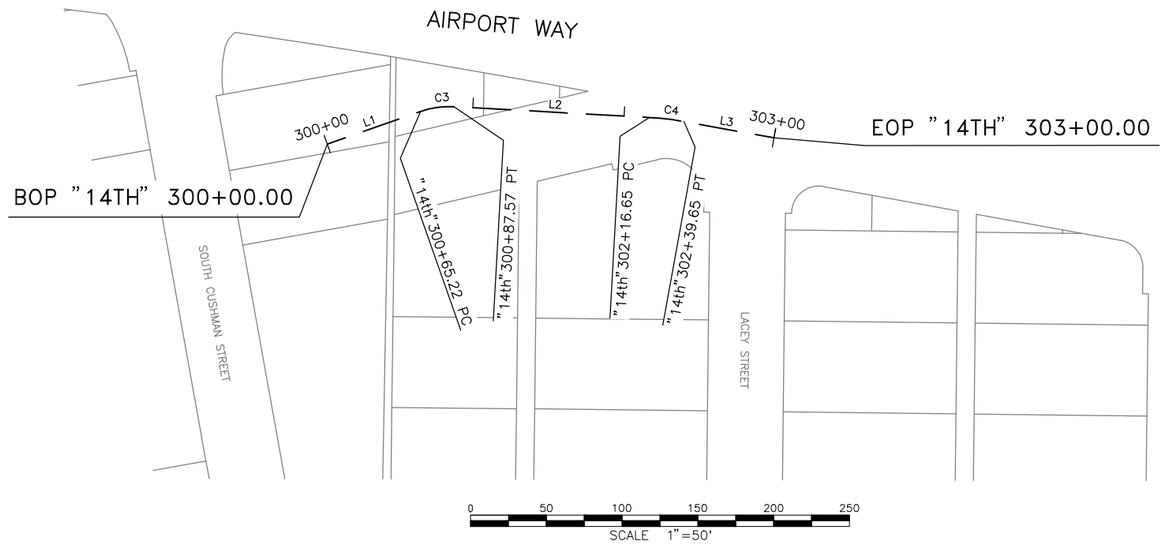
LEGEND

- FOUND CENTERLINE MONUMENT IN CASING
- SET PRIMARY MONUMENT
- FOUND PRIMARY MONUMENT
- BM — SET TEMPORARY BENCHMARK THIS SURVEY
- FOUND REBAR WITH CAP
- SET REBAR WITH CAP
- 5 — SURVEY POINT NUMBER

HORIZONTAL CONTROL

POINT	PROJECT (GROUND) COORDINATES		ELEVATION	GAFFNEY ROAD		DESCRIPTION
	NORTHING	EASTING		"G1R" STATION	"G1R OFFSET	
1	195792.7166	677851.3241	445.68	13+81.35	275.84 Rt	SET 3 1/4" ALUMINUM CAP MONUMENT
5	195700.1396	678487.6707	444.66	19+79.69	90.40 Rt	FND PLASTIC CAP ON REBAR
728	196040.1645	677972.9921	--	308+90.13	0.35 Rt	FND 3 1/4" ALUMINUM CAP MONUMENT
742	195599.5959	678554.7262	--	319+16.88	349.91 Rt	FND 2 1/2" ALUMINUM CAP MONUMENT
743	195730.5941	677806.0396	--	311+56.88	192.05 Rt	FND 2 1/2" BRASS CAP MONUMENT

14TH AVENUE ALIGNMENT "14TH"



14TH AVENUW ALIGNMENT "14TH"		
STATION	NORTHING	EASTING
BOP 300+00.00	195595.1255	677923.1182
PC 300+65.22	195616.6868	677984.6687
PT 300+87.57	195619.8051	678006.6572
PC 302+16.65	195612.6849	678135.5440
PT 302+39.65	195609.9944	678158.3678
EOP 303+00.00	195599.2198	678217.7491

CURVE TABLE					
C#	DELTA	RADIUS	ARC LENGTH	CHORD	CHORD BEARING
C3	22°28'03"	57.00'	22.35'	22.21'	N 81°55'42" E
C4	7°07'20"	185.00'	23.00'	22.98'	S 83°16'37" E

LINE TABLE		
NO.	BEARING	DISTANCE
L1	N 70°41'40" E	65.22'
L2	S 86°50'17" E	129.08'
L3	S 79°42'57" E	60.35'

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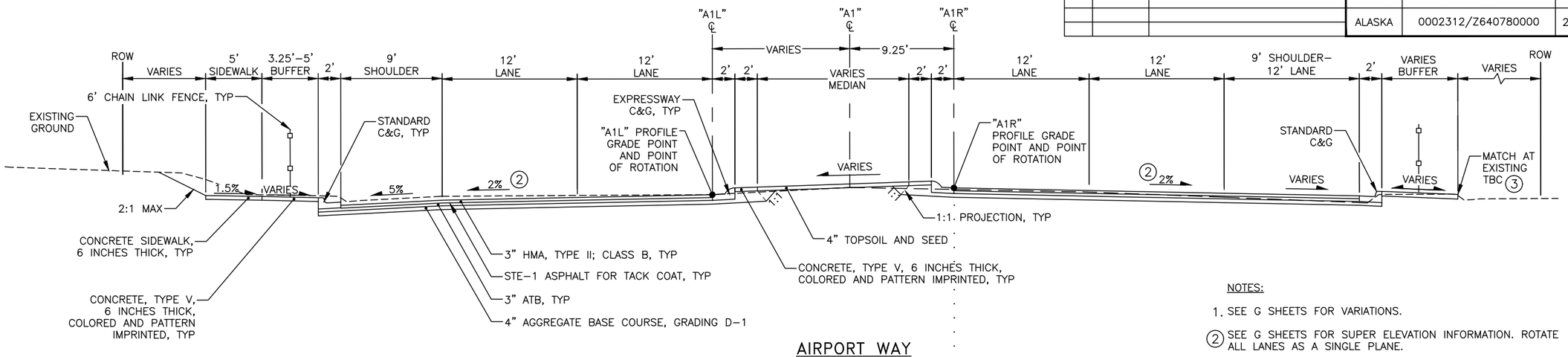
SURVEY CONTROL SHEET

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/15/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	B1	B4

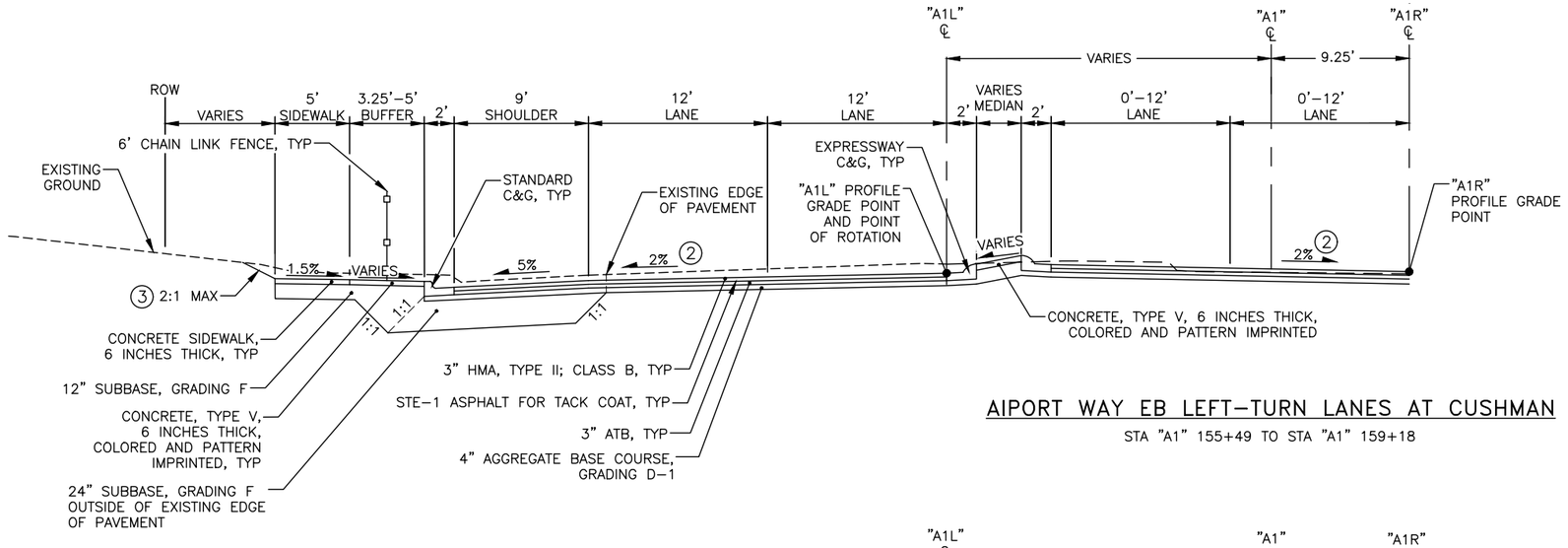


AIRPORT WAY

BOP TO STA "A1" 155+49

NOTES:

1. SEE G SHEETS FOR VARIATIONS.
2. SEE G SHEETS FOR SUPER ELEVATION INFORMATION. ROTATE ALL LANES AS A SINGLE PLANE.
3. SEE SLOPE EXCEPTION TABLE.

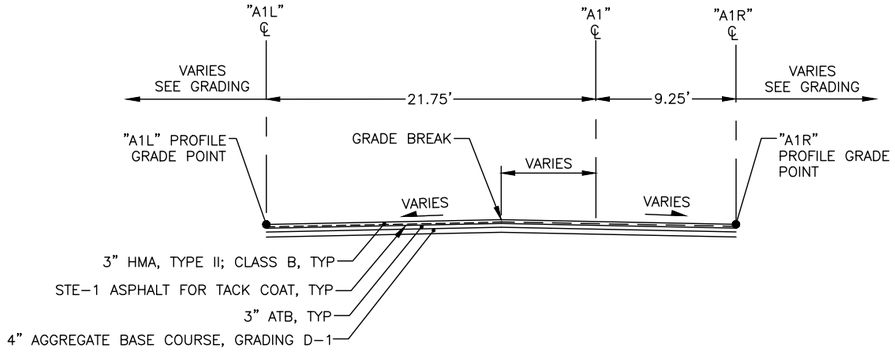


AIPORT WAY EB LEFT–TURN LANES AT CUSHMAN

STA "A1" 155+49 TO STA "A1" 159+18

SLOPE EXCEPTION TABLE

FROM STA	TO STA	OFFSET	DESCRIPTION
"A1" 155+86	"A1" 156+26	LT	SIDEWALK RETAINING WALL, SEE DETAIL ON SHEET E7
"A1" 157+28	"A1" 158+03	LT	FILL SLOPE, 2:1 MAX
"A1" 158+03	"A1" 158+95	LT	SWALE, SEE GRADING
"A1" 158+95	"A1" 159+18	LT	FILL SLOPE, 2:1 MAX
"A1" 156+93	"A1" 159+35	RT	FRONTAGE ROAD C&G, SEE DETAIL ON SHEET E8



AIRPORT WAY AT CUSHMAN INTERSECTION

STA "A1" 159+18 TO STA "A1" 162+64

TYPICAL SECTIONS AIRPORT WAY

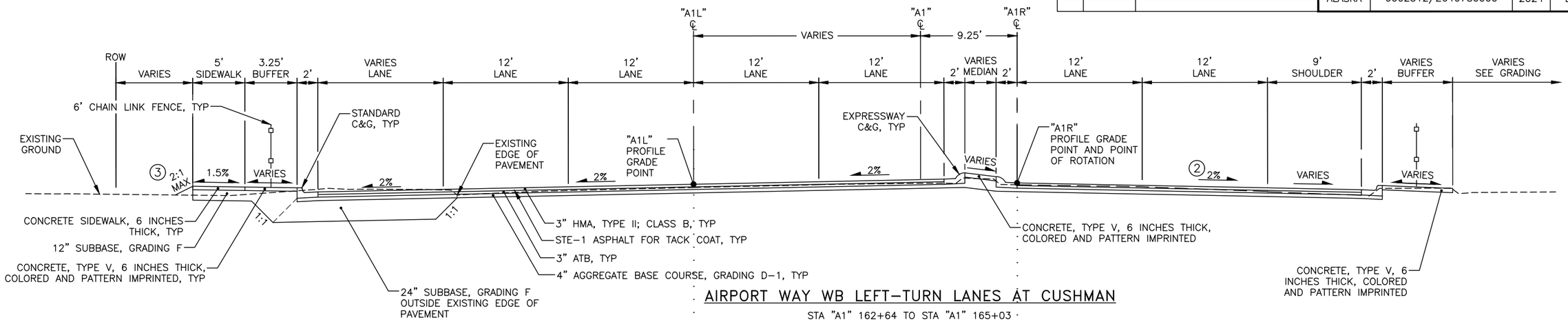
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

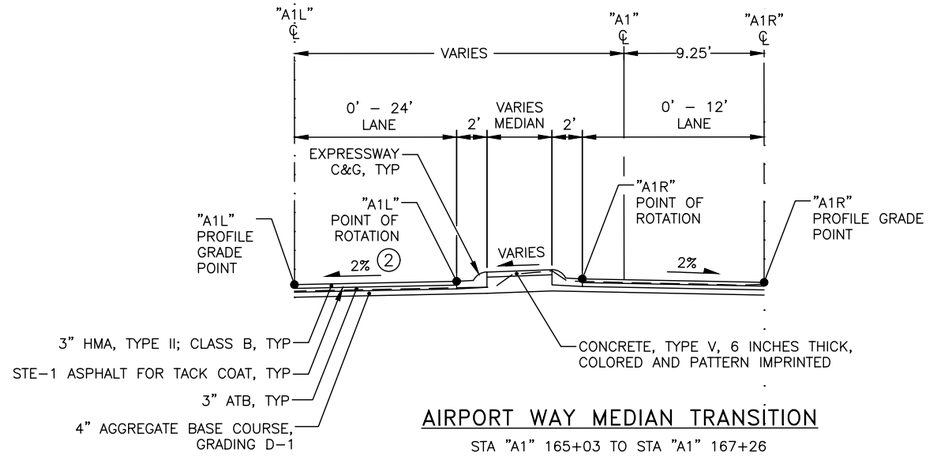
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	B2	B4



AIRPORT WAY WB LEFT-TURN LANES AT CUSHMAN

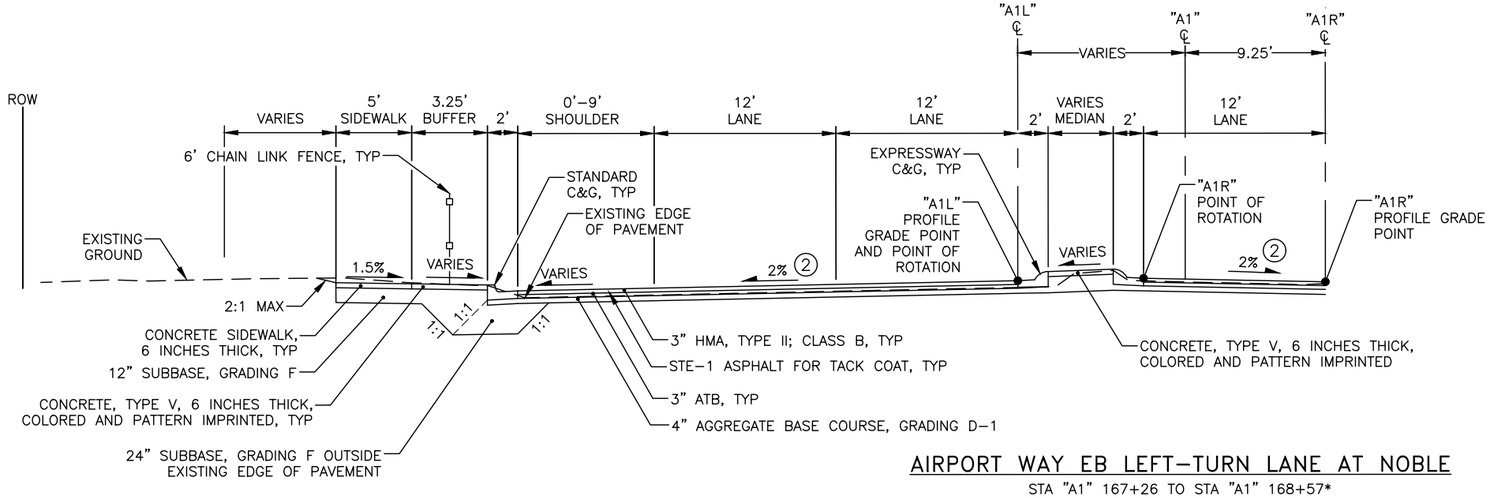
STA "A1" 162+64 TO STA "A1" 165+03



AIRPORT WAY MEDIAN TRANSITION

STA "A1" 165+03 TO STA "A1" 167+26

SLOPE EXCEPTION TABLE			
FROM STA	TO STA	OFFSET	DESCRIPTION
"A1" 163+69	"A1" 164+25	LT	CUT SLOPE, 2:1 MAX
"A1" 164+93	"A1" 165+25	LT	CUT SLOPE, 2:1 MAX
"A1" 165+69	"A1" 166+45	LT	CUT SLOPE, 2:1 MAX
"A1" 166+77	"A1" 166+94	LT	SAWCUT/MATCH ASPHALT, SEE GRADING



AIRPORT WAY EB LEFT-TURN LANE AT NOBLE

STA "A1" 167+26 TO STA "A1" 168+57*

*SEE GRADING FOR STA "A1" 168+57 TO EOP

NOTES:

1. SEE G SHEETS FOR VARIATIONS.
2. ② SEE G SHEETS FOR SUPER ELEVATION INFORMATION. ROTATE ALL LANES AS A SINGLE PLANE.
3. ③ SEE SLOPE EXCEPTION TABLE.

TYPICAL SECTIONS AIRPORT WAY

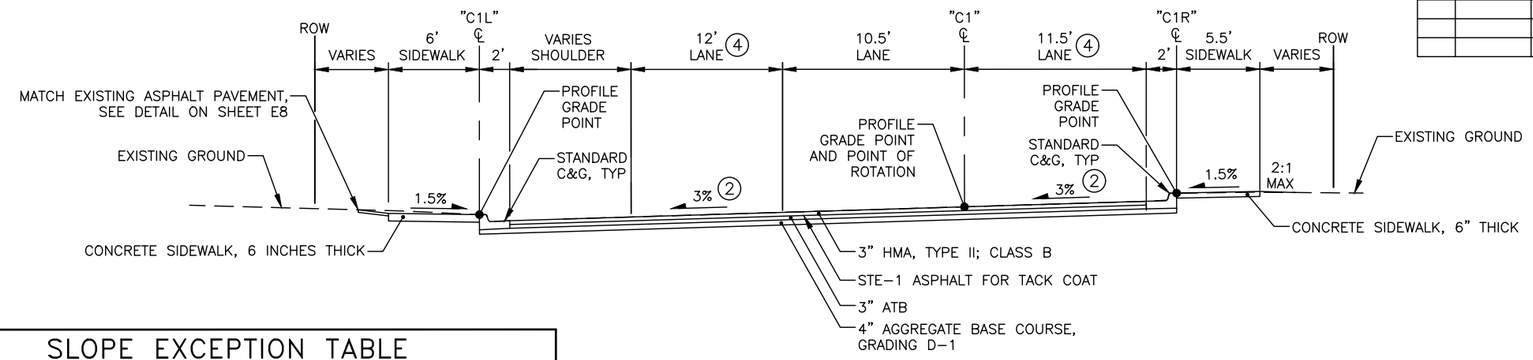
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	B3	B4



SOUTH CUSHMAN STREET

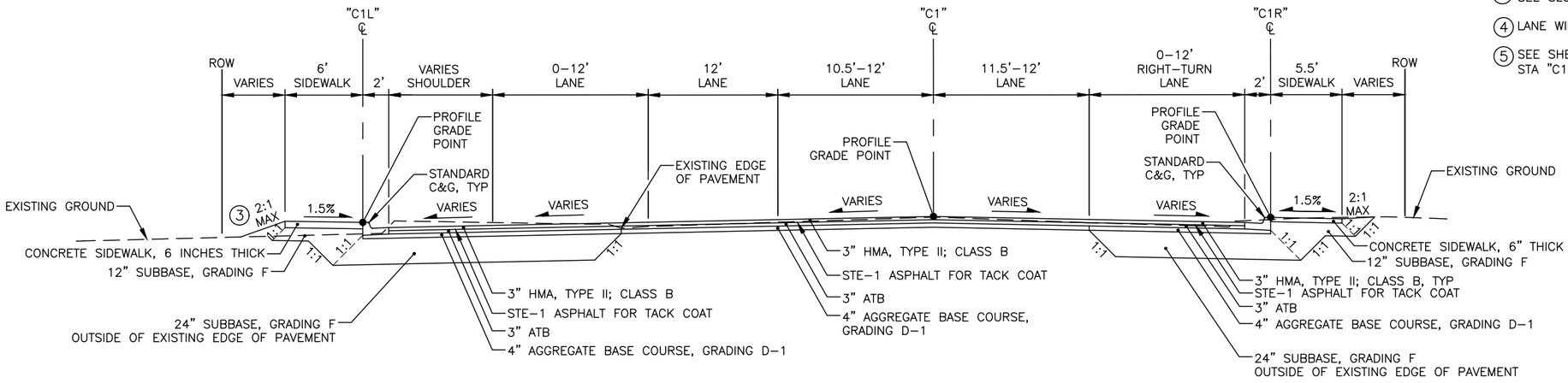
STA "C1" BOP TO STA "C1" 235+12

SLOPE EXCEPTION TABLE

FROM STA	TO STA	OFFSET	DESCRIPTION
"C1" 235+12	"C1" 236+18	LT	MATCH EXISTING ASPHALT PAVEMENT, SEE DETAIL ON SHEET E8
"C1" 241+50	"C1" 242+17	LT	CUT SLOPE, 2:1 MAX

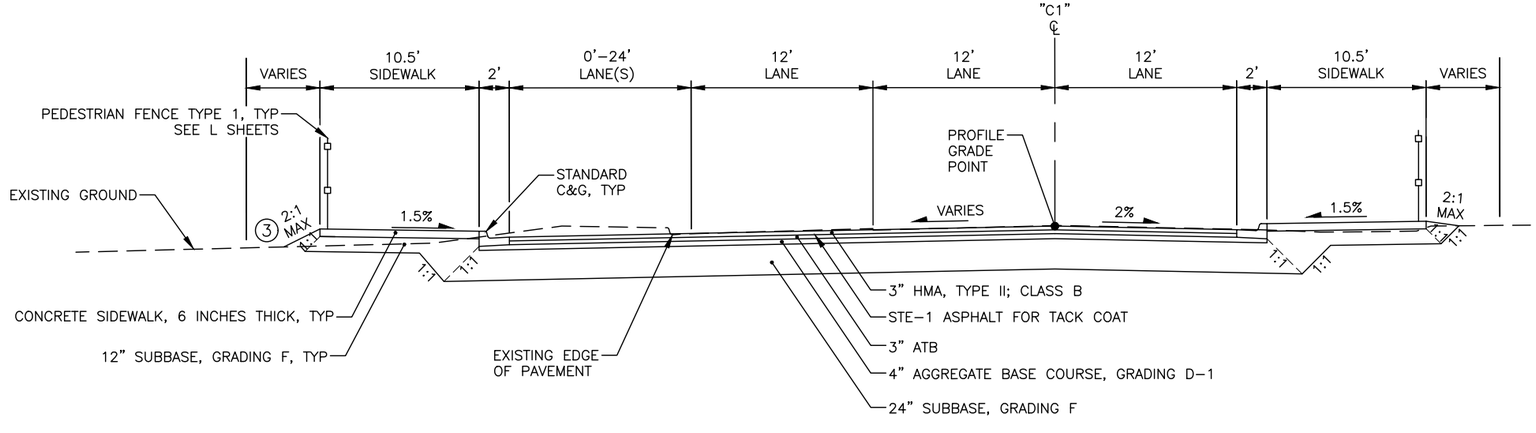
NOTES:

1. SEE G SHEETS FOR VARIATIONS.
2. TRANSITION TO NORMAL CROWN FROM STA "C1" 234+95 TO STA "C1" 235+75, SEE CURBLINE PROFILES ON SHEET F7.
3. SEE SLOPE EXCEPTION TABLE.
4. LANE WIDTHS VARY FROM BOP TO STA "C1" 233+75.
5. SEE SHEET G2 FOR LAYOUT INFORMATION FROM STA "C1" 237+96 TO STA "C1" 240+73



SOUTH CUSHMAN STREET WIDENING

STA. "C1" 235+12 TO STA "C1" 237+96 (5)



CUSHMAN STREET

(5) STA "C1" 240+73 TO STA "C1" 242+17

TYPICAL SECTIONS CUSHMAN STREET

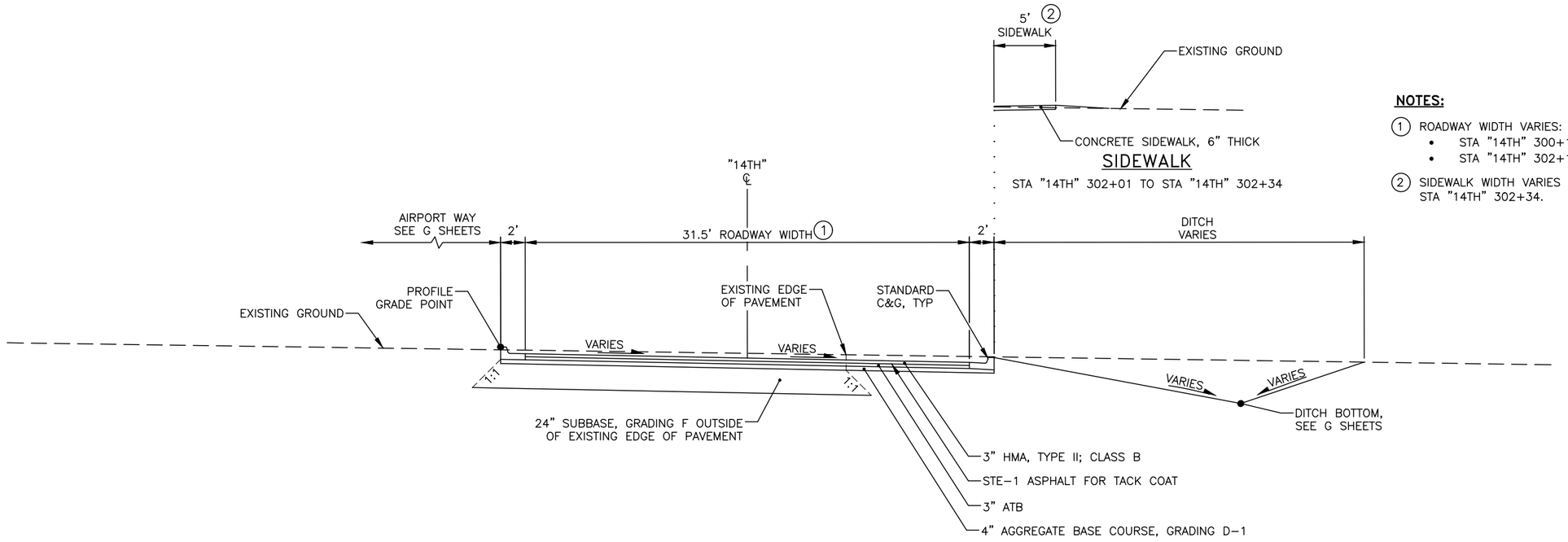
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

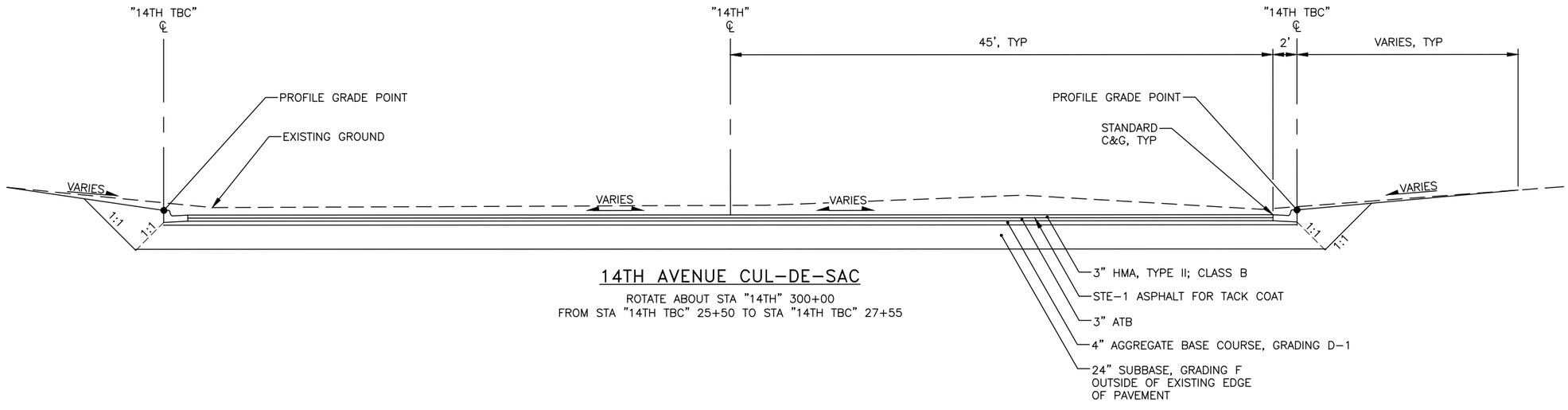
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	B4	B4



NOTES:

① ROADWAY WIDTH VARIES:
- STA "14TH" 300+17 TO STA "14TH" 300+88
- STA "14TH" 302+17 TO STA "14TH" EOP

② SIDEWALK WIDTH VARIES TO MATCH EXISTING STA "14TH" 302+17 TO STA "14TH" 302+34.



PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

TYPICAL SECTIONS
14TH AVENUE

ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL
201.0009.0000	CLEARING AND GRUBBING	LUMP SUM	ALL REQ'D
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQ'D
202.0002.0000	REMOVAL OF PAVEMENT	SQUARE YARD	25,710
202.0003.0000	REMOVAL OF SIDEWALK	SQUARE YARD	2,122
202.0004.0000	REMOVAL OF CULVERT PIPE	LINEAR FOOT	3,352
202.0006.0000	REMOVAL OF MANHOLE	EACH	9
202.0008.0000	REMOVAL OF INLET	EACH	21
202.0009.0000	REMOVAL OF CURB AND GUTTER	LINEAR FOOT	9,218
202.2012.0000	GROUND WATER WELL DECOMMISSIONING	EACH	3
203.0003.0000	UNCLASSIFIED EXCAVATION	CUBIC YARD	12,755
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	6,472
304.0001.000F	SUBBASE, GRADING F	TON	13,491
306.0001.0000	ATB	TON	4,130
306.0002.5240	ASPHALT BINDER, GRADE PG 52-40	TON	186
401.0001.002B	HMA, TYPE II; CLASS B	TON	4,130
401.0004.5240	ASPHALT BINDER, GRADE PG 52-40	TON	227
401.0008.002B	HMA PRICE ADJUSTMENT, TYPE II; CLASS B	CONTINGENT SUM	ALL REQ'D
401.0009.0000	LONGITUDINAL JOINT DENSITY PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQ'D
401.0015.0000	ASPHALT MATERIAL PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQ'D
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	TON	9
507.0002.0000	PEDESTRIAN RAILING	LINEAR FOOT	290
603.0021.0008	CORRUGATED POLYETHYLENE PIPE 8 INCH	LINEAR FOOT	15
603.0021.0012	CORRUGATED POLYETHYLENE PIPE 12 INCH	LINEAR FOOT	2,366
603.0021.0018	CORRUGATED POLYETHYLENE PIPE 18 INCH	LINEAR FOOT	1,369
603.0021.0024	CORRUGATED POLYETHYLENE PIPE 24 INCH	LINEAR FOOT	230
604.0001.0001	STORM SEWER MANHOLE, TYPE I	EACH	11
604.0001.0002	STORM SEWER MANHOLE, TYPE II	EACH	2
604.0003.0000	RECONSTRUCT EXISTING MANHOLE	EACH	6
604.0004.0000	ADJUST EXISTING MANHOLE	EACH	7
604.0005.000A	INLET, TYPE A	EACH	33
604.0010.0000	RECONSTRUCT INLET	EACH	3
607.0003.0000	CHAIN LINK FENCE	LINEAR FOOT	2,780
608.0001.0006	CONCRETE SIDEWALK, 6 INCHES THICK	SQUARE YARD	3,300
608.0006.0000	CURB RAMP	EACH	26
608.2013.E006	CONCRETE, TYPE V, 6 INCHES THICK, COLORED AND PATTERN IMPRINTED, SLABS	SQUARE YARD	3,020
609.0002.0001	CURB AND GUTTER, TYPE 1	LINEAR FOOT	10,280
615.0001.0000	STANDARD SIGN	SQUARE FOOT	519
615.0006.0000	SALVAGE SIGN	EACH	72
618.0002.0000	SEEDING	POUND	36
620.0001.0000	TOPSOIL	SQUARE YARD	1,979
621.0001.0000	TREE, BIRCH-SINGLE STEM (BETULA PAPYRIFERA)	EACH	109
621.0001.000B	TREE, CRABAPPLE (MALUS 'RED SPLENDOR')	EACH	23
621.0001.000C	TREE, LARCH (LARIX LARCINIA)	EACH	3
621.0001.000D	TREE, WHITE SPRUCE (PICEA GLAUCA)	EACH	20
621.0002.0000	SHRUB, COTONEASTER (COTONEASTER LUCIDUS), 36" HEIGHT	EACH	97
621.0002.000B	SHRUB, LILAC (SYRINGA VULGARIS), 36" HEIGHT	EACH	5
621.0002.000C	SHRUB, ROSE (ROSA ACICULARIS), 24" HEIGHT	EACH	118
621.0002.000D	SHRUB, SPIREA ALASKA (SPIREA BEAUVERDIANA), 18" HEIGHT	EACH	119
621.2004.0000	PERENNIAL, IRIS (IRIS SESTOA)	EACH	111

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	C1	C2

ESTIMATING FACTORS

ITEM NO.	DESCRIPTION	UNIT
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	148 LBS. / CUBIC FOOT
304.0001.000F	SUBBASE, GRADING F	148 LBS. / CUBIC FOOT
306.0001.0000	ATB	113 LB/SY/IN
306.0002.5240	ASPHALT BINDER, GRADE PG 52-40	4.5% WEIGHT OF 401.0001.002B
401.0001.002B	HMA, TYPE II; CLASS B	151 LBS / CUBIC FOOT
401.0004.5240	ASPHALT BINDER, GRADE PG 52-40	5.5% WEIGHT OF 401.0001.002B
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	0.000334 TONS / S.Y.

ESTIMATE OF QUANTITIES

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL
621.2007.0000	LANDSCAPE EDGING	LINEAR FOOT	500
621.2008.0001	LANDSCAPE BOULDER – SMALL	EACH	8
621.2008.0002	LANDSCAPE BOULDER – MEDIUM	EACH	7
622.0001.0000	REST AREA, AIRPORT / CUSHMAN HARDSCAPE	LUMP SUM	ALL REQ'D
627.0001.0006	DUCTILE IRON WATER CONDUIT, 6 INCH, CLASS 50	LINEAR FOOT	1,030
627.0001.0008	DUCTILE IRON WATER CONDUIT, 8 INCH, CLASS 50	LINEAR FOOT	194
627.0005.0000	FIRE HYDRANT INSTALLATION	EACH	2
627.0008.0000	WATER SERVICE CONNECTION	EACH	7
627.0009.0006	GATE VALVE, 6 INCH	EACH	5
627.0010.0000	ADJUSTMENT OF VALVE BOX	EACH	6
627.2033.0000	WATER SYSTEM COMPLETE BETTERMENT	LUMP SUM	ALL REQ'D
639.0001.0000	DRIVEWAY	EACH	6
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQ'D
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQ'D
641.0003.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	ALL REQ'D
641.0004.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL ADDITIVES	CONTINGENT SUM	ALL REQ'D
641.0006.0000	WITHHOLDING	CONTINGENT SUM	ALL REQ'D
641.0007.0000	SWPPP MANAGER	LUMP SUM	ALL REQ'D
642.0001.0000	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQ'D
642.0003.0000	THREE PERSON SURVEY PARTY	HOUR	40
642.0004.0000	SET PRIMARY MONUMENT	EACH	3
642.0005.0000	SET SECONDARY MONUMENT	EACH	3
643.0002.0000	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQ'D
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQ'D
643.0025.0000	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQ'D
643.0032.0000	FLAGGING	CONTINGENT SUM	ALL REQ'D
643.2005.0000	PUBLIC INFORMATION PROGRAM	LUMP SUM	ALL REQ'D
644.0001.0000	FIELD OFFICE	LUMP SUM	ALL REQ'D
645.0001.0000	TRAINING PROGRAM, 2 TRAINEES/APPRENTICES	LABOR HOUR	1,000
646.0001.0000	CPM SCHEDULING	LUMP SUM	ALL REQ'D
660.0001.0000	TRAFFIC SIGNAL SYSTEM COMPLETE, AIRPORT / CUSHMAN	LUMP SUM	ALL REQ'D
660.0003.0000	HIGHWAY LIGHTING SYSTEM COMPLETE, AIRPORT / CUSHMAN	LUMP SUM	ALL REQ'D
660.2003.0000	TRAFFIC SIGNAL SYSTEM MODIFICATIONS, CUSHMAN / BARNETTE	LUMP SUM	ALL REQ'D
661.0001.0000	LOAD CENTER, TYPE 1	EACH	1
661.0006.0000	TRANSFORMER, 5 KVA	EACH	1
662.2005.0000	FIBER OPTIC INTERCONNECT	LUMP SUM	ALL REQ'D
670.0010.0000	METHYL METHACRYLATE PAVEMENT MARKINGS	LUMP SUM	ALL REQ'D
670.0011.0000	METHYL METHACRYLATE TRANSVERSE PAVEMENT MARKING LINES	SQUARE FOOT	4,495
670.0012.0000	METHYL METHACRYLATE TRANSVERSE PAVEMENT MARKINGS, WORDS AND SYMBOLS	EACH	30
680.2000.0000	TELECOMMUNICATIONS UTILITY RELOCATION, GCI	LUMP SUM	ALL REQ'D
680.2000.0000 (2)	TELECOMMUNICATIONS UTILITY RELOCATION, ACS	LUMP SUM	ALL REQ'D
687.2000.0000	POWER UTILITY RELOCATION, GVEA PRIMARY	LUMP SUM	ALL REQ'D
687.2000.0000 (2)	POWER UTILITY RELOCATION, GVEA SECONDARY	LUMP SUM	ALL REQ'D

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	C2	C2

GENERAL NOTES:

1. PRINT OR REPRODUCE PLANS IN COLOR TO MAINTAIN CLARITY OF WORK SHOWN.
2. THE LOCATION, SIZE, AND NUMBER OF EXISTING UTILITIES SHOWN IN THE PLANS ARE NOT EXACT. OBTAIN UTILITY LOCATES AT LEAST 48 HOURS PRIOR TO COMMENCING WORK. VERIFY THE LOCATIONS OF BURIED UTILITIES IN THE FIELD PER THE SPECIAL PROVISIONS AND RECORD ANY CHANGES ON THE CONTRACTOR'S RECORD DRAWINGS. OBTAINING UTILITY LOCATES IS SUBSIDIARY TO OTHER WORK ITEMS.
3. HAND DIG WITHIN TWO FEET OF BURIED UTILITIES.
4. SUPPORT AND PROTECT UNDERGROUND UTILITIES, CONDUITS, AND STRUCTURES NOT SCHEDULED FOR DEMOLITION OR ABANDONMENT.
5. SAW CUT ALL MATCH LINES WHERE NEW CONSTRUCTION ABUTS EXISTING ASPHALT PAVEMENT. APPLY STE–1 ASPHALT FOR TACK COAT ON THE VERTICAL FACE OF ALL SAW CUT ASPHALT.
6. SAW CUT CONCRETE (SIDEWALK, CURB AND GUTTER, DRIVEWAY, ETC.) AT THE NEAREST JOINT AT OR BEYOND MATCH LIMITS OR AS DIRECTED BY THE ENGINEER.
7. PRIOR TO PAVING, ADJUST ALL MANHOLES TO BE 3/8" BELOW FINAL FINISHED GRADE SURFACE.
8. PLACE 4 IN OF TOPSOIL AND SEED TO AREAS DISTURBED BY CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.
9. UNLESS OTHERWISE NOTED ON THE PLANS, PRESERVE AND PROTECT EXISTING STRUCTURES, FENCES, AND OTHER OBSTRUCTIONS ON PRIVATE PROPERTY. WHERE SUCH ITEMS CANNOT BE PROTECTED, REMOVE AND REPLACE ITEMS TO THEIR EXISTING, PRE–CONSTRUCTION CONDITION. PAYMENT IS SUBSIDIARY TO 608 SERIES PAY ITEMS.

NOTE TO REVIEWER:

1. DIVISION 800 PAY ITEMS WILL BE ADDRESSED ONCE THE QAPP IS COMPLETED FOR THE PROJECT.

ESTIMATE OF QUANTITIES

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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ALASKA	0002312/Z640780000	2024	D1	D4

202.0001.0000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

SHEET	BEGIN		END		REMARKS
	STATION	OFFSET	STATION	OFFSET	
E1	'A1'154+00	46' LT	'A1'160+64	47' LT	REMOVE CHAIN LINK FENCE
E1	'A1'154+00	50' RT	'A1'160+16	50' RT	REMOVE CHAIN LINK FENCE
E1–E2	'A1'161+89	47' LT	'A1'168+58	46' LT	REMOVE CHAIN LINK FENCE
E1–E2	'A1'162+40	50' RT	'A1'168+71	50' RT	REMOVE CHAIN LINK FENCE
E2	'A1'165+46	57' LT			REMOVE BOLLARD
E2	'A1'165+94	56' LT			REMOVE BOLLARD
E2	'A1'166+48	57' LT			REMOVE BOLLARD
E2	'A1'168+87	50' RT	'A1'171+22	50' RT	REMOVE CHAIN LINK FENCE
E2	'A1'169+67	51' LT	'A1'169+97	50' LT	REMOVE CHAIN LINK FENCE
E3	'C1'237+25	29' RT			REMOVE COMMUNICATIONS MANHOLE COORDINATE W/ ENGINEER FOR SALVAGE
E3	'C1'236+73	38' LT	'C1'237+25	21' LT	HANDRAIL, CURB, AND PLANTERS
E3	'C1'239+52	51' RT	'C1'239+62	43' RT	"F" SHAPE BARRIER BEHIND EX. TRAFFIC CABINET
E3	'C1'239+63	56' RT			REMOVE POST
E3	'C1'240+04	44' LT			REMOVE SIGN AND FOUNDATION
E3	'C1'240+20	31' LT			REMOVE WATER MANHOLE
E3	'C1'242+00	37' LT	'C1'242+43	39' LT	REMOVE BACKING CURB
E3	'C1'242+17	38' RT			REMOVE BOLLARD
E3	'C1'242+22	56' RT			REMOVE BOLLARD
E3	'C1'234+95	31' LT			REMOVE FIRE HYDRANT
E3	'C1'234+95	30' LT			REMOVE WATER VALVE
E3	'C1'239+82	12' LT			REMOVE WATER VALVE
E3	'C1'240+20	14' LT			REMOVE WATER VALVE
E3–E4	'C1'239+50	CL	'C1'243+00	CL	REMOVE SUBGRADE CONCRETE SLABS
E4	'C1'242+45	36' LT			REMOVE FIRE HYDRANT
E5	'C1'242+45	35' LT			REMOVE WATER VALVE
E5	'C1'242+44	26' LT			REMOVE WATER VALVE
E7	'A1'156+32	143' LT			REMOVE BOLLARD
E7	'A1'156+32	140' LT			REMOVE WATER VALVE
E7	'A1'156+33	137' LT			REMOVE BOLLARD
E7	'A1'156+17	213' LT			REMOVE BOLLARD
E7	'A1'156+17	220' LT			REMOVE BOLLARD

202.0002.0000 REMOVAL OF PAVEMENT

SHEET	START STATION	END STATION	AREA (SY)	REMARKS
E1–E2	'A1'154+00	'A1'171+22	16,230	AIRPORT WAY, THROUGH INTERSECTION
E1	'A1'156+18	'A1'156+37	130	ADDITIONAL ASPHALT REMOVAL FOR WATERLINE REMOVAL ON 14TH AVE WEST OF CUSHMAN STREET
E1–E2	'A1'156+36	'A1'171+22	1,990	ADDITIONAL ASPHALT REMOVAL BEYOND SIDEWALK, NORTH OF AIRPORT WAY
E1–E2	'A1'156+93	'A1'169+17	380	ADDITIONAL ASPHALT REMOVAL BEYOND SIDEWLAK, SOUTH OF AIRPORT WAY
E1–E2	'A1'162+28	'A1'168+68	220	MEDIAN ON AIRPORT WAY, EAST OF CUSHMAN STREET
E3	'C1'233+50	'C1'238+55	910	ADDITIONAL ASPHALT REMOVAL FOR S CUSHMAN STREET WIDENING
E3	'C1'233+82	'C1'238+45	1,900	S CUSHMAN STREET SOUTH OF AIRPORT WAY
E3–E4	'C1'239+43	'C1'243+25	2,520	N CUSHMAN STREET NORTH OF AIRPORT WAY
E4	'14TH'300+00	'14TH'302+48	1,290	14TH AVENUE
E5	'G1'12+26	'G1'19+37	140	2' OF ASPHALT REMOVAL ON SOUTH GAFFNEY BETWEEN CUSHMAN STREET AND NOBLE STREET
		TOTAL:	25,710	

202.0003.0000 REMOVAL OF SIDEWALK

SHEET	BEGIN		END		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
E1	'A1'154+00	LT	'A1'160+41	LT	345	
E1	'A1'159+09	RT	'A1'160+62	RT	87	
E1	'A1'160+41	LT	'A1'160+93	LT	62	
E1	'A1'160+62	RT	'A1'161+67	RT	72	
E1	'A1'161+39	LT	'A1'162+69	LT	96	
E1	'A1'162+10	RT	'A1'162+30	RT	40	
E1–E2	'A1'162+30	RT	'A1'164+79	RT	142	
E1–E2	'A1'162+69	LT	'A1'168+96	LT	351	
E2	'A1'168+70	RT	'A1'168+82	RT	7	
E2	'A1'169+49	LT	'A1'169+98	LT	33	
E3	'C1'233+50	LT	'C1'237+93	LT	273	
E3	'C1'233+82	RT	'C1'236+80	RT	187	
E3	'C1'237+18	RT	'C1'237+78	RT	34	
E3–E4	'C1'240+05	RT	'C1'242+33	RT	158	
E3–E4	'C1'240+08	LT	'C1'242+68	LT	213	
E4	'14TH'301+88	RT	'14TH'302+34	RT	22	
				TOTAL:	2,122	

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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202.0004.0000 REMOVAL OF CULVERT PIPE

SHEET	BEGIN		END		LENGTH (LF)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
E1	'A1'154+50	44' LT	'A1'154+50	38' LT	6	
E1	'A1'154+50	38' RT	'A1'154+57	8' RT	47	
E1	'A1'156+00	44' RT	'A1'156+53	38' RT	53	
E1	'A1'156+53	38' RT	'A1'156+53	52' RT	15	
E1	'A1'156+53	38' RT	'A1'158+75	38' RT	223	
E1	'A1'158+00	44' LT	'A1'158+40	60' LT	44	
E1	'A1'158+00	44' LT	'A1'158+75	38' RT	111	
E1	'A1'158+75	38' RT	'A1'158+75	44' RT	6	
E1	'A1'158+75	38' RT	'A1'160+88	37' RT	212	
E1	'A1'160+88	37' RT	'A1'161+64	39' RT	76	
E1	'A1'160+88	37' RT	'A1'161+05	72' LT	111	
E1	'A1'160+94	68' LT	'A1'161+05	72' LT	13	
E1	'A1'161+05	72' LT	'A1'161+45	94' LT	46	
E1–E2	'A1'161+64	39' RT	'A1'164+30	38' RT	264	
E2	'A1'164+30	38' RT	'A1'164+30	44' RT	6	
E2	'A1'164+30	38' RT	'A1'164+30	44' LT	83	
E2	'A1'164+30	44' LT	'A1'164+30	60' LT	16	
E2	'A1'164+30	44' RT	'A1'164+69	63' RT	44	
E2	'A1'164+30	38' RT	'A1'167+36	38' RT	307	
E2	'A1'166+81	79' LT	'A1'167+00	44' LT	40	
E2	'A1'167+00	44' LT	'A1'167+36	38' RT	90	
E2	'A1'167+36	38' RT	'A1'167+36	44' RT	7	
E2	'A1'167+36	44' RT	'A1'167+36	52' RT	9	
E2	'A1'167+36	38' RT	'A1'169+69	38' RT	230	
E2	'A1'168+96	82' LT	'A1'169+39	83' LT	46	
E2	'A1'168+86	35' LT	'A1'168+55	60' LT	100	24–INCH CMP CASING
E2	'A1'169+01	76' LT	'A1'168+40	106' LT	192	8" STL WATER
E2	'A1'169+39	83' LT	'A1'169+68	44' LT	50	
E2	'A1'169+68	44' LT	'A1'169+87	52' LT	22	
E2	'A1'169+68	44' LT	'A1'169+69	8' LT	36	
E2	'A1'169+69	8' LT	'A1'169+69	38' RT	47	
E2	'A1'169+69	38' RT	'A1'169+68	43' RT	6	
E2	'A1'169+68	43' RT	'A1'169+68	52' RT	8	
E2	'C1'235+72	17' RT	'C1'235+94	19' LT	42	
E3	'C1'236+14	6' LT	'C1'236+64	12' LT	70	6" DIP WATER PIPE
E3	'C1'236+64	12' LT	'C1'238+12	8' LT	133	6" STL WATER PIPE
E3	'C1'237+70	5' LT	'C1'238+06	5' LT	35	24–INCH CMP CASING
E3	'C1'239+92	12' LT	'C1'242+69	14' LT	285	6" STL WATER PIPE
E3	'C1'240+00	9' LT	'C1'240+13	10' LT	20	24–INCH CMP CASING
E3	'C1'242+34	50' RT	'C1'242+55	44' RT	23	
E3	'C1'242+55	44' RT	'C1'242+67	48' LT	92	
E3	'C1'242+67	48' LT	'C1'243+12	45' LT	46	
E4	'14TH'301+84	12' LT	'14TH'301+96	26' RT	40	
				TOTAL:	3,352	

202.0006.0000 REMOVAL OF MANHOLE

SHEET	STATION	OFFSET	REMARKS
E1	'A1'156+53	38' RT	
E1	'A1'158+40	60' LT	
E1	'A1'158+75	38' RT	
E1	'A1'160+88	37' RT	
E1	'A1'161+05	72' LT	
E1	'A1'161+64	39' RT	
E2	'A1'164+30	38' RT	
E2	'A1'167+36	38' RT	
E2	'A1'169+68	44' LT	
	TOTAL (EA):	9	

202.0008.0000 REMOVAL OF INLET

SHEET	STATION	OFFSET	REMARKS
E1	'A1'154+50	44' LT	
E1	'A1'154+57	8' RT	
E1	'A1'156+00	44' RT	
E1	'A1'158+00	44' LT	
E1	'A1'158+75	44' RT	
E1	'A1'160+94	68' LT	
E1	'A1'158+75	44' RT	
E1	'A1'160+94	68' LT	
E1	'A1'161+45	94' LT	
E2	'A1'164+30	44' RT	
E2	'A1'164+30	44' LT	
E2	'A1'164+30	60' LT	
E2	'A1'167+00	44' LT	
E2	'A1'167+36	44' RT	
E2	'A1'168+96	82' LT	
E2	'A1'169+39	83' LT	
E2	'A1'169+69	44' RT	
E2	'C1'235+72	17' RT	
E2	'C1'235+94	19' LT	
E3	'C1'242+34	50' RT	
E3	'C1'242+67	48' LT	
E4	'14TH'301+84	12' LT	
E4	'14TH'301+96	26' RT	
	TOTAL (EA):	21	

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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202.0009.0000 REMOVAL OF CURB AND GUTTER

SHEET	BEGIN		END		LENGTH (LF)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
E1	'A1'154+00	LT	'A1'160+62	LT	661	
E1	'A1'154+00	CL	'A1'160+91	CL	1,386	EXISTING MEDIAN
E1	'A1'154+00	RT	'A1'161+17	RT	718	
E1	'A1'156+93	RT	'A1'159+35	RT	266	
E1–E2	'A1'161+85	LT	'A1'168+98	LT	741	
E1–E2	'A1'162+22	CL	'A1'168+73	CL	1,311	EXISTING MEDIAN
E1–E2	'A1'162+37	RT	'A1'171+22	RT	877	
E2	'A1'169+36	RT	'A1'171+22	RT	216	
E2	'A1'169+63	CL	'A1'171+22	CL	323	EXISTING MEDIAN
E2	'A1'168+68	RT	'A1'169+05	RT	36	
E3	'C1'233+82	LT	'C1'238+63	LT	493	
E3	'C1'233+82	RT	'C1'236+73	RT	292	
E3	'C1'237+24	RT	'C1'238+27	RT	132	
E3–E4	'C1'239+61	LT	'C1'242+70	LT	366	
E3–E4	'C1'239+26	RT	'C1'242+31	RT	352	
E4	'C1'242+66	RT	'C1'243+25	RT	98	
E4	'C1'243+11	RT	'C1'243+25	RT	47	
E4	'14TH'301+45	RT	'14TH'301+63	RT	28	DRIVEWAY
E4	'14TH'301+76	LT	'14TH'302+48	LT	46	
E4	'14TH'301+87	RT	'14TH'301+98	RT	23	DRIVEWAY
E4	'14TH'301+87	RT	'14TH'302+34	RT	68	
E5–E6	'G1'12+26	LT	'G1'19+37	LT	712	
E7	'A1'156+32	RT	'A1'156+37	RT	26	
				TOTAL:	9,218	

202.2012.0000 GROUNDWATER WELL DECOMMISSIONING

SHEET	STATION	OFFSET	REMARKS
E1	'A1'161+18	51' RT	
E1	'A1'163+19	64' RT	(2) WELLS
	TOTAL (EA):	3	

607.0003.0000 CHAIN LINK FENCE

SHEET	BEGIN		END		LENGTH (LF)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F2–F3	'A1'154+00	46.5' LT	'A1'154+00	66.7' LT	539	
F2–F3	'A1'154+00	50.0' RT	'A1'160+67	79.4' RT	672	
F2–F3	'A1'155+86	50.0' RT	'A1'156+23	79.4' RT	37	
F3–F5	'A1'161+94	83.9' LT	'A1'168+54	48.0' LT	666	
F3–F5	'A1'162+62	49.3' RT	'A1'168+60	49.3' RT	597	
F3–F5	'A1'169+67	49.3' RT	'A1'169+97	49.3' RT	32	
F3–F5	'A1'168+86	49.3' RT	'A1'171+22	49.3' RT	228	
				ROUNDED TOTAL:	2,780	

608.0001.0006 CONCRETE SIDEWALK, 6 INCHES THICK

SHEET	BEGIN		END		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F2–F3	'A1'153+95	LT	'A1'160+07	LT	339	MATCH TO EXISTING SIDEWALK WITH CROSS SLOPE >2%
F2	'A1'155+86	LT	'A1'156+23	LT	35	MATCH TO EXISTING SIDEWALK WITH CROSS SLOPE >2%
F2–F3	'A1'158+76	RT	'A1'160+88	RT	241	
F3	'A1'160+64	LT	'A1'160+91	LT	33	PEDESTRIAN REFUGE ISLANDS
F3	'A1'160+72	RT	'A1'161+14	RT	41	PEDESTRIAN REFUGE ISLANDS
F3	'A1'161+45	RT	'A1'161+88	LT	50	PEDESTRIAN REFUGE ISLANDS
F3	'A1'161+81	LT	'A1'162+05	LT	38	PEDESTRIAN REFUGE ISLANDS
F3–F5	'A1'161+63	RT	'A1'168+96	RT	437	
F3–F4	'A1'162+64	LT	'A1'164+86	LT	137	
F6	'A1'168+68	RT	'A1'168+83	RT	16	PEDESTRIAN PATH
F6	'A1'169+51	LT	'A1'169+96	LT	26	PEDESTRIAN PATH
F6–F7	'C1'233+37	RT	'C1'238+35	RT	365	INCLUDES DRIVEWAY CURB CUT
F6–F7	'C1'233+50	LT	'C1'238+08	LT	356	INCLUDES DRIVEWAY CURB CUT
F7–F8	'C1'239+77	RT	'C1'242+39	RT	317	
F7–F8	'C1'239+94	LT	'C1'242+69	LT	357	INCLUDES DRIVEWAY CURB CUT
F8–F9	'G'12+08	RT	'G'19+37	RT	483	
F10	'14TH'301+93	LT	'14TH'302+34	LT	22	
				ROUNDED TOTAL:	3,300	

SUMMARY TABLES

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	D4	D4

608.0006.0000 CURB RAMP

SHEET	STATION	OFFSET	WIDTH/ARC LENGTH (FT)	RADIUS (FT)	REMARKS
F2	'A1'159+15	66' RT	5.0	60.0	PERPENDICULAR
F2	'A1'160+44	80' LT	5.8	46.0	PERPENDICULAR
F2	'A1'160+68	66' LT	6.7		PERPENDICULAR
F2	'A1'160+78	52' LT	5.0		PERPENDICULAR
F2	'A1'160+80	40' RT	5.0		PERPENDICULAR
F2	'A1'160+86	65' LT	5.0		PERPENDICULAR
F2	'A1'160+90	82' RT	6.0	39.5	PERPENDICULAR
F2	'A1'160+98	62' RT	5.0		PERPENDICULAR
F2	'A1'161+10	49' RT	5.2		PERPENDICULAR
F2	'A1'161+49	66' LT	5.0		PERPENDICULAR
F2	'A1'161+66	69' LT	5.0		PERPENDICULAR
F2	'A1'161+71	91' LT	5.0		PARALLEL
F2	'A1'161+80	52' LT	5.0		PERPENDICULAR
F2	'A1'161+85	50' RT	5.0		PERPENDICULAR
F2	'A1'161+97	39' RT	5.0		PERPENDICULAR
F2	'A1'162+01	63' RT	5.0		PERPENDICULAR
F2	'A1'162+28	74' RT	6.0	39.5	PERPENDICULAR
F5	'A1'168+82	57' RT	5.6	38.0	PARALLEL
F5	'A1'168+75	46' RT	5.0		RETURNED CURB RAMP WITH (2) EA DETECTABLE WARNING TILE
F5	'A1'169+54	56' LT	4.5	41.5	RETURNED CURB RAMP
F5	'A1'169+92	70' LT	4.5	32.6	RETURNED CURB RAMP
F6	'C1'242+37	26' RT	17.1	22.0	PARALLEL
F6	'C1'242+57	36' LT	13.2	29.5	PARALLEL
F7	'14TH'301+94	19' LT	5.0		PARALLEL
F7	'14TH'301+97	21' RT	12.6	8.0	PARALLEL
		TOTAL (EA):	26		

609.0002.0001 CURB AND GUTTER, TYPE 1

SHEET	BEGIN		END		LENGTH (LF)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F2–F3	'A1'154+00	LT	'A1'160+07	LT	605	
F2–F3	'A1'154+00	CL	'A1'160+66	CL	1,335	MEDIAN
F2–F3	'A1'154+00	RT	'A1'161+09	RT	716	
F2	'A1'156+93	RT	'A1'159+37	RT	264	CURB ON AIRPORT FRONTAGE RD
F3	'A1'159+99	RT	'A1'161+17	LT	261	PEDESTRIAN REFUGE ISLANDS
F3	'A1'160+61	LT	'A1'160+93	LT	129	PEDESTRIAN REFUGE ISLANDS
F3	'A1'161+44	LT	'A1'162+26	RT	191	PEDESTRIAN REFUGE ISLANDS
F3	'A1'161+79	RT	'A1'162+09	RT	131	PEDESTRIAN REFUGE ISLANDS
F3–F5	'A1'161+63	LT	'A1'168+96	LT	765	
F3–F5	'A1'162+01	CL	'A1'168+72	CL	1,348	MEDIAN
F3–F5	'A1'162+25	RT	'A1'168+72	RT	668	
F5	'A1'168+79	RT	'A1'171+22	RT	243	
F5	'A1'169+38	LT	'A1'169+93	LT	84	PEDESTRIAN PATH
F5	'A1'169+56	LT	'A1'169+99	LT	222	PEDESTRIAN PATH
F5	'A1'169+65	CL	'A1'171+22	CL	318	MEDIAN
F6–F7	'C1'233+50	LT	'C1'238+18	LT	474	
F6–F7	'C1'233+50	RT	'C1'237+99	RT	451	
F7–F8	'C1'239+77	RT	'C1'242+42	RT	298	
F7–F8	'C1'239+89	LT	'C1'242+69	LT	355	
F8–F9	'G'12+08	LT	'G'19+37	LT	730	
F10	'14TH'300+00	CL	'14TH'302+48	CL	505	NEW CURBING FOR 14TH AVE CUL-DE-SAC
F11	'14TH'300+93	RT	'14TH'301+44	RT	103	
F12	'14TH'301+93	RT	'14TH'302+34	RT	75	
				ROUNDED TOTAL:	10,280	

608.2013.E006 CONCRETE, TYPE V, 6 INCHES THICK, COLORED AND PATTERN IMPRINTED, SLABS

SHEET	BEGIN		END		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F2–F3	'A1'154+00	LT	'A1'160+36	LT	313	
F2	'A1'154+00	CL	'A1'160+66	CL	277	MEDIAN
F2–F3	'A1'154+00	RT	'A1'160+73	RT	533	
F3	'A1'159+99	RT	'A1'161+17	RT	159	PEDESTRIAN REFUGE ISLANDS
F3	'A1'160+61	LT	'A1'160+93	LT	55	PEDESTRIAN REFUGE ISLANDS
F3	'A1'161+44	LT	'A1'162+26	LT	75	PEDESTRIAN REFUGE ISLANDS
F3	'A1'161+79	RT	'A1'162+09	RT	49	PEDESTRIAN REFUGE ISLANDS
F3–F5	'A1'161+90	LT	'A1'168+57	LT	261	PEDESTRIAN PATH
F3–F5	'A1'162+01	CL	'A1'168+72	CL	338	PEDESTRIAN PATH
F3–F5	'A1'162+39	RT	'A1'168+72	RT	554	PEDESTRIAN PATH, FRONTAGE
F5	'A1'168+79	RT	'A1'171+22	RT	189	FRONTAGE
F5	'A1'169+65	CL	'A1'171+22	CL	215	MEDIAN
				ROUNDED TOTAL:	3020	

639.0001.0000 DRIVEWAY

SHEET	STATION	OFFSET	REMARKS
F6	'C1'233+19	RT	
F6	'C1'233+95	LT	
F6	'C1'235+25	LT	
F6	'C1'235+49	RT	
F8	"C1"241+87	LT	44 LF OF SPECIAL BACKING CURB IS SUBSIDIARY
F11	'14TH'301+78	RT	
	TOTAL (EA):	6	

SUMMARY TABLES

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	E1	E9

SEE SHEET E5 FOR DEMO WORK ON TURNER ST

SEE SHEET E5 FOR DEMO WORK ON TURNER ST

RECONSTRUCT EX. MANHOLE, SEE DEMOLITION NOTE 3

BEGINNING OF PROJECT "A1"154+00.00

AIRPORT WAY

14TH AVENUE

TURNER STREET

"A1"154+00 "A1"155+00 "A1"156+00 "A1"157+00 "A1"158+00

MATCH LINE STA "A1"158+50 SEE BELOW

DEMOLITION NOTES:

1. EXISTING ASPHALT PAVEMENT THICKNESS MAY VARY DUE TO DEFORMATION AND PREVIOUS ASPHALT PATCHING ACTIVITIES.
2. EXISTING 7" TO 9" THICK CONCRETE SLABS (INCLUDES UP TO 18" THICKENED EDGES AND REBAR ON 24" GRID) UNDERLIE ROADWAY AND CURB AND GUTTER ARE EXPECTED APPROXIMATELY BETWEEN STA. 239+50 AND 243+00, AND ARE TO BE REMOVED. THIS WORK IS PAID FOR UNDER 202.0001.0000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
3. PRIOR TO WORK, THE CONTRACTOR SHALL RECORD THE AS-BUILT CONDITIONS OF THE EXISTING MANHOLE INCLUDING DIMENSIONS, PIPE DIAMETERS AND DIRECTIONS, AND INVERT AND SUMP ELEVATIONS. PAYMENT FOR THIS WORK WILL BE MADE UNDER ITEM NO. 202.0001.000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
4. SUPPORT AND PROTECT EXISTING UNDERGROUND UTILITIES ENCOUNTERED DURING WORK WHICH ARE NOT SCHEDULED FOR REMOVAL OR ABANDONMENT.
5. PROTECT ALL EXISTING I/C FIBER OPTIC CABLE. REMOVAL OF VAULTS, POLYURETHANE FOAM DUCT SEALANT, CONDUIT, AND OTHER I/C ITEMS IN CONFLICT WITH THE CONSTRUCTION OF NEW I/C IS SUBSIDIARY TO 662.2005.0000 FIBER OPTIC SYSTEM COMPLETE. SEE H SHEETS FOR I/C WORK.
6. REMOVE EXISTING STORM DRAIN AND WATER PIPE AND APPURTENANCES THAT ARE IN CONFLICT WITH THE CONSTRUCTION OF NEW STORM DRAIN AND WATER. SEE U SHEETS FOR NEW STORM DRAIN AND WATER WORK.

DEMOLITION LEGEND

- REMOVAL OF PAVEMENT
- REMOVAL OF SIDEWALK
- REMOVAL OF SUBGRADE CONCRETE SLABS
- CLEARING AND GRUBBING
- SAWCUT
- REMOVAL OF CURB AND GUTTER
- SELECTIVE TREE REMOVAL
- REMOVAL OF SD PIPE
- ABANDON SD PIPE
- REMOVAL OF WATER PIPE
- ABANDON WATER PIPE
- REMOVAL OF INLET/MANHOLE
- REMOVAL OF RETAINING WALL
- SALVAGE SIGN
- REMOVAL OF FENCE
- REMOVAL OF JUNCTION BOX
- REMOVAL OF LOAD CENTER
- REMOVE STRUCTURE

MATCH LINE STA "A1"158+50 SEE ABOVE

SEE NOTE 2, SHEET H31

SEE NOTE 12, SHEET H52

SEE NOTE 12, SHEET H52

AIRPORT WAY

AIRPORT WAY

CUSHMAN STREET

S CUSHMAN STREET

STACIA STREET

"A1"159+00 "A1"160+00 "A1"161+00 "A1"162+00 "A1"163+00

"C" 239+00

MATCH LINE STA "A1"163+50 SEE SHEET E2

DEMOLITION PLAN
1 OF 5

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_dirport & cushman reconstruction\DWGS\C\Sheets\64078_E1-E5-DEMO Plans-E1 Thu, Dec/22/22 10:36am

(Bill Paddock) KEY: 00385

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	E2	E9

MATCH LINE STA "A1"163+50
SEE SHEET E1

AIRPORT WAY

"A1"164+00 "A1"165+00 "A1"166+00 "A1"167+00

REMOVE BOLLARD "A1"165+46, 56' LT

REMOVE BOLLARD "A1"165+94, 55' LT

REMOVE BOLLARD "A1"166+48, 56' LT

EX. FLUSHWELL TO REMAIN

MATCH LINE STA "A1"168+00
SEE BELOW

"14th"302+48.00
15.76' LT

"14th"302+33.61
15.74' RT

14TH AVENUE

BEGIN SIDEWALK REMOVAL "A1"164+78, RT

"A1"164+90.49
114.55' RT

EX. TREE TO REMAIN

EX. UTILITY POLE TO REMAIN

"A1"164+38.09
132.19' RT

LACY STREET

MATCHLINE E3
SEE SHEET E3

EX. FLUSHWELL TO REMAIN

SEE H SHEETS FOR I/C DEMO

END REMOVAL "A1"169+16.97, 86.91' LT

"A1"169+94, 78' LT

END REMOVAL OF SIDEWALK "A1"169+94.35 71.50' LT

"A1"170+01, 70' LT

NOBLE STREET

GAFFNEY ROAD

END 24" SPLIT CMP REMOVAL "A1"168+54.66 59.83' LT

BEGIN REMOVAL OF SIDEWALK "A1"169+53.38 54.30' LT

MATCH LINE STA "A1"168+00
SEE ABOVE

"A1"169+00 "A1"170+00 "A1"171+00

END OF PROJECT "A1"171+22

AIRPORT WAY

BEGIN 24" SPLIT CMP REMOVAL "A1"168+86.27 35.02' RT

RECONSTRUCT EXISTING MANHOLE, SEE DEMOLITION NOTE 3

"A1"168+68.22, 53.21' RT

"A1"168+80.96, 55.42' RT

"A1"168+95.86, 98.56' RT

NOBLE WATER BETTERMENT LIMITS "A1"169+04.38, 116.64' RT

"A1"169+05.48, 53.35' RT

"A1"169+16.97, 84.94' RT

NOBLE WATER BETTERMENT LIMITS "A1"169+23.44, 95.00' RT

EX. SIGNAL EQUIPMENT, TO REMAIN, ALL CORNERS

14TH AVENUE

NOBLE STREET

DEMOLITION PLAN
2 OF 5

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_E1-E5-DEMO Plans-E2 Thu, Dec/22/22 10:36am

(Bill Paddock) KEF 00385

(Bill Paddock) KE# 00385

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	E3	E9

BEGIN REMOVAL OF HANDRAIL, CURB, AND PLANTERS; COORDINATE W/ DEMO OF DROP IN LOUNGE TO AVOID DUPLICATION OF WORK. "C1"236+73, 38' LT

"C1"237+50, 50' LT

"C1"238+05, 69' LT

END REMOVAL OF HANDRAIL, CURB, AND PLANTERS "C1"237+25, 21' LT

15TH AVENUE

BEGINNING OF PROJECT "C1"233+37

EX. INLET TO REMAIN

REMOVE BOLLARD "C1"234+93, 33' LT

REMOVE FIRE HYDRANT "C1"234+95, 31' LT

REMOVE BOLLARD "C1"234+97, 33' LT

TCP

TCE

R/W

S CUSHMAN STREET

"C1"233+00

"C1"234+00

REMOVE WATER VALVE "C1"234+95, 30' LT

"C1"235+00

TWO EX. MAIN GATE VALVES TO REMAIN

"C1"236+00

"C1"237+00

ADJUST EXISTING MANHOLE, SEE U SHEETS

BEGIN 24" CMP REMOVAL "C1"237+70, 5' LT

END 24" CMP REMOVAL "C1"238+05, 6' LT

"C1"238+00

MATCH LINE STA "C1"238+20 SEE BELOW

14TH AVENUE

M

MATCHLINE SEE SHEET E2

MATCH LINE STA "C1"238+20 SEE ABOVE

AIRPORT WAY

"A1"+16+00

"A1"+62+00

REMOVE SIGN AND FOUNDATION "C1"240+04, 44' LT

BEGIN 24" CMP REMOVAL "C1"239+92, 9' LT

REMOVAL OF MANHOLE "C1"240+19.53, 31.07' LT SEE DEMOLITION NOTE 3

REMOVE WATER VALVE COORDINATE WITH LOTS 4A AND 5A TO DETERMINE IF ABANDONED PRIOR TO REMOVAL "C1"239+82, 12' LT

"C1"239+00

BEGIN REMOVAL OF SUBGRADE CONCRETE SLABS "C1"239+50

REMOVE WATER VALVE "C1"240+20, 14' LT

CUSHMAN STREET

"C1"240+00

"C1"241+00

ADJUST EXISTING MANHOLE, SEE U SHEETS

END 24" CMP REMOVAL "C1"240+12, 9' LT

REMOVE 6" DIA. STEEL POST "C1"239+63, 56' RT

REMOVE SINGLE "F" SHAPE CONCRETE BARRIER "C1"239+57, 47' RT

BEGIN REMOVAL OF BACKING CURB "C1"241+90, 33' LT

"C1"241+74 46' LT

EX. CONCRETE SLAB TO REMAIN

REMOVE OF FIRE HYDRANT "C1"242+45, 36' LT

END REMOVAL OF BACKING CURB "C1"242+43, 39' LT

"C1"241+99, 46' LT

REMOVE WATER VALVE "C1"242+45, 35' LT

"C1"242+00

REMOVE WATER VALVE "C1"242+44, 26' LT

REMOVE BOLLARD "C1"242+17, 38' RT

EX. GUARD RAIL TO REMAIN

RELOCATE POLE ON NEW FOUNDATION, SEE H SHEETS

EX. SIGNAL POLE TO REMAIN

SEE SHEET E4 FOR DEMO WORK ON GAFFNEY ROAD

GAFFNEY ROAD

"G1"+11+00

"G1"+12+00

"C1"242+70, 63' LT

"C1"243+11, 48' LT

RECONSTRUCT INLET, SEE U SHEETS

END REMOVAL OF SUBGRADE CONCRETE SLABS "C1"243+00

"C1"243+50

EX. SIGNAL POLE TO REMAIN

END OF PROJECT "C1"243+25

"C1"243+00

RECONSTRUCT EXISTING MANHOLE, SEE U SHEETS

DEMOLITION PLAN
3 OF 5

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_dirport & cushman reconstruction\DWGS\C\Sheets\64078_E1-E5-DEMO Plans-E3 Thu, Dec/22/22 10:36am

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	E4	E9

END OF PROJECT "C1"243+25

"C1"243+50

"C1"243+00

"C1"242+00

"G1"12+00

"G1"13+00

"G1"14+00

"G1"15+00

"G1"11+00

"G1"10+50

GAFFNEY RD

CUSHMAN ST

MATCH LINE STA "G1"15+40
SEE SBELOW

R/W

TCE

W

SS

SD

G

MH

"G1"16+00

"G1"17+00

"G1"18+00

"G1"19+00

"G1"20+00

MATCH LINE STA "G1"15+40
SEE ABOVE

NOBLE ST

C/A

SEE SHEET E2 FOR DEMO
WORK ON NOBLE STREET

DEMOLITION PLAN
4 OF 5

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

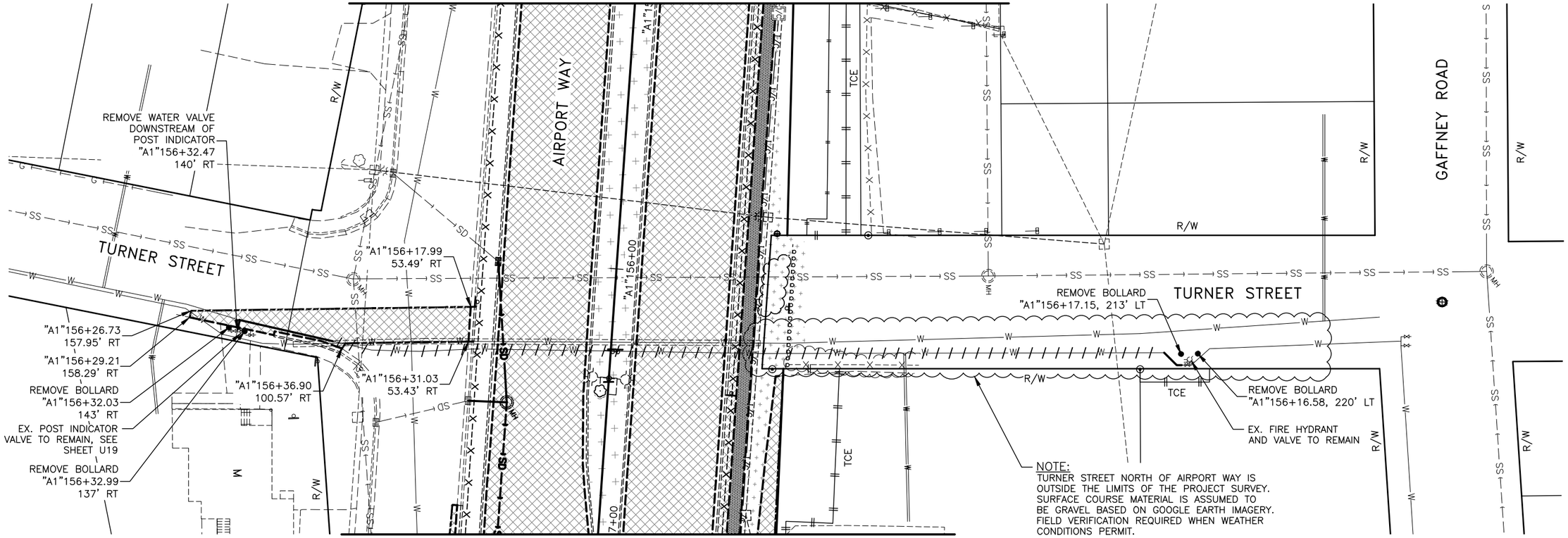
12/22/2022
REVIEW
PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	E5	E9

SEE SHEET E1 FOR DEMO
WORK ON AIRPORT WAY



SEE SHEET E1 FOR DEMO
WORK ON AIRPORT WAY

DEMOLITION PLAN
5 OF 5

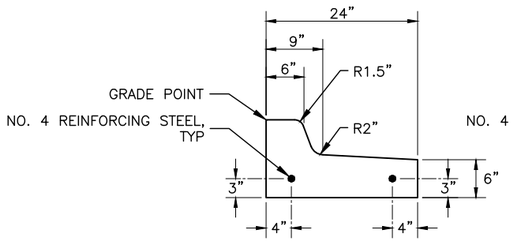
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

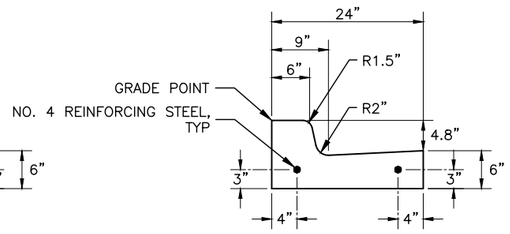
12/22/2022

NO.	DATE	REVISION

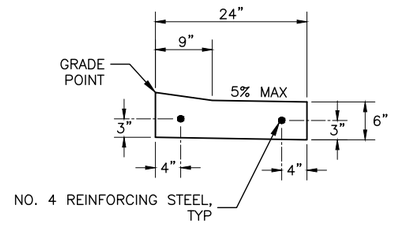
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	E6	E9



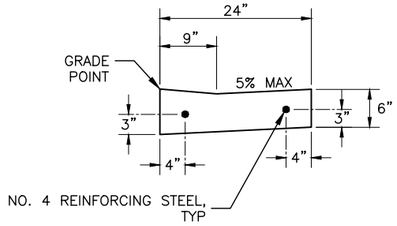
STANDARD CURB AND GUTTER
SPILL



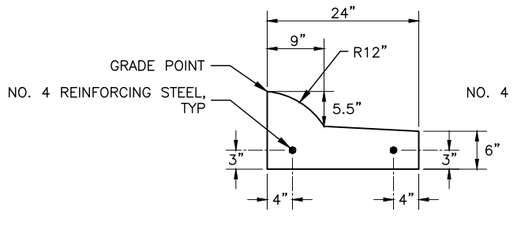
STANDARD CURB AND GUTTER
CATCH



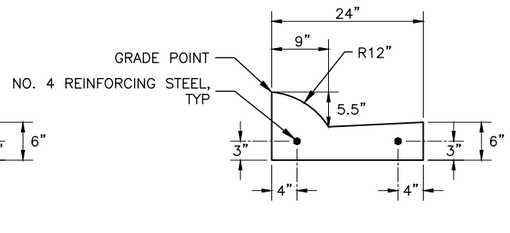
ADA CURB AND GUTTER
SPILL



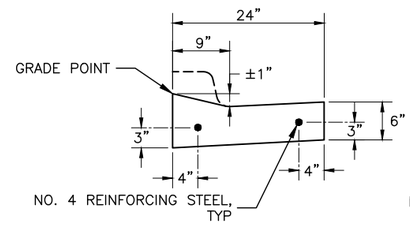
ADA CURB AND GUTTER
CATCH



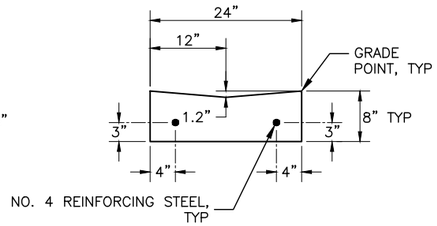
EXPRESSWAY CURB AND GUTTER
SPILL



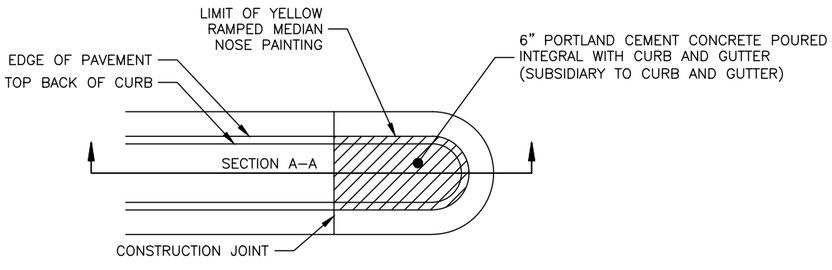
EXPRESSWAY CURB AND GUTTER
CATCH



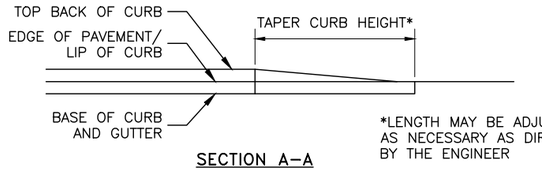
DEPRESSED CURB AND GUTTER
(CURB CUTS ONLY)



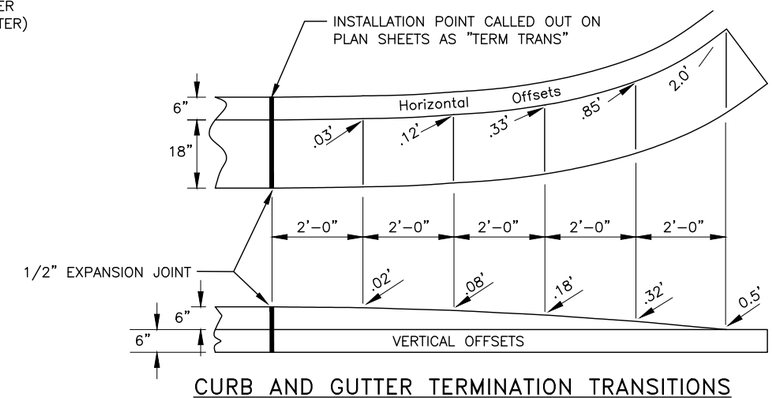
VALLEY GUTTER



RAMP MEDIAN NOSE DETAIL – PLAN VIEW



SECTION A–A



CURB AND GUTTER TERMINATION TRANSITIONS
NTS

CURB AND GUTTER NOTES:

1. ALL CURB AND GUTTER SHAPES SHALL BE REINFORCED.
2. ALL CURB AND GUTTER LAYOUT DIMENSIONS SHOWN ARE TO LIP OF GUTTER AND TOP BACK OF CURB.
3. IN SUPERELEVATED AREAS, THE GUTTER PAN SLOPE SHALL MATCH THE ADJACENT ROADWAY SLOPE.
4. PAYMENT FOR ALL CURB AND GUTTER SHAPES WILL BE MADE UNDER CURB AND GUTTER, TYPE 1

CURB AND GUTTER DETAILS

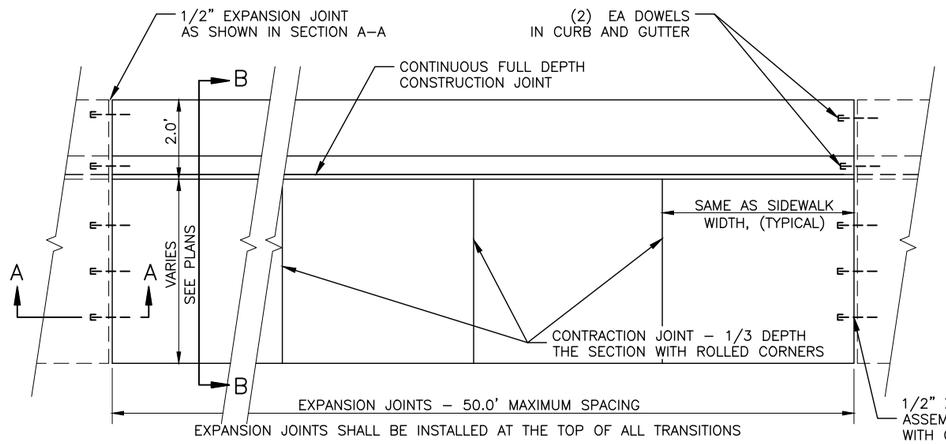
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

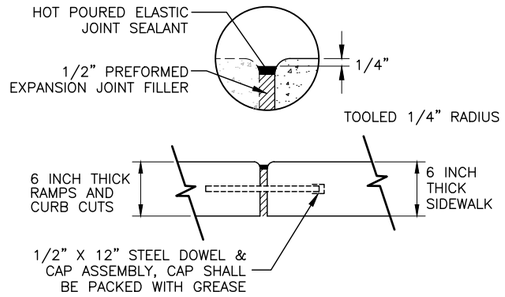
12/22/2022

NO.	DATE	REVISION

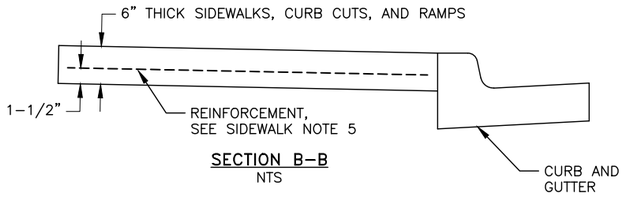
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	E7	E9



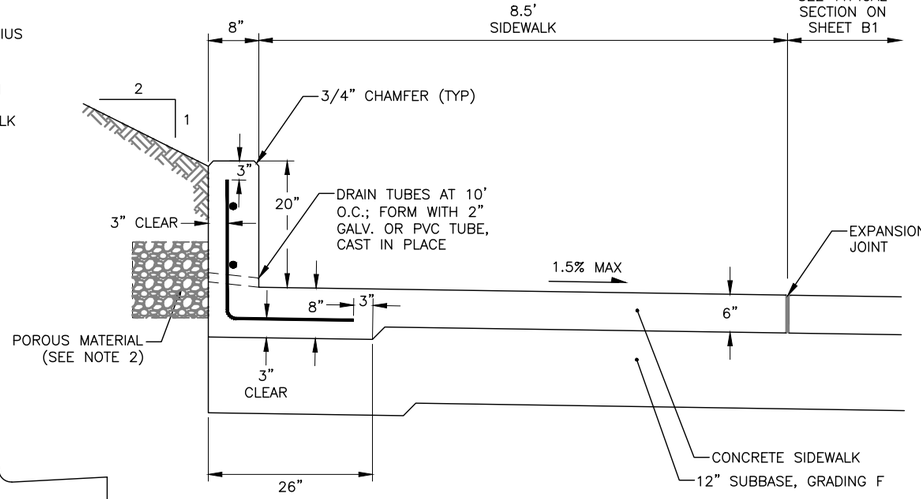
SIDEWALK PLAN
NTS



SECTION A–A
NTS



SECTION B–B
NTS



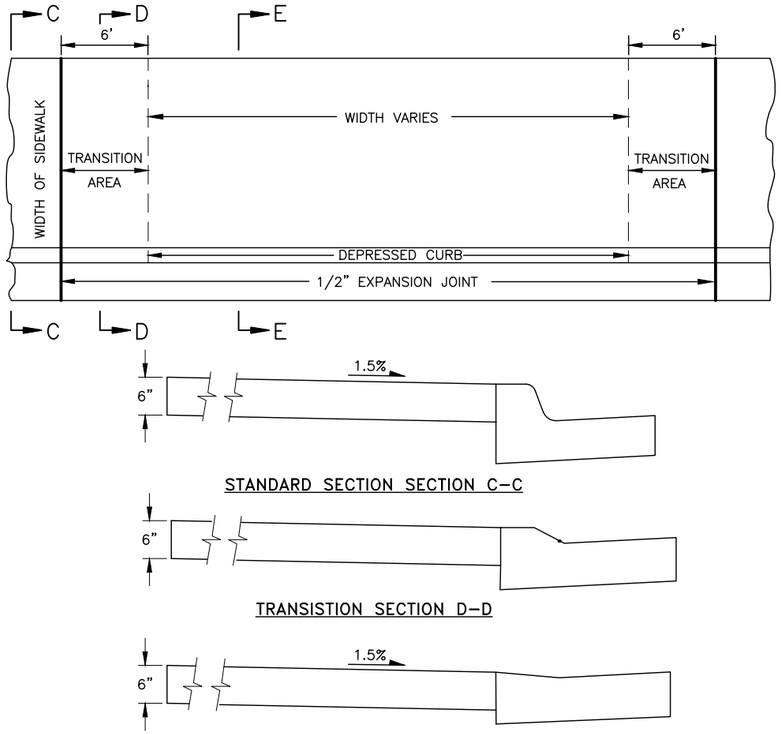
SIDEWALK RETAINING WALL SECTION F–F
NTS

SIDEWALK NOTES:

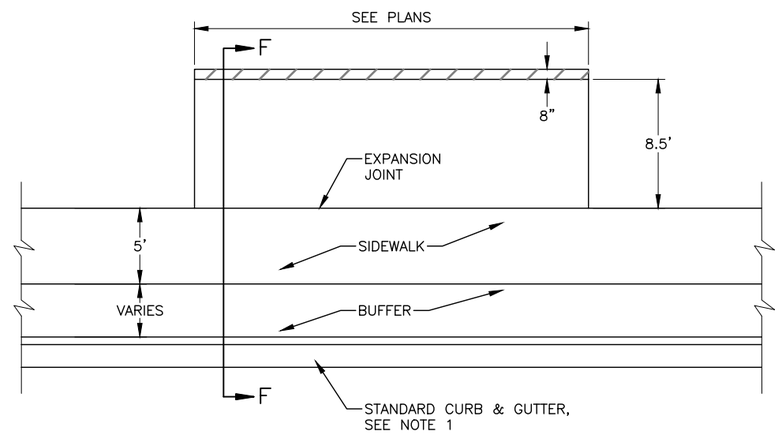
1. CURB CUTS AND RAMPS SHALL BE 6" THICK TO INCLUDE TRANSITIONS.
2. PROTECT CONCRETE DURING CURE TIME.
3. CONCRETE SHALL RECEIVE A MEDIUM BROOMED FINISH RUNNING PERPENDICULAR TO THE CURB RAMP RUNS AND UPPER LANDINGS AND PARALLEL TO DIRECTION OF TRAVEL ON LOWER LANDINGS.
4. FOR SIDEWALKS LARGER OR DIFFERENTLY CONFIGURED THAN SHOWN, PLACE EXPANSION AND CONTRACTION JOINTS AS DIRECTED BY ENGINEER.
5. TYPICAL SIDEWALK REINFORCEMENT SHALL BE 6" X 6" – W2.9 X W2.9 WMM. ALL STEEL SHALL BE SET ON SPACERS AND PULLED UP AS REQUIRED TO POSITION STEEL 1–1/2" FROM BOTTOM OF SIDEWALK.
6. SAWCUT ALL MATCH LINES WHERE NEW CONSTRUCTION OF PAVEMENT, SIDEWALK, OR CURBING ABUTS EXISTING FEATURES. WORK IS SUBISIDIARY TO 202 PAY ITEMS.

JOINT NOTES:

1. INSTALL CONTINUOUS FULL DEPTH 1/8" CONSTRUCTION JOINT AT ALL LOCATIONS WHERE SIDEWALK AND CURB (ALL TYPES) MEET.
2. SEAL ALL EXPANSION JOINTS WITH HOT POURED ELASTIC TYPE JOINT SEAL CONFORMING TO AASHTO M173–60 REQUIREMENTS. RECESS SEALANT 1/4" BELOW THE FINISHED GRADE SURFACE.
3. INSTALL 1/2" CONSTRUCTION JOINT BETWEEN NEW CONCRETE AND ADJACENT POLES AND HYDRANTS.
4. EXPANSION AND CONSTRUCTION JOINTS IN SIDEWALK SHALL LINE UP WITH EXPANSION AND CONSTRUCTION JOINTS IN CURB.
5. ALL MATERIALS REQ'D SHALL BE SUBSIDIARY TO 608 AND 609 PAY ITEMS.



VEHICULAR CURB CUT DETAILS
NTS



SIDEWALK RETAINING WALL PLAN
NTS

NOTES:

1. STANDARD CURB AND GUTTER SECTION NOT INCLUDED IN UNIT BID PRICE FOR RETAINING WALL.
2. PLACE ONE CUBIC FOOT OF POROUS BACKFILL MATERIAL AROUND WEEP HOLE AS SHOWN.
3. PROVIDE 3/4" CHAMFER AT ALL OUTSIDE EDGES.

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SIDEWALK DETAILS

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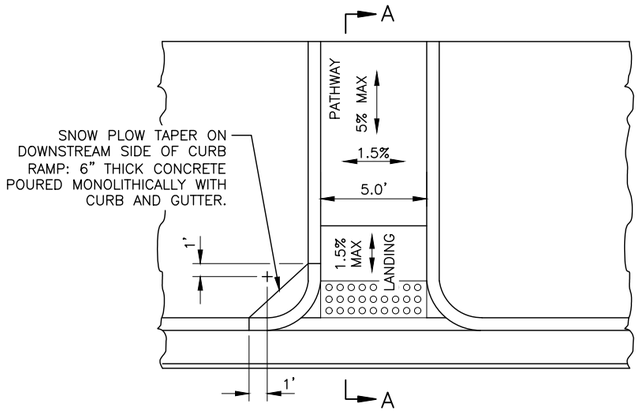
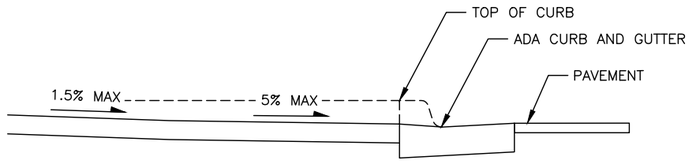
ALASKA	0002312/Z640780000	2024	E8	E9

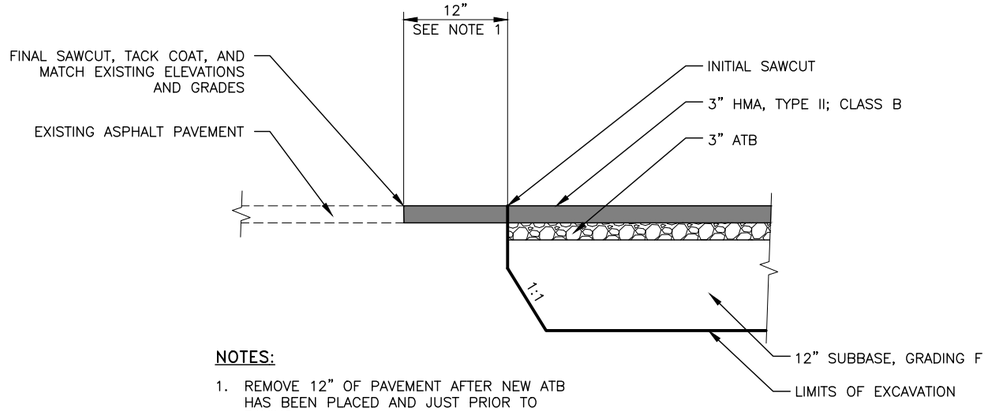


PLAN



SECTION A–A

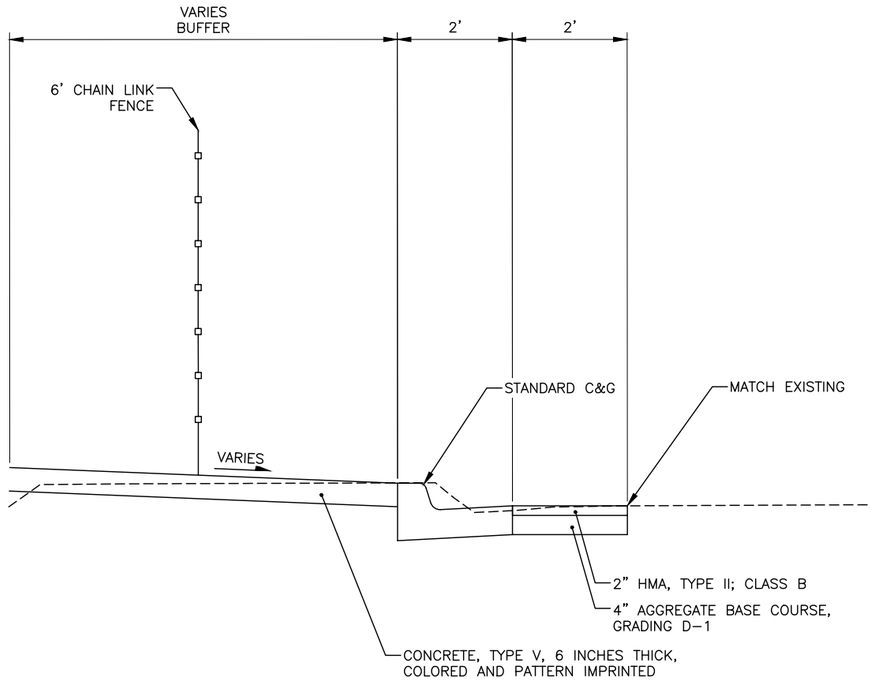
PEDESTRIAN PASS THROUGH
NTS



NOTES:

1. REMOVE 12" OF PAVEMENT AFTER NEW ATB HAS BEEN PLACED AND JUST PRIOR TO PAVING
2. SAWCUT LOCATION SHOWN ON PLANS IS FOR INITIAL SAWCUT.

MATCH EXISTING ASPHALT PAVEMENT
NTS



FRONTAGE ROAD C&G
NTS

MISC DETAILS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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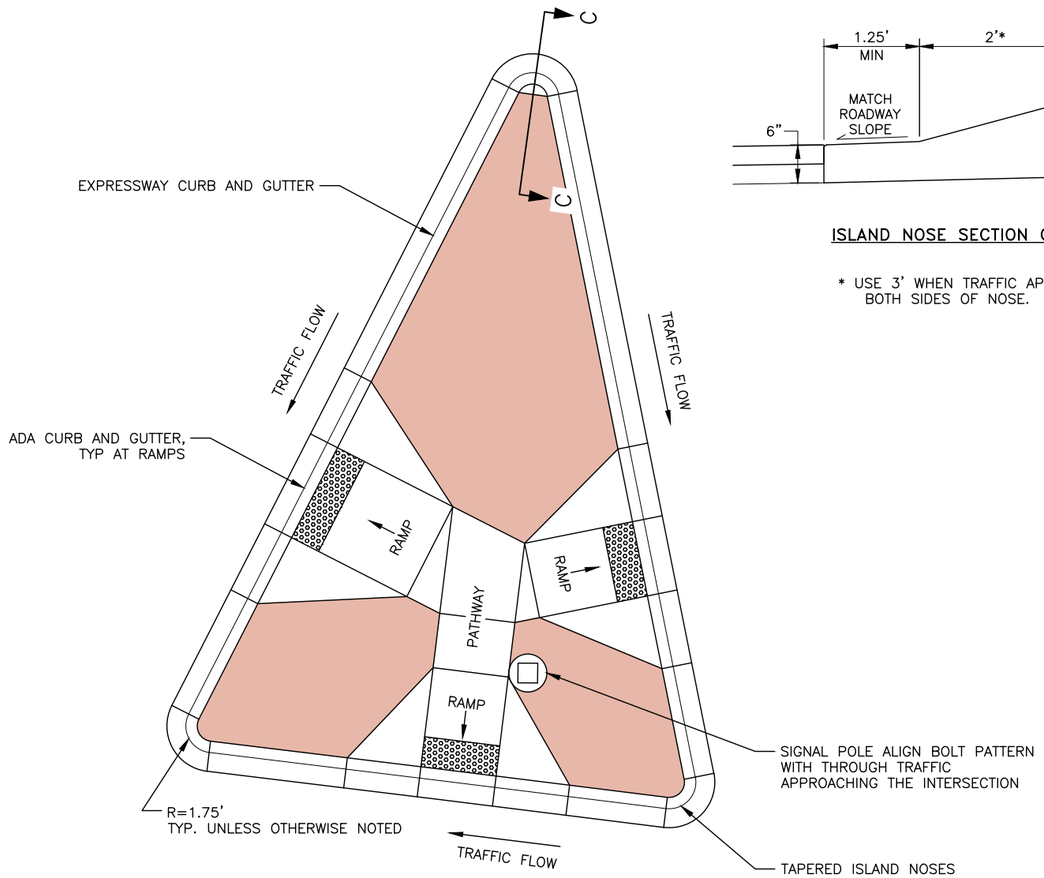
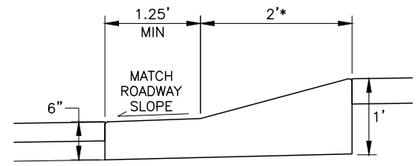
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	E9	E9



PLAN

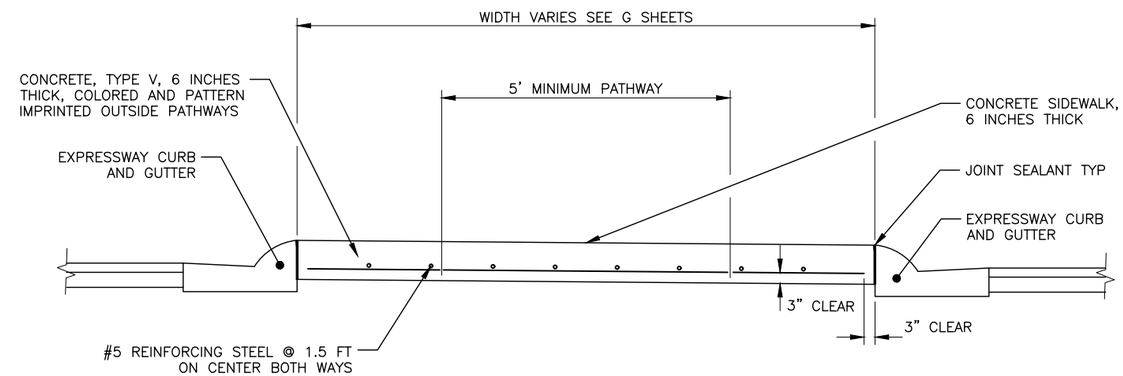


ISLAND NOSE SECTION C–C

* USE 3' WHEN TRAFFIC APPROACHES BOTH SIDES OF NOSE.

NOTES:

1. SEE G SHEETS FOR GRADING AND LAYOUT POINTS.
2. SEE H SHEETS FOR SIGNAL POLE AND SIGN PLACEMENT.
3. LAYOUT POINT ELEVATIONS DO NOT ACCOUNT FOR TAPERED ISLAND NOSES.
4. TAPER ALL ISLAND NOSES FACING ONCOMING TRAFFIC.
5. PATHWAY GRADE SHALL BE 2.0% MAX IN ALL DIRECTIONS.
6. SHAPING ISLAND NOSES IS SUBSIDIARY TO PAY ITEM 609.0002.0001 CURB AND GUTTER, TYPE 1.
7. MARKING ISLAND NOSES IS SUBSIDIARY TO PAY ITEM 670.2010.0000 MMA PAVEMENT MARKINGS.
8. PATHWAY CONCRETE BROOM FINISH SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
9. RAMPS SHALL MEET REQUIREMENTS OF AK STANDARD PLAN I–22.11.



SECTION

SPLITTER ISLAND
NTS

MISC DETAILS

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

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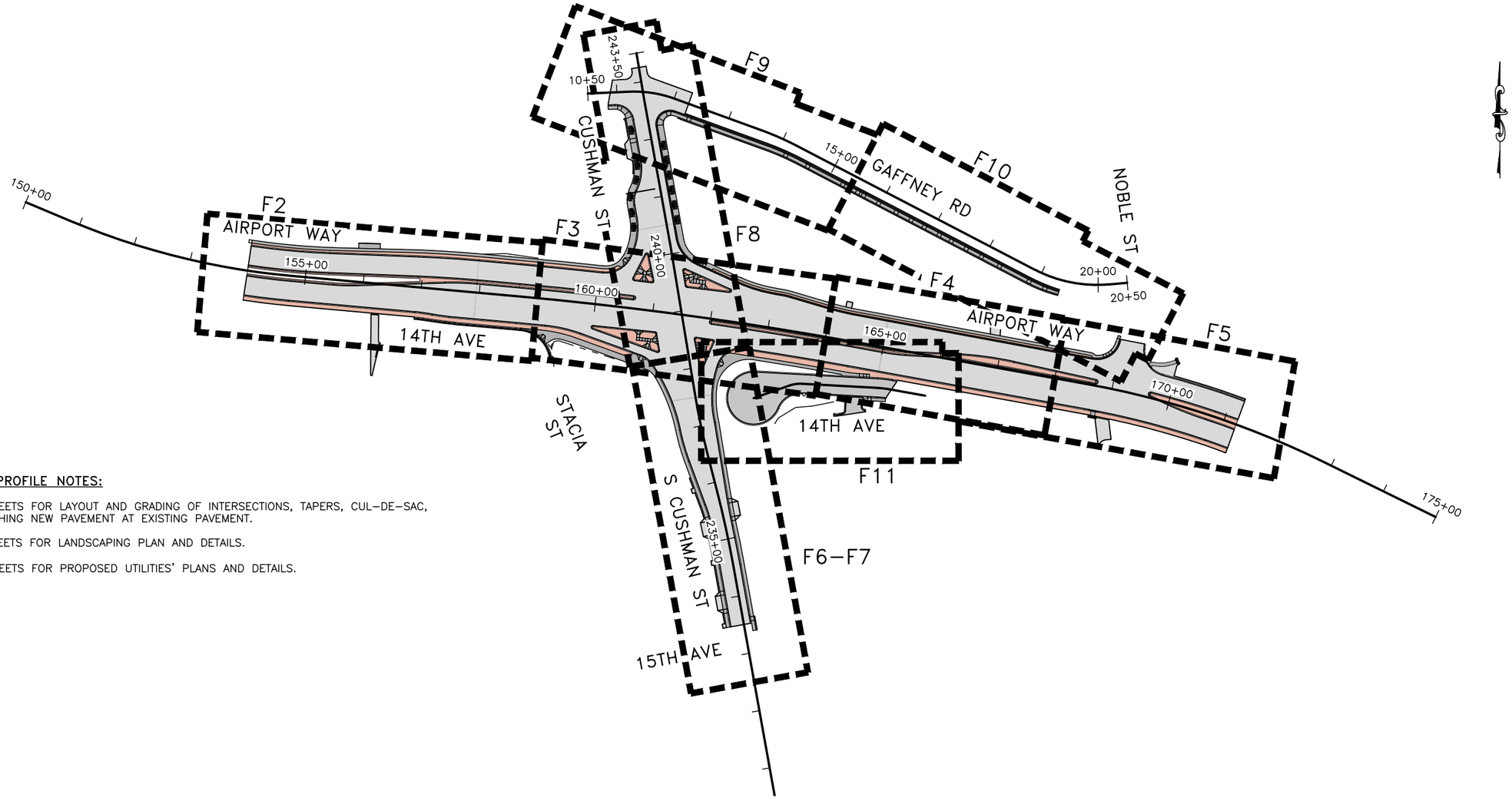
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F1	F11



PLAN AND PROFILE NOTES:

1. SEE G SHEETS FOR LAYOUT AND GRADING OF INTERSECTIONS, TAPERS, CUL–DE–SAC, AND MATCHING NEW PAVEMENT AT EXISTING PAVEMENT.
2. SEE L SHEETS FOR LANDSCAPING PLAN AND DETAILS.
3. SEE U SHEETS FOR PROPOSED UTILITIES' PLANS AND DETAILS.

APPROACH KEY

(A) STATION
CURB CUT, SIZE

PLAN & PROFILE SHEET LAYOUT

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F2	F11

"A1" +86.07, 68.77' LT
BEGIN FENCE

"A1" +86.20, 66.78' LT
BEGIN SIDEWALK
RETAINING WALL,
SEE SHEET E9

"A1" +23.00,
71.15' LT
END FENCE

"A1" +23.12, 69.15' LT
END SIDEWALK
RETAINING WALL

"A1" +00, 47' LT
OR TO NEAREST POST,
BEGIN FENCE

"A1" +00, 50' RT
OR TO NEAREST POST,
BEGIN FENCE

BEGINNING OF PROJECT
"A1"154+00
MATCH EXISTING

"A1R"302+80.38 PI
Δ = 17°35'01"
D = 4°28'03"
T = 198.35'
L = 393.58'
R = 1282.49'
S = 2.5%

"A1" +75.53, 50.00' RT
FENCE PI

"A1" +92.48, 50.00' RT
FENCE PI

"A1" +67.12, 52.00' RT
FENCE PI

"A1L"405+43.37 PT

"A1L"406+96.60 PC

"A1L"407+98.26 PT

"A1L"408+71.80 PC

"A1R"304+75.61 PT

"A1R"308+68.00 PC

AIRPORT WAY

14TH AVENUE

TURNER
STREET

S 87°45'42" E
153.23'

S 84°50'57" E
392.39'

S 84°50'57" E
73.53'

5.75'

4.75'

MATCH LINE STA "A1"159+00
SEE SHEET F3

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"A1L"

VPI = "A1L"404+04.2±
MATCH EXISTING
ELEV = 442.0±

VPC "A1L"404+25.00
ELEV = 441.99'

VPI "A1L"405+25.00
ELEV = 441.69'
LVC = 200.00'

VPT "A1L"406+25.00
ELEV = 442.60'

-0.3000%

0.9120%

FINISHED GRADE

ORIGINAL GROUND

"A1R"

VPI = "A1R"303+99.5±
MATCH EXISTING
ELEV = 442.2±

VPC "A1R"304+10.00
ELEV = 442.13'

VPI "A1R"305+10.00
ELEV = 441.83'
LVC = 200.00'

VPT "A1R"306+10.00
ELEV = 442.73'

-0.3006%

0.9045%

FINISHED GRADE

ORIGINAL GROUND

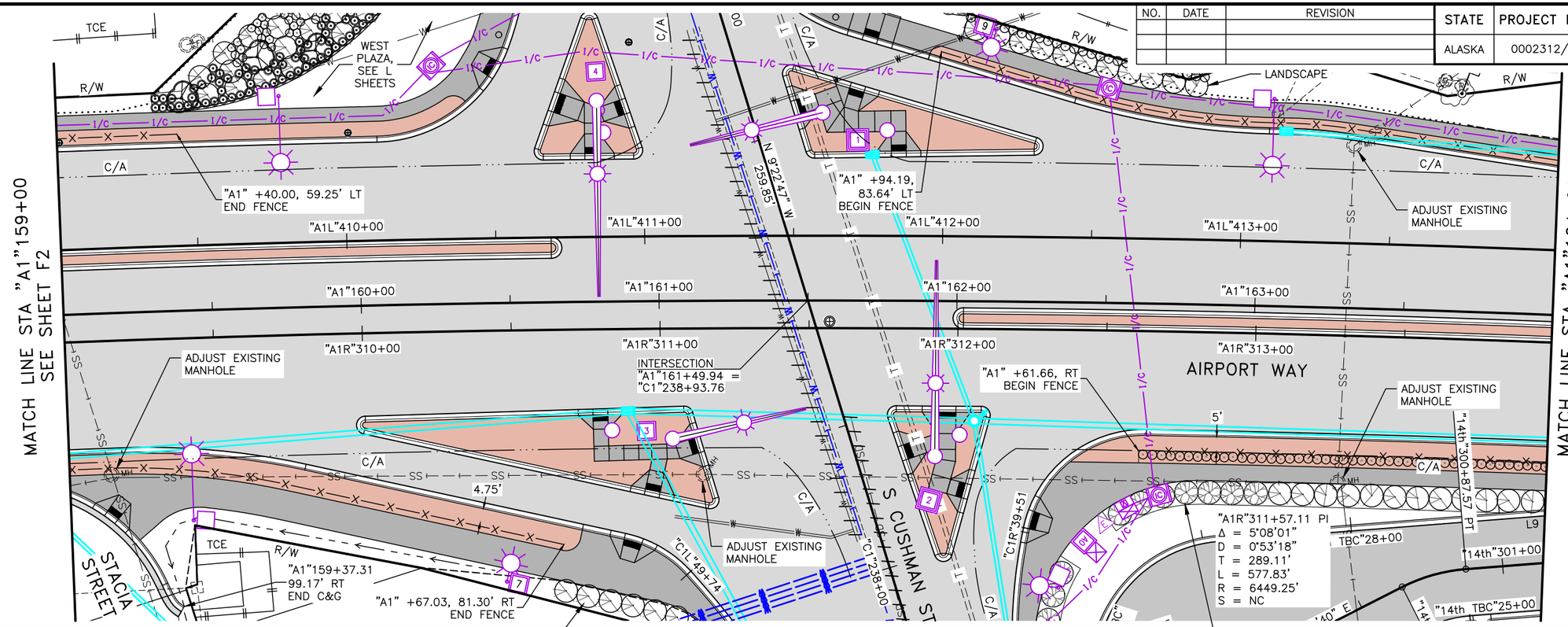
	403+40	+60	+80	404+00	+20	+40	+60	+80	405+00	+20	+40	+60	+80	406+00	+20	+40	+60	+80	407+00	+20	+40	+60	+80	408+00	+20	+40	+60	+80	409+00
FG	442.2	442.2	442.1	442.1	442.00	441.95	441.92	441.91	441.93	441.98	442.04	442.13	442.25	442.39	442.55	442.74	442.92	443.10	443.28	443.47	443.65	443.83	444.01	444.20	444.38	444.56	444.74	444.93	445.11
EG	442.2	442.2	442.1	442.1	442.0	442.0	442.0	442.0	442.0	442.0	442.1	442.2	442.3	442.4	442.5	442.6	442.8	442.9	443.1	443.3	443.4	443.6	443.8	444.0	444.1	444.3	444.5	444.7	444.8

	303+40	+60	+80	304+00	+20	+40	+60	+80	305+00	+20	+40	+60	+80	306+00	+20	+40	+60	+80	307+00	+20	+40	+60	+80	308+00	+20	+40	+60	+80	309+00
FG	442.4	442.3	442.2	442.16	442.10	442.07	442.06	442.07	442.10	442.16	442.25	442.36	442.49	442.65	442.82	443.01	443.19	443.37	443.55	443.73	443.91	444.09	444.27	444.45	444.63	444.81	445.00	445.18	445.36
EG	442.4	442.3	442.2	442.2	442.1	442.1	442.1	442.1	442.2	442.2	442.3	442.4	442.5	442.6	442.7	442.8	443.0	443.1	443.3	443.5	443.7	443.9	444.0	444.2	444.4	444.5	444.7	444.9	445.0

446 444 442 440 448

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F3	F11



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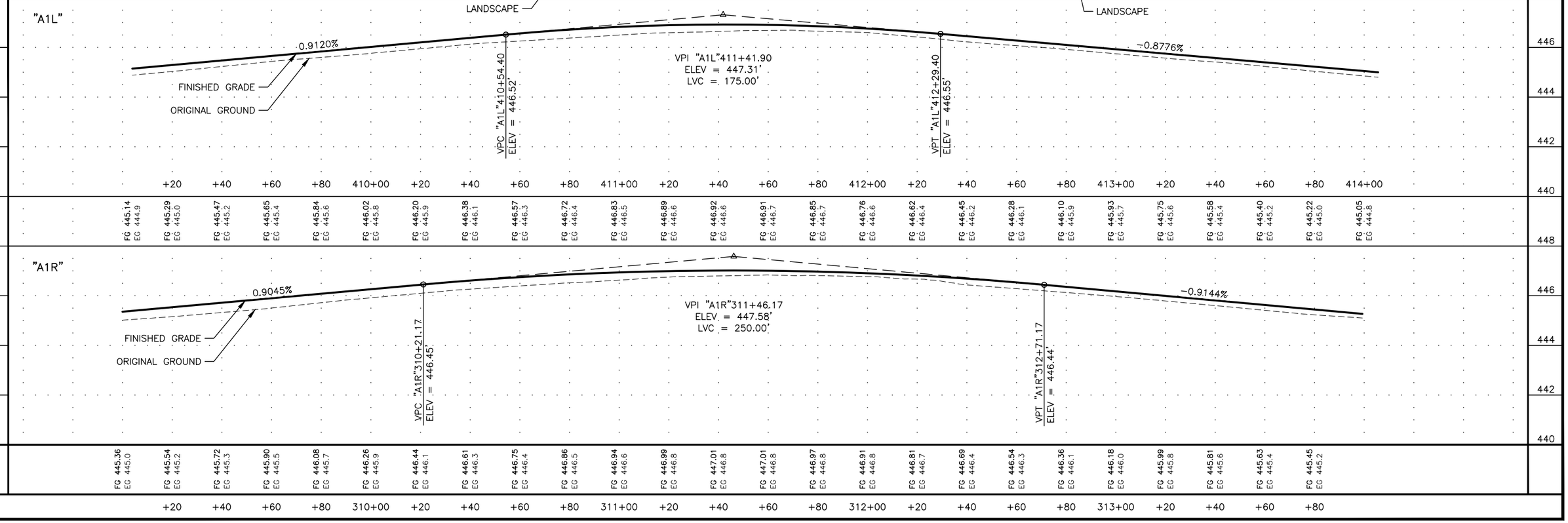
12/22/2022
REVIEW
PS&E

12/22/2022



PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_F2-F11-PlanProfile-F3 Thu, Dec/22/22 10:39am (Bill Paddock) KE#: 00385

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F4	F11

MATCH LINE STA "A1"164+00
SEE SHEET F3

MATCH LINE STA "A1"168+00
SEE SHEET F5

TCE
R/W
C/A
L10
"A1L"415+00
"A1L"416+00
"A1L"417+00
"A1"165+00
"A1"166+00
"A1"167+00
"A1R"315+00
"A1R"316+00
"A1R"317+00
S 79°42'57" E
413.02'
"A1R"314+45.83 PT
"A1L"416+94.90 PT
"14th TBC"30+00±
MATCH EXISTING TBC
N = 195625.932
E = 678169.747
5'
AIRPORT WAY
ADJUST EXISTING MANHOLE
"14th TBC"30+00
"14th TBC"29+00
"14th"302+00
S 86°50'17" E
129.08'
"14th"303+00
S 79°42'57" E
60.35'
"14th"302+48
12+39.65 PT
END OF PROJECT
"14th"302+48
14TH AVENUE
LACEY STREET
SD
MH

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

"A1L"

VPC "A1L"416+07.37
ELEV = 443.23'
−0.8776%
FINISHED GRADE
ORIGINAL GROUND
VPI "A1L"417+22.37
ELEV = 442.22'
LVC = 230.00'

FG	445.00	444.87	444.70	444.52	444.35	444.17	444.00	443.82	443.64	443.47	443.29	443.12	442.99	442.88	442.81	442.77	442.76	442.78	442.84	442.93	443.05
EG	444.8	444.7	444.5	444.3	444.2	444.0	443.9	443.7	443.5	443.3	443.1	442.9	442.8	442.7	442.6	442.6	442.7	442.8	442.9	443.1	443.2

448 446 444 442 450

+20 +40 +60 +80 415+00 +20 +40 +60 +80 416+00 +20 +40 +60 +80 417+00 +20 +40 +60 +80 418+00

"A1R"

VPC "A1R"315+74.36
ELEV = 443.67'
VPI "A1R"316+64.36
ELEV = 442.85'
LVC = 180.00'
VPT "A1R"317+54.36
ELEV = 443.12'
−0.9144%
0.3068%
FINISHED GRADE
ORIGINAL GROUND

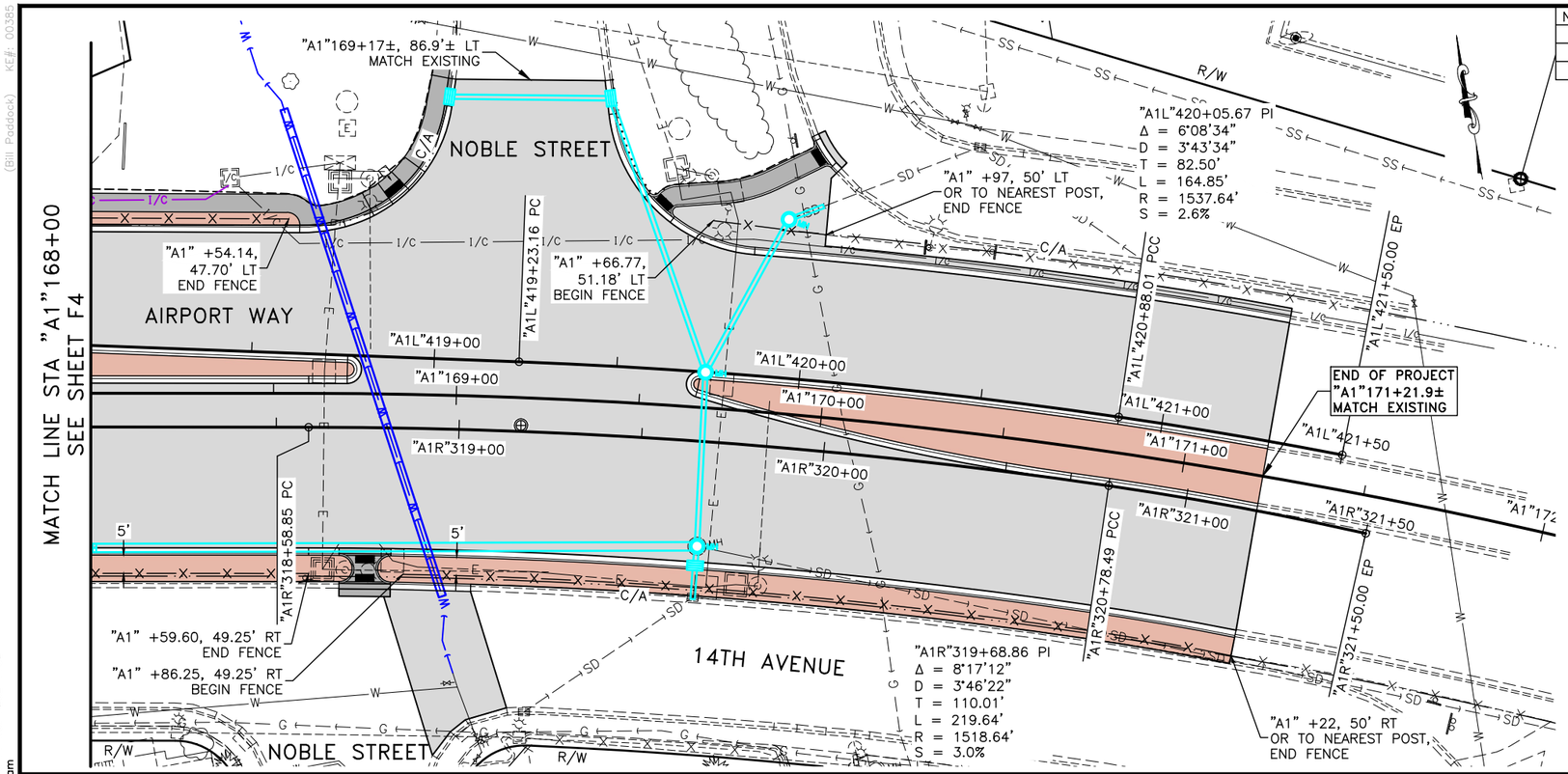
FG	445.87	445.08	444.90	444.71	444.53	444.35	444.17	443.98	443.80	443.62	443.46	443.32	443.21	443.13	443.08	443.06	443.06	443.08	443.14	443.20
EG	445.1	444.9	444.7	444.5	444.4	444.2	444.1	443.9	443.7	443.6	443.4	443.2	443.1	443.0	442.9	442.9	443.0	443.0	443.1	443.2

448 446 444 442

314+00 +20 +40 +60 +80 315+00 +20 +40 +60 +80 316+00 +20 +40 +60 +80 317+00 +20 +40 +60 +80

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F5	F11



NOTE:

1. COORDINATE FINAL DESIGN AND CONSTRUCTION OF MATCH EXISTING AT END OF PROJECT WITH AS-BUILT FOR DOT&PF PROJECT:
   0002(385)/NFHWY00245
   AIRPORT WAY/STEESE EXPRESSWAY/GAFFNEY ROAD/RICHARDSON HIGHWAY INTERSECTION RECONSTRUCTION

PLANS DEVELOPED BY:
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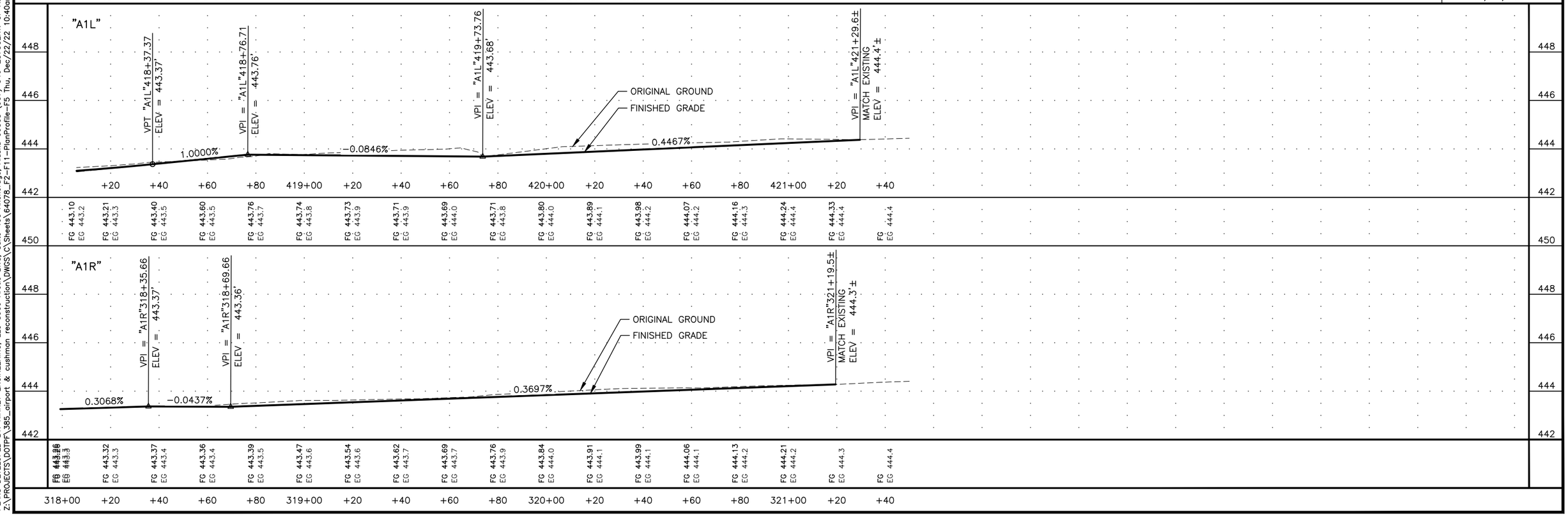


NO.	DATE	REVISION

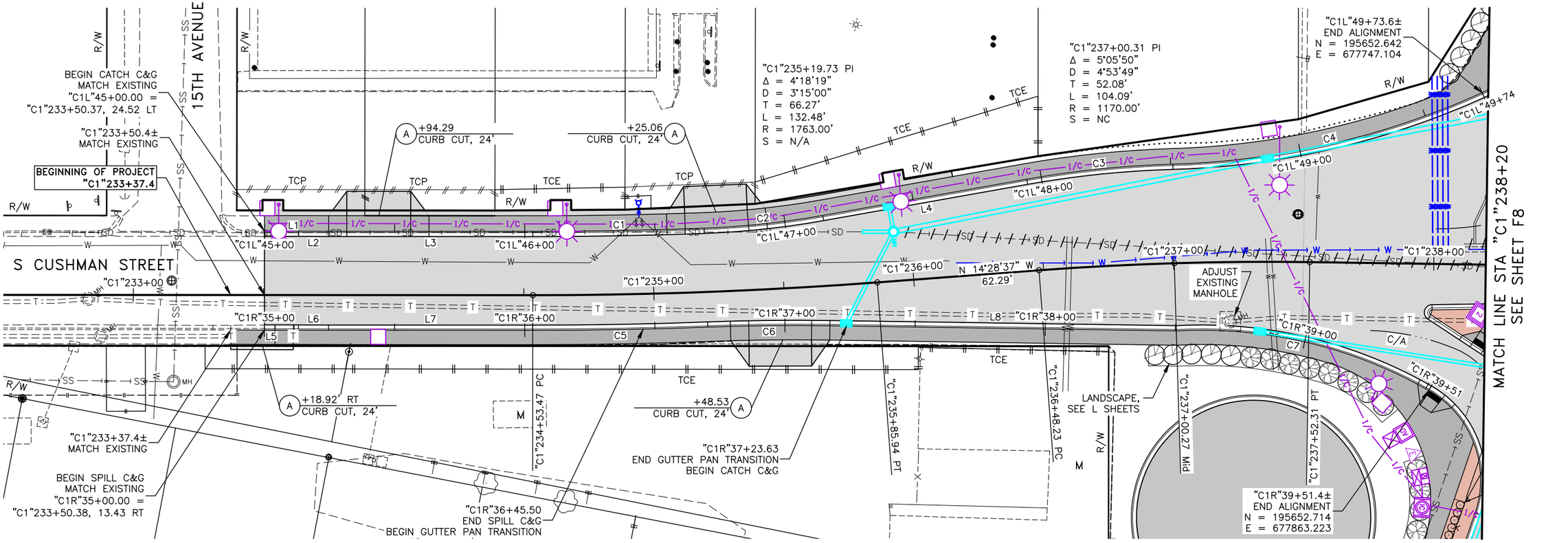
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F6	F11

C1L CURB AND GUTTER ALIGNMENT AND LAYOUT TABLE

SEGMENT	BEGIN STATION	END STATION	BEARING	RADIUS	LENGTH	TANGENT	DELTA ANGLE
L1	45+00.00	45+13.12	N 10°11'27" W		13.12'	N10° 11' 26.82"W	
L2	45+13.12	45+24.63	N 10°01'41" W		11.51'	N10° 01' 40.82"W	
L3	45+24.63	46+03.09	N 10°10'18" W		78.46'	N10° 10' 17.50"W	
C1	46+03.09	46+68.92		1738.50'	65.83'		2°10'11"
C2	46+68.92	47+14.78		331.00'	45.86'		7°56'18"
L4	47+14.78	47+94.40	N 20°16'47" W		79.61'	N20° 16' 46.72"W	
C3	47+94.40	48+50.85		383.00'	56.45'		8°26'42"
C4	48+50.85	49+73.61		309.50'	122.76'		22°43'32"

NOTE:

1. CONSTRUCT DRIVEWAY APPROACHES AT CURB CUTS USING ADJACENT ROADWAY STRUCTURAL SECTION.



C1R CURB AND GUTTER ALIGNMENT AND LAYOUT TABLE

SEGMENT	BEGIN STATION	END STATION	BEARING	RADIUS	LENGTH	TANGENT	DELTA ANGLE
L5	35+00.00	35+13.11	N 10°00'04" W		13.11'	N10° 00' 04.37"W	
L6	35+13.11	35+24.62	N 10°00'15" W		11.51'	N10° 00' 14.91"W	
L7	35+24.62	36+03.08	N 10°10'18" W		78.47'	N10° 10' 17.50"W	
C5	36+03.08	36+70.36		1776.50'	67.27'		2°10'11"
C6	36+70.36	37+17.28		898.00'	46.92'		2°59'37"
L8	37+17.28	38+50.29	N 9°20'51" W		133.01'	N9° 20' 51.22"W	
C7	38+50.29	39+51.41		175.43'	101.12'		33°01'34"

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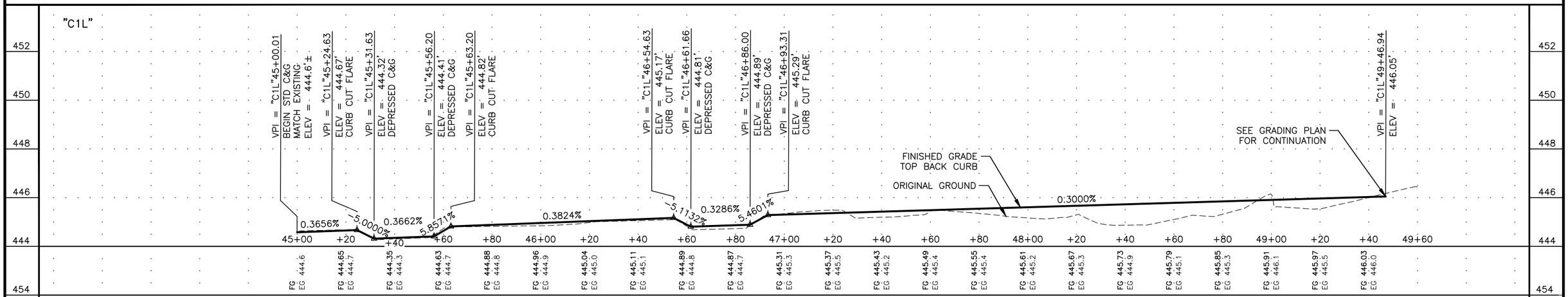
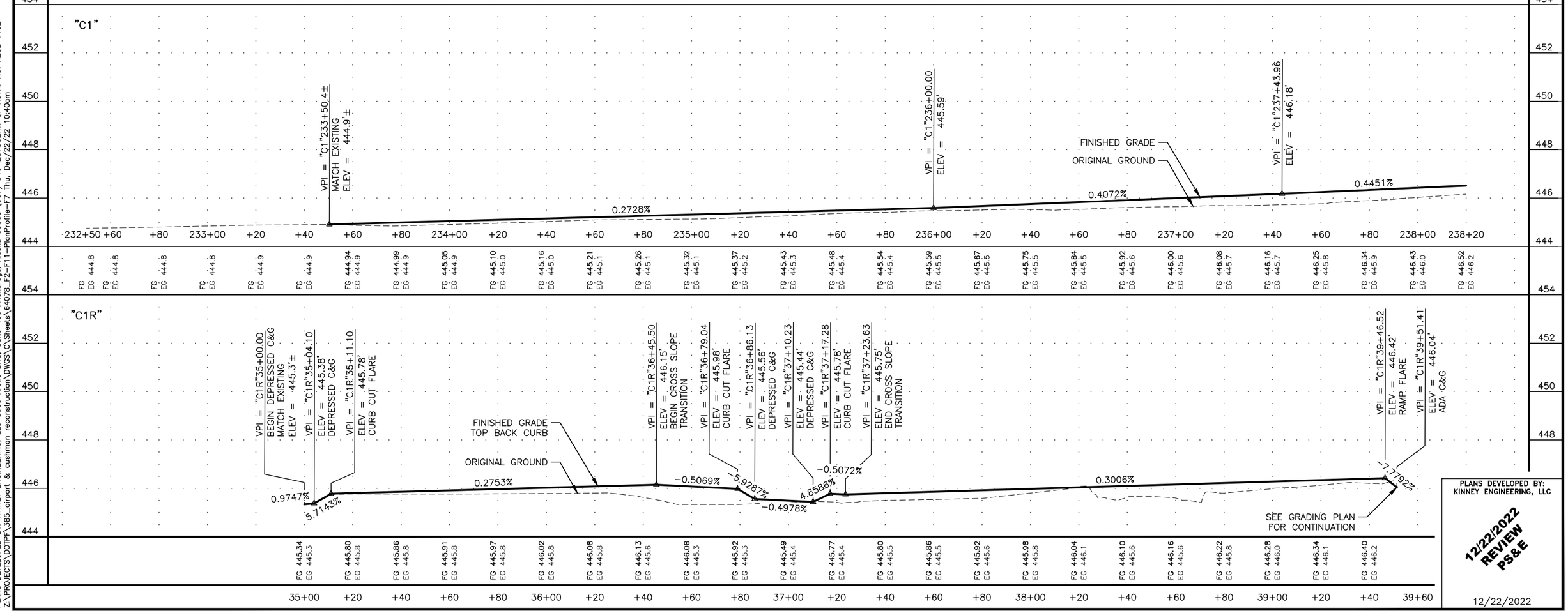
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F7	F11

SEE SHEET F6 FOR PLAN INFORMATION





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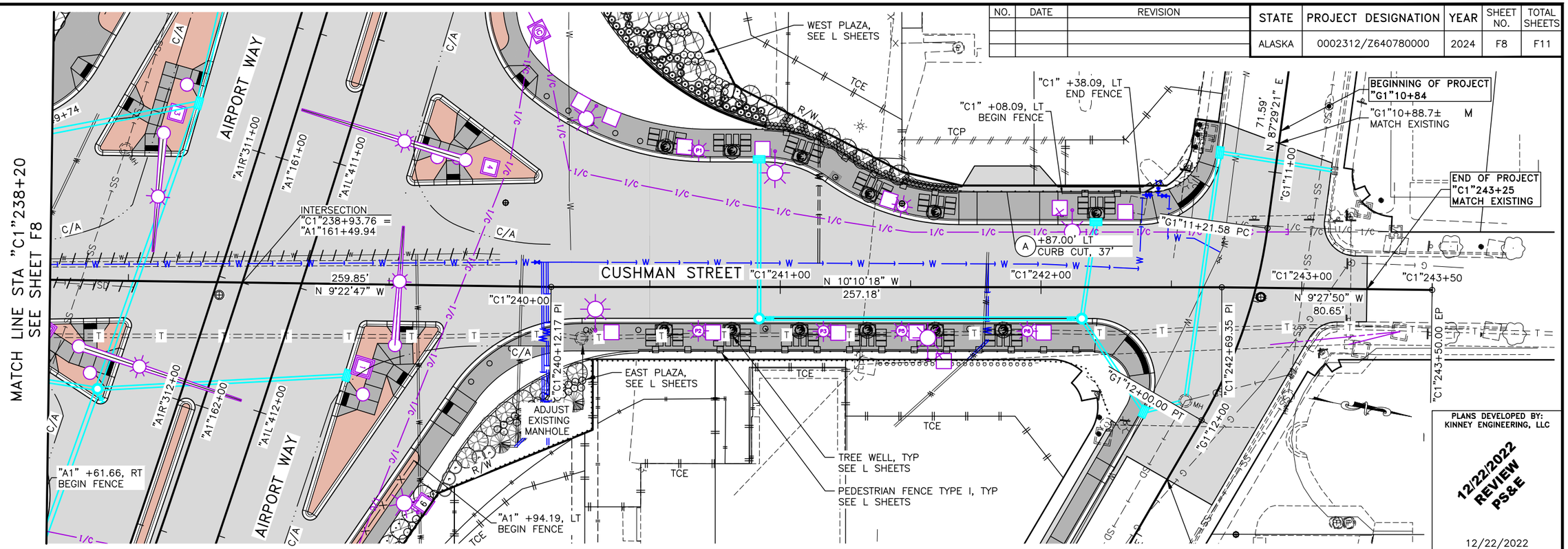
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F8	F11



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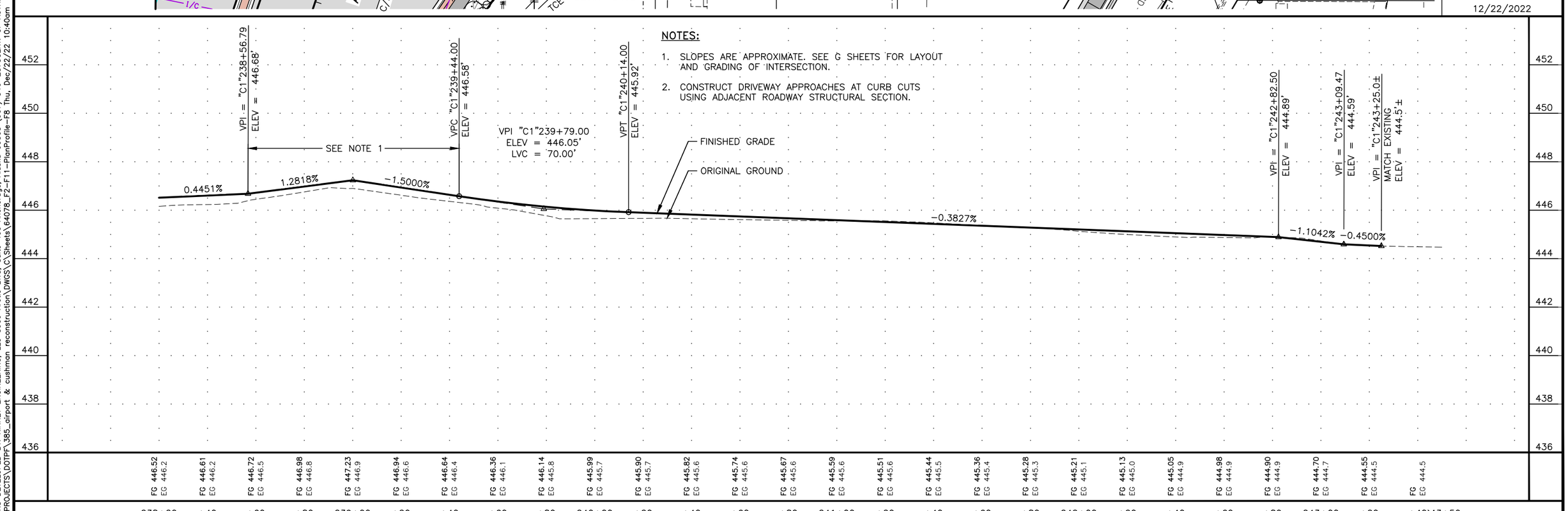

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F9	F11

END OF PROJECT
"C1"243+25±
MATCH EXISTING

BEGINNING OF PROJECT
"G1"10+84

"G1"10+88.7±
MATCH EXISTING

"G1"11+61.30 PI
Δ = 22°27'55"
D = 28°38'52"
T = 39.72'
L = 78.42'
R = 200.00'
S = N/A

"G1"12+26.2±
MATCH EXISTING

"G1"13+92.08 PI
Δ = 7°33'35"
D = 11°27'33"
T = 33.03'
L = 65.97'
R = 500.00'
S = N/A

"G1"13+59.04 PC

"G1"14+25.02 PT

"G1"12+00.00 PT

"C1"242+69.35 PI

"G1"11+21.58 PC

"G1"10+50.00 BP

"C1"243+50

"C1"243+00

"C1"242+00

"G1"10+00

"G1"11+00

"G1"12+00

"G1"13+00

"G1"14+00

"G1"15+00

N 92°50' W
80.65'

N 87°29'21" E
71.59'

S 70°02'44" E
159.04'

S 62°29'09" E
462.16'

GAFFNEY RD

CUSHMAN ST

R/W

TCE

MATCH LINE STA "G1"15+40
SEE SHEET F10

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SHEET IN PROGRESS

FINISHED GRADE
ORIGINAL GROUND

VPI = "G1"10+73.42
ELEV = 444.66'
−0.3818%

VPI = "G1"10+95.13
ELEV = 444.57'
0.6359%

VPI = "G1"11+44.85
ELEV = 444.89'
−0.3483%

VPI = "G1"12+26.60
ELEV = 444.61'

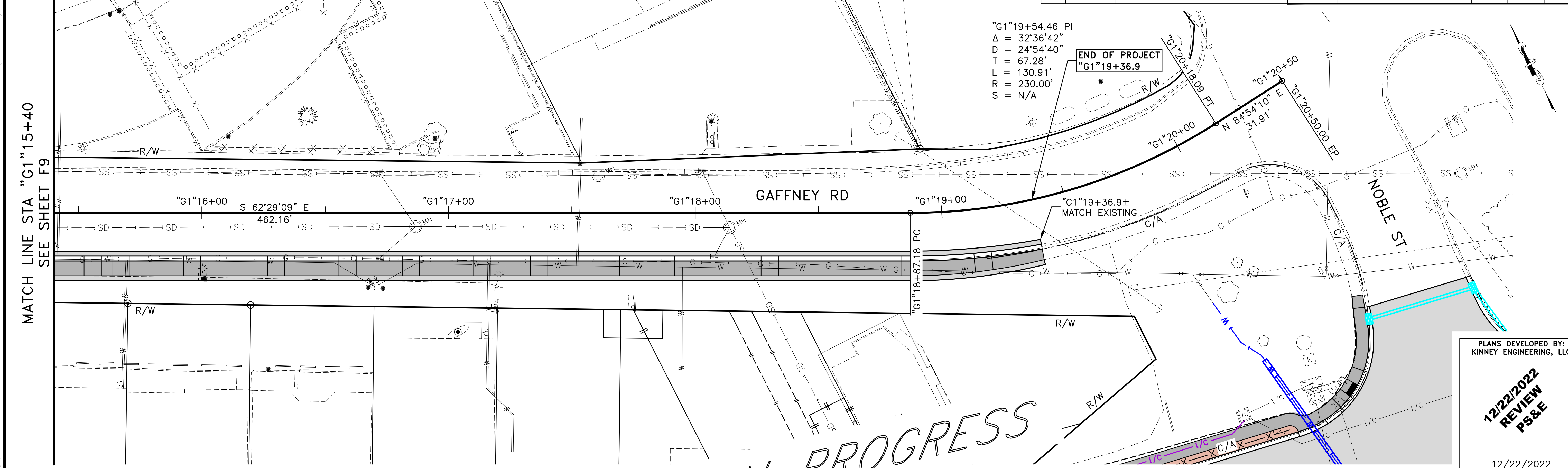
NEW CURB AND GUTTER TO
MATCH EXISTING GAFFNEY ROAD
SURFACE ELEVATIONS

	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG	FG EG
	444.7 444.7	444.63 444.6	444.61 444.6	444.73 444.7	444.86 444.9	444.84 444.8	444.77 444.5	444.70 444.5	444.63 444.6	444.7	444.7	444.7	444.7	444.8	444.9	444.8	444.8	444.8	444.7	444.7	444.8	444.9	444.9	444.9
	+60	+80	11+00	+20	+40	+60	+80	12+00	+20	+40	+60	+80	13+00	+20	+40	+60	+80	14+00	+20	+40	+60	+80	15+00	+20

452 450 448 446 444 442 440 438 436

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F10	F11



MATCH LINE STA "G1"15+40
SEE SHEET F9
GAFFNEY RD
NOBLE ST
"G1"16+00
"G1"17+00
"G1"18+00
"G1"19+00
"G1"20+00
S 62°29'09" E
462.16'
"G1"19+54.46 PI
Δ = 32°36'42"
D = 24°54'40"
T = 67.28'
L = 130.91'
R = 230.00'
S = N/A
END OF PROJECT
"G1"19+36.9
"G1"19+36.9±
MATCH EXISTING
"G1"18+87.18 PC
"G1"20+18.09 PT
"G1"20+50
N 84°54'10" E
31.91'
"G1"20+50.00 EP
R/W
C/A
PLANS DEVELOPED BY:
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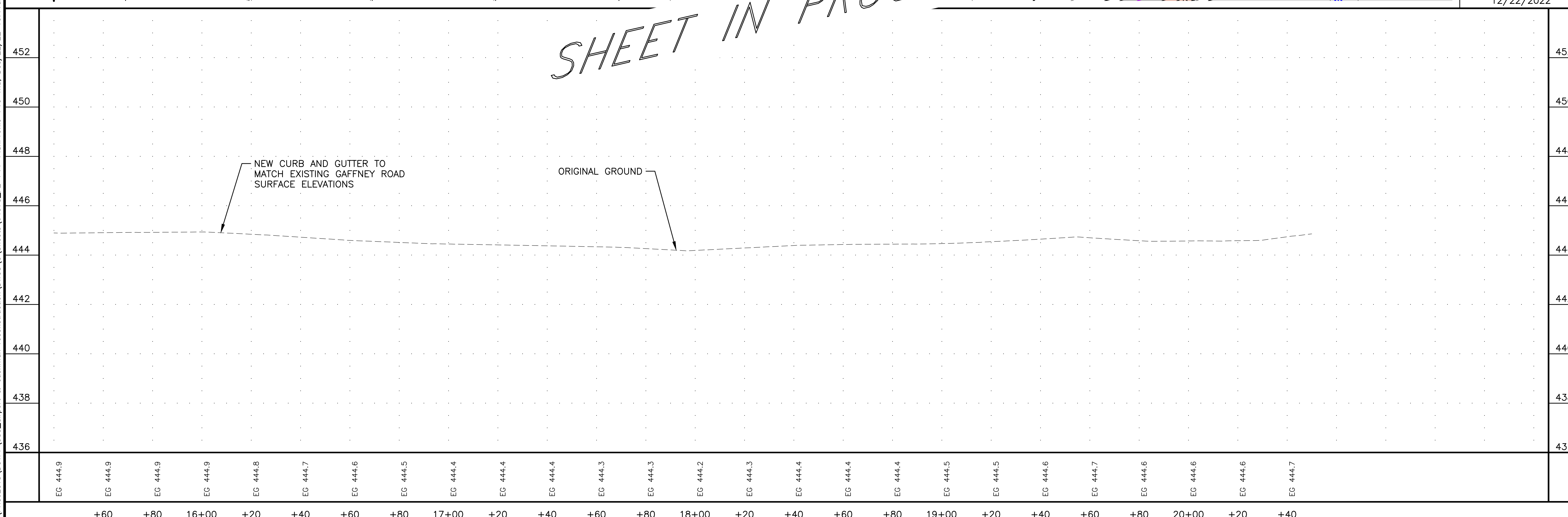
12/22/2022
REVIEW
PS&E
12/22/2022
SHEET IN PROGRESS

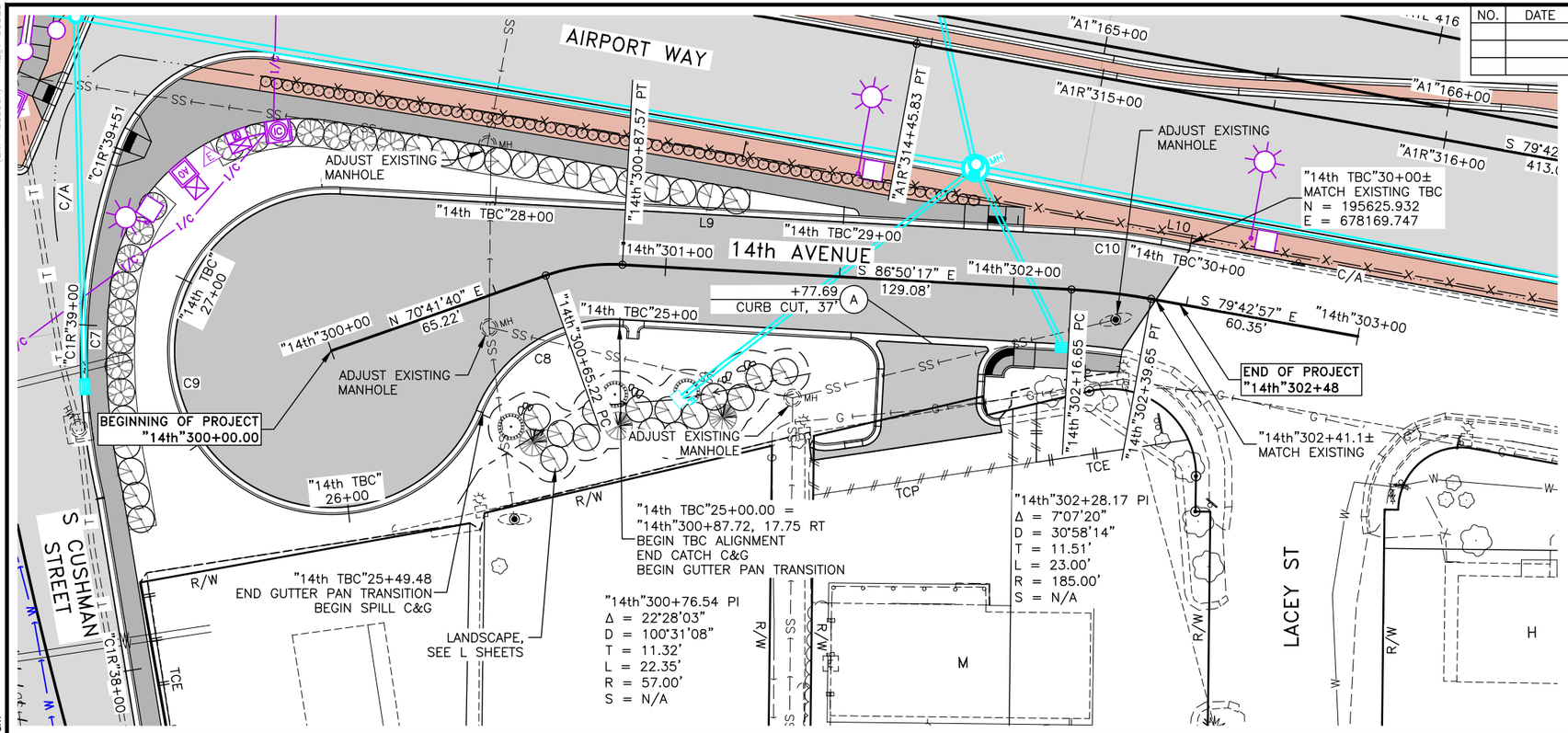


452
450
448
446
444
442
440
438
436
NEW CURB AND GUTTER TO
MATCH EXISTING GAFFNEY ROAD
SURFACE ELEVATIONS
ORIGINAL GROUND
EG 444.9
EG 444.9
EG 444.9
EG 444.9
EG 444.8
EG 444.7
EG 444.6
EG 444.5
EG 444.4
EG 444.4
EG 444.4
EG 444.3
EG 444.3
EG 444.2
EG 444.3
EG 444.4
EG 444.4
EG 444.4
EG 444.5
EG 444.5
EG 444.6
EG 444.7
EG 444.6
EG 444.6
EG 444.6
EG 444.7
+60
+80
16+00
+20
+40
+60
+80
17+00
+20
+40
+60
+80
18+00
+20
+40
+60
+80
19+00
+20
+40
+60
+80
20+00
+20
+40

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd. Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_F2-F11-PlanProfile-F10 Thu, Dec/22/22 10:41am

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	F11	F11



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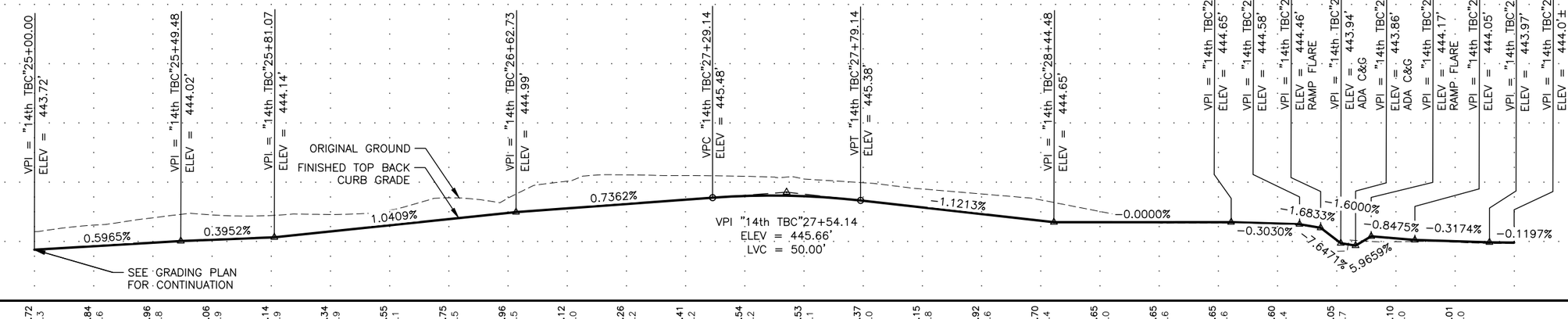
14th TBC CURB AND GUTTER ALIGNMENT AND LAYOUT TABLE

SEGMENT	BEGIN STATION	END STATION	BEARING	RADIUS	LENGTH	TANGENT	DELTA ANGLE
C8	25+00.00	25+49.48		40.00'	49.48'		70°52'40"
C9	25+49.48	27+55.28		47.00'	205.80'		250°52'40"
L9	27+55.28	29+66.41	S 86°50'17" E		211.13'	S86° 50' 16.70"E	
C10	29+66.41	29+91.61		202.75'	25.20'		7°07'20"
L10	29+91.61	29+99.97	S 79°27'35" E		8.35'	S79° 27' 35.08"E	



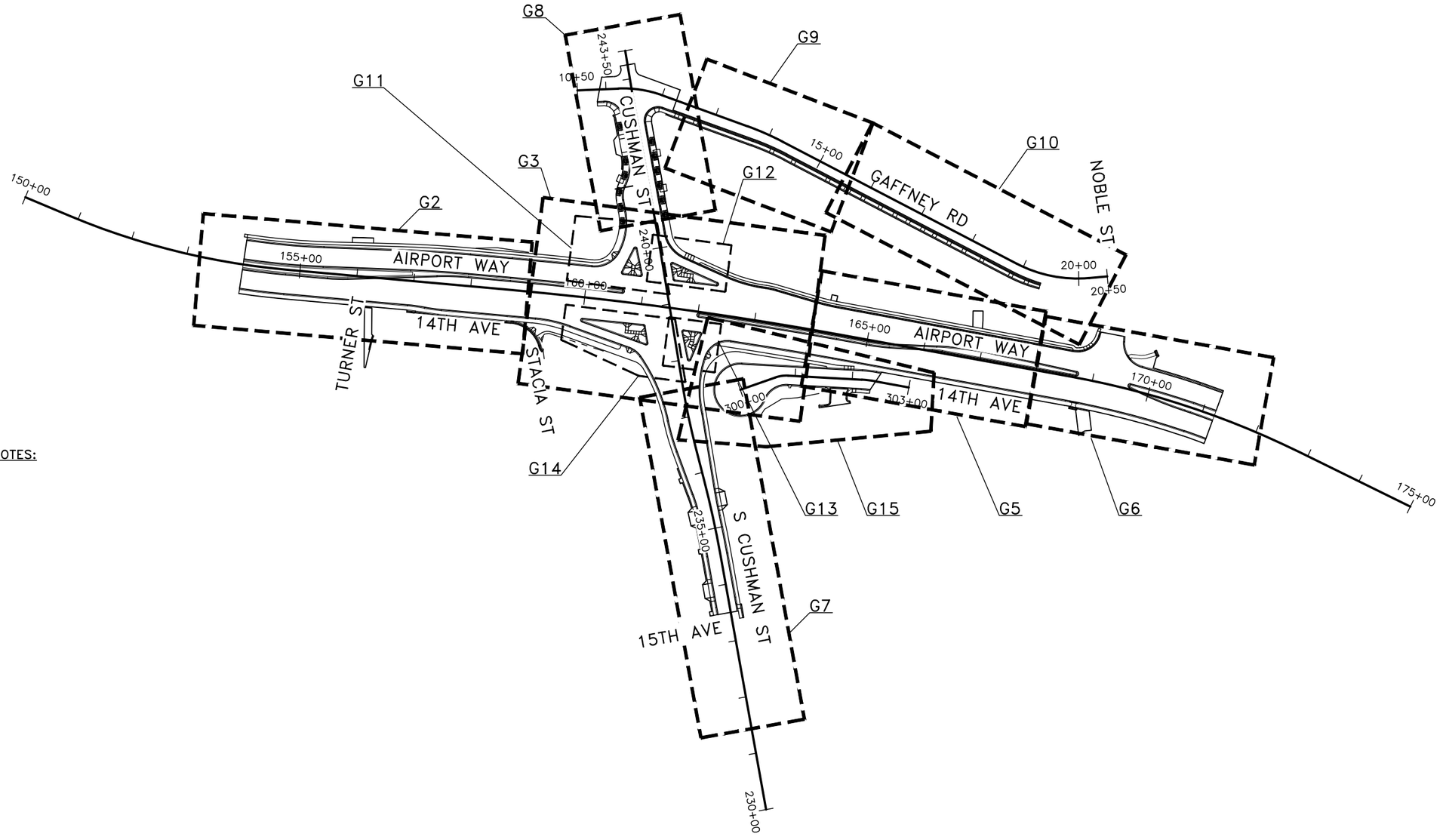
458 456 454 452 450 448 446 444 442

FG 443.72 EG 444.3 | FG 443.84 EG 444.6 | FG 443.96 EG 444.8 | FG 444.06 EG 444.9 | FG 444.14 EG 444.9 | FG 444.34 EG 444.9 | FG 444.55 EG 445.1 | FG 444.75 EG 445.5 | FG 444.96 EG 445.5 | FG 445.12 EG 446.0 | FG 445.26 EG 446.2 | FG 445.41 EG 446.2 | FG 445.54 EG 446.2 | FG 445.53 EG 446.1 | FG 445.37 EG 446.0 | FG 445.15 EG 445.8 | FG 444.92 EG 445.6 | FG 444.70 EG 445.4 | FG 444.65 EG 445.0 | FG 444.65 EG 444.6 | FG 444.65 EG 444.6 | FG 444.60 EG 444.4 | FG 444.05 EG 443.7 | FG 444.10 EG 444.0 | FG 444.01 EG 444.0

25+00 +20 +40 +60 +80 26+00 +20 +40 +60 +80 27+00 +20 +40 +60 +80 28+00 +20 +40 +60 +80 29+00 +20 +40 +60 +80 29+99.97

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G1	G15



GRTADING NOTES:

1.

GRADING SHEET LAYOUT

PLANS DEVELOPED BY:
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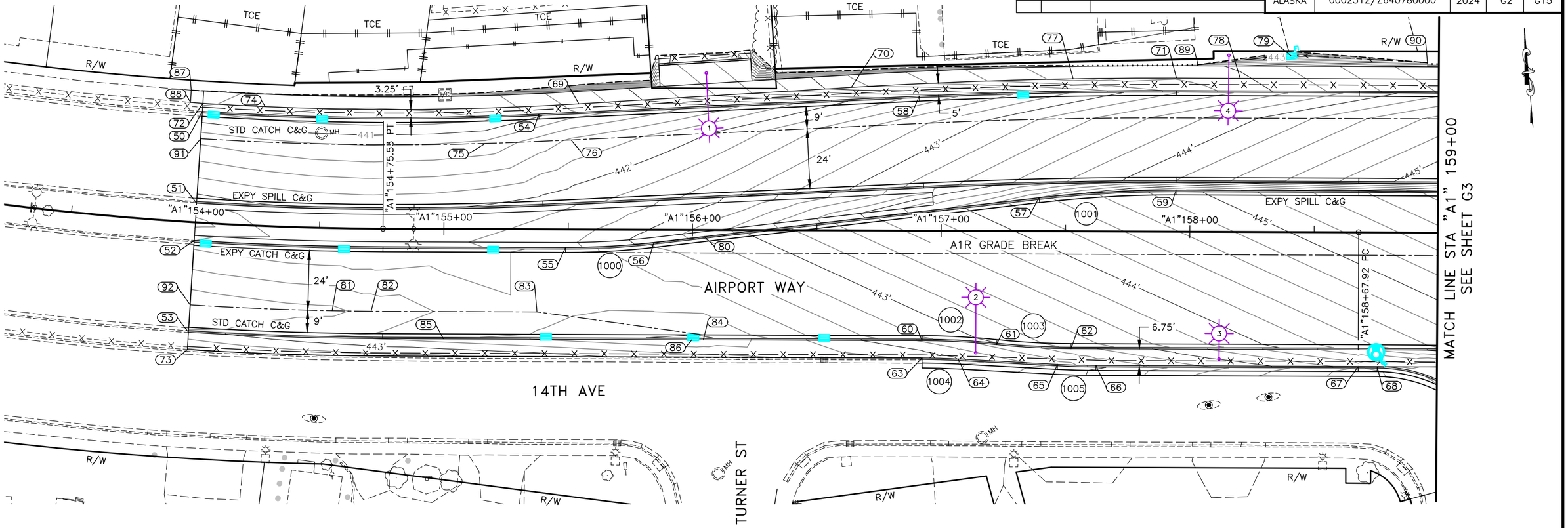
12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G2	G15



GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
50	"A1" 154+00.00	44.75' LT	441.3'±	TBC PC, SAWCUT, ME
51	"A1" 154+00.00	7.75' LT	442.6'±	TBC PC, SAWCUT, ME
52	"A1" 154+00.00	7.25' RT	442.5'±	TBC PC, SAWCUT, ME
53	"A1" 154+00.00	44.25' RT	443.1'±	TBC PC, SAWCUT, ME
54	"A1" 155+37.97	46.34' LT	441.45'	TBC PT (1)
55	"A1" 155+48.95	7.25' RT	442.74'	TBC PC (3)
56	"A1" 155+84.46	5.13' RT	443.08'	TBC PT (4)
57	"A1" 157+39.34	13.46' LT	444.80'	TBC PC
58	"A1" 156+90.99	54.12' LT	442.72'	TBC OC (2)
59	"A1" 157+94.39	16.75' LT	445.36'	TBC PT
60	"A1" 156+92.48	44.25' RT	443.22'	TBC PC
61	"A1" 157+22.43	45.75' RT	443.46'	TBC PRC
62	"A1" 157+52.41	47.25' RT	443.70'	TBC PT
63	"A1" 156+92.50	51.25' RT	442.8'±	TBC PC, SAWCUT, ME
64	"A1" 157+07.05	51.61' RT	443.01'	TBC PT (1)
65	"A1" 157+46.99	53.61' RT	443.34'	TBC PC

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
66	"A1" 157+62.44	54.00' RT	443.46'	TBC PT (2)
67	"A1" 158+67.92	54.00' RT	444.32'	TBC PI
68	"A1" 158+75.60	54.00' RT	444.26'	TBC PC (1)
69	"A1" 155+54.08	50.52' LT	441.65'	PT (6)
70	"A1" 156+63.64	57.56' LT	443.14'	PC
71	"A1" 157+94.39	61.75' LT	443.82'	VPI
72	"A1" 154+00.00	48.00' LT	441.4'±	PI, SAWCUT, ME
73	"A1" 154+00.00	51.25' RT	443.4'±	TBC PI, SAWCUT, ME
74	"A1" 154+26.09	48.00' LT	441.25'	VPI (5)
75	"A1" 155+16.47	34.43' LT	441.26'	GB EFS
76	"A1" 155+51.01	35.99' LT	441.63'	GB BNC
77	"A1" 157+52.85	61.33' LT	443.89'	VPI
78	"A1" 158+20.02	61.75' LT	443.96'	VPI (5)
79	"A1" 158+40.41	70.90' LT	442.83'	PI, INLET
80	"A1" 156+04.77	2.69' RT	443.26'	TBC BNC
81	"A1" 154+55.68	33.25' RT	442.65'	GB EFS

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
82	"A1" 154+70.95	33.25' RT	442.54'	GB RC
83	"A1" 155+37.53	33.25' RT	442.24'	GB LC
84	"A1" 156+04.53	44.25' RT	442.43'	TBC BNC, END GB
85	"A1" 154+99.94	44.24' RT	442.70'	TBC VPI
86	"A1" 155+99.92	44.25' RT	442.40'	TBC SAG VPI
87	"A1" 153+94.78	53.01' LT	441.6'±	PI, SAWCUT, ME
88	"A1" 153+94.80	48.09' LT	441.5'±	PI, SAWCUT, ME
89	"A1" 158+03.03	67.16' LT	443.79'	PI, BEGIN DITCH
90	"A1" 158+95.03	68.38' LT	444.17'	PI, END DITCH
91	"A1" 154+00.00	33.75' LT	441.3'±	GB VPI, ME
92	"A1" 154+00.01	33.25' RT	442.75'±	GB VPI, ME

RADIUS POINT TABLE

PT#	STATION	OFFSET	RADIUS	DESC.
1000	"A1" 155+48.95	290.75 LT	298.00'	
1001	"A1" 157+94.39	445.25 RT	462.00'	
1002	"A1" 156+92.48	344.25 RT	300.00'	
1003	"A1" 157+52.41	252.75 LT	300.00'	
1004	"A1" 156+92.50	342.25 RT	291.00'	
1005	"A1" 157+62.44	255.00 LT	309.00'	

RADIUS POINT TABLE NOTE:

ALL RADII PROVIDED ARE TBC

GRADING CONSTRUCTION NOTES:

1. BEGIN BUFFER WIDTH VARIES
2. END BUFFER WIDTH VARIES
3. END CATCH GUTTER PAN, BEGIN GUTTER PAN TRANSITION
4. END GUTTER PAN TRANSITION, BEGIN SPILL GUTTER PAN
5. BUFFER SLOPE TYP 1.5%
6. BUFFER SLOPE VARIES

GRADING PLAN

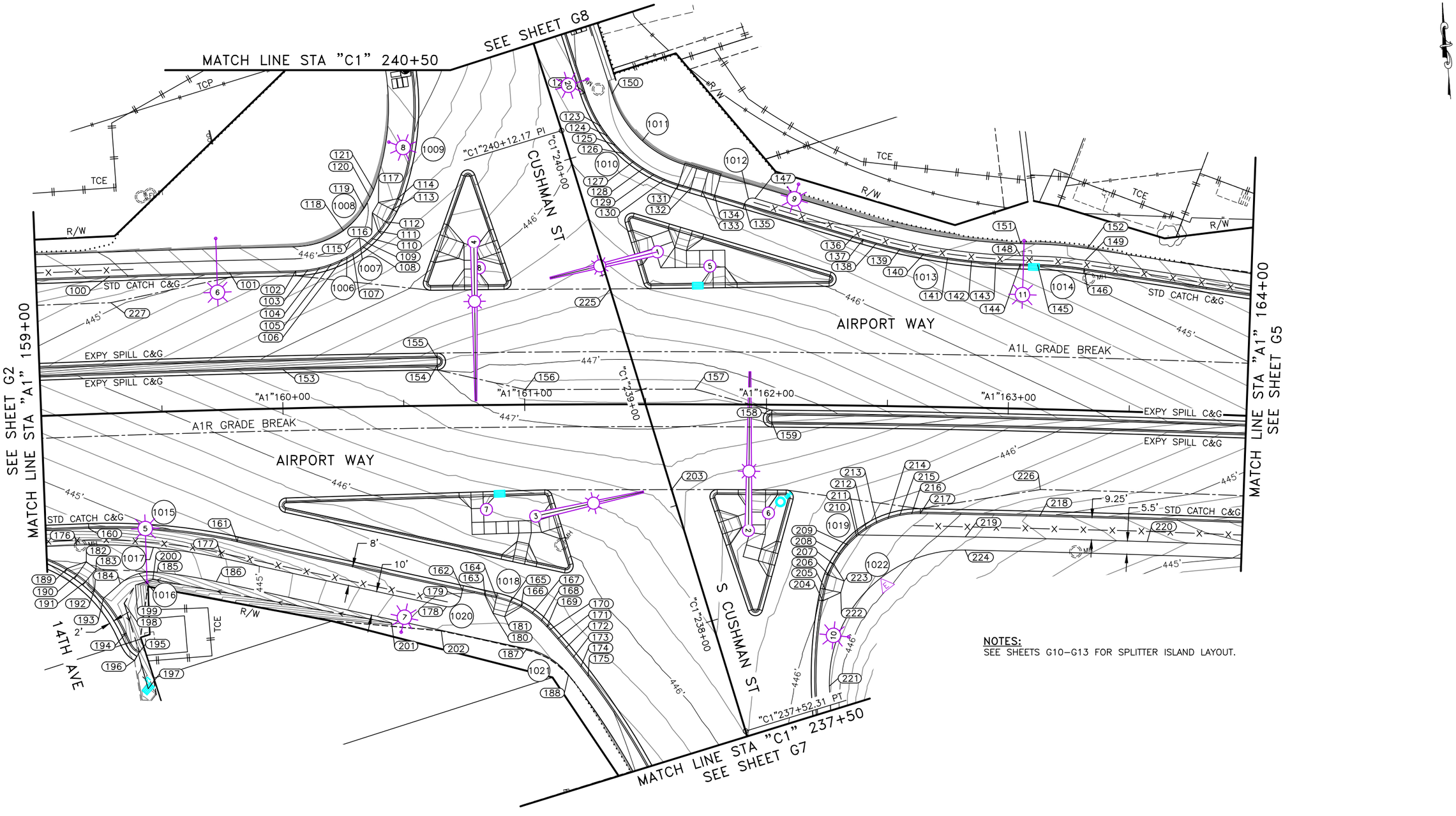
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G3	G15



NOTES:
SEE SHEETS G10–G13 FOR SPLITTER ISLAND LAYOUT.

GRADING PLAN

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G4	G15

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
100	"A1" 159+30.29	56.75' LT	444.89'	TBC VPI
101	"A1" 159+79.41	56.75' LT	445.61'	TBC VPI, END GB
102	"A1" 160+06.52	56.75' LT	445.86'	TBC PC, GB
103	"A1" 160+11.47	57.02' LT	445.90'	TBC VPI
104	"A1" 160+16.36	57.84' LT	445.93'	TBC VPI
105	"A1" 160+21.13	59.19' LT	445.95'	TBC VPI
106	"A1" 160+25.73	61.06' LT	445.96'	TBC VPI
107	"A1" 160+30.09	63.43' LT	445.96'	TBC VPI
108	"A1" 160+34.17	66.26' LT	445.95'	TBC VPI
109	"A1" 160+36.01	67.77' LT	445.94'	TBC PT
110	"A1" 160+37.92	69.52' LT	445.93'	TBC VPI
111	"A1" 160+40.72	72.51' LT	445.91'	TBC POC, RAMP FLARE
112	"A1" 160+43.69	76.37' LT	445.47'	TBC POC, ADA C&G
113	"A1" 160+46.67	81.36' LT	445.42'	TBC POC, ADA C&G
114	"A1" 160+48.67	85.81' LT	445.76'	TBC PCC, RAMP FLARE
115	"A1" 160+29.28	68.85' LT	446.03'	PC
116	"A1" 160+38.35	80.13' LT	445.97'	PI, TOP RAMP
117	"A1" 160+40.91	84.41' LT	445.92'	PI, TOP RAMP
118	"A1" 160+26.50	72.98' LT	446.10'	PCC
119	"A1" 160+34.97	82.21' LT	445.90'	PT
120	"A1" 160+37.54	86.48' LT	445.90'	PI
121	"A1" 160+39.03	89.65' LT	445.92'	PC
122	"A1" 161+25.45	128.82' LT	446.05'	TBC PC
123	"A1" 161+31.79	115.07' LT	446.11'	TBC VPI
124	"A1" 161+34.62	110.99' LT	446.13'	TBC VPI
125	"A1" 161+37.79	107.16' LT	446.14'	TBC VPI
126	"A1" 161+41.28	103.64' LT	446.15'	TBC VPI
127	"A1" 161+45.05	100.43' LT	446.16'	TBC VPI
128	"A1" 161+49.09	97.57' LT	446.16'	TBC VPI
129	"A1" 161+53.36	95.07' LT	446.16'	TBC VPI
130	"A1" 161+57.83	92.96' LT	446.16'	TBC VPI
131	"A1" 161+63.42	90.96' LT	446.15'	TBC PT, RAMP FLARE
132	"A1" 161+68.46	89.45' LT	445.73'	TBC PI, ADA C&G
133	"A1" 161+73.20	88.03' LT	445.72'	TBC PI, ADA C&G
134	"A1" 161+78.19	86.55' LT	446.11'	TBC PI, RAMP FLARE
135	"A1" 161+90.39	82.94' LT	446.07'	TBC PC
136	"A1" 162+34.99	69.96' LT	445.93'	TBC VPI
137	"A1" 162+39.07	68.79' LT	445.92'	TBC PC
138	"A1" 162+44.53	67.30' LT	445.90'	TBC VPI
139	"A1" 162+54.16	65.01' LT	445.86'	TBC VPI
140	"A1" 162+63.89	63.13' LT	445.81'	TBC VPI
141	"A1" 162+73.68	61.66' LT	445.75'	TBC VPI
142	"A1" 162+83.54	60.61' LT	445.68'	TBC VPI
143	"A1" 162+93.42	59.97' LT	445.61'	TBC VPI
144	"A1" 163+03.55	59.75' LT	445.52'	TBC PRC

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
145	"A1" 163+10.65	59.75' LT	445.46'	TBC PCC
146	"A1" 163+29.76	58.55' LT	445.32'	TBC PT
147	"A1" 161+94.67	85.32' LT	446.11'	PT
148	"A1" 163+03.55	63.25' LT	445.58'	PCC VPI
149	"A1" 163+30.19	62.02' LT	445.37'	VPI
150	"A1" 161+36.37	128.44' LT	446.22'	PC
151	"A1" 163+03.55	68.25' LT	445.65'	PCC VPI (2)
152	"A1" 163+30.80	66.99' LT	445.23'	VPI (3)
153	"A1" 160+00.44	16.00' LT	446.76'	TBC VPI
154	"A1" 160+64.04	16.75' LT	447.48'	TBC POC, GB**
155	"A1" 160+64.04	19.75' LT	447.11'	TBC POC, GB**
156	"A1" 161+00.25	6.25' LT	447.30'	CROWN GB
157	"A1" 161+70.35	6.25' LT	447.30'	CROWN GB
158	"A1" 162+02.22	4.25' RT	447.68'	TBC POC, GB**
159	"A1" 162+02.22	7.25' RT	447.38'	TBC POC, GB**
160	"A1" 159+17.94	47.25' RT	445.20'	TBC PC
161	"A1" 159+79.62	54.62' RT	445.61'	TBC PT (1)
162	"A1" 160+73.32	76.57' RT	445.98'	TBC PI
163	"A1" 160+82.68	78.68' RT	446.02'	TBC PI, RAMP FLARE
164	"A1" 160+87.51	79.76' RT	445.64'	TBC PC, ADA C&G
165	"A1" 160+93.34	81.53' RT	445.66'	TBC POC, ADA C&G
166	"A1" 160+97.83	83.60' RT	446.07'	TBC POC, RAMP FLARE
167	"A1" 161+02.33	86.41' RT	446.08'	TBC VPI
168	"A1" 161+06.23	89.61' RT	446.09'	TBC VPI
169	"A1" 161+08.59	92.00' RT	446.09'	TBC PCC
170	"A1" 161+09.72	93.24' RT	446.09'	TBC VPI
171	"A1" 161+13.05	97.01' RT	446.09'	TBC VPI
172	"A1" 161+16.33	100.83' RT	446.09'	TBC VPI
173	"A1" 161+19.55	104.70' RT	446.08'	TBC VPI
174	"A1" 161+22.71	108.61' RT	446.07'	TBC VPI
175	"A1" 161+25.80	112.58' RT	446.05'	TBC VPI
176	"A1" 159+12.67	54.00' RT	444.13'	PCC
177	"A1" 159+72.86	61.21' RT	444.77'	PT
178	"A1" 160+66.57	83.25' RT	446.08'	PC
179	"A1" 160+72.64	79.49' RT	446.03'	PT
180	"A1" 160+86.04	86.18' RT	446.14'	PI, TOP RAMP
181	"A1" 160+90.89	87.66' RT	446.16'	PI, TOP RAMP
182	"A1" 159+16.44	60.99' RT	444.02'	PI, TOP RAMP
183	"A1" 159+20.35	64.15' RT	443.98'	PI, TOP RAMP
184	"A1" 159+30.29	70.56' RT	443.96'	PC
185	"A1" 159+45.86	66.26' RT	444.26'	PCC, GB
186	"A1" 159+70.45	70.93' RT	444.71'	PT (2)
187	"A1" 161+00.13	101.02' RT	446.28'	PC
188	"A1" 161+17.54	111.85' RT	446.16'	PT
189	"A1" 159+08.37	63.45' RT	443.95'	TBC POC, RAMP FLARE

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
190	"A1" 159+12.43	66.24' RT	443.51'	TBC POC, ADA C&G
191	"A1" 159+15.95	69.09' RT	443.47'	TBC POC, ADA C&G
192	"A1" 159+19.53	72.47' RT	443.83'	TBC POC, RAMP FLARE
193	"A1" 159+23.04	76.39' RT	443.79'	TBC PI
194	"A1" 159+31.95	91.11' RT	443.65'	TBC PT, TERM TRANS*
195	"A1" 159+37.31	99.17' RT	443.12'	TBC PI, BEGIN DITCH
196	"A1" 159+35.17	102.49' RT	443.2'±	PI, SAWCUT, ME
197	"A1" 159+40.54	114.37' RT	442.74'	PI, INLET
198	"A1" 159+31.64	78.72' RT	443.47'	PI, DITCH
199	"A1" 159+36.63	71.35' RT	443.62'	PI, DITCH
200	"A1" 159+43.97	69.21' RT	443.75'	PI, DITCH
201	"A1" 160+43.43	89.66' RT	445.80'	PI, END DITCH
202	"A1" 160+64.24	93.22' RT	446.35'	PI (3)
203	"A1" 161+60.83	35.34' RT	446.68'	GB VPI
204	"A1" 162+24.25	80.97' RT	446.42'	TBC PI, RAMP FLARE
205	"A1" 162+25.14	76.16' RT	446.04'	TBC PCC, ADA C&G
206	"A1" 162+26.78	70.36' RT	446.05'	TBC POC, ADA C&G
207	"A1" 162+28.76	65.87' RT	446.46'	TBC POC, RAMP FLARE
208	"A1" 162+31.34	61.57' RT	446.46'	TBC VPI
209	"A1" 162+34.44	57.63' RT	446.45'	TBC VPI
210	"A1" 162+38.01	54.10' RT	446.43'	TBC VPI
211	"A1" 162+38.72	53.50' RT	446.43'	TBC PI
212	"A1" 162+42.01	51.05' RT	446.41'	TBC VPI
213	"A1" 162+46.35	48.52' RT	446.39'	TBC VPI
214	"A1" 162+50.98	46.55' RT	446.35'	TBC VPI
215	"A1" 162+55.82	45.17' RT	446.32'	TBC VPI
216	"A1" 162+60.80	44.42' RT	446.27'	TBC VPI
217	"A1" 162+64.39	44.25' RT	446.24'	TBC PT, GB
218	"A1" 163+14.11	44.25' RT	445.52'	TBC VPI
219	"A1" 162+83.36	53.50' RT	445.83'	VPI
220	"A1" 163+59.25	53.50' RT	445.31'	VPI
221	"A1" 162+27.42	116.16' RT	446.23'	PC
222	"A1" 162+31.68	77.44' RT	446.34'	PI, TOP RAMP
223	"A1" 162+33.04	72.61' RT	446.35'	PI, TOP RAMP
224	"A1" 162+83.38	59.00' RT	445.75'	PT
225	"A1" 161+35.44	47.72' LT	446.58'	GB VPI
226	"A1" 163+14.11	33.25' RT	445.57'	GB VPI
227	"A1" 159+30.37	45.75' LT	444.94'	GB VPI

* SEE DETAIL ON SHEET E6
** SEE RAMPED MEDIAN NOSE DETAIL ON SHEET E6

RADIUS POINT TABLE

PT#	STATION	OFFSET	RADIUS	DESC.
1006	"A1" 160+07.51	101.25 LT	46.00'	TBC
1007	"C1" 239+89.48	95.18 LT	5.00'	
1008	"C1" 240+29.95	108.51 LT	31.26'	
1009	"A1" 159+50.06	126.02 LT	108.00'	TBC
1010	"A1" 161+79.51	146.60 LT	58.00'	TBC
1011	"C1" 240+20.27	69.50 RT	45.00'	
1012	"C1" 239+59.00	66.34 RT	3.50'	
1013	"C1" 241+35.68	245.17 RT	248.00'	TBC
1014	"A1" 163+10.65	92.25 RT	152.00'	TBC
1015	"A1" 159+17.94	295.25 RT	248.00'	TBC
1016	"A1" 159+43.08	86.07 RT	20.00'	
1017	"A1" 159+12.67	295.00 RT	241.00'	
1018	"A1" 160+78.62	118.28 RT	39.50'	TBC
1019	"A1" 162+64.39	83.75 RT	39.50'	TBC
1020	"C1" 238+42.13	100.78 LT	5.00'	
1021	"C1" 237+85.18	91.19 LT	30.00'	
1022	"C1" 237+44.46	91.51 RT	55.00'	

GRADING CONSTRUCTION NOTES:

1. END BUFFER WIDTH VARIES
2. BEGIN SIDEWALK CROSS SLOPE TRANSITION
3. END SIDEWALK CROSS SLOPE TRANSITION
4. BUFFER SLOPE TYP 1.5%
5. BUFFER SLOPE VARIES

GRADING PLAN

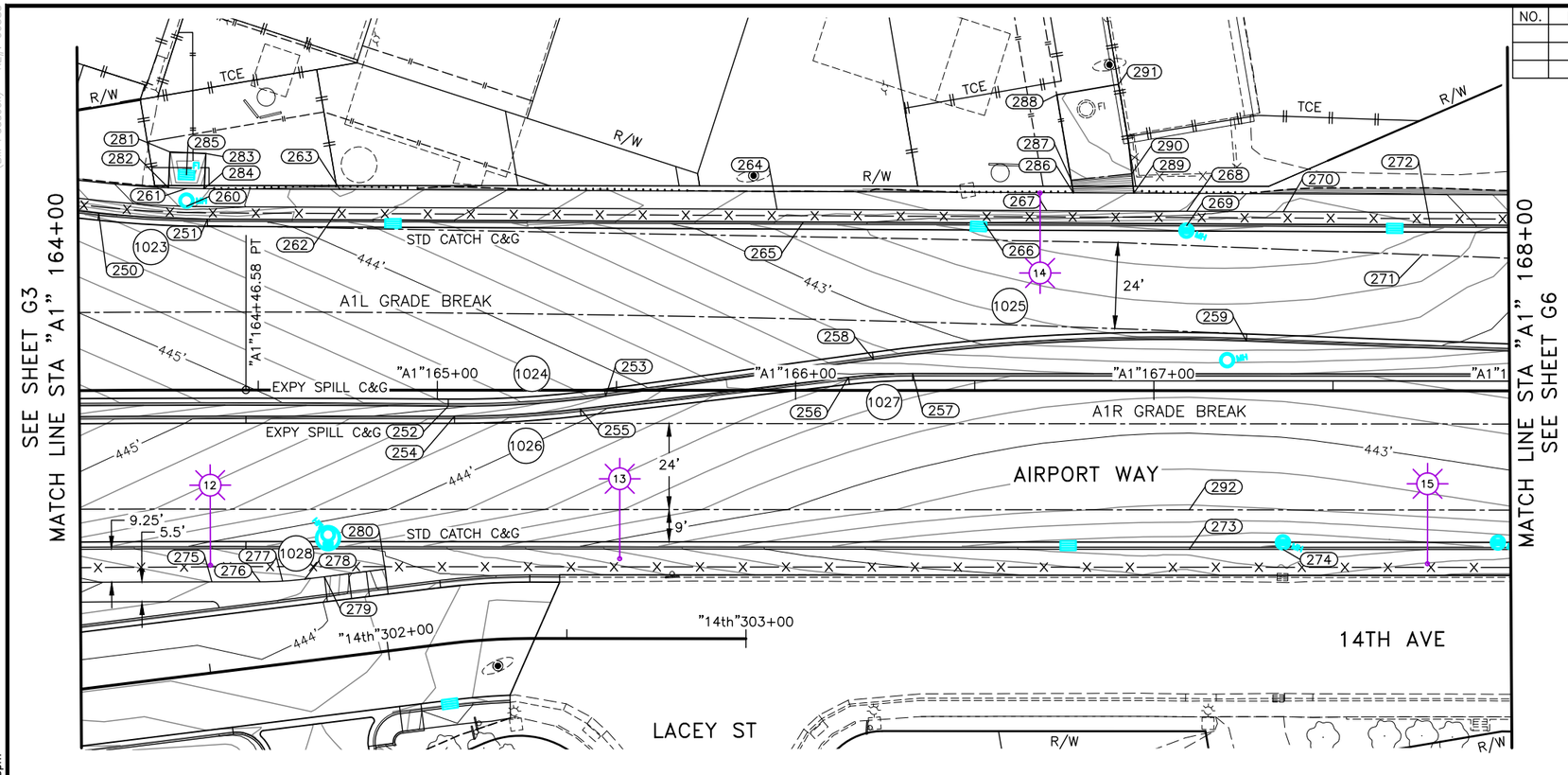
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G5	G15



GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
250	"A1" 164+05.76	49.44' LT	444.83'	TBC PC
251	"A1" 164+35.90	47.64' LT	444.61'	TBC PT, BEGIN GB
252	"A1" 165+03.02	4.50' RT	445.05'	TBC PRC
253	"A1" 165+46.95	1.67' RT	444.60'	TBC PT
254	"A1" 165+04.80	7.25' RT	444.79'	TBC PC
255	"A1" 165+39.85	5.18' RT	444.51'	TBC PT
256	"A1" 166+14.77	3.69' LT	444.06'	TBC PC
257	"A1" 166+32.65	4.75' LT	443.97'	TBC PT
258	"A1" 166+21.68	8.64' LT	443.72'	TBC PC
259	"A1" 167+25.80	13.83' LT	443.25'	TBC PT
260	"A1" 164+30.09	51.24' LT	443.76'	VPI
261	"A1" 164+30.09	56.24' LT	443.69'	VPI (3)(4)
262	"A1" 164+72.76	50.99' LT	444.37'	VPI (5)
263	"A1" 164+72.76	55.99' LT	444.45'	VPI (4)
264	"A1" 165+94.75	50.50' LT	443.25'	VPI (6)

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
265	"A1" 166+02.14	46.97' LT	443.13'	TBC VPI
266	"A1" 166+52.55	46.77' LT	442.77'	TBC VPI
267	"A1" 166+70.07	50.19' LT	443.52'	VPI
268	"A1" 167+09.11	50.04' LT	443.18'	VPI
269	"A1" 167+09.09	46.04' LT	442.60'	TBC SAG VPI
270	"A1" 167+36.10	49.93' LT	442.76'	VPI (5)
271	"A1" 167+74.96	37.99' LT	442.45'	ENC
272	"A1" 167+77.06	46.26' LT	442.80'	VPI
273	"A1" 167+09.89	44.25' RT	442.52'	VPI
274	"A1" 167+36.09	44.25' RT	442.44'	SAG VPI
275	"A1" 164+37.03	53.50' RT	444.80'	VPI (1)
276	"A1" 164+50.58	53.50' RT	444.72'	PC
277	"A1" 164+56.82	53.31' RT	444.68'	VPI
278	"A1" 164+63.04	52.73' RT	444.63'	PT
279	"A1" 164+68.49	52.05' RT	444.53'	PI

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
280	"A1" 164+85.43	49.93' RT	444.25'	PI
281	"A1" 164+25.54	66.41' LT	443.4'±	PI, SAWCUT, ME
282	"A1" 164+25.09	56.42' LT	443.76'	PI, ASPHALT
283	"A1" 164+35.43	65.97' LT	443.4'±	PI, SAWCUT, ME
284	"A1" 164+35.00	56.15' LT	443.77'	PI, ASPHALT
285	"A1" 164+30.09	60.05' LT	442.86'	INLET
286	"A1" 166+77.47	55.16' LT	443.53'	PI, ASPHALT
287	"A1" 166+76.87	58.70' LT	445.14'	PI, GRADE BREAK
288	"A1" 166+72.82	82.47' LT	445.4'±	PI, SAWCUT, ME
289	"A1" 166+94.37	55.10' LT	443.38'	PI, ASPHALT
290	"A1" 166+93.80	60.48' LT	445.38'	PI, GRADE BREAK
291	"A1" 166+90.05	85.42' LT	445.5'±	PI, SAWCUT, ME
292	"A1" 167+09.89	33.25' RT	442.57'	GB VPI

RADIUS POINT TABLE

PT#	STATION	OFFSET	RADIUS	DESC.
1023	"A1" 164+37.50	345.64 LT	298.00'	TBC
1024	"A1" 165+05.66	297.49 LT	302.00'	TBC
1025	"A1" 167+03.43	583.75 RT	598.00'	TBC
1026	"A1" 165+04.80	290.75 LT	298.00'	TBC
1027	"A1" 166+32.65	147.25 RT	152.00'	TBC
1028	"A1" 164+50.64	46.50 LT	100.00'	

GRADING CONSTRUCTION NOTES:

1. BEGIN BUFFER WIDTH VARIES
2. END BUFFER WIDTH VARIES
3. BEGIN SIDEWALK CROSS SLOPE TRANSITION
4. END SIDEWALK CROSS SLOPE TRANSITION
5. BUFFER SLOPE TYP 1.5%
6. BUFFER SLOPE VARIES

GRADING PLAN

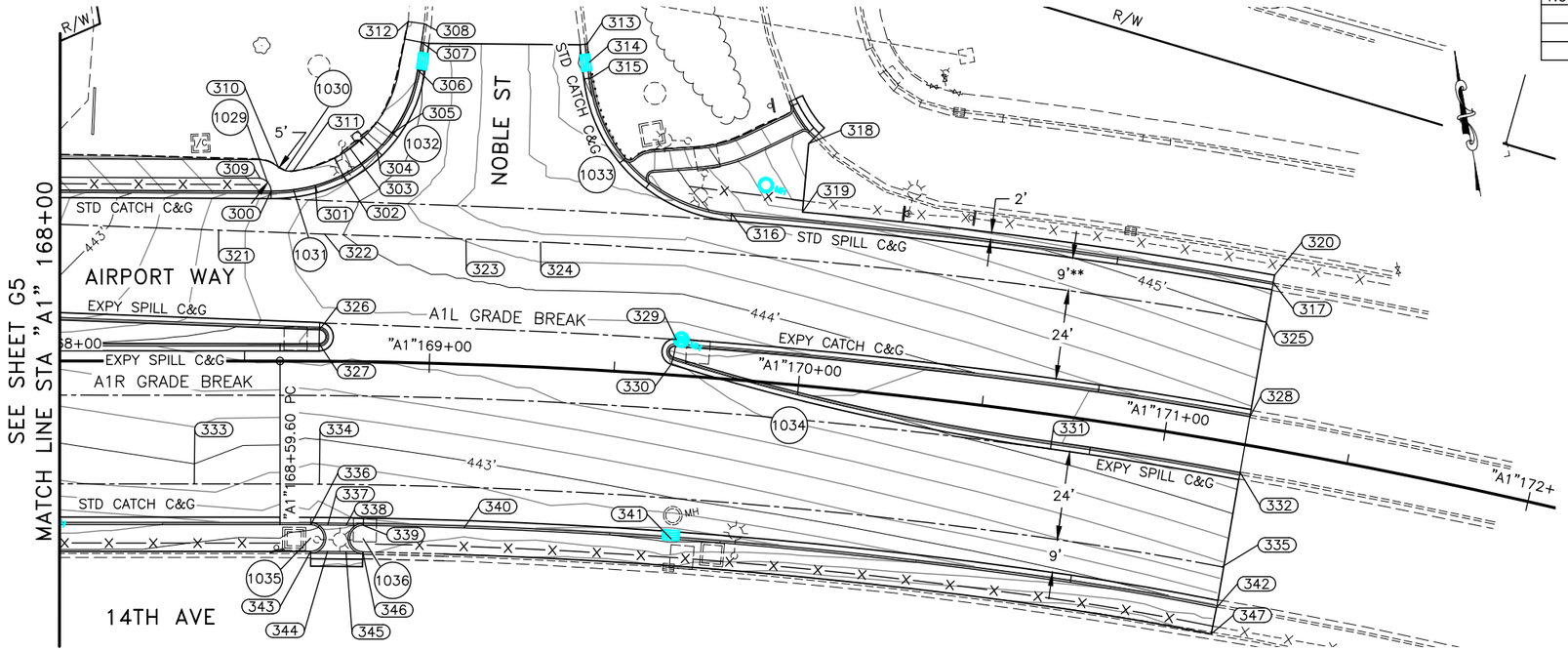
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

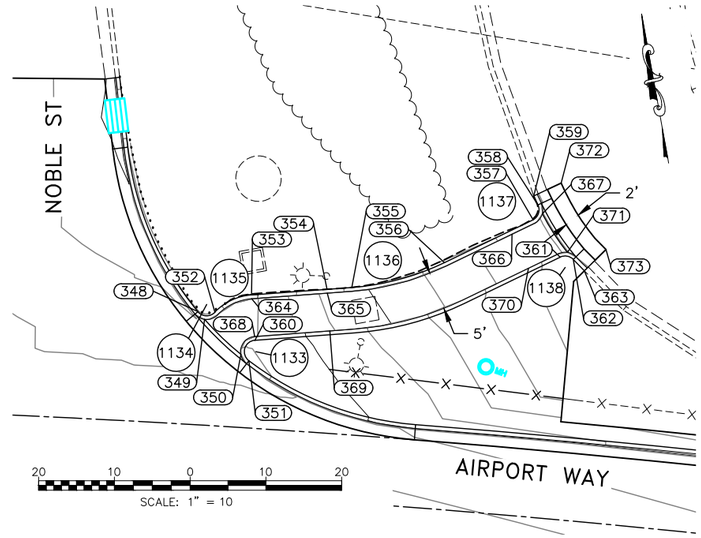
12/22/2022
REVIEW
PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G6	G15





GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
300	"A1" 168+57.13	45.94' LT	444.05'	TBC PC, GB
301	"A1" 168+68.81	47.54' LT	444.13'	TBC PCC
302	"A1" 168+76.00	50.49' LT	444.18'	TBC POC, RAMP FLARE
303	"A1" 168+80.74	53.59' LT	443.82'	TBC POC, ADA C&G
304	"A1" 168+84.80	57.26' LT	443.86'	TBC POC, ADA C&G
305	"A1" 168+88.46	61.78' LT	444.28'	TBC POC, RAMP FLARE
306	"A1" 168+94.93	79.20' LT	444.42'	TBC PT
307	"A1" 168+95.78	86.67' LT	444.5'±	TBC PI, SAWCUT, ME
308	"A1" 168+96.35	91.69' LT	444.5'±	PI, SAWCUT, ME
309	"A1" 168+54.15	49.45' LT	444.06'	PC
310	"A1" 168+59.10	52.47' LT	444.16'	PRC
311	"A1" 168+62.91	51.36' LT	444.17'	PCC
312	"A1" 168+92.23	92.21' LT	444.6'±	PI, SAWCUT, ME
313	"A1" 169+38.14	87.95' LT	444.4'±	TBC PI, SAWCUT, ME
314	"A1" 169+38.92	83.04' LT	444.37'	TBC SAG VPI
315	"A1" 169+39.61	78.79' LT	444.41'	TBC PC
316	"A1" 169+78.34	44.75' LT	445.09'	TBC PRC, GB (2)
317	"A1" 171+21.94	44.58' LT	445.8'±	TBC POC, SAWCUT, ME
318	"A1" 169+96.86	65.34' LT	445.9'±	PI, SAWCUT, ME
319	"A1" 169+96.86	46.75' LT	445.4'±	PI, SAWCUT, ME
320	"A1" 171+21.96	46.58' LT	444.8'±	PI, SAWCUT, ME
321	"A1" 168+42.92	35.42' LT	443.48'	GB LC
322	"A1" 168+71.34	34.39' LT	443.97'	GB VPI
323	"A1" 169+08.78	33.70' LT	444.21'	GB RC
324	"A1" 169+28.53	33.75' LT	444.34'	GB BFS
325	"A1" 171+21.89	33.65' LT	445.0'±	GB VPI, ME

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
326	"A1" 168+70.17	8.46' LT	444.23'	TBC PT*
327	"A1" 168+70.11	4.75' LT	444.22'	TBC PRC*
328	"A1" 171+21.91	7.67' LT	444.8'±	TBC POC, SAWCUT, ME
329	"A1" 169+66.08	9.75' LT	443.68'	TBC PCC* (2)
330	"A1" 169+65.28	2.84' LT	443.79'	TBC PCC* (1)
331	"A1" 170+69.95	7.25' RT	444.59'	TBC PRC
332	"A1" 171+21.90	7.60' RT	444.8'±	TBC POC, SAWCUT, ME
333	"A1" 168+36.40	33.25' RT	442.89'	GB ENC
334	"A1" 168+70.48	33.25' RT	442.64'	GB BFS
335	"A1" 171+21.46	33.59' RT	443.6'±	GB VPI, ME
336	"A1" 168+68.19	44.25' RT	442.96'	TBC PCC
337	"A1" 168+72.91	44.25' RT	442.57'	TBC POC, ADA C&G
338	"A1" 168+78.06	44.25' RT	442.58'	TBC POC, ADA C&G
339	"A1" 168+82.82	44.25' RT	443.01'	TBC PCC
340	"A1" 169+10.86	44.25' RT	443.12'	TBC VPI
341	"A1" 169+68.67	44.25' RT	442.95'	TBC SAG VPI
342	"A1" 171+21.87	44.74' RT	443.6'±	TBC POC, SAWCUT, ME
343	"A1" 168+68.21	51.43' RT	443.2'±	TBC PC, SAWCUT, ME
344	"A1" 168+72.90	51.43' RT	442.72'	TBC PI, ADA C&G
345	"A1" 168+78.08	51.43' RT	442.73'	TBC PI, ADA C&G
346	"A1" 168+82.78	51.41' RT	443.2'±	TBC PT, AWCUT, ME
347	"A1" 171+21.69	51.98' RT	443.7'±	TBC PI, SAWCUT, ME
348	"A1" 169+49.62	57.65' LT	444.65'	TBC PCC
349	"A1" 169+50.52	56.68' LT	444.54'	TBC POC, ADA C&G
350	"A1" 169+55.41	52.37' LT	444.61'	TBC POC, ADA C&G
351	"A1" 169+56.49	51.60' LT	444.75'	TBC PCC (1)

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
352	"A1" 169+51.77	57.70' LT	444.75'	TBC PRC
353	"A1" 169+56.29	60.27' LT	444.97'	TBC PT
354	"A1" 169+65.80	61.69' LT	445.36'	TBC VPI
355	"A1" 169+68.91	62.17' LT	445.42'	TBC PC
356	"A1" 169+80.38	66.37' LT	445.66'	TBC PT
357	"A1" 169+91.08	72.97' LT	445.90'	TBC PC
358	"A1" 169+91.52	74.98' LT	445.95'	TBC PT
359	"A1" 169+90.89	76.10' LT	446.0'±	TBC PI, SAWCUT, ME
360	"A1" 169+57.09	54.33' LT	444.84'	TBC PC
361	"A1" 169+94.89	68.37' LT	445.86'	TBC PT
362	"A1" 169+96.56	68.22' LT	445.91'	TBC PC
363	"A1" 169+98.10	66.87' LT	446.0'±	TBC PI, SAWCUT, ME
364	"A1" 169+56.36	59.77' LT	444.36'	VPI, TOP SWLK
365	"A1" 169+65.87	61.18' LT	444.86'	VPI, TOP SWLK
366	"A1" 169+88.58	70.83' LT	445.54'	VPI, TOP SWLK
367	"A1" 169+92.17	73.87' LT	445.92'	TBC PI, ADA C&G
368	"A1" 169+57.02	54.84' LT	444.38'	VPI, TOP SWLK
369	"A1" 169+66.53	56.25' LT	444.78'	VPI, TOP SWLK
370	"A1" 169+91.01	66.54' LT	445.53'	VPI, TOP SWLK
371	"A1" 169+95.75	69.08' LT	445.89'	TBC PI, ADA C&G
372	"A1" 169+94.18	78.12' LT	445.5'±	PI, SAWCUT, ME
373	"A1" 170+00.57	69.93' LT	445.5'±	PI, SAWCUT, ME

* SEE RAMPED MEDIAN NOSE DETAIL ON SHEET E8
** BEGINNING OF 9' WIDTH CORRESPONDS WITH POINT 300

RADIUS POINT TABLE

PT#	STATION	OFFSET	RADIUS	DESC.
1029	"A1" 168+53.63	45.96 LT	3.00'	
1030	"A1" 168+62.21	56.30 LT	5.88'	
1031	"A1" 168+57.31	90.94 LT	45.00'	TBC
1032	"A1" 168+59.15	84.19 LT	38.00'	TBC
1033	"A1" 169+78.34	86.25 LT	41.50'	TBC
1034	"A1" 170+69.95	640.75 LT	648.00'	TBC
1035	"A1" 168+68.19	47.84 RT	3.59'	TBC
1036	"A1" 168+82.82	47.83 RT	3.58'	TBC
1133	"A1" 169+57.29	52.85 LT	1.50'	TBC
1134	"A1" 169+50.68	58.67 LT	1.50'	TBC
1135	"A1" 169+57.29	52.85 LT	7.50'	TBC
1136	"A1" 169+64.22	95.81 LT	34.00'	TBC
1137	"A1" 169+90.29	74.22 LT	1.50'	TBC
1138	"A1" 169+95.63	67.08 LT	1.50'	TBC

GRADING CONSTRUCTION NOTES:

1. END CATCH GUTTER PAN, BEGIN GUTTER PAN TRANSITION
2. END GUTTER PAN TRANSITION, BEGIN SPILL GUTTER PAN

GRADING PLAN

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
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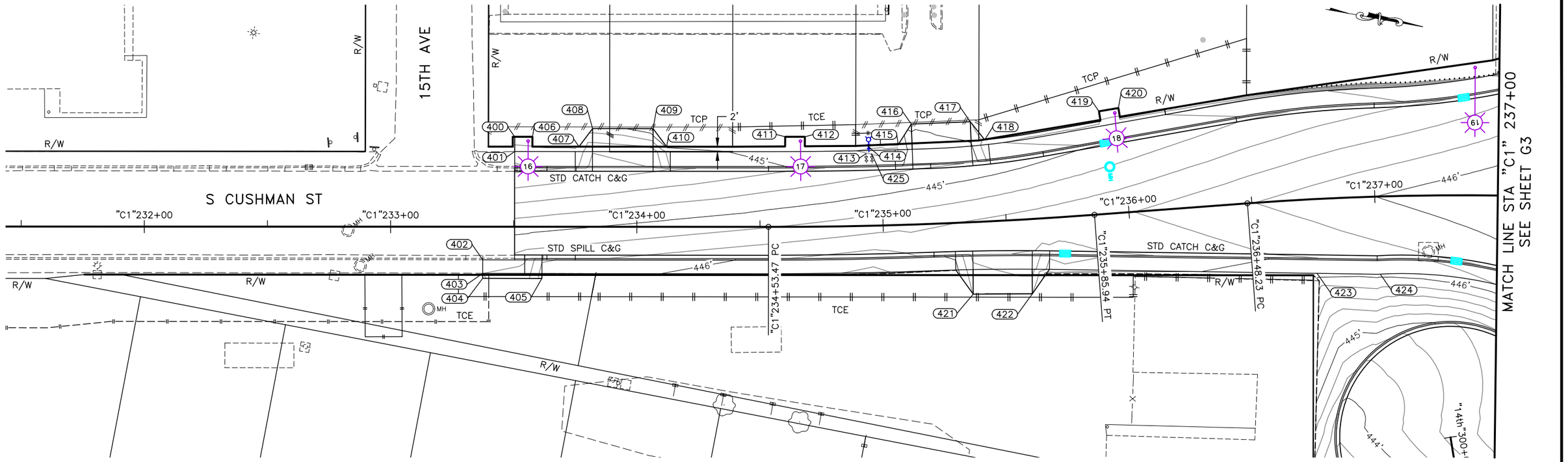
12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G7	G15



GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
400	"C1" 233+50.39	36.51' LT	445.0'±	PI, SAWCUT, ME
401	"C1" 233+50.39	30.52' LT	444.7'±	PI, SAWCUT, ME
402	"C1" 233+37.43	13.39' RT	445.3'±	TBC PI, SAWCUT, ME
403	"C1" 233+37.42	18.89' RT	445.4'±	PI, SAWCUT, ME
404	"C1" 233+37.41	20.89' RT	445.4'±	PI, ASPHALT
405	"C1" 233+61.46	20.96' RT	445.9'±	PI, ASPHALT
406	"C1" 233+57.59	36.50' LT	445.0'±	PI, SAWCUT, ME
407	"C1" 233+76.50	32.50' LT	444.8'±	PI, SAWCUT, ME
408	"C1" 233+82.00	39.83' LT	444.9'±	PI, SAWCUT, ME
409	"C1" 234+06.58	39.83' LT	445.2'±	PI, SAWCUT, ME
410	"C1" 234+12.08	32.50' LT	445.0'±	PI, SAWCUT, ME
411	"C1" 234+60.34	36.54' LT	445.2'±	PI, SAWCUT, ME
412	"C1" 234+68.51	36.48' LT	445.2'±	PI, SAWCUT, ME
413	"C1" 234+93.65	29.28' LT	445.20'	VALVE FG

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
414	"C1" 234+94.91	32.02' LT	445.18'	VALVE FG
415	"C1" 235+07.10	32.50' LT	445.1'±	PI, SAWCUT, ME
416	"C1" 235+12.78	40.76' LT	445.0'±	PI, SAWCUT, ME
417	"C1" 235+37.36	40.74' LT	445.2'±	PI, SAWCUT, ME
418	"C1" 235+42.98	33.13' LT	445.3'±	PI, SAWCUT, ME
419	"C1" 235+90.89	41.73' LT	445.2'±	PI, SAWCUT, ME
420	"C1" 235+98.86	42.46' LT	445.2'±	PI, SAWCUT, ME
421	"C1" 235+35.29	29.19' RT	445.8'±	PI, ASPHALT
422	"C1" 235+58.87	30.30' RT	445.8'±	PI ASPHALT
423	"C1" 236+75.00	30.12' RT	446.14'	VPI (1)
424	"C1" 237+01.35	31.51' RT	446.06'	VPI (2)
425	"C1" 234+95.99	29.22' LT	445.20'	VALVE FG

GRADING CONSTRUCTION NOTES:

1. BEGIN SIDEWALK CROSS SLOPE TRANSITION
2. END SIDEWALK CROSS SLOPE TRANSITION

GRADING PLAN

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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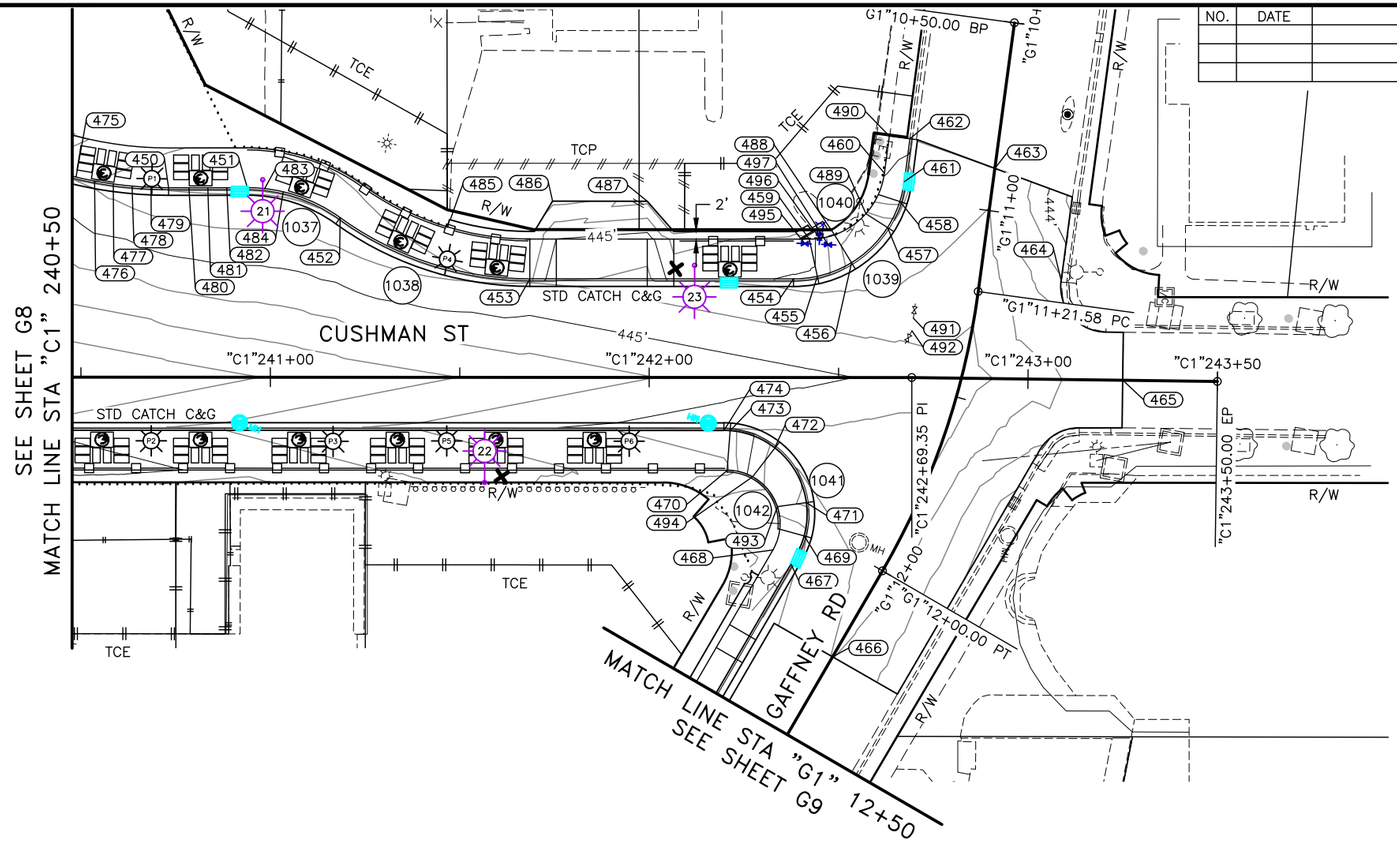
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G8	G15



GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
450	"C1" 240+73.12	50.00' LT	445.06'	TBC PT
451	"C1" 240+93.91	50.00' LT	445.02'	TBC PC
452	"C1" 241+18.41	42.12' LT	445.08'	TBC PCC
453	"C1" 241+68.49	26.00' LT	445.25'	TBC PT
454	"C1" 242+38.09	26.00' LT	444.98'	TBC PC
455	"C1" 242+44.41	26.68' LT	444.96'	TBC POC, RAMP FLARE
456	"C1" 242+53.41	30.29' LT	444.52'	TBC POC, ADA C&G
457	"C1" 242+62.93	39.58' LT	444.47'	TBC POC, ADA C&G
458	"C1" 242+66.17	46.44' LT	444.84'	TBC POC, RAMP FLARE
459	"C1" 242+42.26	36.50' LT	445.11'	TBC PC
460	"C1" 242+62.09	53.93' LT	445.01'	TBC PT
461	"C1" 242+67.35	51.71' LT	444.91'	TBC PT, SAG VPI
462	"C1" 242+68.82	63.02' LT	445.1'±	TBC PI, SAWCUT, ME
463	"C1" 242+90.55	55.48' LT	444.6'±	PI, SAWCUT, ME
464	"C1" 243+08.44	26.09' LT	444.22'	TBC PC
465	"C1" 243+25.05	0.00' RT	444.8'±	PI, SAWCUT, ME

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
466	"C1" 242+48.47	73.71' RT	444.6'±	PI, SAWCUT, ME
467	"C1" 242+37.48	49.30' RT	444.81'	TBC PT
468	"C1" 242+32.81	45.53' RT	444.90'	PT
469	"C1" 242+40.96	41.80' RT	444.87'	TBC POC, RAMP FLARE
470	"C1" 242+20.70	24.50' RT	445.42'	PC, BACK SWLK
471	"C1" 242+41.54	33.03' RT	444.56'	TBC POC, RAMP FLARE
472	"C1" 242+33.13	18.60' RT	444.74'	TBC POC, ADA C&G
473	"C1" 242+21.38	14.06' RT	445.27'	TB POC, RAMP FLARE
474	"C1" 242+19.74	14.00' RT	445.29'	TBC PC
475	"C1" 240+48.68	52.80' LT	445.26'	TBC VPI
476	"C1" 240+53.58	51.78' LT	445.20'	TBC VPI
477	"C1" 240+58.52	50.99' LT	445.16'	TBC VPI
478	"C1" 240+63.49	50.43' LT	445.12'	TBC VPI
479	"C1" 240+68.47	50.10' LT	445.09'	TBC VPI
480	"C1" 240+78.47	50.00' LT	445.04'	TBC VPI
481	"C1" 240+83.47	50.00' LT	445.03'	TBC VPI

GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
482	"C1" 240+88.47	50.00' LT	445.02'	TBC VPI
483	"C1" 240+98.47	49.75' LT	445.02'	TBC VPI
484	"C1" 241+03.40	48.92' LT	445.03'	TBC VPI
485	"C1" 241+47.48	41.57' LT	445.33'	PI, BEGIN ASPHALT
486	"C1" 241+74.49	46.50' LT	445.4'±	PI, SAWCUT, ME
487	"C1" 241+99.49	46.50' LT	445.4'±	PI, SAWCUT, ME
488	"C1" 242+48.94	37.65' LT	444.65'	POC, BACK LANDING
489	"C1" 242+57.23	43.24' LT	444.57'	POC, BACK LANDING
490	"C1" 242+63.36	63.72' LT	445.1'±	PI, SAWCUT, ME
491	"C1" 242+69.55	15.72' LT	444.69'	VALVE FG
492	"C1" 242+69.35	12.34' LT	444.75'	VALVE FG
493	"C1" 242+33.88	34.07' RT	444.68'	POC, BACK LANDING
494	"C1" 242+27.32	26.22' RT	444.88'	POC, BACK LANDING
495	"C1" 242+41.08	35.33' LT	445.13'	VALVE FG
496	"C1" 242+45.00	36.77' LT	444.92'	VALVE FG
497	"C1" 242+47.21	35.06' LT	444.79'	VALVE FG

RADIUS POINT TABLE

PT#	STATION	OFFSET	RADIUS	DESC.
1037	"C1" 240+93.91	8.00 LT	42.00'	TBC
1038	"C1" 241+68.49	111.86 LT	85.86'	TBC
1039	"C1" 242+38.09	55.50 LT	29.50'	TBC
1040	"C1" 242+42.26	56.50 LT	20.00'	
1041	"C1" 242+17.16	37.50 RT	23.50'	TBC
1042	"C1" 242+20.70	38.50 RT	14.00'	

GRADING PLAN

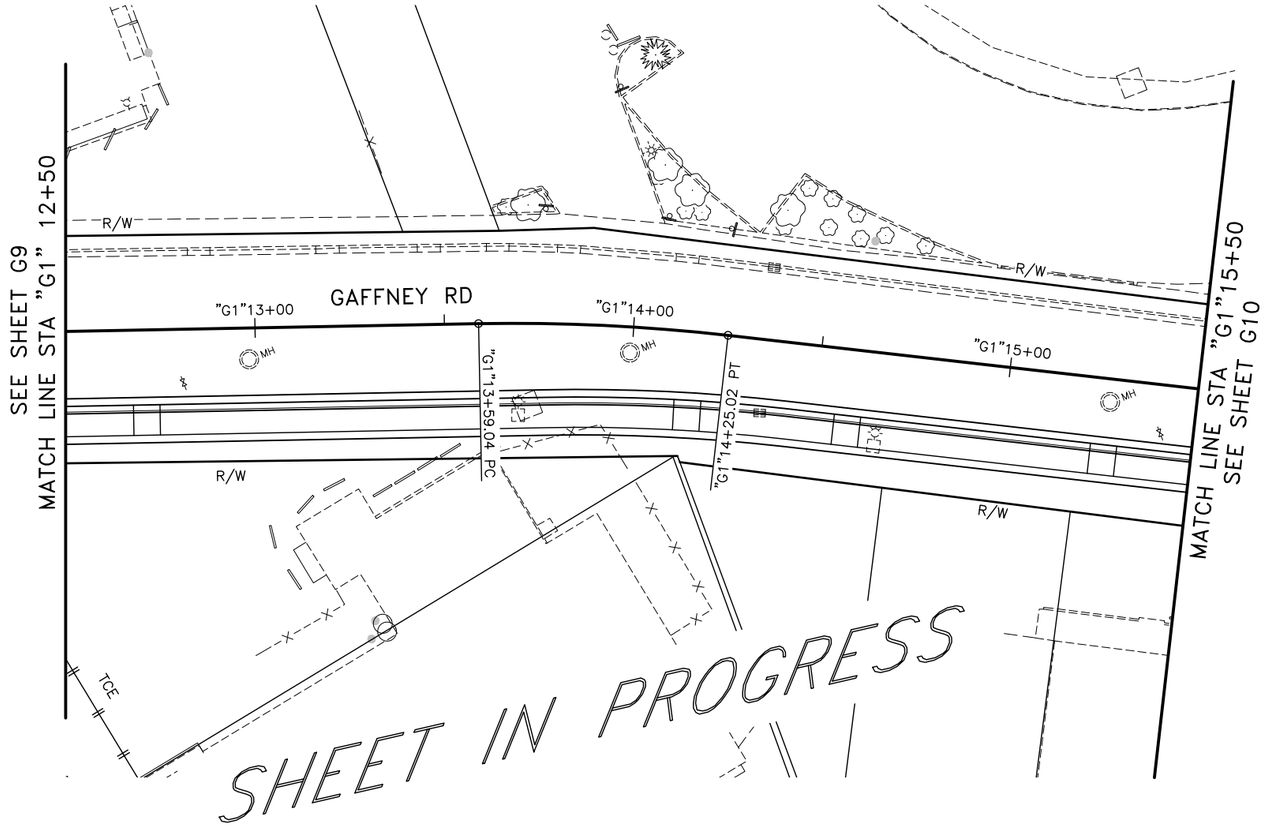
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G9	G15



GRADING PLAN

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
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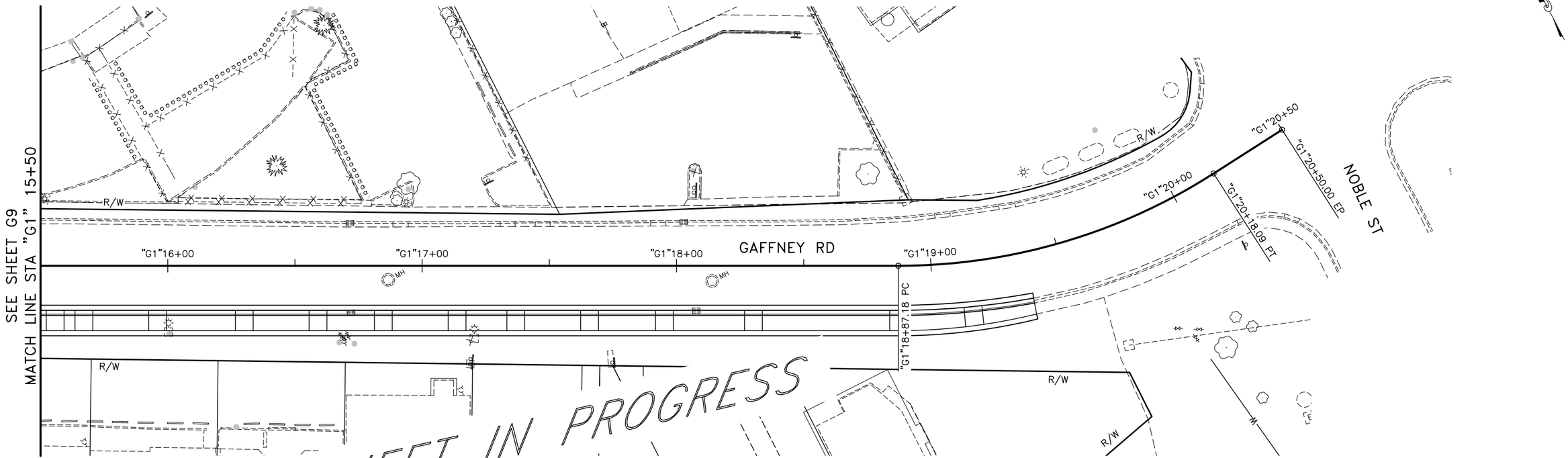
12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G10	G15



GRADING PLAN

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KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

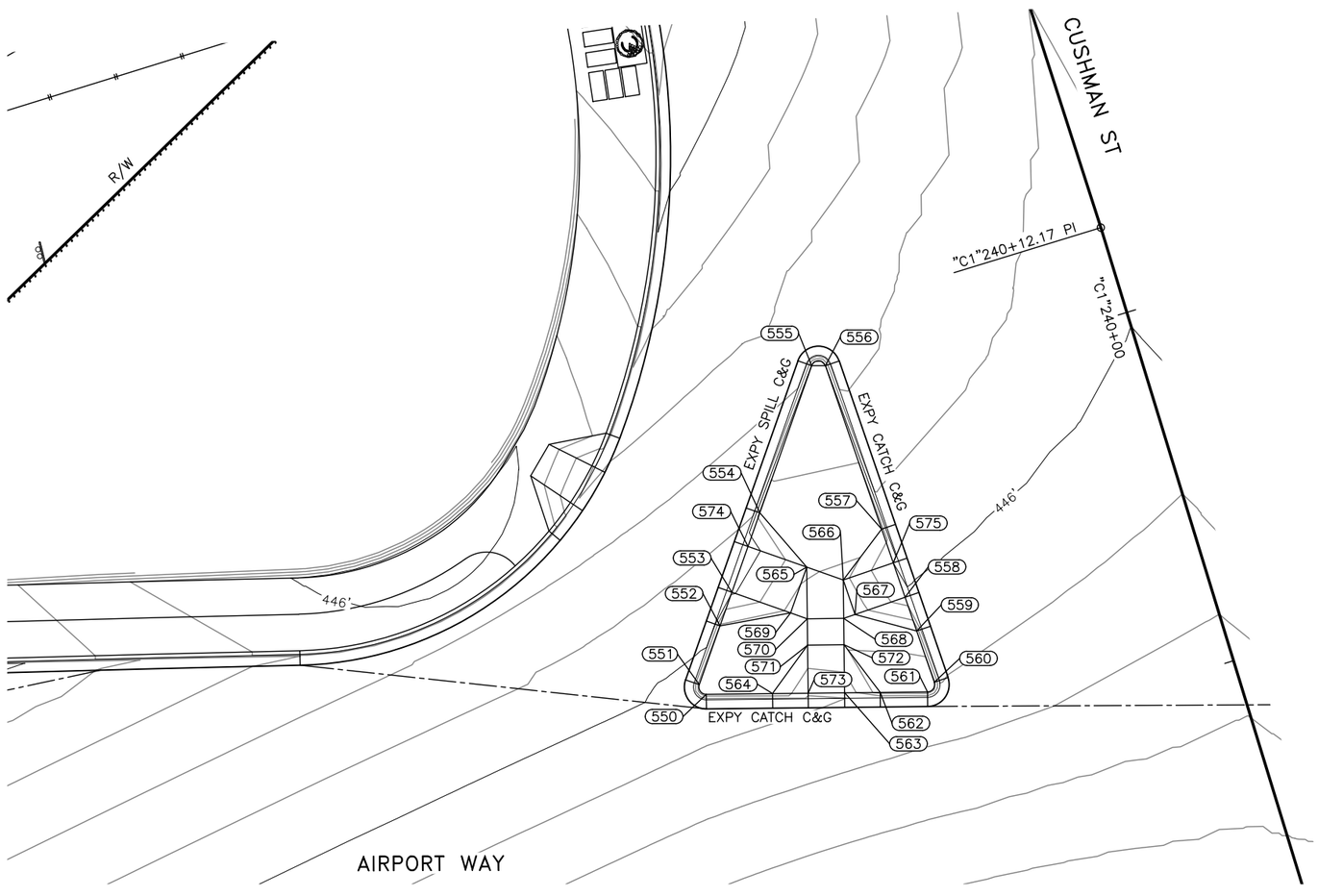
12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G11	G15

NOTES:

1. SEE SHEET E10 FOR SPLITTER ISLAND DETAIL.
2. SIGNAL EQUIPMENT NOT SHOWN FOR CLARITY



GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
550	"C1" 239+66.78	70.57' LT	446.54'	TBC PRC, GB (1)
551	"C1" 239+68.33	71.09' LT	446.52'	TBC PT (2)
552	"C1" 239+75.22	66.00' LT	446.42'	TBC PI, RAMP FLARE
553	"C1" 239+79.16	63.10' LT	445.97'	TBC PI, ADA C&G
554	"C1" 239+88.45	56.24' LT	446.25'	TBC PI, RAMP FLARE
555	"C1" 240+05.69	43.51' LT	446.02'	TBC PC (3)
556	"C1" 240+05.13	41.71' LT	446.01'	TBC PT (4)
557	"C1" 239+81.42	40.90' LT	446.33'	TBC PI, RAMP FLARE
558	"C1" 239+71.53	40.56' LT	446.08'	TBC PI, ADA C&G
559	"C1" 239+66.64	40.39' LT	446.55'	TBC PI, RAMP FLARE
560	"C1" 239+59.20	40.14' LT	446.65'	TBC PC
561	"C1" 239+58.21	41.42' LT	446.73'	TBC PRC, GB
562	"C1" 239+60.06	47.66' LT	446.69'	TBC PI, RAMP FLARE
563	"C1" 239+61.44	52.35' LT	446.26'	TBC PI, ADA C&G
564	"C1" 239+64.23	61.84' LT	446.60'	TBC PI, RAMP FLARE
565	"C1" 239+79.44	52.27' LT	446.37'	PI, TOP RAMP
566	"C1" 239+76.28	47.99' LT	446.46'	PI, TOP RAMP
567	"C1" 239+71.28	47.82' LT	446.51'	PI, TOP RAMP
568	"C1" 239+71.23	49.47' LT	446.54'	PI, SWLK
569	"C1" 239+74.08	56.23' LT	446.45'	PI, TOP RAMP
570	"C1" 239+72.64	54.27' LT	446.50'	PI, SWLK
571	"C1" 239+69.17	55.29' LT	446.56'	PI, TOP RAMP
572	"C1" 239+67.76	50.49' LT	446.59'	PI, TOP RAMP
573	"C1" 239+62.85	57.14' LT	446.23'	TBC PI, ADA C&G
574	"C1" 239+84.52	59.14' LT	445.90'	TBC PI, ADA C&G
575	"C1" 239+76.53	40.73' LT	446.00'	TBC PI, ADA C&G

GRADING CONSTRUCTION NOTES:

1. END CATCH C&G PAN, BEGIN GUTTER PAN TRANSITION
2. END GUTTER PAN TRANSITION, BEGIN SPILL GUTTER PAN
3. END SPILL C&G PAN, BEGIN GUTTER PAN TRANSITION
4. END GUTTER PAN TRANSITION, BEGIN CATCH GUTTER PAN

GRADING PLAN

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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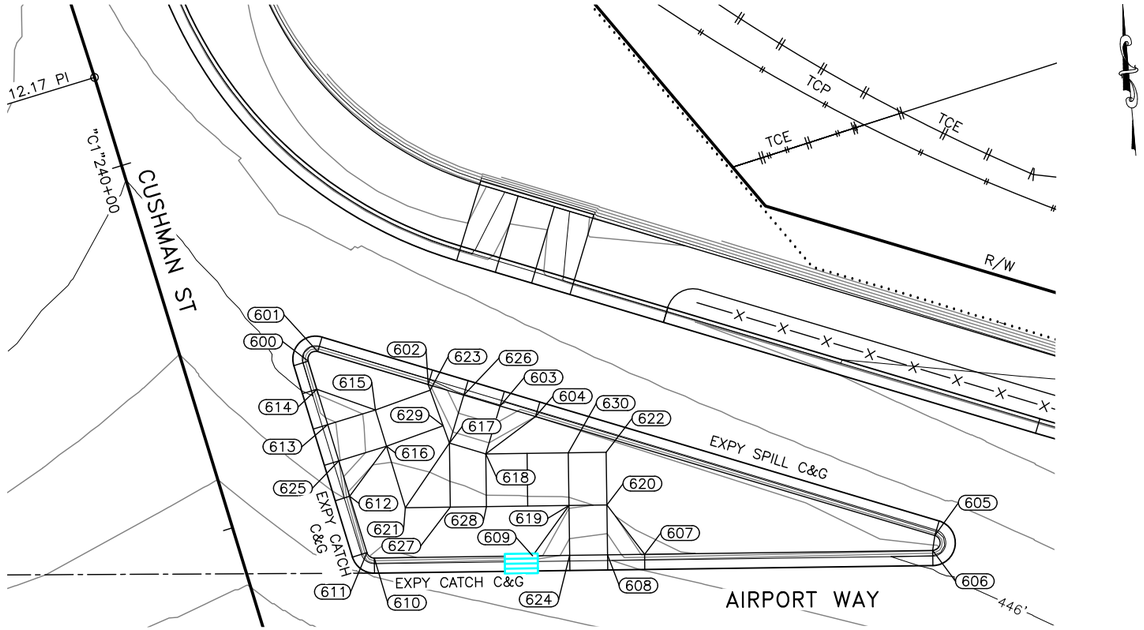
ALASKA	0002312/Z640780000	2024	G12	G15

NOTES:

1. SEE SHEET E10 FOR SPLITTER ISLAND DETAIL.
2. SIGNAL EQUIPMENT NOT SHOWN FOR CLARITY



GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
600	"C1" 239+68.10	16.00' RT	446.43'	TBC PC 1 (1)
601	"C1" 239+68.93	17.55' RT	446.44'	TBC PT 2 (2)
602	"C1" 239+60.50	30.23' RT	446.42'	TBC PI, RAMP FLARE
603	"C1" 239+55.03	38.46' RT	446.01'	TBC PI, ADA C&G
604	"C1" 239+52.32	42.53' RT	446.40'	TBC PI, RAMP FLARE
605	"C1" 239+21.87	88.31' RT	446.34'	TBC PC 3 (3)
606	"C1" 239+20.08	87.47' RT	446.43'	TBC PT 4 (4)
607	"C1" 239+30.72	50.97' RT	446.64'	TBC PI, RAMP FLARE
608	"C1" 239+32.09	46.27' RT	446.26'	TBC PI, ADA C&G
609	"C1" 239+34.86	36.78' RT	446.72'	TBC PI, RAMP FLARE
610	"C1" 239+40.71	16.72' RT	446.83'	TBC PC, GB
611	"C1" 239+41.67	16.00' RT	446.77'	TBC PT
612	"C1" 239+49.44	16.00' RT	446.66'	TBC PI, RAMP FLARE
613	"C1" 239+59.33	16.00' RT	446.14'	TBC PI, ADA C&G
614	"C1" 239+64.22	16.00' RT	446.45'	TBC PI, RAMP FLARE
615	"C1" 239+59.33	22.58' RT	446.49'	PI, TOP RAMP
616	"C1" 239+54.33	22.58' RT	446.56'	PI, TOP RAMP
617	"C1" 239+52.30	30.64' RT	446.52'	PI, TOP RAMP
618	"C1" 239+49.53	34.81' RT	446.52'	PI, TOP RAMP
619	"C1" 239+39.81	43.32' RT	446.62'	PI, TOP RAMP
620	"C1" 239+38.41	48.12' RT	446.59'	PI, TOP RAMP
621	"C1" 239+45.85	22.58' RT	446.70'	PI, SWLK
622	"C1" 239+45.08	50.06' RT	446.48'	PI, SWLK
623	"C1" 239+59.72	30.27' RT	446.43'	PI, SWLK
624	"C1" 239+33.49	41.47' RT	446.29'	TBC PI, ADA C&G
625	"C1" 239+54.33	16.00' RT	446.19'	TBC PI, ADA C&G
626	"C1" 239+57.79	34.30' RT	446.01'	TBC PI, ADA C&G
627	"C1" 239+44.19	28.28' RT	446.65'	PI, SWLK
628	"C1" 239+42.86	32.86' RT	446.62'	PI, SWLK
629	"C1" 239+54.74	30.52' RT	446.49'	PI, SWLK
630	"C1" 239+46.48	45.26' RT	446.50'	PI, SWLK

GRADING CONSTRUCTION NOTES:

1. END CATCH C&G PAN, BEGIN GUTTER PAN TRANSITION
2. END GUTTER PAN TRANSITION, BEGIN SPILL GUTTER PAN
3. END SPILL C&G PAN, BEGIN GUTTER PAN TRANSITION
4. END GUTTER PAN TRANSITION, BEGIN CATCH GUTTER PAN

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

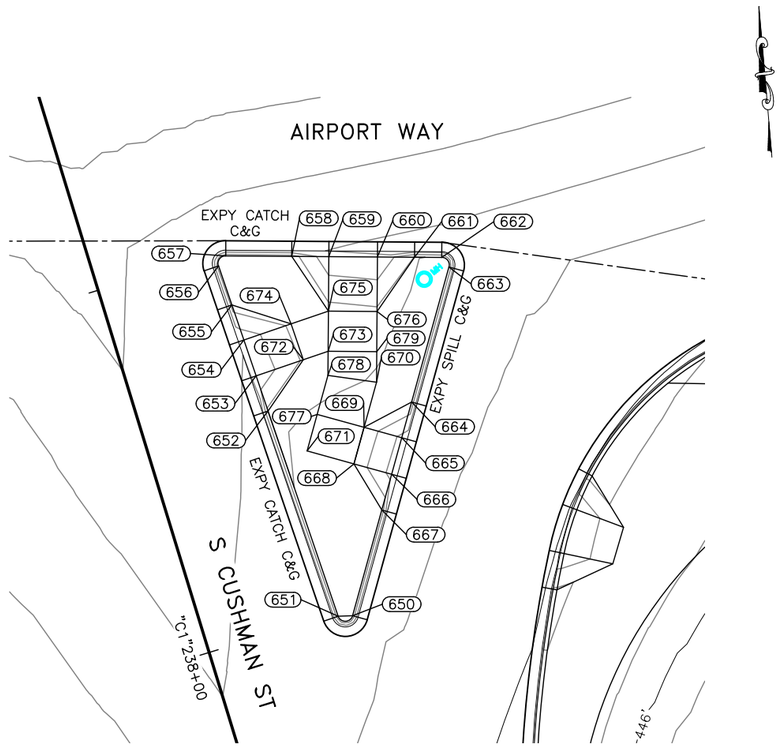
GRADING PLAN

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G13	G15

NOTES:

1. SEE SHEET E10 FOR SPLITTER ISLAND DETAIL.
2. SIGNAL EQUIPMENT NOT SHOWN FOR CLARITY



GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
650	"C1" 237+99.09	19.53' RT	446.74'	TBC PC (3)
651	"C1" 237+99.59	17.69' RT	446.75'	TBC PT (4)
652	"C1" 238+28.20	16.78' RT	446.83'	TBC PI, RAMP FLARE
653	"C1" 238+33.08	16.62' RT	446.45'	TBC PI, ADA C&G
654	"C1" 238+38.08	16.46' RT	446.47'	TBC PI, ADA C&G
655	"C1" 238+42.97	16.31' RT	446.89'	TBC PI, RAMP FLARE
656	"C1" 238+48.41	16.13' RT	446.91'	TBC PC (1)
657	"C1" 238+49.39	17.43' RT	446.92'	TBC PRC, GB (2)
658	"C1" 238+46.80	25.75' RT	446.88'	TBC PI, RAMP FLARE
659	"C1" 238+45.34	30.41' RT	446.46'	TBC PI, ADA C&G
660	"C1" 238+43.41	36.54' RT	446.43'	TBC PI, ADA C&G
661	"C1" 238+41.94	41.20' RT	446.81'	TBC PI, RAMP FLARE
662	"C1" 238+40.86	44.63' RT	446.79'	TBC PRC, GB
663	"C1" 238+39.37	45.17' RT	446.76'	TBC PT
664	"C1" 238+23.77	35.24' RT	446.75'	TBC PI, RAMP FLARE
665	"C1" 238+19.64	32.62' RT	446.35'	TBC PI, ADA C&G
666	"C1" 238+15.43	29.93' RT	446.34'	TBC PI, ADA C&G
667	"C1" 238+11.30	27.31' RT	446.74'	TBC PI, RAMP FLARE
668	"C1" 238+18.20	25.58' RT	446.74'	PI, TOP RAMP
669	"C1" 238+22.42	28.26' RT	446.75'	PI, TOP RAMP
670	"C1" 238+27.63	31.58' RT	446.79'	PI, SWLK
671	"C1" 238+21.65	20.16' RT	446.77'	PI, SWLK
672	"C1" 238+33.29	23.20' RT	446.82'	PI, TOP OF RAMP
673	"C1" 238+33.40	26.67' RT	446.84'	PI, SWLK
674	"C1" 238+38.29	23.04' RT	446.84'	PI, TOP RAMP
675	"C1" 238+38.46	28.25' RT	446.87'	PI, TOP RAMP
676	"C1" 238+36.53	34.38' RT	446.84'	PI, TOP RAMP
677	"C1" 238+25.86	22.85' RT	446.79'	PI, SWLK
678	"C1" 238+30.37	25.71' RT	446.82'	PI, SWLK
679	"C1" 238+31.48	32.79' RT	446.81'	PI, SWLK

GRADING CONSTRUCTION NOTES:

1. END CATCH C&G PAN, BEGIN GUTTER PAN TRANSITION
2. END GUTTER PAN TRANSITION, BEGIN SPILL GUTTER PAN
3. END SPILL C&G PAN, BEGIN GUTTER PAN TRANSITION
4. END GUTTER PAN TRANSITION, BEGIN CATCH GUTTER PAN

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

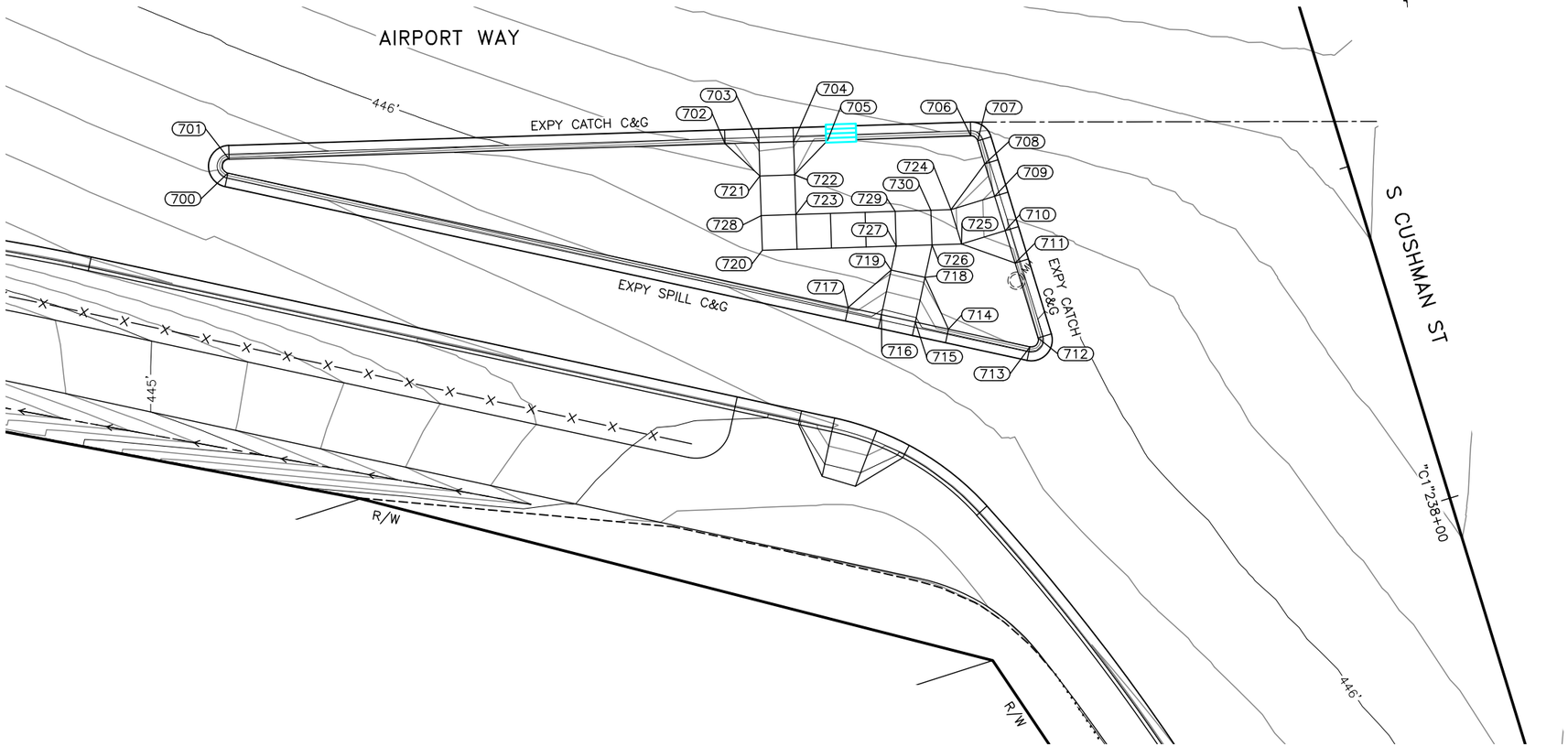
GRADING PLAN

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G14	G15

NOTES:

1. SEE SHEET E10 FOR SPLITTER ISLAND DETAIL.
2. SIGNAL EQUIPMENT NOT SHOWN FOR CLARITY



GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
700	"C1" 238+96.42	154.73' LT	446.01'	TBC PC 3 (3)
701	"C1" 238+98.25	153.98' LT	446.15'	TBC PT 4 (4)
702	"C1" 238+79.46	84.95' LT	446.70'	TBC PI, RAMP FLARE
703	"C1" 238+78.18	80.24' LT	446.34'	TBC PI, ADA C&G
704	"C1" 238+76.87	75.41' LT	446.36'	TBC PI, ADA C&G
705	"C1" 238+75.58	70.69' LT	446.79'	TBC PI, RAMP FLARE
706	"C1" 238+70.15	50.74' LT	446.88'	TBC PC, GB
707	"C1" 238+69.18	50.00' LT	446.83'	TBC PT
708	"C1" 238+65.72	50.00' LT	446.77'	TBC PI RAMP FLARE
709	"C1" 238+60.83	50.00' LT	446.31'	TBC PI, ADA C&G
710	"C1" 238+55.65	50.00' LT	446.24'	TBC PI, ADA C&G
711	"C1" 238+50.76	50.00' LT	446.56'	TBC PI, RAMP FLARE
712	"C1" 238+39.47	50.00' LT	446.43'	TBC PC 1 (1)
713	"C1" 238+38.59	51.49' LT	446.41'	TBC PT 2 (2)
714	"C1" 238+44.47	61.98' LT	446.37'	TBC PI, RAMP FLARE
715	"C1" 238+46.86	66.25' LT	445.95'	TBC PI, ADA C&G
716	"C1" 238+49.30	70.61' LT	445.94'	TBC PI, ADA C&G
717	"C1" 238+51.68	74.89' LT	446.31'	TBC PI, RAMP FLARE
718	"C1" 238+52.60	63.04' LT	446.46'	PI, TOP RAMP
719	"C1" 238+55.04	67.40' LT	446.45'	PI, TOP RAMP
720	"C1" 238+63.20	84.31' LT	446.42'	PI, SWLK
721	"C1" 238+73.55	81.50' LT	446.58'	PI, TOP RAMP
722	"C1" 238+72.23	76.67' LT	446.60'	PI, TOP RAMP
723	"C1" 238+66.71	78.18' LT	446.51'	PI, SWLK
724	"C1" 238+60.83	56.58' LT	446.64'	PI, TOP RAMP
725	"C1" 238+55.65	56.58' LT	446.57'	PI, TOP RAMP
726	"C1" 238+56.77	60.70' LT	446.53'	PI, SWLK
727	"C1" 238+58.13	65.67' LT	446.50'	PI, SWLK
728	"C1" 238+68.03	83.00' LT	446.49'	PI, SWLK
729	"C1" 238+62.95	64.36' LT	446.57'	PI, SWLK
730	"C1" 238+61.60	59.38' LT	446.61'	PI, SWLK

GRADING CONSTRUCTION NOTES:

1. END CATCH C&G PAN, BEGIN GUTTER PAN TRANSITION
2. END GUTTER PAN TRANSITION, BEGIN SPILL GUTTER PAN
3. END SPILL C&G PAN, BEGIN GUTTER PAN TRANSITION
4. END GUTTER PAN TRANSITION, BEGIN CATCH GUTTER PAN

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
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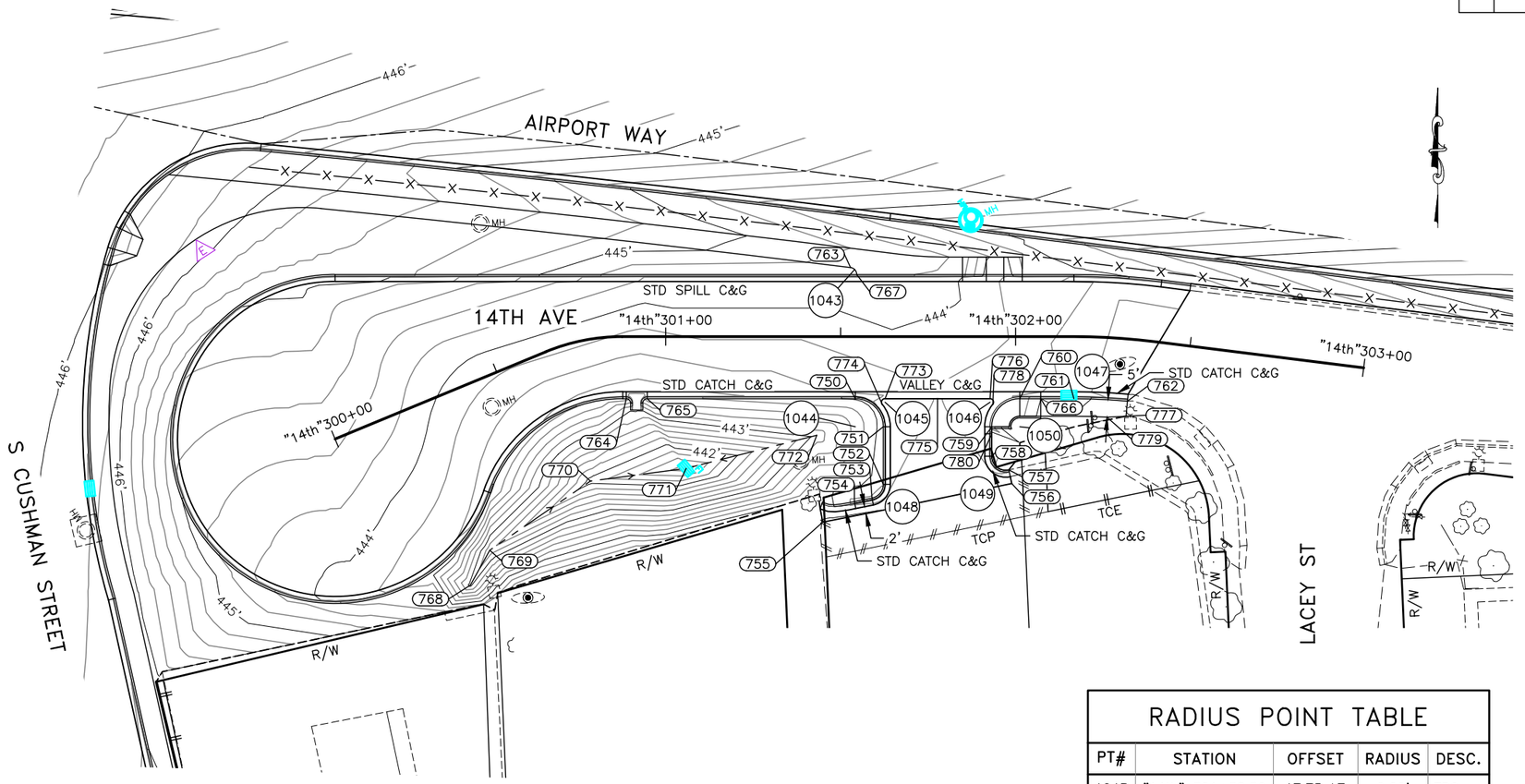
12/22/2022

GRADING PLAN

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	G15	G15



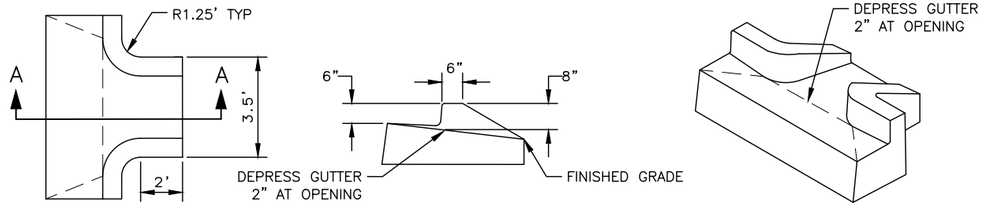
GRADING POINT TABLE

PT#	STATION	OFFSET	ELEV	DESC
750	"14th" 301+54.19	17.75' RT	444.02'	TBC PC
751	"14th" 301+62.19	25.75' RT	444.10'	TBC PT
752	"14th" 301+62.19	42.23' RT	444.20'	TBC PC
753	"14th" 301+58.98	46.15' RT	444.23'	TBC PT
754	"14th" 301+53.94	47.15' RT	444.25'	TBC PI, TERM TRANS*
755	"14th" 301+44.90	53.03' RT	444.0'±	PI, SAWCUT, ME
756	"14th" 301+98.91	42.00' RT	443.9'±	PI, SAWCUT, ME
757	"14th" 301+98.05	38.09' RT	444.3'±	TBC PC, SAWCUT, ME
758	"14th" 301+93.19	34.18' RT	444.15'	TBC PT
759	"14th" 301+93.19	25.75' RT	443.71'	TBC PC, ADA C&G
760	"14th" 302+01.19	17.75' RT	443.65'	TBC PT, ADA C&G
761	"14th" 302+16.65	17.75' RT	443.93'	TBC PC, SAG VPI
762	"14th" 302+33.61	17.74' RT	444.2'±	TBC PI, SAWCUT, ME
763	"14th" 301+52.84	19.73' LT	444.71'	PC
764	"14th" 300+88.72	17.75' RT	443.72'	TBC PI, SAG VPI**
765	"14th" 300+94.72	17.75' RT	443.72'	TBC PI, SAG VPI**
766	"14th" 302+07.19	17.75' RT	444.00'	TBC PI, RAMP FLARE
767	"14th" 301+54.59	17.75' LT	444.65'	TBC PT
768	"14th" 300+19.72	53.40' RT	442.94'	PI, BEGIN DITCH
769	"14th" 300+28.71	46.27' RT	442.65'	PI, DITCH
770	"14th" 300+62.85	39.03' RT	441.91'	PI, DITCH
771	"14th" 301+05.87	37.66' RT	441.30'	PI, INLET
772	"14th" 301+43.21	28.18' RT	443.08'	PI, END DITCH
773	"14th" 301+62.68	17.75' RT	443.70'	TBC PT, VALLEY GUTTER
774	"14th" 301+61.91	19.39' RT	443.67'	TBC PRC
775	"14th" 301+77.69	17.75' RT	443.81'	TBC VPI
776	"14th" 301+92.71	17.75' RT	443.73'	TBC PC, VALLEY GUTTER
777	"14th" 302+33.61	22.09' RT	444.2'±	PI, SAWCUT, ME
778	"14th" 301+93.48	19.39' RT	443.69'	TBC PRC, ADA C&G
779	"14th" 302+27.47	22.74' RT	444.14'	PI
780	"14th" 301+93.19	27.75' RT	444.12'	TBC PI, RETURN FULL HEIGHT C&G

* SEE DETAIL ON SHEET E8
** SEE DETAIL THIS SHEET

RADIUS POINT TABLE

PT#	STATION	OFFSET	RADIUS	DESC.
1043	"14th" 301+52.59	17.75 LT	2.00'	TBC
1044	"14th" 301+54.19	25.75 RT	8.00'	
1045	"14th" 301+62.68	18.75 RT	1.00'	LIP
1046	"14th" 301+92.71	18.75 RT	1.00'	LIP
1047	"14th" 302+28.12	180.36 RT	162.62'	TBC
1048	"14th" 301+58.19	42.23 RT	4.00'	TBC
1049	"14th" 301+97.19	34.18 RT	4.00'	TBC
1050	"14th" 302+01.19	25.75 RT	8.00'	



DETAIL
NTS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
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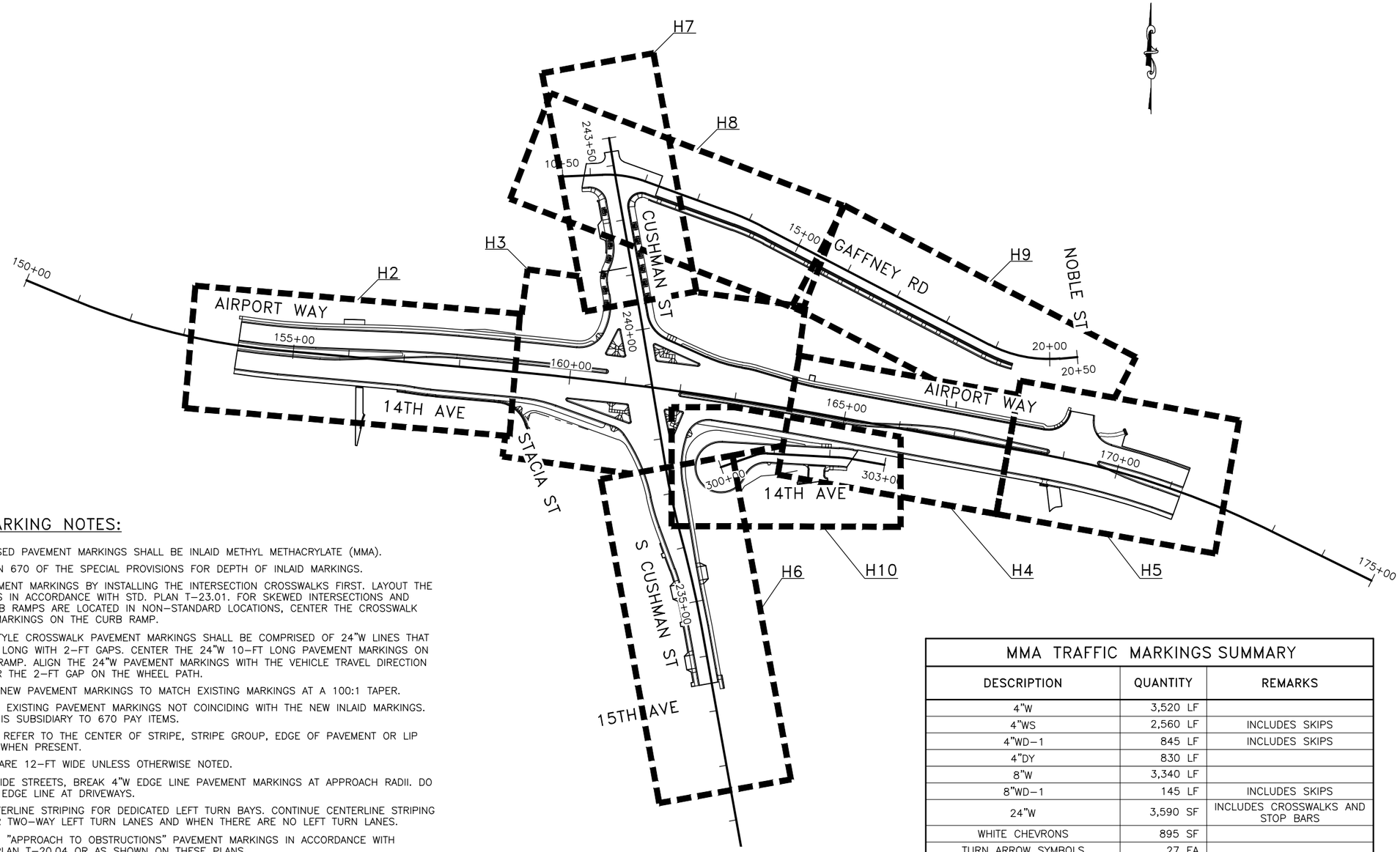
12/22/2022

GRADING PLAN

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_Airport & Cushman Reconstruction\DWGS\C\Sheets\64078_H1_Sheet Layout-H1 Thu, Dec/22/22 01:31pm (Bill Paddock) KE#: 00385

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H1	H53



TRAFFIC MARKING NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE INLAID METHYL METHACRYLATE (MMA).
2. SEE SECTION 670 OF THE SPECIAL PROVISIONS FOR DEPTH OF INLAID MARKINGS.
3. BEGIN PAVEMENT MARKINGS BY INSTALLING THE INTERSECTION CROSSWALKS FIRST. LAYOUT THE CROSSWALKS IN ACCORDANCE WITH STD. PLAN T-23.01. FOR SKEWED INTERSECTIONS AND WHERE CURB RAMPS ARE LOCATED IN NON-STANDARD LOCATIONS, CENTER THE CROSSWALK PAVEMENT MARKINGS ON THE CURB RAMP.
4. "LADDER" STYLE CROSSWALK PAVEMENT MARKINGS SHALL BE COMPRISED OF 24"W LINES THAT ARE 10-FT LONG WITH 2-FT GAPS. CENTER THE 24"W 10-FT LONG PAVEMENT MARKINGS ON THE CURB RAMP. ALIGN THE 24"W PAVEMENT MARKINGS WITH THE VEHICLE TRAVEL DIRECTION AND CENTER THE 2-FT GAP ON THE WHEEL PATH.
5. TRANSITION NEW PAVEMENT MARKINGS TO MATCH EXISTING MARKINGS AT A 100:1 TAPER.
6. REMOVE ALL EXISTING PAVEMENT MARKINGS NOT COINCIDING WITH THE NEW INLAID MARKINGS. THIS WORK IS SUBSIDIARY TO 670 PAY ITEMS.
7. DIMENSIONS REFER TO THE CENTER OF STRIPE, STRIPE GROUP, EDGE OF PAVEMENT OR LIP OF GUTTER WHEN PRESENT.
8. ALL LANES ARE 12-FT WIDE UNLESS OTHERWISE NOTED.
9. AT MINOR SIDE STREETS, BREAK 4"W EDGE LINE PAVEMENT MARKINGS AT APPROACH RADII. DO NOT BREAK EDGE LINE AT DRIVEWAYS.
10. BREAK CENTERLINE STRIPING FOR DEDICATED LEFT TURN BAYS. CONTINUE CENTERLINE STRIPING FOR CENTER TWO-WAY LEFT TURN LANES AND WHEN THERE ARE NO LEFT TURN LANES.
11. INSTALL THE "APPROACH TO OBSTRUCTIONS" PAVEMENT MARKINGS IN ACCORDANCE WITH STANDARD PLAN T-20.04 OR AS SHOWN ON THESE PLANS.
12. INSTALL TURN ARROWS WHERE SHOWN AND ACCORDING TO STD. PLAN T-21.04. DO NOT INSTALL "ONLY" MARKINGS UNLESS SHOWN ON THE STRIPING PLAN.
13. PAINT THE TOP AND FACE OF ALL RAMPED MEDIAN NOSES AND THE CURB AND GUTTER ISLAND NOSES WITH 20 MILS OF SURFACE APPLIED YELLOW METHYL METHACRYLATE TRAFFIC PAINT. THIS WORK IS SUBSIDIARY TO 670 PAY ITEMS.
14. LOCATE STOP BARS A MINIMUM OF EITHER 4' FROM BACK OF SIDEWALK OR 10' FROM FACE OF CURB, WHICHEVER PROVIDES THE GREATER OFFSET FROM BACK OF SIDEWALK.
15. STRIPING CONFIGURATIONS IN THIS PLAN SET ARE APPROXIMATE. THE CONTRACTOR SHALL PERFORM PRELIMINARY SPOTTING (RABBIT TRACKING) OF STRIPING AT LEAST 48 HOURS PRIOR TO FINAL MILLING AND APPLICATION OF MARKINGS. THE ENGINEER WILL THEN APPROVE THE LAYOUT OR MAKE MODIFICATIONS AS REQUIRED.

MMA TRAFFIC MARKINGS SUMMARY

DESCRIPTION	QUANTITY	REMARKS
4"W	3,520 LF	
4"WS	2,560 LF	INCLUDES SKIPS
4"WD-1	845 LF	INCLUDES SKIPS
4"DY	830 LF	
8"W	3,340 LF	
8"WD-1	145 LF	INCLUDES SKIPS
24"W	3,590 SF	INCLUDES CROSSWALKS AND STOP BARS
WHITE CHEVRONS	895 SF	
TURN ARROW SYMBOLS	27 EA	
COMBINATION ARROW SYMBOL	1 EA	
THROUGH ARROW SYMBOLS	2 EA	
ONLY SYMBOLS	2 EA	
YELLOW RAMPED MEDIAN NOSES	8 EA	INCLUDES ISLANDS

APPROACH KEY

(A) STATION / CURB CUT, SIZE

SIGNING AND STRIPING SHEET LAYOUT

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
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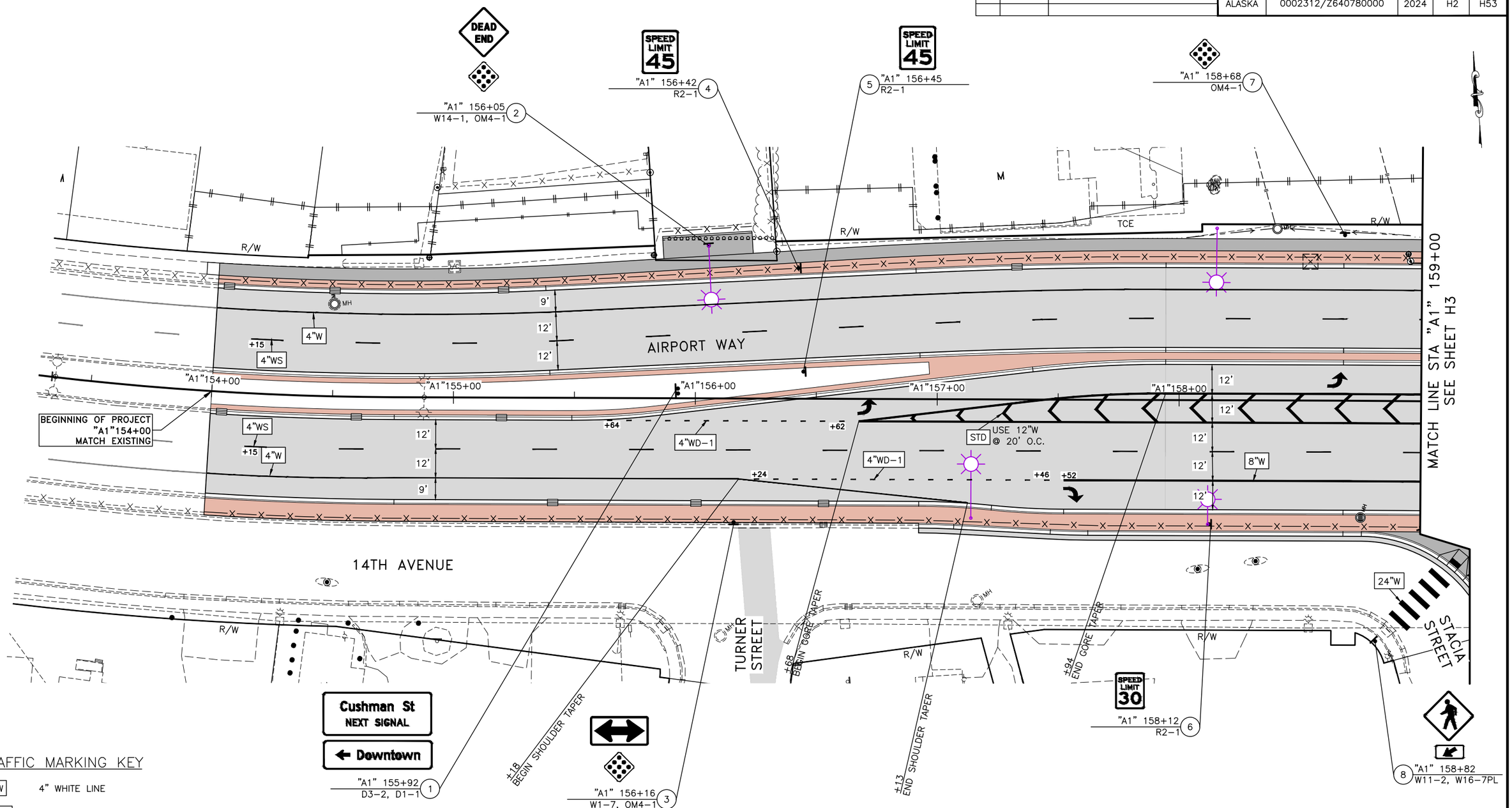
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H2	H53



TRAFFIC MARKING KEY

4"W	4" WHITE LINE
4"WS	4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
4"WD–1	4" WHITE DOTTED LINE (2' STRIPE/6' SKIP PATTERN)
4"DY	4" DOUBLE YELLOW LINE
8"W	8" WHITE LINE
8"WD–1	8" WHITE DOTTED LINE (3' STRIPE/3' SKIP PATTERN)
STD	SEE STANDARD PLANS
DTL	SEE DETAILS ON H17 AND E–SHEETS

SIGNING KEY

(#) STATION
SIGN CODE(S)
SIGN LOCATION #

SIGNING AND STRIPING
1 OF 9

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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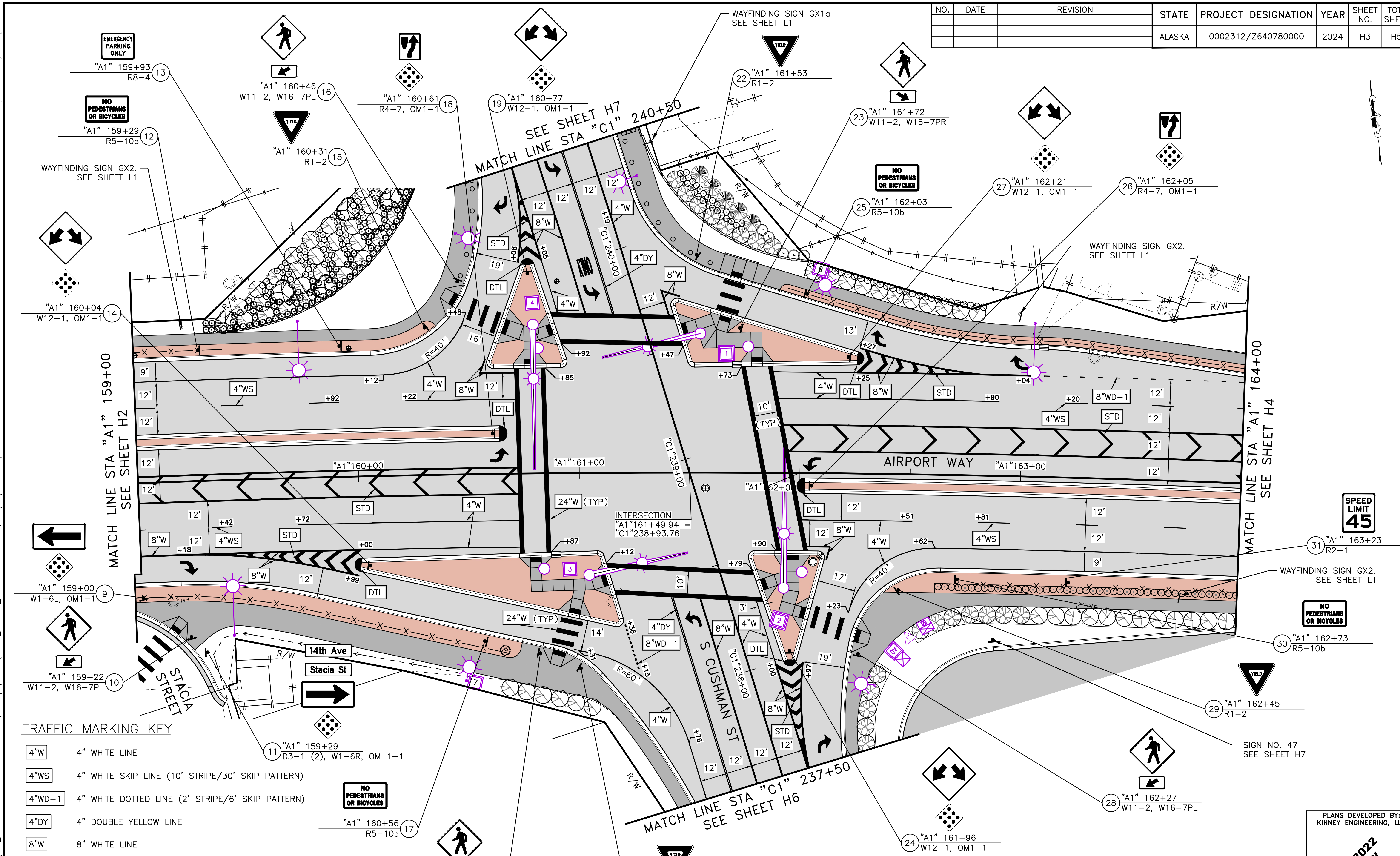
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H3	H53



MATCH LINE STA "C1" 240+50
SEE SHEET H7
MATCH LINE STA "A1" 159+00
SEE SHEET H2
MATCH LINE STA "A1" 164+00
SEE SHEET H4
MATCH LINE STA "C1" 237+50
SEE SHEET H6
AIRPORT WAY
S CUSHMAN ST
STACIA STREET
14th Ave
Stacia St
INTERSECTION
"A1"161+49.94 = "C1"238+93.76
"A1"160+00
"A1"161+00
"A1"162+00
"A1"163+00
"C1"239+00
"C1"240+00
"C1"238+00
EMERGENCY PARKING ONLY
"A1" 159+93
R8-4
13
NO PEDESTRIANS OR BICYCLES
"A1" 159+29
R5-10b
12
WAYFINDING SIGN GX2.
SEE SHEET L1
"A1" 160+04
W12-1, OM1-1
14
"A1" 159+00
W1-6L, OM1-1
9
"A1" 159+22
W11-2, W16-7PL
10
"A1" 159+29
D3-1 (2), W1-6R, OM 1-1
11
"A1" 160+46
W11-2, W16-7PL
16
"A1" 160+31
R1-2
15
"A1" 160+61
R4-7, OM1-1
18
"A1" 160+77
W12-1, OM1-1
19
WAYFINDING SIGN GX1a
SEE SHEET L1
"A1" 161+53
R1-2
22
"A1" 161+72
W11-2, W16-7PR
23
"A1" 162+03
R5-10b
25
"A1" 162+21
W12-1, OM1-1
27
"A1" 162+05
R4-7, OM1-1
26
WAYFINDING SIGN GX2.
SEE SHEET L1
SPEED LIMIT 45
"A1" 163+23
R2-1
31
WAYFINDING SIGN GX2.
SEE SHEET L1
"A1" 162+73
R5-10b
30
"A1" 162+45
R1-2
29
SIGN NO. 47
SEE SHEET H7
"A1" 162+27
W11-2, W16-7PL
28
"A1" 161+96
W12-1, OM1-1
24
"A1" 161+00
R1-2
21
"A1" 160+82
W11-2, W16-7PL
20
"A1" 160+56
R5-10b
17
24"W (TYP)
R=40'
R=60'
(TYP)

TRAFFIC MARKING KEY

4"W	4" WHITE LINE
4"WS	4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
4"WD-1	4" WHITE DOTTED LINE (2' STRIPE/6' SKIP PATTERN)
4"DY	4" DOUBLE YELLOW LINE
8"W	8" WHITE LINE
8"WD-1	8" WHITE DOTTED LINE (3' STRIPE/3' SKIP PATTERN)
STD	SEE STANDARD PLANS
DTL	SEE DETAILS ON H17 AND E-SHEETS

SIGNING KEY

\# STATION
SIGN CODE(S)
SIGN LOCATION #

SIGNING AND STRIPING
2 OF 9

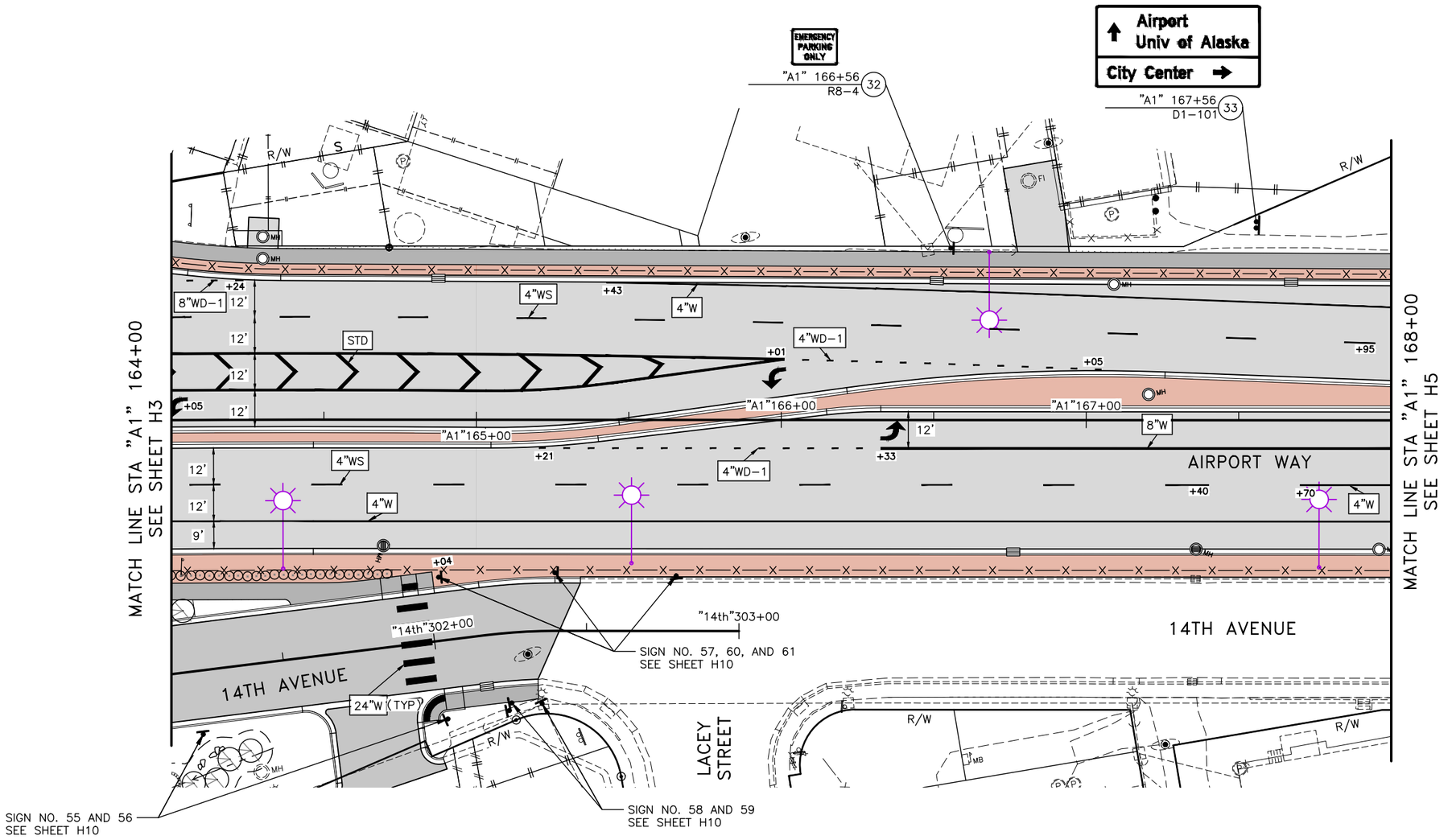
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H4	H53



TRAFFIC MARKING KEY

4"W	4" WHITE LINE
4"WS	4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
4"WD-1	4" WHITE DOTTED LINE (2' STRIPE/6' SKIP PATTERN)
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STD	SEE STANDARD PLANS
DTL	SEE DETAILS ON H17 AND E-SHEETS

SIGNING KEY

(#) STATION
SIGN CODE(S)
SIGN LOCATION #

SIGNING AND STRIPING
3 OF 9

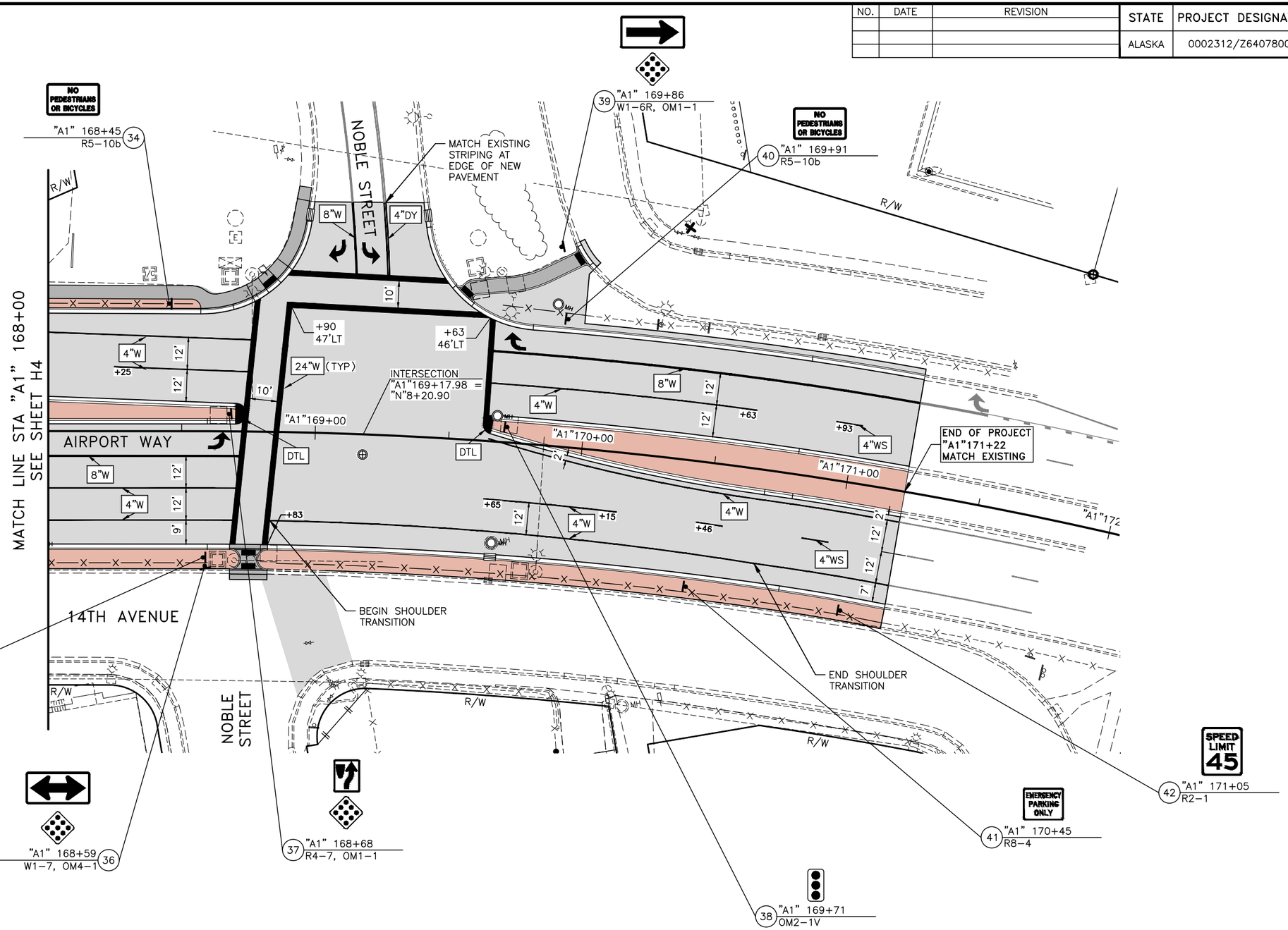
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H5	H53



TRAFFIC MARKING KEY

4"W	4" WHITE LINE
4"WS	4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
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4"DY	4" DOUBLE YELLOW LINE
8"W	8" WHITE LINE
8"WD-1	8" WHITE DOTTED LINE (3' STRIPE/3' SKIP PATTERN)
STD	SEE STANDARD PLANS
DTL	SEE DETAILS ON H17 AND E-SHEETS

SIGNING KEY

(#) STATION
SIGN CODE(S)
SIGN LOCATION #

SIGNING AND STRIPING
4 OF 9

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC
12/22/2022 REVIEW PS&E
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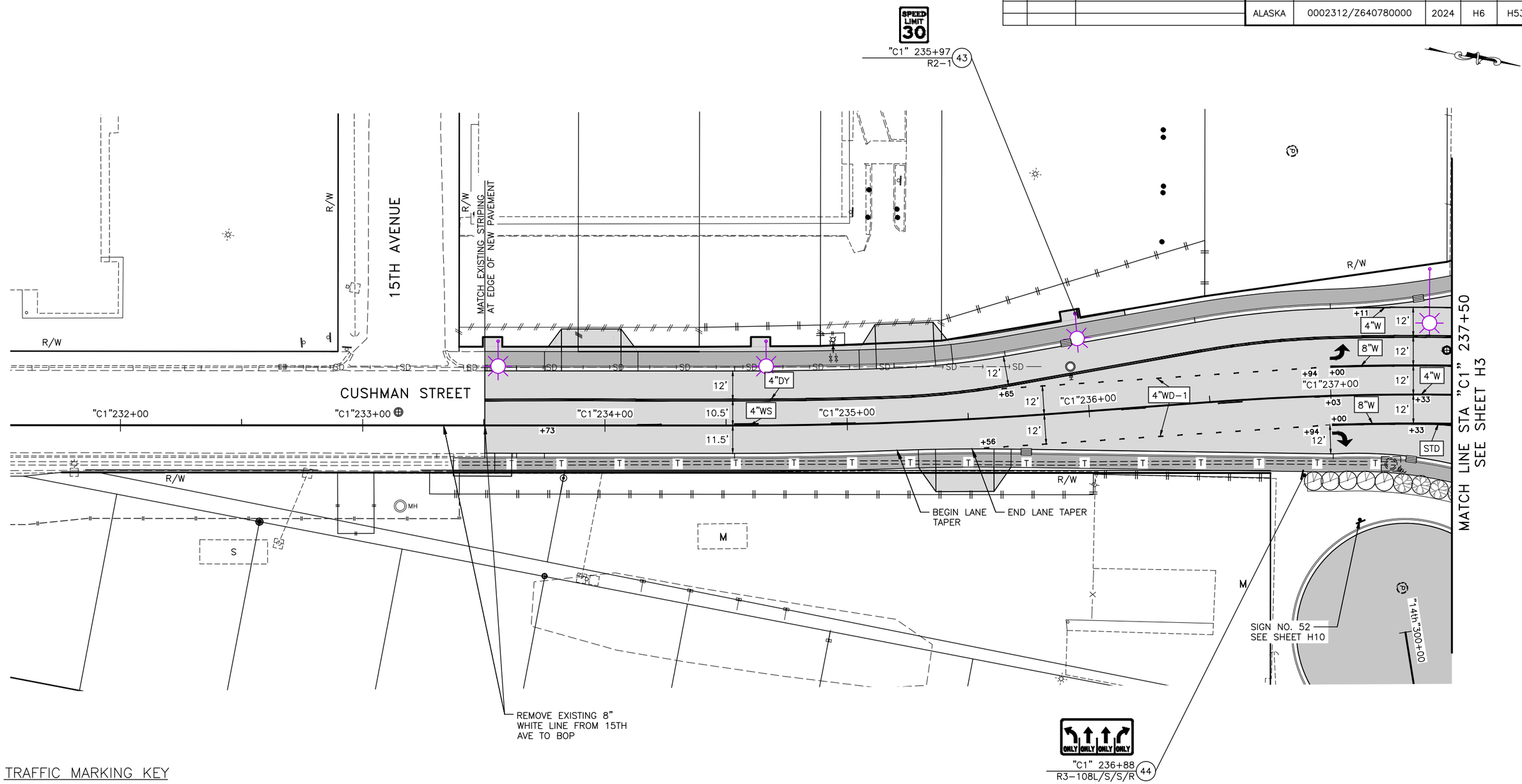
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H6	H53



TRAFFIC MARKING KEY

4"W	4" WHITE LINE
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8"W	8" WHITE LINE
8"WD-1	8" WHITE DOTTED LINE (3' STRIPE/3' SKIP PATTERN)
STD	SEE STANDARD PLANS
DTL	SEE DETAILS ON H17 AND E-SHEETS

SIGNING KEY

(#) STATION
SIGN CODE(S)
SIGN LOCATION #

SIGNING AND STRIPING
5 OF 9

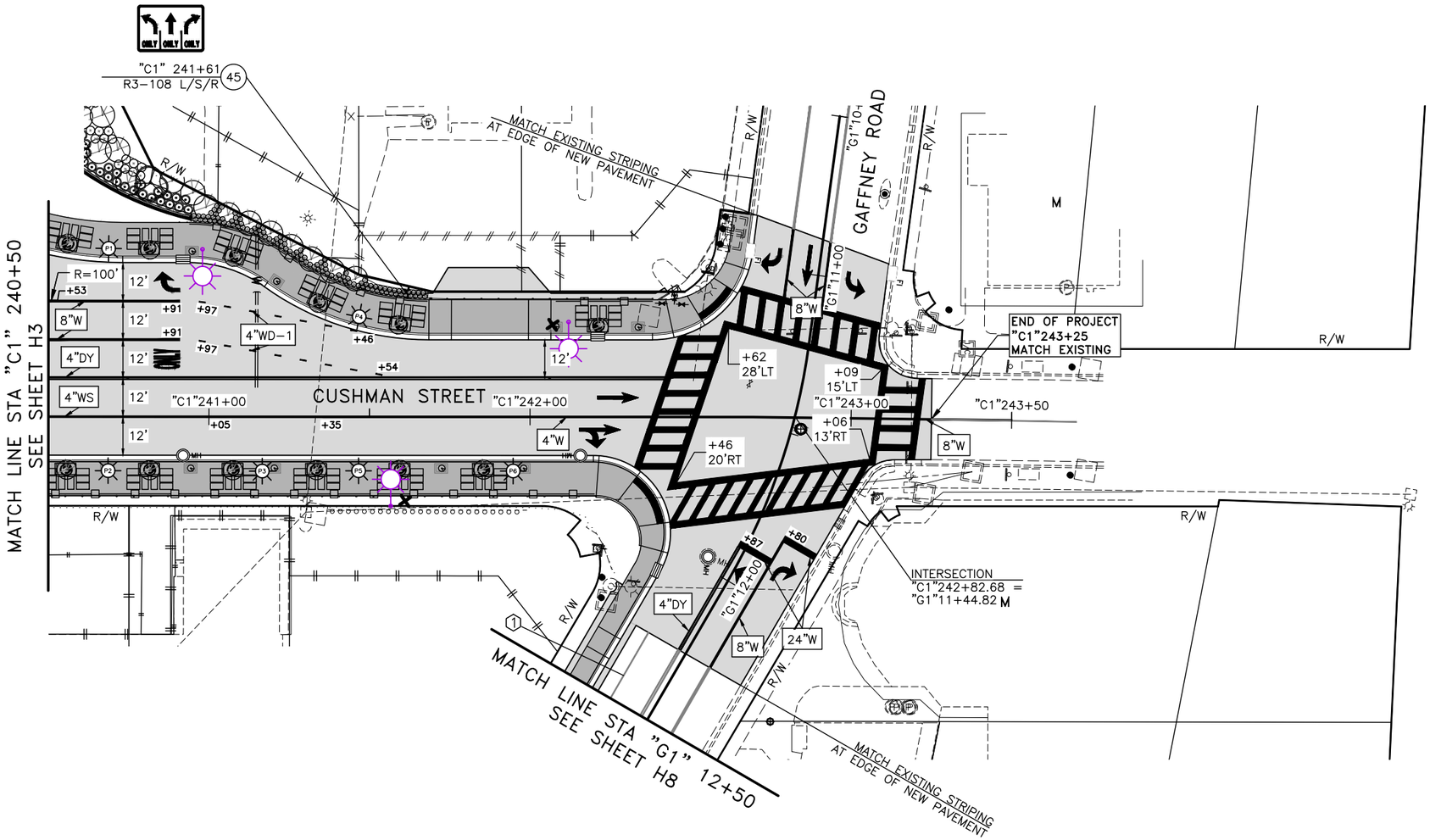
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H7	H53



TRAFFIC MARKING KEY

4"W	4" WHITE LINE
4"WS	4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
4"WD-1	4" WHITE DOTTED LINE (2' STRIPE/6' SKIP PATTERN)
4"DY	4" DOUBLE YELLOW LINE
8"W	8" WHITE LINE
8"WD-1	8" WHITE DOTTED LINE (3' STRIPE/3' SKIP PATTERN)
STD	SEE STANDARD PLANS
DTL	SEE DETAILS ON H17 AND E-SHEETS

NOTES:

(1) OBLITERATE 4" WHITE SHOULDER STRIPE

SIGNING KEY

(#) STATION
SIGN CODE(S)
SIGN LOCATION #

SIGNING AND STRIPING
6 OF 9

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

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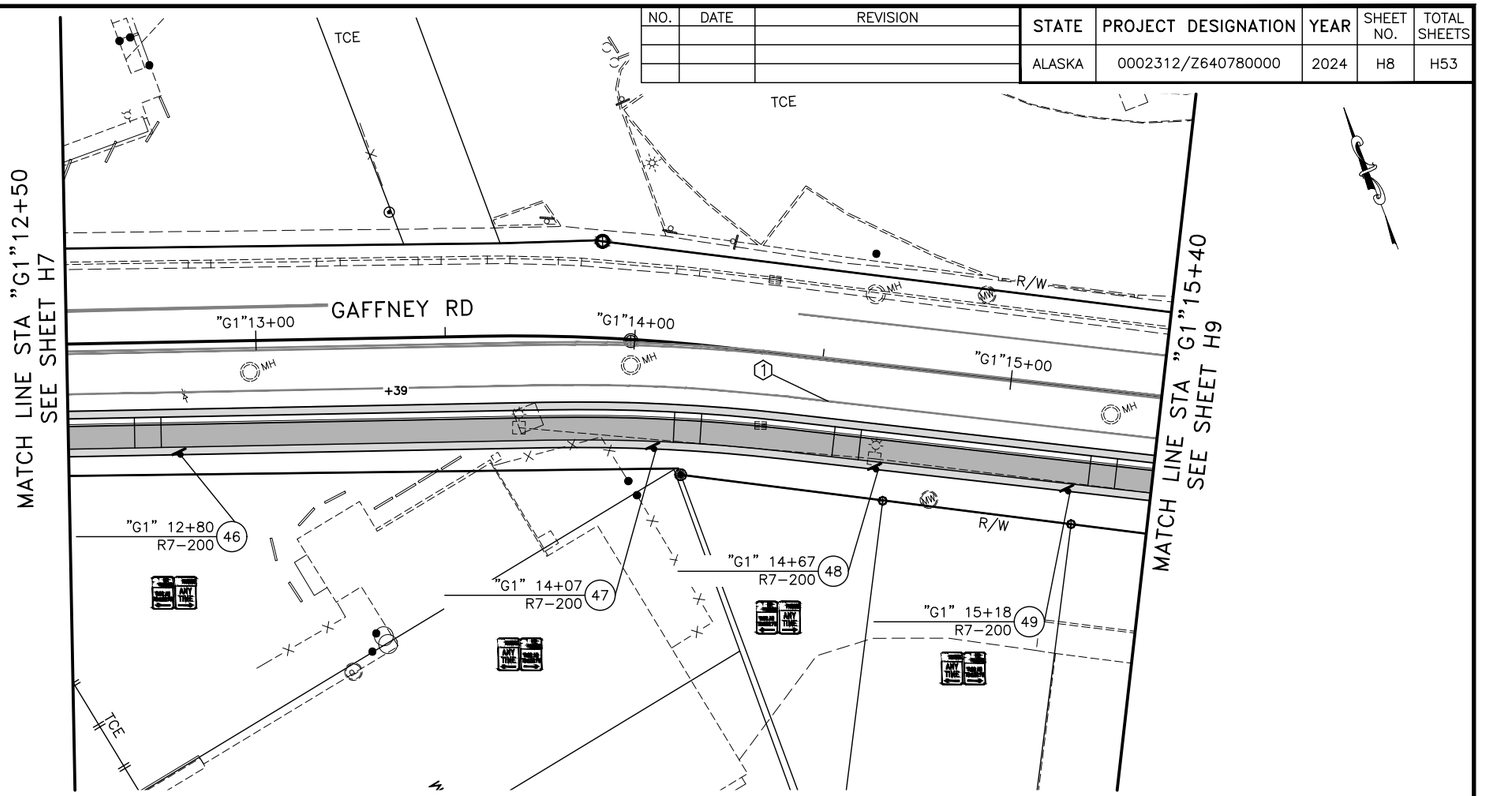
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H8	H53



NOTES:

1. OBLITERATE 4" WHITE SHOULDER STRIPE

SIGNING AND STRIPING
7 OF 9

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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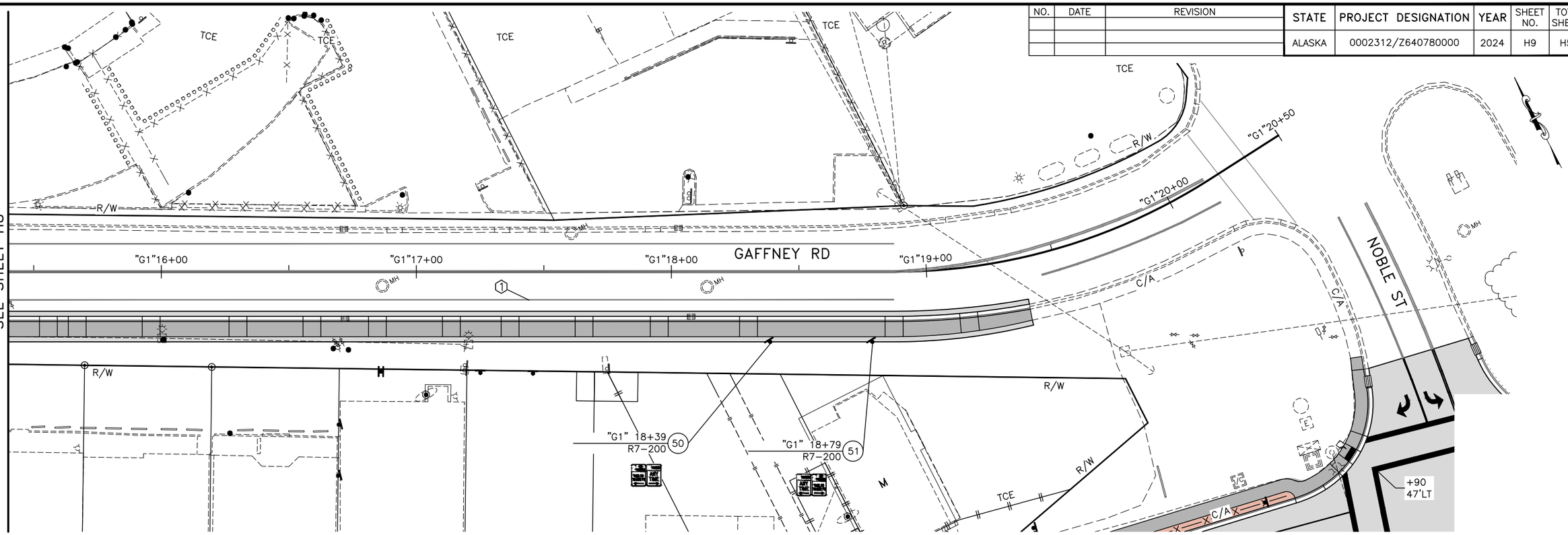
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H9	H53



NOTES:

1. OBLITERATE 4" WHITE SHOULDER STRIPE

SIGNING AND STRIPING
8 OF 9

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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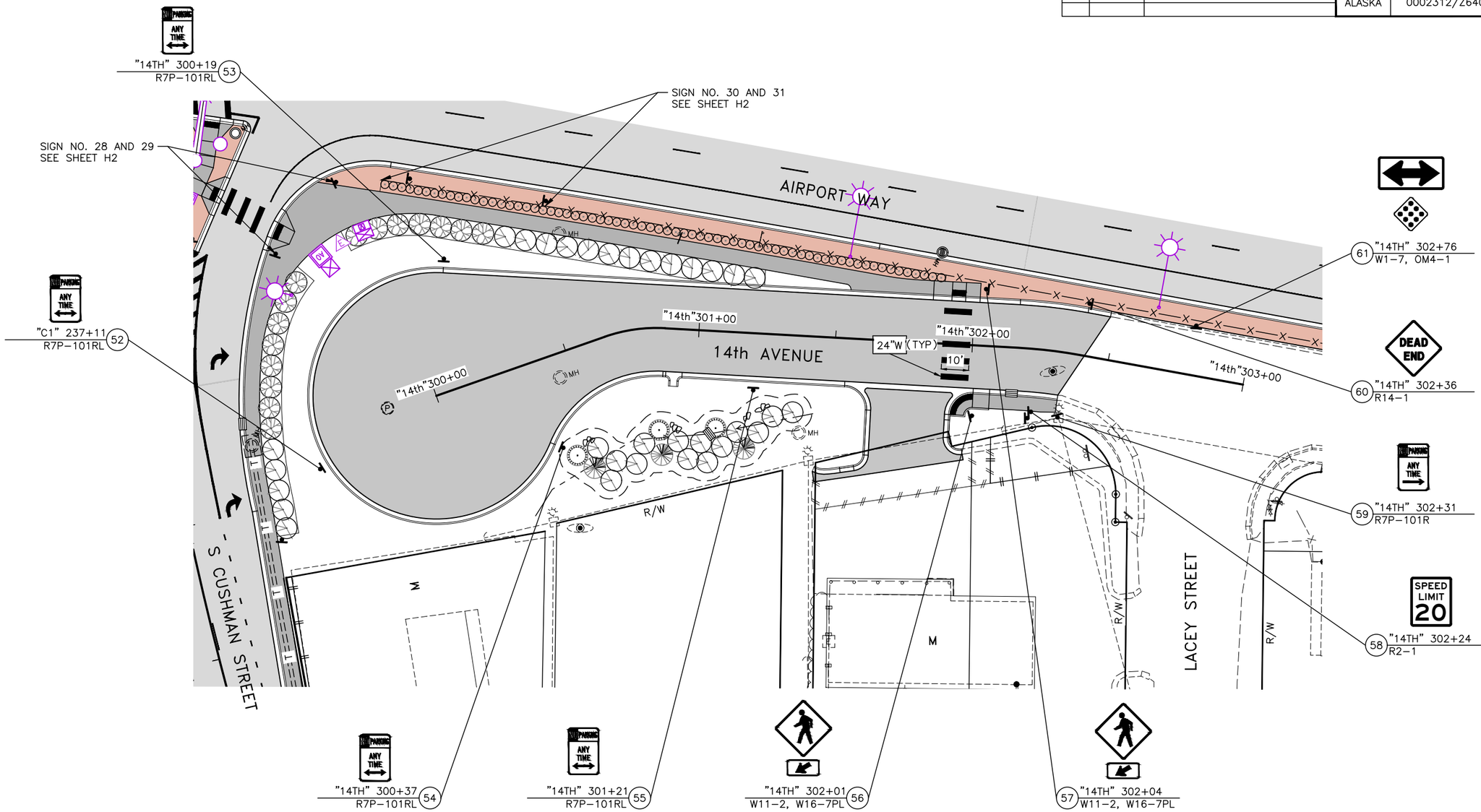
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H10	H53



TRAFFIC MARKING KEY

4"W	4" WHITE LINE
4"WS	4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
4"WD-1	4" WHITE DOTTED LINE (2' STRIPE/6' SKIP PATTERN)
4"DY	4" DOUBLE YELLOW LINE
8"W	8" WHITE LINE
8"WD-1	8" WHITE DOTTED LINE (3' STRIPE/3' SKIP PATTERN)
STD	SEE STANDARD PLANS
DTL	SEE DETAILS ON H17 AND E-SHEETS

SIGNING KEY

(#) STATION
SIGN CODE(S)
SIGN LOCATION #

SIGNING AND STRIPING
9 OF 9

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H11	H53

SIGNING SUMMARY

LOC. NO.	STATION	LOCATION LT.	LOCATION RT.	ASDS CODE	LEGEND	SIZE H X V (INCHES)	BRACING/FRAMING BRACED	BRACING/FRAMING FRAMED	AREA (SQ.FT.)	MTG. HGT. (FT.)	DIR.	POST TYPE	POST SIZE (INCHES)	POST NO.	REMARKS
1	"A1" 155+92		X	D3-2	CUSHMAN ST	90 X 36		X	22.50		W				INSTALL ON EXISTING POSTS
				D1-1	(LEFT ARROW) DOWNTOWN	90 X 24		X	15.00		W				
2	"A1" 156+05	X		W14-1	DEAD END	30 X 30	X		6.25		N				INSTALL ON LIGHT POLE
				OM4-1	OBJECT MARKER, TYPE 4	18 X 18			2.25		N				
3	"A1" 156+16		X	W1-7	TWO DIRECTION LARGE ARROW	48 X 24	X		8.00		S	PST	2.5	1	
				OM4-1	OBJECT MARKER, TYPE 4	18 X 18			2.25		S				
4	"A1" 156+42	X		R2-1	SPEED LIMIT 45	30 X 36	X		7.50		E	PST	2.5	1	
5	"A1" 156+45	X		R2-1	SPEED LIMIT 45	30 X 36	X		7.50		E	PST	2.5	1	
6	"A1" 158+12		X	R2-1	SPEED LIMIT 30	24 X 30			5.00		E				INSTALL ON LIGHT POLE
7	"A1" 158+68	X		OM4-1	OBJECT MARKER, TYPE 4	18 X 18			2.25		N	PST	2.5	1	
8	"A1" 158+82		X	W11-2	PEDESTRIAN	30 X 30	X		6.25		NW	PST	2.5	1	
				W16-7PL	DOWNWARD DIAGONAL ARROW LEFT	24 X 12			2.00		NW				
9	"A1" 159+00		X	W1-6L	LARGE ARROW LEFT	48 X 24	X		8.00		S	PST	2.5	1	
				OM1-1	OBJECT MARKER, TYPE 1	18 X 18			2.25		S				
10	"A1" 159+22		X	W11-2	PEDESTRIAN	30 X 30	X		6.25		S	PST	2.5	1	
				W16-7PL	DOWNWARD DIAGONAL ARROW LEFT	24 X 12			2.00		S				
11	"A1" 159+29		X	SPECIAL 1	14TH AVE	30 X 8			3.33		S	PST	2.5	1	
				SPECIAL 2	STACIA ST	30 X 8			3.33		W				
				W1-6R	LARGE ARROW RIGHT	48 X 24	X		8.00		W				
				OM1-1	OBJECT MARKER, TYPE 1	18 X 18			2.25		W				
12	"A1" 159+29	X		R5-10b	NO PEDESTRIANS OR BICYCLES	30 X 18	X		3.75		E				INSTALL ON FENCE POST. SEE NOTE 20.
13	"A1" 159+93	X		R8-4	EMERGENCY PARKING ONLY	30 X 24	X		5.00		E	PST	2.5	1	
14	"A1" 160+04		X	W12-1	DOUBLE ARROW	36 X 36	X		9.00		E	PST	2.5	1	
				OM1-1	OBJECT MARKER, TYPE 1	18 X 18			2.25		E				
15	"A1" 160+31	X		R1-2	YIELD	36 X 36	X		9.00		SE	PST	2.5	1	
16	"A1" 160+46	X		W11-2	PEDESTRIAN	30 X 30	X		6.25		NE	PST	2.5	1	
				W16-7PL	DOWNWARD DIAGONAL ARROW LEFT	24 X 12			2.00		NE				
							X								
17	"A1" 160+56		X	R5-10b	NO PEDESTRIANS OR BICYCLES	30 X 18	X		3.75		SE	PST	2.5	1	
18	"A1" 160+61	X		R4-7	KEEP RIGHT	24 X 30			5.00		W	PST	2.5	1	
				OM1-1	OBJECT MARKER, TYPE 1	18 X 18			2.25		W				
19	"A1" 160+77	X		W12-1	DOUBLE ARROW	36 X 36	X		9.00		E	PST	2.5	1	
				OM1-1	OBJECT MARKER, TYPE 1	18 X 18			2.25		E				
20	"A1" 160+82		X	W11-2	PEDESTRIAN	30 X 30	X		6.25		NW	PST	2.5	1	
				W16-7PL	DOWNWARD DIAGONAL ARROW LEFT	24 X 12			2.00		NW				
21	"A1" 161+00		X	R1-2	YIELD	36 X 36	X		9.00		NW	PST	2.5	1	
22	"A1" 161+53	X		R1-2	YIELD	36 X 36	X		9.00		SE	PST	2.5	1	
23	"A1" 161+72	X		W11-2	PEDESTRIAN	30 X 30	X		6.25		SE	PST	2.5	1	
				W16-7PR	DOWNWARD DIAGONAL ARROW RIGHT	24 X 12			2.00		SE				
24	"A1" 161+96		X	W12-1	DOUBLE ARROW	36 X 36	X		9.00		E	PST	2.5	1	
				OM1-1	OBJECT MARKER, TYPE 1	18 X 18			2.25		E				

SIGNING NOTES

1. REMOVE AND DISPOSE OF ALL EXISTING SIGNS AND SIGN POST FOUNDATIONS WITHIN THE PROJECT LIMITS, EXCEPT SIGNS DESIGNATED FOR REINSTALLATION, SALVAGE, OR OTHERWISE NOTED.
2. MOUNT SIGNS PER STANDARD DRAWING S-05.01. SIGNS THAT PROJECT OVER OR WITHIN 2 FEET OF THE SIDEWALK AND PATHWAYS SHALL BE MOUNTED TO A HEIGHT OF 8 FEET.
3. DETERMINE POST LENGTHS IN THE FIELD. DO NOT EXTEND POSTS ABOVE TOP OF SIGN.
4. UNLESS OTHERWISE NOTED, INSTALL PST POSTS WITH SLEEVE TYPE CONCRETE FOUNDATION PER STANDARD DRAWING S-30.04. ATTACH THE SIGN POST USING GALVANIZED 3/8" DIA. BOLT, NUT, SPLIT LOCK WASHER AND TWO FLAT WASHERS.
5. INSTALL "TUBE POST SIGN BRACING" AS SHOWN ON STANDARD DRAWING S-01.01 ON ALL SIGNS MOUNTED ON A SINGLE PST POST AND HAVING A HORIZONTAL DIMENSION OF 30 INCHES OR GREATER, EXCEPT STREET NAME SIGNS. INSTALL GALVANIZED SPLIT LOCK WASHERS ON ALL 3/8" BOLTS. STAINLESS STEEL FASTENER HARDWARE MAY BE USED INSTEAD OF GALVANIZED. 1/4" X 1 1/2" ALUMINUM ALLOY 6061-T6 BAR MAY ALSO BE USED TO FABRICATE SIGN BRACES.
6. ATTACH ALL SIGNS TO THEIR SUPPORTS WITH 3/8" DIA. BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO POSTS WITH ALUMINUM DRIVE RIVETS. WIND WASHERS ARE NOT REQUIRED WITH DRIVE RIVETS. INCLUDE SPLIT LOCK WASHERS WHEN BOLTS ARE USED.
7. ALL FASTENER HARDWARE SHALL MEET THE REQUIREMENTS OF THE "FASTENER SPECIFICATION TABLE" ON SHEET H11.
8. SIGNS INSTALLED ON LIGHT POLES MAY REQUIRE TEMPORARY INSTALLATION ON 2-1/2" PST POST UNTIL LIGHT POLES ARE IN PLACE. THIS WORK IS SUBSIDIARY TO PAY ITEM 615.0001.0000.
9. WHERE TWO DIFFERENT STREET NAME SIGNS ARE TO BE LOCATED ON THE SAME POST, INSTALL THE CROSS-STREET PANEL IN THE LOWER POSITION. SEE SHEET H15 FOR DETAIL.
10. FOR TWO SEPARATE SINGLE SIDED STREET NAME SIGN PANELS PROVIDE SIGN BRACING AS INDICATED ON SHEET H15 AND STANDARD DRAWING S-01.01.
11. MAINTAIN EXISTING SIGNS UNTIL NEW SIGNS ARE INSTALLED. DO NOT LEAVE DUPLICATE OR CONFLICTING SIGNING UP AT ANY TIME.
12. LOCATE AND PROTECT ALL NEW AND EXISTING UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGN POSTS. NOT ALL UTILITIES MAY BE SHOWN ON THE SIGNING AND STRIPING PLANS. SEE OTHER PROJECT PLAN SHEETS AND AS-BUILT DRAWINGS FOR ADDITIONAL INFORMATION.
13. 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.
14. PROVIDE WEATHER TIGHT CAPS ON ALL TUBE POSTS, EXCEPT PERFORATED STEEL TUBES.
15. PROVIDE FRANGIBLE COUPLING SYSTEMS IN ACCORDANCE WITH STANDARD DRAWING S-31.01.
16. HINGED JOINTS WITH FRANGIBLE FUSE PLATE ARE REQUIRED ON ALL MULTIPLE POST SIGNS WITH FRANGIBLE COUPLING SYSTEMS. THE HINGE LOCATION ON ALL POSTS SHALL BE THE SAME DISTANCE BELOW THE SIGNS, INSTEAD OF THE 6 INCH MINIMUM SHOWN ON STANDARD DRAWING S-31.01. SEE MANUFACTURER'S SPECIFICATION FOR HINGE LOCATION BELOW SIGN.
17. ADJUST SIGN LOCATIONS AT THE DIRECTION OF THE ENGINEER.
18. USE SERIES C LETTERS FOR D3-100 SERIES SIGNS UNLESS OTHERWISE NOTED. USE 4.5-INCH FOR DIMENSION "E" FOR 12-INCH D3-100 SIGNS. THE LETTERING INDICATING THE TYPE OF STREET (SUCH AS St, Ave, OR Rd) SHALL BE UPPER CASE AND LOWER CASE. THIS MODIFIES THE ASDS.
19. SEE SIGNAL SHEETS FOR SIGNS MOUNTED ON MAST ARMS.
20. EXTEND FENCE POST TO SUFFICIENT HEIGHT FOR SIGN INSTALLATION.

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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SIGNING SUMMARY
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H12	H53

SIGNING SUMMARY

LOC. NO.	STATION	LOCATION LT.	LOCATION RT.	ASDS CODE	LEGEND	SIZE H X V (INCHES)	BRACING/FRAMING BRACED	BRACING/FRAMING FRAMED	AREA (SQ.FT.)	MTG. HGT. (FT.)	DIR.	POST TYPE	POST SIZE (INCHES)	POST NO.	REMARKS
25	"A1" 162+03	X		R5-10b	NO PEDESTRIANS OR BICYCLES	30 X 18	X		3.75		NW				INSTALL ON FENCE POST. SEE NOTE 20.
26	"A1" 162+05		X	R4-7	KEEP RIGHT	24 X 30			5.00		W	PST	2.5	1	
				OM1-1	OBJECT MARKER, TYPE 1	18 X 18			2.25		W				
27	"A1" 162+21	X		W12-1	DOUBLE ARROW	36 X 36	X		9.00		E	PST	2.5	1	
				OM1-1	OBJECT MARKER, TYPE 1	18 X 18			2.25		E				
28	"A1" 162+27		X	W11-2	PEDESTRIAN	30 X 30	X		6.25		SW	PST	2.5	1	
				W16-7PL	DOWNWARD DIAGONAL ARROW LEFT	24 X 12			2.00		SW				
29	"A1" 162+45		X	R1-2	YIELD	36 X 36	X		9.00		SW	PST	2.5	1	
30	"A1" 162+73		X	R5-10b	NO PEDESTRIANS OR BICYCLES	30 X 18	X		3.75		NW	PST	2.5	1	
31	"A1" 163+23		X	R2-1	SPEED LIMIT 45	30 X 36	X		7.50		W	PST	2.5	1	
32	"A1" 166+56	X		R8-4	EMERGENCY PARKING ONLY	30 X 24	X		5.00		E	PST	2.5	1	
33	"A1" 167+56	X		D1-101	(UP ARROW) AIRPORT UNIV OF ALASKA CITY CENTER (RIGHT ARROW)	108 X 54		X	40.50		SE	TS	3	2	
34	"A1" 168+45	X		R5-10b	NO PEDESTRIANS OR BICYCLES	30 X 18	X		3.75		E				INSTALL ON FENCE POST. SEE NOTE 20.
35	"A1" 168+58		X	R5-10b	NO PEDESTRIANS OR BICYCLES	30 X 18	X		3.75		E	PST	2.5	1	
36	"A1" 168+59		X	W1-7	TWO DIRECTION LARGE ARROW	48 X 24	X		8.00		S	PST	2.5	1	
				OM4-1	OBJECT MARKER, TYPE 4	18 X 18			2.25		S				
37	"A1" 168+68	X		R4-7	KEEP RIGHT	24 X 30			5.00		E	PST	2.5	1	
				OM1-1	OBJECT MARKER, TYPE 1	18 X 18			2.25		E				
38	"A1" 169+71	X		OM2-1V	OBJECT MARKER, TYPE 2	6 X 12			0.50		W	PST	2	1	
39	"A1" 169+86	X		W1-7	TWO DIRECTION LARGE ARROW	48 X 24	X		8.00		E	PST	2.5	1	
				OM4-1	OBJECT MARKER, TYPE 4	18 X 18			2.25		E				
40	"A1" 169+91	X		R5-10b	NO PEDESTRIANS OR BICYCLES	30 X 18	X		3.75		W	PST	2.5	1	
41	"A1" 170+45		X	R8-4	EMERGENCY PARKING ONLY	30 X 24	X		5.00		W	PST	2.5	1	
42	"A1" 171+05		X	R2-1	SPEED LIMIT 45	30 X 36	X		7.50		W	PST	2.5	1	
43	"C1" 235+97	X		R2-1	SPEED LIMIT 30	24 X 30			5.00		N				INSTALL ON LIGHT POLE
44	"C1" 236+88		X	R3-108L/S/S/R	ADVANCE INTERSECTION LANE CONTROL	60 X 30	X		12.50		S	PST	2.5	1	
45	"C1" 241+61	X		R3-108L/S/R	ADVANCE INTERSECTION LANE CONTROL	48 X 30	X		10.00		N	PST	2.5	1	
46	"G1" 12+80		X	R7-200	2 HR PARKING 9:00 AM TO 6:00 PM/NO PARKING ANYTIME	24 x 18			3.00		NE	PST	2.5	1	
47	"G1" 14+07		X	R7-200	NO PARKING ANYTIME/ 2 HR PARKING 9:00 AM TO 6:00 PM	24 x 18			3.00		NE	PST	2.5	1	
48	"G1" 14+67		X	R7-200	2 HR PARKING 9:00 AM TO 6:00 PM/NO PARKING ANYTIME	24 x 18			3.00		NE	PST	2.5	1	

SIGNING SUMMARY
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PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H13	H53

SIGNING SUMMARY

LOC. NO.	STATION	LOCATION LT.	LOCATION RT.	ASDS CODE	LEGEND	SIZE H X V (INCHES)	BRACING/FRAMING BRACED	BRACING/FRAMING FRAMED	AREA (SQ.FT.)	MTG. HGT. (FT.)	DIR.	POST TYPE	POST SIZE (INCHES)	POST NO.	REMARKS
49	"G1" 15+18		X	R7-200	NO PARKING ANYTIME/ 2 HR PARKING 9:00 AM TO 6:00 PM	24 x 18			3.00		NE	PST	2.5	1	
50	"G1" 18+39		X	R7-200	2 HR PARKING 9:00 AM TO 6:00 PM/NO PARKING ANYTIME	24 x 18			3.00		NE	PST	2.5	1	
51	"G1" 18+79		X	R7-200	NO PARKING ANYTIME/ 2 HR PARKING 9:00 AM TO 6:00 PM	24 x 18			3.00		NE	PST	2.5	1	
52	"C1" 237+11		X	R7P-101RL	NO PARKING ANYTIME RIGHT/LEFT	12 X 18			1.50		SE	PST	2.5	1	
53	"14TH" 300+19	X		R7P-101RL	NO PARKING ANYTIME RIGHT/LEFT	12 X 18			1.50		SW	PST	2.5	1	
54	"14TH" 300+37		X	R7P-101RL	NO PARKING ANYTIME RIGHT/LEFT	12 X 18			1.50		N	PST	2.5	1	
55	"14TH" 301+21		X	R7P-101RL	NO PARKING ANYTIME RIGHT/LEFT	12 X 18			1.50		N	PST	2.5	1	
56	"14TH" 302+01		X	W11-2	PEDESTRIAN	30 X 30	X		6.25		W	PST	2.5	1	
				W16-7PL	DOWNWARD DIAGONAL ARROW LEFT	24 X 12			2.00		W				
57	"14TH" 302+04	X		W11-2	PEDESTRIAN	30 X 30	X		6.25		E	PST	2.5	1	
				W16-7PL	DOWNWARD DIAGONAL ARROW LEFT	24 X 12			2.00		E				
58	"14TH" 302+24		X	R2-1	SPEED LIMIT 20	24 X 30			5.00		W	PST	2.5	1	
59	"14TH" 302+31		X	R7P-101R	NO PARKING ANYTIME RIGHT	12 X 18			1.50		N				INSTALL ON EXISTING LIGHT POLE
60	"14TH" 302+36	X		R14-1	DEAD END	24 X 30			5.00		E	PST	2.5	1	
61	"14TH" 302+76	X		W1-7	TWO DIRECTION LARGE ARROW	48 X 24	X		8.00		S	PST	2.5	1	
				OM4-1	OBJECT MARKER, TYPE 4	18 X 18			2.25		S				
SUBTOTAL = 465.42															
SIGNAL SIGN SUBTOTAL = 72.00															
PROJECT TOTAL = 537.42															

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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SIGNING SUMMARY
3 OF 3

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H14	H53

SALVAGE SIGN SUMMARY

ALIGNMENT	STATION	CL REF	ASDS CODE	LEGEND	REMARKS
A1	155+92	3' LT	D3-1	CUSHMAN ST	2 POSTS
			D1-1L	(LEFT ARROW) DOWNTOWN	
A1	156+42	CL	R2-1	SPEED LIMIT 45	ON LIGHT POLE
A1	156+45	46' LT	R2-1	SPEED LIMIT 45	
A1	158+07	51' RT	R2-1	SPEED LIMIT 30	
A1	158+68	57' LT	OM1-1	OBJECT MARKER, TYPE 1	
A1	159+00	57' RT	W1-6L	LARGE ARROW (LEFT)	
			OM1-1	OBJECT MARKER, TYPE 1	
A1	159+29	67' RT	D3-1	14TH AVE	
			D3-1	STACIA ST	
			W1-6R	LARGE ARROW (RIGHT)	
			OM1-1	OBJECT MARKER, TYPE 1	
A1	160+26	46' LT	R8-4	EMERGENCY PARKING ONLY	
A1	160+74	55' LT	R10-100	LEFT TURN ONLY YIELD ON GREEN	SIGNAL POLE NW
			D3-1B	CUSHMAN ST	
A1	160+77	61' LT	R6-1R	ONE WAY	
			R6-1L	ONE WAY	
A1	160+81	49' RT	R9-3A	NO PED CROSSING	ON LIGHT POLE
			R5-6	NO BICYCLE	
A1	160+82	64' LT	R10-3B	PUSH BUTTON EDUCATIONAL	PEDESTRIAN SIGNAL POLE NW
			R10-3B	PUSH BUTTON EDUCATIONAL	
A1	161+13	72' LT	R3-6R	OPTIONAL MOVEMENT LANE CONTROL (AHEAD, RIGHT)	ON SPAN WIRE
A1	161+24	71' LT	R3-7L	MANDATORY MOVEMENT LANE CONTROL (TURN LEFT)	ON SPAN WIRE
A1	161+38	60' RT	R10-12	LEFT TURN MUST YIELD ON GREEN	SIGNAL POLE SW
			R10-3B	PUSH BUTTON EDUCATIONAL	
			R10-3B	PUSH BUTTON EDUCATIONAL	
			D3-1B	AIRPORT WAY	
A1	161+68	66' LT	R10-12	LEFT TURN MUST YIELD ON GREEN	SIGNAL POLE NE
			D3-1B	AIRPORT WAY	
			R3-6R	OPTIONAL MOVEMENT LANE CONTROL (AHEAD, RIGHT)	
			R3-6L	OPTIONAL MOVEMENT LANE CONTROL (AHEAD, LEFT)	
A1	161+77	57' LT	R10-3B	PUSH BUTTON EDUCATIONAL	PEDESTRIAN SIGNAL POLE NE
			R10-3B	PUSH BUTTON EDUCATIONAL	
A1	162+21	59' RT	R10-3B	PUSH BUTTON EDUCATIONAL	PEDESTRIAN SIGNAL POLE SE
			R10-3B	PUSH BUTTON EDUCATIONAL	
A1	162+32	49' RT	D3-1B	CUSHMAN ST	SIGNAL POLE SE
			R6-1R	ONE WAY	
			R6-1L	ONE WAY	
			R10-100	LEFT TURN ONLY YIELD ON GREEN SIGN	
A1	162+34	47' LT	R9-3A	NO PED CROSSING	
			R5-6	NO BICYCLE	
A1	162+59	50' RT	R9-3A	NO PED CROSSING	
			R5-6	NO BICYCLE	
A1	163+86	48' RT	R2-1	SPEED LIMIT 45	ON LIGHT POLE
A1	164+03	46' LT	D1-101 (D1-3-2)	(ARROW AHEAD) AIRPORT, UNIV OF ALASKA / DOWNTOWN (ARROW RIGHT)	2 POSTS
A1	165+45	49' RT	D9-10	TOURIST INFORMATION	ON LIGHT POLE
			D9-301L	DIRECTIONAL ARROW (SYMBOL)	
A1	167+04	49' RT	R2-1	SPEED LIMIT 45	ON LIGHT POLE
A1	167+79	47' LT	R8-4	EMERGENCY PARKING ONLY	
A1	168+39	47' LT	R9-3A	NO PED CROSSING	
			R5-6	NO BICYCLE	

SALVAGE SIGN SUMMARY

ALIGNMENT	STATION	CL REF	ASDS CODE	LEGEND	REMARKS
A1	168+47	50' RT	R9-3A	NO PED CROSSING	
			R5-6	NO BICYCLE	
A1	168+59	50' RT	W1-7	TWO DIRECTION LARGE ARROW	
			OM4-1	OBJECT MARKER, TYPE 4	
A1	169+71	6' LT	OM2-1V	OBJECT MARKER, TYPE 2	
A1	170+24	49' LT	R9-3A	NO PED CROSSING	ON LIGHT POLE
			R5-6	NO BICYCLE	
A1	170+45	50' RT	R8-4	EMERGENCY PARKING ONLY	
A1	171+05	0' RT	R2-1	SPEED LIMIT 45	ON LIGHT POLE
C1	234+91	30' LT	R2-1	SPEED LIMIT 30	
C1	236+67	31' RT	R10-7	DO NOT BLOCK INTERSECTION	
C1	237+24	47' RT	D3-101	14TH AVE	WITH SPECIAL DETAILS 2 SIGNS
			D3-101	S CUSHMAN ST	
			R1-1	STOP	
C1	242+21	41' RT	R10-3B	PUSH BUTTON EDUCATIONAL	PEDESTRIAN SIGNAL POLE
14TH	300+25	57' RT	R7P-101R	NO PARKING ANY TIME (RIGHT ARROW)	ON LIGHT POLE
14TH	301+42	45' RT	R7P-101RL	NO PARKING ANY TIME (RIGHT & LEFT ARROW)	ON LIGHT POLE
14TH	302+24	23' RT	R2-1	SPEED LIMIT 20	
14TH	302+35	24' RT	R7P-101RL	NO PARKING ANY TIME (RIGHT & LEFT ARROW)	ON LIGHT POLE
14TH	302+76	18' LT	W1-7	TWO DIRECTION LARGE ARROW	
			OM4-1	OBJECT MARKER, TYPE 4	

SIGNING NOTES

1. DELIVER SALVAGED SIGN PANELS, NOT IDENTIFIED FOR REUSE IN THE SIGNING SUMMARY, TO THE DOT&PF FAIRBANKS MAINTENANCE YARD LOCATED AT 2301 PEGER ROAD.

   CONTACT DANIEL SCHACHER (907) 451-5276 TO ARRANGE FOR DELIVERY.

2. SALVAGED SIGNS WILL BE PAID PER EACH SIGN PANEL DELIVERED IN ACCEPTABLE CONDITION.

SIGN SALVAGE SUMMARY

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
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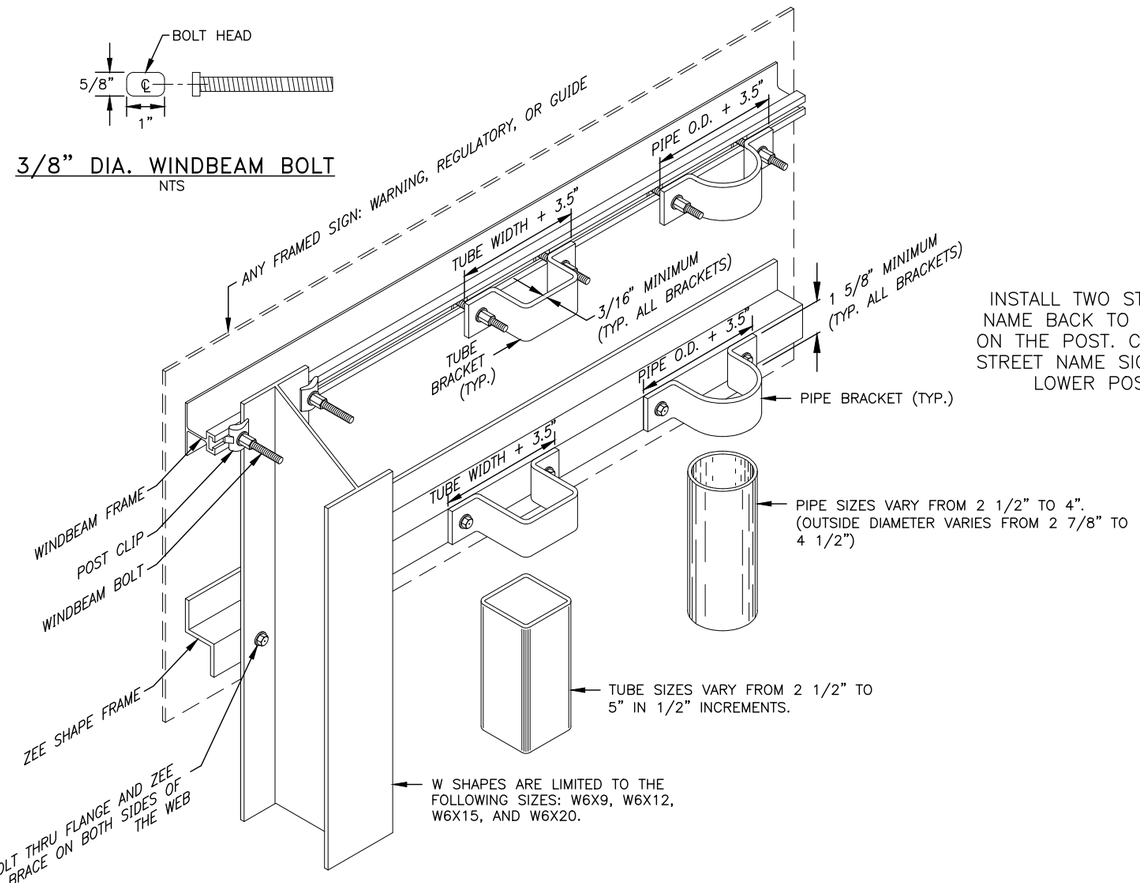
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H15	H53

FASTENER SPECIFICATION TABLE

FASTENERS	STEEL	STAINLESS STEEL
BOLTS	ASTM A 307	ASTM F 593
NUTS	ASTM A 563	ASTM F 594
WASHERS	ASTM F 844	ASTM A 480

THESE SPECIFICATIONS APPLY TO ALL SIGN FASTENER HARDWARE ON THE PROJECT.

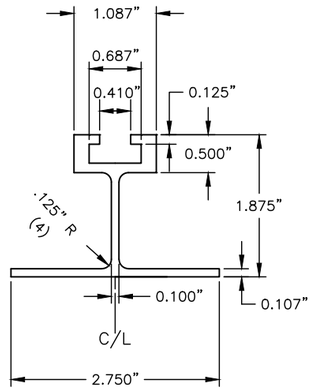
3/8" DIA. WINDBEAM BOLT
NTS



NOTES:

1. ATTACH FRAMED SIGNS TO POSTS WHEREVER THE FRAMES CROSS THE POSTS. AT EACH CROSSING, ATTACH THE SIGN USING TWO POST CLIPS ON W-SHAPE POSTS, A U-SHAPED BRACKET ON PIPES OR A BRACKET WITH SQUARE CORNERS ON TUBES.
2. THE TUBE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.
3. THE BRACKET DETAILS SHOWN INDICATE GENERAL DESIGNS ONLY. DESIGNS MAY VARY BY MANUFACTURER.
4. ALUMINUM ALLOY 6061-T6 SHALL BE USED FOR ZEE SHAPE FRAMING AND RIVETS.

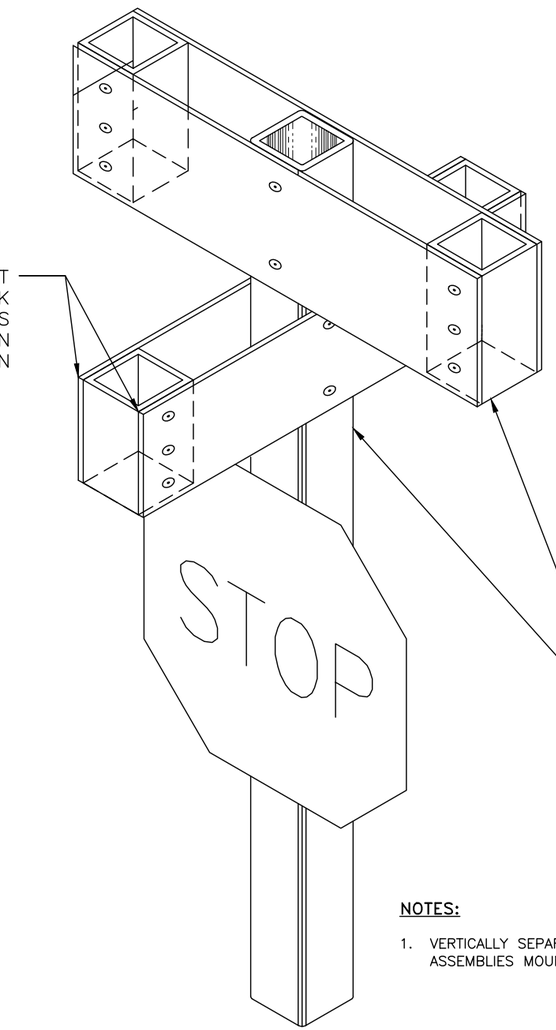
FRAMED SIGN ATTACHMENT BRACKETS
NTS



NOTES:

1. ALUMINUM ALLOY 6061-T6 SHALL BE USED FOR EXTRUDED WINDBEAM AND RIVETS.
2. ATTACH SIGNS TO WINDBEAM WITH 3/6" RIVETS AT 4" STAGGERED SPACING.

EXTRUDED ALUMINUM WINDBEAM
NTS



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 DETAIL
NTS

SIGN DETAILS
1 OF 2

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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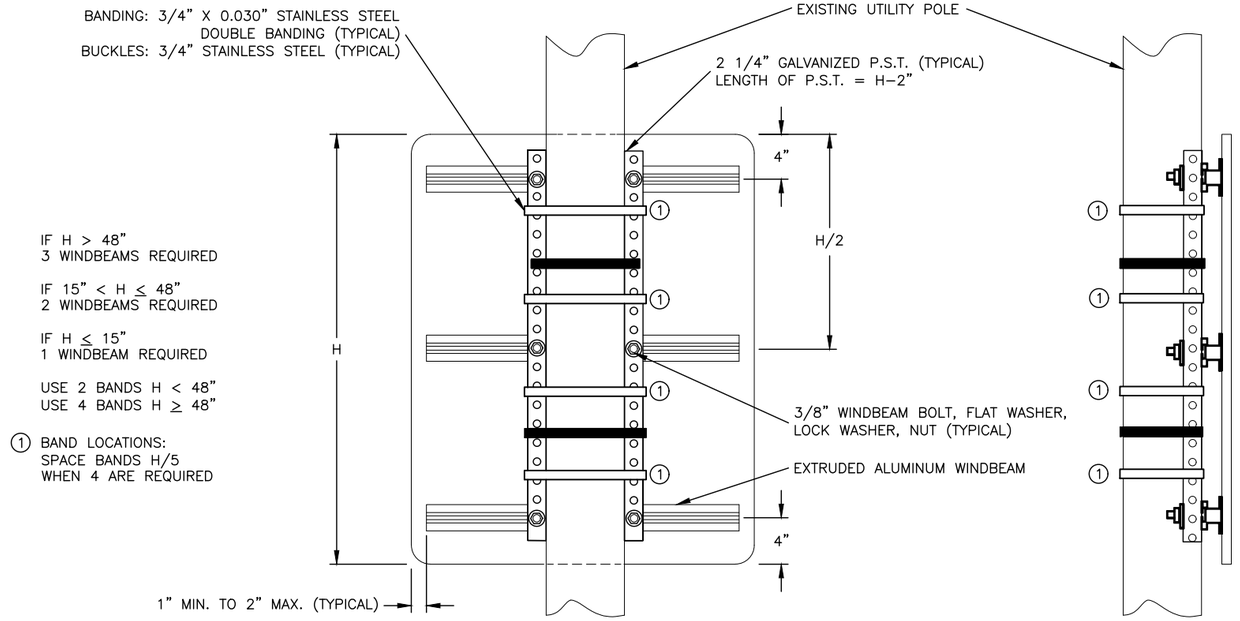
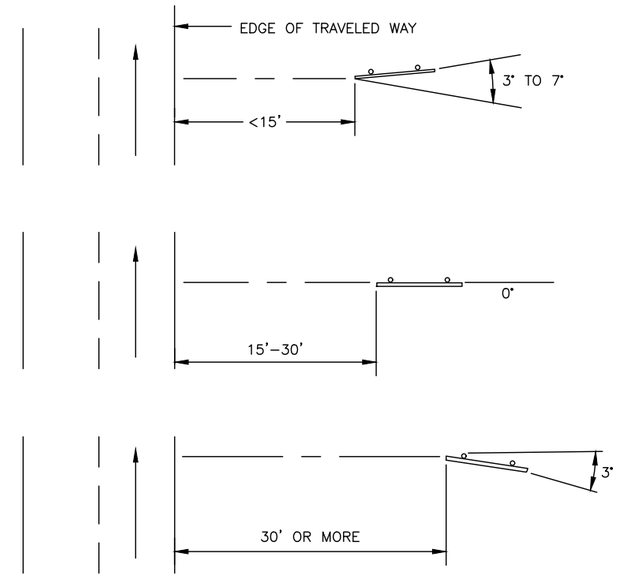
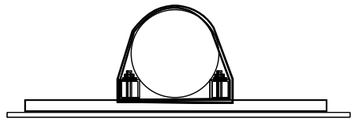
ALASKA	0002312/Z640780000	2024	H16	H53





SIGN INSTALLATION ANGLES

NOTE:
ATTACH SIGN TO WINDBEAMS WITH 3/16" RIVETS AT 4" STAGGERED SPACING.

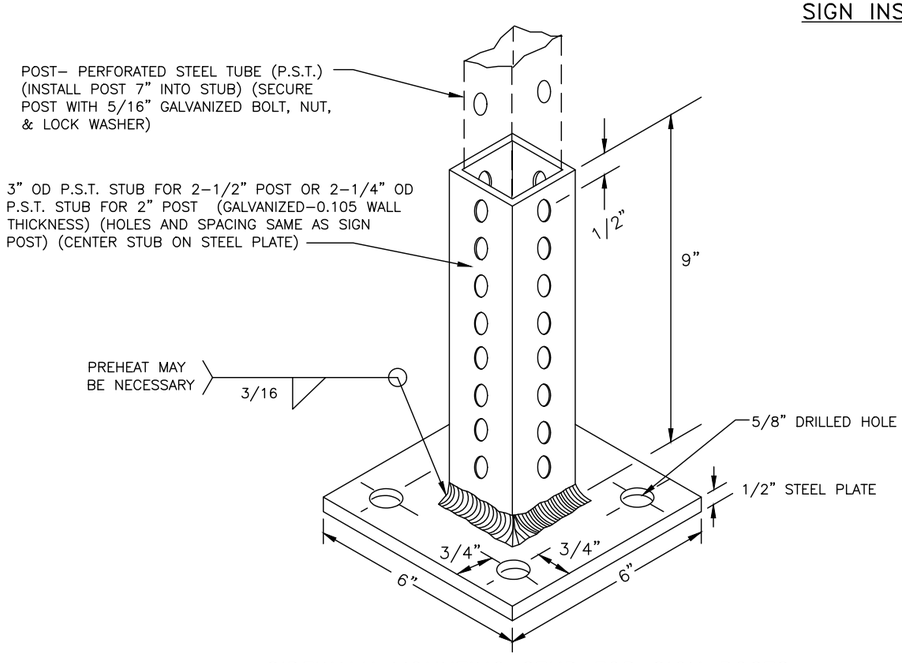


LIGHT/SIGNAL POLE SIGN FRAMING & MOUNTING DETAILS

NTS

INSTALLATION NOTES

1. DRILL FOUR (4) 1/2" HOLES IN SIDEWALK OR CONCRETE USING PLATE AS TEMPLATE. (DEPTH AS REQUIRED).
2. INSTALL STUB AND PLATE WITH FOUR (4) HILTI EXPANSION ANCHORS CAT. NO. HDI 3/8" OR APPROVED EQUAL. USE FOUR (4) 3/8" GALVANIZED BOLTS AND FLAT WASHERS.
3. DO NOT SHIM BASE, PLUMB STUB BY HEATING AT PLATE.
4. PAINT STUB AND BASE WITH ZINC RICH PAINT PRIOR TO INSTALLATION.



SIDEWALK MOUNTING STUB FOR SIGN POSTS

NTS

SIGN DETAILS
2 OF 2

PLANS DEVELOPED BY:
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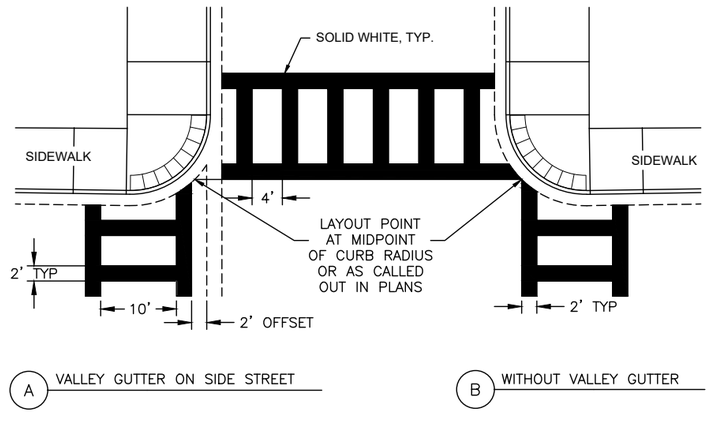
ALASKA	0002312/Z640780000	2024	H17	H53



CROSSWALK STRIPING MARKING DETAIL

NTS

STRIPING DETAILS

PLANS DEVELOPED BY:
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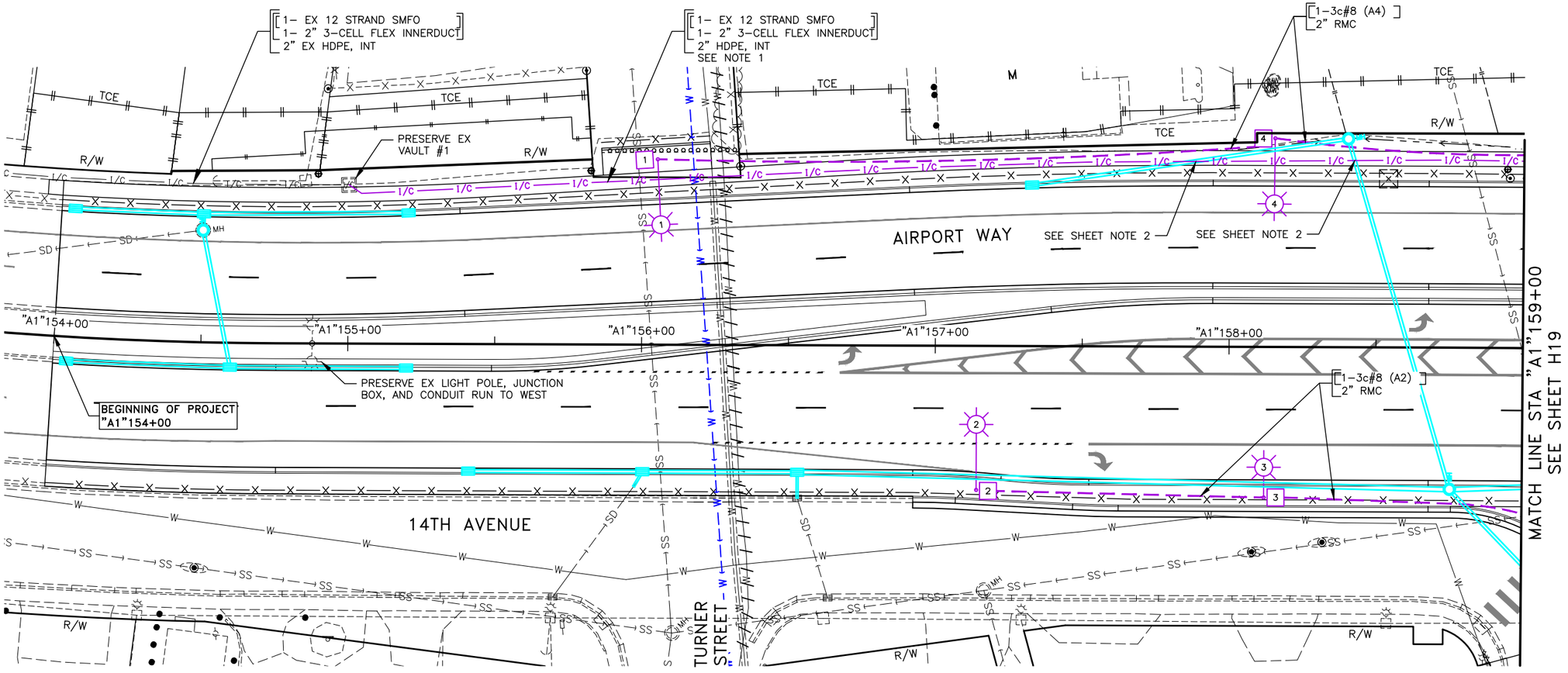
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H18	H53



ILLUMINATION AND INTEERCONNECT GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE COMMENCING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. EXCEPT FOR CONDUITS WITH ONLY FIBER OPTIC CABLE AND TRACER WIRE WITH REVERSIBLE GROUNDS, INSTALL 1-1c#8 BARE COPPER GROUND CONDUCTOR IN ALL CONDUITS UNLESS ANOTHER GROUND CONDUCTOR IS SPECIFIED.

SHEET NOTES:

1. CUT THE EXISTING AIRPORT WAY FIBER OPTIC CABLE CONNECTED TO THE EXISTING TRAFFIC CONTROLLER IN THE NE QUADRANT OF AIRPORT WAY AND CUSHMAN STREET INTERSECTION AND PULL REMAINING PORTIONS BACK TO EXISTING VAULTS #1 AND #5. AFTER INSTALLATION OF NEW CONDUIT REPULL CABLES AS SHOWN TO VAULT #3 AND FUSION SPLICE CABLES.
2. ROUTE I/C UNDER PROPOSED STORM DRAIN PER CONDUIT CULVERT CROSSING DETAIL SHEET H51.

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

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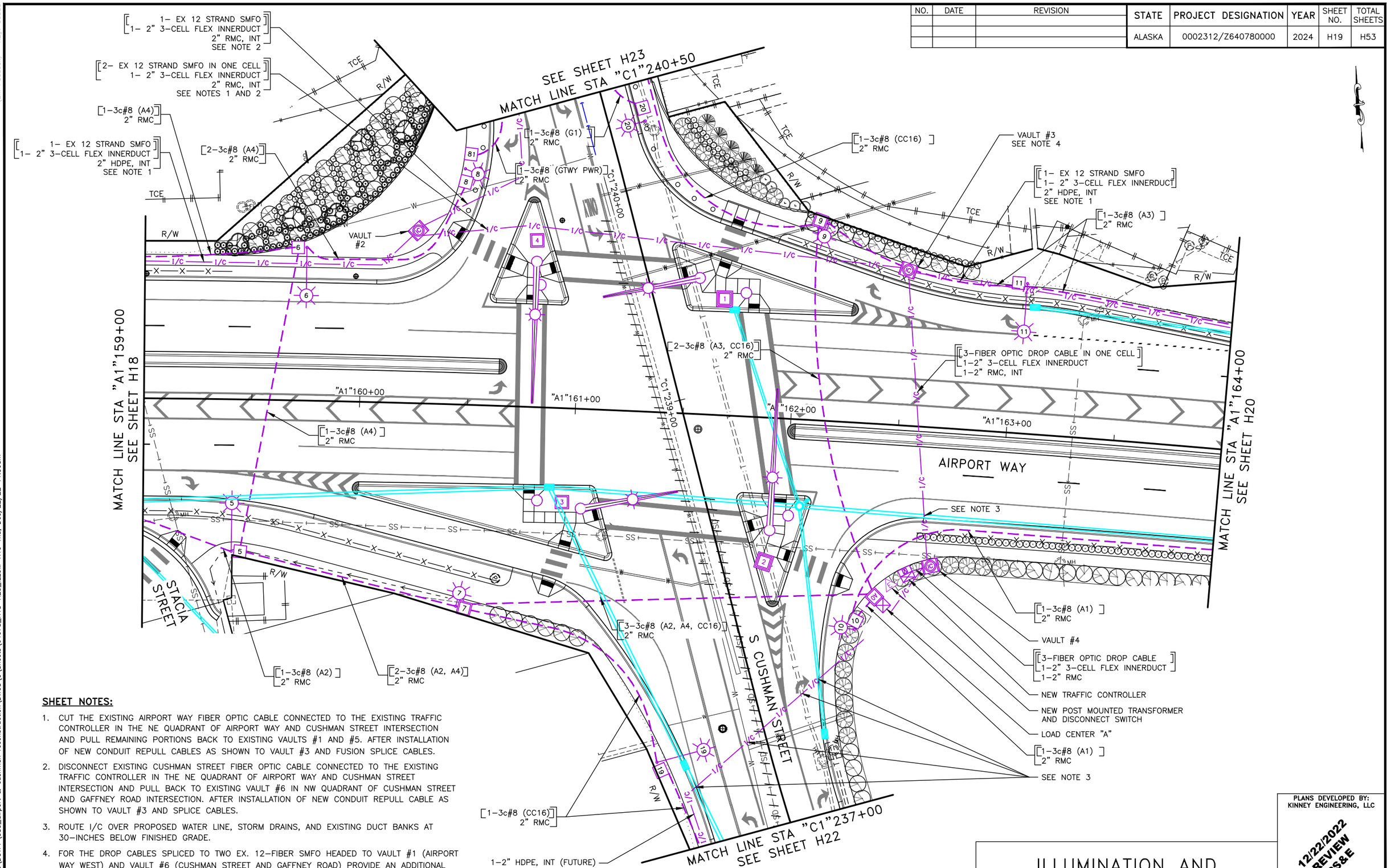
ILLUMINATION AND INTERCONNECT 1 OF 6

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H19	H53



SHEET NOTES:

1. CUT THE EXISTING AIRPORT WAY FIBER OPTIC CABLE CONNECTED TO THE EXISTING TRAFFIC CONTROLLER IN THE NE QUADRANT OF AIRPORT WAY AND CUSHMAN STREET INTERSECTION AND PULL REMAINING PORTIONS BACK TO EXISTING VAULTS #1 AND #5. AFTER INSTALLATION OF NEW CONDUIT REPULL CABLES AS SHOWN TO VAULT #3 AND FUSION SPLICE CABLES.
2. DISCONNECT EXISTING CUSHMAN STREET FIBER OPTIC CABLE CONNECTED TO THE EXISTING TRAFFIC CONTROLLER IN THE NE QUADRANT OF AIRPORT WAY AND CUSHMAN STREET INTERSECTION AND PULL BACK TO EXISTING VAULT #6 IN NW QUADRANT OF CUSHMAN STREET AND GAFFNEY ROAD INTERSECTION. AFTER INSTALLATION OF NEW CONDUIT REPULL CABLE AS SHOWN TO VAULT #3 AND SPLICE CABLES.
3. ROUTE I/C OVER PROPOSED WATER LINE, STORM DRAINS, AND EXISTING DUCT BANKS AT 30–INCHES BELOW FINISHED GRADE.
4. FOR THE DROP CABLES SPLICED TO TWO EX. 12–FIBER SMFO HEADED TO VAULT #1 (AIRPORT WAY WEST) AND VAULT #6 (CUSHMAN STREET AND GAFFNEY ROAD) PROVIDE AN ADDITIONAL 330 LF PER DROP CABLE COILED IN VAULT #3.

ILLUMINATION AND INTERCONNECT 2 OF 6

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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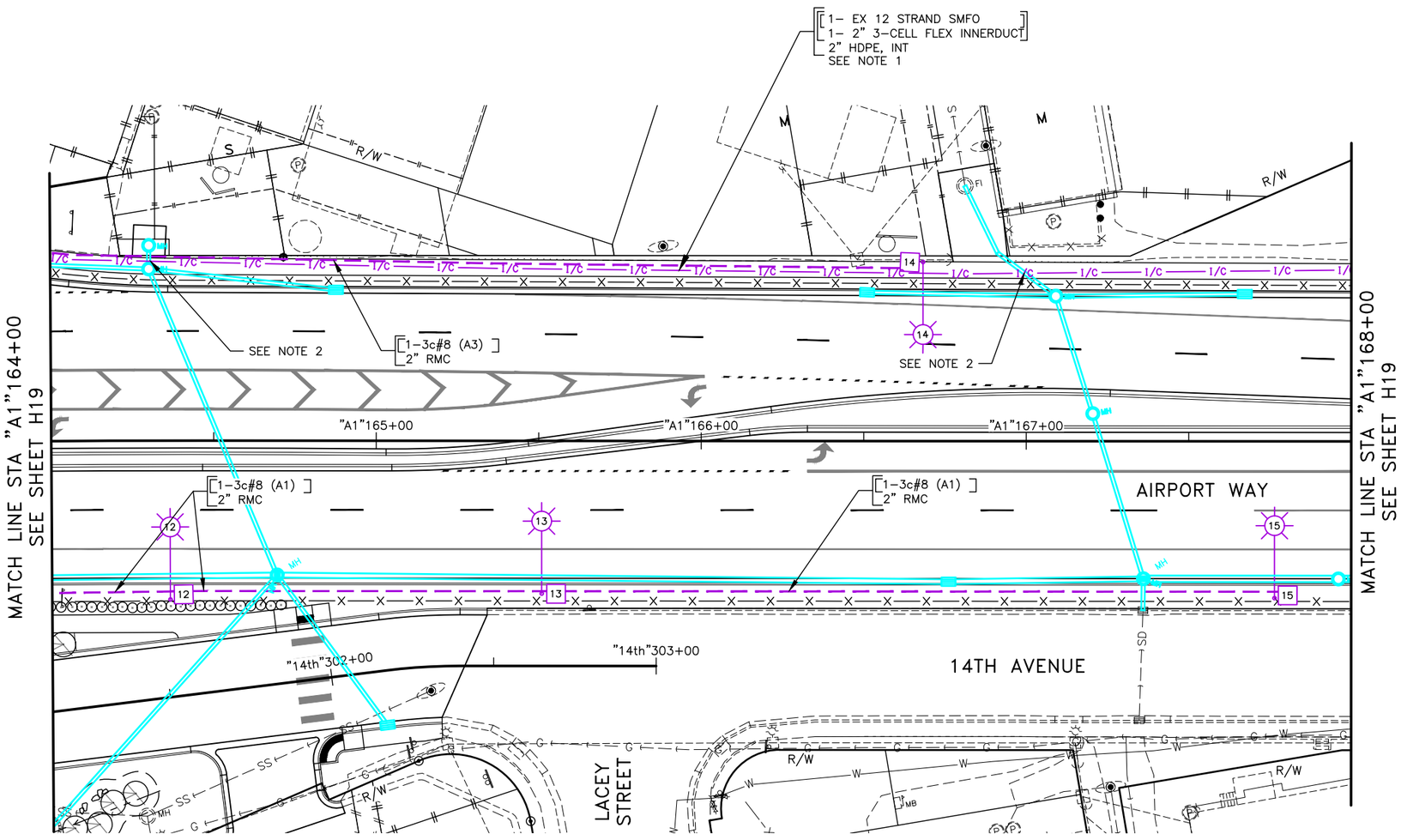
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H20	H53



SHEET NOTES:

1. CUT THE EXISTING AIRPORT WAY FIBER OPTIC CABLE CONNECTED TO THE EXISTING TRAFFIC CONTROLLER IN THE NE QUADRANT OF AIRPORT WAY AND CUSHMAN STREET INTERSECTION AND PULL REMAINING PORTIONS BACK TO EXISTING VAULTS #1 AND #5. AFTER INSTALLATION OF NEW CONDUIT REPULL CABLES AS SHOWN TO VAULT #3 AND SPLICE CABLES.
2. ROUTE I/C UNDER PROPOSED STORM DRAIN PER CONDUIT CULVERT CROSSING DETAIL SHEET H51.

ILLUMINATION AND INTERCONNECT 3 OF 6

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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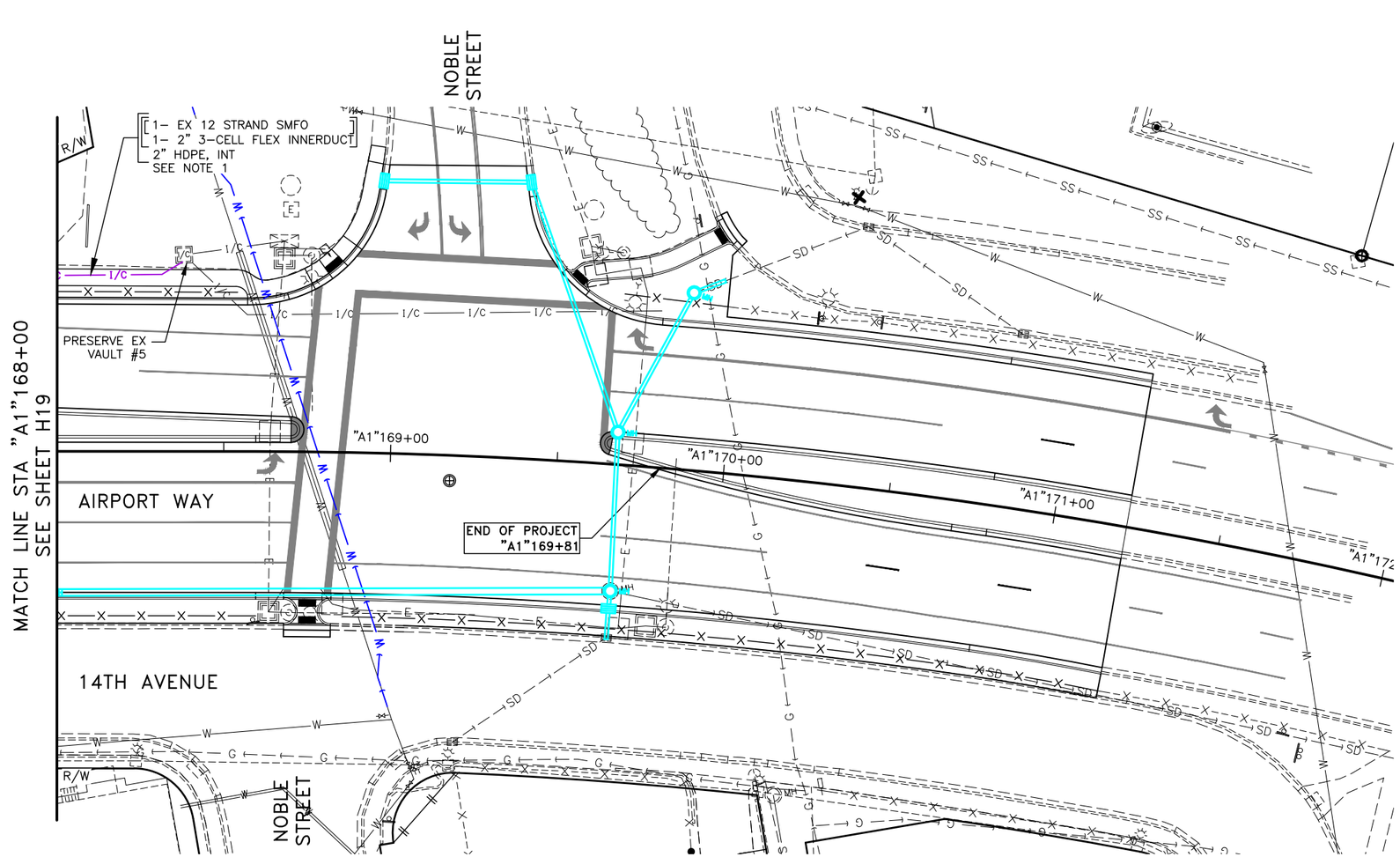
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H21	H53



SHEET NOTES:

1. CUT THE EXISTING AIRPORT WAY FIBER OPTIC CABLE CONNECTED TO THE EXISTING TRAFFIC CONTROLLER IN THE NE QUADRANT OF AIRPORT WAY AND CUSHMAN STREET INTERSECTION AND PULL REMAINING PORTIONS BACK TO EXISTING VAULTS #1 AND #5. AFTER INSTALLATION OF NEW CONDUIT REPULL CABLES AS SHOWN TO VAULT #3 AND FUSION SPLICE CABLES.

ILLUMINATION AND INTERCONNECT 4 OF 6

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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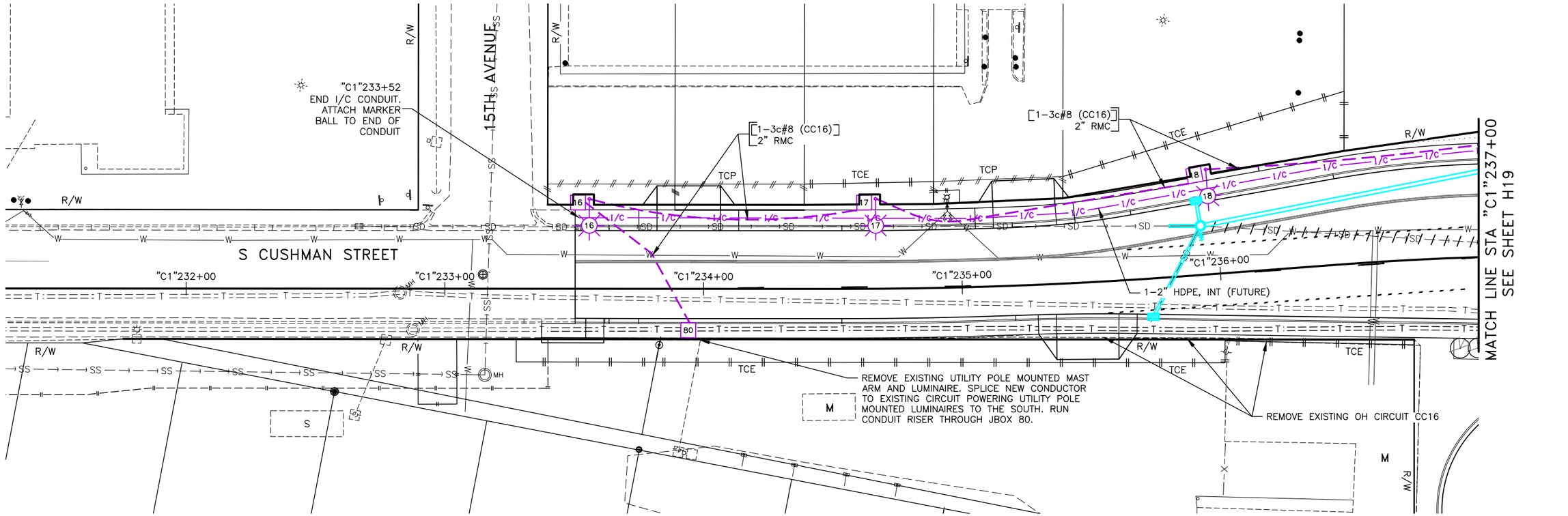
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H22	H53



ILLUMINATION AND INTERCONNECT 5 OF 6

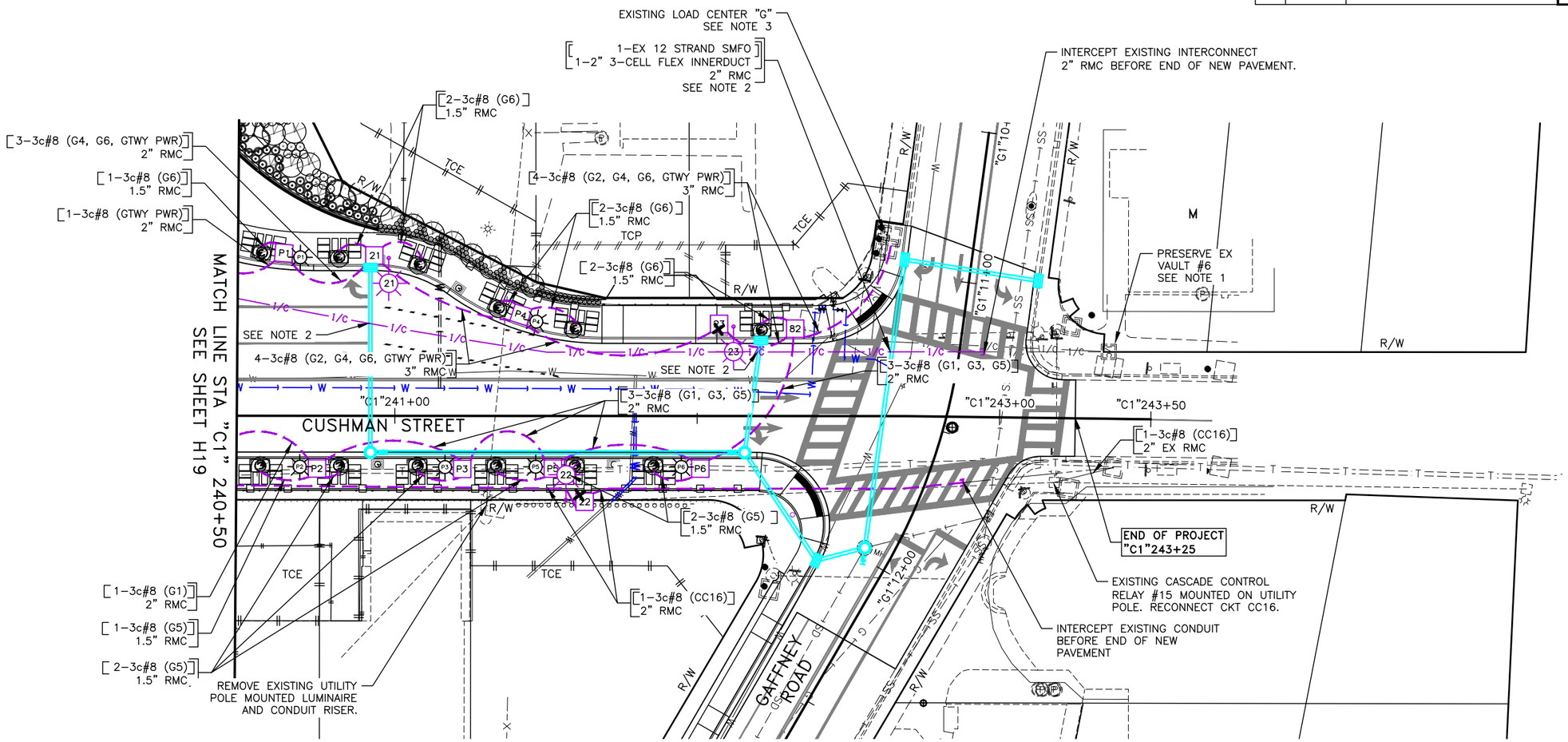
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H23	H53



SHEET NOTES:

1. DISCONNECT EXISTING CUSHMAN STREET FIBER OPTIC CABLE CONNECTED TO THE EXISTING TRAFFIC CONTROLLER IN THE NE QUADRANT OF AIRPORT WAY AND CUSHMAN STREET INTERSECTION AND PULL BACK TO EXISTING VAULT #6 IN NW QUADRANT OF CUSHMAN STREET AND GAFFNEY ROAD INTERSECTION. AFTER INSTALLATION OF NEW CONDUIT REPULL CABLE AS SHOWN TO VAULT #3 AND SPLICE CABLES.
2. ROUTE I/C UNDER PROPOSED STORM DRAIN PER CONDUIT CULVERT CROSSING DETAIL SHEET H51.
3. ADJUST EXISTING LOAD CENTER "G" JUNCTION BOX TO FINISHED GRADE AS NEEDED.

ILLUMINATION AND INTERCONNECT 6 OF 6

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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LUMINAIRE SCHEDULE

TYPE	MANUFACTURER & MODEL NO.	LIGHT SOURCE	IES TYPE OPTICS	INITIAL LUMENS	COLOR TEMP (CCT)	DRIVER CURRENT	VOLTAGE WATTS	POWER FACTOR	MOUNTING	REMARKS
A	CREE # RSWX-A-HT 3ME-32L-40K7-UH-GY-N	LED	TYPE III MED.	31,100	4000K	0.51 AMPS	480V 240W	>0.9	HORIZ. TENON	
B	CREE # RSWX-A-HT- 3ME-24L-40K7-UH-GY-N	LED	TYPE III MED.	23,800	4000K	0.38 AMPS	480V 200W	>0.9	HORIZ. TENON	
C	CREE # RSWC-A-HT- 2LG-32L-40K7-h-GY-N	LED	TYPE II LONG	31,100	4000K	0.51 AMPS	480V 732W	>0.9	HORIZ. TENON	
D	STERNBERG # 1521LED-R-12L-27-T3-MDL018-FG-EZ-CM	LED	TYPE III	5,695	2700K	0.18 AMPS	240V 60W	>0.9	VERT. EZ HANG	CUSTOM FINISH RAL 8016
E	STERNBERG # PT-12-RW404-56L-27-TS-MDL05-CM	LED	SYMMETRICAL	4,840	2700K	0.525 AMPS	240V 99W	N/A	POST TOP	CUSTOM FINISH RAL 8016
F	STERNBERG # 1531LED-R-32L-27-T4-MDL018-FG-EZ-CM	LED	TYPE IV	15,400	2700K	0.18 AMPS	240V 154W	>0.9	VERT. EZ HANG	CUSTOM FINISH RAL 8016

GENERAL ILLUMINATION NOTES:

1. LUMINAIRES SHALL BE SUITABLE FOR 240V SUPPLY, AND COMPLY WITH SPECIAL PROVISIONS OF SECTION 740-2.18. LUMINAIRES SHALL PROVIDE THE AVERAGE INITIAL LUMINANCE, ILLUMINANCE, AND UNIFORMITIES SPECIFIED IN THE PERFORMANCE CRITERIA SCHEDULES. PROVIDE LIGHTING CALCULATIONS USING THE MANUFACTURER'S CURRENT PUBLISHED PHOTOMETRIC DATA IN ACCORDANCE WITH SPECIAL PROVISIONS OF SECTION 740-2.18 FOR LED ROADWAY LUMINAIRES.
2. PRIOR TO INSTALLATION, CONTRACTOR SHALL REQUEST LOCATES FOR EXISTING UNDERGROUND UTILITIES, AND RECEIVE WRITTEN CONFIRMATION THAT ALL FACILITIES HAVE BEEN IDENTIFIED.
3. POLE LOCATIONS SHALL BE STAKED AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ADJUST POLE LOCATIONS AS DIRECTED BY THE ENGINEER. MINOR RELOCATIONS OF FOUNDATIONS, CONDUIT, AND JUNCTION BOXES SHALL BE CONSIDERED SUBSIDIARY TO THE SECTION 660.0003.0000 PAY ITEM.
4. JUNCTION BOXES AND CONDUIT RUNS SHOWN IN PLANS FOR THE LIGHTING SYSTEM ARE CONSIDERED SUBSIDIARY TO THE 660(3) HIGHWAY LIGHTING SYSTEM PAY ITEM.
5. DESIGN MOUNTING HEIGHT AS SCHEDULED SHALL BE MEASURED FROM THE FINISHED ROAD SURFACE TO THE LUMINAIRE. ALL COBRAHEAD LUMINAIRES SHALL BE CUTOFF TYPE MOUNTED HORIZONTAL WITH ZERO TILT UNLESS OTHERWISE NOTED.
6. PROVIDE LIGHTING STANDARDS AND CONCRETE POLE FOUNDATIONS IN ACCORDANCE WITH PLAN DETAILS, NOTES, AND SPECIFICATIONS.
7. ORIENT POLE WITH LUMINAIRE MAST ARMS AS INDICATED ON THE PLANS, TYPICALLY PERPENDICULAR TO THE ROADWAY CENTERLINE, UNLESS A SPECIFIC ORIENTATION IS OTHERWISE NOTED.
8. WITH EXCEPTION TO COF LIGHT POLES, ALL LUMINAIRES SHALL BE FURNISHED WITH A 0-10V DIMMING BALLAST, 7-PIN NEMA TWIST-LOCK RECEPTACLE AND WIRELESS CONTROL NODE. UNLESS OTHERWISE NOTED, LUMINAIRES SHALL BE SET WITH NO DIMMING.
9. COF LIGHT POLES SHALL BE FIXED BASED AND, UNLESS OTHERWISE NOTED, ALL OTHER LIGHT POLES SHALL BE MOUNTED USING FRANGIBLE COUPLINGS.
10. WIRING BETWEEN AN ELECTROLIER AND THE JUNCTION BOX SERVING IT SHALL CONSIST OF 1-3c#8 CABLE IN AND OUT (2-3c#8) AND 1-1c#8 BARE COPPER GROUND IN A 2" RMC.

STREET LIGHTING DESIGN CRITERIA

ROADWAY CHARACTERISTICS

ROADWAY LIGHTING STANDARD:	IESNA RP-8-2014
CALCULATION ZONE:	ENTIRE ROADWAY
STREET CLASSIFICATION	MAJOR
PEDESTRIAN AREA CLASSIFICATION:	MEDIUM (UNLESS NOTED OTHERWISE)
PAVEMENT CLASSIFICATION:	R3
TRAFFIC FLOW:	2-WAY
LANE WIDTH:	12 FT.
NO. OF LANES, LEFT / RIGHT:	2 BOTH DIRECTIONS
MEDIAN:	VARIES

AIRPORT WAY AND CUSHMAN STREET LUMINANCE CRITERIA

AVERAGE MAINTAINED (Lavg):	0.9 CD/SQ M
Lavg/Lmin RATIO (MAXIMUM):	<= 3.0
Lmax/Lmin RATIO (MAXIMUM):	<= 5.0
Lvmax/Lavg VEILING LUMINANCE RATIO (MAXIMUM):	<= 0.3

INTERSECTION ILLUMINANCE CRITERIA

AIRPORT WAY/CUSHMAN STREET, ILLUMINANCE:	Eavg >= 2.6 FC Eavg/Emin <= 3.0

PEDESTRIAN CROSSWALK ILLUMINANCE CRITERIA

CONFLICT AREA LIMITS:	CROSSWALKS / CURB RAMPS
CROSSWALKS AT SIGNALIZED INTERSECTIONS, MEDIUM PEDESTRIAN CONFLICT:	Emin,v >= 0.2 FC METERED AT 5 FT HEIGHT AND 1.64 FT SPACING IN DIRECTION OF APPROACHING TRAFFIC, CENTERED IN CROSSWALK.
CROSSWALKS AT NON-SIGNALIZED, UNCONTROLLED TRAFFIC FREE-RIGHT SLIP LANES, HIGH PEDESTRIAN CONFLICT:	Eavg >= 2.6 FC Eavg/Emin <= 4.0 FC Emin,v >= 1.0 FC METERED AT 5 FT HEIGHT AND 1.64 FT SPACING IN DIRECTION OF APPROACHING TRAFFIC, CENTERED IN CROSSWALK.

LUMINAIRE DEPRECIATION

LED - TOTAL LIGHT LOSS FACTOR (LLF):	0.85

ILLUMINATION SUMMARY
1 OF 4

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NOTE:
SEE SHEET H24 FOR ELECTROLIER NOTES.

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H25	H53

COBRAHEAD ELECTROLIER SUMMARY

LUMINAIRE NO.	ALIGN.	STATION	OFFSET	POLE TYPE	BASE TYPE	LUMINAIRE				CIRCUIT	MOUNT HEIGHT (FT)	MAST ARM LENGTH (FT)	REMARKS
						TYPE	VOLTAGE	WATTAGE	DIMMING (NOTE 8)				
1	"A1"	156+05.3	63.1 LT	STP	CIDH	B	480	200		A4	40	22	
2	"A1"	157+14.1	49.0 RT	STP	CIDH	B	480	200		A2	40	22	
3	"A1"	158+11.9	51.2 RT	STP	CIDH	B	480	200		A2	40	10	
4	"A1"	158+15.5	71.0 LT	STP	CIDH	B	480	200		A4	40	22	
5	"A1"	159+41.5	70.4 RT	STP	CIDH	B	480	200		A2	40	22	
6	"A1"	159+74.1	71.0 LT	STP	CIDH	B	480	200		A4	40	22	
7	"A1"	160+47.4	93.5 RT	STP	CIDH	B	480	200		A2	40	6	
8	"A1"	160+45.6	109.3 LT	STP	CIDH	B	480	200		A4	40	6	
9	"A1"	162+12.4	91.3 LT	STP	CIDH	B	480	200		A3	40	6	
10	"A1"	162+35.2	95.7 RT	STP	CIDH	B	480	300		A1	40	6	
11	"A1"	163+04.9	69.5 LT	STP	CIDH	C	480	732		A3	40	22	
12	"A1"	164+36.6	48.8 RT	STP	CIDH	A	480	240		A1	40	22	
13	"A1"	165+50.9	47.0 RT	STP	CIDH	A	480	240		A1	40	22	
14	"A1"	166+68.2	55.1 LT	STP	CIDH	A	480	245		A3	40	22	
15	"A1"	167+76.4	48.2 RT	STP	CIDH	C	480	732		A1	40	22	
16	"C1"	233+55.8	34.8 LT	STP	CIDH	B	240	200		CC16	40	10	
17	"C1"	234+66.7	34.7 LT	STP	CIDH	B	240	200		CC16	40	10	
18	"C1"	235+97.3	40.6 LT	STP	CIDH	B	240	200		CC16	40	10	
19	"C1"	237+40.6	51.8 LT	STP	CIDH	B	240	200		CC16	40	22	

ABBREVIATIONS:
EX EXISTING
CIDH CAST IN DRILLED HOLE
STP STEEL TAPERED POLE
PLPF PEDESTRIAN LIGHT POLE FOUNDATION

ILLUMINATION SUMMARY
2 OF 4

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H26	H53

NOTE:
SEE SHEET H24 FOR ELECTROLIER NOTES.

COF ELECTROLIER SUMMARY

LUMINAIRE NO.	ALIGN.	STATION	OFFSET	POLE TYPE	BASE TYPE	LUMINAIRE				CIRCUIT	MOUNT HEIGHT (FT)	MAST ARM LENGTH (FT)	REMARKS
						TYPE	VOLTAGE	WATTAGE	DIMMING (NOTE 8)				
20	"C1"	240+29.1	16.8 RT	STP	CIDH	D	240	60		G1	30	8	
21	"C1"	240+98.0	52.1 LT	STP	CIDH	D	240	60		G2	30	8	
22	"C1"	241+56.6	27.7 RT	WOOD(EX)	N/A	D	240	60		G1	30	8	
23	"C1"	242+12.0	29.6 LT	STP	CIDH	D	240	60		G2	30	8	

COF PEDESTRIAN LUMINAIRE SUMMARY

LUMINAIRE NO.	ALIGN.	STATION	OFFSET	POLE TYPE	BASE TYPE	LUMINAIRE				CIRCUIT	MOUNT HEIGHT (FT)	MAST ARM LENGTH (FT)	REMARKS
						TYPE	VOLTAGE	WATTAGE	DIMMING (NOTE 8)				
P1	"C1"	240+68.7	52.4 LT	POST	PLPF	E	240	99		G4	12		
P2	"C1"	240+68.6	16.8 RT	POST	PLPF	E	240	99		G3	12		
P3	"C1"	241+16.6	16.9 RT	POST	PLPF	E	240	99		G3	12		
P4	"C1"	241+46.8	31.2 LT	POST	PLPF	E	240	99		G4	12		

ABBREVIATIONS:
EX EXISTING
CIDH CAST IN DRILLED HOLE
STP STEEL TAPERED POLE
PLPF PEDESTRIAN LIGHT POLE FOUNDATION

ILLUMINATION SUMMARY
3 OF 4

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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ALASKA	0002312/Z640780000	2024	H27	H53

NOTE:
SEE SHEET H24 FOR ELECTROLIER NOTES.

LUMINAIRE JUNCTION BOX SUMMARY

LUMINAIRE NO.	ALIGN.	STATION	OFFSET	TYPE	CIRCUIT	REMARKS
1	"A1"	156+01.1	LT	1A	A4	
2	"A1"	157+18.3	RT	1A	A2	
3	"A1"	158+16.2	RT	1A	A2	
4	"A1"	158+11.2	LT	1A	A4	
5	"A1"	159+45.8	RT	1A	A2, A4	
6	"A1"	159+69.9	LT	1A	A4	
7	"A1"	160+51.6	RT	1A	A2, A4, CC16	
8	"A1"	160+44.4	LT	1A	A4	
9	"A1"	162+08.4	LT	1A	A3, CC16	
10	"A1"	162+35.6	RT	1A	A1	
11	"A1"	163+00.7	LT	1A	A3	
12	"A1"	164+40.9	RT	1A	A1	
13	"A1"	165+55.2	RT	1A	A1	
14	"A1"	166+63.9	LT	1A	A3	
15	"A1"	167+80.6	RT	1A	A1	
16	"C1"	233+53.2	LT	1A	CC16	
17	"C1"	234+64.1	LT	1A	CC16	
18	"C1"	235+94.7	LT	1A	CC16	
19	"C1"	237+36.4	LT	1A	CC16	
20	"C1"	240+33.6	RT	1A	G1	
21	"C1"	240+93.0	LT	1A	G2, G4, G6, GTWY PWR	
80	"C1"	233+97.0	RT	1A	CC16	
81	"C1"	240+37.7	LT	1A	GTWY PWR	
82	"C1"	242+30.6	LT	1A	G2, G4, G6, GTWY PWR	
P1	"C1"	240+64.8	LT	1A	G2, G4, G6, GTWY PWR	
P2	"C1"	240+72.6	RT	1A	G1, G3, G5	
P3	"C1"	241+22.8	RT	1A	G1, G3, G5	
P4	"C1"	241+42.8	LT	1A	G2, G4, G6, GTWY PWR	
P5	"C1"	241+50.6	RT	1A	G1, G3, G5	
P6	"C1"	241+99.3	RT	1A	G1, G3, G5	

ELECTROLIER DEMOLITON SUMMARY

ALIGN.	STATION	OFFSET	REMARKS
"A1"	156+41.1	LT	SALVAGE 2 EA LUMINAIRE
"A1"	157+95.2	RT	SALVAGE LUMINAIRE
"A1"	158+72.3	LT	SALVAGE LUMINAIRE
"A1"	159+34.8	LT	SALVAGE LUMINAIRE
"A1"	159+35.1	RT	SALVAGE LUMINAIRE
"A1"	159+62.4	LT	SALVAGE LUMINAIRE
"A1"	160+50.6	LT	SALVAGE LUMINAIRE
"A1"	160+80.3	RT	SALVAGE LUMINAIRE
"A1"	162+12.1	LT	SALVAGE LUMINAIRE
"A1"	163+86.3	LT	SALVAGE LUMINAIRE
"A1"	163+86.3	RT	SALVAGE LUMINAIRE
"A1"	165+44.9	LT	SALVAGE LUMINAIRE
"A1"	167+03.8	LT	SALVAGE LUMINAIRE
"A1"	167+03.9	RT	SALVAGE LUMINAIRE

REMOVE UTILITY POLE MOUNTED LUMINAIRE

ALIGN.	STATION	OFFSET	REMARKS
"A1"	156+88.8	LT	SALVAGE LUMINAIRE
"C1"	233+98.8	RT	
"C1"	235+18.5	RT	
"C1"	236+01.9	RT	
"C1"	237+75.0	RT	

LIGHTING DEMOLITION NOTES:

1. CONTRACTOR SHALL SALVAGE LUMINAIRES FROM EXISTING DEMOLISHED ELECTROLIERS AS SCHEDULED.
2. 4 EA LUMINAIRES SHALL BE SALVAGED FROM DEMOLISHED SIGNAL POLES FROM AIRPORT WAY AND CUSHMAN STREET INTERSECTION.
3. DELIVER SALVAGED FIXTURES TO DOT MAINTENANCE. CONTACT ERIC SLAY (907) 451-5279 TO ARRANGE FOR DELIVERY.
4. UNLESS OTHERWISE NOTED REMOVE EXISTING ELECTROLIER FOUNDATIONS ALONG WITH POLES.
5. REMOVE ANY AERIAL CIRCUITRY ASSOCIATED WITH UTILITY POLE MOUNTED LUMINAIRES SCHEDULED FOR REMOVAL.

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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NEW LOAD CENTER SUMMARY

LOAD CENTER: "LC A" TYPE: 1
LOCATION: CUSHMAN AND AIRPORT, SE CORNER OF INT.
REMARKS:

UTILITY SOURCE: 25 KVA POLE MOUNT XFMR GVEA METER: NEW
SERVICE: 200 AMP, 480/240 VOLT, 1–PHASE, 3–WIRE
MAX. AVAILABLE FAULT CURRENT: 2,758 AMP

MAIN BREAKER: 200 AMP, 2–POLE, 480/240 VOLT INTERRUPTING RATING: 14,000 AMP

AUXILIARY EQUIPMENT SUMMARY

DESCRIPTION	VOLT	POLES	AMP	REMARKS
SURGE ARRESTOR	480	2		
PHOTOELECTRIC CONTROL	240			
SELECTOR SWITCH, ON–OFF–AUTO (3–POS)	240	1	10	
LIGHTING CONTACTOR	480	10	30	MAGNETICALLY LATCHED TYPE

PANEL 'A' SCHEDULE — 480/240 VOLT, 1–PHASE, 3–WIRE, 200A BUS — INTERRUPTING RATING: 14,000 AMP

CKT. NO.	DESCRIPTION		CKT. BKR.	KVA	KVA / LNE A	KVA / LNE B	CKT NO.	DESCRIPTION		CKT. BKR.	KVA
1	AIRPORT LTG (4 LUMS)	(A–1)	20A/2P	0.4	0.5		2	LIGHTING CONTROL		15A/1P	0.1
3	EAST OF CUSHMAN, SOUTH SIDE			0.4		0.9	4	CABINET HEATER		15A/1P	0.5
5	AIRPORT LTG (4 LUMS)	(A–2)	20A/2P	0.4	0.8		6	INTERSECTION LTG	(A–5)	20A/2P	0.4
7	WEST OF CUSHMAT, SOUTH SIDE			0.4		0.8	8				0.4
9	AIRPORT LTG (3 LUMS)	(A–3)	20A/2P	0.3	0.3		10	PANEL B SUBFEED		–	0.0
11	EAST OF CUSHMAN, NORTH SIDE			0.3		0.3	12	VIA 10VKA TRANSFORMER		–	0.0
13	AIRPORT LTG (4 LUMS)	(A–4)	20A/2P	0.4	0.4		14	SPACE		–	0.0
15	WEST OF CUSHMAN, NORTH SIDE			0.4		0.4	16			–	0.0

SERVICE LOAD:					
CONNECTED:	2.0	2.4	4.4	KVA	9 AMP
DEMAND:	2.5	3	5.5	KVA	11 AMP

NOTES: LUM = LUMINAIRE
* X
** X
*** X

PANEL 'B' SCHEDULE — 120/240 VOLT, 1–PHASE, 3–WIRE, 100A BUS, 100A MAIN BREAKER — INTERRUPTING RATING: 10,000 AMP

CKT. NO.	DESCRIPTION		CKT. BKR.	KVA	KVA / LNE A	KVA / LNE B	CKT NO.	DESCRIPTION	CKT. BKR.	KVA
1	MAIN DISCONNECT		100A/2P		0.0		2	NOT USED		
3						0.0	4			
5	AIRPORT & CUSHMAN LTG (3 LUMS)	(A–3)	20A/2P	0.3	5.3		6	TRAFFIC CONTROLLER	40A/1P	5.0
7	INTERSECTION LTG			0.3		0.3	8	SPARE	20A1P	0.0
9	SPARE		20A/2P	0.0	0.0		10	SPARE	20A1P	0.0
11				0.0		0.0	12	SPARE	20A1P	0.0
13	SPACE		–		0.0		14	SPACE	–	
15			–			0.0	16	SPACE	–	

SERVICE LOAD:					
CONNECTED:	5.3	0.3	5.6	KVA	23 AMP
DEMAND:	6.625	0.375	7.0	KVA	29 AMP

NOTES: LUM = LUMINAIRE
* X
** X
*** X

EXISTING LOAD CENTER SUMMARY

LOAD CENTER: "LC G" TYPE: 1A
LOCATION: CUSHMAN AND GAFFNEY, SW CORNER OF INT.
REMARKS:

UTILITY SOURCE: 25 KVA POLE MOUNT XFMR GVEA METER #x
SERVICE: 100 AMP, 120/240 VOLT, 1–PHASE, 3–WIRE
MAX. AVAILABLE FAULT CURRENT: x AMP

MAIN BREAKER: 100 AMP, 2–POLE, 120/240 VOLT INTERRUPTING RATING: 10,000 AMP

AUXILIARY EQUIPMENT SUMMARY (E)=EXISTING, (D)=REMOVE, (N)=ADD NEW, (R)=REPLACE/REPAIR AS NOTED

DESCRIPTION	VOLT	POLES	AMP	REMARKS
SURGE ARRESTOR	240	2		
SELECTOR SWITCH, AUTO–ON–OFF (2–POS)	240	1	10	
LIGHTING CONTROL CONTACTOR	240	10	30	MAGNETICALLY LATCHED TYPE

PANEL 'A' SCHEDULE — 120/240 VOLT, 1–PHASE, 3–WIRE, 100A MLO — INTERRUPTING RATING: 10,000 AMP

CKT. NO.	DESCRIPTION	CKT. BKR.	KVA	KVA / LEG A	KVA / LEG B	CKT NO.	DESCRIPTION	CKT. BKR.	KVA
1	TRAFFIC CONTROLLER (E)	40A/1P	3.0	3.9		2	LIGHTING (E)	20A/2P	0.9
3	SPACE	–	0.0		0.9	4	INTERSECTION LIGHTING: GAFFNEY/11TH–12TH		0.9
5	RECEPT(N) W CUSHMAN, S OF GAFFNEY (G–6)	20A/1	0.5	0.7		6	LIGHTING (E)	20A/2P	0.2
7	RECEPT(N) W CUSHMAN, S OF GAFFENY (G–4)	20A/1	0.5		0.7	8	GAFFNEY/WEST SIDE		0.2
9	RECEPT(N) E CUSHMAN, S OF GAFFNEY (G–5)	20A/1	0.5	0.7		10	LIGHTING (E)	20A/2P	0.2
11	RECEPT(N) E CUSHMAN, S OF GAFFNEY (G–3)	20A/1	0.5		0.7	12	GAFFNEY/EAST SIDE		0.2
13	RECEPT (E)	20A/2P	0.5	0.8		14	LIGHTING (N) REUSE EXISTING BRKR (G–2)	20A/2P	0.2
15	WEST SIDE /CUSHMAN		0.5		0.8	16	GAFFNEY/WEST SIDE		0.2
17	RECEPT (E)	20A/2P	1.1	1.5		18	LIGHTING (N) REUSE EXISTING BRKR (G–1)	20A/2P	0.4
19	EAST SIDE /CUSHMAN		1.1		1.5	20	GAFFNEY/EAST SIDE		0.4
21	LIGHTING (E)	20A/2P	0.4	0.7		22	LIGHTING (E)	20A/2P	0.3
23	CUSHMAN/S. GAFFNEY		0.4		0.7	24	GAFFNEY		0.3
25	GATEWAY (N)	20A/1	0.3	0.3		26	PE LIGHTING CONTROL	15A/2P	0.1
27	SPACE	–			0.1	28			0.1
29	SPACE	–		0.0		30	SPACE	–	

SERVICE LOAD:					
CONNECTED:	8.6	5.3	13.9	KVA	58 AMP
DEMAND:	10.69	6.63	17.3	KVA	72 AMP

NOTES: LUM = LUMINAIRE
* E' INDICATES EXISTING.
** N' INDICATES NEW EQUIPMENT TO BE INSTALLED.
*** INSTALL NEW BREAKERS IN 5,7,9,11

ARC–FLASH SCHEDULE

DEVICE	VOLTAGE	WORKING DISTANCE	INCIDENT ENERGY @ MAX ARCING CURRENT (CAL/CM²)	ARC–FLASH BOUNDARY DISTANCE
PANEL A	480V	18"	7.93	4'–11"
PANEL B	240V	18"	2.97	2'–8"

LOAD CENTER "A" ARC FLASH NOTES:

1. UTILITY TRANSFORMER IS ASSUMED TO BE 25KVA, FED BY 50' OF #2 AL CONDUCTOR. ADJUST CALCULATION IF FIELD CONDITIONS ARE OTHERWISE.
2. ARC FLASH PPE REQUIREMENTS AS PER TABLE132.7(C)(15)(A): PPE 2.
3. PROVIDE ARC FLASH WARNING LABEL AS PER NFPA 2018 70E 130.5 ARC FLASH RISK ASSESSMENT (H) (3) INDICATING EITHER 3.1 OR 3.2 BUT NOT BOTH,
   3.1. INCIDENT ENERGY AND CORRESPONDING WORKING DISTANCE. 7.06 CAL/CM² WITH A WORKING DISTANCE OF 18"
   3.2. THE REQUIRED PPE: 2.
4. CALCULATED 12–20–22.

LOAD CENTER SUMMARY

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

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FIBER–OPTIC INTERCONNECT VAULT SCHEDULE

I/C VAULT NO.	LOCATION			TYPE	REMARKS
	ALIGNMENT	STATION	OFFSET		
1	A1	155+00	54.0' LT	EX TYPE II	
2	A1	160+25	80.0' LT	MANHOLE	COORDINATE PAVERS W/LANDSCAPE SHEETS
3	A1	162+50	72.0' LT	MANHOLE	INSTALL LID CENTER OF SIDEWALK
4	A1	162+69	64.2' RT	MANHOLE	
5	A1	168+38	58.9' RT	EX TYPE II	
6	C1	243+36	22.1' LT	EX TYPE II	

FIBER–OPTIC
VAULT SCHEDULE

PLANS DEVELOPED BY:
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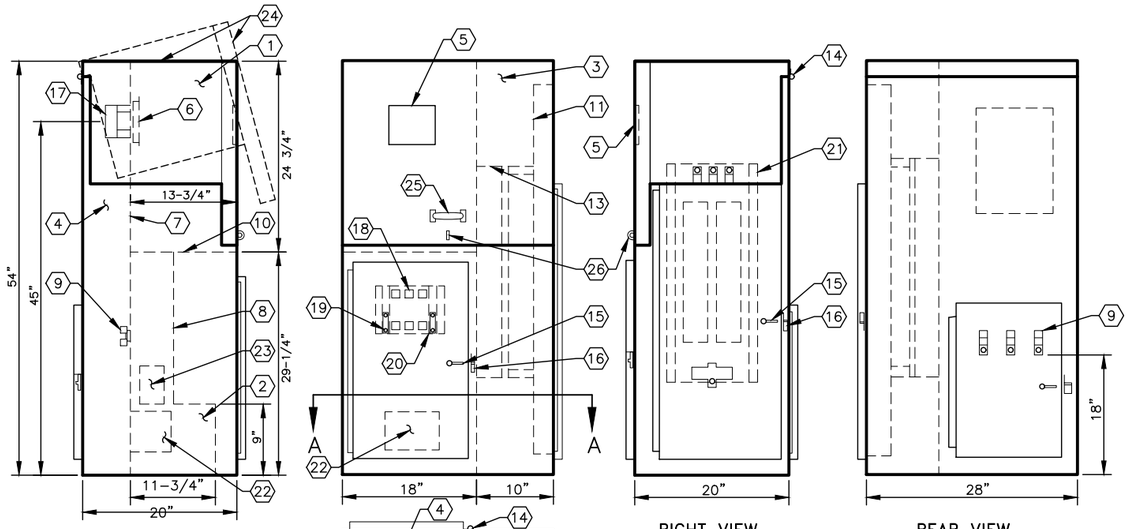
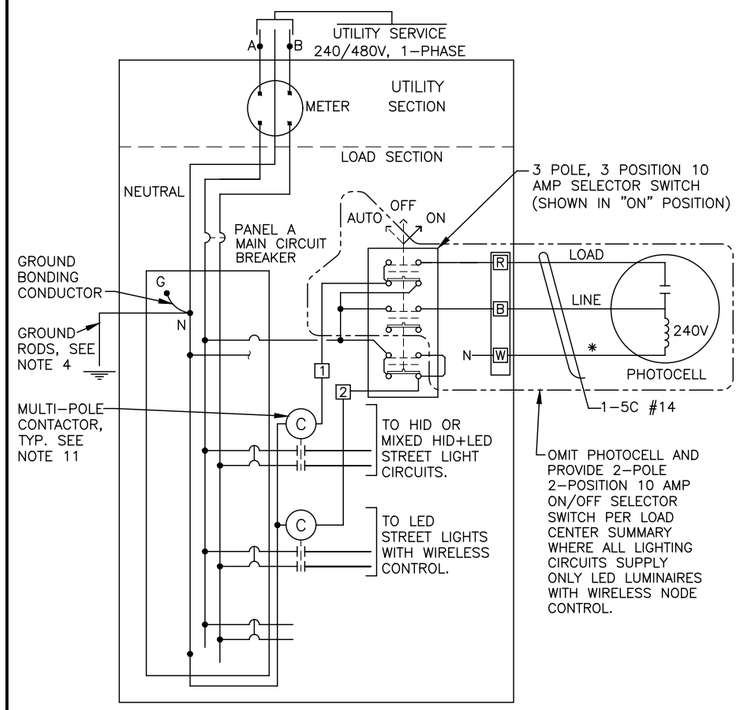
ALASKA	0002312/Z640780000	2024	H30	H53



EQUIPMENT LEGEND

1. METER SECTION
2. LOAD SECTION (MAIN)
3. LOAD SECTION (DISTRIBUTION)
4. SERVICE PULL SECTION
5. METER READING WINDOW
6. METER SOCKET COVER
7. TEST SECTION COVER
8. DEAD FRONT
9. UTILITY LANDING LUGS
10. METER SECTION BARRIER
11. PANEL BOARD DEADFRONT
12. EQUIPMENT CHASSIS
13. MOUNTING PAN
14. STAINLESS STEEL PIN HINGE
15. COIN LATCH
16. HASP FOR PADLOCK
17. METER SOCKET KIT ASSEMBLY
18. MAIN BREAKER(S)
19. NEUTRAL BAR
20. GROUND BAR
21. PANEL BOARD INTERIOR
22. ALTERNATE CONTACTOR LOCATION
23. CABLE OPENING
24. HINGED HOOD
25. HOOD HANDLE
26. SEALABLE PADLOCK HASP

TYPE 1 LOAD CENTER CABINET SECTION / ELEVATION



LOAD CENTER AND SELECTOR SWITCH WIRING DIAGRAM

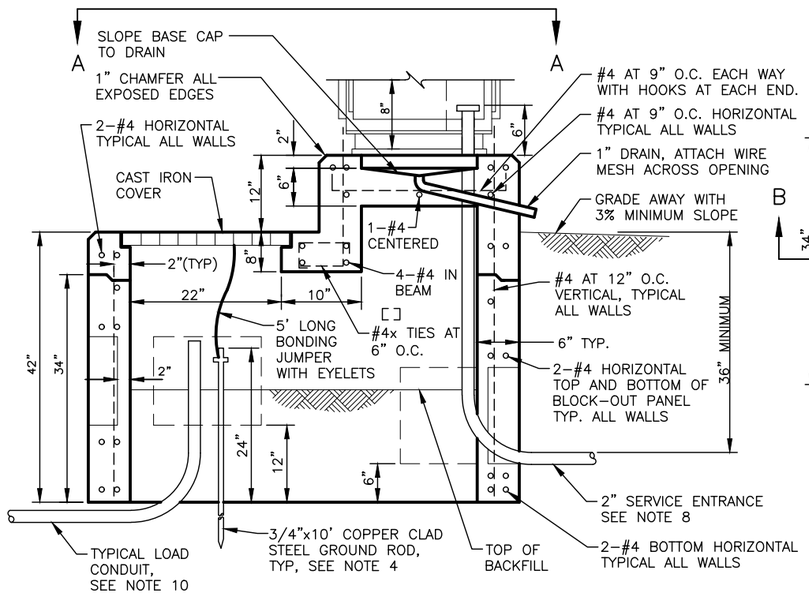
* GROUNDED NEUTRAL FOR 240/480V SINGLE–PHASE SERVICE.

NOTES:

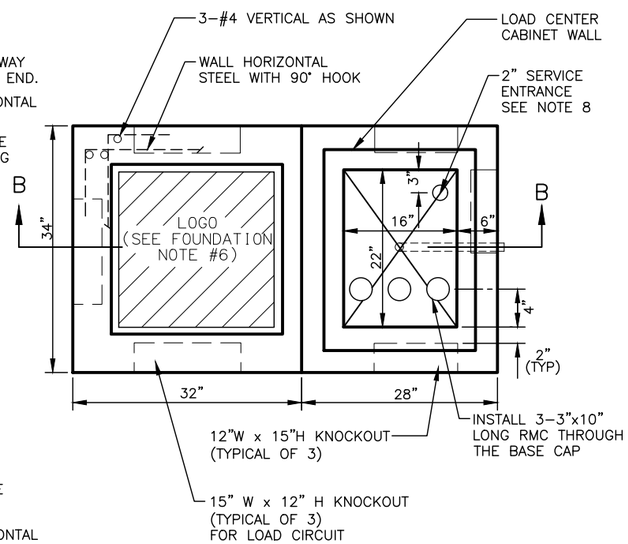
1. FURNISH ALL EQUIPMENT NOTED IN THE LOAD CENTER SUMMARY, PLUS TWO 20–AMP 2–POLE SPARE CIRCUIT BREAKERS, AND SPACE FOR A MINIMUM OF TWO ADDITIONAL 2–POLE CIRCUIT BREAKERS IN EACH LOAD PANEL. SEE THE LOAD CENTER SUMMARIES FOR LOAD PANEL VOLTAGES, CURRENT RATINGS, AND THE NAME OF THE SERVING UTILITY.
2. INSTALL GROUNDING HUBS THIRD PARTY CERTIFIED FOR WET LOCATIONS ("MYERS" TYPE), WHEN ATTACHING CONDUITS TO THE LOAD CENTER ENCLOSURE.
3. LABEL ALL CIRCUIT BREAKERS AS TO FUNCTION AND POSITION. LABEL THE SELECTOR SWITCH "LIGHTING" AND ITS POSITIONS "ON–OFF–AUTO", OR "ON–OFF" AS REQUIRED BY SWITCH TYPE.
4. PROVIDE TWO GROUND ROD ELECTRODES WITH 6'–0" MINIMUM SEPARATION. GROUNDING ELECTRODE CONDUCTOR SHALL BE #4 AWG MINIMUM.
5. METER BASES SHALL NOT BE MOUNTED ON MOVABLE PANELS OR DOORS.
6. LOCATE THE LOAD CENTER AT LEAST 30 FEET AWAY FROM ANY TRAVELED WAY, OR WHERE INSUFFICIENT RIGHT–OF–WAY EXISTS, ADJACENT TO THE RIGHT–OF–WAY LINE. LOCATE LOAD CENTER FOUNDATION ADJACENT TO EXISTING TYPE 2 J–BOX WITH SUFFICIENT CLEARANCE TO ALLOW FOR CONDUIT/WIRING EXTENSIONS.
7. STORE A SCHEMATIC DIAGRAM, A CIRCUIT DIRECTORY, AND A MATERIALS LIST THAT INCLUDES THE MANUFACTURER'S NAME AND PART/CATALOG NUMBERS, ALL LAMINATED IN PLASTIC, IN A METAL POCKET ATTACHED TO THE INSIDE OF THE LOAD CENTER. INSTALL THE POCKET ON THE LOAD CENTER DOOR, PROVIDING DRAIN HOLES TO PREVENT WATER ACCUMULATION.
8. PROVIDE SERVICE LATERAL AND SECONDARY POLE RISER INSTALLATION IN ACCORDANCE WITH UTILITY REQUIREMENTS. SEE THE PLANS AND LOAD CENTER SUMMARIES FOR LOAD CENTER LOCATION AND POWER SOURCE. PROVIDE SERVICE LATERAL BASED ON THE SPECIFIED LOAD CENTER SERVICE DISCONNECT RATING AS FOLLOWS:
   - 100 AMP: 2" RMC, 3–#2 XHHW
   - 200 AMP: 2" RMC, 3–#3/0 XHHW
9. MAXIMUM METER HEIGHT SHALL NOT EXCEED 64 INCHES FROM CAST IRON COVER TO CENTER OF THE METER SOCKET COVER.
10. EXTEND EXISTING CIRCUITS IN 2" OR 3" RMC AS REQUIRED WITH EQUIPMENT GROUNDING CONDUCTOR AT 26% MAXIMUM CONDUIT FILL FROM EXISTING ADJACENT JUNCTION BOX INTO NEW LOAD CENTER BASEMENT. INCLUDE ONE SPARE 2" RMC FOR FUTURE USE. SPLICING OF CONDUCTORS PER SSHC SECTION 660 IS PERMITTED AT JUNCTION BOX OR LOAD CENTER BASEMENT IF ADDITIONAL LENGTH REQUIRED TO RECONNECT AT NEW LOAD CENTER.
11. CONNECT EACH LIGHTING CONTACTOR COIL WITH A HOMERUN CONNECTION TO A CORRESPONDING NUMBERED TERMINAL BLOCK. SEE LOAD CENTER SUMMARY FOR NUMBER OF CONTACTORS, POLES, AND RATINGS.

FOUNDATION NOTES:

1. INSTALL THE SURFACE WITH CAST IRON COVER FLUSH WITH THE PAVEMENT, SIDEWALK, OR FINISHED GRADE. GRADE AWAY FROM THE BASE WITH A MINIMUM SLOPE OF 3%. USE A PRE–MOULDED BITUMINOUS JOINT BETWEEN THE BASE AND CONCRETE SIDEWALK OR PAVING.
2. WHEN INSTALLING THE BASE, EXCAVATE TO 60" BELOW FINISHED GRADE AND INSTALL A DRAIN CONSISTING OF 18" OF COARSE CONCRETE AGGREGATE APPROVED BY THE ENGINEER. BACKFILL AROUND THE BASE IN 6" LIFTS WITH SELECTED MATERIAL TYPE "A".
3. BACKFILL INSIDE THE FOUNDATION TO WITHIN 24" OF THE LID AFTER ALL CONDUITS ARE INSTALLED, USING COARSE AGGREGATE. TERMINATE THE ENDS OF ALL LOAD CONDUITS A MINIMUM OF 6" ABOVE THE COARSE CONCRETE AGGREGATE BACKFILL AND A MINIMUM OF 12" BELOW THE LID.
4. PROVIDE ANCHOR BOLTS OR EXPANSION ANCHORS IN THE BASE FOR MOUNTING THE CABINET PER THE MANUFACTURER'S SHOP DRAWINGS. ANCHOR BOLTS, NUTS, AND WASHERS SHALL CONFORM TO EITHER ASTM A307 OR A449 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153.
5. USE GRADE 60 REINFORCING STEEL CONFORMING TO ASTM 615 AND CLASS "A" CONCRETE CONFORMING TO SECTION 501 OF THE SPECIFICATIONS WHEN CASTING THE BASE.
6. FINISH THE BASE ACCESS OPENING WITH A 24" SQUARE IRON FRAME AND COVER, WEIGHING APPROXIMATELY 280 LBS. PROVIDE COVERS INSCRIBED WITH THE LEGEND "LIGHTING" FOR THOSE LOAD CENTERS WITH STREET LIGHTING CIRCUITS ONLY, AND "TRAFFIC" FOR THOSE LOAD CENTERS WITH A TRAFFIC SIGNAL CIRCUIT.
7. IF THE BASE IS PRECAST, INSTALL TWO 3/4" FERRULE LOOP INSERTS IN TWO SIDES OPPOSITE ONE ANOTHER FOR LIFTING.



SECTION B–B



VIEW "A–A"
(PLAN VIEW)

TYPE 1 LOAD CENTER BASE

NOTE: STOP HORIZONTAL AND VERTICAL STEEL AT BLOCK–OUT PANELS & OPTIONAL JOINT USING 90° HOOK. INSTALL 2 EXTRA #4 HORIZONTAL AND VERTICAL BARS ON ALL SIDES OF EACH KNOCKOUT.

TYPE 1 LOAD CENTER DETAILS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

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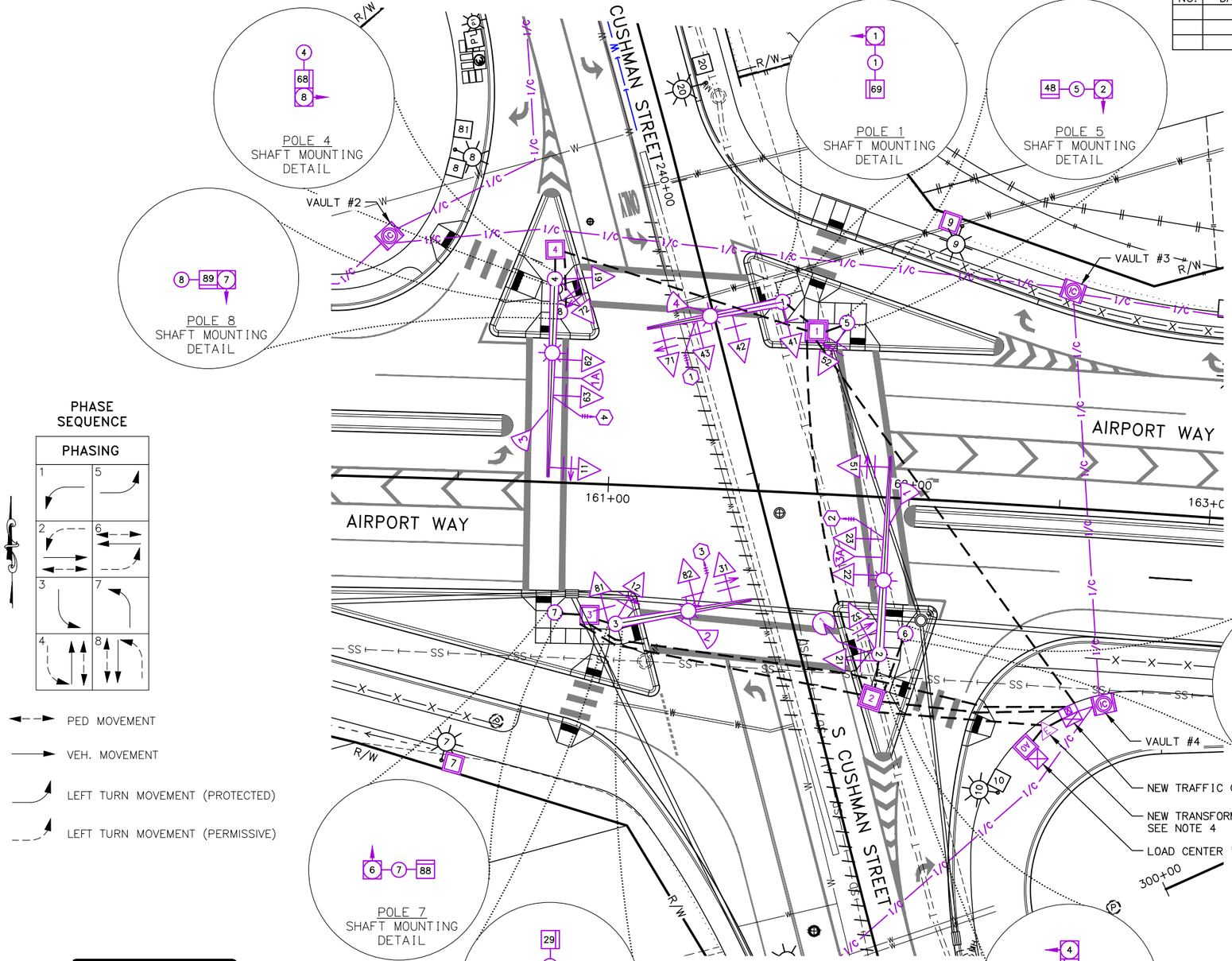


NOTES:

1. EXISTING SIGNAL LINE WORK IS FROM A COMBINATION OF DESIGN TOPOGRAPHIC SURVEY, AS-BUILTS AND SITE VISITS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE MAKING MODIFICATIONS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. SALVAGE EXISTING SIGNAL EQUIPMENT AND EXISTING LOAD CENTER AT 158+57 57.4' LT PER THE SPECIFICATIONS. THIS WORK SHALL BE PAID FOR UNDER 660.0001.000 TRAFFIC SIGNAL SYSTEM COMPLETE, AIRPORT/CUSHMAN.
3. INSTALLATION OF NEW SIGNS ON TRAFFIC SIGNAL STRUCTURES WILL BE PAID FOR UNDER PAY ITEM 615.0001.0000.
4. INSTALL NEW SIGNAL CONTROLLER TRANSFORMER AND DISCONNECT AT STA: "A1"162+51 OFF: 74.2 RT. PAYMENT SHALL BE MADE UNDER PAY ITEM 661.0006.0000 TRANSFORMERS, 5KVA.
5. SIGNAL POLE LUMINAIRES SHALL BE PER LUMINAIRE SCHEDULE ON SHEET H24, SEE BELOW FOR TYPE. SEE SHEET H33 FOR REQUIRED ILLUMINATION MAST ARMS AND MOUNTING HEIGHTS.
   - POLE 1: TYPE B
   - POLE 2: TYPE B
   - POLE 3: TYPE B
   - POLE 4: TYPE B

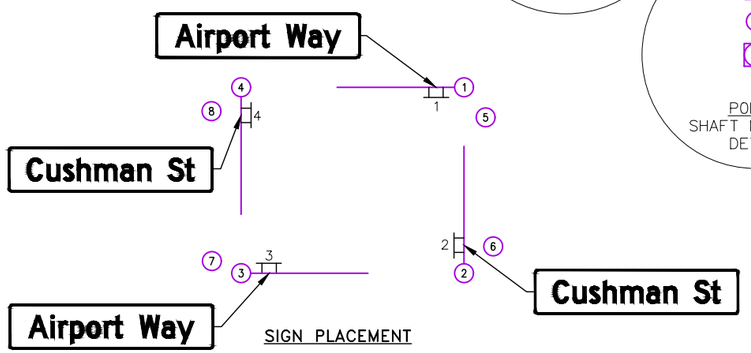
PHASE SEQUENCE

PED MOVEMENT

VEH. MOVEMENT

LEFT TURN MOVEMENT (PROTECTED)

LEFT TURN MOVEMENT (PERMISSIVE)



SIGN PLACEMENT

SIGNAL PLAN
AIRPORT WAY–CUSHMAN STREET

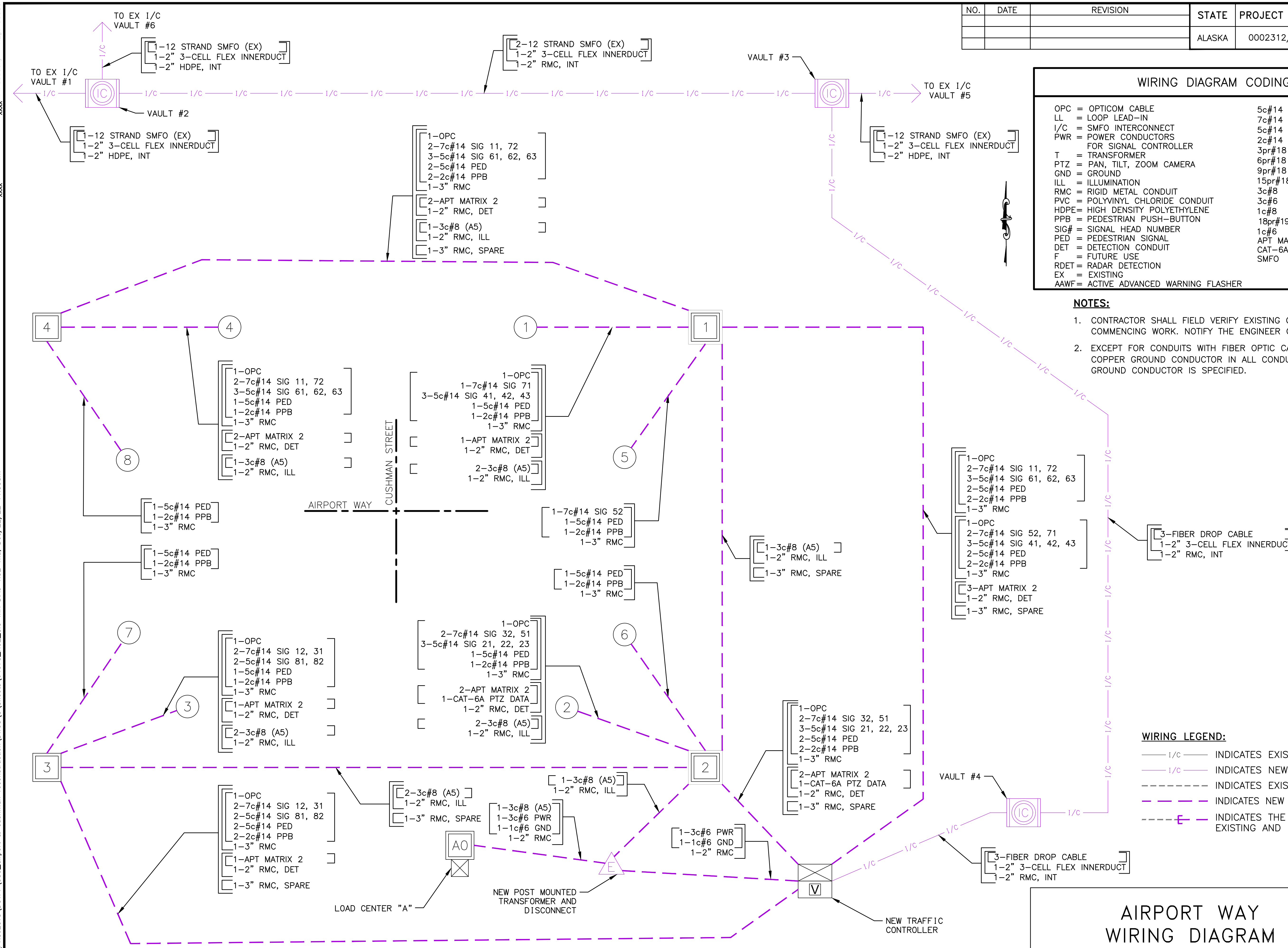
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H32	H53



WIRING DIAGRAM CODING LEGEND

OPC = OPTICOM CABLE
LL = LOOP LEAD-IN
I/C = SMFO INTERCONNECT
PWR = POWER CONDUCTORS FOR SIGNAL CONTROLLER
T = TRANSFORMER
PTZ = PAN, TILT, ZOOM CAMERA
GND = GROUND
ILL = ILLUMINATION
RMC = RIGID METAL CONDUIT
PVC = POLYVINYL CHLORIDE CONDUIT
HDPE= HIGH DENSITY POLYETHYLENE
PPB = PEDESTRIAN PUSH-BUTTON
SIG# = SIGNAL HEAD NUMBER
PED = PEDESTRIAN SIGNAL
DET = DETECTION CONDUIT
F = FUTURE USE
RDET = RADAR DETECTION
EX = EXISTING
AAWF= ACTIVE ADVANCED WARNING FLASHER

5c#14 TRAFFIC SIGNALS
7c#14 PROTECTED-PERMITTED SIGNALS
5c#14 PEDESTRIAN SIGNALS
2c#14 PEDESTRIAN PUSH-BUTTON
3pr#18, 6pr#18, 9pr#18, 15pr#18 } LOOP LEAD-IN CABLE & VDET
3c#8 ILLUMINATION
3c#6 SIGNAL POWER
1c#8 BARE COPPER GROUND
18pr#19 PE-39 INTERCONNECT CABLE
1c#6 BARE COPPER GROUND
APT MATRIX 2 RDET HOME RUN CABLE
CAT-6A DATA CABLE
SMFO SINGLE MODE FIBER OPTIC

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE COMMENCING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. EXCEPT FOR CONDUITS WITH FIBER OPTIC CABLE, INSTALL 1-1c#8 BARE COPPER GROUND CONDUCTOR IN ALL CONDUITS UNLESS ANOTHER SIZED GROUND CONDUCTOR IS SPECIFIED.

WIRING LEGEND:

— I/C — INDICATES EXISTING INTERCONNECT CONDUIT RUN
— I/C — INDICATES NEW INTERCONNECT CONDUIT RUN
- - - - INDICATES EXISTING CONDUIT RUN
— — — INDICATES NEW RIGID METAL CONDUIT RUN(S)
- - E — INDICATES THE CONNECTION BETWEEN EXISTING AND NEW CONDUIT

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

AIRPORT WAY WIRING DIAGRAM

12/22/2022 REVIEW PS&E

12/22/2022

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd. Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_H32_SIG WIR DIAG-H32 Thu, Dec/22/22 11:53am

NO.	DATE	REVISION

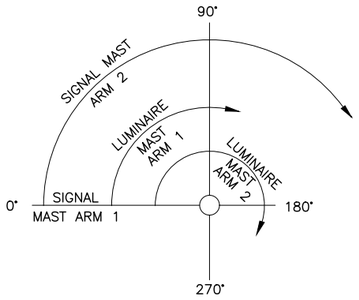
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H33	H53

POLE–POST DESIGN LOADING SCHEDULE

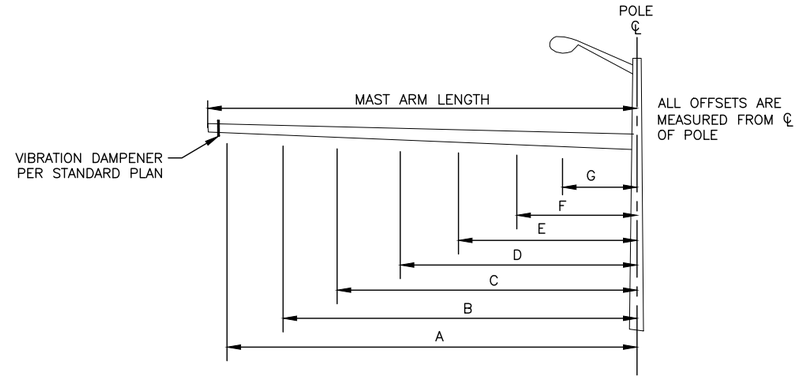
POLE NO.	CORNER	ILLUMINATION # ARM L. (FT.)	SIGNAL ARM L (FT.)		A	B	C	D	E	F	G	REMARKS
1	NE	LUMINAIRE ARM–22'	45'	SIG. OR SIGN	SIGNAL	SIGNAL	RADAR	SIGNAL	SIGN			LUMINAIRE ARM @ 0° MOUNTING HEIGHT @ 40'
				LOC. OFFSET	41.2	29.2	23.2	17.2	8.2			
				LxW OR S.F.	14.10	11.50	1.00	11.50	18.00			
2	SE	LUMINAIRE ARM–22'	65'	SIG. OR SIGN	SIGNAL	RADAR	SIGNAL	RADAR	SIGNAL	SIGN		LUMINAIRE ARM @ 0° MOUNTING HEIGHT @ 40'
				LOC. OFFSET	62.1	41.1	38.1	32.1	26.1	12.3		
				LxW OR S.F.	14.10	1.00	11.50	1.00	11.50	18.00		
3	SW	LUMINAIRE ARM–22'	45'	SIG. OR SIGN	SIGNAL	SIGNAL	RADAR	SIGN				LUMINAIRE ARM @ 0° MOUNTING HEIGHT @ 40'
				LOC. OFFSET	39.3	27.2	18.7	9.7				
				LxW OR S.F.	14.10	11.50	1.00	18.00				
4	NW	LUMINAIRE ARM–22'	65'	SIG. OR SIGN	SIGNAL	RADAR	SIGNAL	RADAR	SIGNAL	SIGN		LUMINAIRE ARM @ 0° MOUNTING HEIGHT @ 40'
				LOC. OFFSET	62.5	42.4	38.5	32.5	26.5	15.0		
				LxW OR S.F.	14.10	1.00	11.50	1.00	11.50	18.00		

POLE–POST DESIGN LOADING SCHEDULE NOTES:

1. BOTH SIGNAL AND ILLUMINATION MAST ARMS ARE ORIENTED IN THE SAME DIRECTION UNLESS OTHERWISE NOTED.
2. ORIENT SIGNAL MAST ARM(S) 90° TO THE ℄ OF THE ROADWAY UNLESS NOTED OTHERWISE.

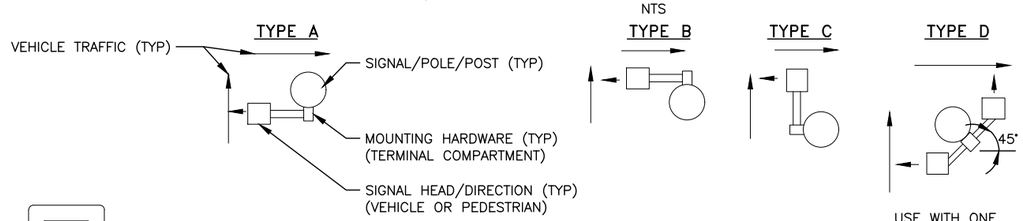


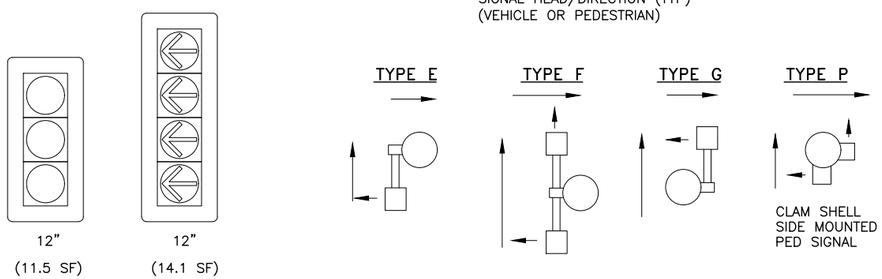
SIGNAL & LUMINAIRE ARM ORIENTATION



POLE/POST SIGNAL HEAD SIDE MOUNTING TYPES

NTS





SIGNAL HEAD CONFIGURATIONS
(AREAS ARE FOR WIND LOAD CALCULATIONS)
(ARROWS AND BALL INDICATIONS ARE INTERCHANGEABLE)

SIGNAL SIGN SCHEDULE

SIGN NO.	LOCATION		ASDS CODE	LEGEND	SIZE HxV (INCHES)	AREA (SQ FT)	BRACING/FRAMING		REMARKS
	POLE NO.	OFFSET					BRACED	FRAMED	
1	1	8.2	D3–1	Airport Way	108x24	18.00			
2	2	12.3	D3–1	Cushman St	108x24	18.00			
3	3	9.7	D3–1	Airport Way	108x24	18.00			
4	4	15.0	D3–1	Cushman St	108x24	18.00			
				SUBTOTAL SIGNAL SIGNS		72.00			

SIGNAL SIGN SCHEDULE NOTES:

1. LOCATION OFFSETS ARE FROM CENTER OF SIGN TO ℄ OF SIGNAL POLE.

SIGNAL HEAD SCHEDULE

POLE/POST NO.	FACE NO.	INDICATIONS										MOUNTING				REMARKS
		12" BALL			12" ARROW				8" BALL			MAST ARM		SIDE MTNG. TYPE	TOP OF POST	
		R	Y	G	R	Y	FYA	G	R	Y	G	LOC. OFFSET	ELEV. PLUMB			
1	41	X	X	X										D		
	42	X	X	X								17.2	X			
	43	X	X	X								29.2	X			
	71				L	L	L	L				41.2	X			
2	21	X	X	X										D		
	32				L	L	L	L						D		
	22	X	X	X								26.1	X			
	23	X	X	X								38.1	X			
	51				L	L	L	L				62.1	X			
3	81	X	X	X										D		
	12				L	L	L	L						D		
	82	X	X	X								27.2	X			
	31				L	L	L	L				39.3	X			
4	61	X	X	X										D		
	72				L	L	L	L						D		
	62	X	X	X								26.5	X			
	63	X	X	X								38.5	X			
	11				L	L	L	L				62.5	X			
5	52				L	L	L	L							X	

SIGNAL HEAD SCHEDULE NOTES:

1. LOCATION OFFSETS ARE FROM CENTER OF SIGNAL HEAD TO ℄ OF SIGNAL POLE.
2. FYA = FLASHING YELLOW ARROW.

PED SIGNAL HEAD SCHEDULE

POLE/POST NO.	FACE NO.	MOUNTING TYPE	REMARKS
1	69	P	
2	28	P	
3	29	P	
4	68	P	
5	48	P	
6	49	P	
7	88	P	
8	89	P	

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
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12/22/2022

SIGNAL SUMMARY

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H34	H53

BASE & JUNCTION BOX SCHEDULE

LOCATION		DESCRIPTION			BASE TYPE*			JUNCTION BOX TYPE				REMARKS
STATION	OFFSET	POLE NO.	JUNCTION BOX NO.	CONTROLLER	CIDH	L	A	IA	II	III	IV	
"A1" 161+54.8	63.0' LT	1			X							SEE NOTE 2
"A1" 161+92.3	52.2' RT	2			X							SEE NOTE 2
"A1" 161+04.1	46.6' RT	3			X							SEE NOTE 2
"A1" 160+79.1	67.4' LT	4			X							SEE NOTE 2
"A1" 161+76.4	57.2' LT	5				X						SEE NOTE 2
"A1" 162+01.2	44.8' RT	6				X						SEE NOTE 2
"A1" 160+83.8	43.2' RT	7				X						SEE NOTE 2
"A1" 160+81.8	56.8' LT	8				X						SEE NOTE 2
"A1" 161+66.5	53.9' LT		1							X		SEE NOTE 1 & 2
"A1" 161+92.8	66.9' RT		2							X		SEE NOTE 1 & 2
"A1" 160+95.4	43.5' RT		3						X			SEE NOTE 1
"A1" 160+71.0	63.4' LT		4						X			SEE NOTE 1
"A1" 162+42.5	78.9' RT		A0						X			INSTALL ADJACENT TO LOAD CENTER 'CA'
"A1" 162+58.0	68.6' RT			X						X		

NOTES:

1. MAINTAIN 5' MINIMUM DISTANCE FROM SIGNAL POLE FOUNDATION.
2. INSTALL ADJACENT TO PEDESTRIAN PATH IF IN PEDESTRIAN ISLAND OR AT BACK OF SIDEWALK IN OTHER LOCATIONS.

*BASE TYPE ABBREVIATIONS:

L = LIGHT POLE FOUNDATION. SEE DETAIL SHEET HXX.
P = PRECAST BASE (FOUNDATION)
A = TYPE "A" SIGNAL BASE POST FOUNDATION. SEE STD. DWG, T-31.00
CIDH = CAST IN DRILLED HOLE

PEDESTRIAN DETECTION SCHEDULE

POLE	PUSH BUTTON	PHASE	REMARKS
1	1	6	SEE NOTE 2
5	2	4	SEE NOTE 1
6	3	4	SEE NOTE 1
2	4	2	SEE NOTE 2
3	5	2	SEE NOTE 2
7	6	8	SEE NOTE 1
8	7	8	SEE NOTE 1
4	8	6	SEE NOTE 2

PEDESTRIAN DETECTION NOTES:

1. INSTALL A R10-3eL SIGN ABOVE PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO TRAFFIC SIGNAL PAY ITEMS.
2. INSTALL A R10-3eR SIGN ABOVE PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO TRAFFIC SIGNAL PAY ITEMS.

RADAR DETECTION EQUIPMENT

QTY	DESCRIPTION
2	SMARTSENSOR ADVANCE EXTENDED RANGE (WX-SS-200E)
4	SMARTSENSOR MATRIX (WX-SS-225)
6	PELCO MOUNT (WX-SS-611)
6	SMARTSENSOR 6-CONDUCTOR CABLE (WX-SS-704-XXX)
0	SMARTSENSOR ADVANCE (WX-SS-200V)

NEMA CLOSURE EQUIPMENT

QTY	DESCRIPTION
0	CLICK 710, SMARTSENSOR 6-CONDUCTOR CABLE JUNCTION BOX (WX-SS-710)

CABINET EQUIPMENT

QTY	DESCRIPTION
2	CLICK! 650, CABINET INTERFACE (WX-CLK-650)
2	SLDC CABLES (310-0411)

ADDITIONAL EQUIPMENT

QTY	DESCRIPTION
1	SMARTSENSOR MANAGER ADVANCE SOFTWARE (WX-550-0001)
1	SMARTSENSOR MANAGER MATRIX SOFTWARE (WX-550-0004)

OPTICOM DETECTOR SCHEDULE

LOCATION	DET. NO.	PHASE CALL	FACING DIR.	PREEMPTOR PRIORITY	REMARKS
ON TOP OF SIGNAL HEAD 43	1	4, 7	SOUTH		
ON TOP OF SIGNAL HEAD 23	2	2, 5	WEST		
ON TOP OF SIGNAL HEAD 82	3	3, 8	NORTH		
ON TOP OF SIGNAL HEAD 63	4	1, 6	EAST		

OPTICOM DETECTOR NUMBER

RADAR DETECTION SCHEDULE

DET. NO.	PHASE CALL	TYPE	FACING DIR.	POLE NO.	LOCATION	RADAR TYPE
1	1&6	STOP BAR	NORTHEAST	2	SIGNAL MAST ARM	SMARTSENSOR MATRIX
2	4&7	STOP BAR	SOUTHEAST	3	SIGNAL MAST ARM	SMARTSENSOR MATRIX
3	2&5	STOP BAR	SOUTHWEST	4	SIGNAL MAST ARM	SMARTSENSOR MATRIX
4	3&8	STOP BAR	NORTHWEST	1	SIGNAL MAST ARM	SMARTSENSOR MATRIX
1A	6	ADVANCE	EAST	4	SIGNAL MAST ARM	SMARTSENSOR ADVANCE EXTENDED RANGE
3A	2	ADVANCE	WEST	2	SIGNAL MAST ARM	SMARTSENSOR ADVANCE EXTENDED RANGE

RADAR DETECTOR NUMBER

FLASH PROGRAM COLOR

PHASE	1	2	3	4	5	6	7	8
COLOR	R	R	R	R	R	R	R	R

SIGNAL SUMMARY

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

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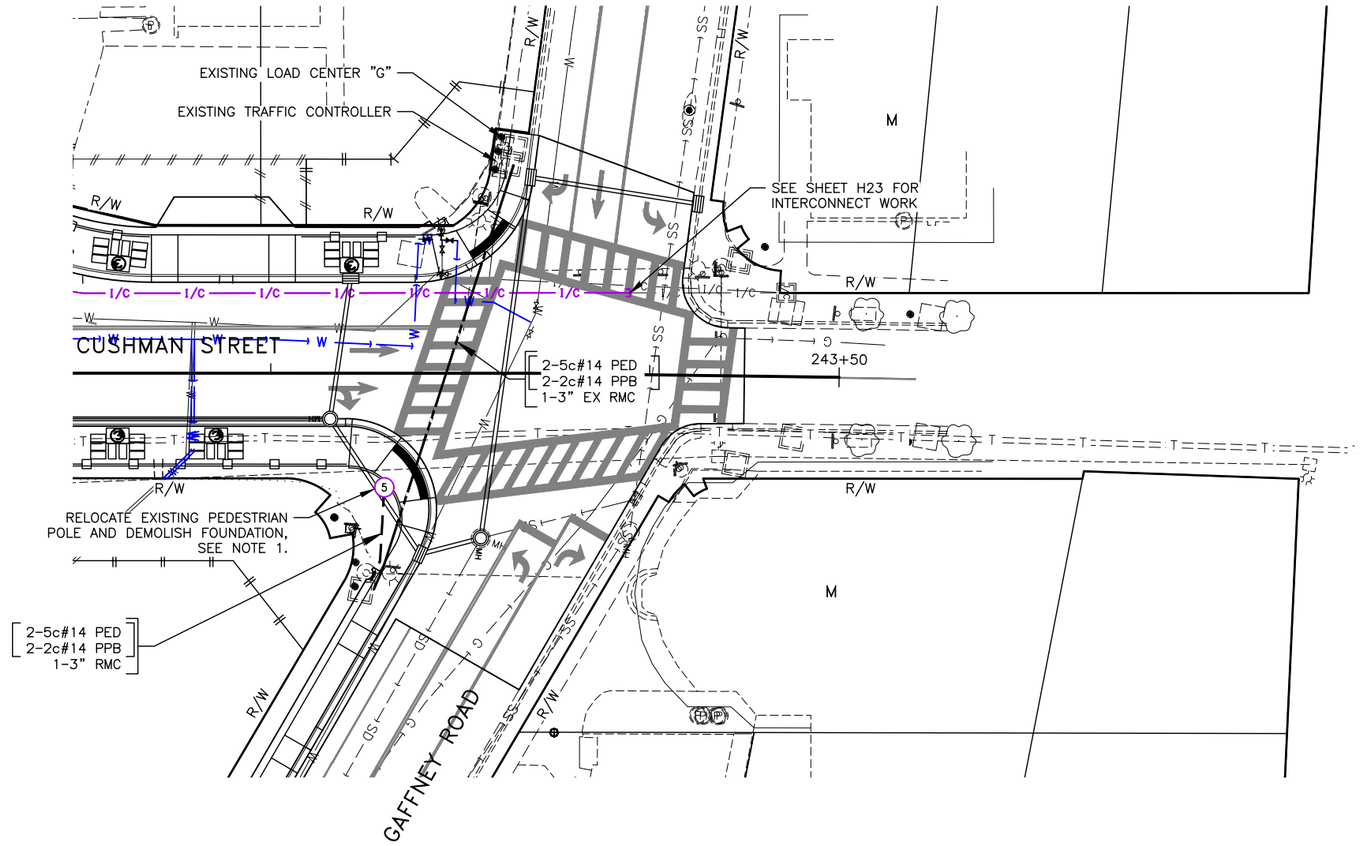
ALASKA	0002312/Z640780000	2024	H35	H53



NOTES:

1. RELOCATE THE EXISTING POLE, ON A NEW LIGHT POLE FOUNDATION (SEE SHEET H37) AT STA: "C1" 242+30.0 OFF: 30.1' RT, LOCATED AT THE BACK OF SIDEWALK., IN KIND WITH THE EXISTING PEDESTRIAN SIGNALS, PUSH BUTTONS, AND SIGNS IN THEIR EXISTING LOCATIONS. THE POLE SHALL BE ORIENTED SO PEDESTRIAN SIGNALS FACE CROSSWALKS. INSTALL NEW CONDUIT AS SHOWN AND RE PULL NEW CONDUCTORS BACK TO EXISTING TRAFFIC CONTROLLER.
2. ADJUST DETECTION FOR NORTHBOUND TRAFFIC AS NEEDED TO ACCOMMODATE NEW LANE LOCATION.
3. ADJUST SIGNAL HEADS AND SIGNS FOR NORTHBOUND TRAFFIC AS NEEDED TO ACCOMMODATE NEW LANE LOCATION.
4. ADJUST EXISTING TRAFFIC CONTROLLER JUNCTION BOX TO FINISHED GRADE AS NEEDED.
5. ALL WORK TO ADJUST SIGNALS, SIGNS AND NECESSARY FOR POLE RELOCATIONS WILL BE PAID FOR UNDER 660.0001.001 TRAFFIC SIGNAL SYSTEM COMPLETE, CUSHMAN/GAFFNEY.

SIGNAL MODIFICATIONS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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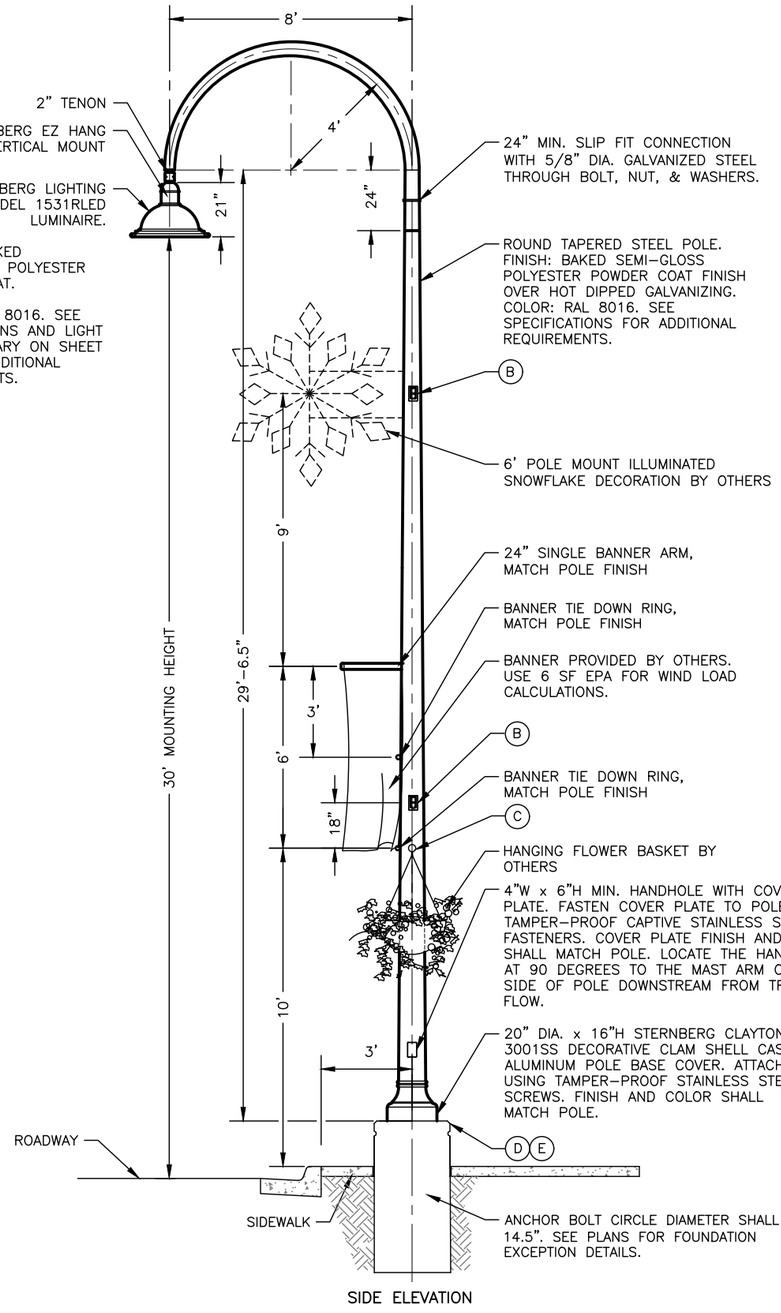
ALASKA	0002312/Z640780000	2024	H36	H53

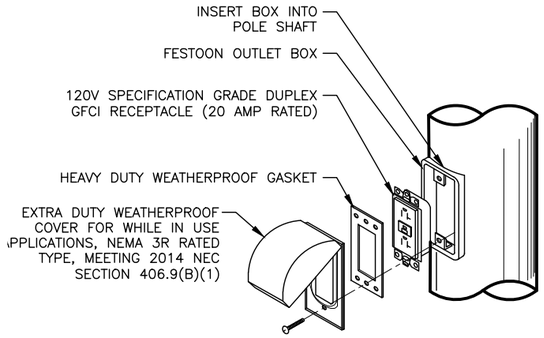


FINISH: BAKED SEMI-GLOSS POLYESTER POWDER COAT.

COLOR: RAL 8016. SEE SPECIFICATIONS AND LIGHT POLE SUMMARY ON SHEET H26 FOR ADDITIONAL REQUIREMENTS.

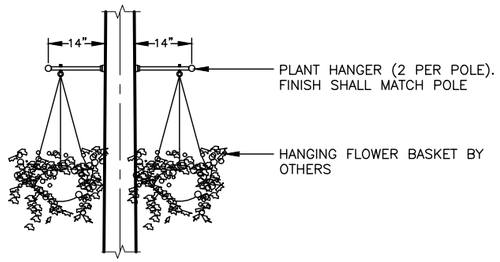
A COF STREET LIGHT POLE DETAIL

NOT TO SCALE



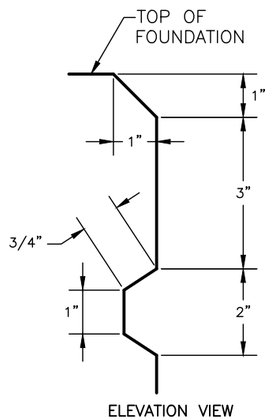
B FESTOON OUTLET DETAIL

NOT TO SCALE



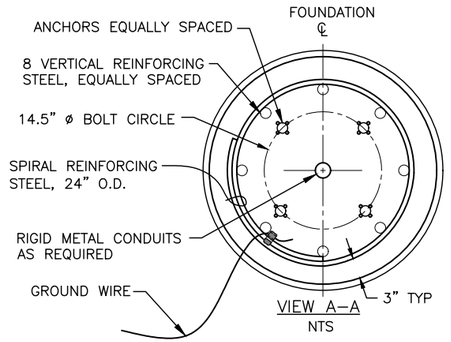
C PLANT HANGER DETAIL

NOT TO SCALE



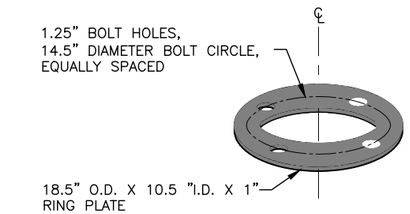
D REVEAL DETAIL

NOT TO SCALE



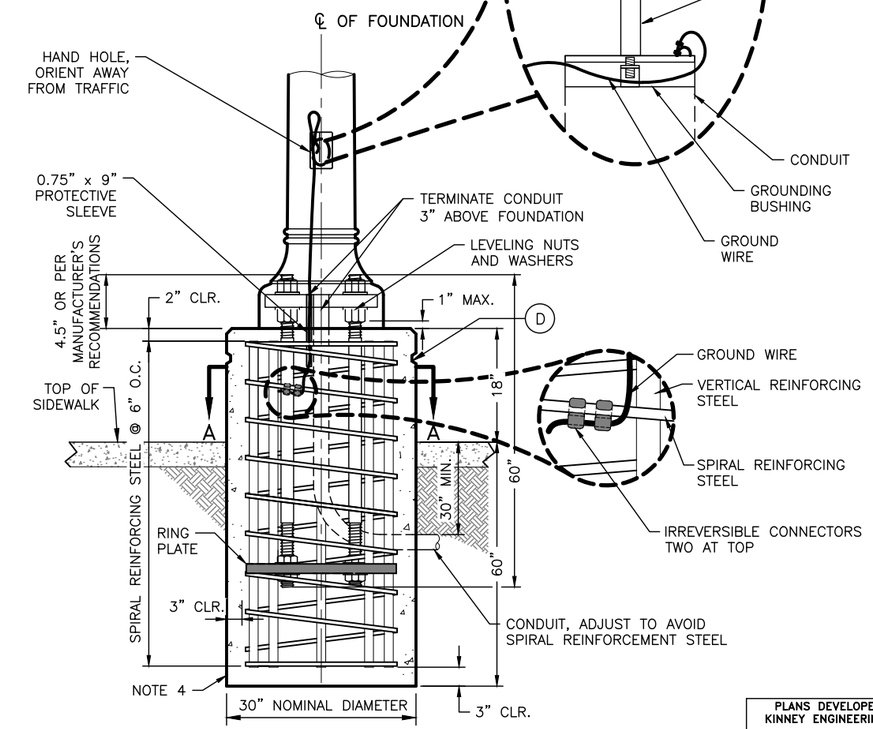
NOTES:

1. WELD SIZE TO BE DETERMINED BY MANUFACTURER.
2. MOUNTING HEIGHT, REFERS TO THE HEIGHT OF LUMINAIRE ABOVE THE ROADWAY. ADJUST EACH POLE'S SHAFT LENGTH TO MAINTAIN THIS DIFFERENCE IN ELEVATION WHENEVER THE FOUNDATION VARIES.
3. MINIMUM OUTSIDE DIAMETER AT THE TOP OF POLE EQUALS 3-7/8". POLE DIAMETER SHALL TAPER UNIFORMLY FROM THE TOP OF POLE TO THE BASE PLATE, WITH A MAXIMUM TAPER RATE OF 0.15" PER FOOT.
4. FORM THE FOUNDATION USING ROUND LAMINATED FIBER CONCRETE FORMS. EXPOSED CONCRETE SURFACES SHALL RECEIVE A SACK RUBBED FINISH.
5. SEE SHEET ___ FOR ADDITIONAL NOTES, FOUNDATION MATERIAL PROPERTIES AND SAND SLURRY MIX DESIGN.



RING PLATE DETAILS

NTS



E COF STREET LIGHT POLE FOUNDATION

NOT TO SCALE

CITY OF FAIRBANKS STREET LIGHT DETAILS

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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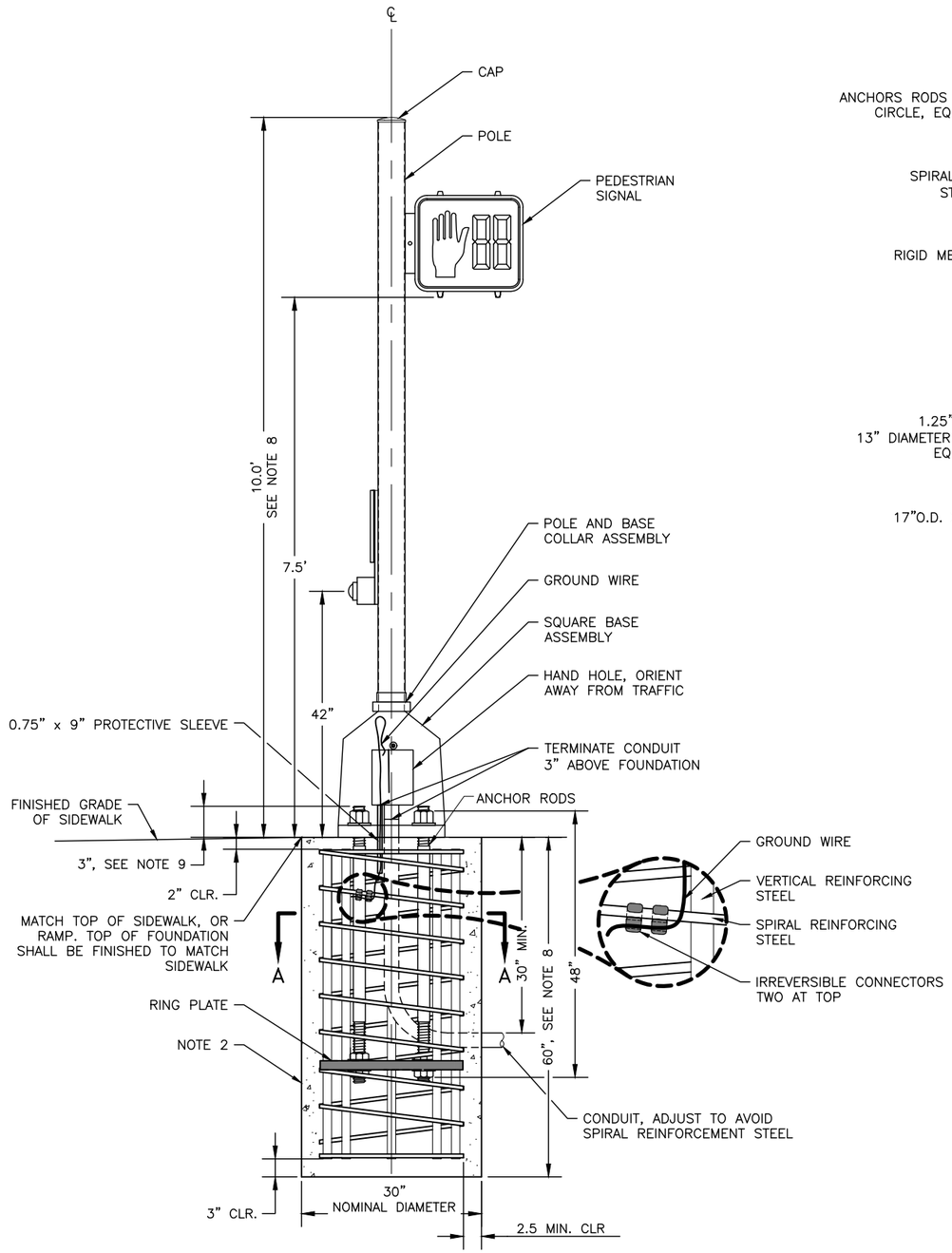
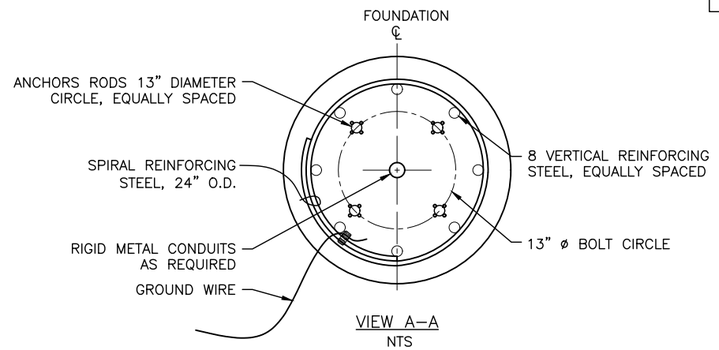


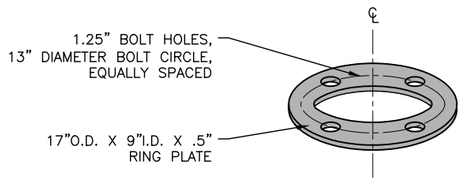
A PEDESTRIAN SIGNAL DETAIL

NTS



VIEW A–A

NTS



RING PLATE DETAILS

NTS

FOUNDATION MATERIAL PROPERTIES

CONCRETE	CLASS A	f'c = 4000 PSI
VERTICAL REINFORCING STEEL	AASHTO M31 #11	GR 60
SPIRAL REINFORCING STEEL	AASHTO M31 #5	GR 60
GROUND WIRE		#4 AWG.
ANCHOR RODS 1" X 48"	ASTM F1554 S2, S3, & S5	GR 55
FASTENERS, WASHERS	AASHTO M293	
FASTENERS, NUTS	AASHTO M292	
HOT–DIPPED GALVANIZED STEEL FINISH, ANCHOR RODS & FASTENERS	AASHTO M232	
ANCHOR RODS	AASHTO M270	
CONDUIT	SCH 40	RMC
PROTECTIVE SLEEVE	SCH 40	PVC
RING PLATE	AASHTO M270	GR 36

PEDESTRIAN SIGNAL ASSEMBLY

SQUARE BASE ASSEMBLY	PB–5335 OR APPROVED EQUAL ALUMINUM DOOR GROUNDING LUG
POLE/BASE COLLAR ASSEMBLY	PB–5325 OR APPROVED EQUAL
POLE	PB–5200 OR APPROVED EQUAL
PUSH BUTTON	SEE SUBSECTION 740–2.16
PEDESTRIAN SIGN	R12–3E (L/R) STANDARD SIGN

SAND SLURRY MIX DESIGN

ITEM	BATCH QUANTITIES (CUBIC YARD)	
	BY WEIGHT (LBS.)	BY VOLUME (C.F.)
PORTLAND CEMENT CONCRETE	188	.96
WATER (52.1 GAL.)	435	6.97
FINE AGGREGATE SSD	3041	18.00
ADMIXTURE: MICROAIR	2.0 OZ.	1.08
TOTAL	3664	27.00

NOTES:

1. PLACE FOUNDATION IN DRILLED OR EXCAVATED HOLE WITH WITH CENTERLINE OF FOUNDATION LOCATED AT THE STATION, OFFSET AND ELEVATION SPECIFIED IN THE PLANS. GRADE TO DRAIN AWAY FROM FOUNDATION WITHOUT EXPOSING MORE THAN 4" OF THE FOUNDATION FROM THE SURROUNDING GROUND SURFACE.
2. FORM THE FOUNDATION USING ROUND LAMINATED FIBER CONCRETE FORM.
3. FORM THE SPIRAL REINFORCING STEEL OF #5 REBAR. PROVIDE 1.5 EXTRA TURNS AT EACH END OF THE SPIRAL UNIT. REINFORCING STEEL SHALL NOT BE SPLICED. TIE VERTICAL BARS TO EACH INTERSECTION OF THE SPIRAL UNIT.
4. CONNECT GROUND WIRE TO ONE OF THE TOP SPIRALS WITH TWO IRREVERSIBLE, HYDRAULICALLY SWAGED CONNECTOR AS SHOWN. GROUND WIRE SHALL BE BARE SOLID, STRANDED, OF BRAIDED COPPER. PROTECT GROUND WIRE WITH CONDUIT AS SHOWN AND FILL CONDUIT WITH SILICON SEALANT.
5. SECURE RING PLATE TO ANCHOR RODS WITH NUTS AND WASHERS ON BOTH SIDES OF THE RING PLATE AS SHOWN.
6. COMPLETE ALL CONCRETE WORK IN CONFORMANCE WITH SECTIONS 501, 503, AND 660 OF THE SSHC. USE A TUBE WITH A HOPPER HEAD OR OTHER APPROVED DEVICE WHEN DROPPING CONCRETE MORE THAN 5 FEET PER SUBSECTION 501–3.08. VIBRATE CONCRETE DURING PLACEMENT BY MECHANICAL VARIATION PER SUBSECTION 501–3.08. ENSURE ANCHOR ROD THREADS ARE PROTECTED FROM CONTACT WITH CONCRETE DURING CONCRETE WORK.
7. GALVANIZE ANCHOR RODS FULL LENGTH. PROVIDE PERMANENT MANUFACTURES IDENTIFICATION AND PERMANENT GRADE IDENTIFICATION, ON EACH END OF ANCHOR ROD STEEL DIE STAMP. EACH ANCHOR ROD END SHALL HAVE 8" OF THREAD LENGTH. SECURE EXPOSED ANCHOR RODS WITH A "RING PLATE" WHEN NOT IN SERVICE.
8. WHEN USED FOR TRAFFIC SIGNAL HEADS, INCREASE POLE LENGTH AS REQUIRED TO MOUNT TRAFFIC SIGNAL HEADS TO SIDE OF POLE. IN ADDITION, INCREASE FOUNDATION DEPTH TO 72" AND EXTEND STEEL REINFORCEMENT.
9. USE SQUARE BASE ASSEMBLY FOR PEDESTRIAN SIGNALS ONLY. FOR POLES WITH VEHICLE SIGNAL HEADS, PROVIDE GALVANIZED STEEL POLES THAT CONFORM TO SECTION 740, HAVE A 5" MIN. I.D. AT THE BASE AND WELDED TO A 1 3/8" THICK BASE PLATE. SEE DETAILS B, C, AND E ON SHEET ___ FOR ADDITIONAL REQUIREMENTS.

SIGNAL FOUNDATION DETAILS

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

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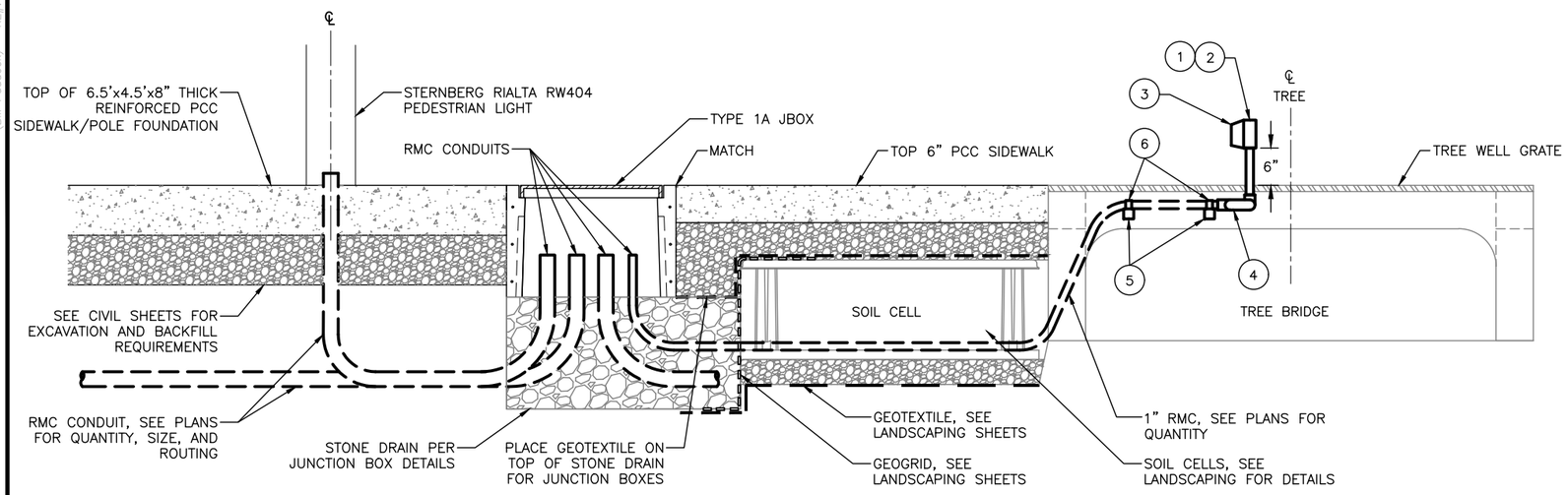
ALASKA	0002312/Z640780000	2024	H38	H53

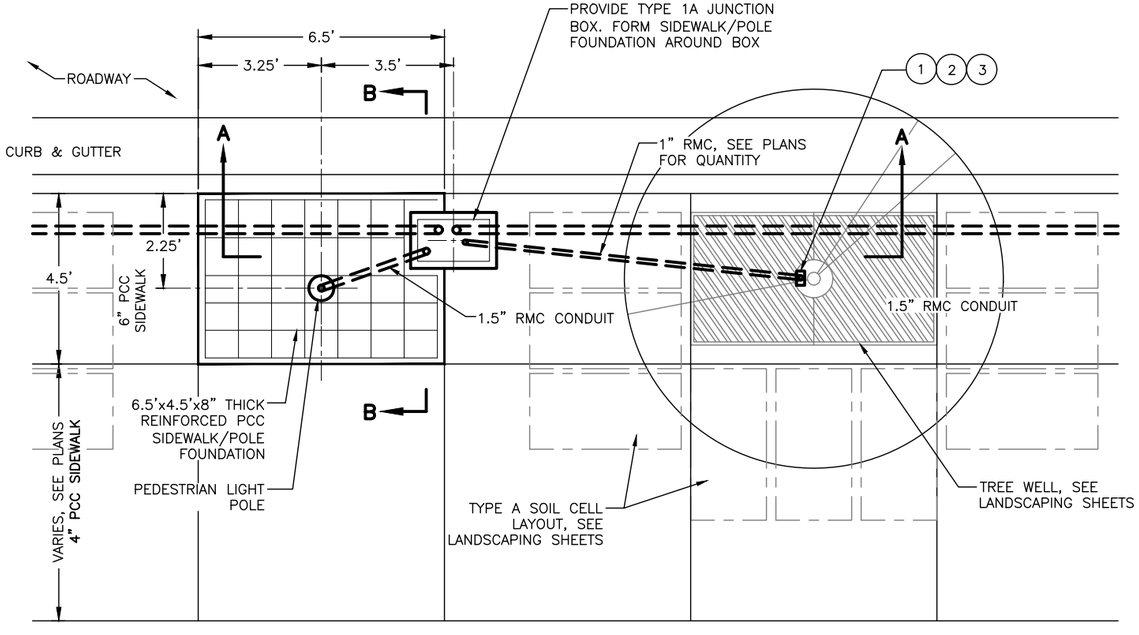


B SECTION A–A

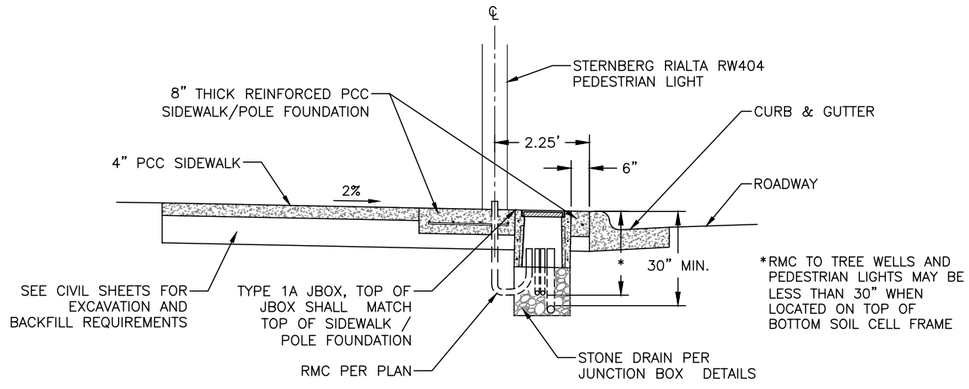
NTS

NOTES:

1. ONE–GANG, HEAVY–DUTY, CAST ALUMINUM, POWDER COATED, WEATHERPROOF OUTLET BOX WITH LUGS. SIZE FOR ONE OR TWO 1" DIAMETER RMC CONDUITS PER PLAN. PROVIDE A MINIMUM 4 $\frac{13}{16}$"X4 $\frac{13}{16}$"X2 $\frac{1}{8}$" SIZED BOX.
2. 20A–125V WEATHER–RESISTANT, TAMPER–RESISTANT SMARTLOCK–PRO GFCI RECEPTACLE.
3. NEMA 3R RATED, HEAVY–DUTY, CAST ALUMINUM, POWDER COATED WHILE–IN–USE COVER. PROVIDE WITH PADLOCK EYE.
4. NEC 6X8X SERIES LR AND LL MOGUL UNILET CONDUIT OUTLET BODIES. BODY SHALL BE HEAVY–DUTY, GALVANIZED STEEL WITH COVER, NEOPRENE GASKET, AND STAINLESS STEEL SCREWS. PROVIDE WITH BUILT IN ROLLERS OR BLUEKOTE TEFLON OR EQUIVALENT INTERNAL COATING. WHEN 2–1" CONDUIT ARE REQUIRED, ORIENT LL AND LR COVERS TO FACILITATE ACCESS.
5. 1–5/8" GALVANIZED STEEL, 12 GAUGE, SQUARE CHANNEL. MOUNT TO SIDE OF PCC TREE BRIDGE WITH HEAVY–DUTY GALVANIZED STEEL BRACKET AND FITTINGS. USE HILTI ANCHOR BOLTS OR APPROVED EQUIVALENT TO ANCHOR BRACKET TO TREE BRIDGE.
6. GALVANIZED STEEL CONDUIT CLAMP. PROVIDE WITH TWO MOUNTING HOLES OR EQUIVALENT (2–POINTS OF CONTACT WITH CHANNEL).



A PEDESTRIAN LIGHT POLE / TYPE A SOIL CELL – TREE WELL LAYOUT DETAIL



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PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

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PEDESTRIAN POLE DETAILS

12/22/2022

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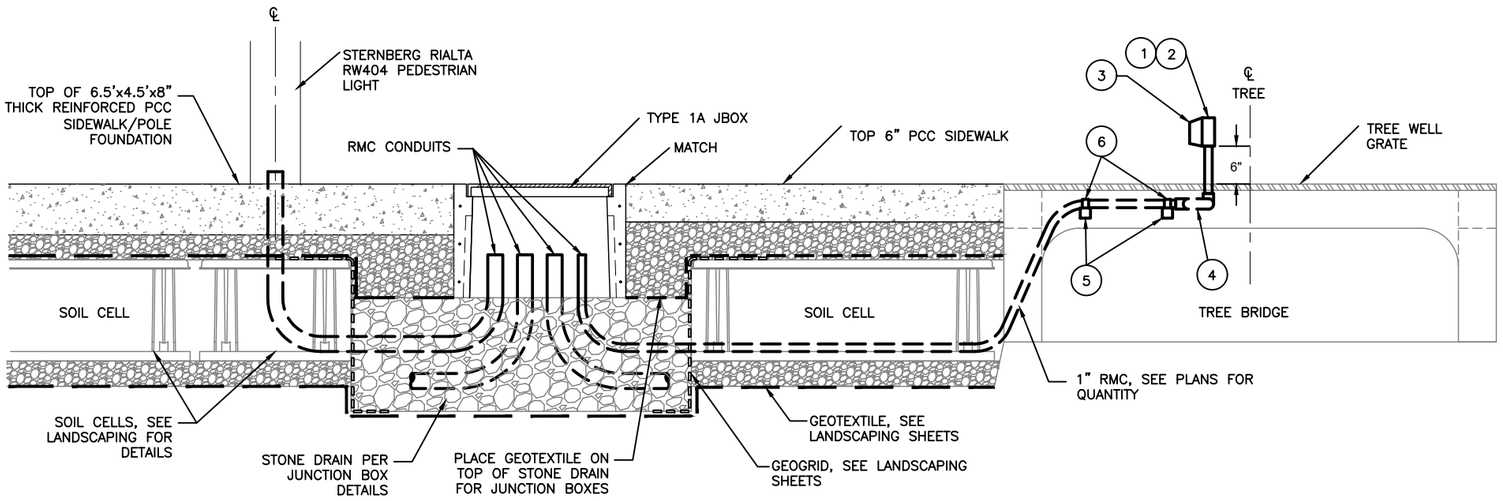
ALASKA	0002312/Z640780000	2024	H39	H53



(B) SECTION A–A

NTS

NOTES:

1. ONE–GANG, HEAVY–DUTY, CAST ALUMINUM, POWDER COATED, WEATHERPROOF OUTLET BOX WITH LUGS. SIZE FOR ONE OR TWO 1" DIAMETER RMC CONDUITS PER PLAN. PROVIDE A MINIMUM 4 $\frac{11}{16}$"X4 $\frac{11}{16}$"X2 $\frac{1}{8}$" SIZED BOX.
2. 20A–125V WEATHER–RESISTANT, TAMPER–RESISTANT SMARTLOCK–PRO GFCI RECEPTACLE.
3. NEMA 3R RATED, HEAVY–DUTY, CAST ALUMINUM, POWDER COATED WHILE–IN–USE COVER. PROVIDE WITH PADLOCK EYE.
4. NEC 6X8X SERIES LR AND LL MOGUL UNILET CONDUIT OUTLET BODIES. BODY SHALL BE HEAVY–DUTY, GALVANIZED STEEL WITH COVER, NEOPRENE GASKET, AND STAINLESS STEEL SCREWS. PROVIDE WITH BUILT IN ROLLERS OR BLUEKOTE TEFLON OR EQUIVALENT INTERNAL COATING. WHEN 2–1" CONDUIT ARE REQUIRED, ORIENT LL AND LR COVERS TO FACILITATE ACCESS.
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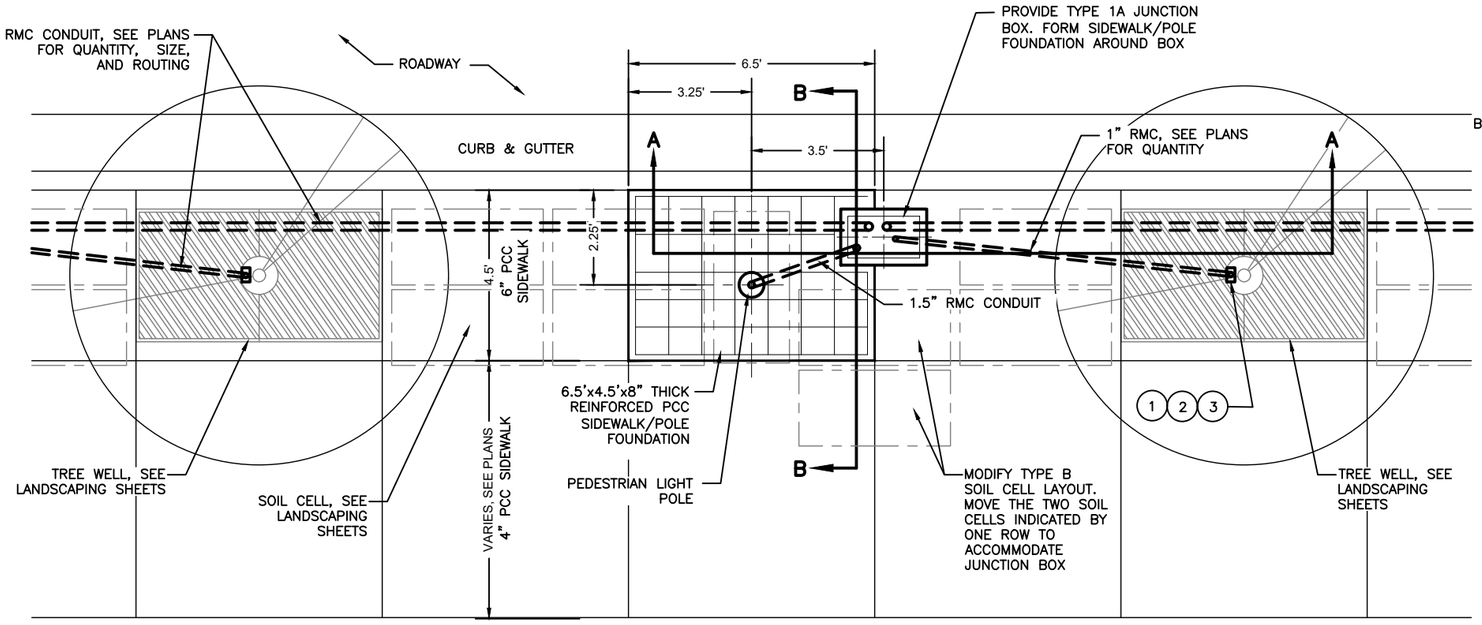
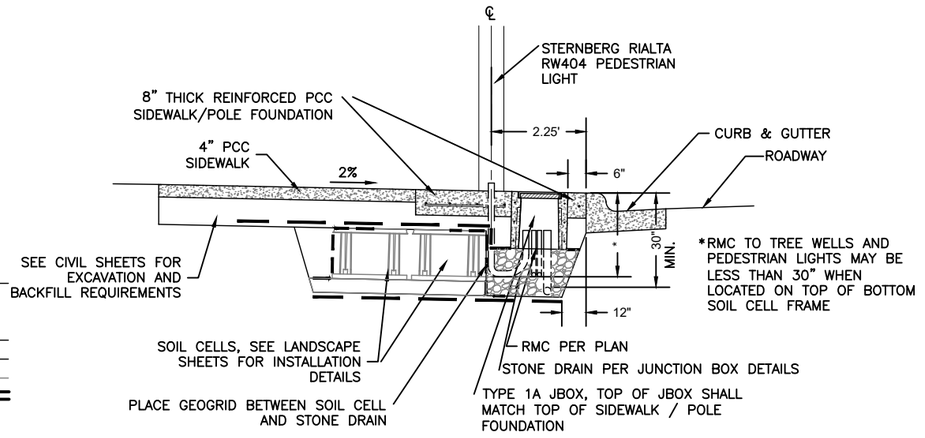


(A) PEDESTRIAN LIGHT POLE / MODIFIED TYPE B SOIL CELL – TREE WELL LAYOUT DETAIL



(C) SECTION B–B

NTS

PEDESTRIAN POLE DETAIL

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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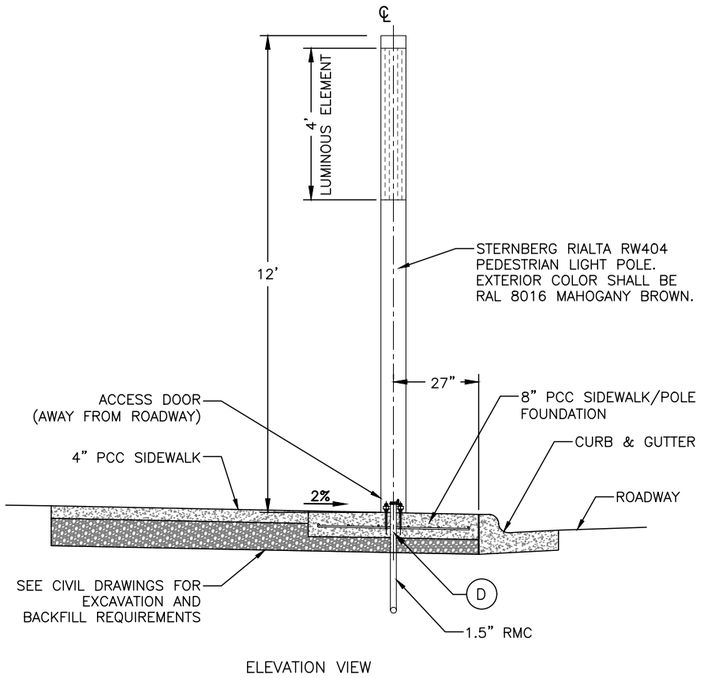
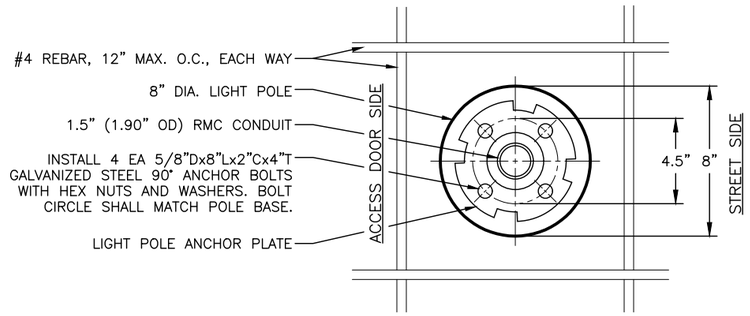


ELEVATION VIEW

(B) PEDESTRIAN LIGHT POLE DETAIL

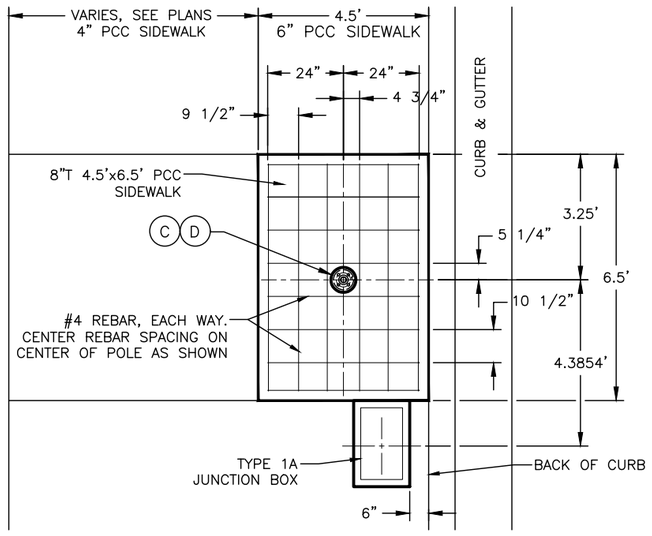
NOT TO SCALE



PLAN VIEW

(D) PEDESTRIAN LIGHT POLE FOUNDATION

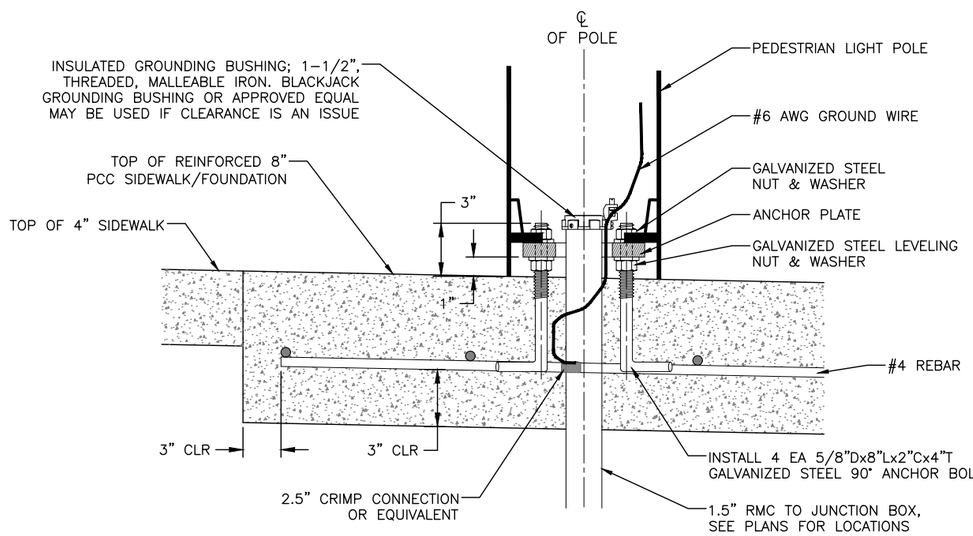
NOT TO SCALE



PLAN VIEW

(A) PEDESTRIAN LIGHT POLE DETAIL

NOT TO SCALE



SECTION VIEW

(C) PEDESTRIAN LIGHT POLE FOUNDATION

NOT TO SCALE

DESIGN NOTES:

DESIGN: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 1994 EDITION.

CONSTRUCTION: ADOT&PF 2004 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THESE SPECIFICATIONS.

WIND LOAD: 100 MPH W/ 1.3 GUST FACTOR

MATERIAL PROPERTIES		
CONCRETE	CLASS A	F'C=5 KSI
REINFORCING STEEL	ASTM A615	FY=60 KSI
ANCHOR BOLTS GALVANIZED FINISH	ASTM F1554 ASTM A153 OR F2329	GRADE 36
HEX NUTS GALVANIZED FINISH	ASTM A563 ASTM F2329	GRADE A
WASHERS GALVANIZED FINISH	ASTM F436 ASTM A153 OR F2329	TYPE I, 38-45 HRC

FOUNDATION NOTES:

1. 8" THICK REINFORCED CONCRETE SIDEWALK FOUNDATIONS SHALL BE USED FOR PEDESTRIAN LIGHT POLES.
2. PLACE PEDESTRIAN LIGHT POLES AT LOCATIONS INDICATED ON THE PLANS.
3. PROVIDE AND INSTALL 5/8"Dx8"Lx2"Cx4"T GALVANIZED STEEL 90° ANCHOR BOLTS WITH AN EMBEDMENT OF 5".
4. TERMINATE THE 1.5" DIA. CONDUIT ABOVE THE TOP OF SIDEWALK AS RECOMMENDED BY THE MANUFACTURER.
5. ALL FORMWORK, ANCHOR BOLT, AND REINFORCEMENT INSTALLATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO ORDERING AND PLACING CONCRETE.

GROUNDING NOTES:

1. PROVIDE AND ATTACH #6 AWG GROUND CONDUCTOR TO #4 REBAR WITH IRREVERSIBLE CONNECTION 5 INCHES BELOW TOP OF 8" SIDEWALK.
2. FROM REBAR CRIMP CONNECTION, PROTECT AND EXTEND GROUND CONDUCTOR ABOVE TOP OF SIDEWALK, INSIDE OF POLE WITH 2 FEET OF SLACK. CONNECT GROUND CONDUCTOR TO CONDUIT, POLE/ANCHOR PLATE, AND CONDUIT GROUNDING CONDUCTOR.

PEDESTRIAN POLE DETAILS

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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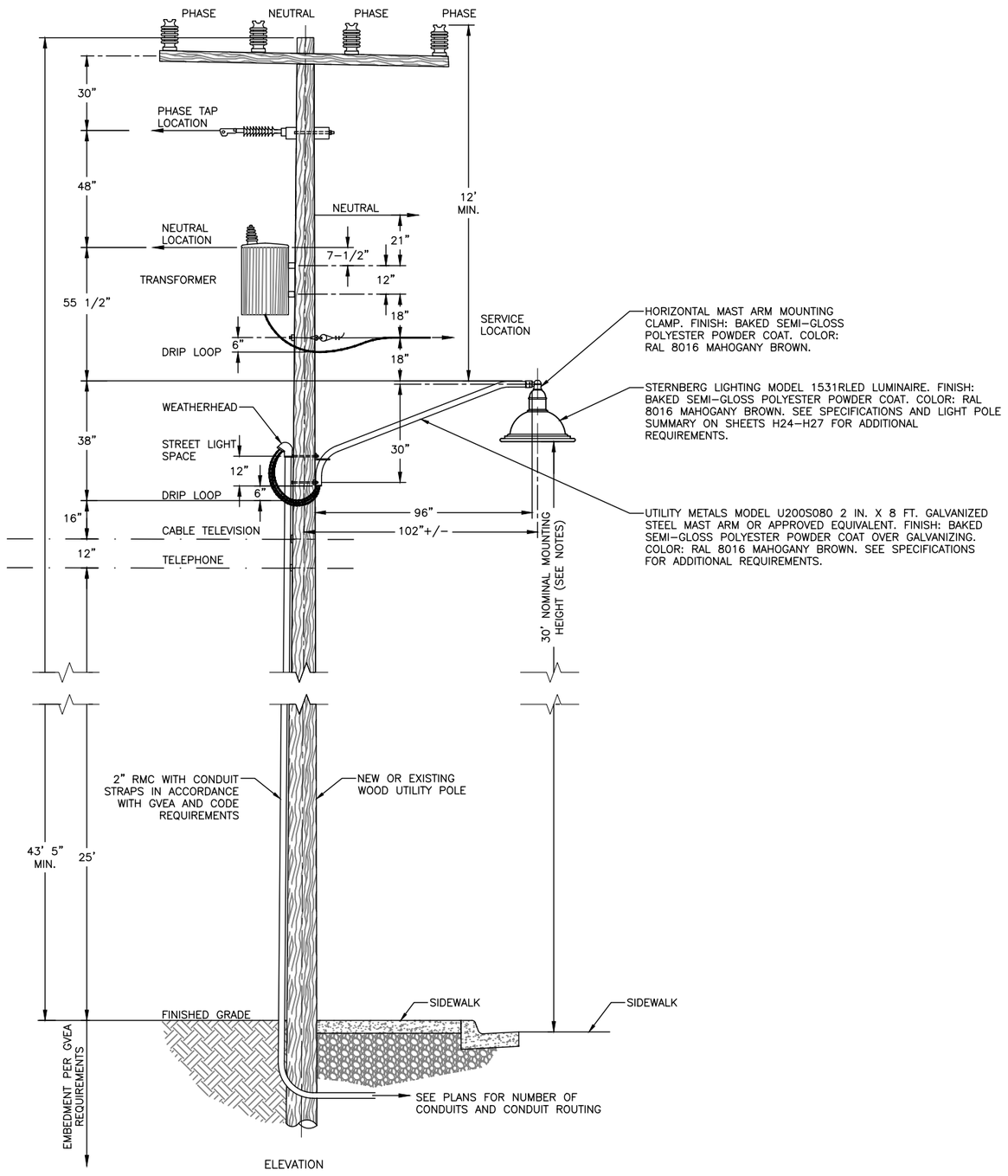

HORIZONTAL MAST ARM MOUNTING CLAMP. FINISH: BAKED SEMI–GLOSS POLYESTER POWDER COAT. COLOR: RAL 8016 MAHOGANY BROWN.

STERNBERG LIGHTING MODEL 1531RLED LUMINAIRE. FINISH: BAKED SEMI–GLOSS POLYESTER POWDER COAT. COLOR: RAL 8016 MAHOGANY BROWN. SEE SPECIFICATIONS AND LIGHT POLE SUMMARY ON SHEETS H24–H27 FOR ADDITIONAL REQUIREMENTS.

UTILITY METALS MODEL U200S080 2 IN. X 8 FT. GALVANIZED STEEL MAST ARM OR APPROVED EQUIVALENT. FINISH: BAKED SEMI–GLOSS POLYESTER POWDER COAT OVER GALVANIZING. COLOR: RAL 8016 MAHOGANY BROWN. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

NOTES:

1. AT LOCATIONS WHERE NEW LIGHTING IS MOUNTED ON EXISTING UTILITY POLES WITH LIGHTING, CONTRACTOR SHALL SALVAGE EXISTING LUMINAIRE AND MAST ARM.
2. MOUNT NEW MAST ARM AND LUMINAIRE IN STREET LIGHT SPACE. ADJUST MOUNTING AS NECESSARY TO MAINTAIN CLEARANCE TO OVERHEAD ELECTRIC LINES PER LOCAL CODE, NESC, AND GVEA REQUIREMENTS.

A CBD STREET LIGHT LUMINAIRE MOUNTED ON GVEA JOINT USE USE UTILITY POLE

NOT TO SCALE

WOOD POLE DETAILS

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

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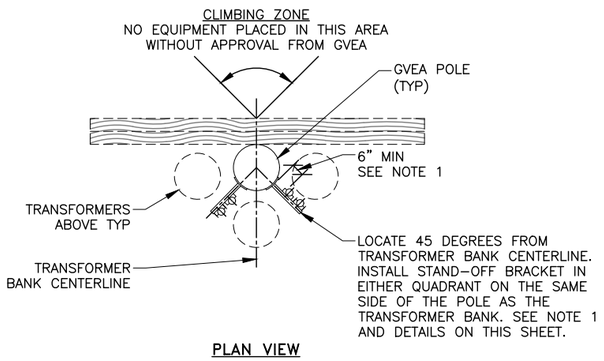
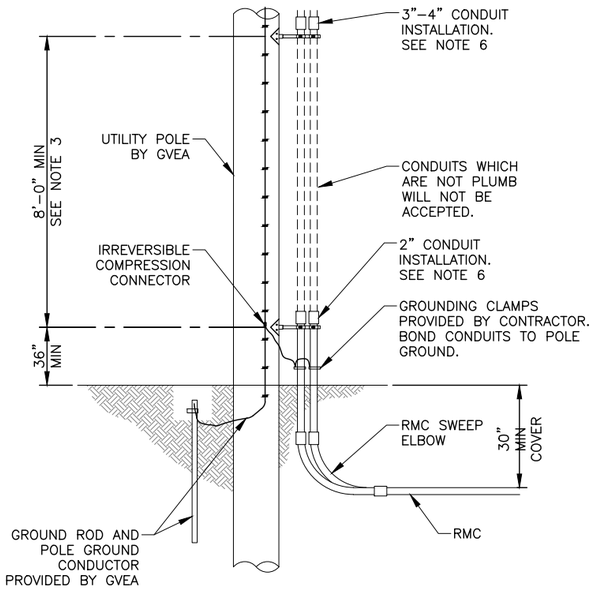
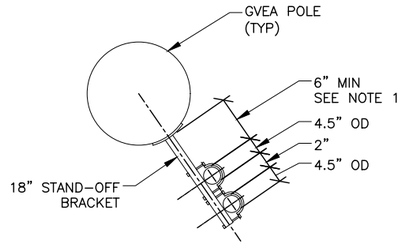


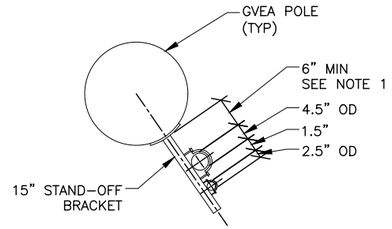
PLAN VIEW



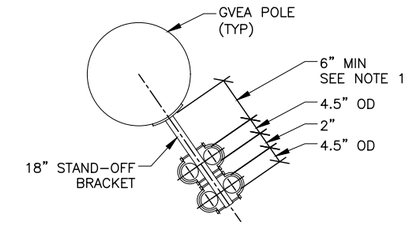
SIDE VIEW



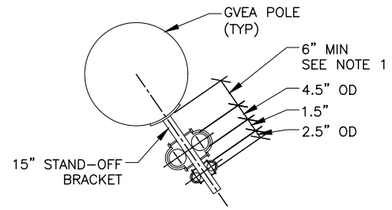
DETAIL 1 (PLAN VIEW)
2 EA 4" CONDUIT ON ONE SIDE OF THE STAND-OFF BRACKET



DETAIL 2 (PLAN VIEW)
1 EA 4" AND 1 EA 2" CONDUITS ON ONE SIDE OF THE STAND-OFF BRACKET



DETAIL 3 (PLAN VIEW)
2 EA 4" CONDUITS ON TWO SIDES OF THE STAND-OFF BRACKET



DETAIL 4 (PLAN VIEW)
1 EA 4" AND 1 EA 2" CONDUITS ON TWO SIDES OF THE STAND-OFF BRACKET

GENERAL NOTE:

1. SECONDARY CONDUIT RISER DETAILS SHOWN ON THIS SHEET ARE BASED ON GVEA STANDARDS WITH CLARIFICATIONS FOR THIS PROJECT. PROVIDE THE UTILITY SERVICE INSTALLATION ("BY CONTRACTOR") AS REQUIRED IN COMPLIANCE WITH THE SERVING UTILITY STANDARDS.

SECONDARY RISER BUILD PROVISIONS

#2 AWG – 3/0 AWG

- CONTRACTOR SHALL INSTALL FIRST 3 FEET OF RISER ON PRIMARY POLE FOR INSPECTION BY GVEA.
- CONTRACTOR SHALL PROVIDE SUFFICIENT AMOUNT OF CONDUIT (RMC OR IMC) TO REACH BASE OF TRANSFORMER, AS WELL AS STAND-OFF BRACKETS, PIPE CLAMPS, GROUND CLAMPS, LAG BOLTS, AND WEATHER HEAD.
- CONTRACTOR SHALL PROVIDE SERVICE CONDUCTORS AND INSTALLATION TO THE DESIGNATED GVEA POLE. LEAVE SUFFICIENT WIRE FOR TRANSFORMER CONNECTION COILED AT BASE OF POLE.
- GVEA WILL INSTALL REMAINDER OF RISER AND WIRE.

4/0 AWG AND LARGER

- GVEA WILL PULL WIRE WITH CONTRACTOR ASSISTANCE. CONTRACTOR SHALL PROVIDE SERVICE CONDUCTORS.
- GVEA WILL PROVIDE PULLING EQUIPMENT TO INCLUDE PULLING HARNESS, LARGE DIAMETER TRAVELER AND PULL ROPE.
- CONTRACTOR SHALL INSTALL FIRST 3 FEET OF RISER ON PRIMARY POLE WITH JET LINE PULLED IN.
- CONTRACTOR SHALL PROVIDE SUFFICIENT AMOUNT OF CONDUIT (RMC OR IMC) TO REACH BASE OF TRANSFORMER, AS WELL AS STAND-OFF BRACKETS, PIPE CLAMPS, GROUND CLAMPS, LAG BOLTS, RIGID SWEEPS, AND WEATHER HEAD.
- IF RUN IS MORE THAN 75 FEET CONTRACTOR SHALL PROVIDE WIRE ON INDIVIDUAL REELS AND REEL STANDS.

NOTES:

1. 6" MINIMUM DISTANCE FROM POLE IS REQUIRED. CONDUIT INSTALLATION WITH LESS THAN 6" CLEARANCE WILL NOT BE ACCEPTED. ONLY ONE SET OF STAND-OFF BRACKETS WILL BE ALLOWED ON A POLE. CONTACT GVEA'S NEW CONSTRUCTION OFFICE FOR INFORMATION ABOUT ADDING NEW SERVICES TO A POLE WITH EXISTING RISERS.
2. MINIMUM SIZED STAND-OFF BRACKET SHALL BE 15". STAND-OFF BRACKET DETAILS NUMBER 1 THROUGH 4 SHOWS THE MAXIMUM NUMBER OF CONDUITS AND CONDUIT SIZES ALLOWED ON 15" AND 18" STAND-OFF BRACKETS.
3. THE INITIAL SECTION OF CONDUIT SHALL BE ARRANGED SUCH THAT THERE IS NOT LESS THAN 8' BETWEEN THE TWO LOWEST BRACKETS, AS SPECIFIED IN NESC 217.A.2.C.
4. IF THE NUMBER OF CONDUITS NEEDED ON A POLE EXCEED THAT SHOWN IN DETAILS 1 THROUGH 4, THEN AT GVEA'S OPTION, AN EXISTING POLE MOUNTED TRANSFORMER BANK WILL BE REPLACED BY A PAD MOUNTED TRANSFORMER AND ALL EXISTING SERVICES, IF APPLICABLE, FED BY THE POLE MOUNTED TRANSFORMER BANK WILL BE RE-FED FROM THE PAD MOUNTED TRANSFORMER. THE MAXIMUM SIZE POLE MOUNTED THREE-PHASE TRANSFORMER BANK IS 225kVA.
5. ITEMS ON THIS SHEET ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
6. ALL CONDUIT SHALL BE STUBBED OUT OF GROUND 3' FOR INSPECTION. CONDUITS WHICH ARE NOT PLUMB WILL NOT BE ACCEPTED.

UTILITY POLE SECONDARY RISER DETAILS

ELECTRICAL DETAILS SECONDARY RISER AT UTILITY POLE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

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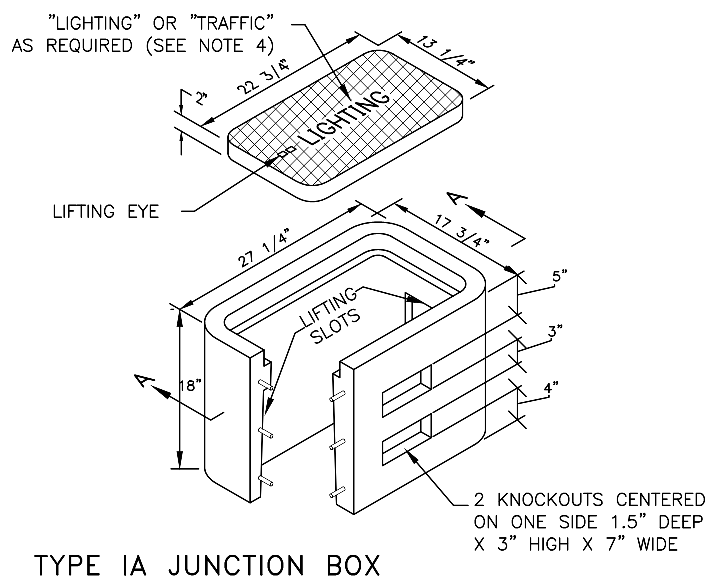
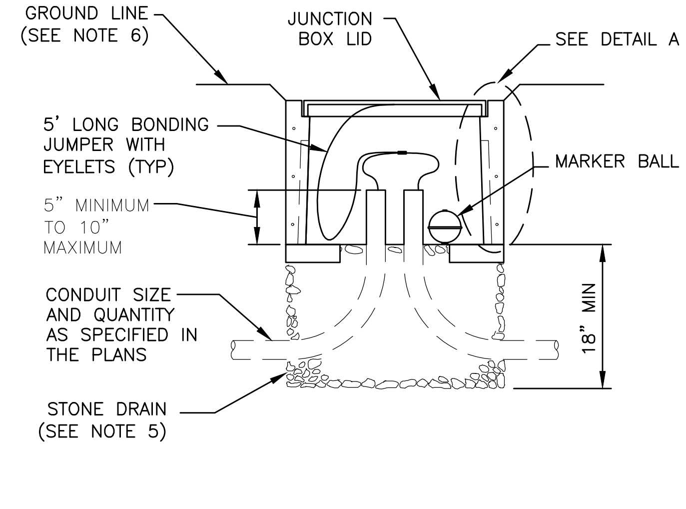
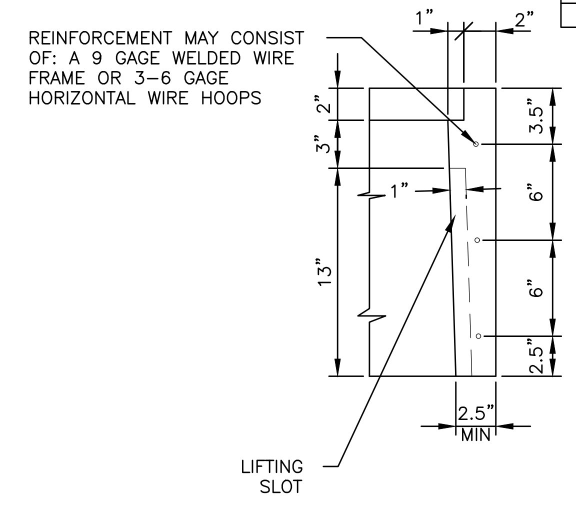




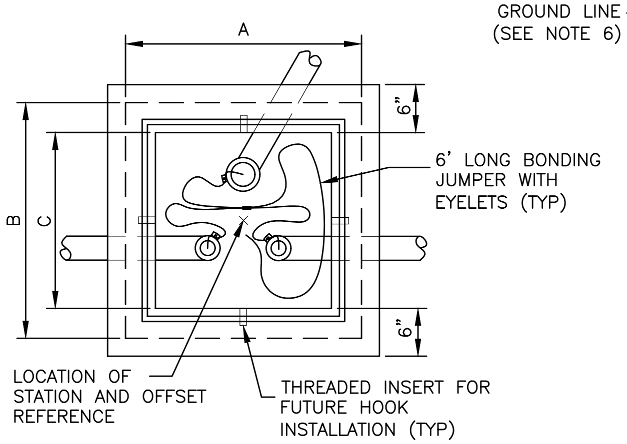
SECTION A–A



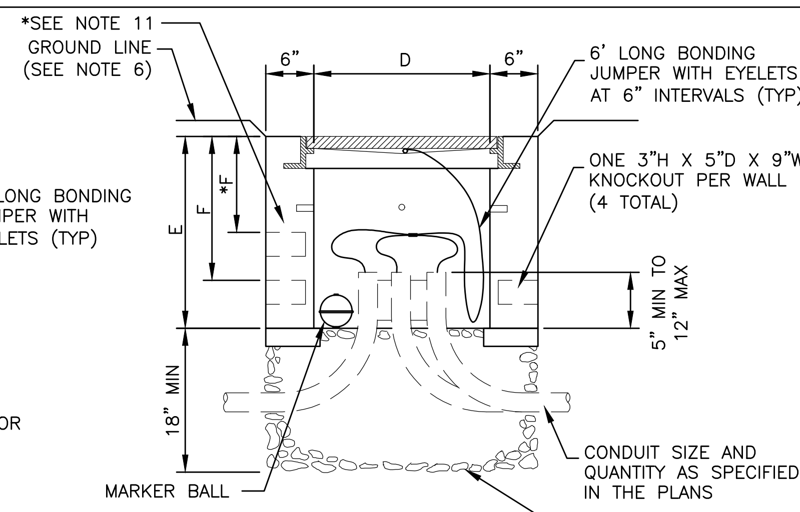
DETAIL A

TYPE IA JUNCTION BOX

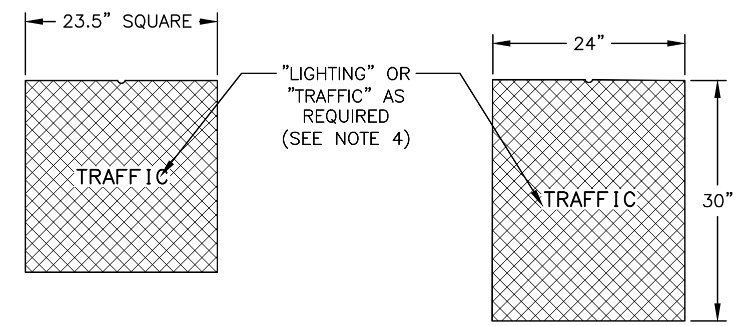
NTS



PLAN



ELEVATION



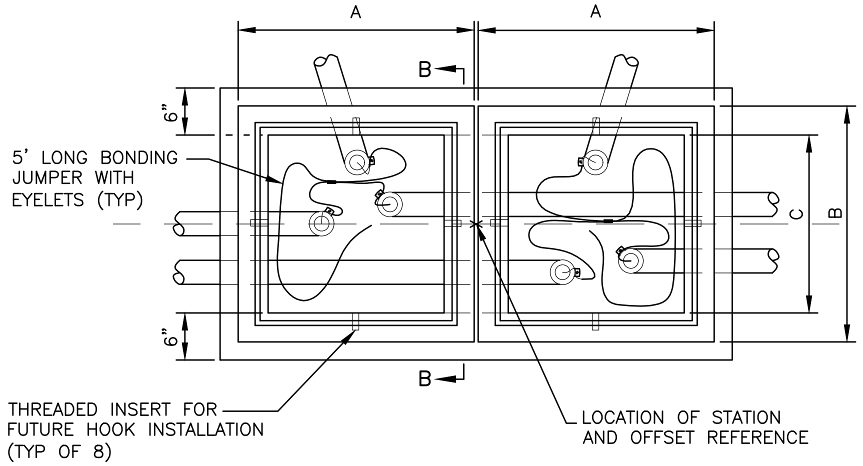
LID FOR TYPE II, MOD. TYPE II & TYPE III J-BOX

NTS

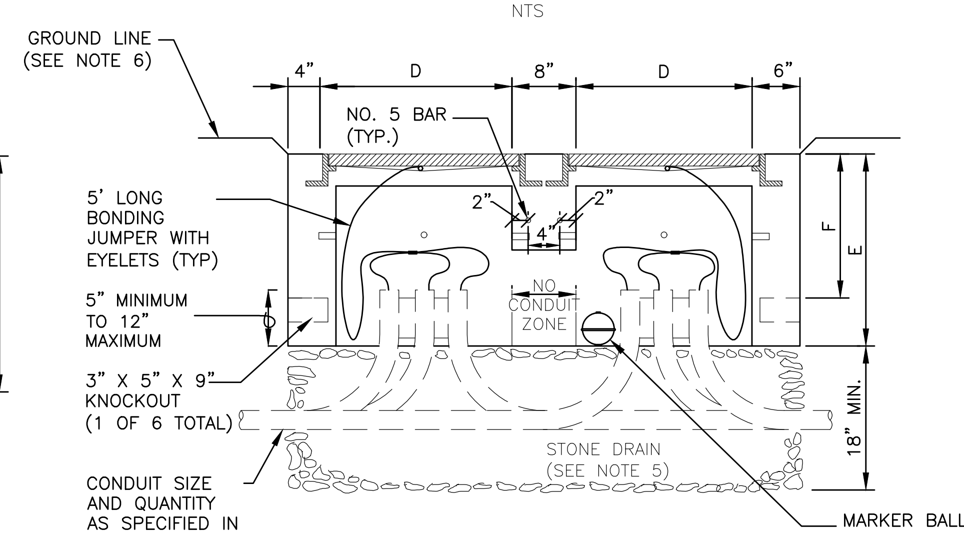
NTS

*=APPLICABLE TO MODIFIED TYPE II JUNCTION BOX

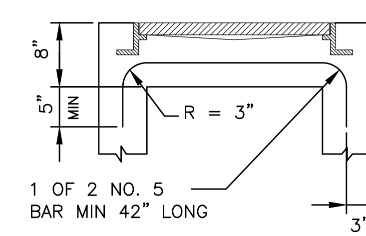
NTS



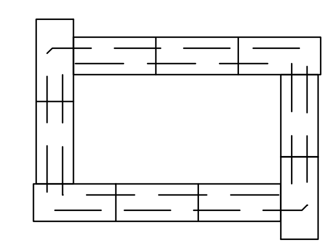
PLAN



ELEVATION (TYPE III LAYOUT DEPICTED)



SECTION B–B



TYPE III/IV JUNCTION BOX

NTS

NOTES:

1. AVOID INSTALLING TYPE IA JUNCTION BOXES IN DRIVEWAYS OR IN LOCATIONS SUBJECT TO USE BY HEAVY TRUCKS. INSTALL JUNCTION BOXES ONLY AT THE LATERAL LOCATIONS ALLOWED IN SUBSECTION 660–3.04.
2. FURNISH TYPE II, III AND IV JUNCTION BOXES WITH CAST IRON FRAMES AND LIDS THAT WEIGH A MINIMUM OF 210 POUNDS AND ARE RATED FOR HEAVY TRAFFIC LOADS IN COMPLIANCE WITH AASHTO M306. FURNISH TYPE IA JUNCTION BOXES WITH CAST IRON LIDS THAT WEIGH A MINIMUM OF 50 POUNDS.
3. CONSTRUCT JUNCTION BOXES ACCORDING TO SECTION 501 USING CLASS A CONCRETE. REINFORCE TYPE IA JUNCTION BOXES AS SHOWN. SYNTHETIC STRUCTURAL FIBER–REINFORCED CONCRETE THAT MEETS ASTM C 1116 AND CONTAINS FIBER IN PROPORTIONS AS RECOMMENDED BY THE FIBER MANUFACTURER MAY BE ADDED FOR STRENGTH.
4. FOR JUNCTION BOXES THAT CONTAIN ILLUMINATION CONDUCTORS EXCLUSIVELY, FURNISH LIDS WITH THE WORD LIGHTING INSCRIBED INTO THEM. FOR OTHER JUNCTION BOXES, FURNISH LIDS WITH THE WORD TRAFFIC INSCRIBED INTO THEM.
5. UNDER JUNCTION BOXES, INSTALL STONE DRAINS THAT CONSIST OF POROUS BACKFILL MATERIAL CONFORMING TO SUBSECTION 703–2.10.
6. SET THE TOPS OF JUNCTION BOXES WITH THE FOLLOWING DIMENSIONS BELOW THE FINISHED SURROUNDING SURFACE:
   - 1" IN PAVED MEDIANS AND ADJACENT TO PEDESTRIAN FACILITIES
   - 3/16" IN PEDESTRIAN FACILITIES
   - 2" IN ALL OTHER AREAS
7. BOND JUNCTION BOX LIDS TO THE SYSTEM OF EQUIPMENT GROUNDING CONDUCTORS ACCORDING TO SUBSECTION 660–3.06. ATTACH BONDING JUMPERS TO THE JUNCTION BOX LIDS WITH STAINLESS STEEL HARDWARE.
8. INSTALL A 1/2" THICK PREFORMED BITUMINOUS JOINT MATERIAL AROUND JUNCTION BOXES INSTALLED IN PORTLAND CEMENT CONCRETE WALKWAYS.
9. INSTALL AN ELECTRONIC MARKER BALL IN ALL JUNCTION BOXES PER SUBSECTION 660–3.04.
10. PROVIDE CONDUIT GROUNDING BUSHINGS AND BOND TO 3/4"X10' COPPER CLAD GROUND ROD WITH #8 BARE COPPER BONDING WIRE (AS REQUIRED).
11. WHERE MODIFIED TYPE II JUNCTION BOXES ARE REQUIRED FOR DETECTOR LOOP TAIL INSTALLATIONS, ADD ONE(1) ADDITIONAL 5" DEEP X 3" HIGH X 18" WIDE KNOCKOUT 12" BELOW TOP OF JUNCTION BOX.

J-BOX DIMENSIONS

J-BOX TYPE	A (MAX.)	B (MAX.)	C (MIN.)	D (MIN.)	E (MIN.)	F
II	29 1/2"	29 1/2"	22"	22"	24"	18"
MOD. II	29 1/2"	29 1/2"	22"	22"	24"	12"
III	29 1/2"	29 1/2"	22"	22"	24"	18"
IV	30"	36"	30"	24"	30"	18"

NTS

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JUNCTION BOX DETAILS

12/22/2022

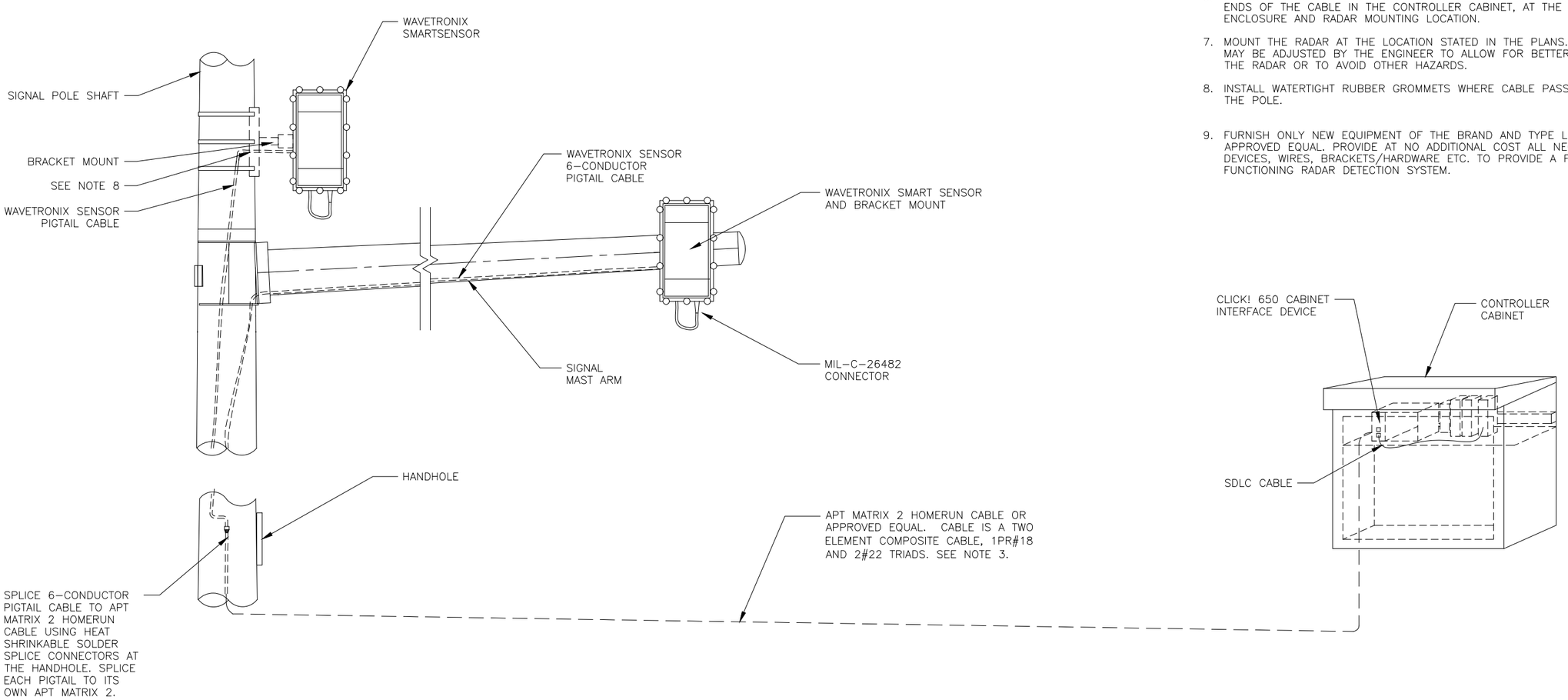
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd. Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_H43_ILLUM & INTCNT DETAILS-H43 Thu, Dec/22/22 11:56am

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H44	H53

RADAR INSTALLATION NOTES:

1. PROTECT CABLE ENDS FROM MOISTURE AT ALL TIMES.
2. PULL CABLE IN ACCORDANCE WITH SECTION 660 OF THE SPECIAL PROVISIONS. PULL CABLE SO THAT THERE IS SUFFICIENT LENGTH TO REACH THE TOP OF THE CONTROLLER CABINET. CABLES ARE TO BE PULLED WITHOUT CONNECTORS ATTACHED. WHEN CABLE HAS BEEN PULLED TO FINAL LOCATIONS INSTALL AND MAKE FINAL CONNECTIONS.
3. CABLE RUNS ARE TO BE MADE CONTINUOUS WITHOUT SPLICES.
4. CABLE WITH DAMAGED INSULATION, OR THAT HAS BEEN CRIMPED OR BENT BEYOND THE MINIMUM BEND RADIUS MUST BE REPLACED AT CONTRACTORS EXPENSE.
5. THE MINIMUM BEND RADIUS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS.
6. ENSURE ADEQUATE LENGTH OF EACH CABLE TO ALLOW WORK ON THE ENDS OF THE CABLE IN THE CONTROLLER CABINET, AT THE POLE MOUNT ENCLOSURE AND RADAR MOUNTING LOCATION.
7. MOUNT THE RADAR AT THE LOCATION STATED IN THE PLANS. PLACEMENT MAY BE ADJUSTED BY THE ENGINEER TO ALLOW FOR BETTER AIMING OF THE RADAR OR TO AVOID OTHER HAZARDS.
8. INSTALL WATERTIGHT RUBBER GROMMETS WHERE CABLE PASSES THROUGH THE POLE.
9. FURNISH ONLY NEW EQUIPMENT OF THE BRAND AND TYPE LISTED OR ITS APPROVED EQUAL. PROVIDE AT NO ADDITIONAL COST ALL NECESSARY DEVICES, WIRES, BRACKETS/HARDWARE ETC. TO PROVIDE A FULLY FUNCTIONING RADAR DETECTION SYSTEM.



RADAR INSTALLATION DETAIL
NTS

RADAR DETAILS

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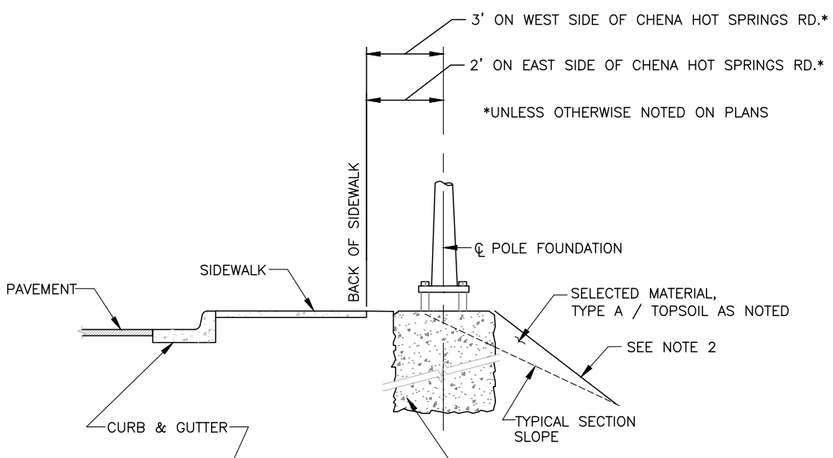
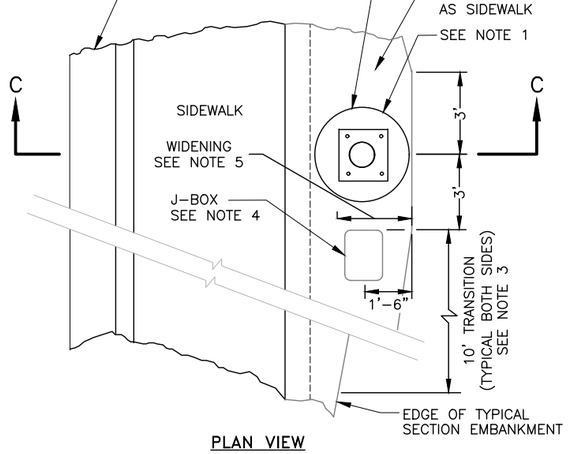
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H45	H53

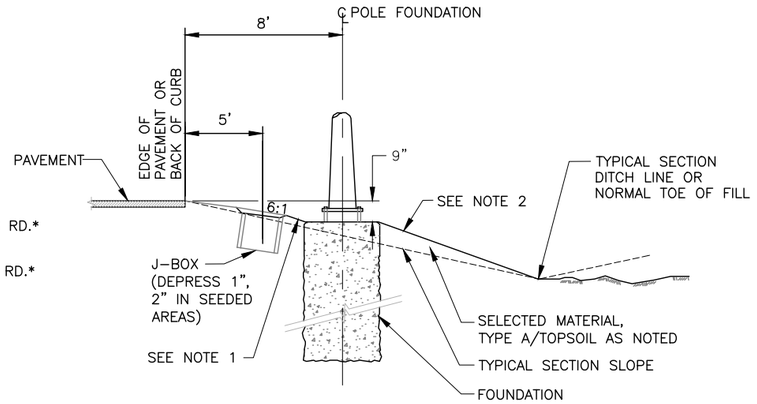


SECTION A–A

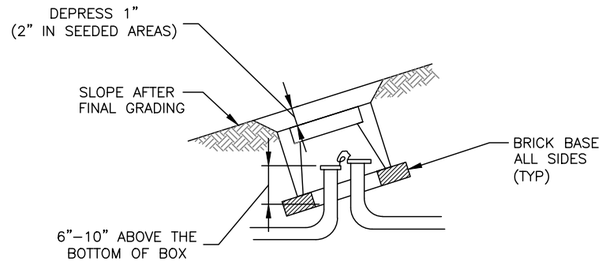


PLAN VIEW

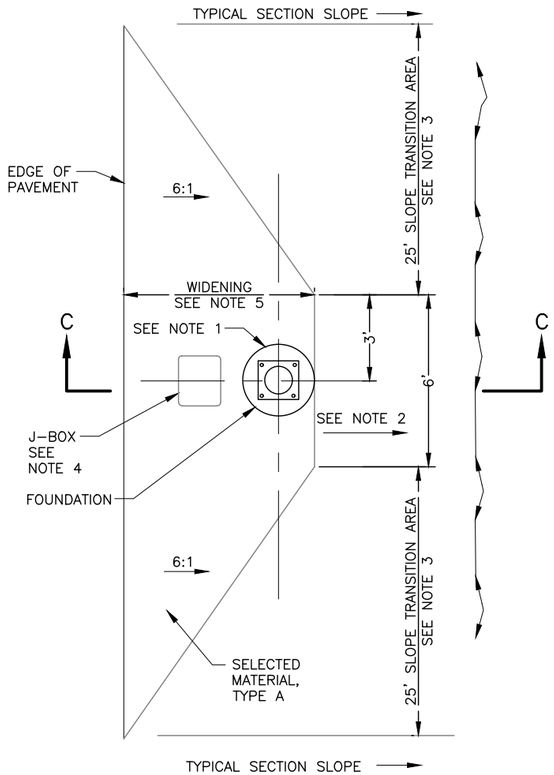
LIGHT POLE WIDENING DETAIL "A"
(USE WHEN POLE IS LOCATED OFF BACK OF SIDEWALK)



SECTION C–C



TYPE IA J–BOX INSTALLATION ON SLOPE



LIGHT POLE WIDENING DETAIL "C"
(USE WHEN POLE IS LOCATED OFF SHOULDER)

LIGHT POLE WIDENING NOTES:

1. WARP SLOPE TO TOP CIRCUMFERENCE OF POLE FOUNDATION.
2. SLOPE FROM TOP EDGE OF POLE FOUNDATION TO TYPICAL SECTION DITCHLINE OR NORMAL TOE OF FILL. NO STEEPER THAN 2:1.
3. WHEN THE TYPICAL SECTION SLOPE IS STEEPER THAN 2:1 USE 35' FOR THE SLOPE TRANSITION AREA.
4. DEPRESS JUNCTION BOX 1" BELOW SURFACE. DEPRESS 2" IN SEEDED AREAS.
5. WIDENING SHALL BE CONSTRUCTED PRIOR TO POURING FOUNDATION.

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LIGHTING AND JUNCTION BOX DETAILS

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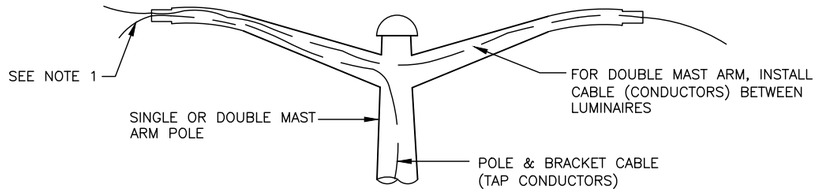
ALASKA	0002312/Z640780000	2024	H46	H53

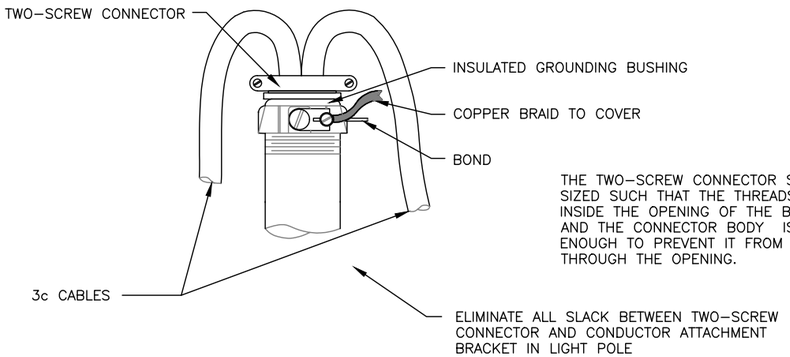


NOTE:

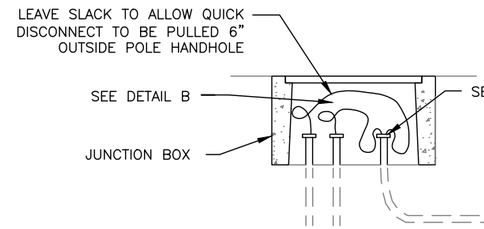
1. INSTALL 2"x1" REDUCING WASHER AND 1" CONNECTOR TO SECURE CONDUCTORS AT THE END OF THE MAST ARM.

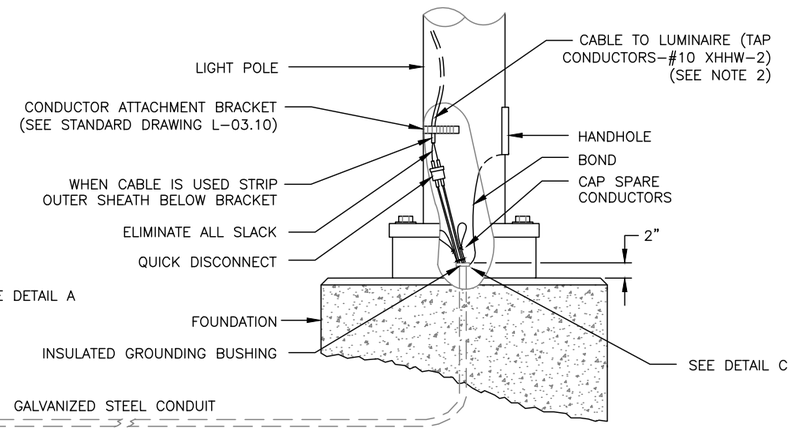
LIGHT STANDARD MAST ARM WIRING DETAIL

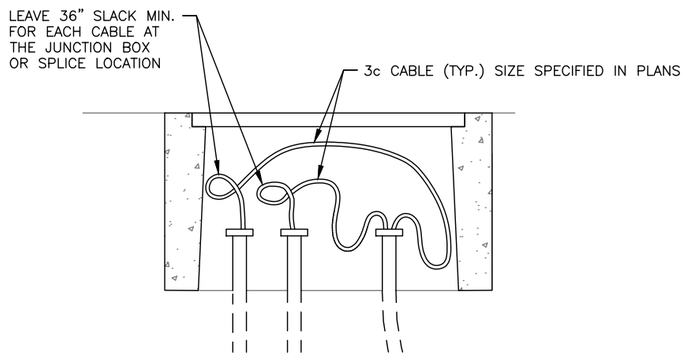
NTS



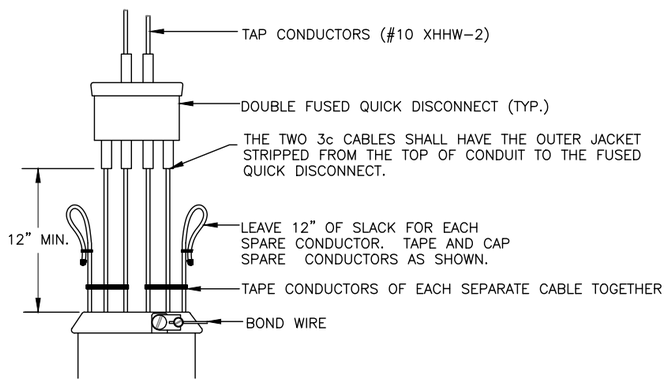
DETAIL A







DETAIL B



DETAIL C

NOTES:

1. LABEL ALL CABLES AND CONDUCTORS IN POLE BASE AND J-BOX.
2. LEAVE ENOUGH SLACK ABOVE THE CONDUCTOR ATTACHMENT BRACKET TO ALLOW THE QUICK DISCONNECT TO BE PULLED 6" OUTSIDE OF HANDHOLE.
3. NOT ALL GROUNDING CONDUCTORS, AS REQUIRED BY SECTION 660-3.06, ARE SHOWN IN THESE DETAILS.

LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS

NTS

LIGHT SYSTEM POLE AND JUNCTION BOX DETAILS

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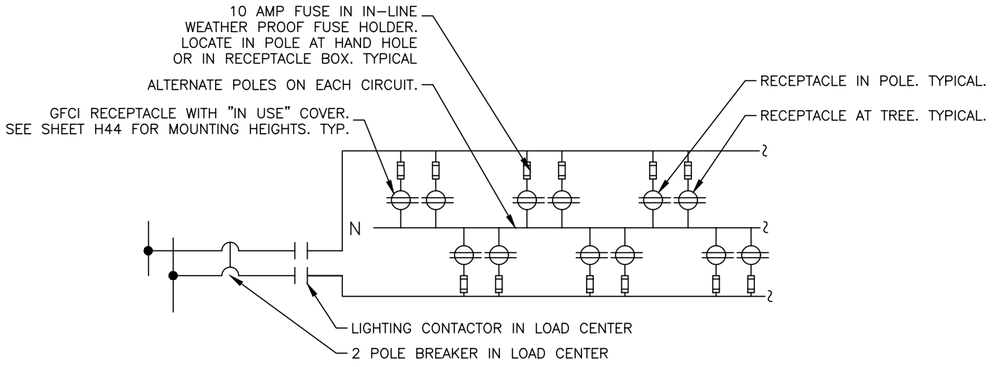
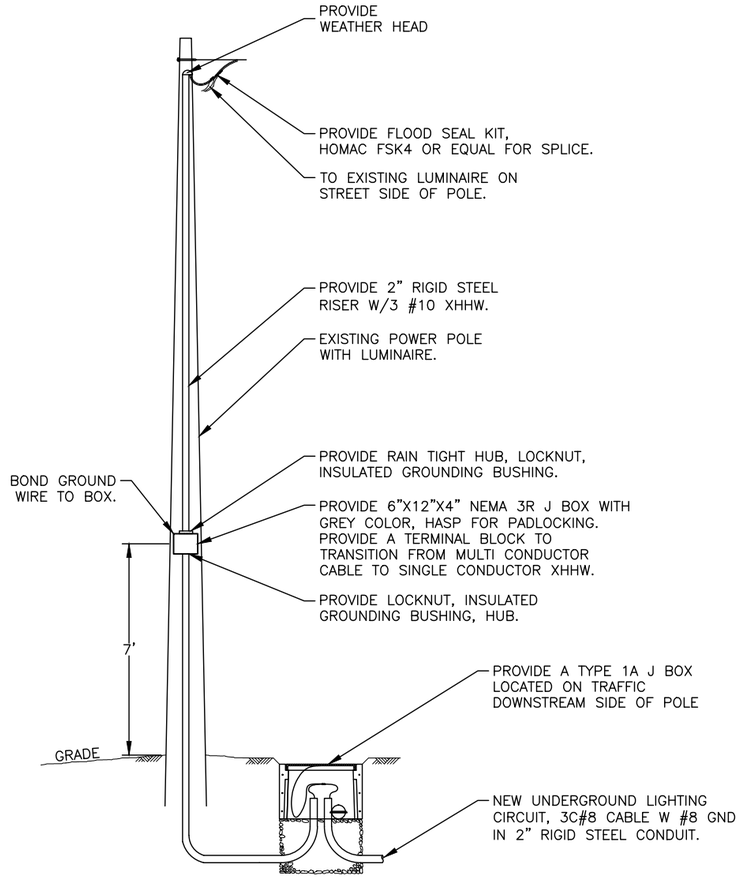
ALASKA	0002312/Z640780000	2024	H47	H53



POLE MOUNTED AND TREE WELL RECEPTACLE WIRING DIAGRAM
NTS



TYPICAL TRANSITION BETWEEN AERIAL & UNDERGROUND LIGHTING CIRCUIT
NTS

ILLUMINATION AND INTERCONNECT DETAILS

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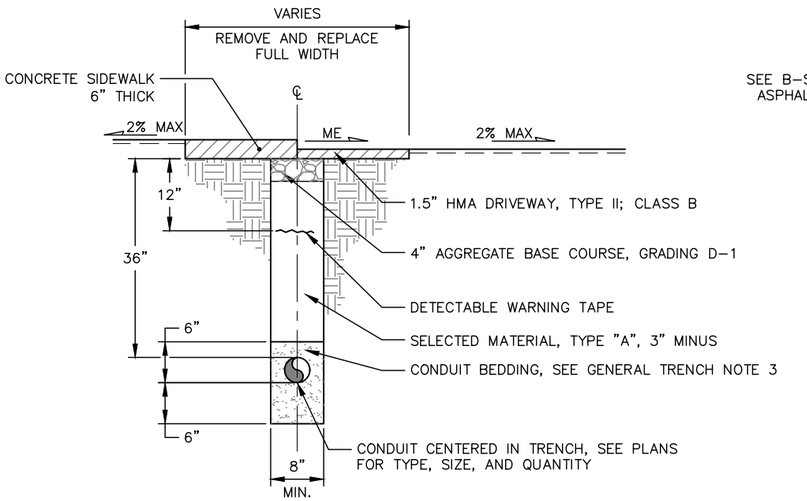
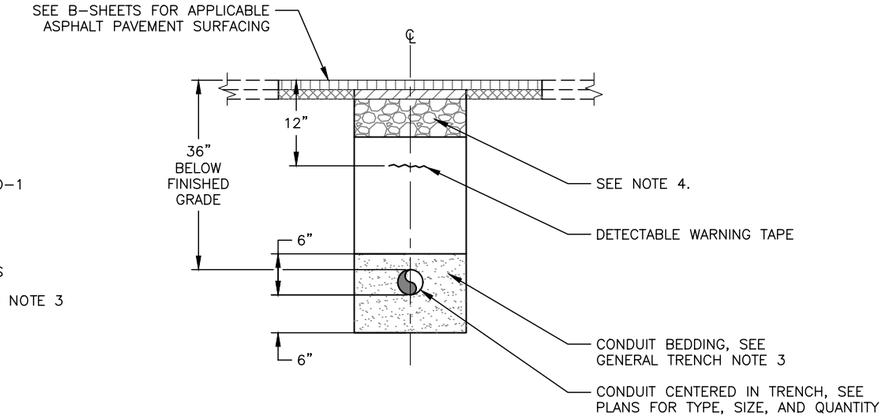
ALASKA	0002312/Z640780000	2024	H48	H53

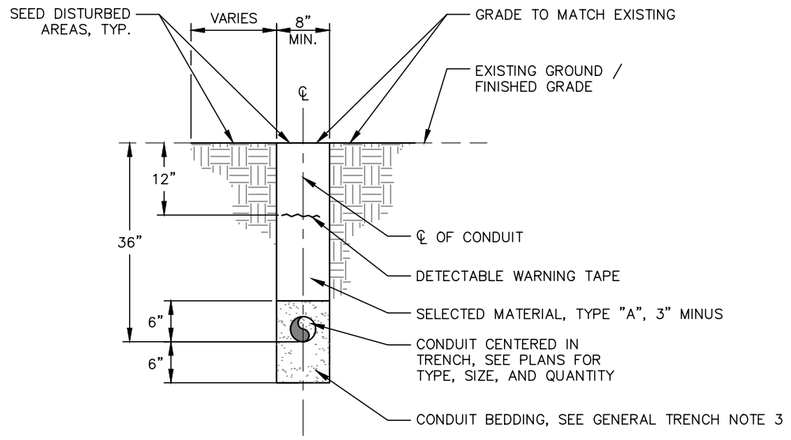
CONCRETE SIDEWALK | ASPHALT PATHWAY



CONDUIT TRENCH UNDER PATHWAYS AND SIDEWALKS
NTS



CASE A:
TRANSVERSE CONDUIT TRENCH DETAIL UNDER ROADWAYS AND DRIVEWAYS
NTS



CONDUIT TRENCH DETAIL ADJACENT TO ROADWAYS, SIDEWALKS AND PATHWAYS
NTS

TRENCH DETAILS

GENERAL TRENCH NOTES:

1. COORDINATE WITH EARTHWORK AND OTHER DISCIPLINES TO AVOID DUPLICATION OF EFFORT.
2. ALL CONDUIT TRENCH AND EXCAVATION BENEATH ASPHALT OR CONCRETE PAVED SURFACES SHALL BE COMPLETED BEFORE FINAL PAVING.
3. CONDUIT BEDDING SHALL MEET THE REQUIREMENTS FOR SELECTED MATERIAL, TYPE "A", 1" MINUS
4. TRENCH BACKFILL SHALL MEET THE REQUIREMENTS FOR THE APPLICABLE LIFT PER OTHER WORK OR SELECT MATERIAL, TYPE A, 3" MINUS IN UNIMPROVED TRENCH SECTIONS.

TRENCH DETAILS

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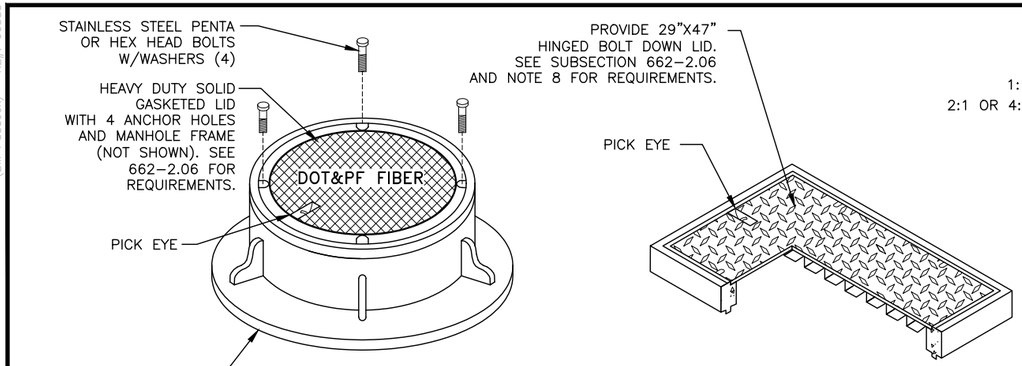
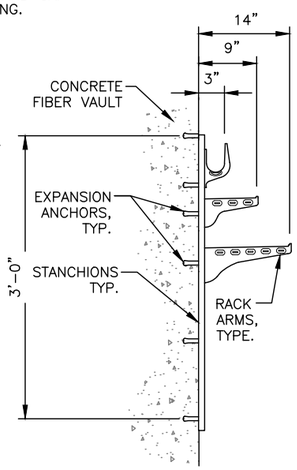
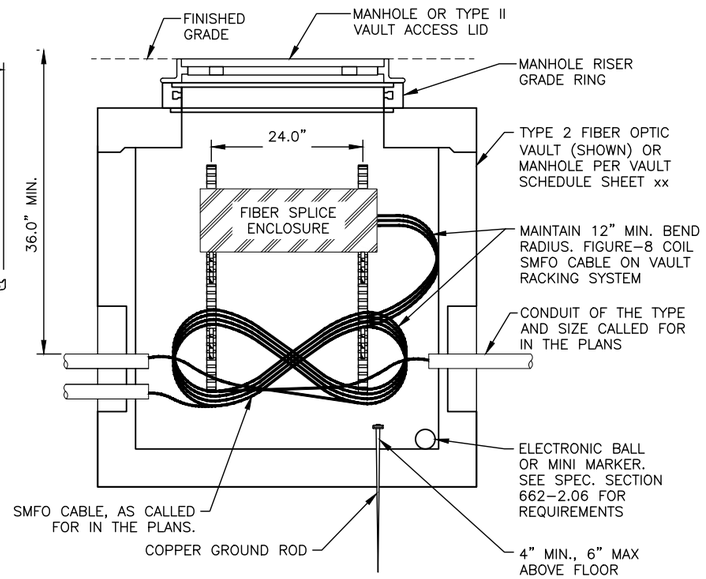
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H49	H53



FIBER OPTIC MANHOLE WITH MANHOLE LID
(FIBER OPTIC VAULT, TYPE 2 SIMILAR)
NTS

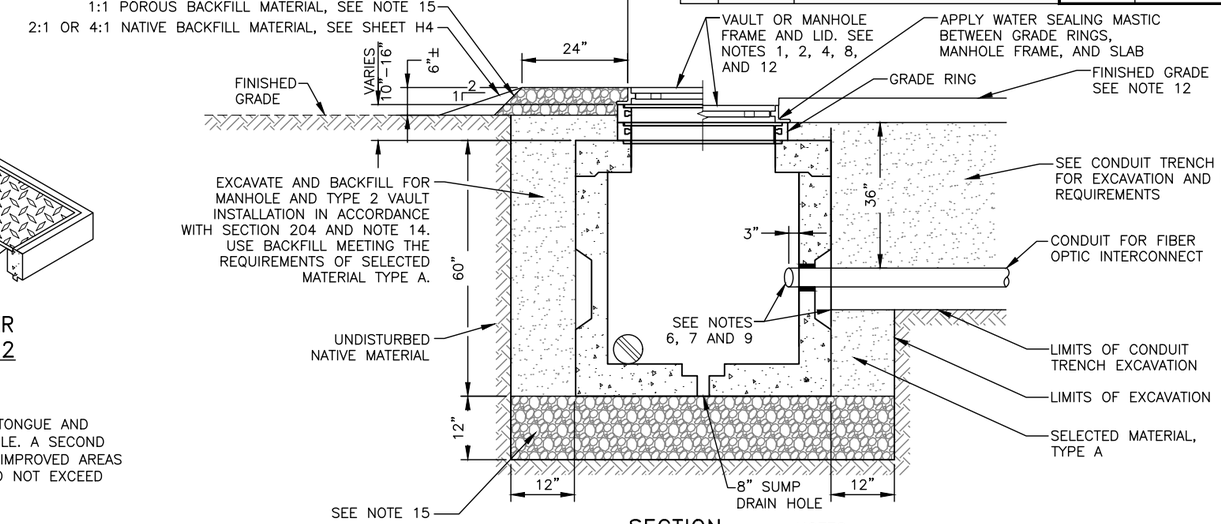


TYPICAL CABLE RACK
NTS



FIBER OPTIC MANHOLE AND FIBER OPTIC VAULT, TYPE 2 LAYOUT
NTS

TYPE	"L" INCH	'W' INCH	"H" INCH	"T" INCH	LID
FIBER OPTIC VAULT, TYPE 2	30	48	48	6 MIN	HINGED METAL
FIBER OPTIC MANHOLE	48	48	48	6 MIN	MANHOLE



SECTION
NTS

NOTES:

1. PROVIDE TYPE 2 FIBER OPTIC VAULTS WITH BOLT DOWN HINGED METAL LID. SUPPLY FIBER VAULTS, LIDS, AND COVERS RATED FOR AASHTO HS-20-44 LOADING.
2. SUPPLY ALL LIDS WITH WITH A HOLE OR SLOT FOR REMOVAL WITH A LEVER OR HOOK.
3. WHERE REQUIRED BY OSHA, PROVIDE A PORTABLE ENTRY LADDER MEETING OSHA REQUIREMENTS.
4. PROVIDE FIBER VAULT AND MANHOLE LIDS MARKED, "DOT&PF FIBER".
5. PROVIDE FIBER MANHOLES AND VAULTS WITH A HEAVY-DUTY NON-METALLIC CABLE STORAGE RACK SYSTEM. PROVIDE RACK ARMS OR STANCHIONS CAPABLE OF SUPPORTING A MINIMUM OF 250 LBS. INCLUDE A MINIMUM OF 36 INCH RACK STANCHIONS AND 4 RACK ARMS.
6. INSTALL CONDUITS INTO FIBER VAULT AT THINWALL SECTIONS ONLY. CORE DRILL IN THE THIN WALL SECTION TO CONDUIT SIZE PLUS 1/4 INCH ALL AROUND. DO NOT "KNOCK OUT" THE THIN WALL SECTION.
7. SEAL CONDUIT PENETRATIONS USING SIKA LEAKMASTER LV-Z OR APPROVED ADEKA PRODUCT EQUIVALENT.
8. BOND AND GROUND ALL METALLIC COMPONENTS OF THE FIBER VAULT, INCLUDING RACK, FRAME AND LIDS PER STANDARD SPECIFICATION 660-3.06.
9. PLUG CONDUITS ENDS TO EXCLUDE WATER UNTIL FIBER OPTIC CABLE IS INSTALLED. SEE SECTIONS 660 AND 662.
10. EXTEND GROUND ROD A MINIMUM OF 4 INCHES AND A MAXIMUM OF 6 INCHES ABOVE BOTTOM OF VAULTS AND MANHOLES.
11. USE A SPLIT BOLT CONNECTER TO ATTACH GROUND WIRES TO GROUND ROD. ATTACH NO MORE THAN TWO WIRES PER BOLT.
12. U.O.N., TOP OF FIBER OPTIC VAULTS AND MANHOLES SHALL BE INSTALLED:
    A. FROM 0" TO 3/16" BELOW FINISHED GRADE WHEN LOCATED IN A SIDEWALK OR PATHWAY;
    B. 3/8" BELOW FINISHED GRADE WHEN LOCATED IN A PAVED PARKING LOT, MEDIAN, OR ROADWAY;
    C. FROM 4" TO 8" ABOVE FINISHED GRADE IN UNIMPROVED AREAS, AWAY FROM HARDSCAPED SURFACES;
    D. OR AS DIRECTED BY THE ENGINEER.
13. DO NOT PLACE VAULTS AND MANHOLES IN THE BOTTOM OF DRAINAGE COLLECTION AREAS.
14. ALL TRENCHING AND EXCAVATION SHALL COMPLY WITH OSHA
15. SAFETY STANDARDS AND REGULATIONS.
16. POROUS BACKFILL MATERIAL: GRADATION B CONFORMING TO SUBSECTION 703-2.10

PLANS DEVELOPED BY:
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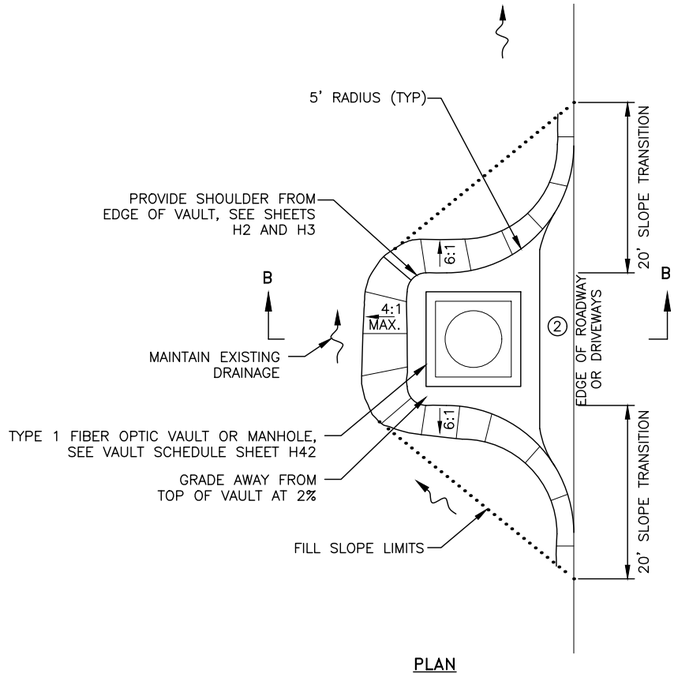
TYPE II FIBER OPTIC VAULT AND MANHOLE DETAILS

NO.	DATE	REVISION

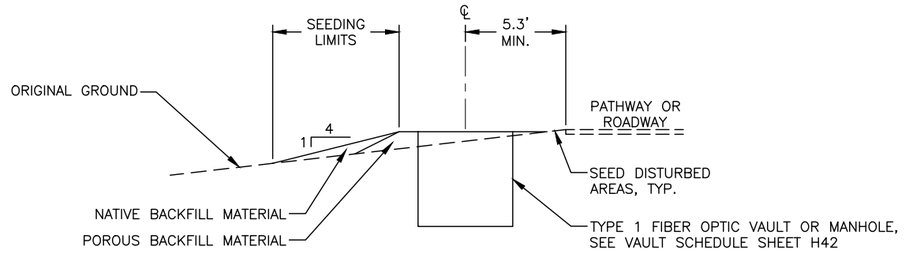
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H50	H53



PLAN

VAULT GRADING ON ROADWAY FORESLOPE

NTS



SECTION B–B

VAULT GRADING AND LOCATION

NTS

NOTES:

1. WHEN VAULT IS LOCATED WITHIN OR ADJACENT TO A PATHWAY DEPRESS VAULT 1/4".
2. SLOPE TO MATCH EXISTING, 4:1 TYPICAL.
3. SEED DISTURBED AREAS AS DIRECTED BY THE ENGINEER.
4. DO NOT EXCEED ROW LIMITS.
5. USE 4:1 MAX WHEN 30' OR LESS FROM TRAVELED WAY.

VAULT GRADING DETAILS

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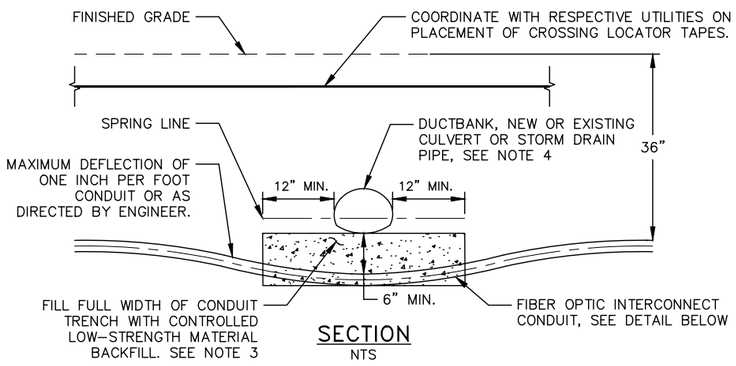
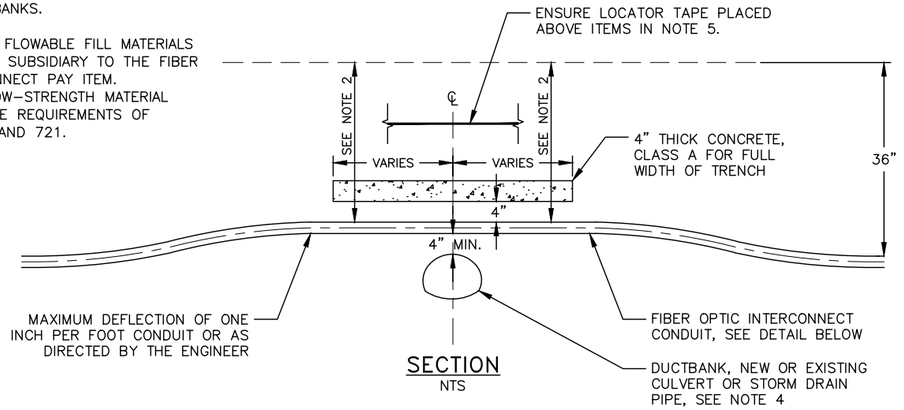
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H51	H53

CONDUIT–CULVERT CROSSING NOTES:

1. UNLESS DIRECTED OTHERWISE BY THE ENGINEER, USE THIS DETAIL WHENEVER HDPE INTERCONNECT CONDUIT BURIAL DEPTH IS LESS THAN 30".
2. MINIMUM INTERCONNECT CONDUIT COVER REQUIREMENTS:
   - 2.1. 24" UNDER ROADWAYS, DRIVEWAYS, PARKING LOTS, AND PATHWAYS.
   - 2.2. 18" UNDER ALL OTHER AREAS.
3. ENSURE THAT THE HDPE INTERCONNECT CONDUIT IS PROPERLY POSITIONED AND ANCHORED BEFORE BACKFILLING WITH CONTROLLED LOW–STRENGTH MATERIAL.
4. U.O.N. OR DIRECTED BY THE ENGINEER, USE THIS DETAIL WHEN OTHER UNDER GROUND UTILITY CROSSINGS ARE ENCOUNTERED. DO NOT ENCASE UTILITY IN CONTROLLED LOW–STRENGTH MATERIAL OR CONCRETE UNLESS OTHERWISE DIRECTED. POTHOLING IS REQUIRED WHEN CROSSING BENEATH DUCTBANKS.
5. CONCRETE AND FLOWABLE FILL MATERIALS AND WORK ARE SUBSIDIARY TO THE FIBER OPTIC INTERCONNECT PAY ITEM. CONTROLLED LOW–STRENGTH MATERIAL SHALL MEET THE REQUIREMENTS OF SECTIONS 205 AND 721.

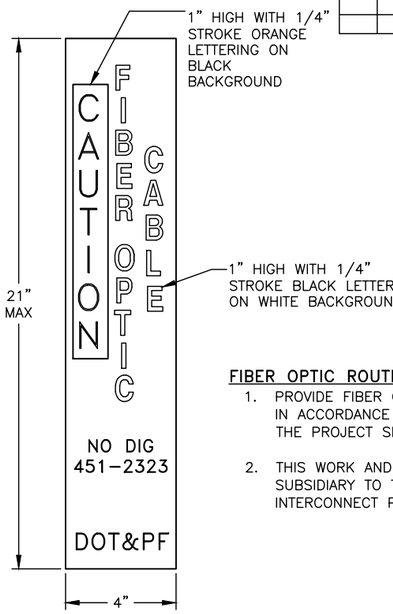


SECTION
NTS



SECTION
NTS

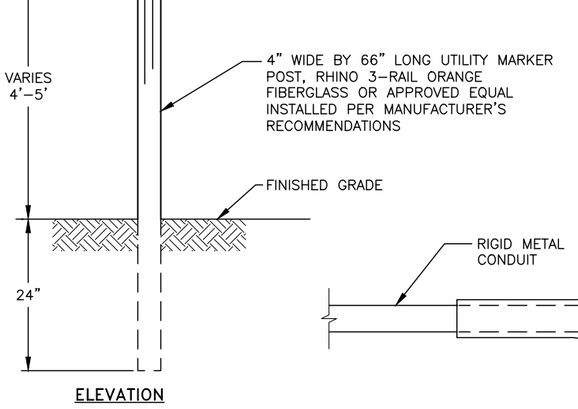
CONDUIT–CULVERT CROSSING DETAIL
NTS



DECAL
NTS

FIBER OPTIC ROUTE MARKER NOTES:

1. PROVIDE FIBER OPTIC ROUTE MARKERS IN ACCORDANCE WITH SECTION 662 OF THE PROJECT SPECIAL PROVISIONS.
2. THIS WORK AND MATERIALS IS SUBSIDIARY TO THE FIBER OPTIC INTERCONNECT PAY ITEM.



ELEVATION

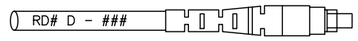
FIBER OPTIC ROUTE MARKER DETAIL
NTS

TRANSMIT DIRECTION	ABBREVIATION	
	TRANSMIT	RECEIVE
SOUTH TO NORTH	TX(a)	RX(a)
NORTH TO SOUTH	TX(b)	RX(b)
WEST TO EAST	TX(a)	RX(a)
EAST TO WEST	TX(b)	RX(b)

TX/RX TRANSMIT DIRECTION ABBREVIATION PER TRANSMIT DIRECTION TABLE
P LETTER P FOR PATCH CORD
FIBER POSITION NUMBER

LABEL BOTH ENDS OF THE PATCH PANEL CORD

LABELING FOR FIBER PATCH CORDS

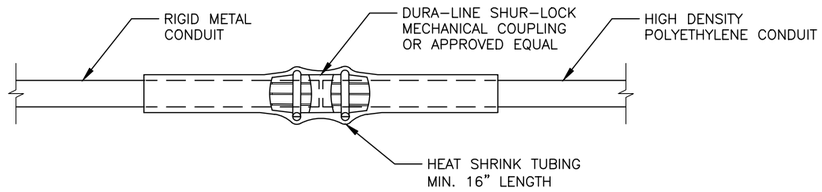


RD# ROADWAY THE CABLE IS ROUTED FROM THE PATCH PANEL
3RD = 3RD STREET, AD = ALUMNI DR, AW = AIRPORT WAY, BR = BALLAINE RD, CR = COLLEGE RD, LA = LATHROP ST, PH = PARKS HWY, FLR = FARMERS LOOP RD, JE = JOHANSEN EXPY, PR = PEGER RD, TD = NORTH TANANA DR, UA = UNIVERSITY AVE, SC = S CUSHMAN ST, ME = MITCHELL EXPY

D DIRECTION THE CABLE IS ROUTED FROM THE PATCH PANEL
N = NORTH E = EAST
S = SOUTH W = WEST

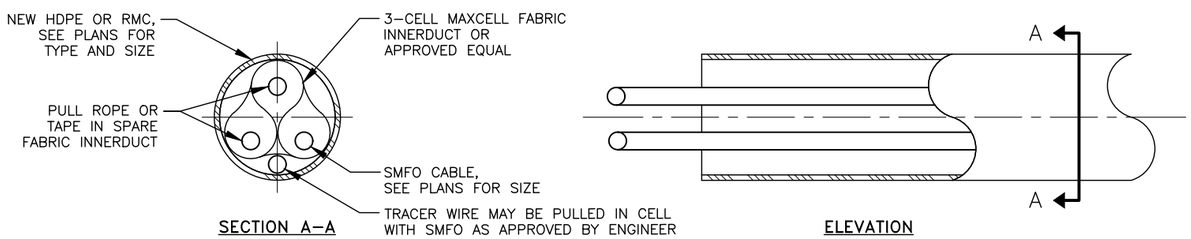
NUMBER OF OPTICAL FIBERS PER EIA 359–A–1

LABELING FOR MAINLINE FIBER CABLES



EXCEPTION:
USE ELECTROFUSION COUPLINGS PER THE HDPE MANUFACTURER'S REQUIREMENTS, WHEN JOINING HDPE TO HDPE.

RMC TO HDPE CONDUIT CONNECTION DETAIL
NTS



TYPICAL FIBER OPTIC (NEW) CONDUIT DETAIL
NTS

INTERCONNECT CROSSING DETAILS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

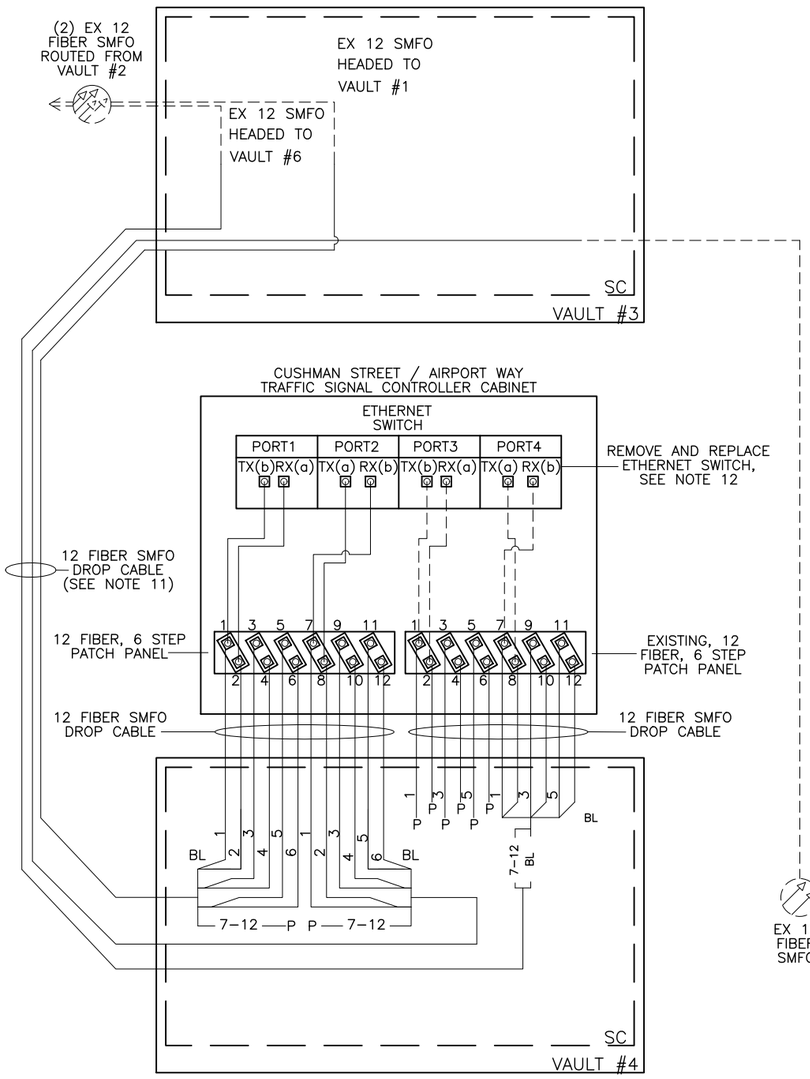
12/22/2022 REVIEW PS&E

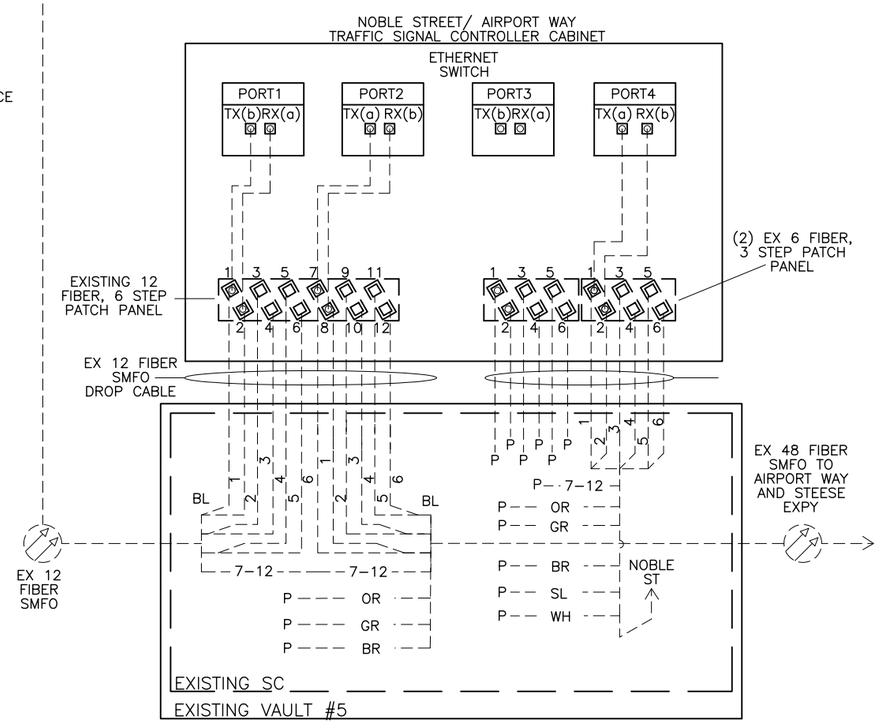
12/22/2022

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_H52-H53_ILLUM & INTCNT DETAILS-H52 Thu, Dec/22/22 11:58am
(Bill Paddock) KE#: 00385

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H52	H53





LEGEND

- ▲ FIBER SPLICE
- FIBER STRAND / BUFFER TUBE
- ○ LC CONNECTOR
- □ LC PORT
- JUMPER OR PATCH CHORD
- EXISTING FIBER STRAND / BUFFER TUBE
- EXISTING FIBER OPTIC CABLE
- FIBER OPTIC CABLE
- EXISTING FIBER OPTIC CABLE SHARING ONE MAX-CELL RACEWAY

SC SPLICE CLOSURE
SMFO SINGLE MODE FIBER OPTIC CABLE
P PROTECT FIBER END

TRANSMIT DIRECTION	ABBREVIATION	
	TRANSMIT	RECEIVE
SOUTH TO NORTH	TX(a)	RX(a)
NORTH TO SOUTH	TX(b)	RX(b)
WEST TO EAST	TX(a)	RX(a)
EAST TO WEST	TX(b)	RX(b)

NOTES:

1. REFER TO PLANS FOR CABLE ROUTING TO/FROM CABINETS.
2. ALL ETHERNET SWITCHES, ARE SINGLE MODE, OPERATING AT 1310 nm, UNLESS OTHERWISE SPECIFIED.
3. ETHERNET SWITCHES AND TERMINAL SERVERS SHALL INCLUDE POWER ADAPTERS CONVERTING 120 VAC TO APPROPRIATE OPERATING VOLTAGES.
4. ALL SPLICE TRAYS SHALL BE CONTAINED WITHIN ONE CLOSURE PER VAULT.
5. DROP CABLES SHALL BE PRECONNECTORIZED IN THE FACTORY. CONNECTORS INSTALLED IN THE FIELD WILL NOT BE ALLOWED. SEE 662-2.04 FOR COILING EXCESS IN VAULTS.
6. COMMUNICATION COMPONENTS ARE SHOWN SCHEMATICALLY. VERIFY TX-RX FIBER PORTS PRIOR TO MAKING FINAL CONNECTIONS.
7. CONNECT ETHERNET SWITCH TO EACH PATCH PANEL WITH TWO SINGLE MODE FIBER PATCH CABLES. THE CABLES SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR MOVING OF THE ETHERNET SWITCH TO ANY SHELF LOCATION IN THE CABINET ONCE THE PATCH PANEL HAS BEEN INSTALLED. LABEL EACH PATCH CABLE ACCORDING TO THE TRANSMISSION DIRECTION TABLE.
8. PROVIDE THREE (EACH) ETHERNET CABLES OF SIX FOOT LENGTH FOR EACH CABINET RECEIVING AN ETHERNET SWITCH, TO BE CONNECTED TO CABINET COMPONENTS ACCORDING TO THE SWITCH COMMUNICATIONS WIRING DIAGRAM.
9. NO SPLICES ARE PERMITTED EXCEPT WHERE SPECIFICALLY INDICATED IN THE FIBER OPTIC SPLICE DIAGRAM. SPLICE CLOSURES MUST CONFORM TO SECTION 662-3.10 OF THE SPECIFICATIONS.
10. MOUNT PATCH PANEL TO CABINET WALL AND IN A LOCATION AS TO NOT INTERFERE WITH OTHER EQUIPMENT AND SUCH THAT IT IS READILY ACCESSIBLE. PROVIDE SUFFICIENT SLACK CABLE IN CABINET TO ALLOW THE PATCH CABLE TO BE RELOCATED AT ANY LOCATION IN THE CABINET.
11. THREE 12 SMFO FIBER OPTIC DROP CABLES SHALL SHARE SAME ONE-CELL RACEWAY WITH TRACER ROUTED OUTSIDE 3-CELL CONFIGURATION.
12. SALVAGE EXISTING PAN-TILT-ZOOM CAMERA AND RX1500 ETHERNET SWITCH AT AIRPORT WAY AND CUSHMAN STREET INTERSECTION. CONTACT ERIC SLAY AT 907-451-5279 FOR DELIVERY. INSTALL NEW RSG920P OR APPROVED EQUAL IN NEW TRAFFIC CABINET. THIS WORK IS SUBSIDIARY TO 660.0001.0000 PAY ITEMS. SEE NORTHERN REGION SIGNAL INTERCONNECT – AIRPORT WAY & PEGER ROAD PROJ.# 0002(334) / 60520 (2015).

FIBER OPTIC SPLICE DETAILS

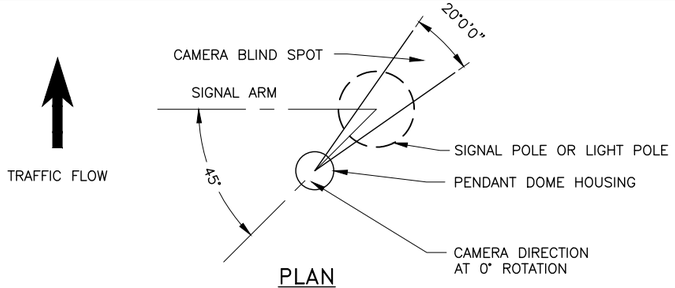
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

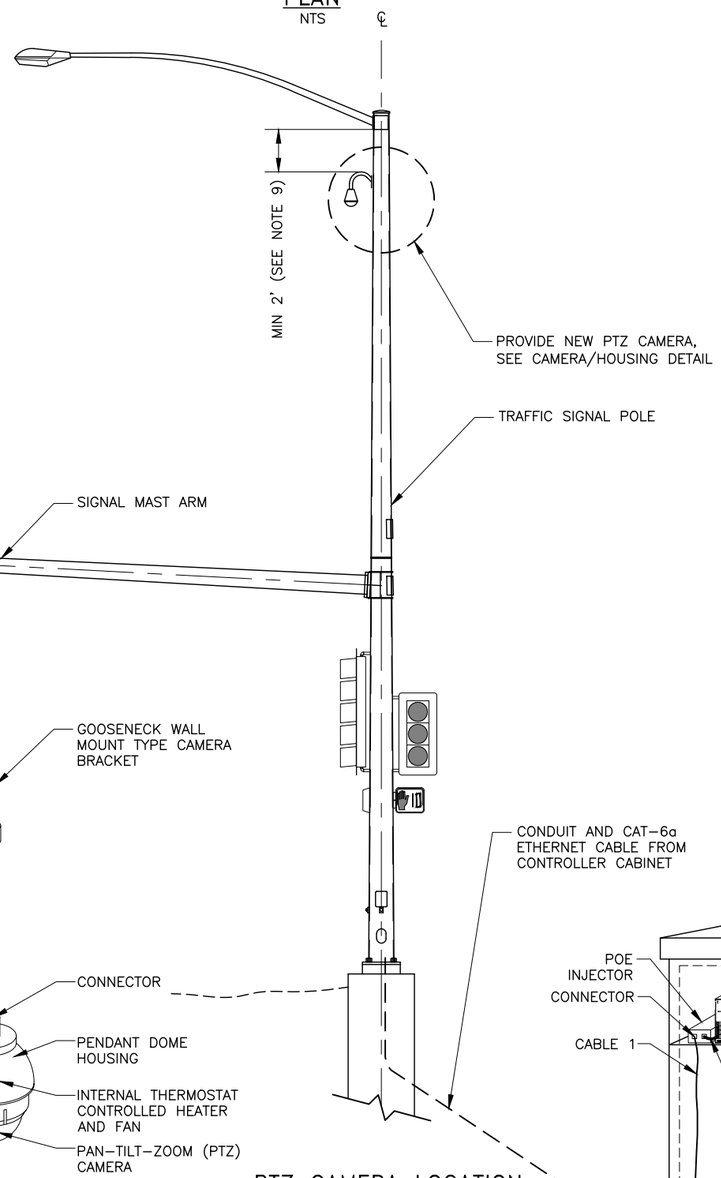
12/22/2022

NO.	DATE	REVISION

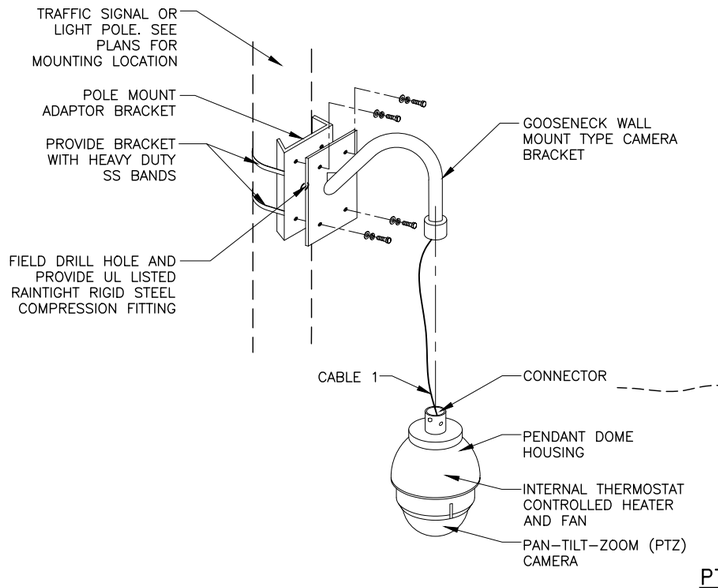
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	H53	H53



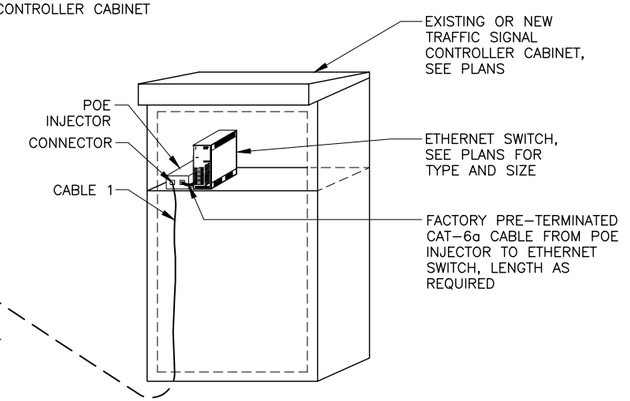
PLAN
NTS



PTZ CAMERA LOCATION
NTS



CAMERA/HOUSING DETAIL
NTS

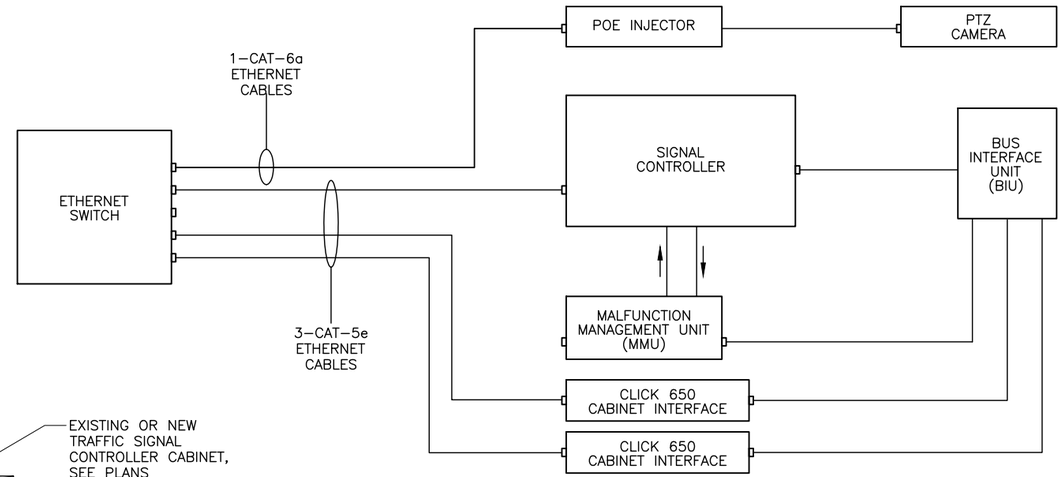


MATERIAL REQUIREMENTS

ALL ASSEMBLIES	
MOUNTING BRACKET	PELCO TRITON BRACKET OR APPROVED EQUAL
POLE MOUNT ADAPTOR	AXIS T91A57 OR APPROVED EQUAL
GOOSENECK WALL MOUNT	AXIS T91G61 OR APPROVED EQUAL
CABLE 1	CAT-6a, FOILED
POE INJECTOR	AXIS T8134 60W OR APPROVED EQUAL
CONNECTOR	ENVIRONMENTALLY HARDENED RJ-45
STRAIN RELIEF	REMKE 2201-013 OR APPROVED EQUAL
CAMERA	
PTZ CAMERA	UNLESS OTHERWISE NOTED, PROVIDE AXIS Q6155-E OR APPROVED EQUAL
HOUSING	
PENDANT DOME HOUSING	OUTDOOR, INTEGRATED WITH CAMERA OR APPROVED EQUAL

NOTES:

1. PROTECT ETHERNET CABLE ENDS FROM MOISTURE AT ALL TIMES.
2. WHEN NEW ETHERNET CABLE IS BEING ADDED TO EXISTING CONDUITS, CONFORM TO SECTIONS 660-3.03, 3.05, and 3.06 OF THE SPECIFICATIONS. PROVIDE CABLE SO THAT THERE IS SUFFICIENT LENGTH TO REACH THE TOP OF THE CONTROLLER CABINET. CABLE IS TO BE PULLED WITHOUT CONNECTORS ATTACHED. WHEN CABLE HAS BEEN PULLED TO FINAL LOCATIONS PROVIDE, RJ45 CONNECTORS AND MAKE FINAL CONNECTIONS.
3. CABLE RUNS ARE TO BE MADE CONTINUOUS WITHOUT SPLICES.
4. CABLE WITH DAMAGED INSULATION, OR HAS BEEN CRIMPED OR BENT BEYOND THE MINIMUM BEND RADIUS MUST BE REPLACED AT NO ADDITIONAL COST.
5. THE MINIMUM CABLE BEND RADIUS SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS DURING INSTALLATION.
6. MOUNT THE PENDANT DOME HOUSING AT A 45° ANGLE AT THE REQUIRED HEIGHT. ANGLE AND HEIGHT MAY BE ADJUSTED BY THE ENGINEER TO AVOID WELDS, AND SIGNAL APPURTENANCES AND TO IMPROVE CAMERA VIEWS.
7. ADJUST CAMERA INSIDE THE PENDANT DOME HOUSING AS SHOWN. ENSURE THAT THE CAMERA IS MOUNTED AT A 0° TILT ANGLE.
8. AT CABLE END CONNECTOR LOCATION PROVIDE A SECURE CONNECTION USING CONNECTOR PARTS SPECIFIED. AFTER CONNECTION IS MADE COVER SPLICE WITH WATER PROOF HEAT SHRINK TUBING. PROVIDE A STRAIN RELIEF CABLE AS NECESSARY.
9. CAT-6a TOTAL CABLE LENGTH SHALL NOT EXCEED 325 FEET FROM THE ETHERNET SWITCH TO THE PTZ CAMERA. WHEN MOUNTED ON THE SAME POLE WITH WIRELESS LIGHTING CONTROL GATEWAY, MOUNT THE PTZ CAMERA BELOW THE GATEWAY WITH 2 FEET MIN. OF SEPARATION BETWEEN THE TOP OF THE PTZ MOUNTING BRACKET AND THE BOTTOM OF THE GATEWAY ENCLOSURE, OR AT THE ENGINEER'S DIRECTION.



SWITCH COMMUNICATIONS WIRING DIAGRAM

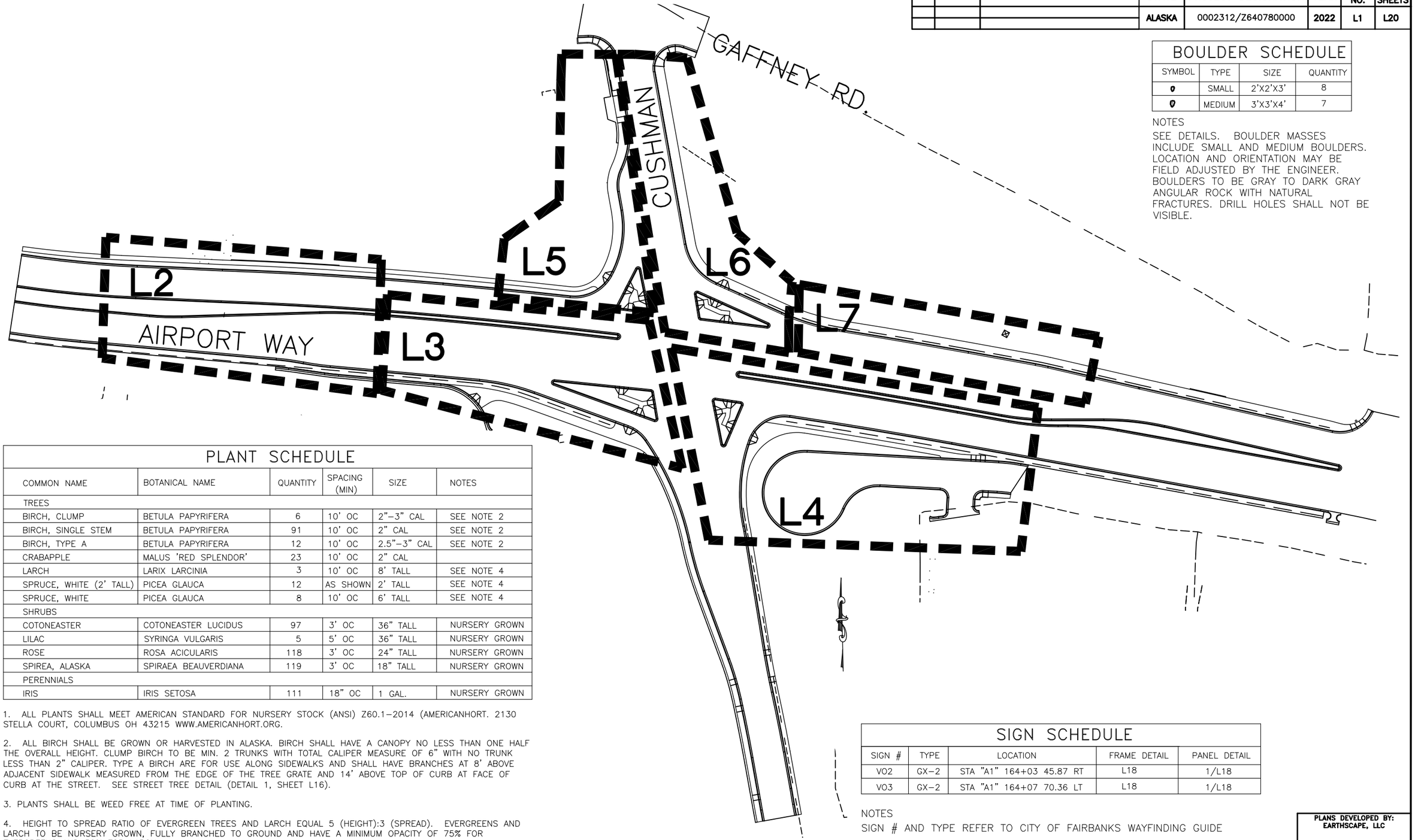
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

PAN, TILT, ZOOM (PTZ) CAMERA DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002312/Z640780000	2022	L1	L20



BOULDER SCHEDULE

SYMBOL	TYPE	SIZE	QUANTITY
●	SMALL	2'X2'X3'	8
●	MEDIUM	3'X3'X4'	7

NOTES

SEE DETAILS. BOULDER MASSES INCLUDE SMALL AND MEDIUM BOULDERS. LOCATION AND ORIENTATION MAY BE FIELD ADJUSTED BY THE ENGINEER. BOULDERS TO BE GRAY TO DARK GRAY ANGULAR ROCK WITH NATURAL FRACTURES. DRILL HOLES SHALL NOT BE VISIBLE.

PLANT SCHEDULE

COMMON NAME	BOTANICAL NAME	QUANTITY	SPACING (MIN)	SIZE	NOTES
TREES					
BIRCH, CLUMP	BETULA PAPYRIFERA	6	10' OC	2"–3" CAL	SEE NOTE 2
BIRCH, SINGLE STEM	BETULA PAPYRIFERA	91	10' OC	2" CAL	SEE NOTE 2
BIRCH, TYPE A	BETULA PAPYRIFERA	12	10' OC	2.5"–3" CAL	SEE NOTE 2
CRABAPPLE	MALUS 'RED SPLENDOR'	23	10' OC	2" CAL	
LARCH	LARIX LARCINIA	3	10' OC	8' TALL	SEE NOTE 4
SPRUCE, WHITE (2' TALL)	PICEA GLAUCA	12	AS SHOWN	2' TALL	SEE NOTE 4
SPRUCE, WHITE	PICEA GLAUCA	8	10' OC	6' TALL	SEE NOTE 4
SHRUBS					
COTONEASTER	COTONEASTER LUCIDUS	97	3' OC	36" TALL	NURSERY GROWN
LILAC	SYRINGA VULGARIS	5	5' OC	36" TALL	NURSERY GROWN
ROSE	ROSA ACICULARIS	118	3' OC	24" TALL	NURSERY GROWN
SPIREA, ALASKA	SPIRAEA BEAUVERDIANA	119	3' OC	18" TALL	NURSERY GROWN
PERENNIALS					
IRIS	IRIS SETOSA	111	18" OC	1 GAL.	NURSERY GROWN

1. ALL PLANTS SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI) Z60.1–2014 (AMERICANHORT. 2130 STELLA COURT, COLUMBUS OH 43215 WWW.AMERICANHORT.ORG.

2. ALL BIRCH SHALL BE GROWN OR HARVESTED IN ALASKA. BIRCH SHALL HAVE A CANOPY NO LESS THAN ONE HALF THE OVERALL HEIGHT. CLUMP BIRCH TO BE MIN. 2 TRUNKS WITH TOTAL CALIPER MEASURE OF 6" WITH NO TRUNK LESS THAN 2" CALIPER. TYPE A BIRCH ARE FOR USE ALONG SIDEWALKS AND SHALL HAVE BRANCHES AT 8' ABOVE ADJACENT SIDEWALK MEASURED FROM THE EDGE OF THE TREE GRATE AND 14' ABOVE TOP OF CURB AT FACE OF CURB AT THE STREET. SEE STREET TREE DETAIL (DETAIL 1, SHEET L16).

3. PLANTS SHALL BE WEED FREE AT TIME OF PLANTING.

4. HEIGHT TO SPREAD RATIO OF EVERGREEN TREES AND LARCH EQUAL 5 (HEIGHT):3 (SPREAD). EVERGREENS AND LARCH TO BE NURSERY GROWN, FULLY BRANCHED TO GROUND AND HAVE A MINIMUM OPACITY OF 75% FOR EVERGREENS AND 50% FOR LARCH.

5. MULCH CONTINUOUSLY THROUGHOUT ALL PLANTING BEDS WITH 3" DEPTH SHREDDED BARK MULCH. SEE SPECIFICATIONS FOR MULCH, MULCH SHALL BIODEGRADE WITHIN 3 YEARS; KEEP MULCH 6" AWAY FROM STEMS AND TRUNKS. TRANSITION MULCH TO ADJACENT SURFACES. SEE MULCH LIMITS DETAIL.

6. SEE SHEET L–10 FOR TOPSOIL AND SEED INFORMATION.

7. SEE PLANTING DETAILS FOR ADDITIONAL INFORMATION.

SIGN SCHEDULE

SIGN #	TYPE	LOCATION	FRAME DETAIL	PANEL DETAIL
VO2	GX–2	STA "A1" 164+03 45.87 RT	L18	1/L18
VO3	GX–2	STA "A1" 164+07 70.36 LT	L18	1/L18

NOTES

SIGN # AND TYPE REFER TO CITY OF FAIRBANKS WAYFINDING GUIDE

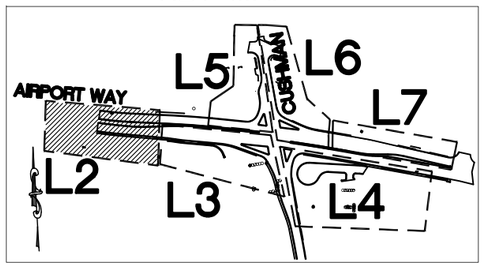
LANDSCAPE PLAN

PLANS DEVELOPED BY:
EARTHSCAPE, LLC

12/22/22

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346–2373CERT. OF AUTH. NO. AECL 1102
P:\Airport Cushman\Landscape– airport way cushman\L–1 98.1–mdesign airport cushman–Layout1 Wed, Dec/21/22 01:19pm
(Elise) KEY: 00385

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002312/Z640780000	2022	L2	L20



NOTE:
1. SEED ALL DISTURBED AREAS
2. SEE CIVIL FOR CUT AND FILL LIMITS

PLANS DEVELOPED BY: EARTHSCAPE, LLC

12/12/22

LANDSCAPE PLAN

(Elise) KE#: 00385

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
P:\Airport Cushman\Landscape- airport way cushman\L-1 95.1-redesign airport cushman-Layout1 Wed, Dec/21/22 01:19pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002312/Z640780000	2022	L3	L20

MATCH LINE STA "A1" 158+10 SEE SHEET L2

159+00

160+00

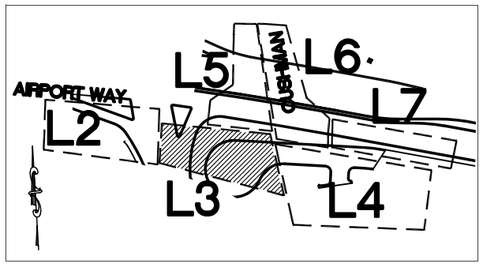
161+00

SCHEDULE B SEED MIX

NOTE:
1. SEED ALL DISTURBED AREAS
2. SEE CIVIL FOR CUT AND FILL LIMITS

(6) BIRCH

KEY MAP



PLANS DEVELOPED BY:
EARTHSCAPE, LLC

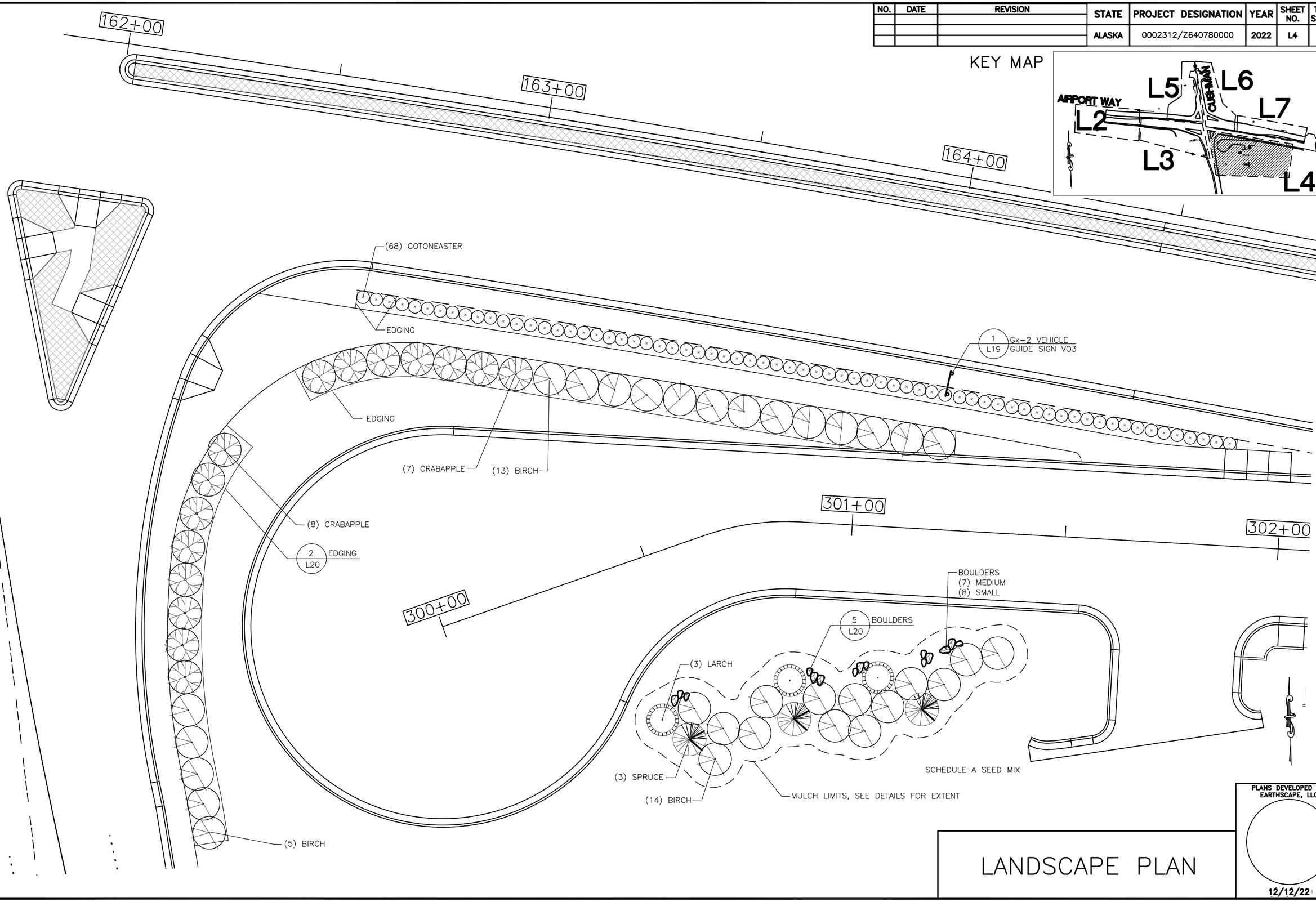
12/12/22

LANDSCAPE PLAN

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
P:\Airport Cadmon\Landscape- airport way cadmon\L-1 95.1-redesign airport cadmon-Layout1 Wed, Dec/21/22 01:20pm
(Elise) KEY: 00385

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002312/Z640780000	2022	L4	L20

KEY MAP



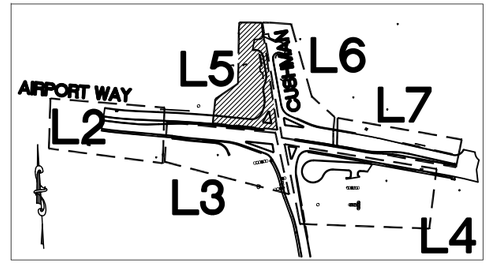
LANDSCAPE PLAN

PLANS DEVELOPED BY:
EARTHSCAPE, LLC

12/12/22

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002312/Z640780000	2022	L5	L20

KEY MAP



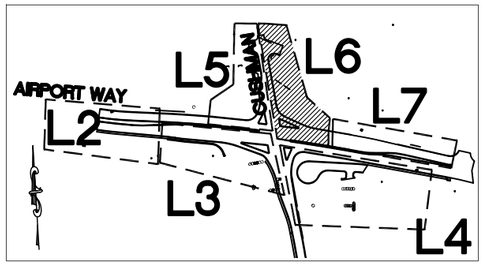
(118) ROSE
(6) CLUMP BIRCH
(42) BIRCH
2 / L20 EDGING
(6) SPIREA
(10Z SPIREA
(12) SPIREA
(13) SPIREA
(14) SPIREA
(13) SPIREA
(10) SPIREA
(6) SPIREA
(7) SPIREA
TOPSOIL & SEED ALL DISTURBED AREAS OUTSIDE PLANTING BEDS
SCHEDULE A
(111) IRIS
1 / L11 WEST PLAZA
1 / L15 PEDESTRIAN FENCE
(6) 2' TALL SPRUCE
3 / L18 (6) PLANTERS
(6) BIRCH/TYPE A
1 / L17 STREET TREE PLANTING
1 / L16 TREE GRATE
3 / L18 (5) BOLLARDS

LANDSCAPE PLAN

PLANS DEVELOPED BY:
EARTHSCAPE, LLC

12/12/22

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002312/Z640780000	2022	L6	L20



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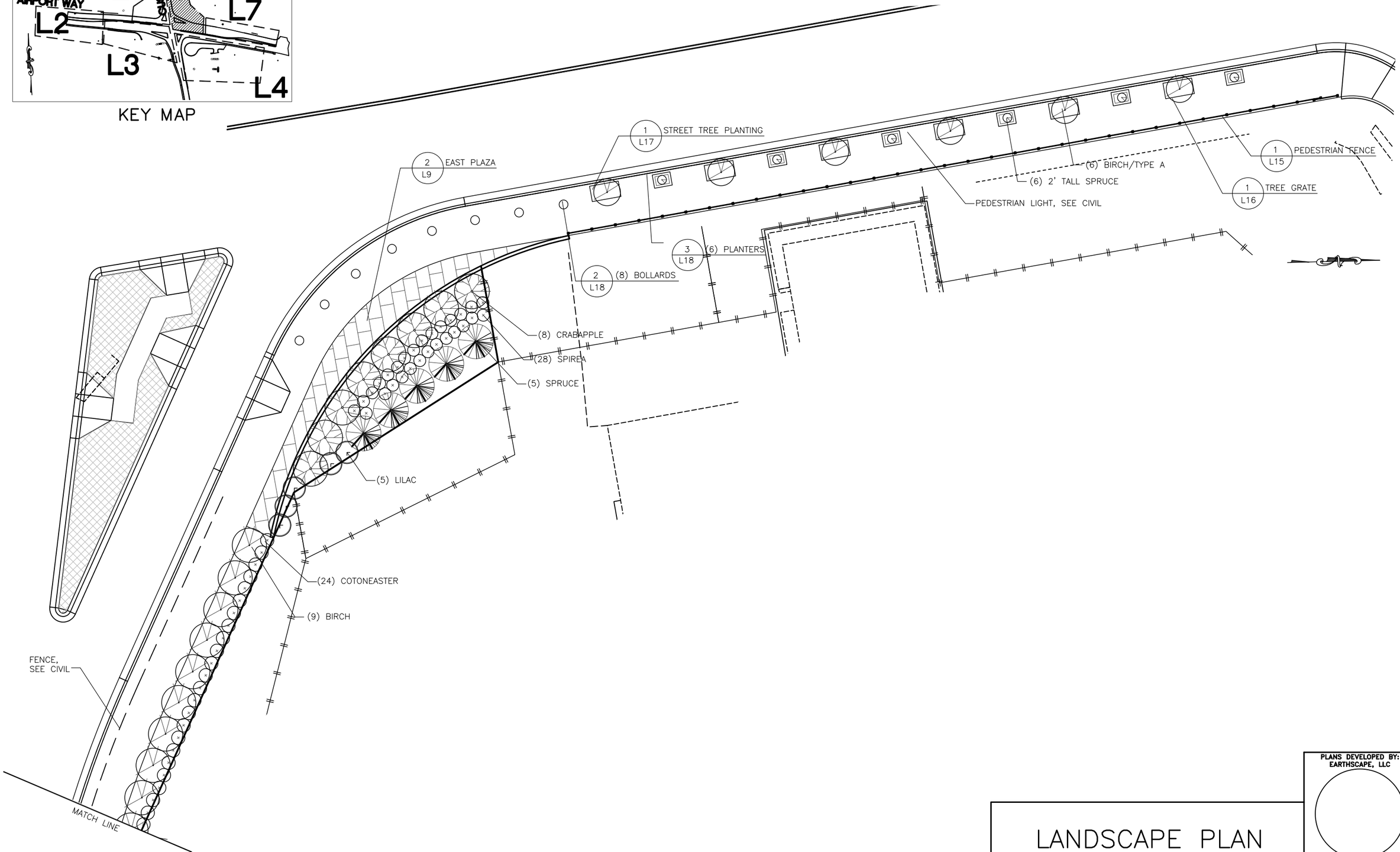


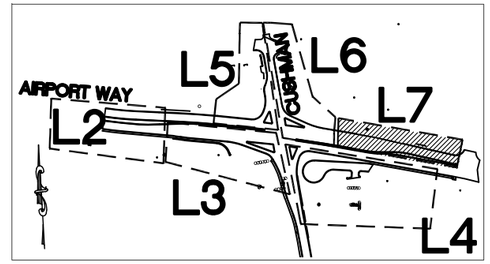
LANDSCAPE PLAN

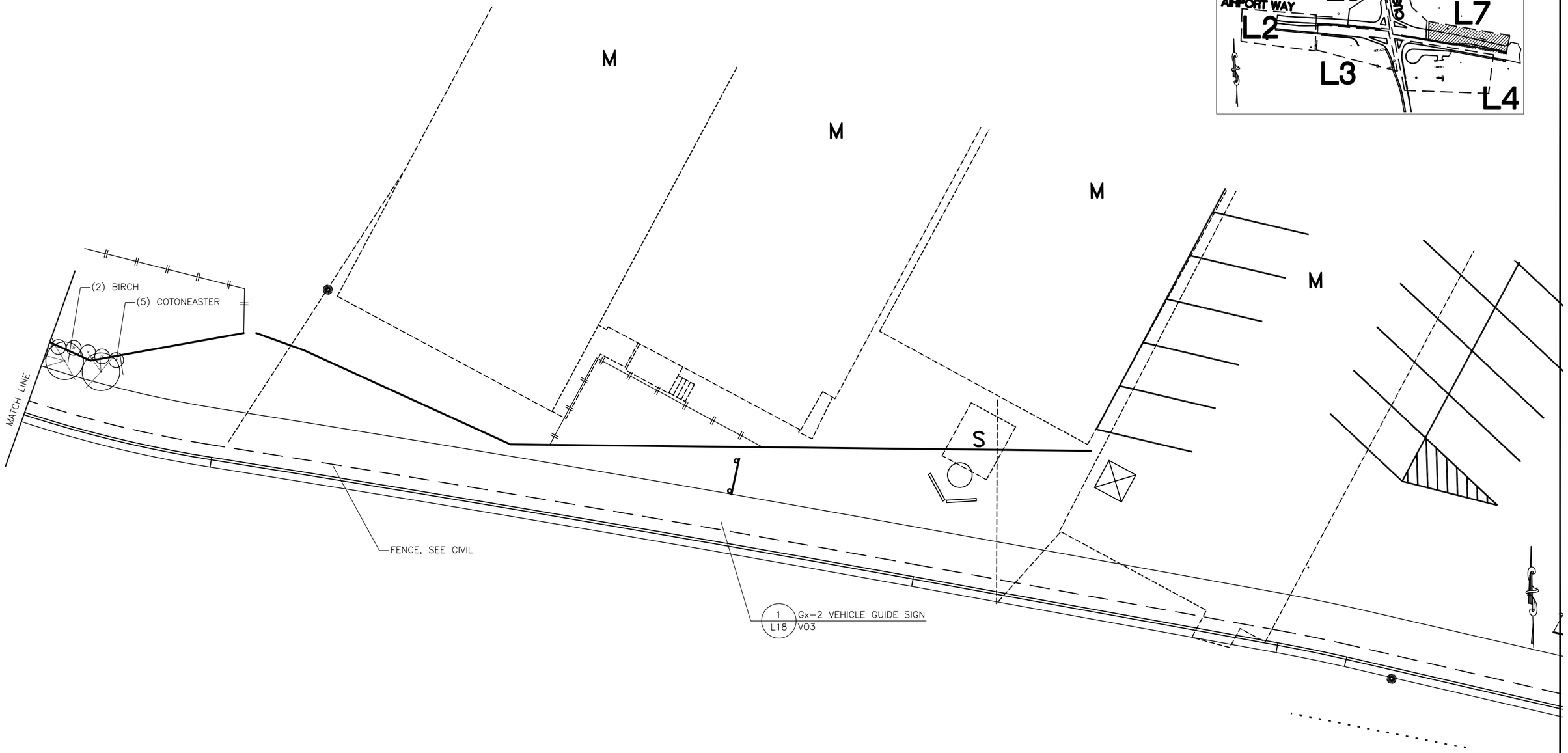
PLANS DEVELOPED BY:
EARTHSCAPE, LLC

12/12/22

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002312/Z640780000	2022	L7	L20

KEY MAP





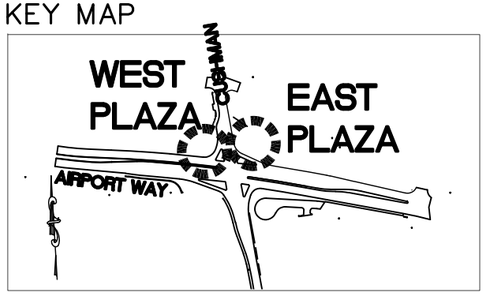
LANDSCAPE PLAN

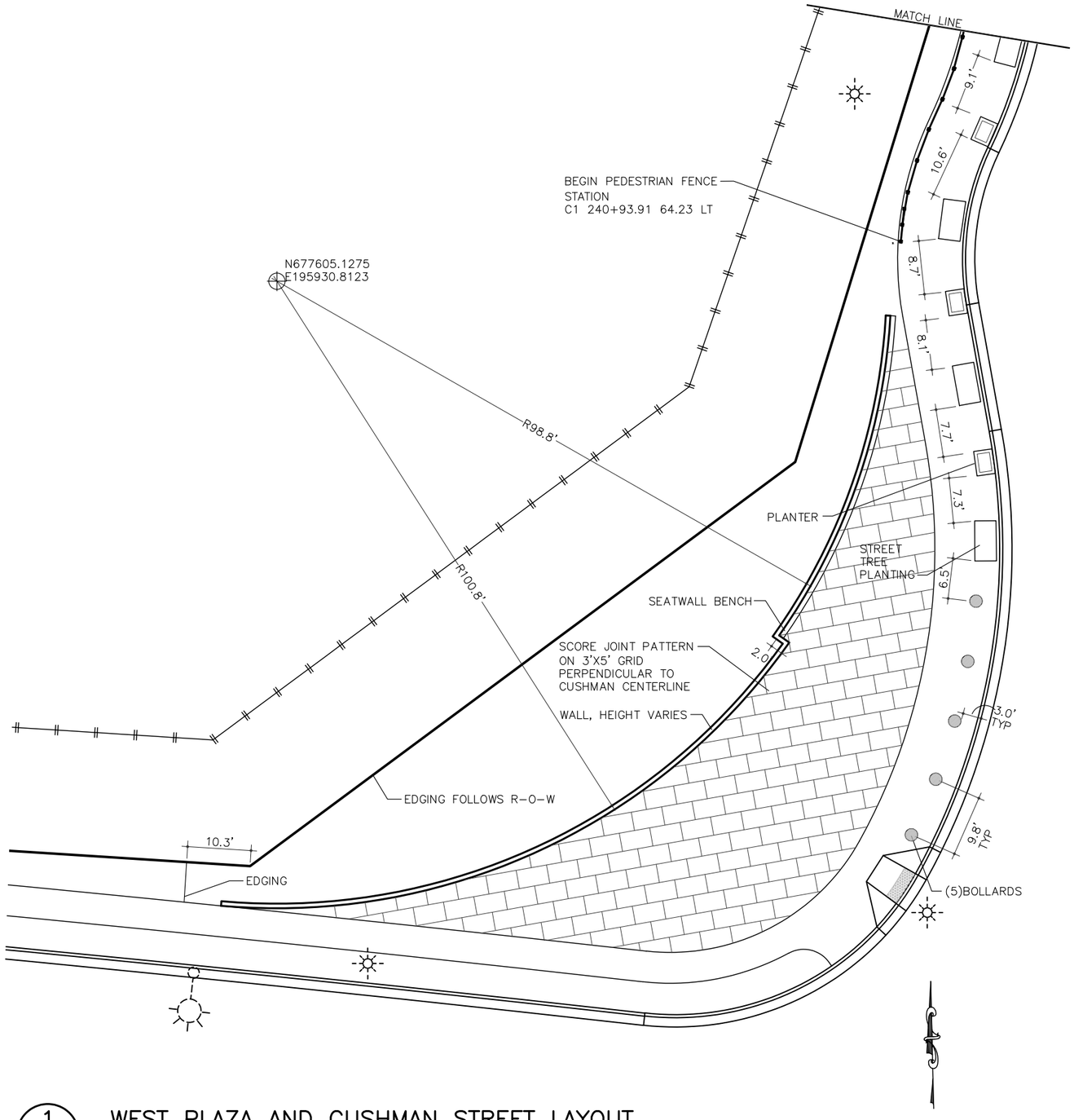
PLANS DEVELOPED BY:
EARTHSCAPE, LLC

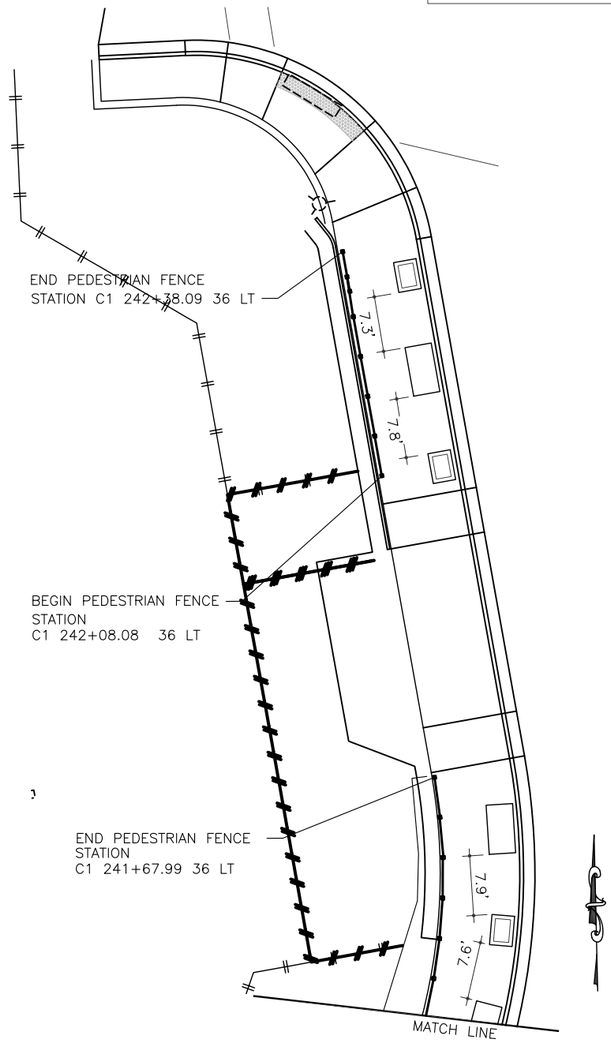
12/12/22

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002312/Z640780000	2022	L8	L20

KEY MAP







1/L8 WEST PLAZA AND CUSHMAN STREET LAYOUT

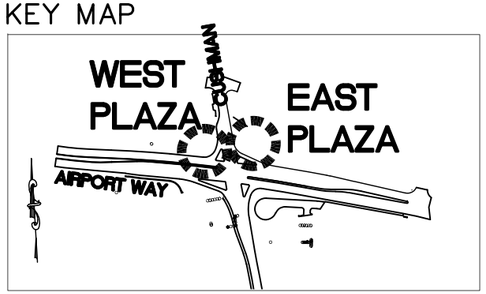
LANDSCAPE PLAN

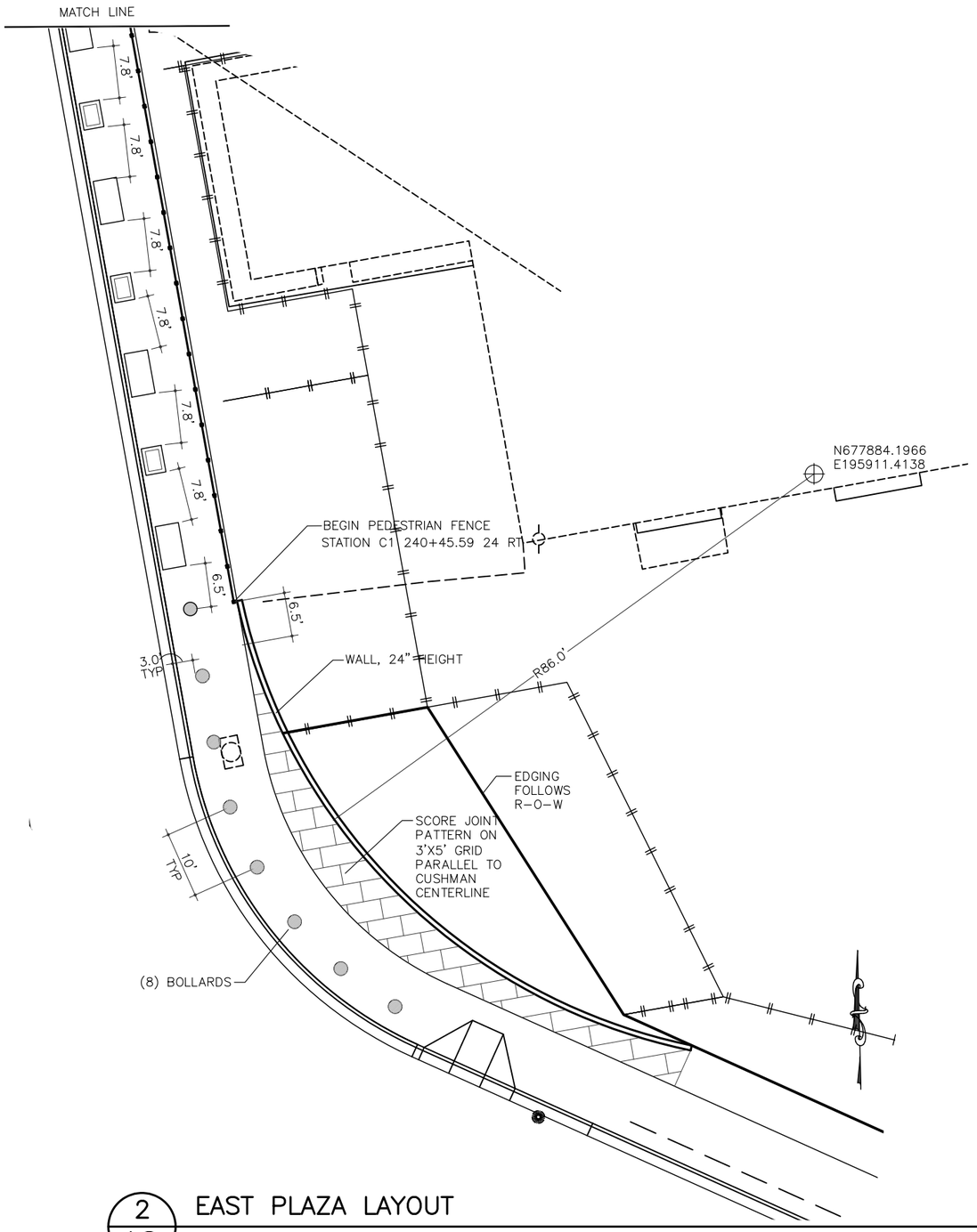
PLANS DEVELOPED BY:
EARTHSCAPE, LLC

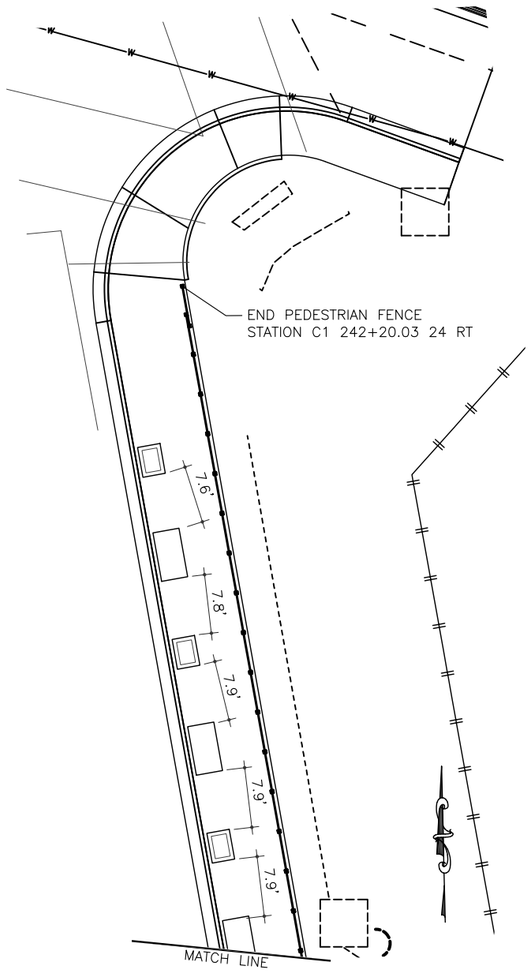
12/12/22

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002312/Z640780000	2022	L9	L20

KEY MAP







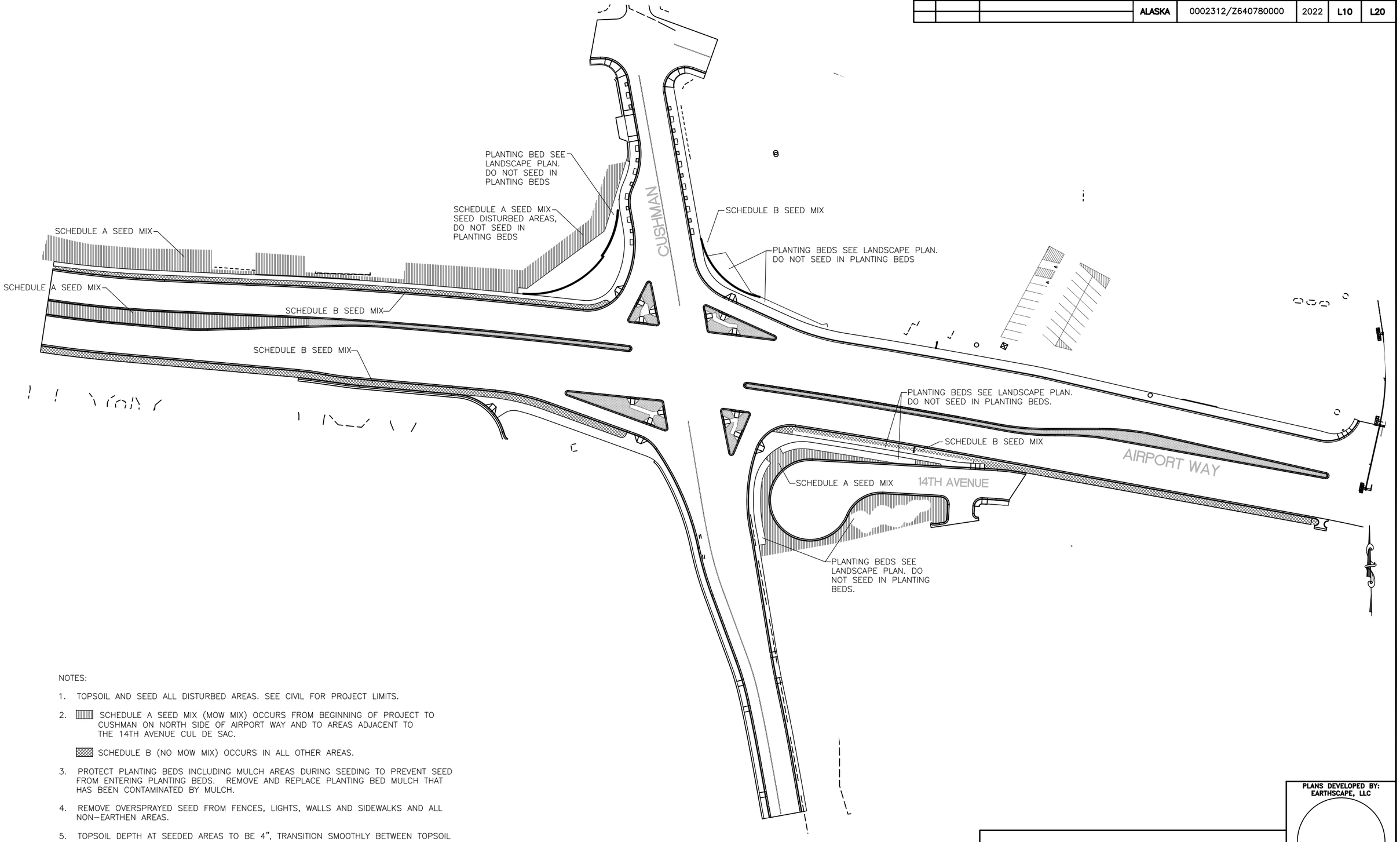
2 / L8 EAST PLAZA LAYOUT

LANDSCAPE PLAN

PLANS DEVELOPED BY: EARTHSCAPE, LLC

12/12/22

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002312/Z640780000	2022	L10	L20



NOTES:

1. TOPSOIL AND SEED ALL DISTURBED AREAS. SEE CIVIL FOR PROJECT LIMITS.
2. SCHEDULE A SEED MIX (MOW MIX) OCCURS FROM BEGINNING OF PROJECT TO CUSHMAN ON NORTH SIDE OF AIRPORT WAY AND TO AREAS ADJACENT TO THE 14TH AVENUE CUL DE SAC.

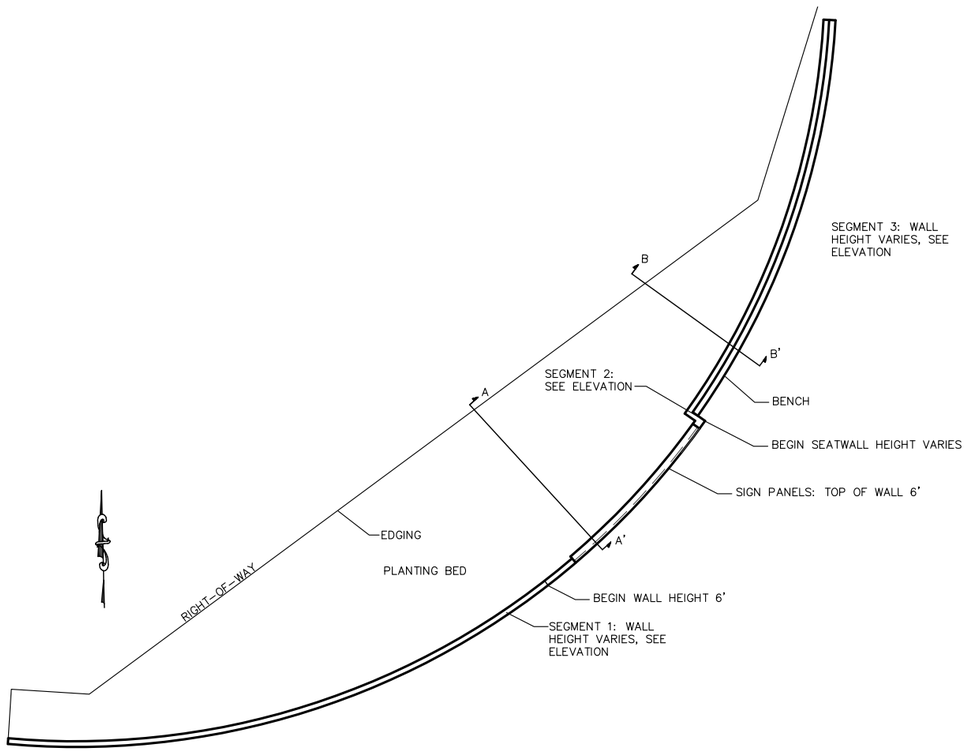
   SCHEDULE B (NO MOW MIX) OCCURS IN ALL OTHER AREAS.
3. PROTECT PLANTING BEDS INCLUDING MULCH AREAS DURING SEEDING TO PREVENT SEED FROM ENTERING PLANTING BEDS. REMOVE AND REPLACE PLANTING BED MULCH THAT HAS BEEN CONTAMINATED BY MULCH.
4. REMOVE OVERSPRAYED SEED FROM FENCES, LIGHTS, WALLS AND SIDEWALKS AND ALL NON-EARTHEN AREAS.
5. TOPSOIL DEPTH AT SEEDED AREAS TO BE 4", TRANSITION SMOOTHLY BETWEEN TOPSOIL AND ADJACENT AREAS.

SEEDING PLAN

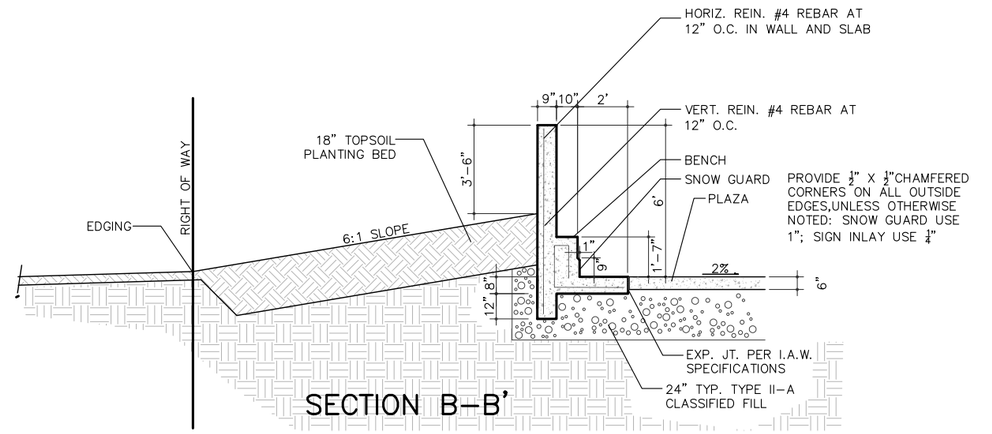
PLANS DEVELOPED BY: EARTHSCAPE, LLC

12/12/22

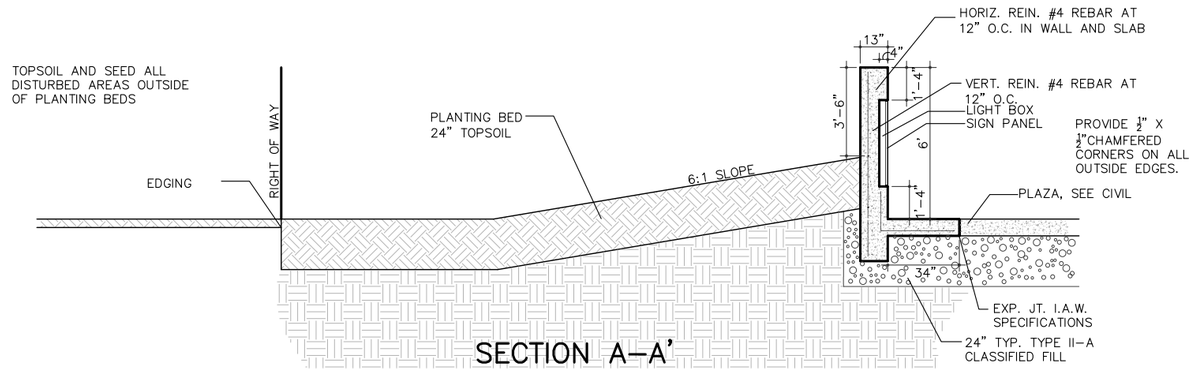
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	000231[illegible]0780000	2022	L11	L20



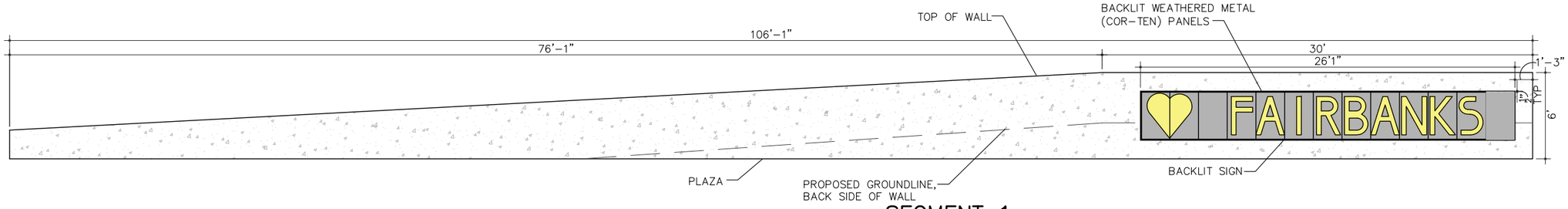
PLAN VIEW



SECTION B-B'

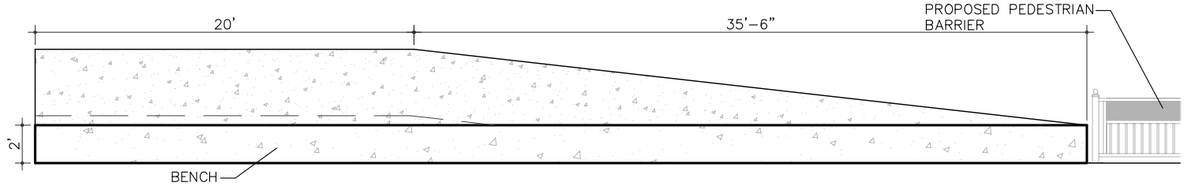


SECTION A-A'



SEGMENT 1

SEGMENT 2



SEGMENT 3

1
L11

WEST PLAZA ELEVATION AND CROSS SECTIONS

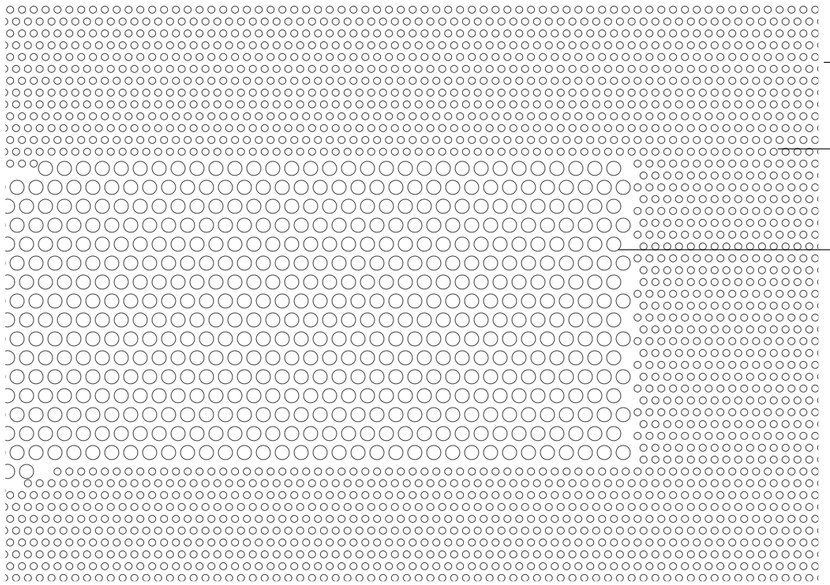
LANDSCAPE DETAILS

PLANS DEVELOPED BY: EARTHSCAPE, LLC

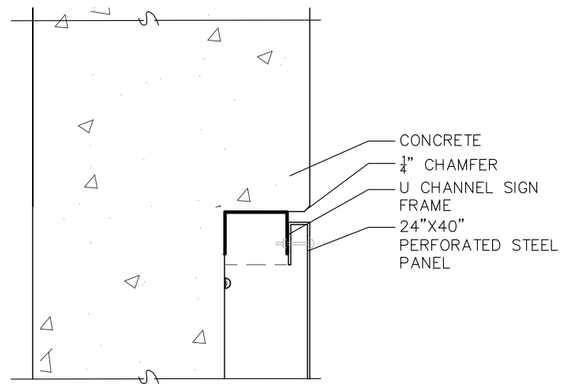
12/12/22

PLANS DEVELOPED BY: EARTHSCAPE, LLC. CERT AUTHORIZATION NO. AECL1007, 329 F ST SUITE 222, ANCHORAGE AK 99501 (907)279-2688
P:\Airport Cushman\Landscape- airport way cushman\L-1 95.1-redesign airport cushman-Layout1 Wed, Dec/21/22 01:20pm

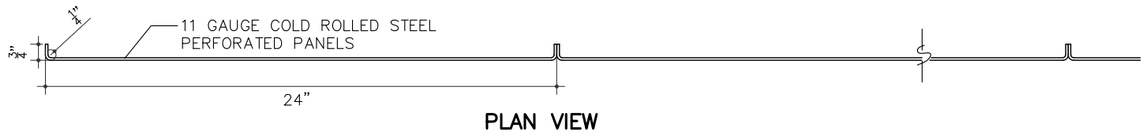
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	L12	L20



PERFORATED PANEL LETTERING DETAIL
ACTUAL SIZE HOLE PATTERN & SIZES (FOR 11X17 PLOTS)

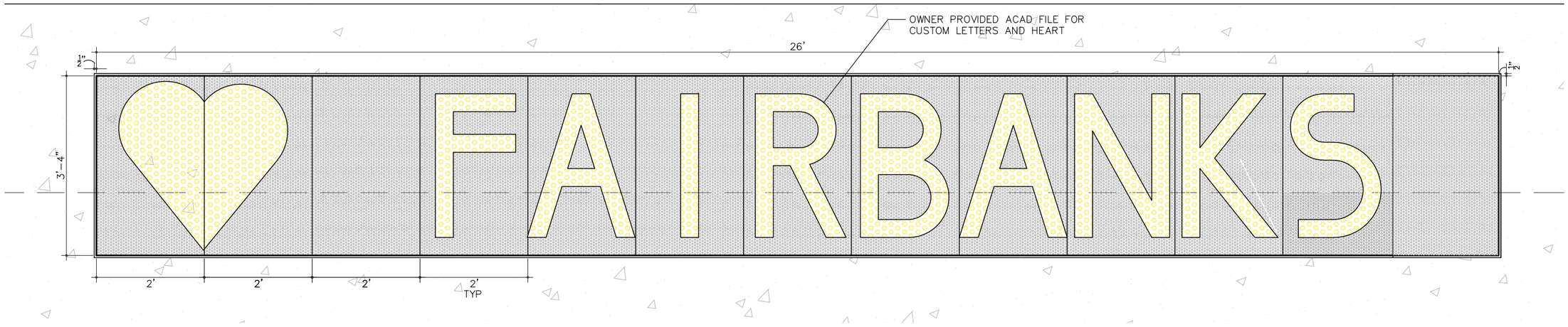


SECTION



PLAN VIEW

PERFORATED PANEL DETAIL



1 / L12 WEST PLAZA SIGN DETAILS

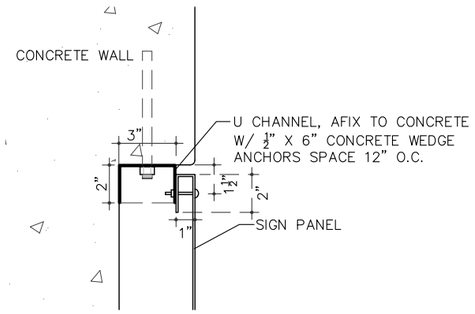
PLANS DEVELOPED BY:
EARTHSCAPE, LLC

LANDSCAPE DETAILS

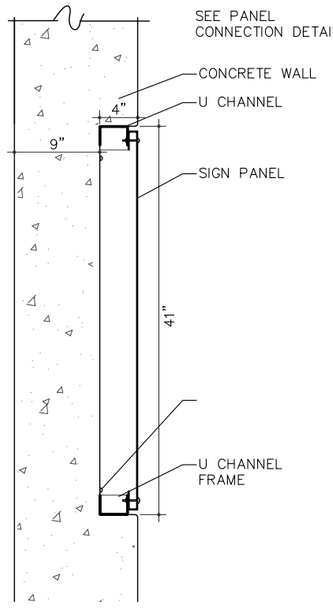
12/12/22

PLANS DEVELOPED BY: EARTHSCAPE, LLC, CERT AUTHORIZATION NO. AECL1007, 329 F ST SUITE 222, ANCHORAGE AK 99501 (907)279-2688

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	L13	L20



PANEL CONNECTION DETAIL



LIGHT BOX DETAILS

LIGHT BOX DETAILS

1 / L13 WEST PLAZA SIGN DETAILS

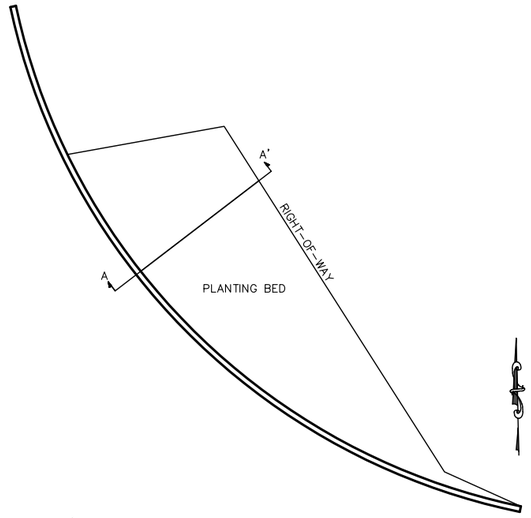
PLANS DEVELOPED BY:
EARTHSCAPE, LLC

LANDSCAPE DETAILS

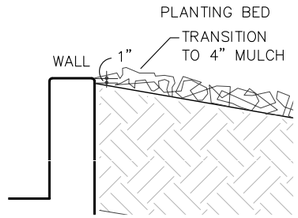
12/12/22

PLANS DEVELOPED BY: EARTHSCAPE, LLC CERT AUTHORIZATION NO. AECL1007 329 F ST SUITE 222, ANCHORAGE AK 99501 (907)279-2688

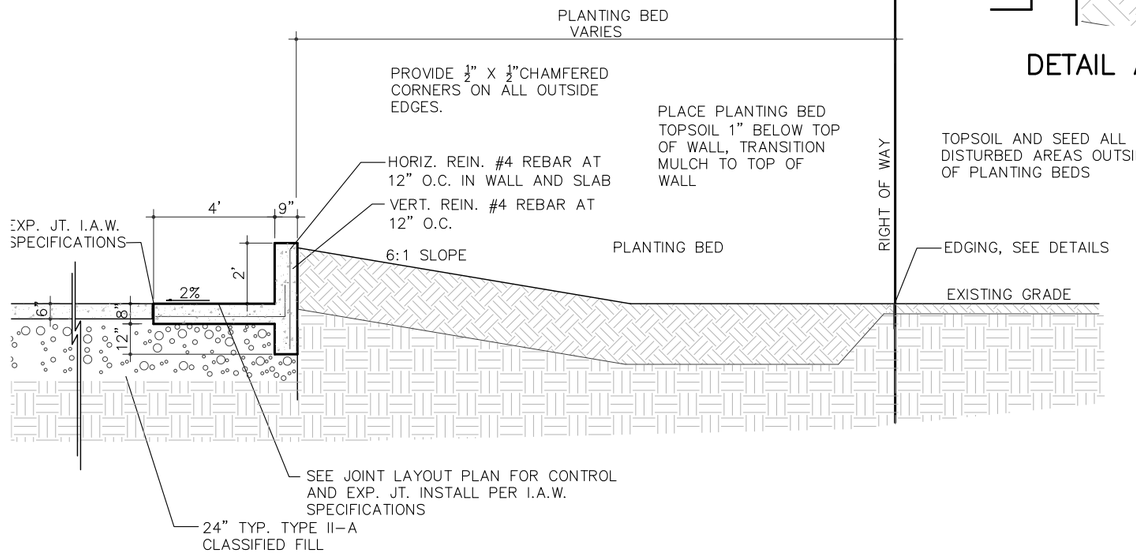
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	L14	L20



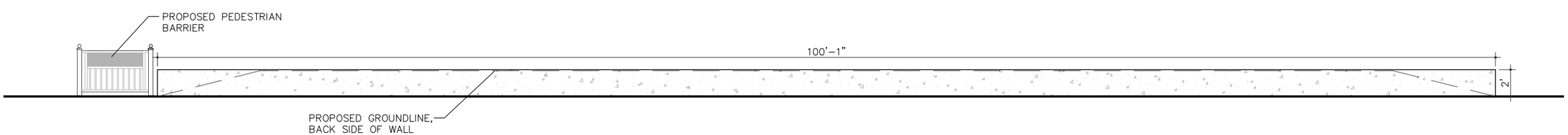
PLAN VIEW



DETAIL AT WALL



SECTION A–A'



1 / L14 EAST PLAZA ELEVATION AND CROSS SECTION

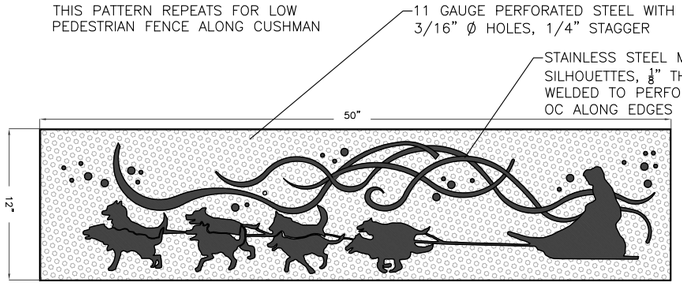
PLANS DEVELOPED BY: EARTHSCAPE, LLC
CERT AUTHORIZATION NO. AECL1007, 329 F ST SUITE 222, ANCHORAGE AK 99501 (907)279-2688
P:\Airport Cushman\Landscape- airport way cushman\L-1 95.1-redesign airport cushman-Layout1 Wed, Dec/21/22 01:27pm

PLANS DEVELOPED BY: EARTHSCAPE, LLC

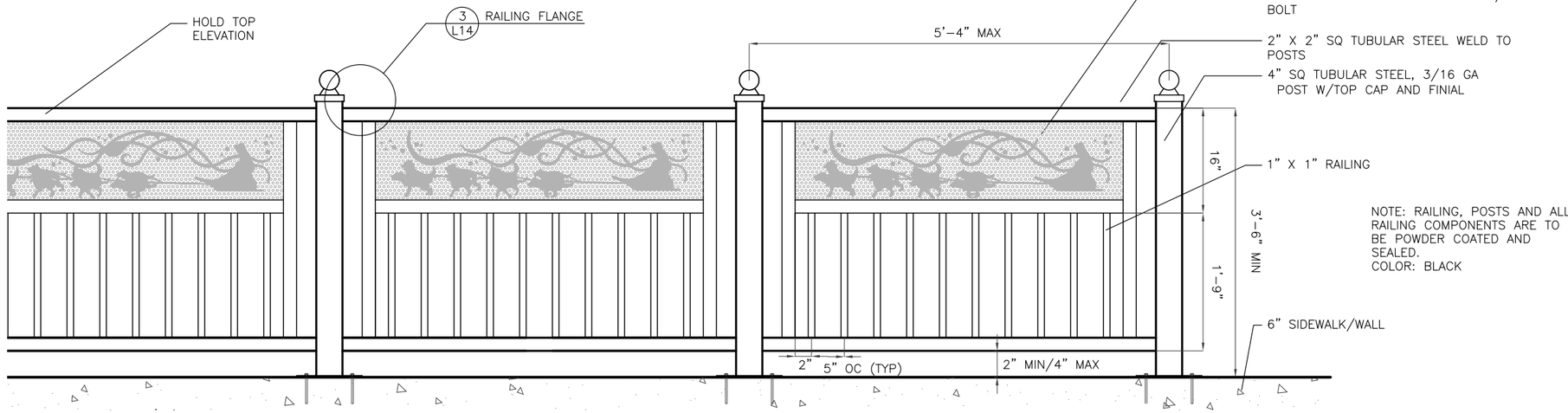
LANDSCAPE DETAILS

12/12/22

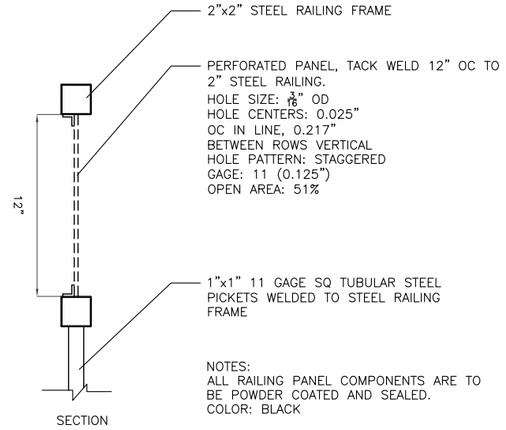
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	L15	L20



A. DECORATIVE PANEL ARTWORK

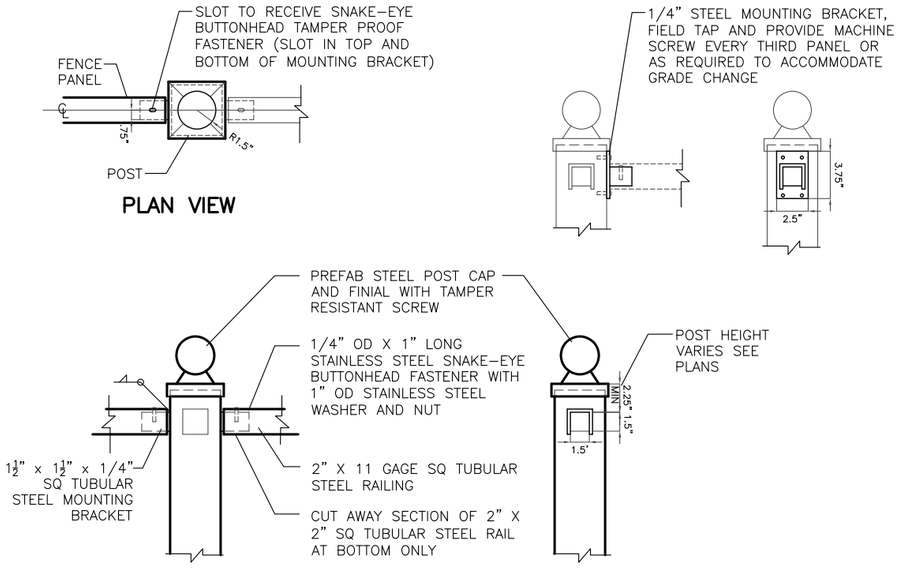


NOTE: RAILING, POSTS AND ALL RAILING COMPONENTS ARE TO BE POWDER COATED AND SEALED.
COLOR: BLACK

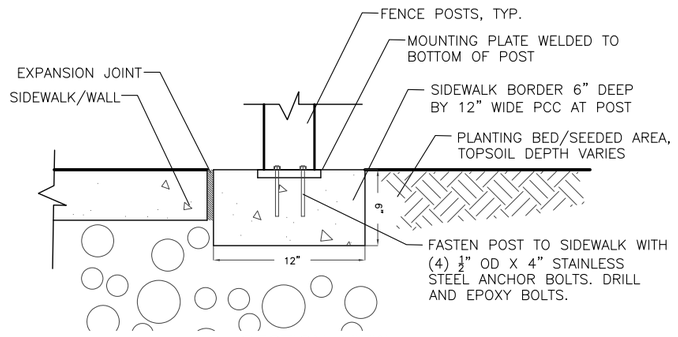


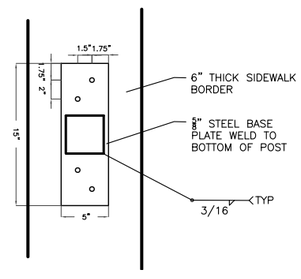
1 / L15 PEDESTRIAN FENCE DETAIL

2 / L15 FENCE PANEL CONNECTION



3 / L15 FENCE RAILING FLANGE



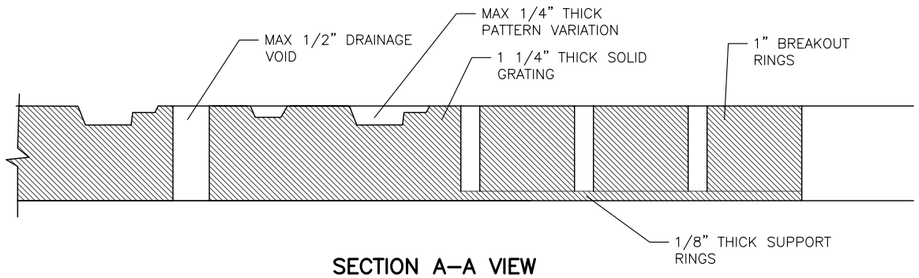


4 / L15 FENCE POST CONNECTION

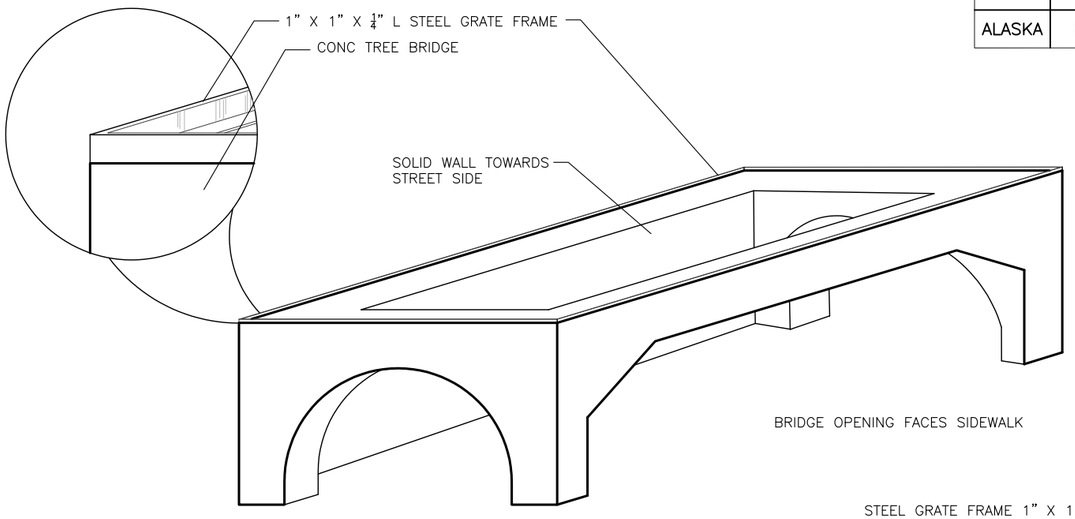
LANDSCAPE DETAILS

PLANS DEVELOPED BY: EARTHSCAPE, LLC, CERT AUTHORIZATION NO. AECL1007, 329 F ST SUITE 222, ANCHORAGE AK 99501 (907)279-2688
P:\Airport Cushman\Landscape- airport way cushman\L-2 95.1-redesign airport cushman-Layout1 Wed, Dec/21/22 01:13pm

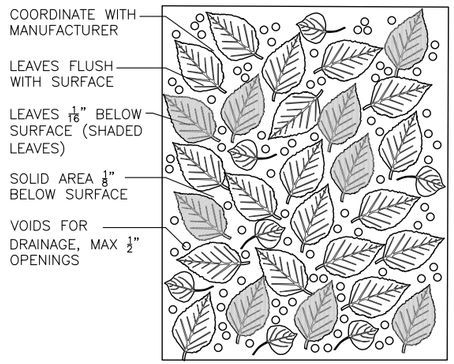
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	L16	L20



SECTION A–A VIEW

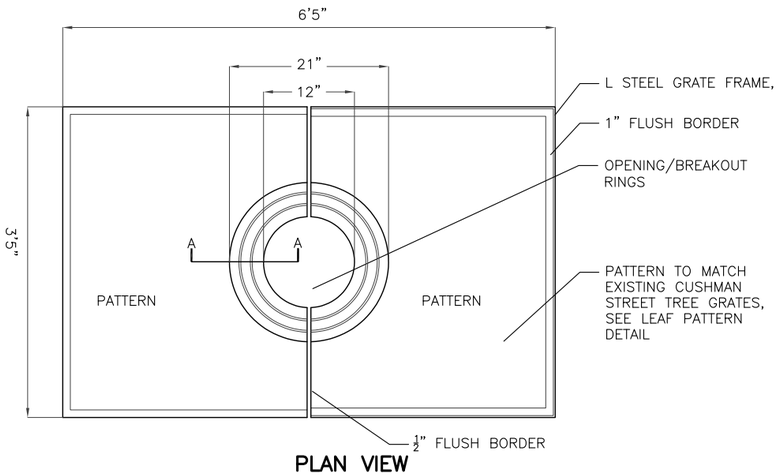


ISOMETRIC CONCRETE TREE BRIDGE



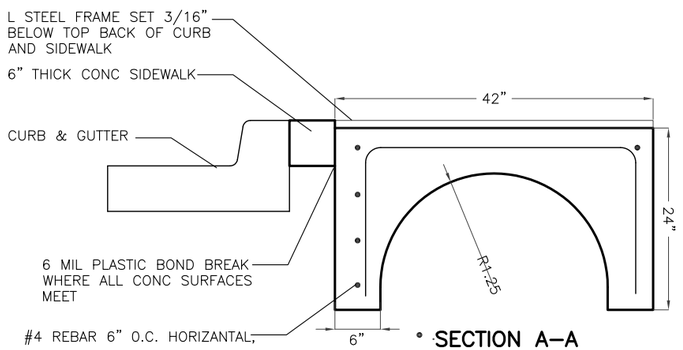
LEAF PATTERN DETAIL

NOTES:
1. CAST IN TWO PIECES, EACH 1 1/4" THICK
2. NO OPENINGS > 1/2"
3. BREAKOUT RINGS AS SHOWN
4. ARTWORK TO MATCH EXISTING TREE GRATES ON CUSHMAN, ACAD PATTERN AVAILABLE FROM OWNER

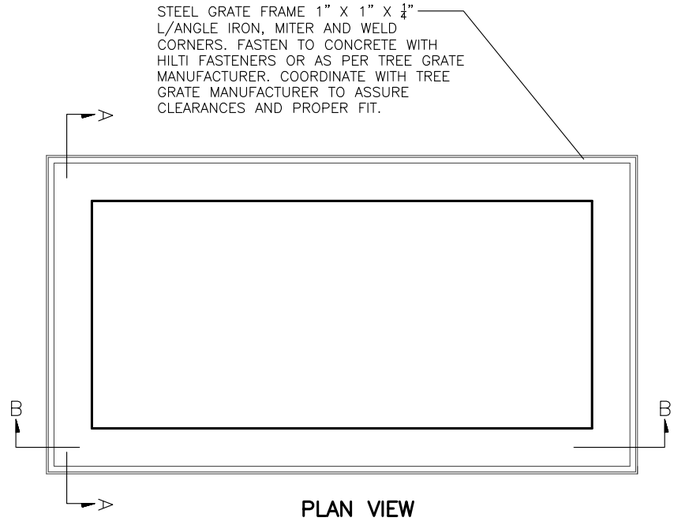


PLAN VIEW

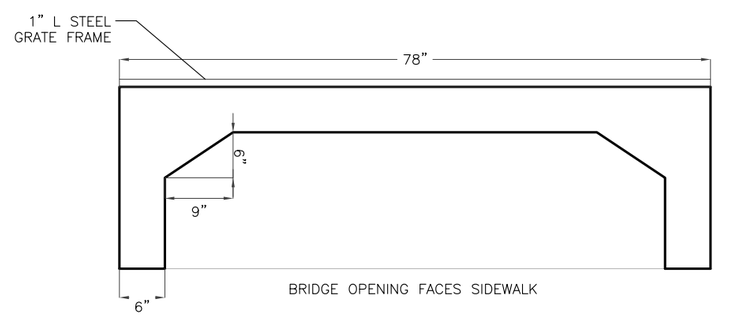
1 L16 TREE GRATE DETAIL



SECTION A–A



PLAN VIEW

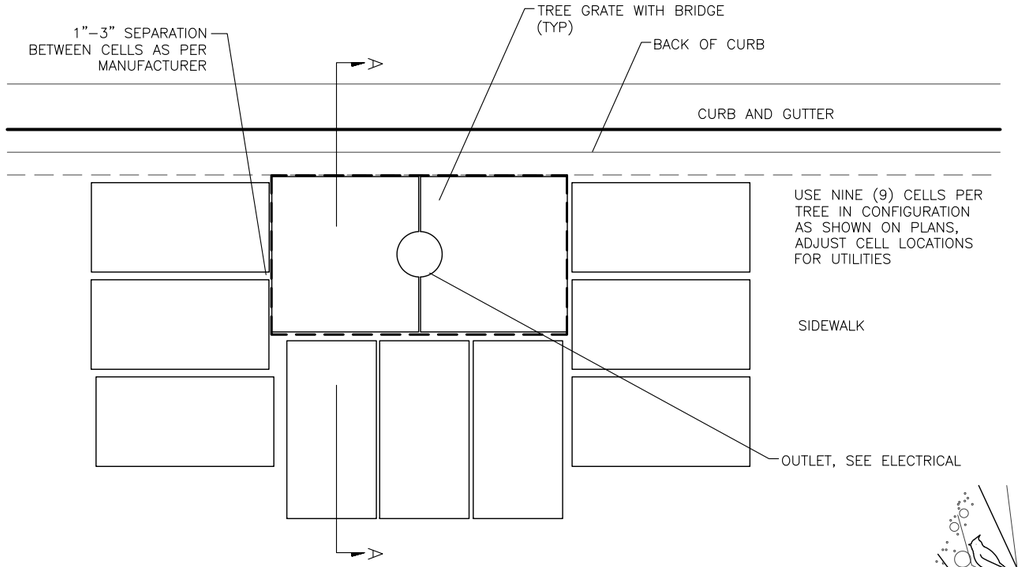


SECTION B–B

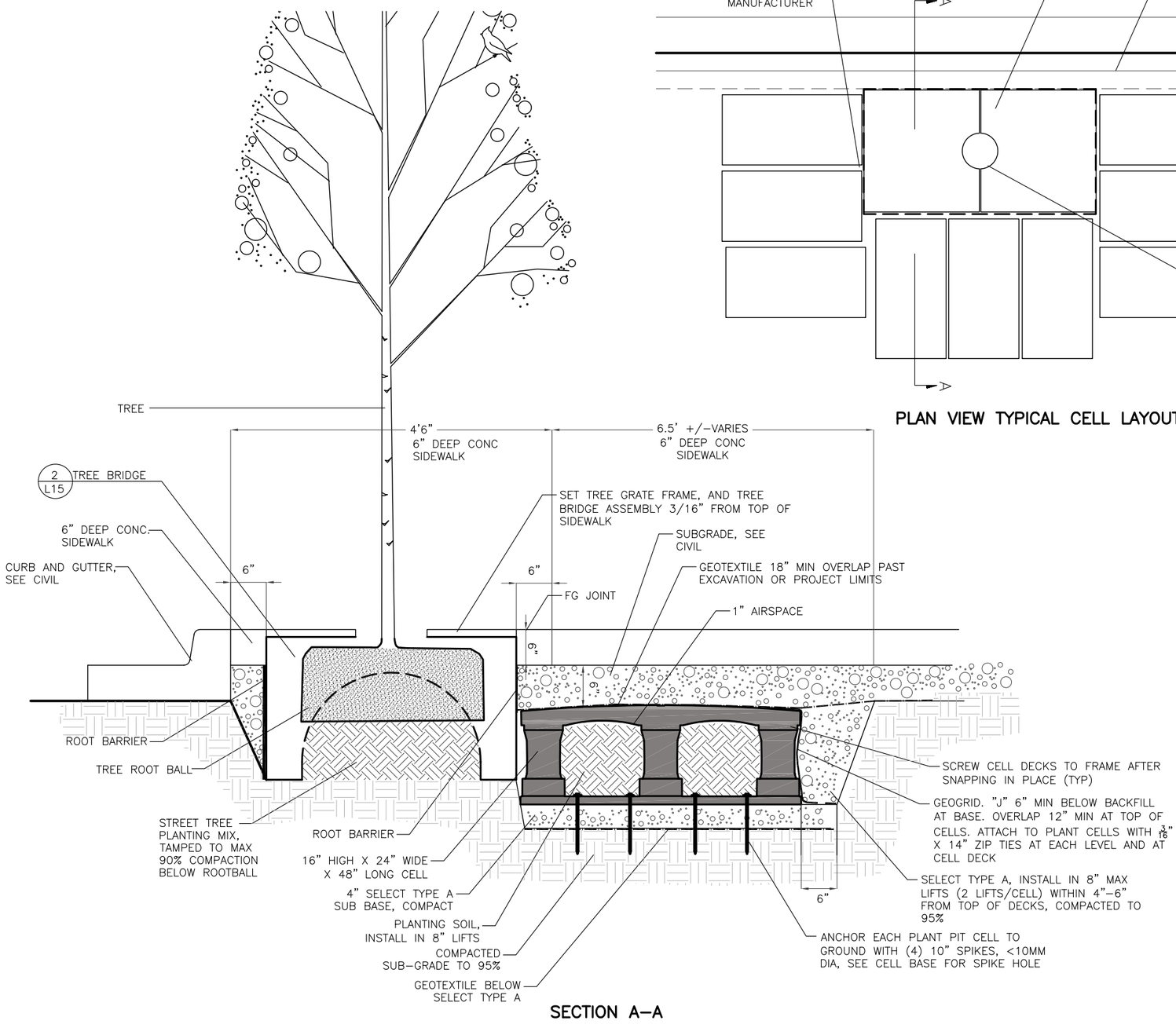
2 L16 TREE BRIDGE AND GRATE FRAME

LANDSCAPE DETAILS

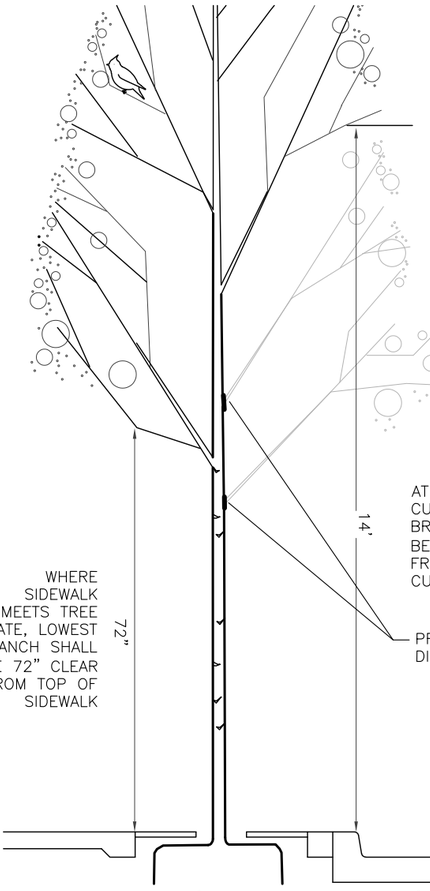
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	L17	L20



PLAN VIEW TYPICAL CELL LAYOUT



SECTION A–A

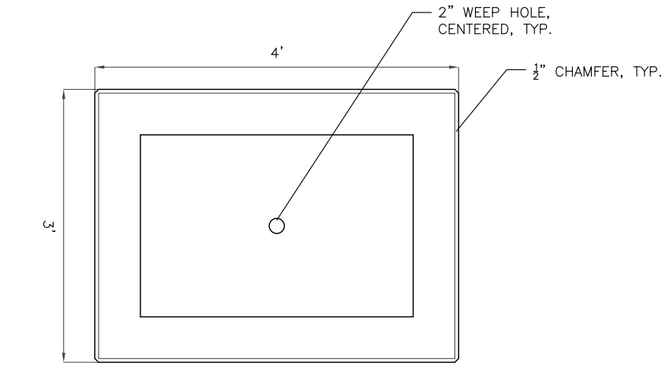


STREET TREE (BIRCH, TYPE A)

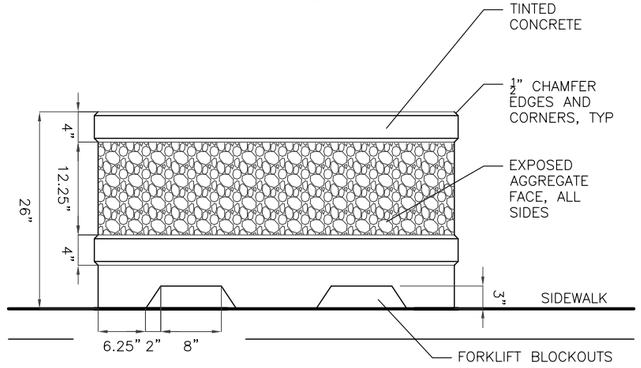
1 L17 STREET TREE PLANTING DETAIL

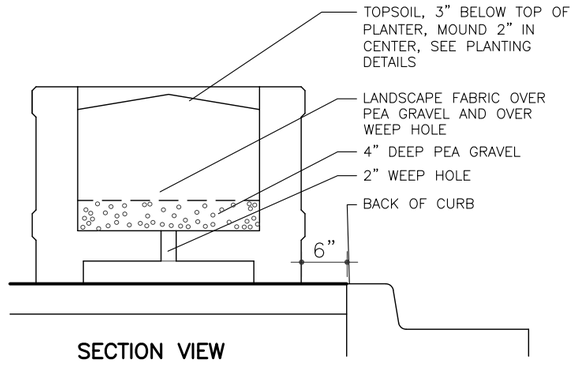
LANDSCAPE DETAILS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	L18	L20



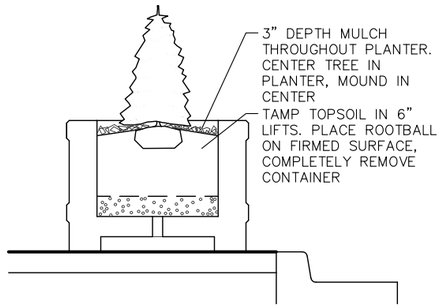
PLAN VIEW



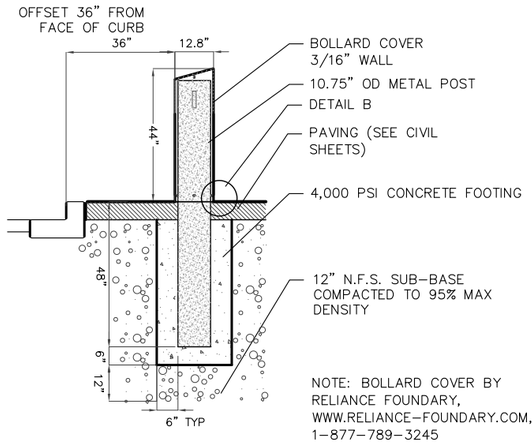


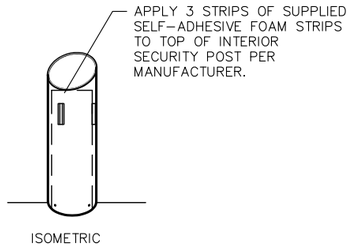
SECTION VIEW

1 / L18 PLANTER

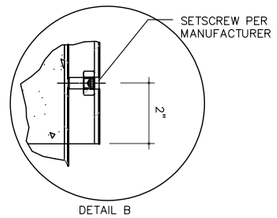


2 / L18 PLANTER – TREE PLANTING DETAIL





ISOMETRIC

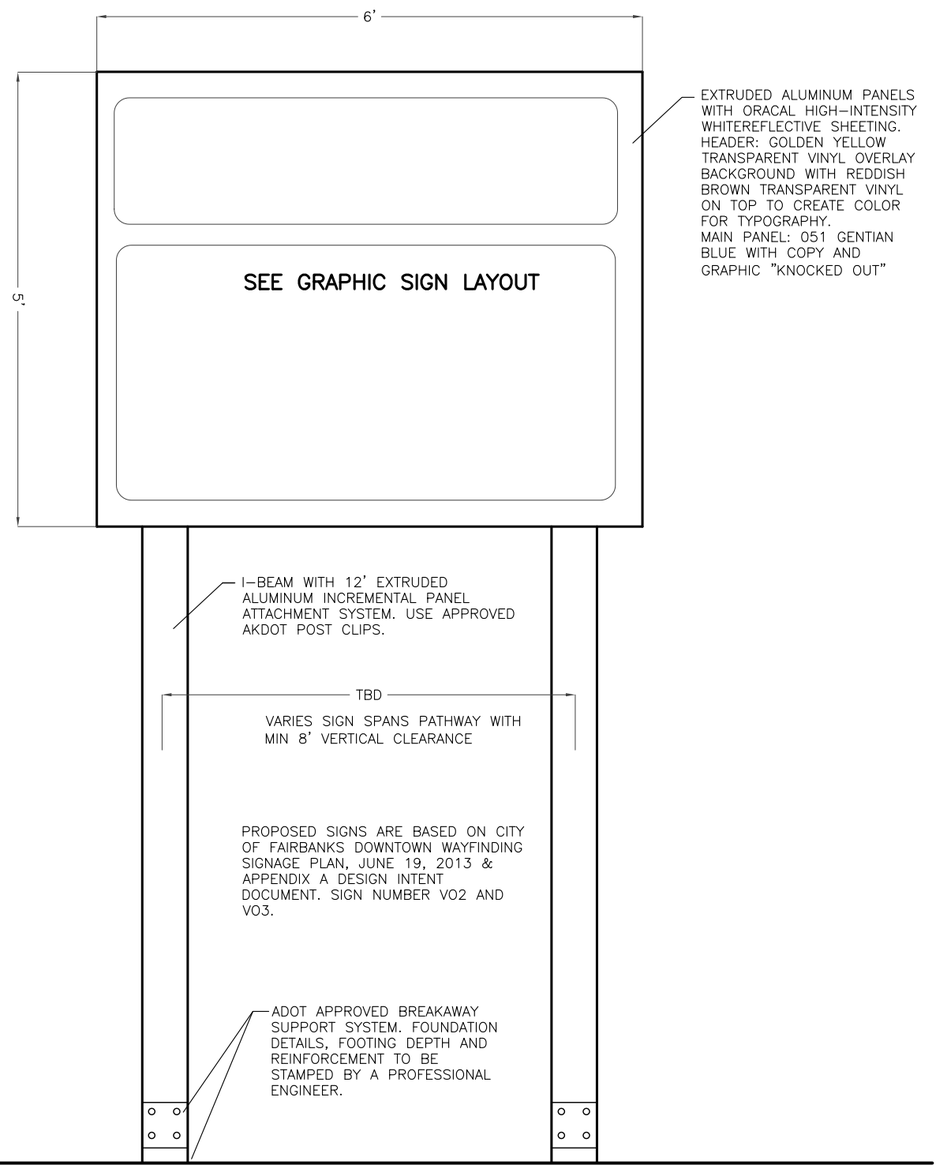


DETAIL B

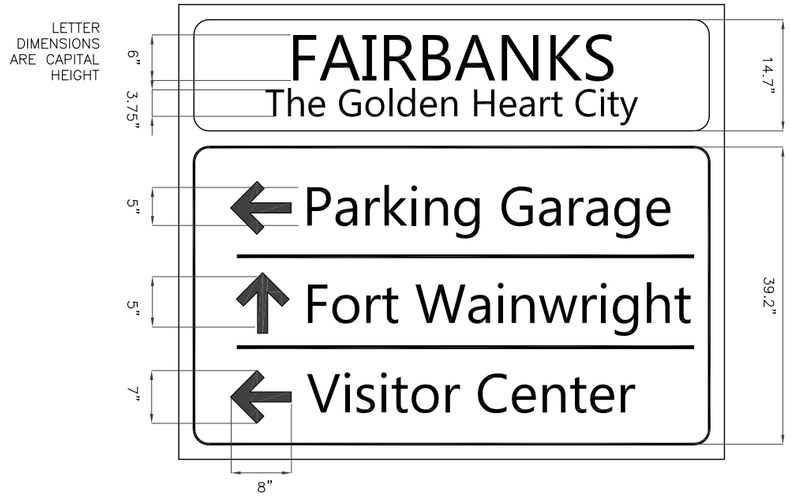
3 / L18 BOLLARD AT PLAZA

LANDSCAPE DETAILS

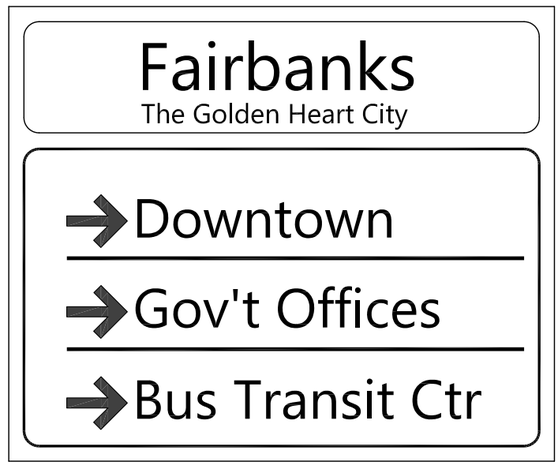
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2022	L19	L20



1 L19 GX-2 VEHICLE GUIDE SIGN



V02 (SOUTH SIDE OF AIRPORT WAY)



V03 (NORTH SIDE OF AIRPORT WAY)

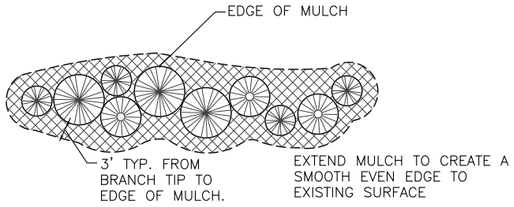
NOTE: REFER TO CITY OF FAIRBANKS DOWNTOWN WAYFINDING SIGNAGE DOCUMENTS FOR DETAILS ON FONTS, COLORS, MATERIALS AND METHODOLOGIES

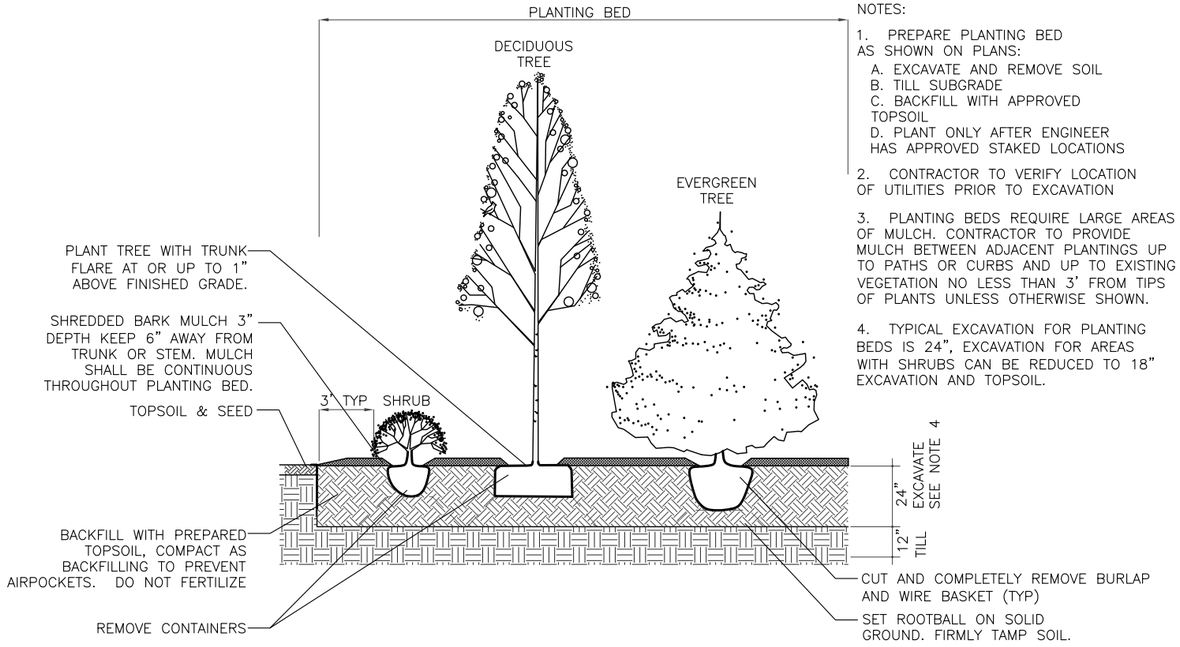
GRAPHIC SIGN LAYOUT

LANDSCAPE DETAILS

PLANS DEVELOPED BY: EARTHSCAPE, LLC. CERT AUTHORIZATION NO. AECL1007, 329 F ST SUITE 222, ANCHORAGE AK 99501 (907)279-2688
P:\Airport Cushman\Landscape- airport way cushman\L-2 95.1-redesign airport cushman-Layout1 Wed, Dec/21/22 01:16pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2019	L20	L20



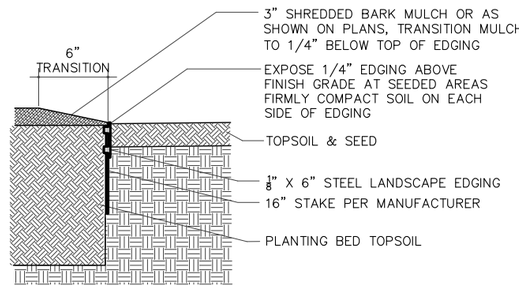


NOTES:

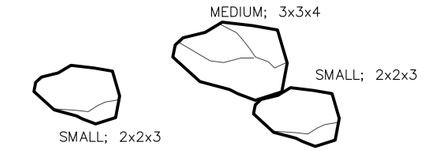
1. PREPARE PLANTING BED AS SHOWN ON PLANS:
   A. EXCAVATE AND REMOVE SOIL
   B. TILL SUBGRADE
   C. BACKFILL WITH APPROVED TOPSOIL
   D. PLANT ONLY AFTER ENGINEER HAS APPROVED STAKED LOCATIONS
2. CONTRACTOR TO VERIFY LOCATION OF UTILITIES PRIOR TO EXCAVATION
3. PLANTING BEDS REQUIRE LARGE AREAS OF MULCH. CONTRACTOR TO PROVIDE MULCH BETWEEN ADJACENT PLANTINGS UP TO PATHS OR CURBS AND UP TO EXISTING VEGETATION NO LESS THAN 3' FROM TIPS OF PLANTS UNLESS OTHERWISE SHOWN.
4. TYPICAL EXCAVATION FOR PLANTING BEDS IS 24", EXCAVATION FOR AREAS WITH SHRUBS CAN BE REDUCED TO 18" EXCAVATION AND TOPSOIL.

1 / L20 PLANTING BED DETAIL

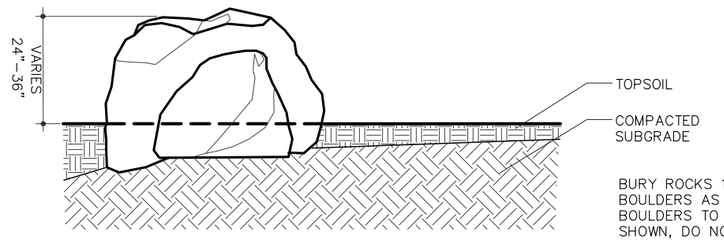
INSTALL EDGING PER MANUFACTURER'S INSTRUCTIONS, SECURE IN PLACE, TAMP ADJACENT SOILS FOR EVEN EXPOSURE. EDGING SHALL HAVE CONTINUOUS, SMOOTH LINES EVEN WITH ADJACENT GRADE.



2 / L20 EDGING DETAIL



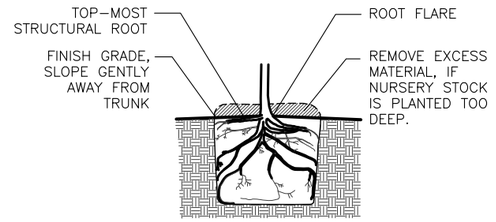
PLAN VIEW



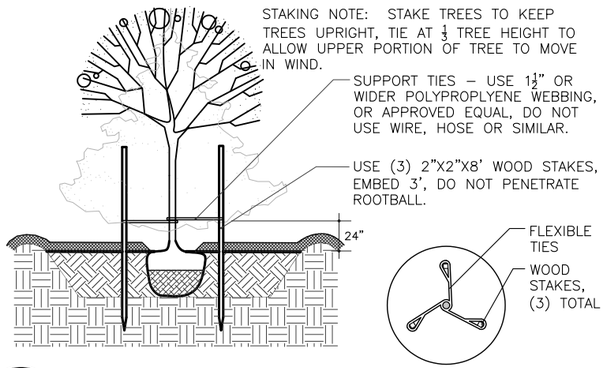
SECTION VIEW

BURY ROCKS 1/3 -1/2. PLACE BOULDERS AS SHOWN ON PLANS. BOULDERS TO ABUT ONE ANOTHER AS SHOWN, DO NOT SPACE BOULDERS EVENLY.

5 / L20 BOULDER DETAIL

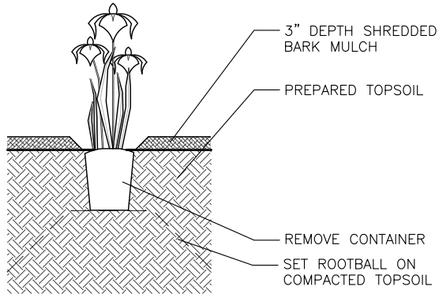


6 / L20 PLANTING DEPTH DETAIL



PLAN VIEW

3 / L20 TREE STAKING



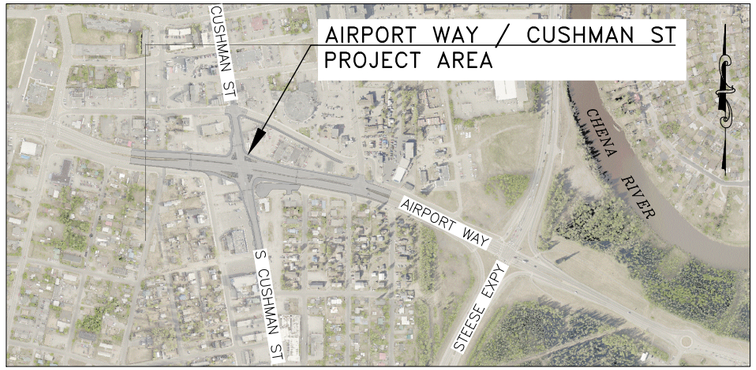
4 / L20 PERENNIAL PLANTING DETAIL

LANDSCAPE DETAILS

PLANS DEVELOPED BY: EARTHSCAPE, LLC. CERT AUTHORIZATION NO. AECL1007, 329 F ST SUITE 222, ANCHORAGE AK 99501 (907)279-2688
P:\Airport Cushman\Landscape- airport way cushman\L-2 95.1-redesign airport cushman-Layout1 Wed, Dec/21/22 01:16pm

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	Q1	Q2



ESCP VICINITY MAP

ENVIRONMENTAL INFORMATION:

1. RECEIVING WATERS: CHENA RIVER
2. IMPAIRED WATERS: CHENA RIVER
3. TOTAL MAXIMUM DAILY LOADS (TMDL): NONE
4. STORM SEWER/DRAINAGE SYSTEMS: FAIRBANKS NORTH STAR BOROUGH MS4 CONSISTING OF PIPED AND SURFACE WATER DRAINAGE NETWORK AND ULTIMATELY DISCHARGES TO THE CHENA RIVER. THIS PROJECT INCLUDES MODIFICATIONS TO THIS SYSTEM.
5. THREATENED AND ENDANGERED SPECIES: NONE
6. HISTORICAL & CULTURAL RESOURCE PRESENCE: NONE
7. FISH & WILDLIFE HABITAT PRESENCE: TIME VEGETATION CLEARING TO COMPLY WITH THE MIGRATORY BIRD ACT. VEGETATION CLEARING WILL NOT BE ALLOWED DURING THE BIRD NESTING WINDOW, TYPICALLY MAY 1 – JULY 15, UNLESS A NEST SURVEY IS COMPLETED AND CONFIRMED THAT NO NESTS OR BIRDS WILL BE TAKEN.
8. WETLANDS: NO WETLANDS OR IN THE PROJECT AREA. THE CHENA RIVER IS WITHIN 2,500 FT OF PROJECT AREA.
9. EXISTING PUBLIC WATER SYSTEM (PWS) DRINKING WATER PROTECTION AREAS:
   - PWSID: AK2310730
   - WATER SYSTEM NAME: GOLDEN HEART UTILITIES
   - PWS CONTACT INFORMATION:
     BERNIE STACK
     (907) 455–0117
     BERNIE@AKWATER.COM
     P.O. BOX 80370, FAIRBANKS, AK 99708
10. DEWATERING OF GROUNDWATER AND/OR STORMWATER THAT ACCUMULATES IN AN EXCAVATION AREA WITHIN 1,500 FT OF A DEC–IDENTIFIED CONTAMINATED SITE REQUIRES AN EXCAVATION DEWATERING PERMIT FROM DEC. AN EXCAVATION DEWATERING PERMIT FROM DEC IS REQUIRED FOR THIS PROJECT.
11. THE FOLLOWING DEC IDENTIFIED CONTAMINATED SITES ARE LOCATED WITHIN 1,500 FEET OF THE PROJECT AREA:

- HAZARD ID 2909, FILE NUMBER 100.38.117 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 1397, FILE NUMBER 102.38.027 (STATUS: ACTIVE)
- HAZARD ID 24429, FILE NUMBER 102.26.100 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 24326, FILE NUMBER 102.26.051 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 24329, FILE NUMBER 102.26.052 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 4503, FILE NUMBER 102.38.084 (STATUS: ACTIVE)
- HAZARD ID 24207, FILE NUMBER 102.26.097 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 25093, FILE NUMBER 102.26.150 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 24161, FILE NUMBER 102.26.010 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 25573, FILE NUMBER 102.38.084 (STATUS: ACTIVE)
- HAZARD ID 24690, FILE NUMBER 102.26.084 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 3809, FILE NUMBER 102.38.108 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 23995, FILE NUMBER 102.26.083 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 25931, FILE NUMBER 102.38.172 (STATUS: ACTIVE)
- HAZARD ID 2311, FILE NUMBER 102.38.062 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 711, FILE NUMBER 102.38.079 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 24169, FILE NUMBER 102.26.015 (STATUS: ACTIVE)
- HAZARD ID 26690, FILE NUMBER 102.38.197 (STATUS: ACTIVE)
- HAZARD ID 1932, FILE NUMBER 102.38.056 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 23153, FILE NUMBER 102.26.165 (STATUS: CLEANUP COMPLETE – INSTITUTIONAL CONTROLS)
- HAZARD ID 24959, FILE NUMBER 102.26.072 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 24192, FILE NUMBER 102.26.060 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 25339, FILE NUMBER 102.26.167 (STATUS: CLEANUP COMPLETE – INSTITUTIONAL CONTROLS)
- HAZARD ID 24400, FILE NUMBER 102.26.089 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 24367, FILE NUMBER 102.26.063 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 1393, FILE NUMBER 102.38.024 (STATUS: CLEANUP COMPLETE – INSTITUTIONAL CONTROLS)
- HAZARD ID 24181, FILE NUMBER 102.26.062 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 3955, FILE NUMBER 102.38.119 (STATUS: CLEANUP COMPLETE – INSTITUTIONAL CONTROLS)
- HAZARD ID 24347, FILE NUMBER 100.26.084 (STATUS: CLEANUP COMPLETE)
- HAZARD ID 26035, FILE NUMBER 100.38.174 (STATUS: CLEANUP COMPLETE)

SITE INFORMATION:

1. FOR GENERAL LOCATION MAP SEE VICINITY MAP ON SHEET A1 AND USGS FAIRBANKS (D–2) SE QUADRANGLE, T1S, R1W, SECTION 10, FAIRBANKS MERIDIAN.
2. SITE FUNCTION: ROAD.
3. AVERAGE ANNUAL PRECIPITATION: 10.53 INCHES (SOURCE: WESTERN REGIONAL CLIMATE CENTER) FOR FAIRBANKS WSO AIRPORT.
4. 2–YEAR, 24–HOUR RAINFALL EVENT: 1.09 INCHES (SOURCE: HTTP://HDCS.NWS.NOAA.GOV/HDSC/PFDS/PFDS_MAP_AK.HTML) FOR FAIRBANKS
5. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATIONS FOR STOCKPILING MATERIAL AND STAGING AND STORING EQUIPMENT. STAGING AND STOCKPILE AREAS MUST COMPLY WITH CGP, SWPPP, SECTION 641, AND ALL PERMITS.
6. PROJECT AREAS ARE LISTED BELOW (MATERIAL SITES NOT INCLUDED):

PROJECT INFORMATION TABLE	
PROJECT AREA (ACRE)	12.18 ACRES
DISTURBED AREA (ACRE)	7.14 ACRES
PRE–CONSTRUCTION IMPERVIOUS AREA	85%
POST–CONSTRUCTION IMPERVIOUS AREA	92%
PRE–CONSTRUCTION RUNOFF COEFFICIENT	0.81
POST–CONSTRUCTION RUNOFF COEFFICIENT	0.85

7. LANDSCAPE TOPOGRAPHY: VERY FLAT AND HIGHLY URBANIZED WITH RESIDENTIAL AND COMMERCIAL DEVELOPMENTS SURROUNDING THE PROJECT INTERSECTION.
8. DRAINAGE PATTERNS: SURFACE DRAINAGE AND PIPED STORM DRAINS FLOW TO CHENA RIVER.
9. SOILS: ALLUVIAL SAND AND GRAVEL OVERLAIN BY SILT AND ORGANIC SILT.
10. EXISTING VEGETATION: PROJECT AREA IS A MIX OF RESIDENTIAL AND COMMERCIAL WITH LIMITED LAWNS, SHRUBS AND TREES.
11. APPROXIMATE GROWING SEASON: MAY 3 THROUGH OCTOBER 3 (SOURCE: USACE WETLANDS DELINEATION MANUAL: ALASKA REGION (VERSION 2)

ESCP NOTES:

1. THIS PROJECT WILL RESULT IN GROUND DISTURBANCE OF GREATER THAN 1 ACRE AND REQUIRES A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND A NOTICE OF INTENT (NOI) TO DISCHARGE FOR COVERAGE UNDER THE ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM (APDES) CONSTRUCTION GENERAL PERMIT (CGP).
2. READ AND COMPLY WITH THE CGP AND SECTION 641 OF THE PROJECT SPECIFICATIONS.
3. THIS EROSION SEDIMENT CONTROL PLAN (ESCP) IS GENERAL IN NATURE AND IS PROVIDED AS GUIDANCE TO THE CONTRACTOR FOR THE DEVELOPMENT OF THE:
   - SWPPP
   - HAZARDOUS MATERIAL CONTROL PLAN (HMCP)
   - SPILL PREVENTION, CONTROL AND COUNTERMEASURES (SPCC) PLAN
4. INITIATE EROSION AND SEDIMENT CONTROLS PRIOR TO ANY EARTH DISTURBING ACTIVITIES.
5. THE CONTRACTOR SHALL SELECT AND APPLY APPROPRIATE CONTROLS TO PREVENT SEDIMENT AND OTHER POLLUTANTS FROM ENTERING THE PIPED STORM DRAIN SYSTEM.
6. EROSION AND SEDIMENT CONTROL FEATURES MUST BE BASED ON THE DOT&PF MANUAL ALASKA STORM WATER POLLUTION PREVENTION PLAN GUIDE (FEBRUARY 2011 OR LATEST VERSION) AND LATEST BMPs.
7. AT A MINIMUM, INLET PROTECTION (I.E., FILTER BAGS PLACED UNDER THE INLET GRATE) SHALL BE PROVIDED AT ALL INLETS WITHIN AND IMMEDIATELY ADJACENT TO THE PROJECT LIMITS.
8. SEE SHEET Q2 FOR LOCATIONS WHERE INLET PROTECTION IS ANTICIPATED AND FOR SURFACE RUNOFF DIRECTIONS. SURFACE RUNOFF DIRECTIONS SHOWN REPRESENT ROADWAY FINISHED GRADES. ROADWAY RUNOFF IS DIRECTED TO CURB AND GUTTER AT SIDES OF ROAD.
9. PROVIDE VEHICLE CLEANING EQUIPMENT, OR OTHER APPROVED CONTROLS, TO PREVENT TRACKING OF DIRT AND GRAVEL ONTO PAVED SURFACES.
10. ENSURE LOADS ARE STABLE AND COVERED SO THAT NO MATERIAL ESCAPES DURING HAULING ACTIVITIES.
11. STREET SURFACES ADJACENT TO THE WORK AREA SHALL BE SWEPT DAILY TO COLLECT ANY SEDIMENT OR OTHER CONSTRUCTION DEBRIS TRACKED OFFSITE.
12. THE CONTRACTOR SHALL DESIGNATE A CONCRETE WASHOUT AREA ONSITE, AS NECESSARY, TO CONTAIN THE WASHOUT WATER AND RESIDUALS DURING CONCRETE WORK.
13. HAVE A SPILL KIT AVAILABLE AT EACH WORK AREA WHEN HEAVY EQUIPMENT IS BEING UTILIZED.
14. STOCKPILE AND STAGING LOCATION MUST BE RECLAIMED TO THEIR ORIGINAL CONDITION. STOCKPILES AND/OR STAGING AREAS ARE NOT ALLOWED IN WETLANDS.
15. ALL DISTURBED GROUND MUST BE PERMANENTLY STABILIZED.

ESCP LEGEND:

PARCEL BOUNDARY

TEMPORARY CULVERT INLET SEDIMENT TRAP

EXISTING SURFACE WATER FLOW DIRECTION

CATCH BASIN PROTECTION AREA

OF CATCH BASINS TO PROTECT

SD PIPE & FLOW DIRECTION — → — → SD — → — → SD —

APPROXIMATE LIMITS OF EARTH DISTURBANCE

CATCH BASIN

FIELD INLET FI

STORM DRAIN MANHOLE MH

EROSION AND SEDIMENT CONTROL PLAN

PLANS DEVELOPED BY: KINNEY ENGINEERING

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	Q2	Q2

GAFFNEY RD
TURNER ST
CUSHMAN ST
49
AIRPORT WAY
AIRPORT WAY
NOBLE ST
14TH AVE
14TH AVE
TURNER ST
STACIA ST
S CUSHMAN ST
LACEY ST
NOBLE ST
MH
SD
FI

EROSION AND SEDIMENT CONTROL PLAN

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

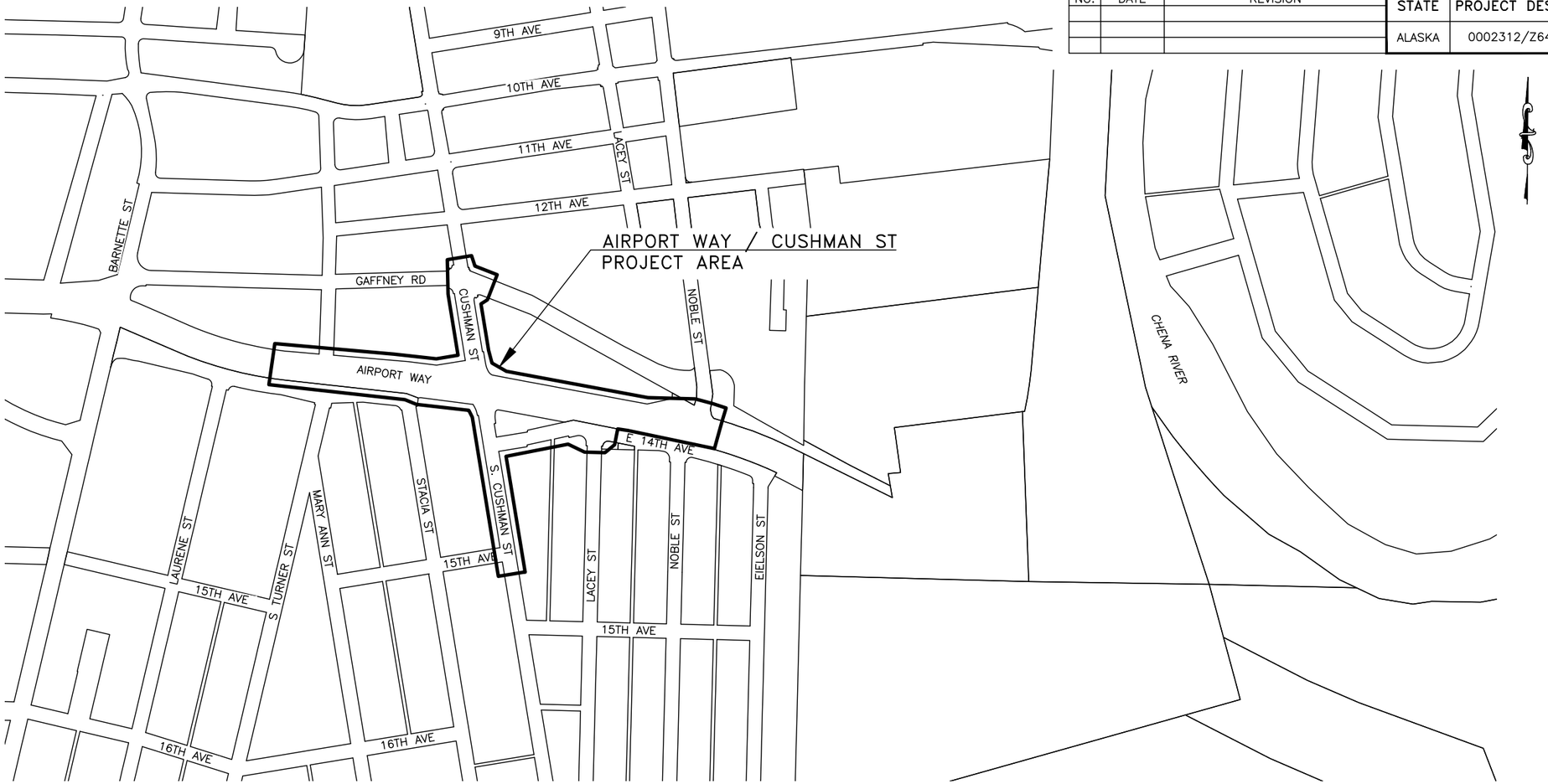
12/22/2022
REVIEW
PS&E

12/22/2022

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_Q1-Q2_ESCP-Q2 Thu, Dec/22/22 11:01am
(Bill Paddock) KF#: 00385

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	T1	T3



GENERAL TRAFFIC CONTROL PLAN NOTES

1. THIS IS A GENERALIZED TRAFFIC COTRNOL PLAN (TCP) TO SHOW ALLOWABLE LANE CLOSURES, ROAD CLOSURES, AND DETOUR ROUTES, AND LOCATIONS FOR PORTABLE CHANGEABLE MESSAGE BOARD SIGNS (CMS). THE CONTRACTOR SHALL DEVELOP AN APPROVED TCP AND AN APPROVED CONSTRUCTION PHASING PLAN IN ACCORDANCE WITH THIS PLAN AND SECTION 643 OF THE PROJECT SPECIFICATIONS.
2. PROVIDE ACCESS TO RESIDENTIAL PROPERTIES AT ALL TIMES.
3. PROVIDE ACCESS TO COMMERCIAL PROPERTIES DURING THEIR BUSINESS HOURS. CONTRACTOR SHALL CONTACT ALL BUSINESSES IN THE PROJECT AREA TO COORDINATE AND ENSURE ACCESS.
4. DRIVEWAYS ADJACENT TO AN EXCAVATION SHALL BE RAMPED TO PROVIDE ACCESS.
5. TCPS WHICH REQUEST CLOSURE OF ANY RESIDENTIAL OR COMMERCIAL ACCESS SHALL BE SUBMITTED FOR APPROVAL IN ACCORDANCE WITH SECTION 643. ANY ACCESS CLOSURE SHALL NOT OCCUR WITHOUT WRITTEN APPROVAL OF THE ENGINEER. COORDINATE CLOSURE PLANS WITH THE AFFECTED PROPERTY OCCUPANT AND/OR OWNER. THE CONTRACTOR SHALL NOTIFY THE AFFECTED PROPERTY A MINIMUM OF 48 HOURS PRIOR TO IMPLEMENATION OF AN APPROVED ACCESS CLOSURE.
6. PROVIDE ACCESS THROUGH THE PROJECT FOR EMERGENCY VEHICLES.
7. MAC TRANSIT PURPLE LINE IS ROUTED THROUGH THE PROJECT LIMITS AIRPORT, ON CUSHMAN AND GAFFNEY. MAC TRANSIT GREEN LINE IS ROUTED THROUGH PROJECT LIMITS ON CUSHMAN ST. PROVIDE ACCESS FOR TRANSIT BUSES AND ITS USERS.
8. MAINTAIN ACCESS OF CROSS STREETS AS SHOWN.
9. PROVIDE PUBLIC NOTICE OF DETOURS AND CLOSURES IN ACCORDANCE WITH SECTION 643.
10. BEFORE BEGINNING WORK WITHIN THE PROJECT LIMITS, ERECT TRAFFIC CONTROL DEVICES REQUIRED BY THE APPROVED TCP.
11. PROVIDE TRAFFIC CONTROL DEVICES MEETING THE REQUIREMENTS OF SECTION 643.
12. EXISTING SIGNS WHICH CONFLICT WITH CONSTRUCTION SIGNS SHALL BE COVERED. COORDINATE REMOVAL WITH CITY OF FAIRBANKS PUBLIC WORKS.
13. CONSTRUCTION SIGNS MAY NOT BE PLACED ON PORTABLE SIGN SUPPORTS FOR MORE THAN THREE CONSECUTIVE CALENDAR DAYS. SIGNS REQUIRED LONGER THAN THIS PERIOD SHALL BE MOUNTED ON A PERMANENT SIGN POST WITH THE EXCEPTION OF PEDESTRIAN TRAFFIC CONTROL SIGNS AND SIGNS MOUNTED ON A TYPE III BARRICADE WHICH MAY BE INSTALLED ON PORTABLE SIGN SUPPORTS FOR THE DURATION OF THEIR INSTALLATION.
14. SPECIAL CONSTRUCTION SIGNS SHALL BE FABRICATED OF MATERIALS CONFORMING TO SECTION 615 OF THE SPECIFICATIONS AND SHALL HAVE A BLACK LEGEND ON ORANGE BACKGROUND.
15. ALL SIGNS SHALL BE SUPPLEMENTED WITH HIGH LEVEL WARNING DEVICES.
16. ALL BARRICADES SHALL HAVE ONE OPERABLE FLASHING LIGHT FOR EACH 10 FEET OF BARRICADE, WITH A MINIMUM OF TWO LIGHTS PER TYPE III BARRICADE EXCEPT IN A TAPER WHERE ONLY THE FIRST TWO LIGHTS SHALL FLASH (TYPE "A") AND THE REMAINDER SHALL BE STEADY BURN (TYPE "C").
17. TYPE "A" FLASHING WARNING LIGHTS SHALL BE USED TO MARK THE TYPE III BARRICADES, ROAD CLOSURES, AND ADVANCE DETOUR SIGNING AT NIGHT.
18. DEVICE SPACING ON TAPERS AND TANGENTS SHALL BE ONE (1) X THE POSTED SPEED LIMIT (IN FEET). SPEED LIMIT:
19. TWO (2) PORTABLE CHANGEABLE MESSAGE BOARD SIGNS WILL BE SUBSIDIARY TO 2020 SSHC TRAFFIC MAINTENANCE. ANY ADDITIONAL PORTABLE CHANGEABLE MESSAGE BOARD SIGNS WILL BE PAID FOR UNDER 2020 SSHC AT THE TRAFFIC CONTROL RATE SCHEDULE.
20. TEMPORARY STRIPING SHALL BE EITHER TEMPORARY RAISED PAVEMENT MARKERS OR PREFORMED PAVEMENT MARKING TAPE.
21. TRAFFIC CONTROL ZONES PROVIDING TWO-WAY TRAFFIC ON A ROAD REDUCED TO A SINGLE LANE REQUIRE A FLAGGER LOCATED AT EACH END.

TRAFFIC CONTROL PLAN LEGEND

FULL CLOSURE

HALF-WIDTH CLOSURE

TRAFFIC CONTROL PLAN OVERALL PLAN

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

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TRAFFIC CONTROL PLAN NOTES

1.

2. ACCESS TO:

2 ACCESS TO:

3 ACCESS TO:

4 ACCESS TO:

ACCESS TO:

5 ACCESS TO:

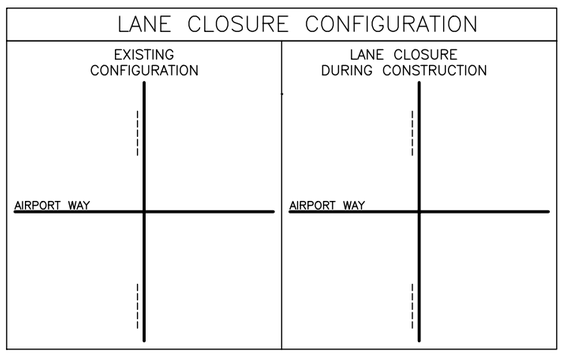
6

7

TRAFFIC CONTROL PLAN LEGEND

- FULL CLOSURE
- HALF-WIDTH CLOSURE
- TYPE III BARRICADE
- DETOUR ROUTE
- CMS — PORTABLE CHANGEABLE MESSAGE BOARD SIGN
- LANE CLOSURE

LANE CLOSURE CONFIGURATION



TRAFFIC CONTROL PLAN
SB DETOUR AT AIRPORT WAY

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

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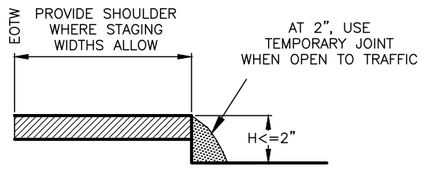
ALASKA	0002312/Z640780000	2024	T3	T3

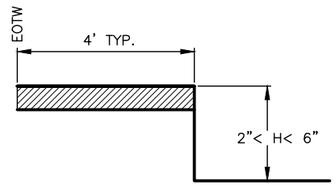
VERTICAL DROP-OFFS



CASE A

DROP-OFFS ≤2 INCHES
(PAVED SURFACES ONLY)

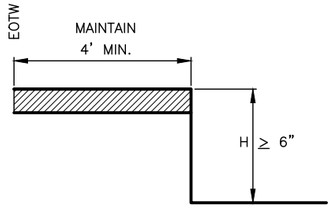
1. USE "UNEVEN LANES" (CW8-11) SIGNS FOR ALL DROP-OFFS IN BETWEEN TRAFFIC LANES.
2. LEAVE NO DROP-OFFS > 1.5" IN THE TRAFFIC LANE OR ACTIVE WHEEL TRACK.



CASE B

2"< DROP-OFFS < 6"
(ALL ROADWAY SURFACES)

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

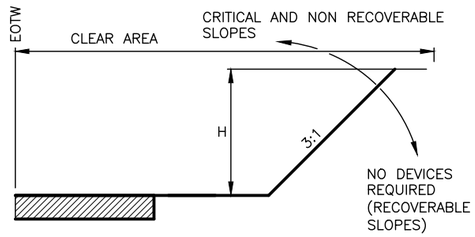


CASE C

DROP-OFFS ≥6"
(ALL ROADWAY SURFACES AND ROADSIDE SLOPES)

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

CUT SLOPES



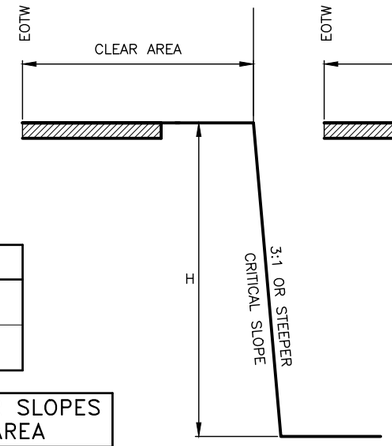
EOTW = EDGE OF TRAVELED WAY

CLEAR AREA REQUIREMENTS	
	LOW SPEED < = 35 MPH
URBAN	10' DITCH SECTIONS, OR 2' BEHIND CURB

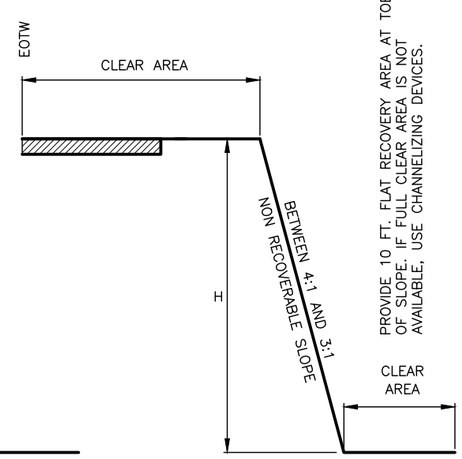
CHANNELIZING DEVICE REQUIREMENTS FOR SLOPES 3:1 OR STEEPER WITHIN THE CLEAR AREA	
	H <= 15'
> 2000 VPD	TYPE II BARRICADE OR DRUMS

FILL SLOPES

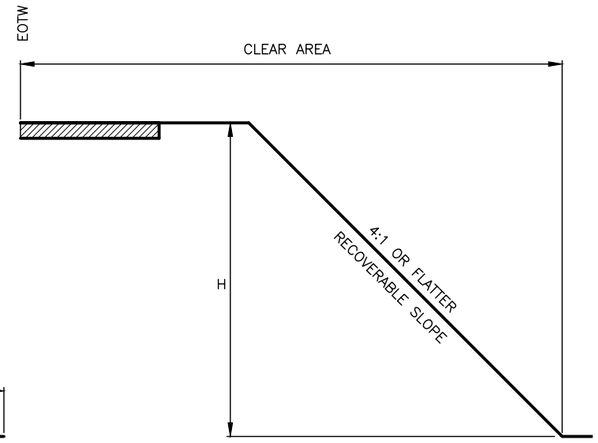
STEEPER THAN OR EQUAL TO 3:1



BETWEEN 4:1 AND 3:1



FLATTER THAN OR EQUAL TO 4:1



EQUIPMENT NOTES:

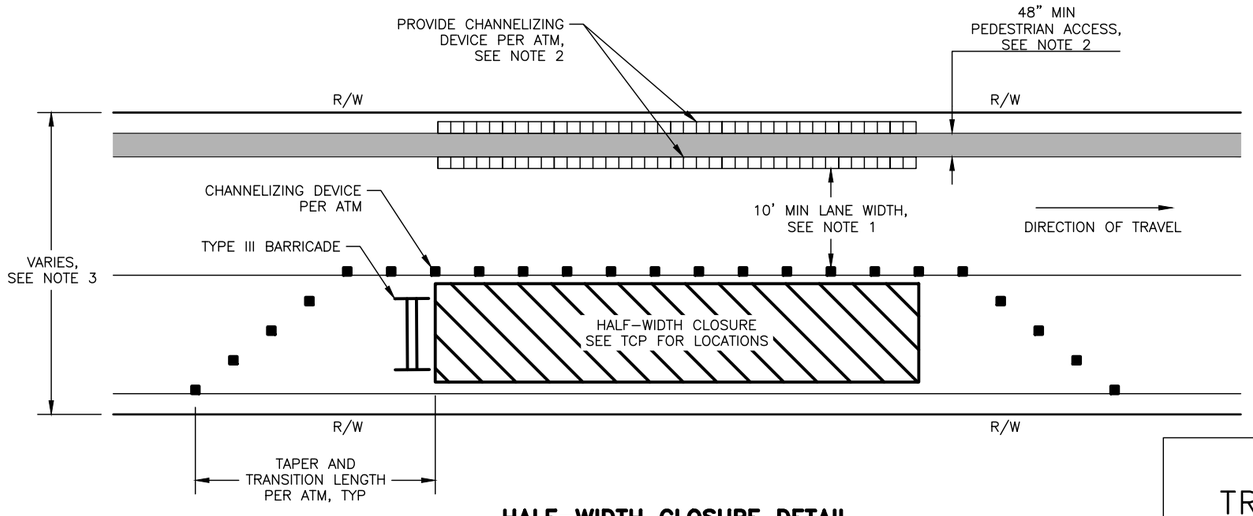
1. WHEN THERE IS ACTIVE, NONMOBILE CONSTRUCTION EQUIPMENT WITHIN THE CLEAR AREA, DELINEATE THE ROADSIDE WITH TRAFFIC CONES.
2. SEPARATE PROCEDURES ARE REQUIRED FOR MOBILE WORK ZONE OPERATIONS AND SHORT DURATION WORK OF LESS THAN 12 HOURS.

WINTER SHUTDOWN NOTES:

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

TRAFFIC CONTROL NOTES:

1. USE THE EXISTING CROSS-SECTION (PRIOR TO CONSTRUCTION) AS A BASIS FOR DETERMINING WHEN CHANNELIZING DEVICES ARE NEEDED.
2. INSTALL CHANNELIZING DEVICES WHEN THE HORIZONTAL OR VERTICAL CURVATURE IS MADE MORE SEVERE.
3. INSTALL FLEXIBLE DELINEATORS WHEN ALL VEGETATION OVER 4 FEET HIGH IS CLEARED FROM ALL FILL SLOPES THAT ARE 3:1 OR STEEPER IN THE CLEAR AREA.
4. USE PORTABLE CONCRETE BARRIER FOR WARRANTING CONDITIONS WHICH LAST LONGER THAN 3 DAYS. FOR CONDITIONS LASTING LESS THAN 3 DAYS, OTHER CHANNELIZING DEVICES MAY BE INSTALLED.



HALF-WIDTH CLOSURE DETAIL

HALF-WIDTH CLOSURE NOTES:

1. PROVIDE MINIMUM 10' LANE WIDTH AS MEASURED FROM NEAR FACE OF CHANNELIZING DEVICE TO NEAR FACE OF CHANNELIZING DEVICE OR CURB FACE.
2. WHEN POSSIBLE, ROUTE PEDESTRIANS ON EXISTING OR NEWLY CONSTRUCTED SIDEWALK. OTHERWISE, DELINEATE TEMPORARY PEDESTRIAN ACCESS USING CHANNELIZING DEVICES PER MUTCD. TEMPORARY PEDESTRIAN ACCESS SHALL BE A MINIMUM 48" WIDTH AS MEASURED FROM NEAR FACE OF CHANNELIZING DEVICE TO NEAR FACE OF CHANNELIZING DEVICE WITH AN ADA-COMPLIANT SMOOTH SURFACE. PROVIDE ADA-COMPLIANT WHEELCHAIR RAMPS AT LOCATIONS WHERE PEDESTRIANS ARE ROUTED FROM THE SIDEWALK INTO THE STREET. PHASE WORK IN A MANNER THAT GUIDES PEDESTRIANS THROUGH THE WORK ZONE IN THE MOST CONTINUOUS AND DIRECT ROUTE PRACTICABLE AND THAT MINIMIZES CROSSINGS TO THE OPPOSITE SIDE OF THE ROADWAY.
3. RIGHT-OF-WAY WIDTH VARIES BETWEEN 50' – 60'. SEE F SHEETS FOR RIGHT-OF-WAY LIMITS. LOCATE TEMPORARY TRAFFIC CONTROL WITHIN LIMITS OF RIGHT-OF-WAY.

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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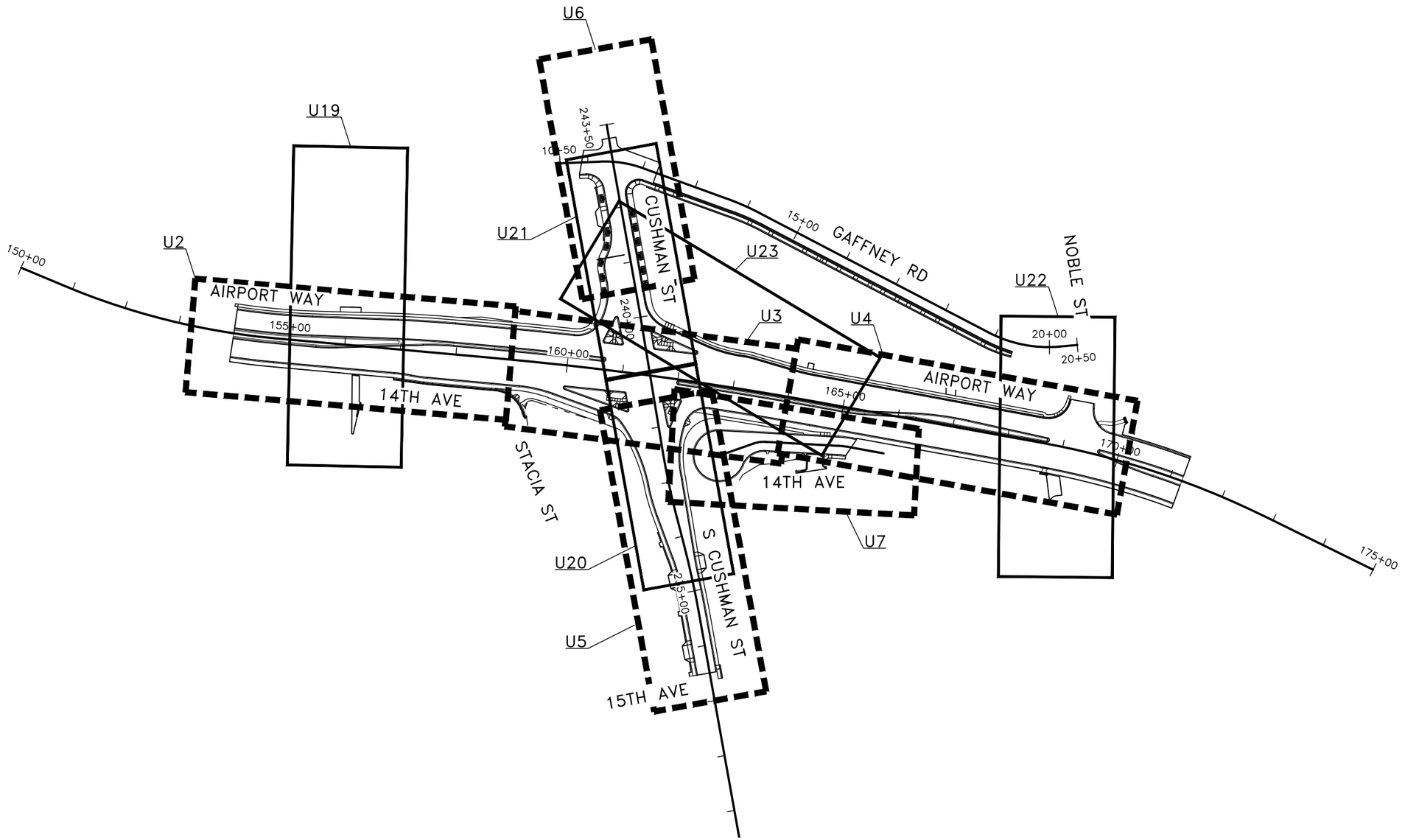
TRAFFIC CONTROL PLAN

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_T3_TRAFFIC CONTROL DETAILS-T3 Thu, Dec/22/22 11:02am
(Bill Paddock) KEY: 00385

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U1	U25



PLANS DEVELOPED BY:
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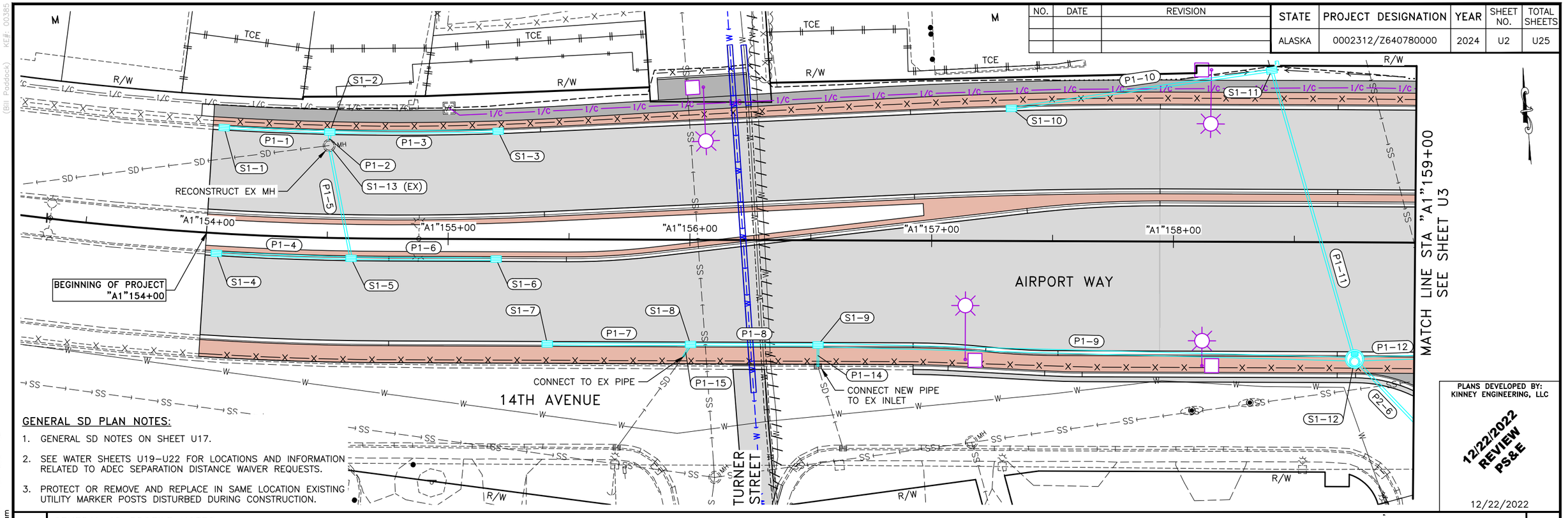
UTILITY SHEET LAYOUT

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U2	U25



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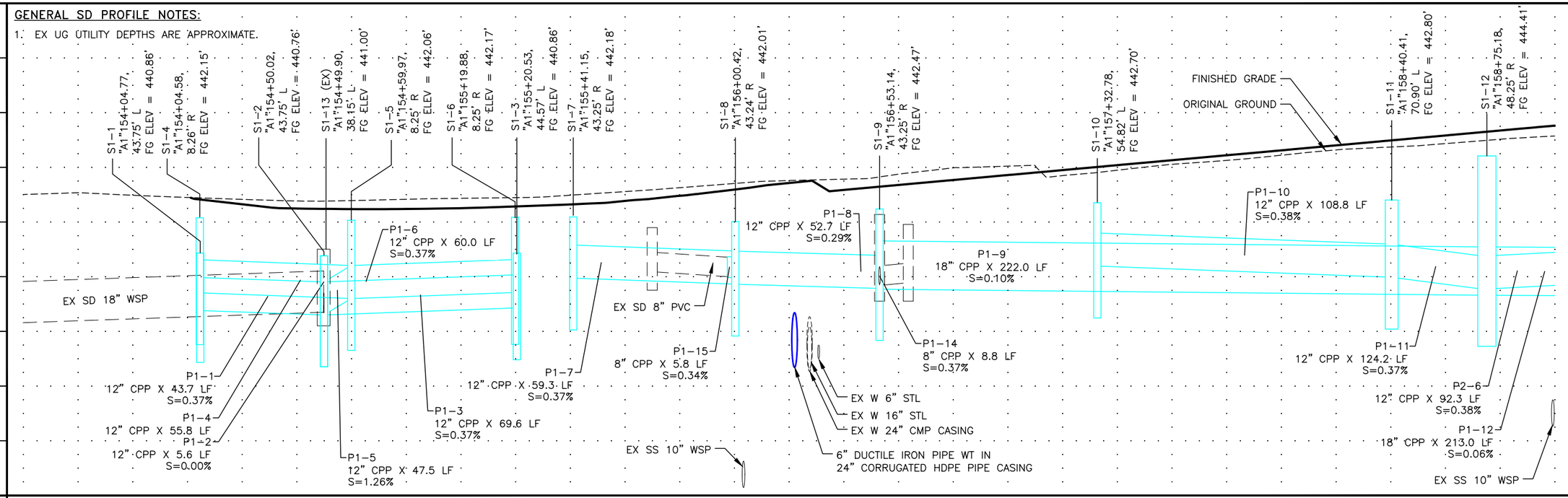
GENERAL SD PLAN NOTES:

1. GENERAL SD NOTES ON SHEET U17.
2. SEE WATER SHEETS U19-U22 FOR LOCATIONS AND INFORMATION RELATED TO ADEC SEPARATION DISTANCE WAIVER REQUESTS.
3. PROTECT OR REMOVE AND REPLACE IN SAME LOCATION EXISTING UTILITY MARKER POSTS DISTURBED DURING CONSTRUCTION.

GENERAL SD PROFILE NOTES:

1. EX UG UTILITY DEPTHS ARE APPROXIMATE.



	153+40	+60	+80	154+00	+20	+40	+60	+80	155+00	+20	+40	+60	+80	156+00	+20	+40	+60	+80	157+00	+20	+40	+60	+80	158+00	+20	+40	+60	+80	159+00
FG					442.65	442.49	442.47	442.47	442.50	442.56	442.64	442.77	442.95	443.18	443.42	443.17	443.35	443.53	443.71	443.89	444.07	444.25	444.43	444.62	444.80	444.98	445.16	445.34	
EG	443.0	443.1	443.0	442.9	442.8	442.8	442.8	442.8	442.9	442.9	443.0	443.1	443.2	443.4	443.5	443.6	443.7	444.0	444.0	443.7	443.9	444.1	444.2	444.4	444.6	444.7	444.9	445.0	

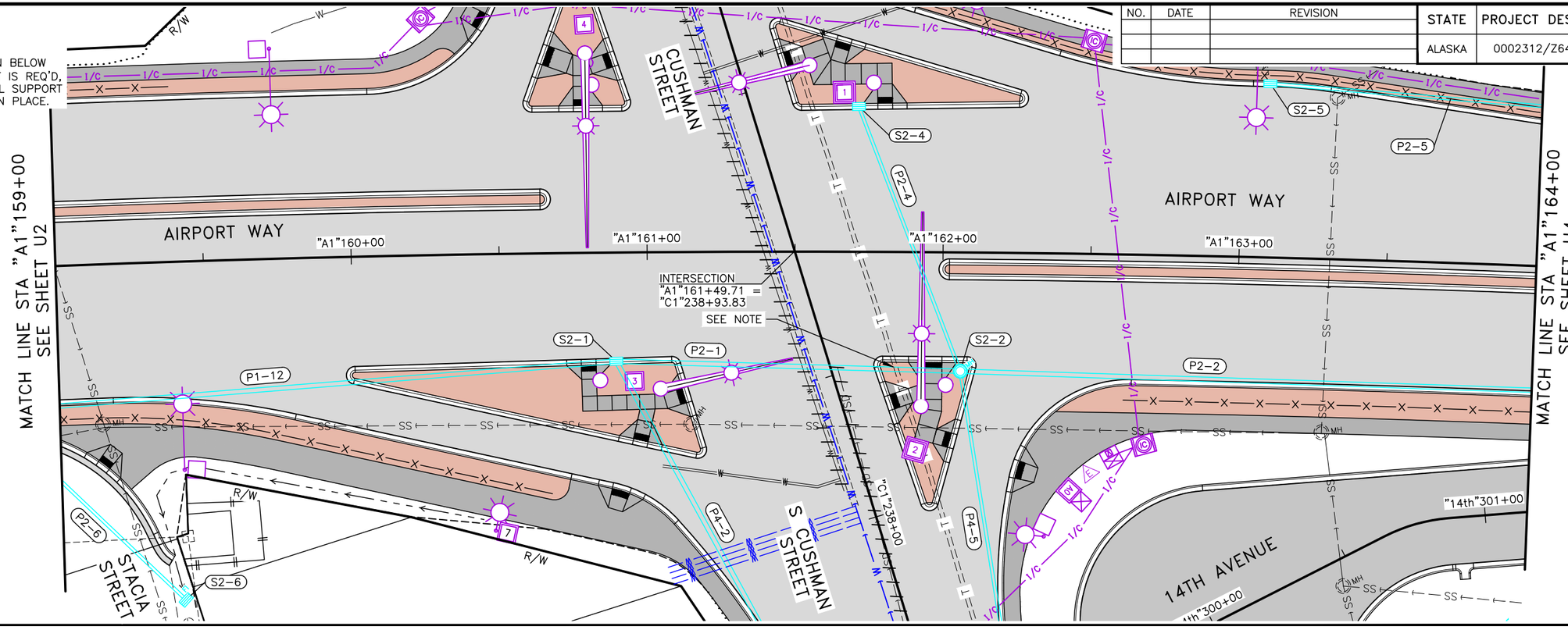
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_U2-U7_UTIL PnP-U2 Thu, Dec/22/22 11:04am

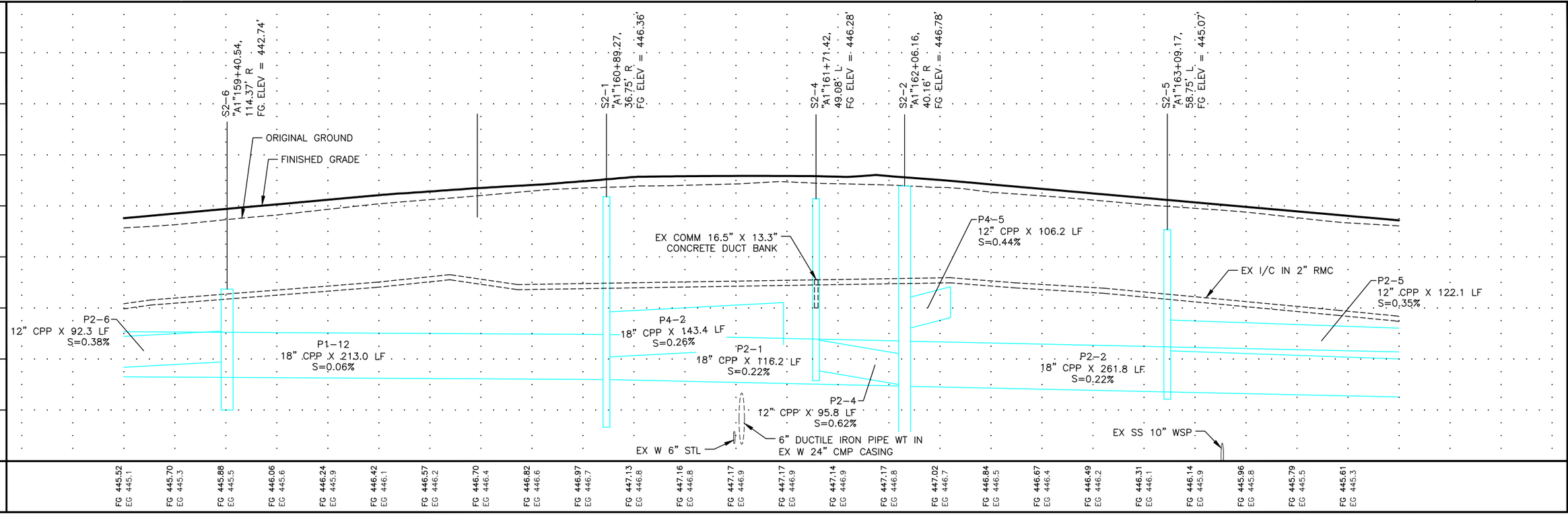
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U3	U25

NOTE:

WHERE EXCAVATION BELOW EXISTING TELEDUCT IS REQ'D, CONTRACTOR SHALL SUPPORT AND PROTECT IT IN PLACE.





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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U4	U25

MATCH LINE STA "A1"164+00
SEE SHEET U3

AIRPORT WAY

NOBLE STREET

14TH AVENUE

LACY STREET

NOBLE STREET

CONNECT NEW PIPE TO EX INLET

CONNECT TO EX PIPE

30° BEND

RECONSTRUCT EX MH

CONNECT NEW PIPE TO EX INLET

CONNECT NEW PIPE TO EX INLET

PLANS DEVELOPED BY:
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12/22/2022

ORIGINAL GROUND

FINISHED GRADE

P3-8
12" CPP X 58.0 LF
S=0.37%

P3-10
18" CPP X 45.3 LF
S=3.07%

P3-1
18" CPP X 206.6 LF
S=0.07%

P3-7
12" CPP X 102.1 LF
S=0.37%

P3-9
12" CPP X 58.1 LF
S=0.37%

P3-2
18" CPP X 60.0 LF
S=0.35%

P3-11
12" CPP X 37.9 LF
S=0.10%

P3-13
12" CPP X 53.1 LF
S=0.10%

P3-14
12" CPP X 9.7 LF
S=10.96%

P3-3
24" CPP X 60.0 LF
S=0.07%

P3-12
12" CPP X 58.1 LF
S=0.37%

P3-4
24" CPP X 169.8 LF
S=0.12%

EX W 8" STL

EX W 24" CMP CASING

8" DIP WT IN
24" SPLIT CMP CASING

P3-15
12" CPP X 44.1 LF
S=1.01%

EX 2" RMC

P3-16
12" CPP X 79.3 LF
S=1.01%

P3-20
12" CPP X 5.3 LF
S=1.89%

P3-18
12" CPP X 47.7 LF
S=0.99%

P3-19
12" CPP X 9.2 LF
S=2.18%

EX 2" RMC

EX SD
12" CMP

EX SD
24" WSP

P3-17
12" CPP X 47.6 LF
S=0.68%

P3-21
12" CPP X 10.1 LF, S=0.93%

S3-6 "A1"164+30.09, 60.05' L FG ELEV = 442.86'
S3-7 "A1"164+30.06, 52.80' L FG ELEV = 443.74'
S3-1 "A1"164+69.53, 41.31' R FG ELEV = 443.70'
S3-8 "A1"164+87.56, 46.43' L FG ELEV = 443.75'
S3-9 "A1"166+51.01, 45.77' L FG ELEV = 443.48'
S3-2 "A1"166+76.09, 43.25' R FG ELEV = 442.20'
S3-11 "A1"167+09.07, 44.60' L FG ELEV = 442.20'
S3-13 "A1"167+20.44, 8.47' L FG ELEV = 443.56'
S3-3 "A1"167+36.05, 42.31' R FG ELEV = 442.04'
S3-12 "A1"167+67.17, 45.30' L FG ELEV = 443.47'
S3-4 "A1"167+96.04, 42.31' R FG ELEV = 442.28'
S3-15 "A1"168+96.16, 81.61' L FG ELEV = 444.04'
S3-16 "A1"169+37.99, 82.87' L FG ELEV = 443.97'
S3-18 "A1"169+67.58, 9.69' L FG ELEV = 443.68'
S3-20 "A1"169+68.50, 43.25' R FG ELEV = 442.55'
S3-5 (EX) "A1"169+68.65, 37.95' R FG ELEV = 442.89'
S3-17 "A1"169+86.71, 53.11' L FG ELEV = 445.48'

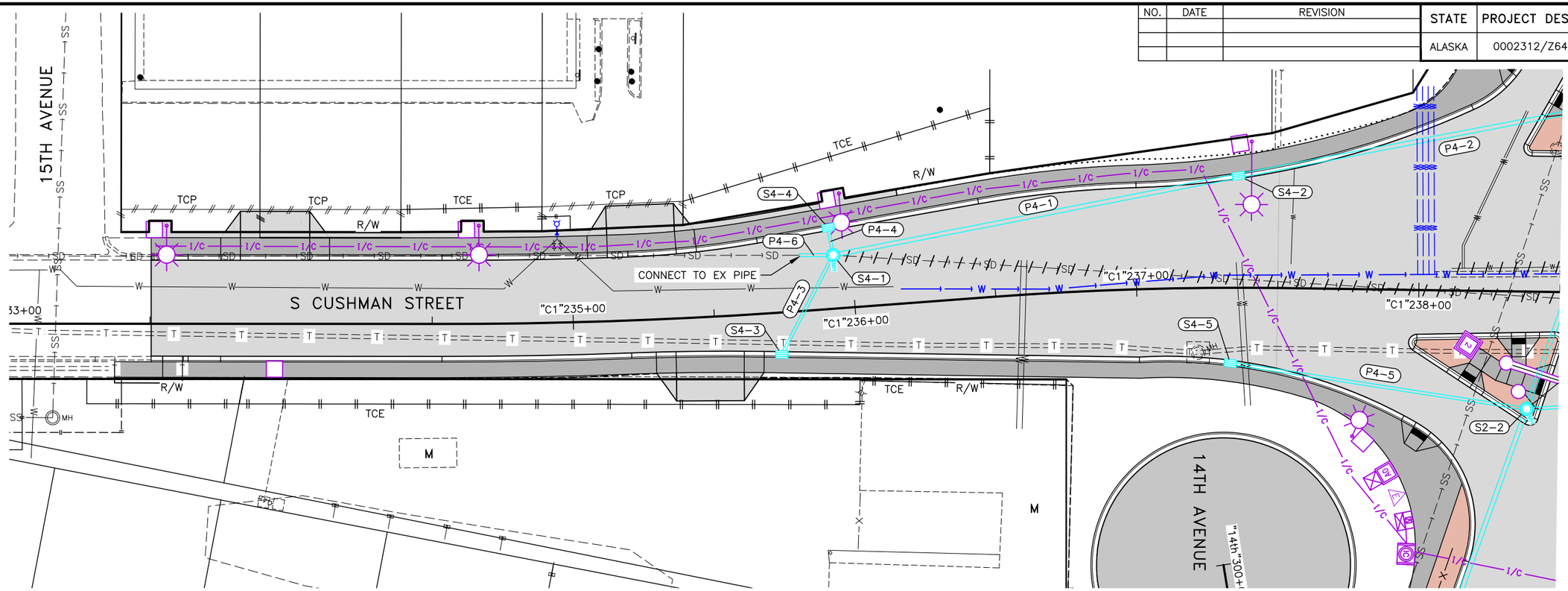
FG 445.43 EG 445.2 | FG 445.26 EG 445.1 | FG 445.08 EG 444.9 | FG 444.90 EG 444.8 | FG 444.73 EG 444.6 | FG 444.55 EG 444.4 | FG 444.37 EG 444.2 | FG 444.19 EG 444.1 | FG 444.42 EG 443.3 | FG 444.22 EG 443.7 | FG 443.64 EG 443.5 | FG 443.51 EG 443.4 | FG 443.40 EG 443.2 | FG 443.32 EG 443.1 | FG 443.26 EG 443.0 | FG 443.23 EG 443.0 | FG 443.23 EG 443.1 | FG 443.25 EG 443.1 | FG 443.31 EG 443.2 | FG 443.37 EG 443.2 | FG 443.43 EG 443.3 | FG 443.49 EG 443.5 | FG 443.55 EG 443.5 | FG 443.60 EG 443.6 | FG 443.57 EG 443.7 | FG 443.62 EG 443.7 | FG 443.65 EG 443.7 | FG 443.68 EG 443.8 | FG 443.71 EG 443.9 | FG 443.82 EG 444.0

164+00 +20 +40 +60 +80 165+00 +20 +40 +60 +80 166+00 +20 +40 +60 +80 167+00 +20 +40 +60 +80 168+00 +20 +40 +60 +80 169+00 +20 +40 +60 +80 170+00

450 448 446 444 442 440 438 436 434

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U5	U25



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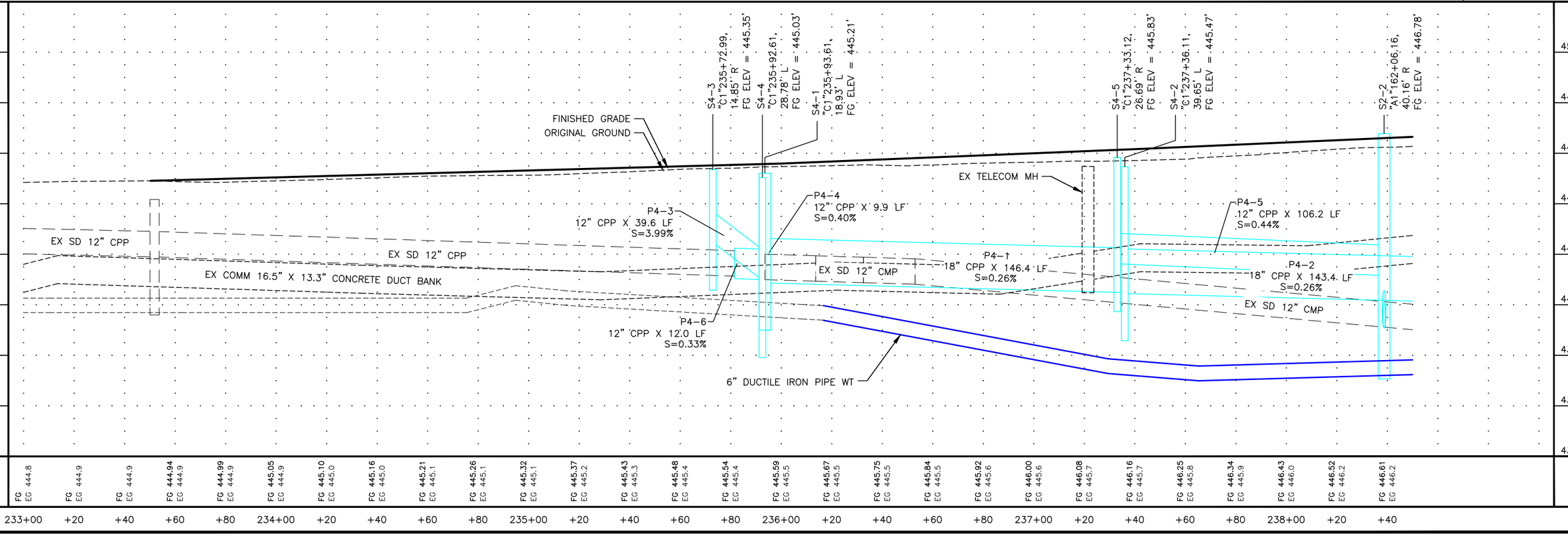
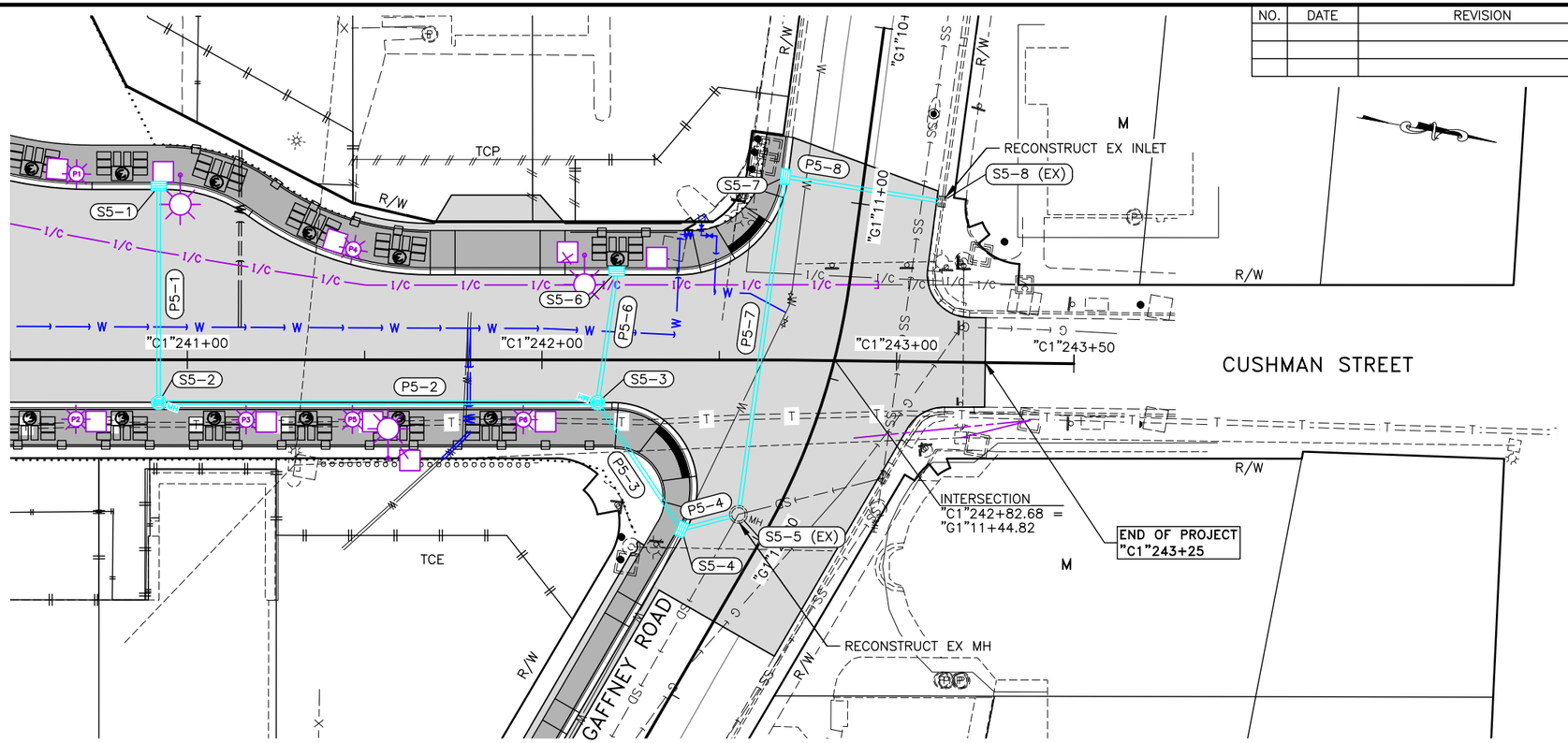


NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U6	U25



PLANS DEVELOPED BY:
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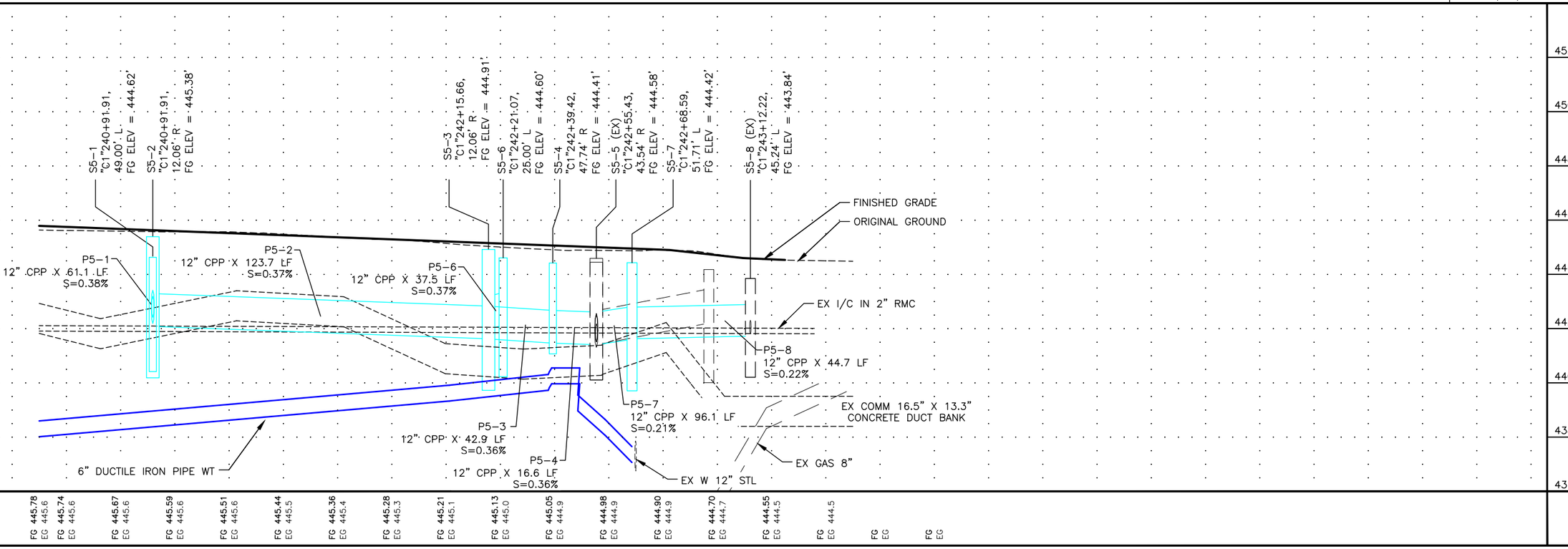
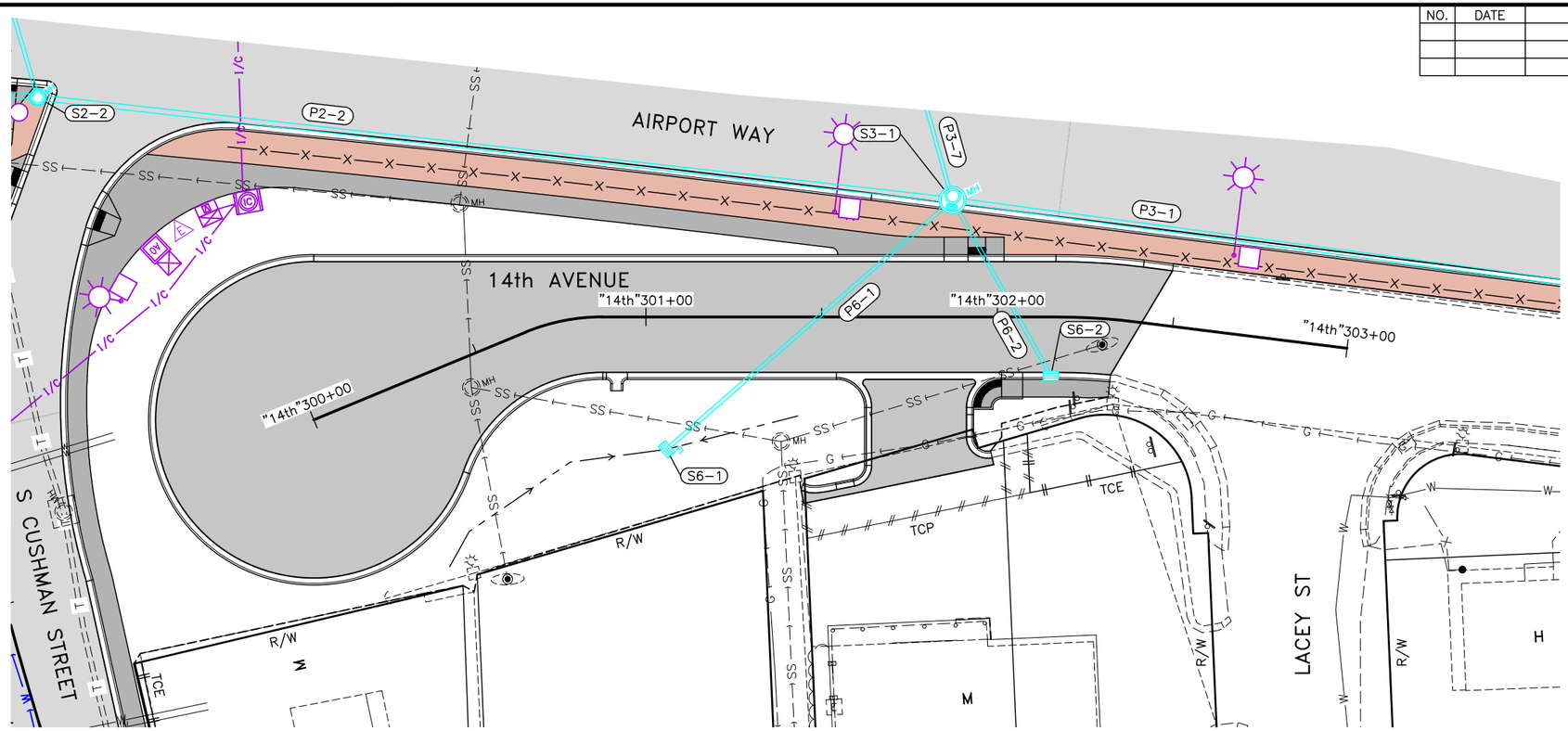
12/22/2022
REVIEW
PS&E

12/22/2022



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U7	U25



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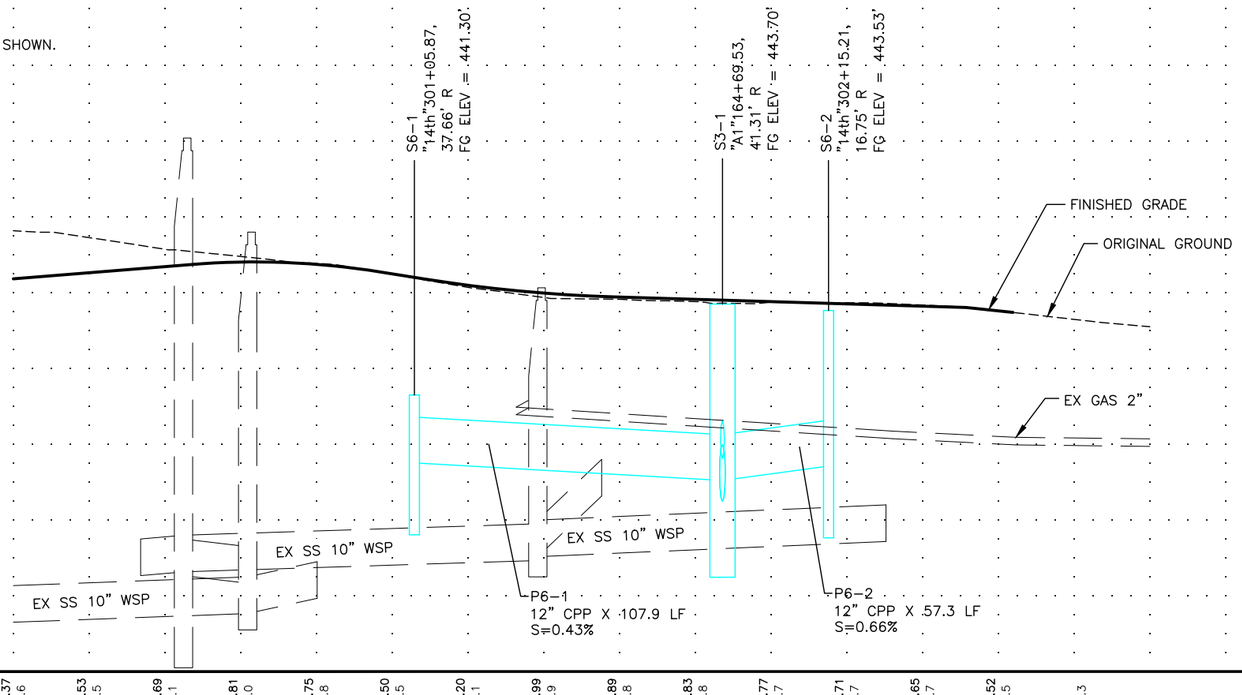
PS&E

12/22/2022

NOTE:
MAINLINE PIPES ON AIRPORT WAY NOT SHOWN.



FG	444.37	444.53	444.69	444.81	444.75	444.50	444.20	443.99	443.89	443.83	443.77	443.71	443.65	443.52	
EG	445.6	445.5	445.1	445.0	444.8	444.5	444.1	443.9	443.8	443.8	443.7	443.7	443.7	443.5	443.3
	300+00	+20	+40	+60	+80	301+00	+20	+40	+60	+80	302+00	+20	+40	+60	+80	303+00

NO.	DATE	REVISION

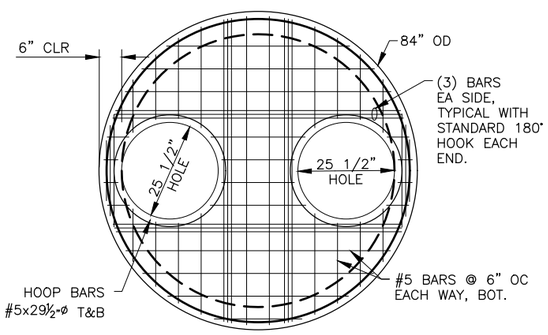
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U8	U26

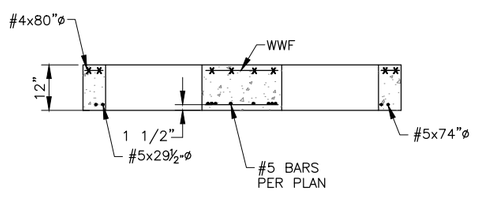
TYPE II STORM DRAIN MANHOLE NOTES:

1. CONSTRUCT PER STORM DRAIN MANHOLE TYPE II DETAIL.

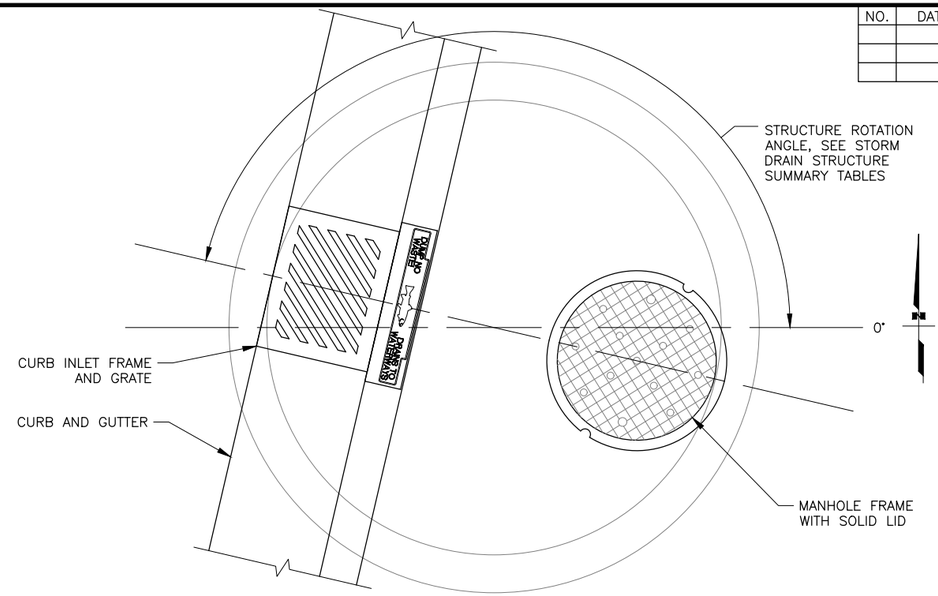
PRECAST CONCRETE REDUCING SLAB NOTES:

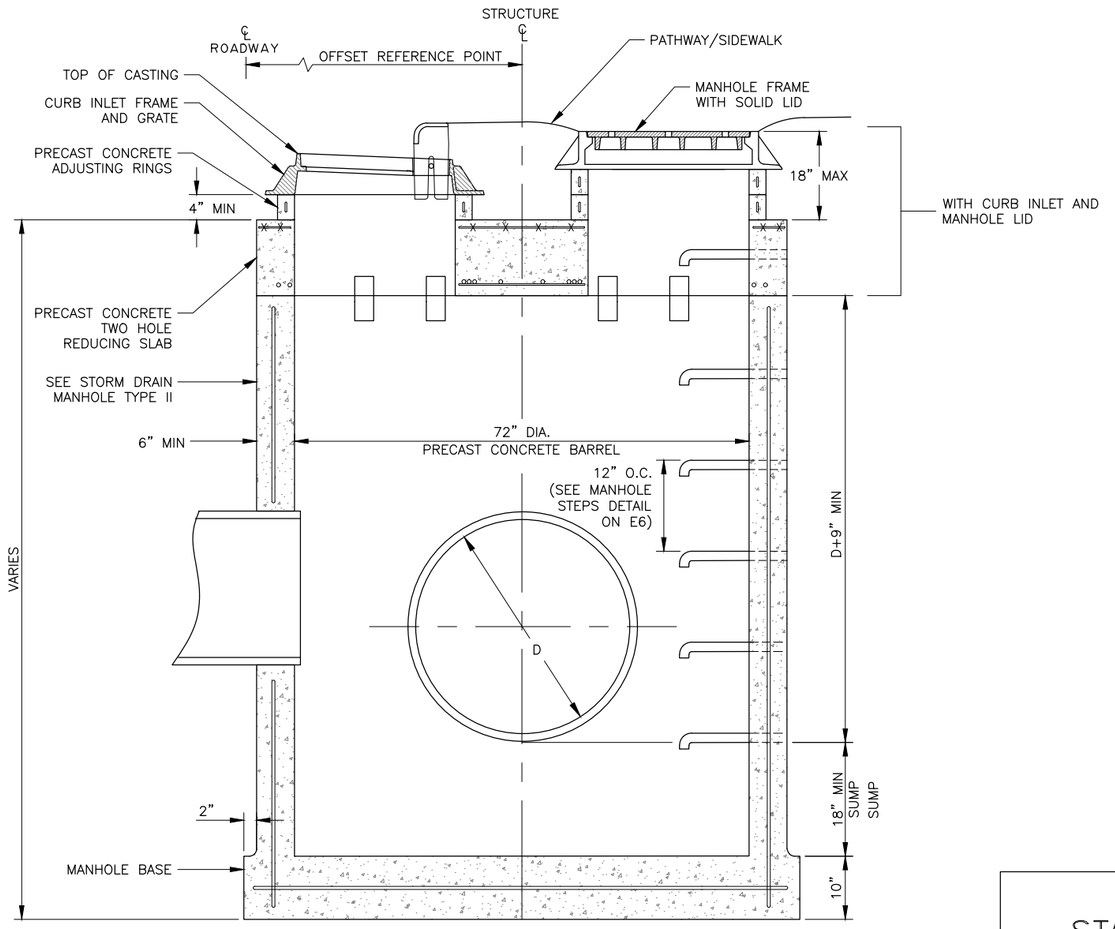
1. TABS WILL BE 1/2"X3"X7" GALVANIZED STEEL PLATES. EVENLY SPACE 8 TABS AROUND EACH SLAB. INSERT TABS 4" INTO CONCRETE, 6 1/2" FROM OUTSIDE EDGE OF SLAB.
2. MAINTAIN A MINIMUM OF 1 1/2" OF CONCRETE COVER OVER ALL REBAR.





PRECAST CONCRETE TWO HOLE REDUCING SLAB (72" TO TWO 25 1/2")





STORM DRAIN MANHOLE, TYPE II

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

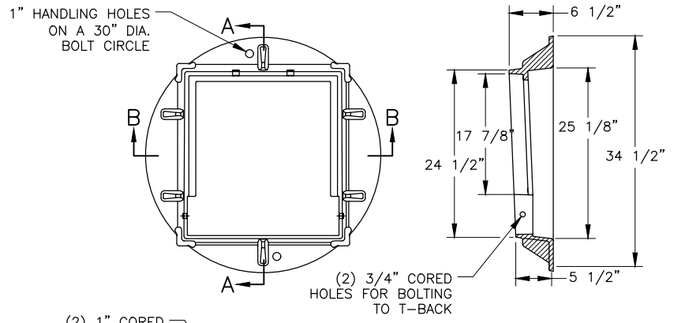
12/22/2022 REVIEW PS&E

12/22/2022

STORM DRAIN DETAILS

NO.	DATE	REVISION

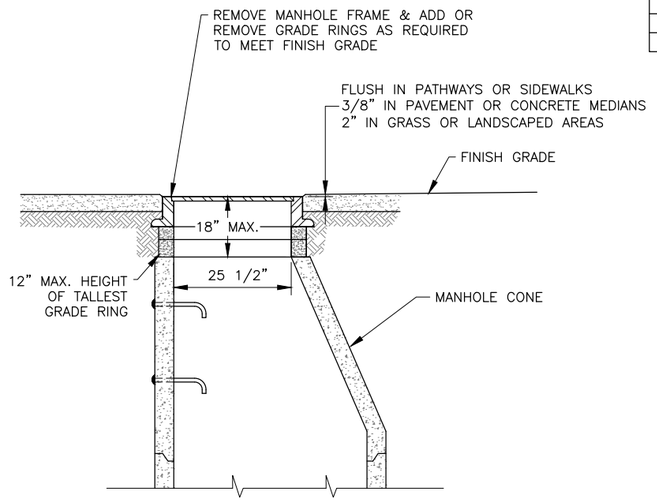
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U9	U26



SECTION A–A

SECTION B–B

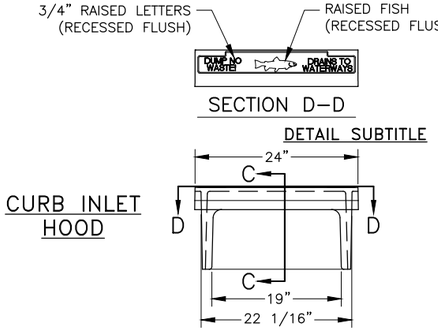
CURB INLET FRAME



NOTES:

1. WHEN AN ADJUSTMENT OF GREATER THAN 12" IN GRADE RINGS IS REQUIRED, ADJUST CONE RATHER THAN ADJUST GRADE RINGS.
2. SEAL FRAME AND GRADE RING TO CONE WITH WRAPID SEAL® OR APPROVED EQUAL.
3. FEATHER SURROUNDING SURFACES TO MATCH LID ELEVATIONS.
4. IF NECESSARY, SHIM MANHOLE FRAME WITH STUD WASHERS TO ADJUST FRAME. WHEN SHIMS ARE USED, SET MANHOLE FRAME IN A FULL BED OF MORTAR WITH SHIMS.

MANHOLE RING ADJUSTMENT



SECTION D–D

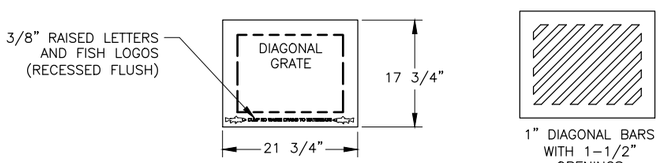
CURB INLET HOOD

SECTION C–C

CURB INLET FRAME AND HOOD FOR MOUNTABLE CURB AND GUTTER

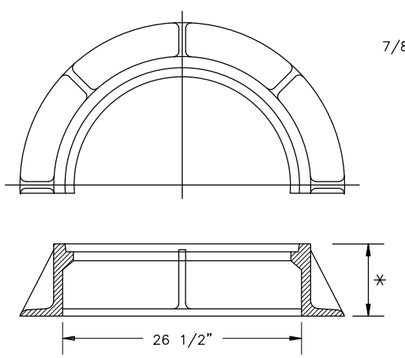
NOTES:

1. MINIMUM CASTING WEIGHT SHALL BE 400 LBS. FOR CURB INLET FRAME, HOOD & GRATE.
2. CURB INLET HOOD & GRATE SHALL CONFORM TO ASTM A536.
3. GRATE SHALL BE AS SHOWN ON THE DRAWINGS OR SPECIFIED BY THE ENGINEER.



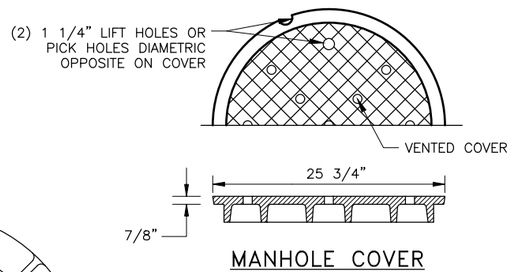
DIAGONAL GRATE

CURB INLET GRATE



MANHOLE FRAME

MANHOLE FRAME AND COVER WEIGHT		
* DEPTH	6"	380 LBS
	7"	400 LBS
	8"	440 LBS
	9"	470 LBS
	10"	500 LBS



MANHOLE COVER

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

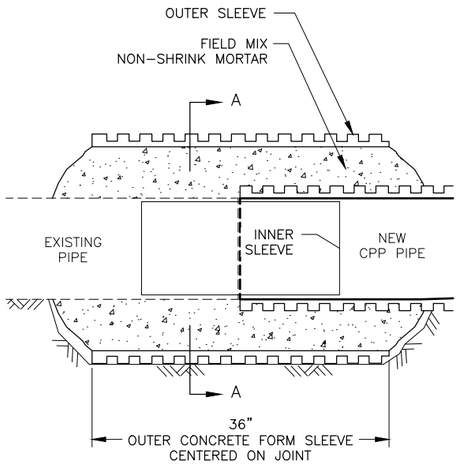
12/22/2022 REVIEW PS&E

12/22/2022

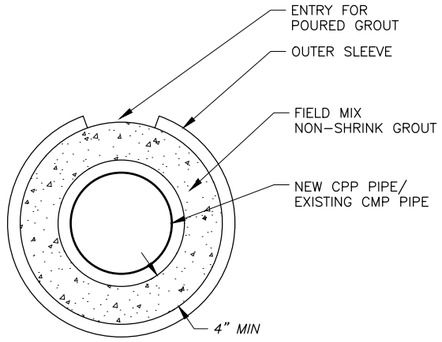
STORM DRAIN DETAILS

NO.	DATE	REVISION

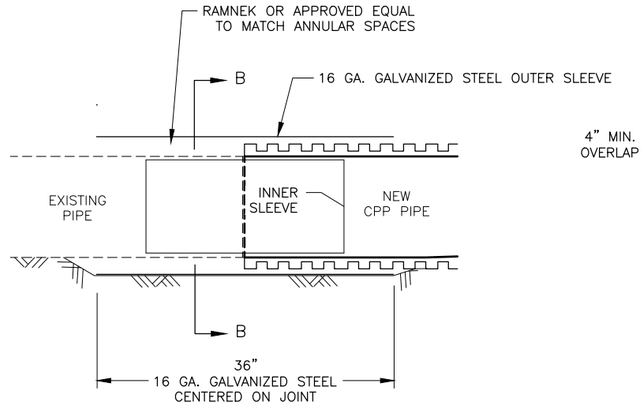
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U10	U26



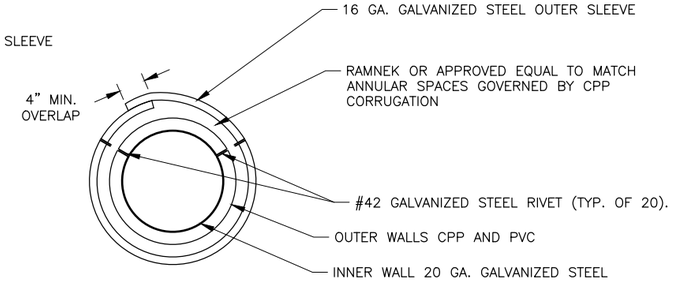
SIDE VIEW CPP
TO CMP



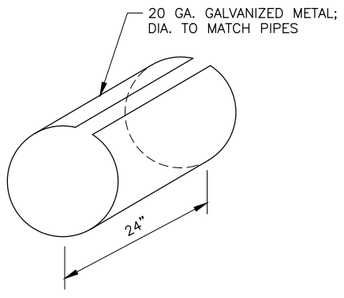
VIEW A–A



SIDE VIEW CPP
TO PVC

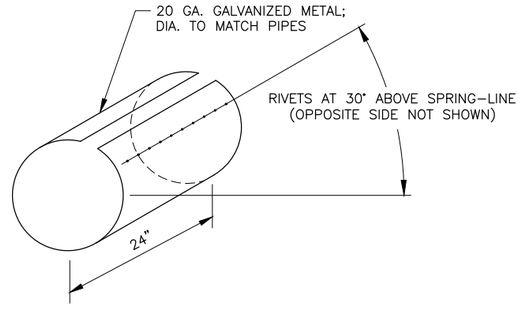


VIEW B–B



INNER SLEEVE

CPP TO CMP STORM PIPE
CONNECTION
NTS



CPP TO PVC (SMOOTH OUTER WALL)
STORM PIPE CONNECTION
NTS

CPP PIPE CONNECTION NOTES:

1. REFER TO PIPE SUMMARY REMARKS SHEET U18 FOR DISSIMILAR PIPES.
2. MATCH INVERTS OF EXISTING PIPE AND NEW CPP PIPE. INNER SLEEVE SHALL FORM A SMOOTH TRANSITION, WITHOUT AN ABRUPT EDGE WITH NEW CPP PIPE AND EXISTING CMP PIPE.
3. USE POTABLE WATER IN MINIMUM AMOUNTS TO PROVIDE PLASTICITY IN PLACING GROUT.
4. GAP BETWEEN PIPE ENDS SHALL NOT EXCEED 1/8"
5. DRILL PVC, 16 GA. AND 20 GA. GALVANIZED STEEL WHERE SMOOTH OUTERWALL PVC ABUTS CPP AND RIVET WITH #42 GALVANIZED STEEL RIVETS. HOLES SHALL BE 2" CLEAR FROM PVC AND INNER SLEEVE ENDS. ALIGN HOLES AT 30° MIRRORED ABOVE SPRING–LINE AT 2" O.C. LONGITUDINALLY.

STORM DRAIN DETAILS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

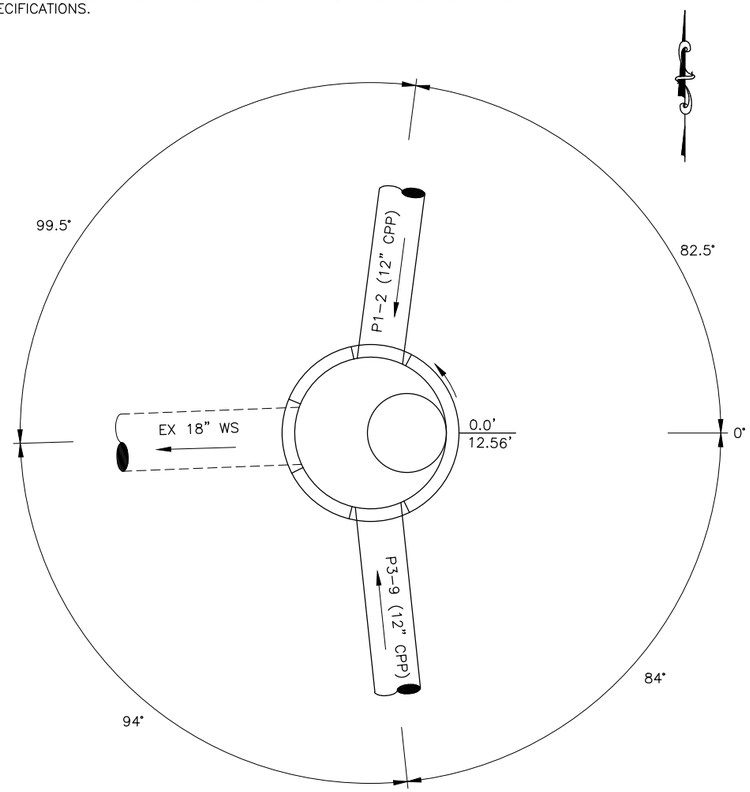
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_U8-U15_SD DETAILS-U11 Thu, Dec/22/22 02:05pm (Bill Paddock) KE#: 00385

NO.	DATE	REVISION

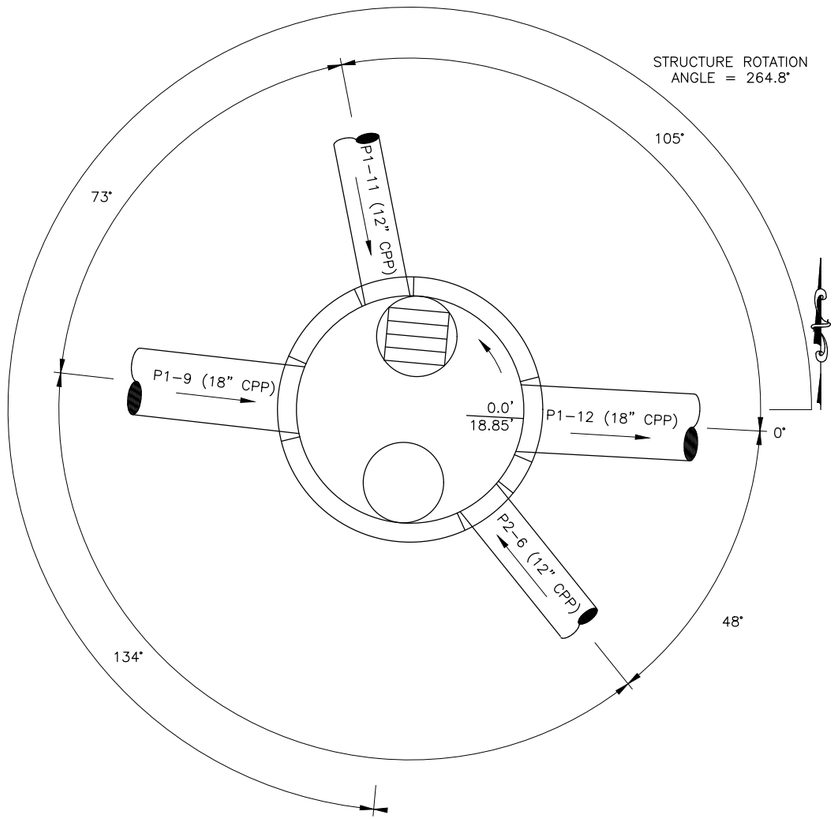
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U11	U26

GENERAL MH NOTE:

FG ELEV REFERS TO THE GRADE POINT IN STORM DRAIN CATCH BASIN DETAIL (NORMAL FLOW LINE IN AK STD PLAN) AND PAVEMENT SURFACE IN MANHOLE DETAILS. DEPRESS THE FRAMES, GRATES, AND LIDS PER THE PLANS AND SPECIFICATIONS.



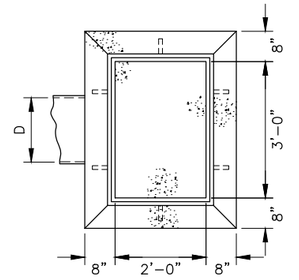
PLAN

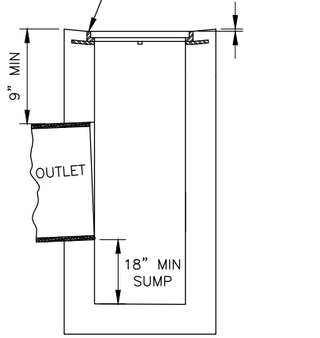


PLAN

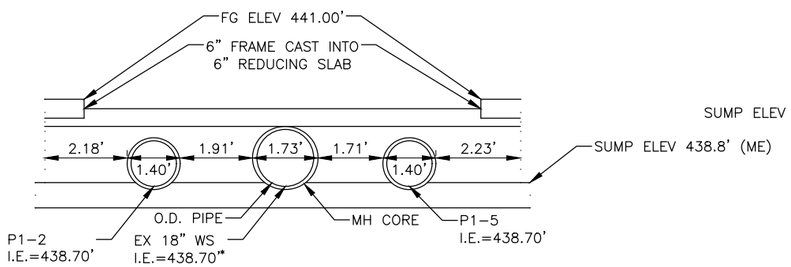
INLET BOX W/ INTEGRAL FRAME NOTES:

1. INSTALL WHERE INDICATED IN STRUCTURE SUMMARY

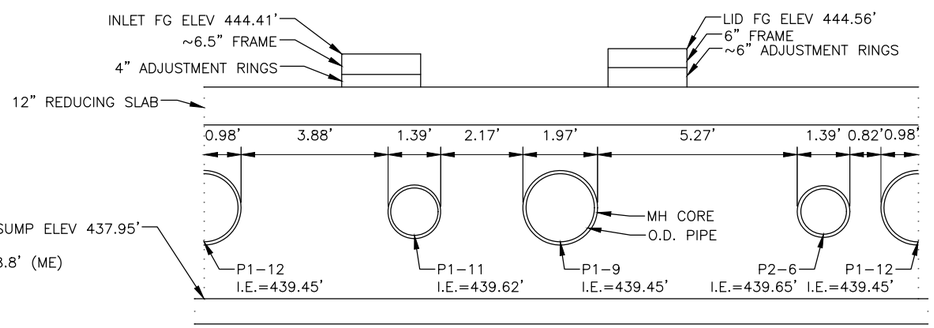




PRECAST FIELD INLET BOX
W/ INTEGRAL FRAME
NTS



PROFILE



PROFILE

* BEFORE BEGINNING CONSTRUCTION OF NEW STORM DRAIN SYSTEM, VERIFY INVERTS OF EXISTING PIPES BEING RECONNECTED TO NEW STORM DRAIN. ALERT ENGINEER TO ANY DISCREPANCIES.

S1-13 (EX) MANHOLE PLAN AND PROFILE
NTS

S1-12 MANHOLE PLAN AND PROFILE
NTS

STORM DRAIN DETAILS

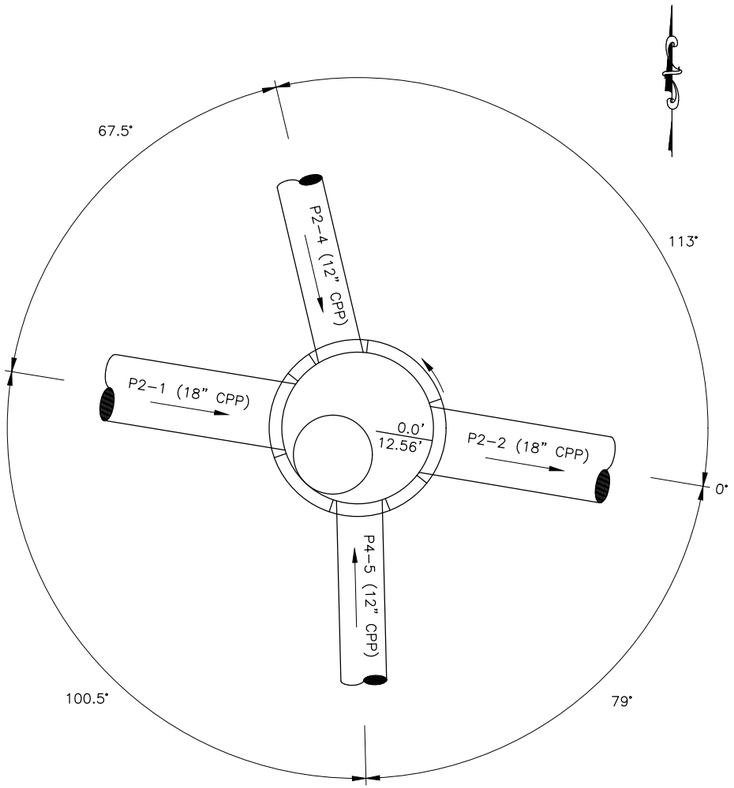
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

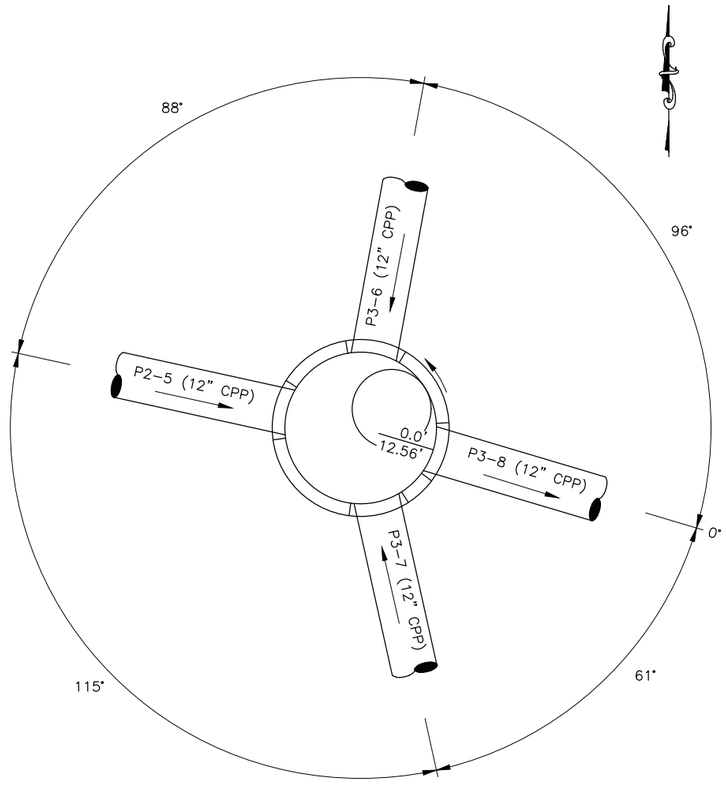
12/22/2022

NO.	DATE	REVISION

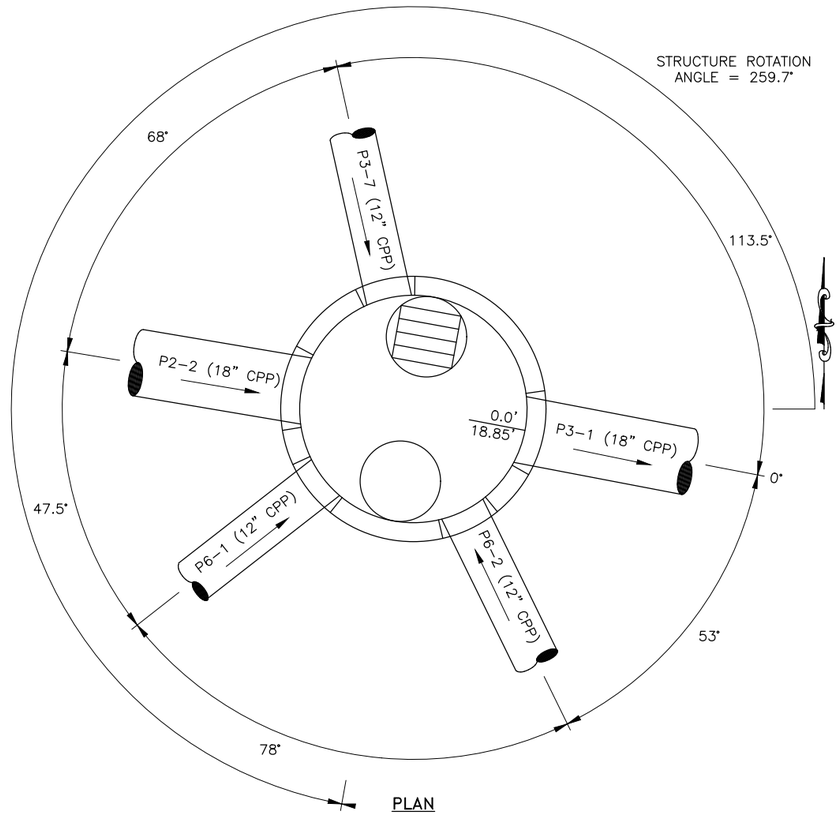
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U12	U26



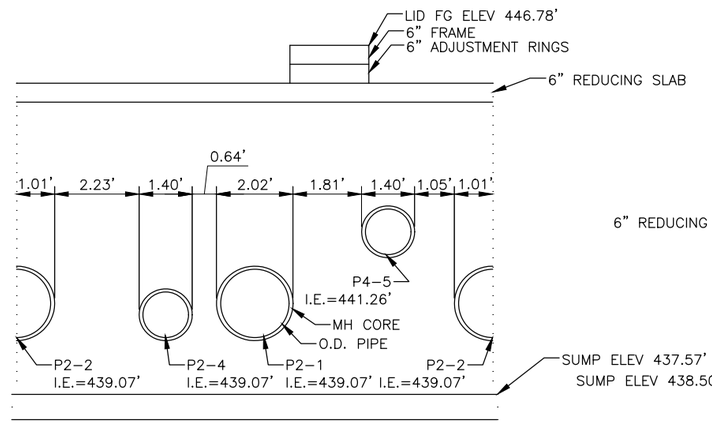
PLAN



PLAN

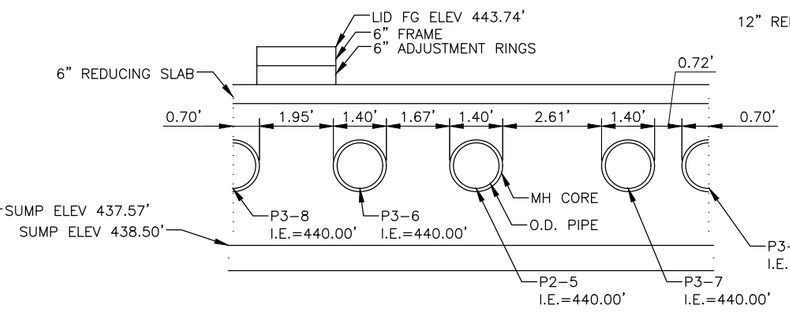


PLAN



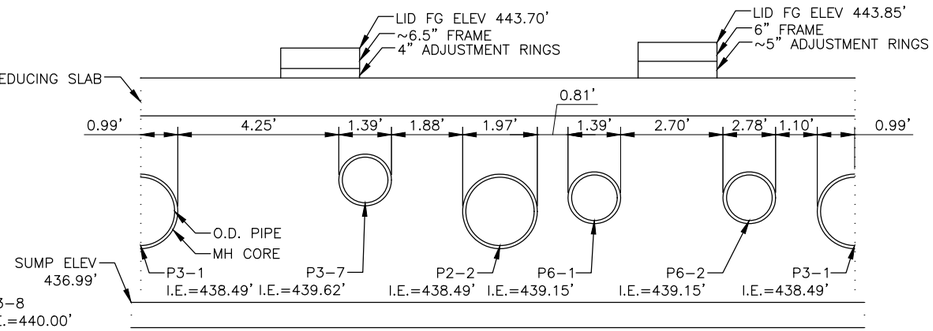
PROFILE

S2-2 MANHOLE PLAN AND PROFILE
NTS



PROFILE

S3-7 MANHOLE PLAN AND PROFILE
NTS



PROFILE

S3-1 MANHOLE PLAN AND PROFILE
NTS

STORM DRAIN DETAILS

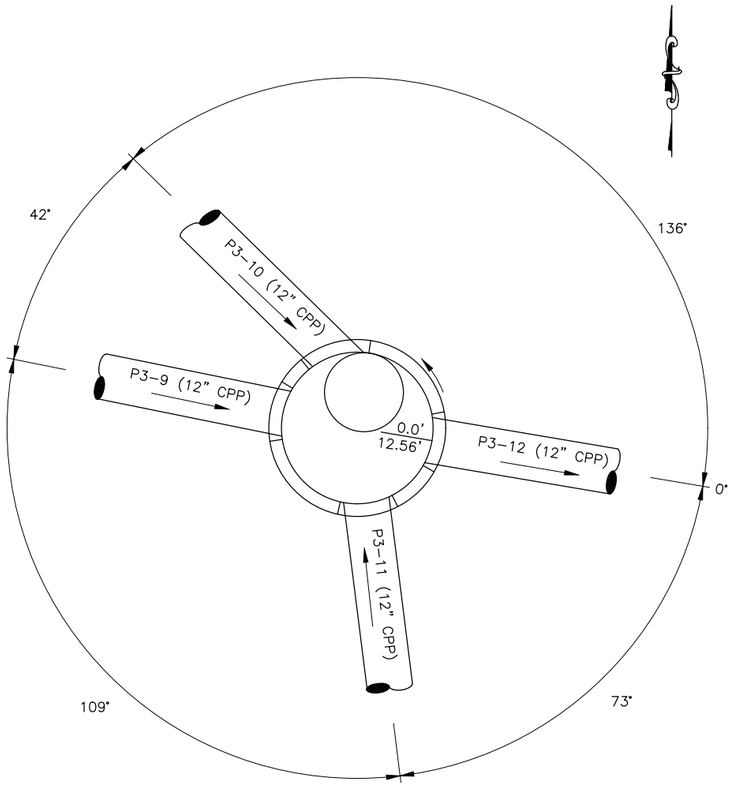
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

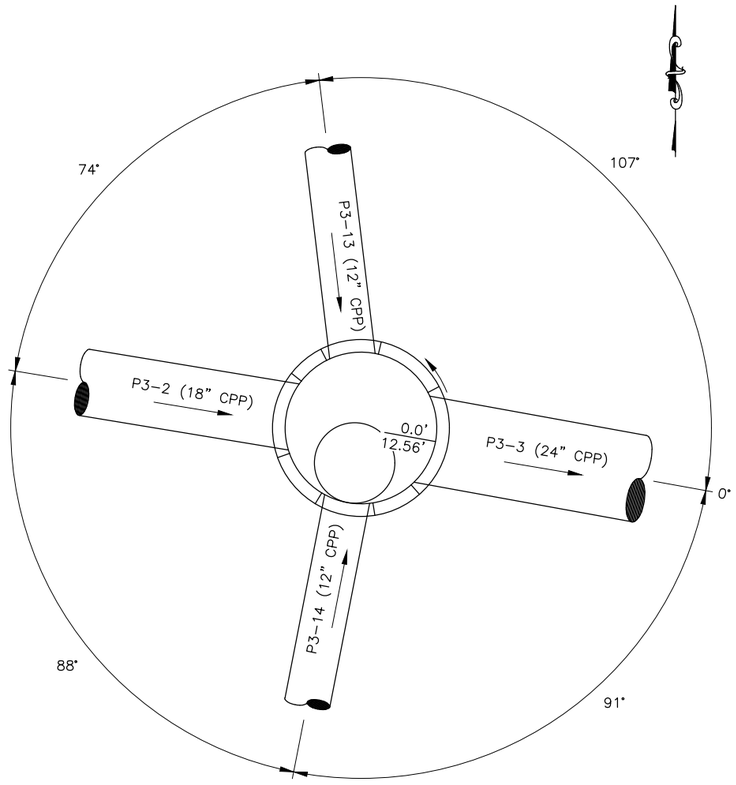
12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U13	U26



PLAN



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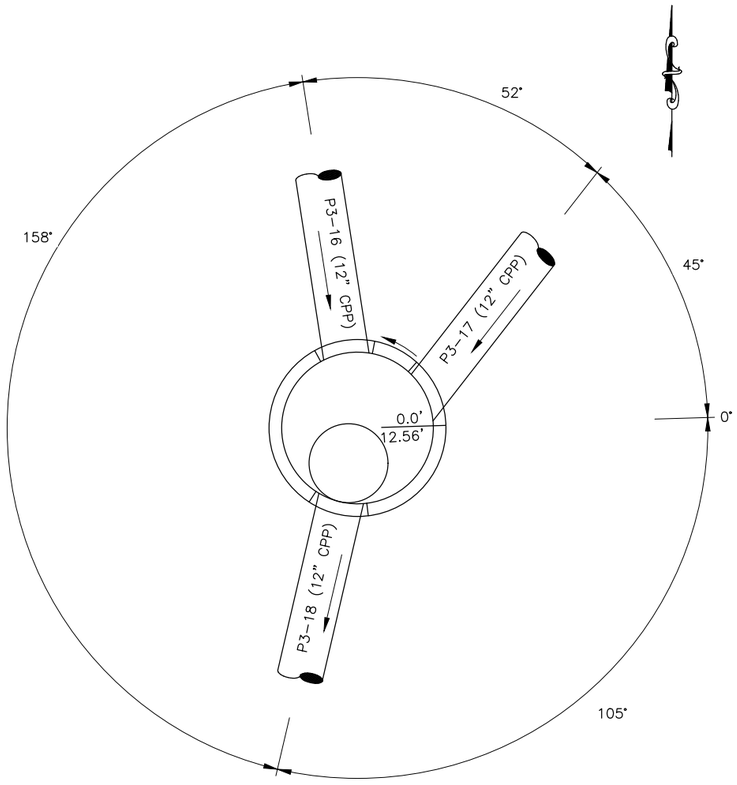
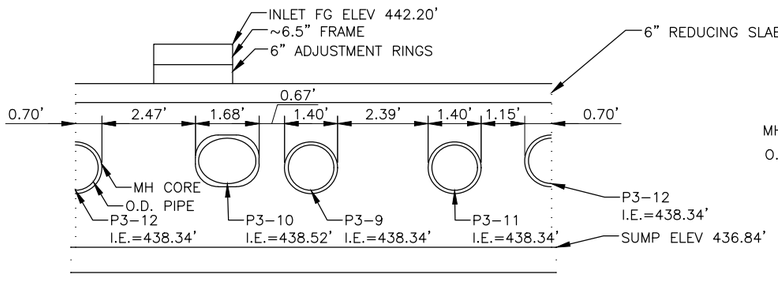
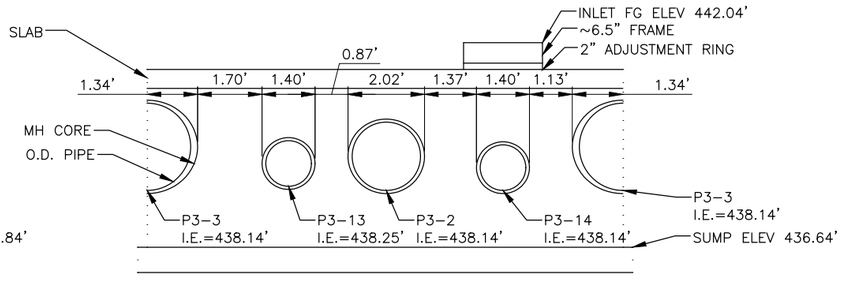


PLAN



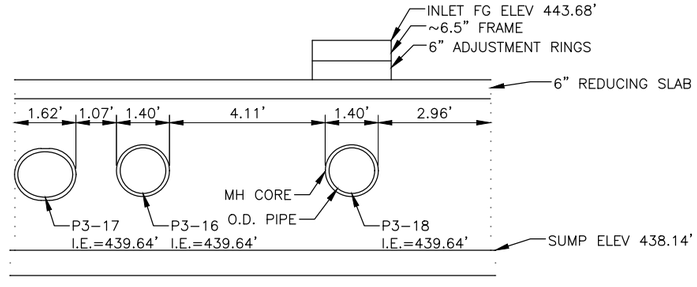
PROFILE

S3-11 MANHOLE PLAN AND PROFILE
NTS



PROFILE

S3-3 MANHOLE PLAN AND PROFILE
NTS



PROFILE

S3-18 MANHOLE PLAN AND PROFILE
NTS

STORM DRAIN DETAILS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
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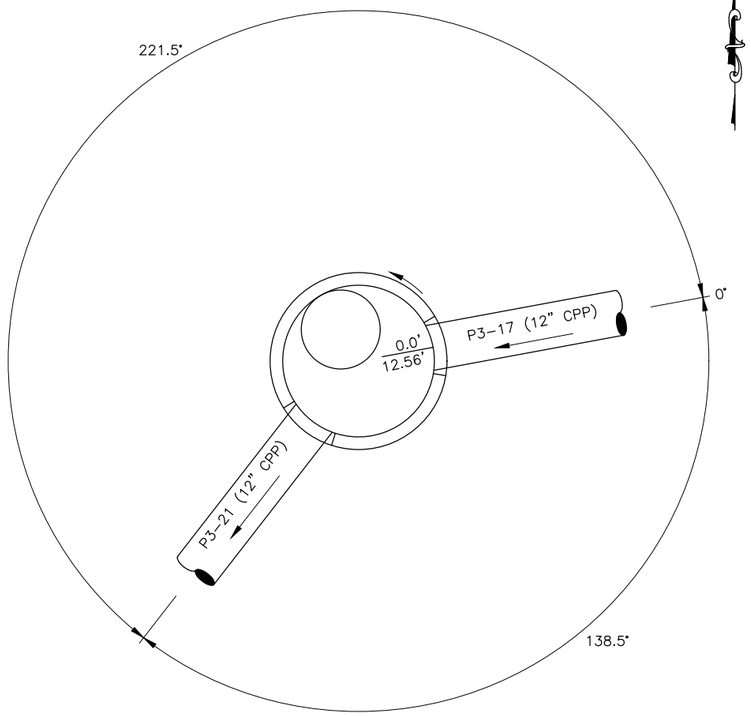
12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U14	U26



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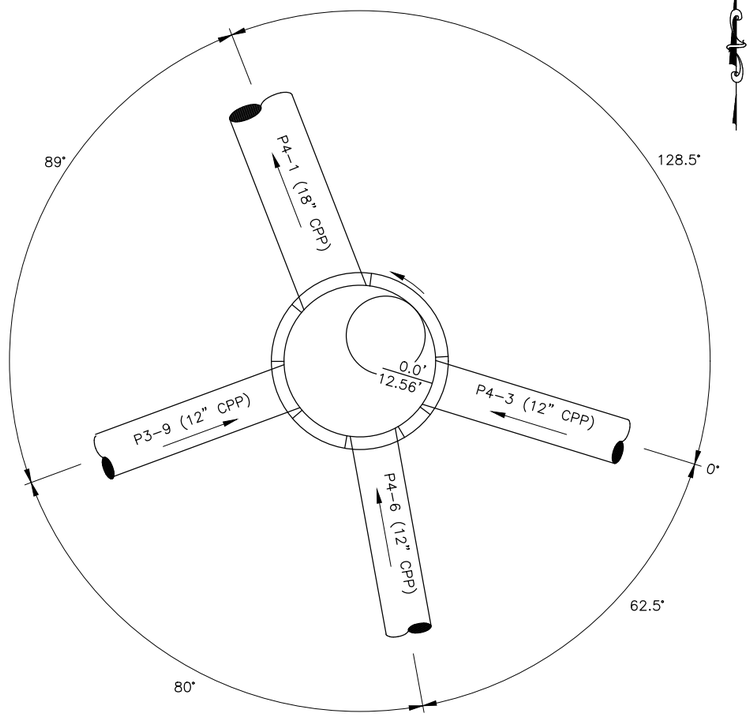

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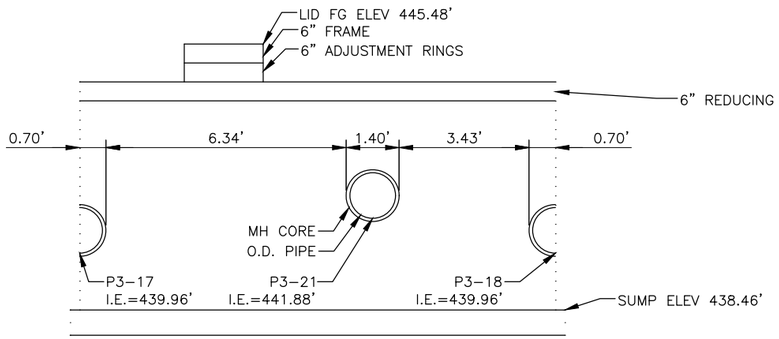
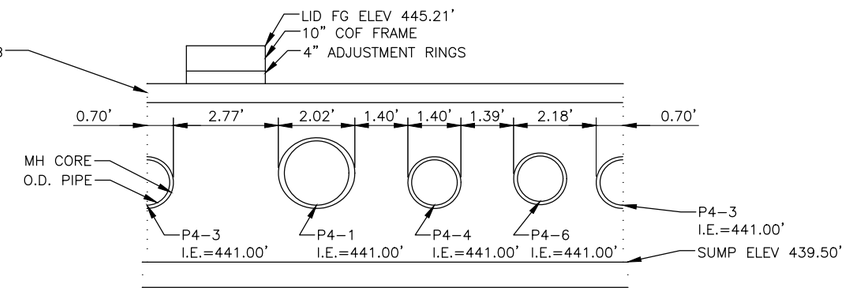


PROFILE

S3-17 MANHOLE PLAN AND PROFILE
NTS



PROFILE

S4-1 MANHOLE PLAN AND PROFILE
NTS

STORM DRAIN DETAILS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
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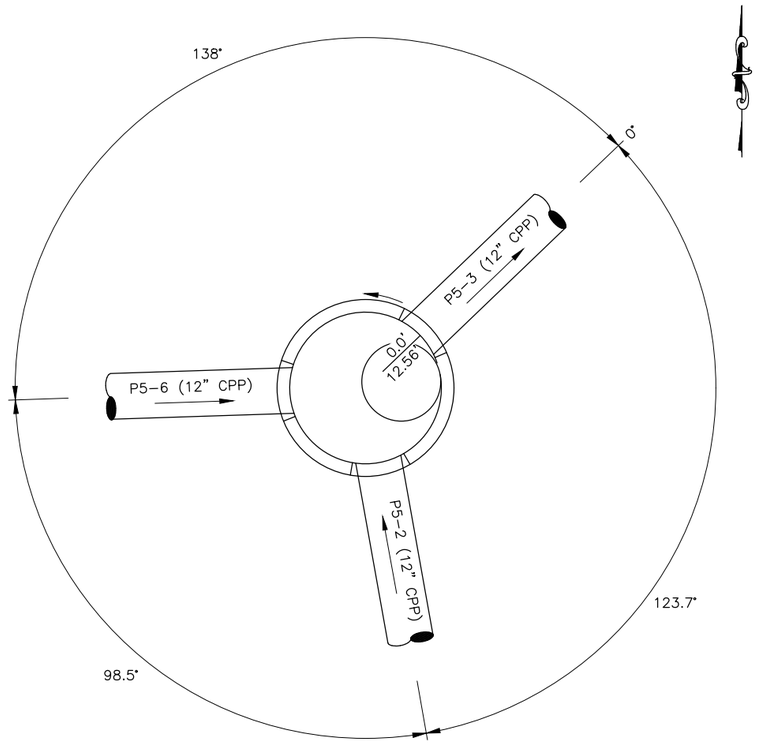
12/22/2022

NO.	DATE	REVISION

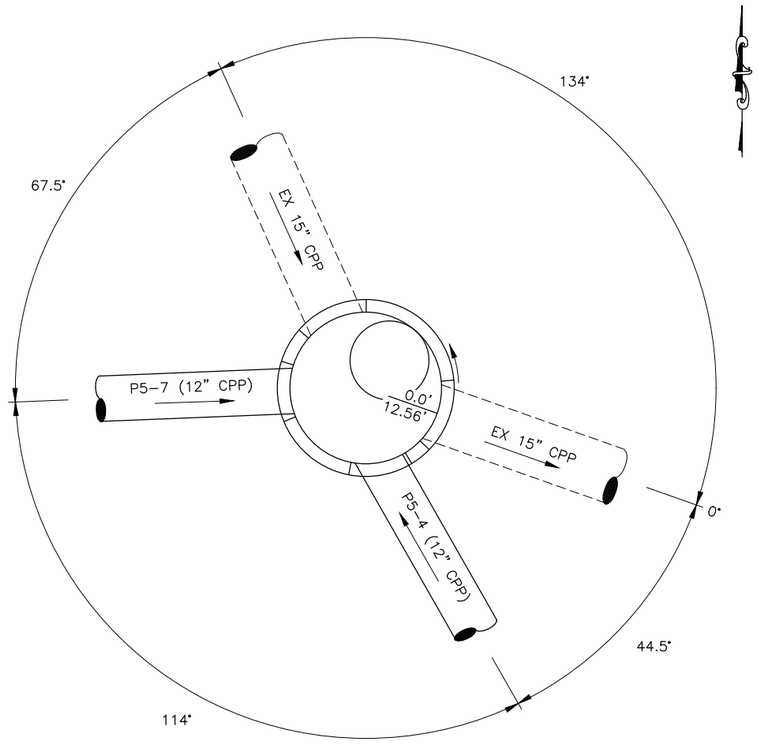
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U15	U26



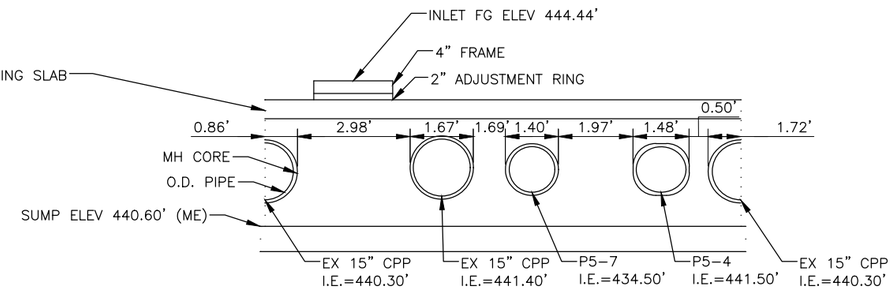
PLAN

PROFILE

S5-3 MANHOLE PLAN AND PROFILE
NTS



PLAN



PROFILE

S5-5 MANHOLE PLAN AND PROFILE
NTS

STORM DRAIN DETAILS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U16	U25

STRUCTURE SUMMARY

STRUCTURE	604.0001.0001 MANHOLE, 48" TYPE I	604.0001.0002 MANHOLE, 72" TYPE II	604.0005.000A INLET, TYPE A	STATION	OFFSET	FG ELEV.	SUMP DEPTH	PIPES IN	PIPES OUT	COVER	REMARKS
S1-1			1	"A1" 154+04.77	43.75' LT	440.86'	1.5'		P1-1, INV OUT = 438.86'	STD CI AND GRATE	
S1-2			1	"A1" 154+50.02	43.75' LT	440.76'	1.5'	P1-1, INV IN = 438.70' P1-3, INV IN = 438.70'	P1-2, INV OUT = 438.70'	STD CI AND GRATE	
S1-3			1	"A1" 155+20.53	44.57' LT	440.86'	1.5'		P1-3, INV OUT = 438.96'	STD CI AND GRATE	
S1-4			1	"A1" 154+04.58	8.26' RT	442.15'	1.5'		P1-4, INV OUT = 439.51'	STD CI AND GRATE	
S1-5			1	"A1" 154+59.97	8.25' RT	442.06'	1.5'	P1-4, INV IN = 439.30' P1-6, INV IN = 439.30'	P1-5, INV OUT = 439.30'	STD CI AND GRATE	
S1-6			1	"A1" 155+19.88	8.25' RT	442.17'	1.5'		P1-6, INV OUT = 439.52'	STD CI AND GRATE	
S1-7			1	"A1" 155+41.15	43.25' RT	442.18'	1.5'		P1-7, INV OUT = 440.05'	STD CI AND GRATE	
S1-8			1	"A1" 156+00.42	43.24' RT	442.01'	1.5'	P1-15, INV IN = 440.00' P1-7, INV IN = 439.83'	P1-8, INV OUT = 439.83'	STD CI AND GRATE	
S1-9			1	"A1" 156+53.14	43.25' RT	442.47'	1.5'	P1-14, INV IN = 439.67' P1-8, INV IN = 439.67'	P1-9, INV OUT = 439.67'	STD CI AND GRATE	
S1-10			1	"A1" 157+32.78	54.82' LT	442.70'	1.5'		P1-10, INV OUT = 440.49'	STD CI AND GRATE	
S1-11			1	"A1" 158+40.41	70.90' LT	442.80'	1.5'	P1-10, INV IN = 440.08'	P1-11, INV OUT = 440.08'	FI FRAME AND GRATE	
S1-12		1		"A1" 158+75.18	48.25' RT	444.41'	1.5'	P1-9, INV IN = 439.45' P1-11, INV IN = 439.62' P2-6, INV IN = 439.65'	P1-12, INV OUT = 439.45'	COMB. SOLID AND MOD. CI AND FRAME	SRA= 264.8'. LID FG ELEV = 444.56'. INSTALL PIPES PER DETAIL ON U10.
S1-13 (EX)				"A1" 154+49.90	38.15' LT	441.00'	EX	P1-5, INV IN = 438.70' P1-2, INV IN = 438.70'	EX (18") W, INV OUT = 438.70'*	SOLID	RECONSTRUCT MANHOLE. INSTALL PIPES PER DETAIL ON U10.
S2-1			1	"A1" 160+89.27	36.75' RT	446.36'	1.5'	P1-12, INV IN = 439.33' P4-2, INV IN = 440.21'	P2-1, INV OUT = 439.33'	STD CI AND GRATE	
S2-2	1			"A1" 162+06.16	40.16' RT	446.78'	1.5'	P2-4, INV IN = 439.07' P2-1, INV IN = 439.07' P4-5, INV IN = 441.26'	P2-2, INV OUT = 439.07'	SOLID	INSTALL PIPES PER DETAIL ON U11
S2-4			1	"A1" 161+71.42	49.08' LT	446.28'	1.5'		P2-4, INV OUT = 439.66'	STD CI AND GRATE	
S2-5			1	"A1" 163+09.17	58.75' LT	445.07'	1.5'		P2-5, INV OUT = 440.43'	STD CI AND GRATE	
S2-6			1	"A1" 159+40.54	114.37' RT	442.74'	1.5'		P2-6, INV OUT = 440.00'	COF FI AND GRATE	
S3-1		1		"A1" 164+69.53	41.31' RT	443.70'	1.5'	P2-2, INV IN = 438.49' P6-2, INV IN = 439.15' P6-1, INV IN = 439.15' P3-7, INV IN = 439.62'	P3-1, INV OUT = 438.49'	COMB. SOLID AND MOD. CI AND FRAME	SRA= 259.7'. LID FG ELEV = 433.85'. INSTALL PIPES PER DETAIL ON U11. ALLOW FOR LESS THAN 6" ADJUSTMENT RINGS.
S3-2			1	"A1" 166+76.09	43.25' RT	442.20'	1.5'	P3-1, INV IN = 438.35'	P3-2, INV OUT = 438.35'	STD CI AND GRATE	
S3-3	1			"A1" 167+36.05	42.31' RT	442.04'	1.5'	P3-13, INV IN = 438.25' P3-2, INV IN = 438.14' P3-14, INV IN = 438.14'	P3-3, INV OUT = 438.14'	MOD. CI AND GRATE	INSTALL PIPES PER DETAIL ON U12. ALLOW FOR 2" ADJUSTMENT RINGS
S3-4	1			"A1" 167+96.04	42.31' RT	442.28'	1.5'	P3-3, INV IN = 438.10'	P3-4, INV OUT = 438.10'	MOD. CI AND GRATE	ALLOW FOR 2" ADJUSTMENT RINGS
S3-5 (EX)				"A1" 169+68.65	37.95' RT	442.77'	EX	P3-4, INV IN = 437.90' P3-18, INV IN = 439.17' P3-20, INV IN = 439.40'	EX (24") E, INV OUT = 437.90'	SOLID	RECONSTRUCT MANHOLE
S3-6			1	"A1" 164+30.09	60.05' LT	442.86'	1.5'		P3-6, INV OUT = 440.03'	FI FRAME AND GRATE	
S3-7	1			"A1" 164+30.06	52.80' LT	443.74'	1.5'	P3-8, INV IN = 440.00' P2-5, INV IN = 440.00' P3-6, INV IN = 440.00'	P3-7, INV OUT = 440.00'	SOLID	INSTALL PIPES PER DETAIL ON U11
S3-8			1	"A1" 164+87.56	46.43' LT	443.75'	1.5'		P3-8, INV OUT = 440.21'	STD CI AND GRATE	

*BEFORE BEGINNING CONSTRUCTION OF NEW STORM DRAIN SYSTEM, VERIFY INVERTS OF EXISTING PIPES BEING RECONNECTED TO NEW STORM DRAIN. ALERT ENGINEER TO ANY DISCREPANCIES.

GENERAL STORM DRAIN SYSTEM NOTES:

1. SEE STORM DRAIN NOTES SHEET U17.

STORM DRAIN
SUMMARY TABLES

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U17	U25

STRUCTURE SUMMARY

STRUCTURE	604.0001.0001 MANHOLE, 48" TYPE I	604.0001.0002 MANHOLE, 72" TYPE II	604.0005.000A INLET, TYPE A	STATION	OFFSET	FG ELEV.	SUMP DEPTH	PIPES IN	PIPES OUT	COVER	REMARKS
S3-9			1	"A1" 166+51.01	45.77' LT	443.48'	1.5'		P3-9, INV OUT = 438.55'	STD CI AND GRATE	
S3-11	1			"A1" 167+09.07	44.60' LT	442.20'	1.5'	P3-12, INV IN = 438.34' P3-10B, INV IN = 438.52' P3-9, INV IN = 438.34'	P3-11, INV OUT = 438.34'	MOD. CI AND GRATE	INSTALL PIPES PER DETAIL ON U11
S3-12			1	"A1" 167+67.17	45.30' LT	443.47'	1.5'		P3-12, INV OUT = 438.55'	STD CI AND GRATE	
S3-13	1			"A1" 167+20.44	8.47' LT	443.56'	1.5'	P3-11, INV IN = 438.30'	P3-13, INV OUT = 438.30'	SOLID	
S3-15			1	"A1" 168+96.16	81.61' LT	444.04'	1.5'		P3-15, INV OUT = 440.90'	STD CI AND GRATE	
S3-16			1	"A1" 169+37.99	82.87' LT	443.97'	1.5'	P3-15, INV IN = 440.45'	P3-16, INV OUT = 440.45'	STD CI AND GRATE	
S3-17	1			"A1" 169+86.71	53.11' LT	445.48'	1.5'	P3-21, INV IN = 441.88'	P3-17, INV OUT = 439.96'	MOD. CI AND GRATE	INSTALL PIPES PER DETAIL ON U13
S3-18	1			"A1" 169+67.58	9.69' LT	443.68'	1.5'	P3-17, INV IN = 439.64' P3-16, INV IN = 439.65'	P3-18, INV OUT = 439.64'	MOD. CI AND GRATE	INSTALL PIPES PER DETAIL ON U12
S3-20			1	"A1" 169+68.50	43.25' RT	442.55'	1.5'	P3-19, INV IN = 439.40'	P3-20, INV OUT = 439.50'	STD CI AND GRATE	
S4-1	1			"C1" 235+93.61	18.93' LT	445.21'	1.5'	P4-4, INV IN = 441.00' P4-3, INV IN = 441.00' P4-6, INV IN = 441.10'	P4-1, INV OUT = 441.00'	COF SOLID	INSTALL PIPES PER DETAIL ON U13. ALLOW FOR 4" ADJUSTMENT RINGS.
S4-2			1	"C1" 237+36.11	39.65' LT	445.47'	1.5'	P4-1, INV IN = 440.62'	P4-2, INV OUT = 440.58'	COF CI AND GRATE	
S4-3			1	"C1" 235+72.99	14.85' RT	445.35'	1.5'		P4-3, INV OUT = 442.58'	COF CI AND GRATE	
S4-4			1	"C1" 235+92.61	28.78' LT	445.03'	1.5'		P4-4, INV OUT = 441.04'	COF CI AND GRATE	
S4-5			1	"C1" 237+33.12	26.69' RT	445.83'	1.5'		P4-5, INV OUT = 441.73'	COF CI AND GRATE	
S5-1			1	"C1" 240+91.91	49.00' LT	444.62'	1.5'		P5-1, INV OUT = 442.41'	COF CI AND GRATE	
S5-2	1			"C1" 240+91.91	12.06' RT	445.38'	1.5'	P5-1, INV IN = 442.18'	P5-2, INV OUT = 442.18'	MOD. CI AND GRATE	ALLOW FOR 4" ADJUSTMENT RINGS
S5-3	1			"C1" 242+15.66	12.06' RT	444.91'	1.5'	P5-6, INV IN = 442.08' P5-2, INV IN = 441.72'	P5-3, INV OUT = 441.72'	MOD. CI AND GRATE	INSTALL PIPES PER DETAIL ON U14. ALLOW FOR 4" ADJUSTMENT RINGS
S5-4			1	"C1" 242+39.42	47.74' RT	444.41'	0.0'	P5-3, INV IN = 441.56'	P5-4, INV OUT = 441.56'	COF CI AND GRATE	INSULATE STRUCTURE
S5-5 (EX)				"C1" 242+55.43	43.54' RT	444.44'	EX	EX (15") NW INV IN = 441.40' P5-7, INV IN = 441.50' P5-4, INV IN = 441.50'	EX (15") E INV OUT = 441.30'	COF SOLID	RECONSTRUCT MANHOLE. INSTALL PIPES PER DETAIL ON U14. ALLOW FOR 4" FRAME AND 2" ADJUSTMENT RINGS.
S5-6			1	"C1" 242+21.07	25.00' LT	444.60'	1.5'		P5-6, INV OUT = 442.22'	COF CI AND GRATE	
S5-7			1	"C1" 242+68.59	51.71' LT	444.42'	1.5'	P5-8, INV IN = 441.70'	P5-7, INV OUT = 441.70'	COF CI AND GRATE	INSULATE STRUCTURE
S5-8 (EX)				"C1" 243+12.22	45.24' LT	443.84'	EX		P5-8, INV OUT = 441.80'	EX	RECONSTRUCT INLET
S6-1			1	"14th" 301+05.87	37.66' RT	441.30'	1.5'		P6-1, INV OUT = 439.61'	COF FI AND GRATE	PROVIDE INLET BOX WITH INTEGRAL FRAME PER DETAIL ON U10
S6-2			1	"14th" 302+15.21	16.75' RT	443.53'	1.5'		P6-2, INV OUT = 439.53'	COF CI AND GRATE	
TOTALS	11	2	33								

GENERAL STORM DRAIN SYSTEM NOTES:

1. BEFORE BEGINNING CONSTRUCTION OF STORM DRAIN SYSTEM, CONDUCT POTHOLING TO VERIFY EXISTING UG UTILITIES LOCATION AND ELEVATION WHERE PROPOSED STORM DRAIN SYSTEM CROSSES. THIS WORK SHALL BE SUBSIDIARY TO CPP PAY ITEMS. NOTIFY THE ENGINEER IMMEDIATELY UPON IDENTIFYING AN UNDERGROUND CONFLICT BETWEEN AN EXISTING UTILITY AND PROPOSED UTILITY IMPROVEMENT. SEE SECTION 202 FOR MORE INFORMATION REGARDING RESOLUTION OF UNDERGROUND CONFLICTS.
2. ANY CHANGES TO STRUCTURE LOCATION; INVERTS OF PIPES IN OR OUT, FG ELEVATION, OR SUMP DEPTH; PIPE SLOPES; AND COVER TYPE SHALL BE APPROVED BY ENGINEER.
3. FG ELEV. COLUMN REFERS TO THE GRADE POINT IN STORM DRAIN CATCH BASIN DETAIL (NORMAL FLOW LINE IN AK STD PLAN) AND PAVEMENT SURFACE IN MANHOLE DETAILS. DEPRESS THE FRAMES, GRATES, AND LIDS PER THE PLANS AND SPECIFICATIONS.
4. PIPE LENGTHS PRESENTED ARE MEASURED HORIZONTALLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
5. PIPE SLOPES ARE CALCULATED USING THE INVERT ELEVATION DIFFERENCE DIVIDED BY THE PIPE LENGTH AS DEFINED IN NOTE 4.
6. STATION AND OFFSET REFERENCE POINT IS TO CENTER OF STRUCTURE.
7. UNLESS NOTED FOR COF (CITY OF FAIRBANKS) ALL ITEMS LISTED IN COVER COLUMN SHALL MEET REQUIREMENTS OF STANDARD PLANS. SEE V SHEETS FOR COF SD DETAILS AND STANDARD PLANS.
8. STRUCTURES S2-3 AND S3-19 NOT USED. PIPE P2-3 NOT USED.

STORM DRAIN SUMMARY TABLES

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

12/22/2022 REVIEW PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U18	U25

603.0021.0000 CORRUGATED POLYETHELENE PIPE SUMMARY

PIPE	INLET INVERT	OUTLET INVERT	LENGTH (FT)	SIZE	SLOPE	REMARKS
P1-1	438.86	438.70	43.7'	12"	0.37%	
P1-2	438.70	438.70	5.6'	12"	0.00%	
P1-3	438.70	438.96	69.6'	12"	0.37%	
P1-4	439.51	439.30	55.8'	12"	0.38%	
P1-5	439.30	438.70	47.5'	12"	1.26%	
P1-6	439.30	439.52	60.0'	12"	0.37%	
P1-7	440.05	439.83	59.3'	12"	0.37%	
P1-8	439.83	439.67	52.7'	12"	0.29%	
P1-9	439.67	439.45	222.0'	18"	0.10%	
P1-10	440.49	440.08	108.8'	12"	0.38%	
P1-11	440.08	439.62	124.2'	12"	0.37%	
P1-12	439.45	439.33	213.0'	18"	0.06%	
P1-14	439.70	439.67	8.8'	8"	0.37%	
P1-15	440.02	440.00	5.8'	8"	0.34%	SEE CPP TO PVC DETAIL
P2-1	439.33	439.07	116.2'	18"	0.22%	
P2-2	439.07	438.49	261.8'	18"	0.22%	
P2-4	439.66	439.07	95.8'	12"	0.62%	
P2-5	440.43	440.00	122.1'	12"	0.35%	
P2-6	440.00	439.65	92.3'	12"	0.38%	
P3-1	438.49	438.35	206.6'	18"	0.07%	
P3-2	438.35	438.14	60.0'	18"	0.35%	
P3-3	438.14	438.10	60.0'	24"	0.07%	
P3-4	438.10	437.90	169.8'	24"	0.12%	
P3-6	440.03	440.00	7.2'	12"	0.37%	
P3-7	440.00	439.62	102.1'	12"	0.37%	
P3-8	440.21	440.00	58.0'	12"	0.37%	
P3-9	438.55	438.34	58.1'	12"	0.37%	
P3-10A	439.90	439.20	23.0'	12"	3.07%	30° BEND CONNECTS TO P3-10B

603.0021.0000 CORRUGATED POLYETHELENE PIPE SUMMARY

PIPE	INLET INVERT	OUTLET INVERT	LENGTH (FT)	SIZE	SLOPE	REMARKS
P3-10B	439.20	438.52	22.3'	12"	3.00%	
P3-11	438.34	438.30	37.9'	12"	0.10%	
P3-12	438.55	438.34	58.1'	12"	0.37%	
P3-13	438.30	438.25	53.1'	12"	0.10%	
P3-14	439.20	438.14	9.7'	12"	10.96%	
P3-15	440.90	440.45	44.1'	12"	1.01%	
P3-16	440.45	439.65	79.3'	12"	1.01%	
P3-17	439.96	439.64	47.6'	12"	0.68%	
P3-18	439.64	439.17	47.7'	12"	0.99%	
P3-19	439.60	439.40	9.2'	12"	2.18%	
P3-20	439.50	439.40	5.3'	12"	1.89%	
P3-21	441.97	441.88	10.1'	12"	0.93%	SEE CPP TO CMP DETAIL
P4-1	441.00	440.62	146.4'	18"	0.26%	
P4-2	440.58	440.21	143.4'	18"	0.26%	
P4-3	442.58	441.00	39.6'	12"	3.99%	SEE NOTE 1 ON SHEET U17 FOR CROSSING EX UTILITY
P4-4	441.04	441.00	9.9'	12"	0.40%	
P4-5	441.73	441.26	106.2'	12"	0.44%	
P4-6	441.14	441.10	12.0'	12"	0.33%	
P5-1	442.41	442.18	61.1'	12"	0.38%	
P5-2	442.18	441.72	123.7'	12"	0.37%	
P5-3	441.72	441.56	42.9'	12"	0.36%	SEE NOTE 1 ON SHEET U17 FOR CROSSING EX UTILITY
P5-4	441.56	441.50	16.6'	12"	0.36%	
P5-6	442.22	442.08	37.5'	12"	0.37%	
P5-7	441.70	441.50	96.1'	12"	0.21%	SEE NOTE 1 ON SHEET U17 FOR CROSSING EX UTILITY
P5-8	441.80	441.70	44.7'	12"	0.22%	
P6-1	439.61	439.15	107.9'	12"	0.43%	
P6-2	439.53	439.15	57.3'	12"	0.66%	

NOTE:

1. GENERAL SD NOTES ON SHEET U17

604.0003.0000 RECONSTRUCT EXISTING MANHOLE

STATION	OFFSET	REMARKS
'A1'154+50	38' LT	
'A1'159+14	54' RT	SANITARY SEWER MANHOLE
'A1'161+15	58' RT	SANITARY SEWER MANHOLE
'A1'163+29	59' RT	SANITARY SEWER MANHOLE
'A1'166+81	79' LT	
'C1'242+55	44' RT	

604.0004.0000 ADJUST EXISTING MANHOLE

STATION	OFFSET	REMARKS
"A1"163+29	59' RT	SANITARY SEWER MANHOLE
"A1"163+32	55' LT	SANITARY SEWER MANHOLE
"A1"163+39	110' RT	SANITARY SEWER MANHOLE
"A1"164+29	116' RT	SANITARY SEWER MANHOLE
"A1"165+17	77' RT	
'C1'237+22	23' RT	
'C1'240+20	31' LT	
14th'300+45	9' RT	
14th'301+38	35' RT	

604.0010.0000 RECONSTRUCT INLET

STATION	OFFSET	REMARKS
'C1'243+12	45' LT	

STORM DRAIN SUMMARY TABLES

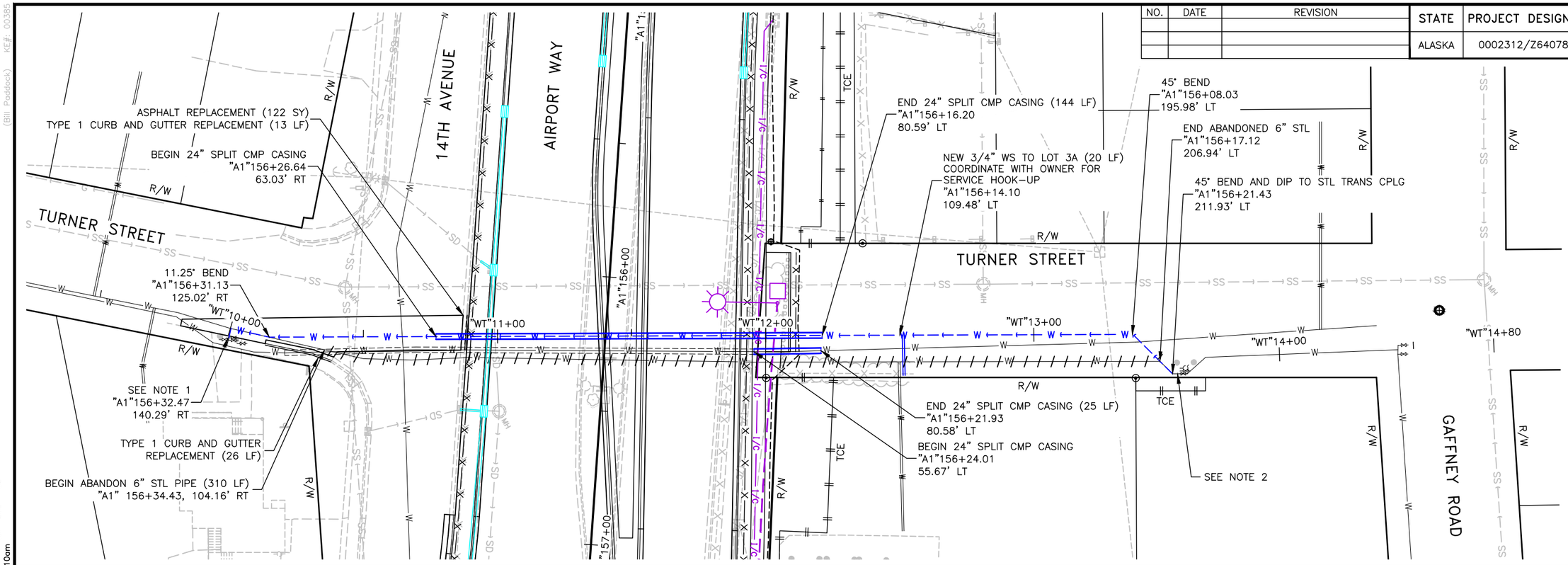
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U19	U25



PLANS DEVELOPED BY:
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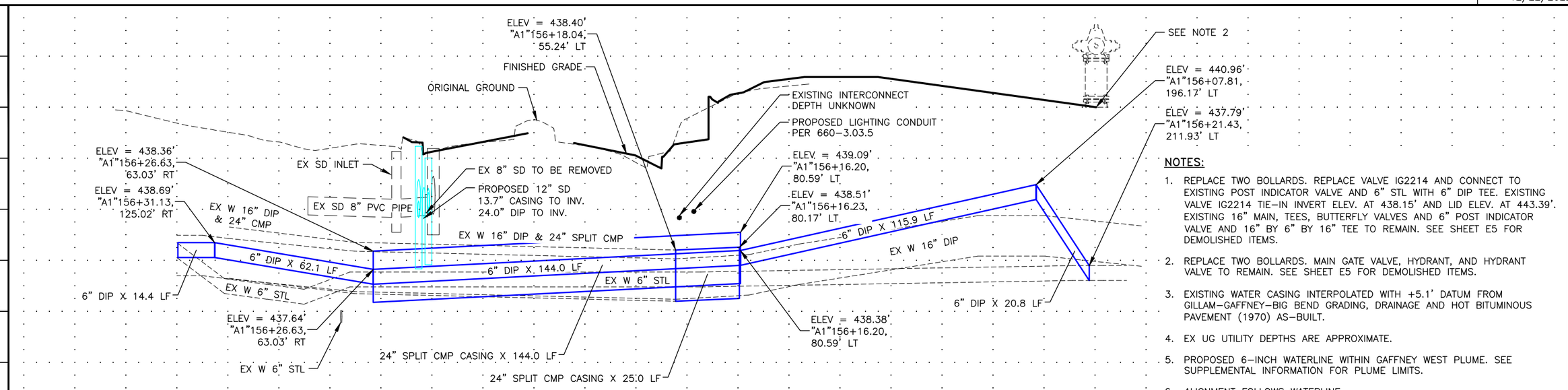
12/22/2022

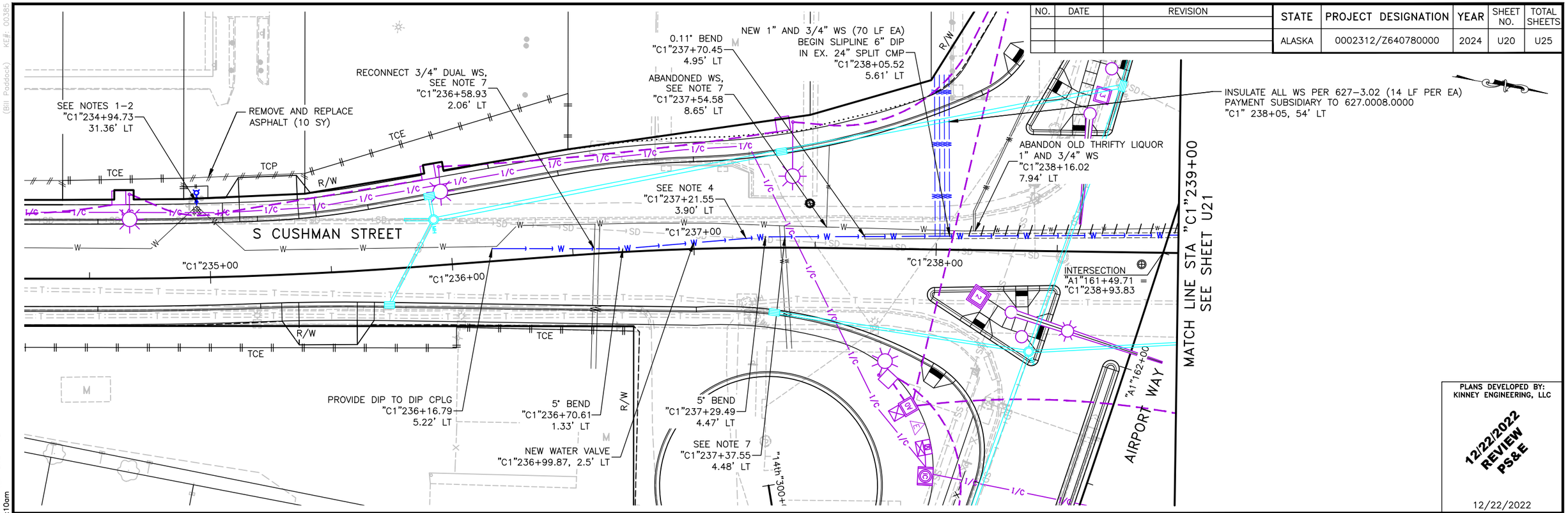


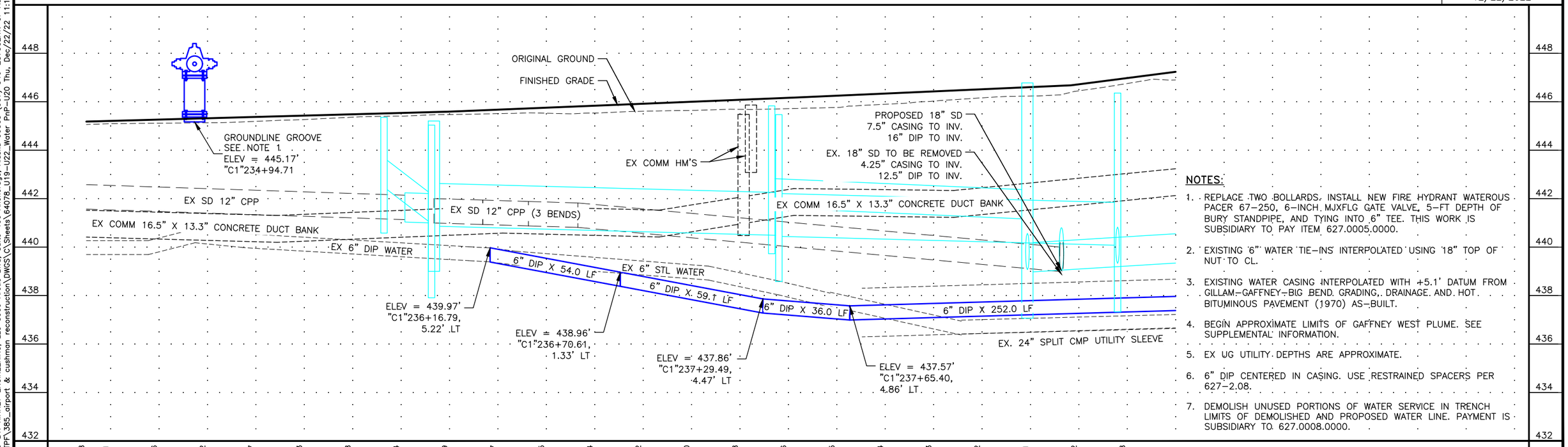
NOTES:

1. REPLACE TWO BOLLARDS. REPLACE VALVE IG2214 AND CONNECT TO EXISTING POST INDICATOR VALVE AND 6" STL WITH 6" DIP TEE. EXISTING VALVE IG2214 TIE-IN INVERT ELEV. AT 438.15' AND LID ELEV. AT 443.39'. EXISTING 16" MAIN, TEES, BUTTERFLY VALVES AND 6" POST INDICATOR VALVE AND 16" BY 6" BY 16" TEE TO REMAIN. SEE SHEET E5 FOR DEMOLISHED ITEMS.
2. REPLACE TWO BOLLARDS. MAIN GATE VALVE, HYDRANT, AND HYDRANT VALVE TO REMAIN. SEE SHEET E5 FOR DEMOLISHED ITEMS.
3. EXISTING WATER CASING INTERPOLATED WITH +5.1' DATUM FROM GILLAM-GAFFNEY-BIG BEND GRADING, DRAINAGE AND HOT BITUMINOUS PAVEMENT (1970) AS-BUILT.
4. EX UG UTILITY DEPTHS ARE APPROXIMATE.
5. PROPOSED 6-INCH WATERLINE WITHIN GAFFNEY WEST PLUME. SEE SUPPLEMENTAL INFORMATION FOR PLUME LIMITS.
6. ALIGNMENT FOLLOWS WATERLINE.
7. 6" DIP CENTERED IN CASING. USE RESTRAINED SPACERS PER 627-2.08.

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U20	U25





NOTES:

1. REPLACE TWO BOLLARDS, INSTALL NEW FIRE HYDRANT WATEROUS PACER 67–250, 6–INCH MJXFLG GATE VALVE, 5–FT DEPTH OF BURY STANDPIPE, AND TYING INTO 6" TEE. THIS WORK IS SUBSIDIARY TO PAY ITEM 627.0005.0000.
2. EXISTING 6" WATER TIE–INS INTERPOLATED USING 18" TOP OF NUT TO CL.
3. EXISTING WATER CASING INTERPOLATED WITH +5.1' DATUM FROM GILLAM–GAFFNEY–BIG BEND. GRADING, DRAINAGE. AND. HOT. BITUMINOUS PAVEMENT (1970) AS–BUILT.
4. BEGIN APPROXIMATE LIMITS OF GAFFNEY WEST PLUME. SEE SUPPLEMENTAL INFORMATION.
5. EX UG UTILITY DEPTHS ARE APPROXIMATE.
6. 6" DIP CENTERED IN CASING. USE RESTRAINED SPACERS PER 627–2.08.
7. DEMOLISH UNUSED PORTIONS OF WATER SERVICE IN TRENCH LIMITS OF DEMOLISHED AND PROPOSED WATER LINE. PAYMENT IS SUBSIDIARY TO 627.0008.0000.

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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MATCH LINE STA "C1"239+00
SEE SHEET U20

NEW 3/4" WS TO LOT 5 (50 LF), SEE NOTE 12 "C1"241+15.15 9.16' LT

NEW WS TO LOT 1 (45 LF) COORDINATE WITH OWNERS FOR SERVICE SIZE AND HOOK-UP, SEE NOTE 12

SEE NOTE 3 "C1"242+45.01 38.09' LT

90° BEND "C1"242+38.98 35.43' LT

ABANDON WS, SEE NOTE 1 "C1"240+19.25 31.07' LT

SEE NOTE 9 (TYP)

INSULATION "C1" 240+92, 9' LT, SEE NOTE 11

90° BEND "C1"242+49.30 34.97' LT

11.25° BEND AND RESTRAINING JOINT "C1"242+58.76 18.76' LT

INSULATION "C1" 242+64, 16' LT, SEE NOTE 11

ABANDON WS "C1"239+60 12' LT

SEE NOTE 2

CUSHMAN STREET

"C1"240+00 "C1"241+00 "C1"242+00 "C1"243+00 "C1"243+50

INSULATION "C1" 241+79, 12' RT, SEE NOTE 11

AIRPORT WAY

GAFFNEY ROAD

NEW WS TO LOT 4A (70 LF) NEW WS TO LOT 5A (75 LF) COORDINATE WITH OWNERS FOR SERVICE SIZES AND HOOK-UP "C1"240+12.44 9.49' LT

END SLIPLINE 6" DIP (190 LF) IN EX. 24" SPLIT CMP, SEE NOTE 12 "C1"240+01.32, 9.29' LT

INSULATION "C1" 242+19, 8' LT, SEE NOTE 11

90° BEND AND THRUST BLOCK "C1"242+37.73 7.41' LT

90° BEND AND THRUST BLOCK "C1"242+48.60 19.21' LT

END OF PROJECT "C1"243+25

INSTALL 6" DIP TO STL TRANS CPLG END PROPOSED 6" DIP (700 LF) "C1"242+68.52 13.56' LT

TCE R/W MH

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
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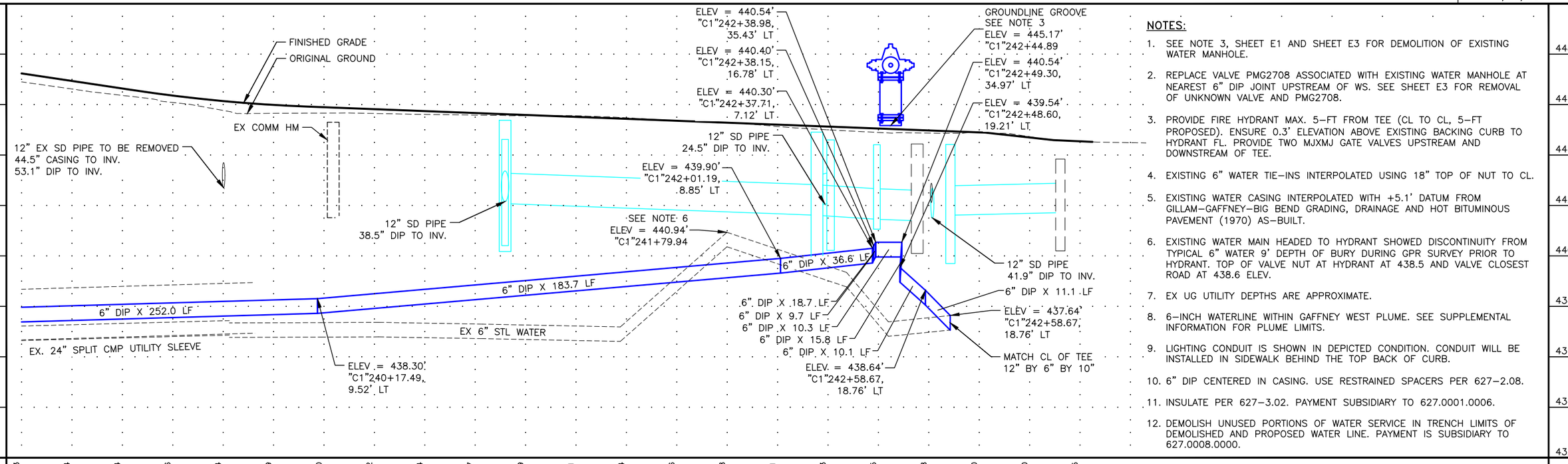

NOTES:

1. SEE NOTE 3, SHEET E1 AND SHEET E3 FOR DEMOLITION OF EXISTING WATER MANHOLE.
2. REPLACE VALVE PMG2708 ASSOCIATED WITH EXISTING WATER MANHOLE AT NEAREST 6" DIP JOINT UPSTREAM OF WS. SEE SHEET E3 FOR REMOVAL OF UNKNOWN VALVE AND PMG2708.
3. PROVIDE FIRE HYDRANT MAX. 5-FT FROM TEE (CL TO CL, 5-FT PROPOSED). ENSURE 0.3' ELEVATION ABOVE EXISTING BACKING CURB TO HYDRANT FL. PROVIDE TWO MJXMJ GATE VALVES UPSTREAM AND DOWNSTREAM OF TEE.
4. EXISTING 6" WATER TIE-INS INTERPOLATED USING 18" TOP OF NUT TO CL.
5. EXISTING WATER CASING INTERPOLATED WITH +5.1' DATUM FROM GILLAM-GAFFNEY-BIG BEND GRADING, DRAINAGE AND HOT BITUMINOUS PAVEMENT (1970) AS-BUILT.
6. EXISTING WATER MAIN HEADED TO HYDRANT SHOWED DISCONTINUITY FROM TYPICAL 6" WATER 9' DEPTH OF BURY DURING GPR SURVEY PRIOR TO HYDRANT. TOP OF VALVE NUT AT HYDRANT AT 438.5 AND VALVE CLOSEST ROAD AT 438.6 ELEV.
7. EX UG UTILITY DEPTHS ARE APPROXIMATE.
8. 6-INCH WATERLINE WITHIN GAFFNEY WEST PLUME. SEE SUPPLEMENTAL INFORMATION FOR PLUME LIMITS.
9. LIGHTING CONDUIT IS SHOWN IN DEPICTED CONDITION. CONDUIT WILL BE INSTALLED IN SIDEWALK BEHIND THE TOP BACK OF CURB.
10. 6" DIP CENTERED IN CASING. USE RESTRAINED SPACERS PER 627-2.08.
11. INSULATE PER 627-3.02. PAYMENT SUBSIDIARY TO 627.0001.0006.
12. DEMOLISH UNUSED PORTIONS OF WATER SERVICE IN TRENCH LIMITS OF DEMOLISHED AND PROPOSED WATER LINE. PAYMENT IS SUBSIDIARY TO 627.0008.0000.

NO.	DATE	REVISION

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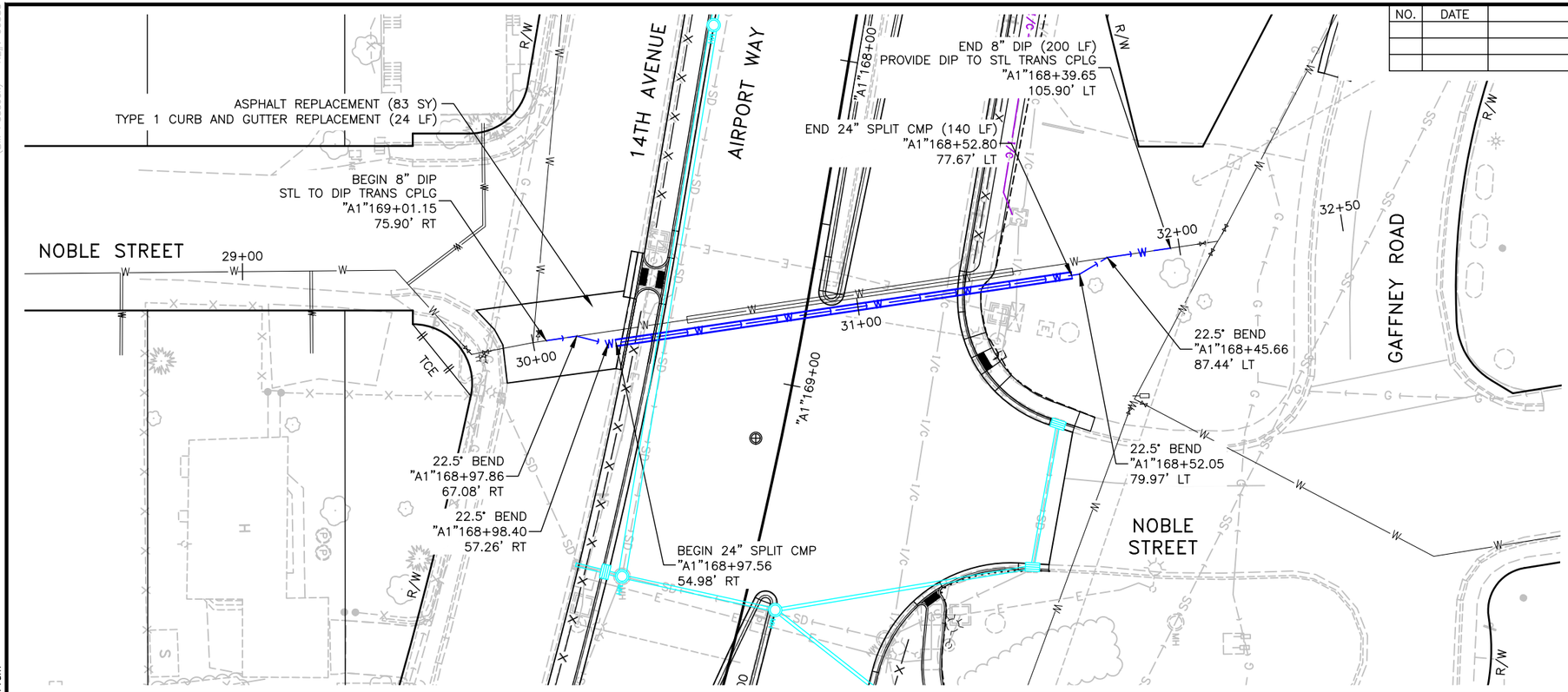
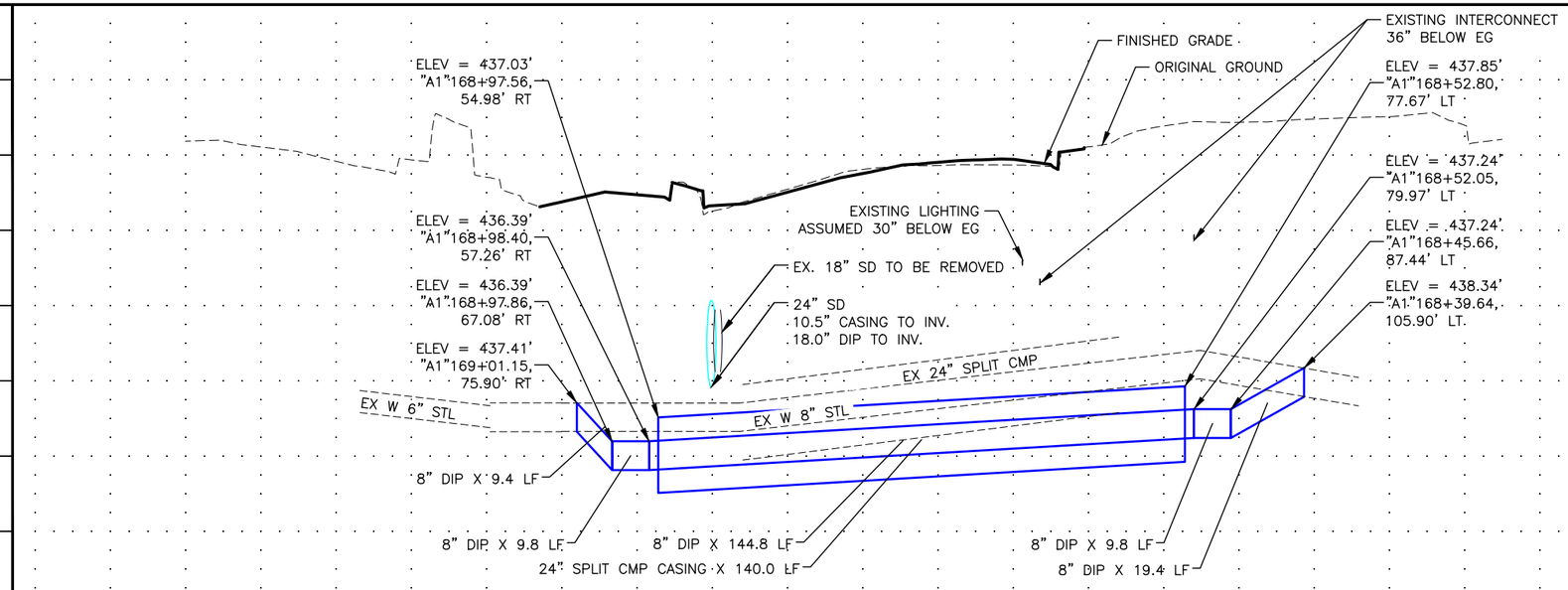
ALASKA	0002312/Z640780000	2024	U22	U25





FG / EG	444.4	444.2	443.8	443.9	443.4	442.8	442.9	442.66 / 442.5	443.01 / 443.1	443.51 / 443.6	443.81 / 443.7	443.89 / 443.7	444.2	444.8	444.9	445.0	445.0	444.8
	29+00	+20	+40	+60	+80	30+00	+20	+40	+60	+80	31+00	+20	+40	+60	+80	32+00	+20	+40

NOTES:

1. EXISTING WATER CASING INTERPOLATED WITH +5.1' DATUM FROM GILLAM-GAFFNEY-BIG BEND GRADING, DRAINAGE AND HOT BITUMINOUS PAVEMENT (1970) AS-BUILT.
2. EXISTING 8" WATER TIE-INS INTERPOLATED USING 21.75" TOP OF NUT TO CL.
3. EX UG UTILITY DEPTHS ARE APPROXIMATE.
4. PROFILE STATIONING FOLLOWS WATERLINE.
5. 8" DIP CENTERED IN CASING. USE RESTRAINED SPACERS PER 627-2.08.

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

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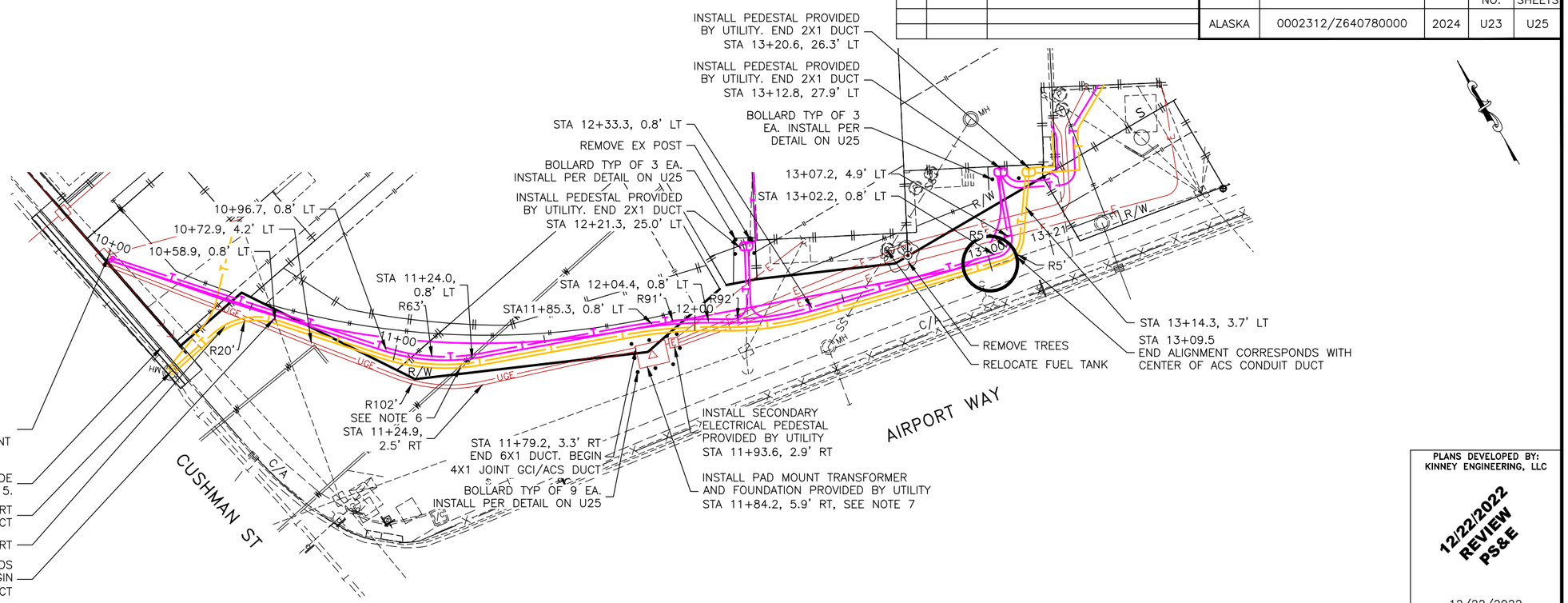
ALASKA	0002312/Z640780000	2024	U23	U25

NOTES:

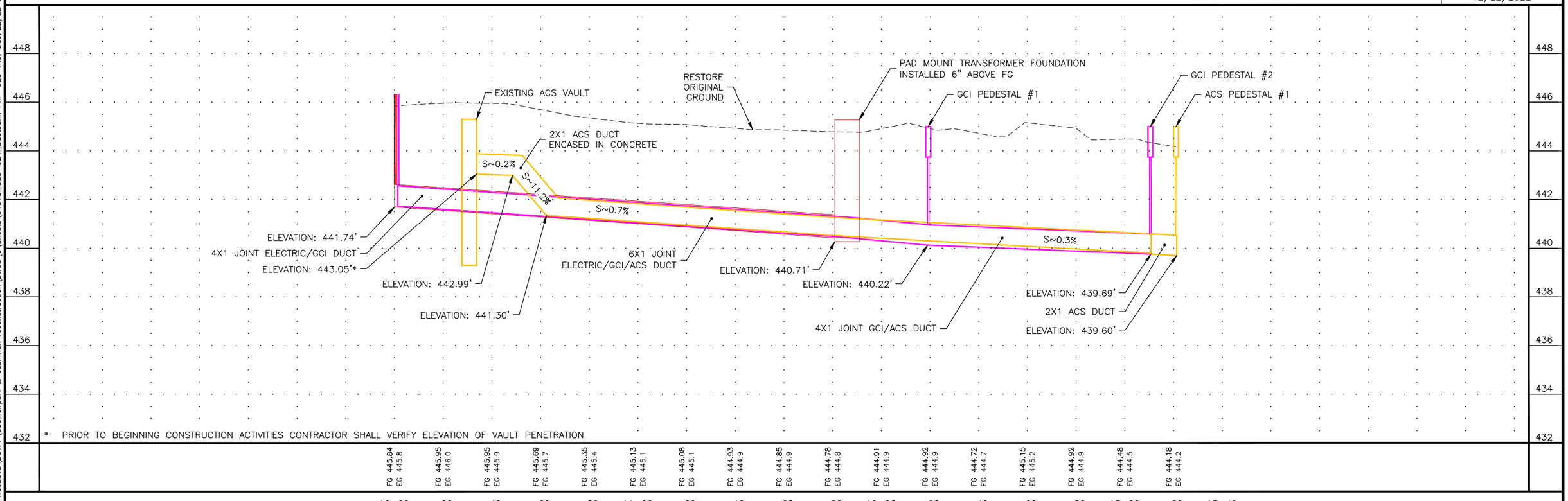
1. SCHEMATIC LAYOUT DEPICTED. DO NOT SCALE. DUCTS RUNS SHALL BE INSTALLED AS NOTED ALONG THE DUCT ALIGNMENT IN SAME TRENCH.
2. STATION, OFFSET, AND RADIUS CALLOUTS RELATED TO DUCT GEOMETRY ARE TO CENTER OF UTILITY CONDUIT DUCTS AND THE CENTER OF A PEDESTAL OR FOUNDATION.
3. ADJUST STATION AND OFFSET AS DIRECTED BY ENGINEER TO MEET REQUIREMENTS OF TRENCH DETAIL ON U23.
4. DO NOT RECONSTRUCT DRIVEWAY CURB CUTS. PROVIDE SUBBASE, GRADING F, FOR REGRADING. RECONSTRUCT WITH 6" THICK SIDEWALK.
5. R&R 2' WIDE ASPHALT PAVEMENT SECTION ADJACENT TO C&G R&R. ASSUMED 2" THICK.
6. POTENTIAL WATER SERVICE LINE CONFLICT. ACTUAL LOCATION AND DEPTH UNKNOWN. COORDINATE W/ UTILITY THROUGH ENGINEER TO DETERMINE IF LINE IS ACTIVE. REROUTE DUCT AS DIRECTED BY ENGINEER IF IN CONFLICT IF WITH ACTIVE SERVICE. REMOVE ABANDONED LINE AS DIRECTED BY ENGINEER.
7. PAD TRANSFORMER FOUNDATION LT AND RT CORNERS NEAREST AIRPORT WAY SHALL BE ORIENTED PER THE FOLLOWING : STA 11+79.1, 9.7' RT & 11+89.6, 9.6' RT



PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022



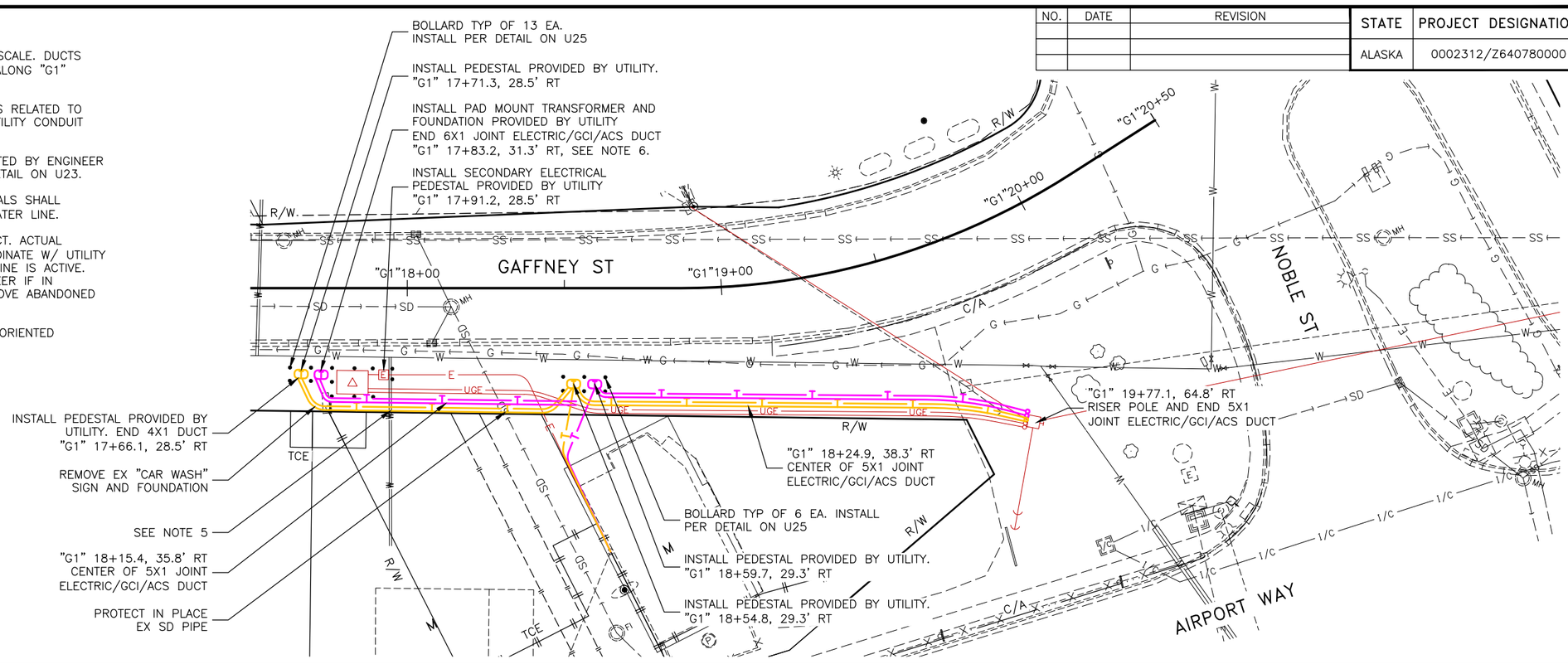
* PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES CONTRACTOR SHALL VERIFY ELEVATION OF VAULT PENETRATION

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U24	U25

NOTES:

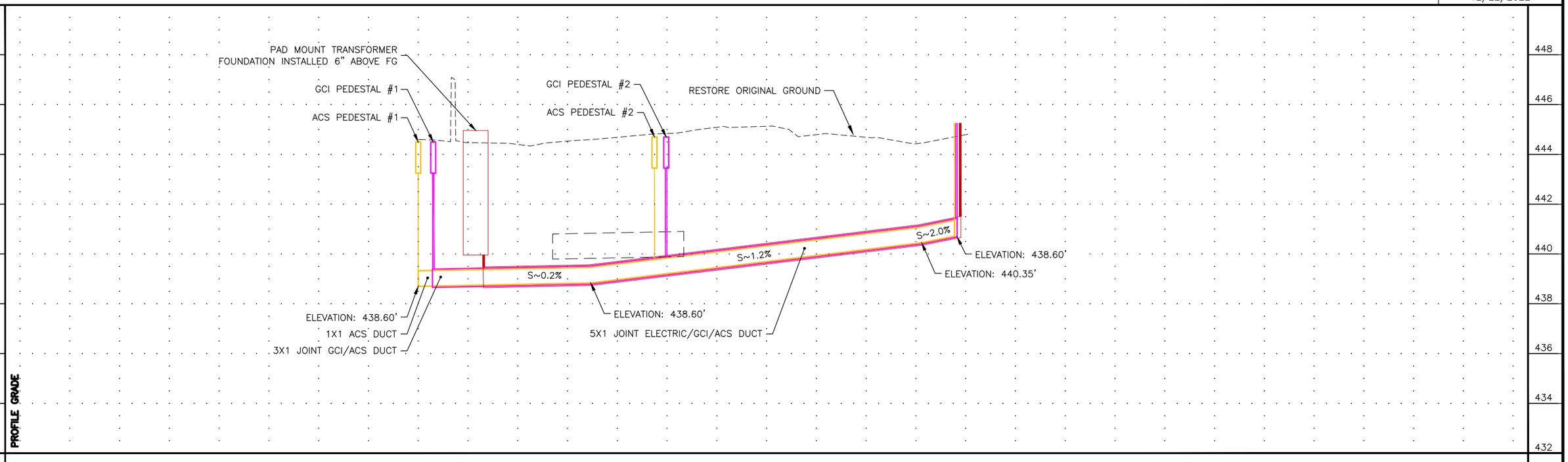
1. SCHEMATIC LAYOUT DEPICTED. DO NOT SCALE. DUCTS RUNS SHALL BE INSTALLED AS NOTED ALONG "G1" ALIGNMENT IN SAME TRENCH.
2. STATION, OFFSET, AND RADIUS CALLOUTS RELATED TO DUCT GEOMETRY ARE TO CENTER OF UTILITY CONDUIT DUCTS.
3. ADJUST STATION AND OFFSET AS DIRECTED BY ENGINEER TO MEET REQUIREMENTS OF TRENCH DETAIL ON U23.
4. ALL DUCTS, FOUNDATIONS, AND PEDESTALS SHALL MAINTAIN 5' CLEARANCE TO EXISTING WATER LINE.
5. POTENTIAL WATER SERVICE LINE CONFLICT. ACTUAL LOCATION AND DEPTH UNKNOWN. COORDINATE W/ UTILITY THROUGH ENGINEER TO DETERMINE IF LINE IS ACTIVE. REROUTE DUCT AS DIRECTED BY ENGINEER IF IN CONFLICT IF WITH ACTIVE SERVICE. REMOVE ABANDONED LINE AS DIRECTED BY ENGINEER.
6. LONG EDGE OF FOUNDATION SHALL BE ORIENTED PARALLEL WITH EX CURB LINE.



PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

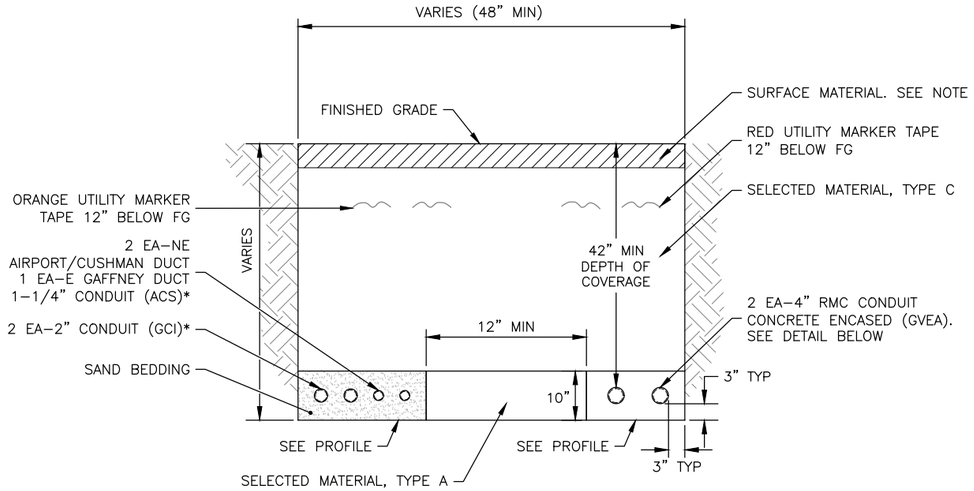
12/22/2022



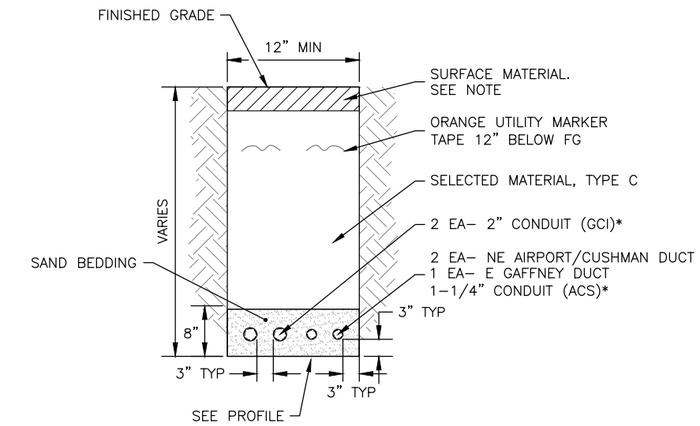
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373CERT. OF AUTH. NO. AECL 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_U25_Ductbank Details-U25 Thu, Dec/22/22 03:00pm (Aaron Finkler) KE#: 00385

NO.	DATE	REVISION

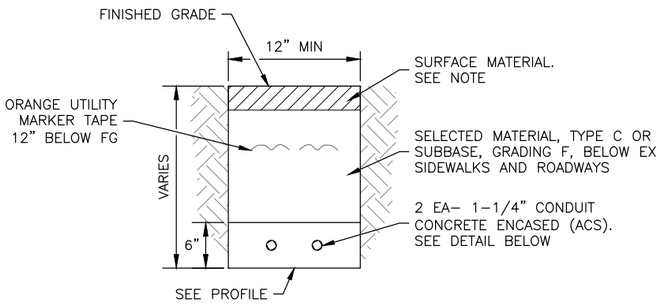
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	U25	U25



TYP JOINT ELECTRIC/GCI/ACS DUCT SECTION
NTS



TYP GCI/ACS DUCT SECTION
NTS

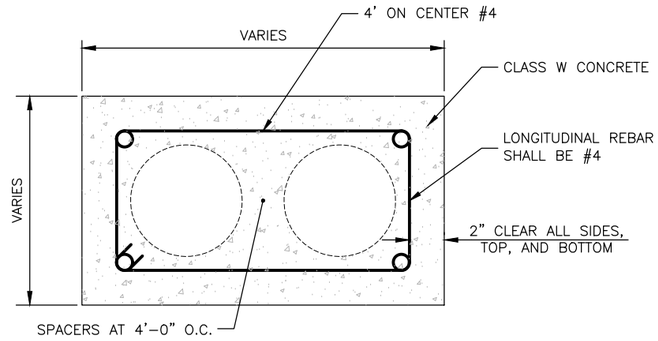


2X1 ACS CONCRETE ENCASED DUCT SECTION
NTS

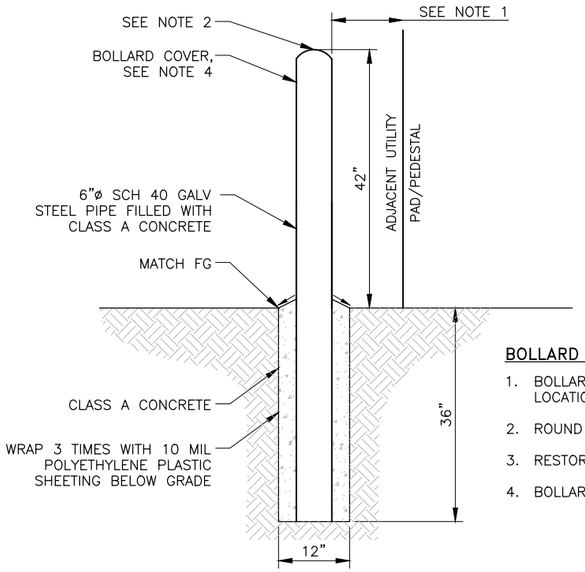
SURFACE MATERIAL NOTE:

IN GRAVEL PARKING LOT PLACE AND COMPACT 4" OF IMPORTED AGGREGATE SURFACE COURSE, GRADING E-1. IN EX ASPHALT PAVEMENT AREAS PLACE AND COMPACT 4" OF IMPORTED AGGREGATE BASE COURSE, GRADING D-1, AND 2" HMA, TYPE II; CLASS B. PLACE AND COMPACT 4" TOPSOIL, AND SEED, ALL OTHER DISTURBED AREAS.

* UTILITY CONDUIT PAIRS SHALL BE INSTALLED ON LT OR RT SIDE OF DUCT PER THE PLAN SCHEMATIC



CONCRETE ENCASED DUCTED DETAIL
NTS



ELEVATION VIEW
NTS

GENERAL DUCT NOTES:

1. LINEWORK DEPICTING EXISTING SITE CONDITIONS IS BASED ON PLANEMETRIC INFORMATION, INCLUDING AERIAL IMAGERY, RECORD DRAWINGS, AND FIELD RECONNAISSANCE VISITS. IF A DIFFERING SITE CONDITION IS DISCOVERED, PROMPTLY NOTIFY THE ENGINEER IN WRITING IN ACCORDANCE WITH SECTION 104.
2. PLANS SHOW THE APPROXIMATE LOCATIONS OF UTILITIES KNOWN TO EXIST WITHIN THE PROJECT AREA(S). LINEWORK DEPICTING EXISTING UTILITIES IS BASED ON AVAILABLE RECORD INFORMATION, INCLUDING AS-BUILTS AND UTILITY SYSTEM MAPS. UTILITY LOCATIONS AND DEPTHS MAY VARY FROM WHAT IS SHOWN ON THE PLANS, AND ADDITIONAL UTILITIES MAY EXIST THAT ARE NOT SHOWN.
3. COORDINATE WITH UTILITY OWNERS TO LOCATE ALL UTILITIES WITHIN AN AREA OF WORK BEFORE EXCAVATION IN THAT AREA. SEE SECTION 105 FOR ADDITIONAL UTILITY WORK REQUIREMENTS.
4. STAKE OR PAINT LOCATIONS FOR NEW EQUIPMENT, PROPOSED PAVEMENT CUTS, AND TRENCH ROUTING, AND OBTAIN ENGINEER APPROVAL BEFORE PROCEEDING.
5. SAWCUT ALL MATCH POINTS WHERE NEW CONSTRUCTION ABUTS EXISTING PAVEMENT. EXISTING IN-PAVEMENT STRUCTURES, SUCH AS CATCH BASINS, MANHOLES, HYDRANTS, LIGHTS, SIGNS, ETC. ARE TO REMAIN IN PLACE UNLESS OTHERWISE INDICATED FOR REMOVAL.
6. CONTRACTOR SHALL SCHEDULE ALL UTILITY OUTAGES TO TAKE PLACE DURING NON BUSINESS HOURS. ALL COSTS TO PROVIDE IT AND INSTALL TEMPORARY MEASURES ON EXISTING UTILITIES ARE SUBSIDIARY TO THE ASSOCIATED BID ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES THAT RESULT FROM OUTAGES BEYOND THE PRESCRIBED PERIOD.
7. WORK IS REQUIRED UNDER EXISTING OVERHEAD CABLES. PROTECT EQUIPMENT AND PERSONNEL AS REQUIRED SUBSIDIARY TO 687.2000.0000 PAY ITEM.
8. MAINTAIN A MINIMUM OF 12" SEPARATION BETWEEN ELECTRIC POWER AND TELECOMMUNICATION CONDUITS.
9. MINIMUM DUCT SLOPE SHALL BE 0.2%. ADJUSTMENTS TO PROFILES PROVIDED SHALL BE APPROVED BY ENGINEER.
10. INSTALL SECONDARY ELECTRICAL PEDESTAL PAD PER DETAILS OF GVEA ELECTRICAL SERVICE GUIDELINES FOR COMMERCIAL AND MULTI-RESIDENTIAL INSTALLATIONS.
11. CONDUITS SHALL ENTER THE BOTTOM OF PEDESTALS AND SIDES OF VAULTS PER UTILITY REQUIREMENTS.
12. INSTALL RMC LONG RADIUS SWEEPS AT ALL LOCATIONS WHERE CONDUITS ARE EXPOSED ABOVE THE GROUND SURFACE. JOIN RMC WITH HDPE CONDUIT WITH APPROVED COUPLINGS.
13. SUPPORT EXISTING POWER POLES AS NECESSARY TO INSTALL DUCT BANK SYSTEM. DEFLECT DUCT BANK AROUND EXISTING POWER POLES AS REQUIRED. PAYMENT SUBSIDIARY TO 687.2000.0000 PAY ITEM.
14. SEE ALSO SUPPLEMENTAL DOCUMENTS:
    - GVEA STAKING SHEETS
    - GCI ONE LINE PLANS
    - ACS RELOCATION PLANS

BOLLARD NOTES:

1. BOLLARDS SHALL BE LOCATED PER UTILITY REQUIREMENTS. STAKE LOCATIONS FOR ENGINEER APPROVAL.
2. ROUND CONCRETE SMOOTH AT TOP OF PIPE.
3. RESTORE FINISHED SURFACE TO MATCH EXISTING.
4. BOLLARD COVER SHALL HAVE YELLOW FINISH.

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

12/22/2022
REVIEW
PS&E

12/22/2022

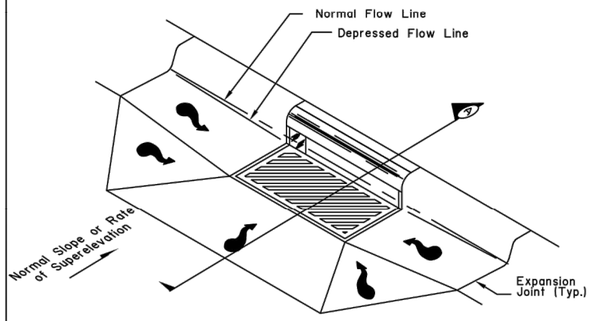
DUCT BANK DETAILS

NO.	DATE	REVISION

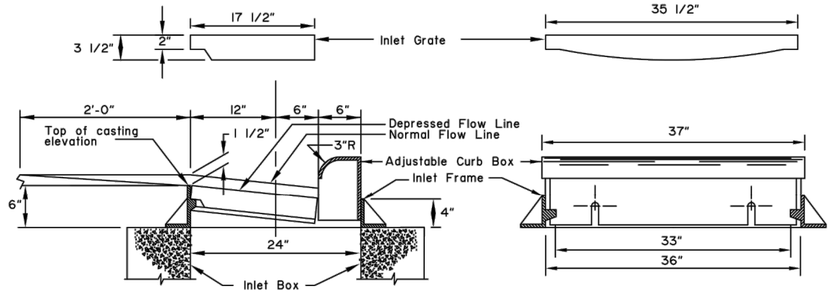
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V1	V11

D-23.01

SHEET | of |



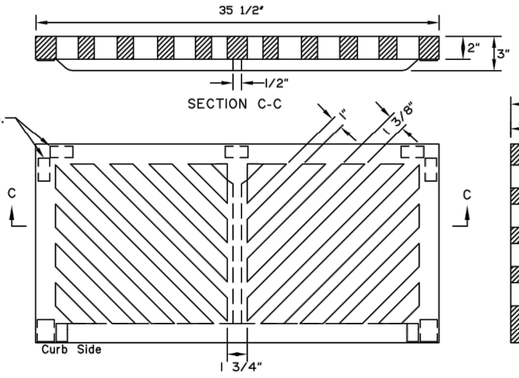
STANDARD CURB INLET INSTALLATION

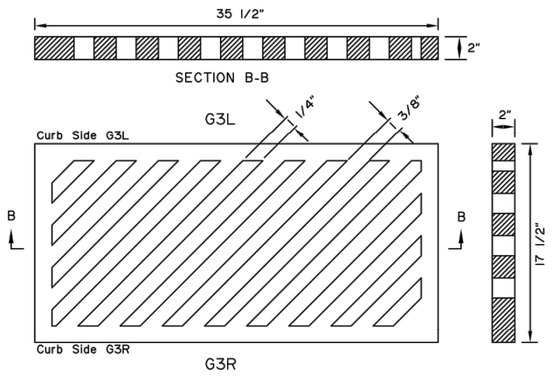


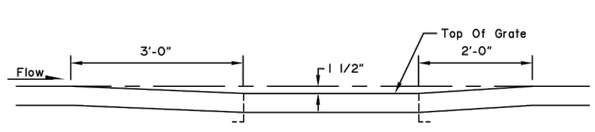
SECTION A

GENERAL NOTES:

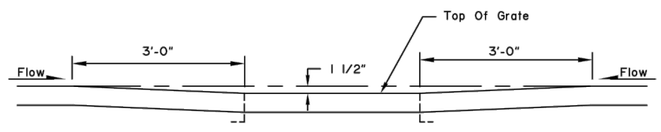
1. Details shown are to indicate general design only. Dimensions and design may vary among the manufacturers.
2. Minimum casting weight shall be 330 lbs for Curb Inlet Frame with Curb Box and 200 lbs. for Inlet Grate.
3. The outside dimensions of Inlet Grate shall be 35 1/2" x 17 1/2" and all grates 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

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CURB INLET BOX, FRAME & GRATE

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

D-23.01

STANDARD PLAN D-23.01

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_V01_D-23.01-V01 Thu, Dec/22/22 11:11am

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V2	V11

D-24.00

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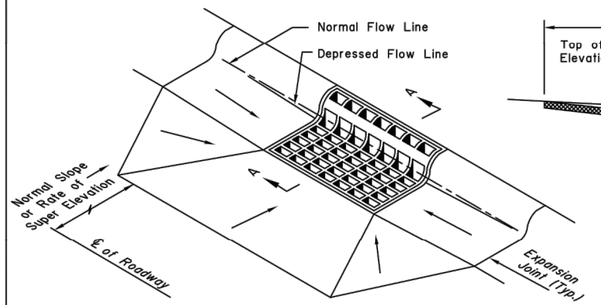
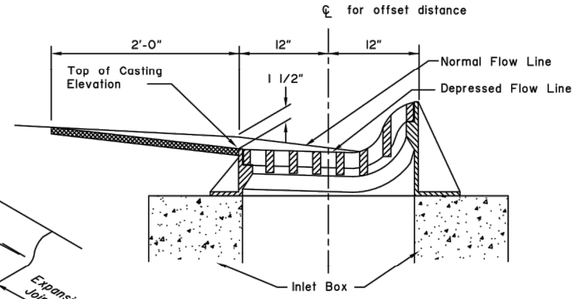
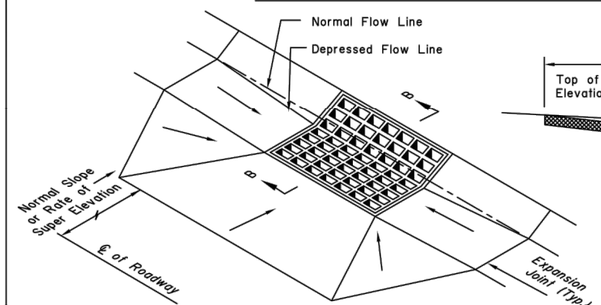


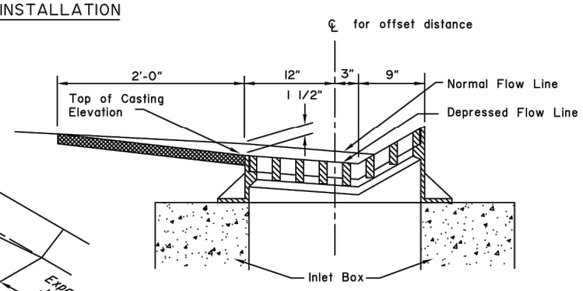
MOUNTABLE CURB INLET INSTALLATION



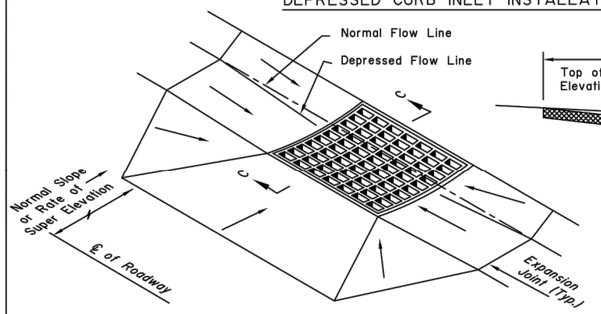
SECTION A-A



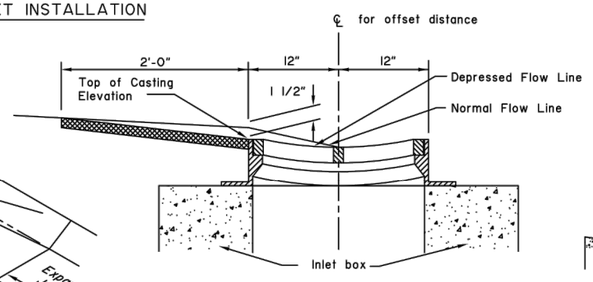
DEPRESSED CURB INLET INSTALLATION



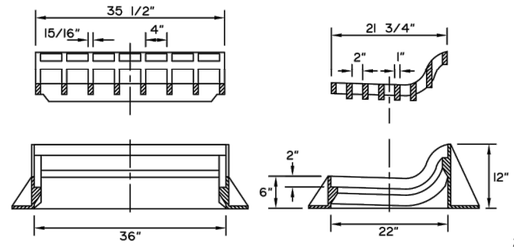
SECTION B-B



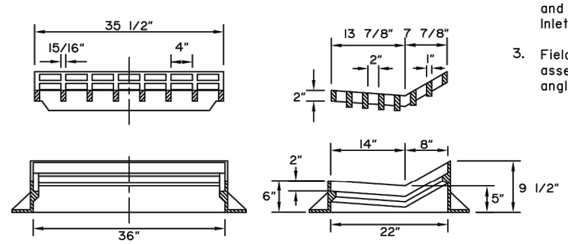
GUTTER INLET INSTALLATION



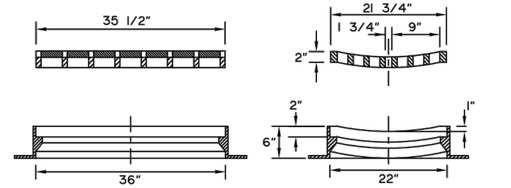
SECTION C-C



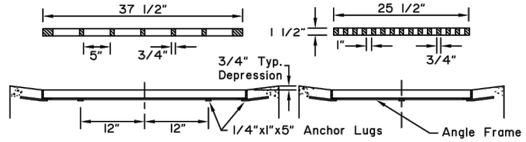
MOUNTABLE CURB INLET FRAME AND GRATE



DEPRESSED CURB INLET FRAME AND GRATE

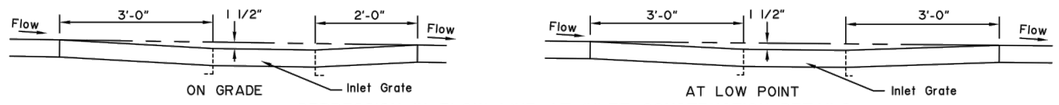


GUTTER INLET FRAME AND GRATE



NOTE: All Angle Frame shall have Anchor Lugs

FIELD INLET FRAME AND GRATE



DEPRESSION IN FLOW LINE AT INLET CONSTRUCTION DETAILS

GENERAL NOTES:

1. Details shown are to indicate general design only. Dimensions and design may vary among the manufacturers. Except inlet grate outside dimension shall be as shown on this drawing.
2. Minimum casting weight shall be 550lbs. for Curb Inlet Frame and Grate, 450lbs. for Gutter Inlet Frame and Grate, and 300lbs. for Field Inlet Frame and Grate.
3. Field Inlet Frame may be welded assembly of L 1 3/4"xl 3/4"xl/4" angle equivalent to ASTM A-36 steel.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

INLET FRAMES AND GRATES

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

D-24.00

STANDARD PLAN D-2400

NO.	DATE	REVISION

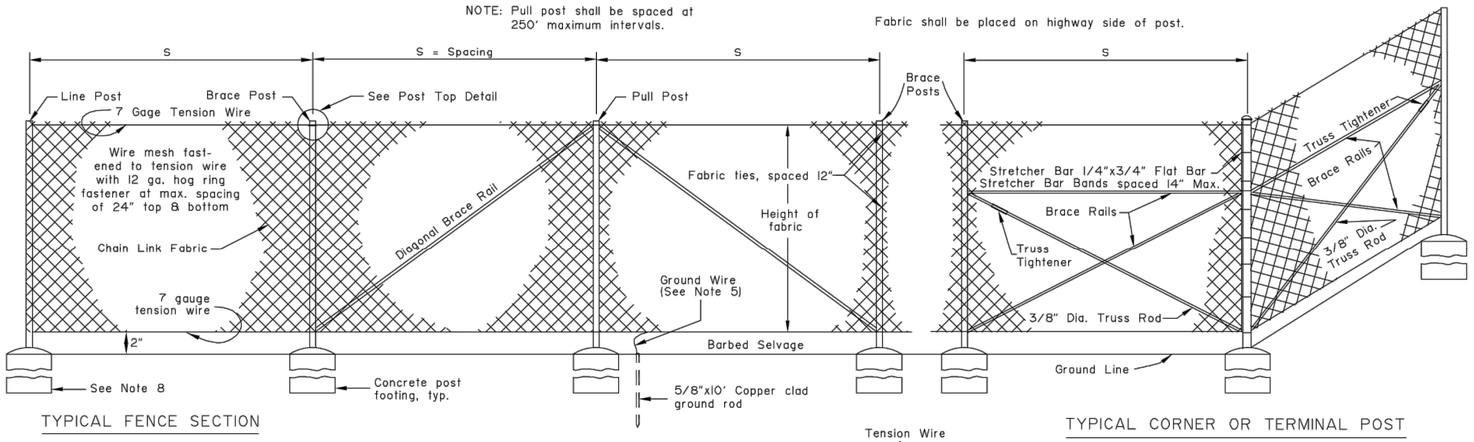
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V3	V11

F-01.04

SHEET 1 of 1

NOTE: Pull post shall be spaced at 250' maximum intervals.

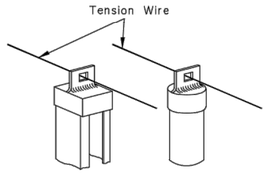
Fabric shall be placed on highway side of post.



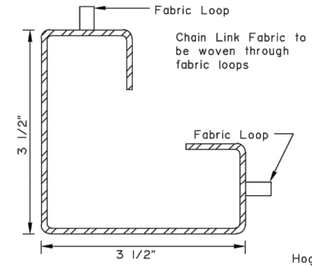
TYPICAL FENCE SECTION

TYPICAL PULL POST

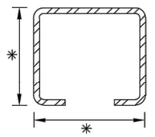
TYPICAL CORNER OR TERMINAL POST



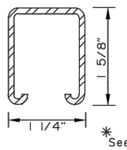
LINE POST TOPS



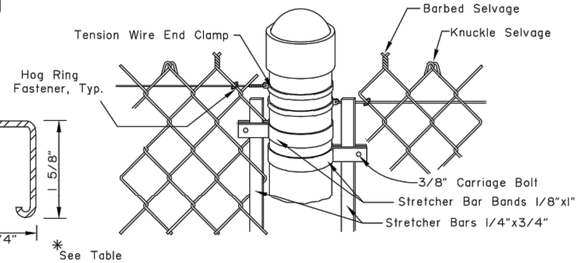
ROLL FORMED POST



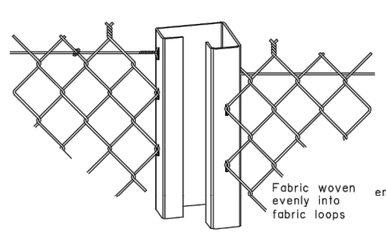
C POST



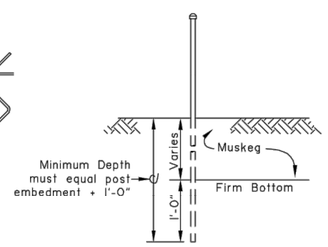
ROLL FORMED BRACE



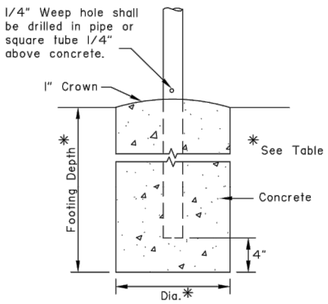
PIPE STYLE POST TOP



ROLL FORMED POST TOP



POST SETTING IN MUSKEG AREAS

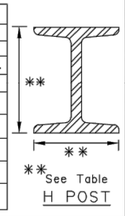


CONCRETE POST FOOTING

GENERAL NOTES:

1. Use equal pole spacing (S). Maximum pole spacing is 10 feet unless directed otherwise by the Engineer.
2. Securely fasten post tops to post.
3. Securely fasten brace rails and truss rods to post with brace bands.
4. Provide truss rods with a tensioning adjusting mechanism.
5. Attach ground wire to fence fabric with a split bolt.
6. Stretch fabric to a smooth uniform appearance.
7. Details shown indicate general design and dimensions may vary among manufacturers.
8. Set line, pull, corner, and terminal posts in concrete footings unless in muskeg or shown otherwise in the plans.

FABRIC HEIGHT	POST														TOP OR BRACE RAIL						ALTERNATE POST	
	END-CORNER-PULL								LINE-BRACE												LINE-BRACE	
	PIPE		SQUARE TUBE		ROLL FORMED		FOOTING		PIPE		C POST		FOOTING		PIPE		ROLL FORMED		H POST		H POST	
	SIZE	WT/FT.	SIZE	WT/FT.	SIZE	WT/FT.	DEPTH	DIA.	SIZE	WT/FT.	SIZE	WT/FT.	DEPTH	DIA	SIZE	WT/FT.	SIZE	WT/FT.	SIZE	WT/FT.	SIZE	WT/FT.
3'	2"	3.65 #	2" x 2"	4.31 #	3 1/2"x3 1/2"	4.84 #	40"	10"	1 1/2"	2.72 #	1 7/8"x1 5/8"	2.28 #	28"	10"	1 1/4"	2.27 #	1 5/8"	1.35 #	1 1/2"x 1 5/16"	2.27 #	1 7/8"x1 5/8"	2.72 #
4'	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
5'	2"	3.65 #	2" x 2"	4.31 #	3 1/2"x3 1/2"	4.84 #	40"	10"	1 1/2"	2.72 #	1 7/8"x1 5/8"	2.28 #	28"	10"	"	"	"	"	"	"	1 7/8"x1 5/8"	2.72 #
6'	2 1/2"	5.79 #	2 1/2"x2 1/2"	5.59 #	3 1/2"x3 1/2"	4.84 #	48"	15"	2"	3.65 #	2 1/4"x1 45/64"	2.64 #	40"	12"	"	"	"	"	"	"	2 1/4"x2"	4.1 #
7'	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
8'	2 1/2"	5.79 #	2 1/2"x2 1/2"	5.59 #	3 1/2"x3 1/2"	4.84 #	48"	15"	2"	3.65 #	2 1/4"x1 45/64"	2.64 #	40"	12"	"	"	"	"	"	"	2 1/4"x2"	4.1 #



H POST

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CHAIN LINK FENCE

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

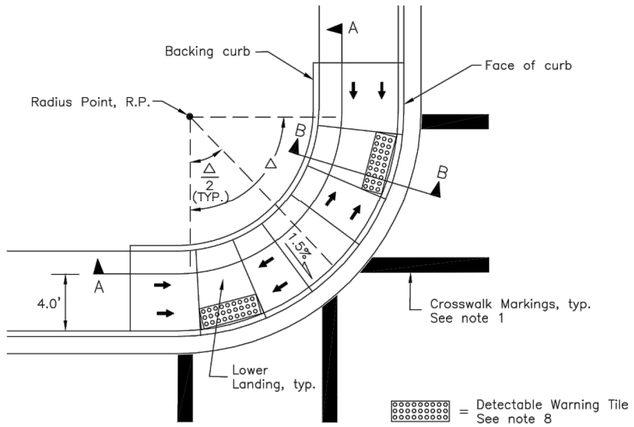
F-01.04

STANDARD PLAN F-01.04

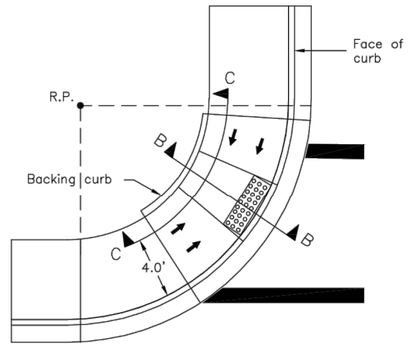
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V4	V11

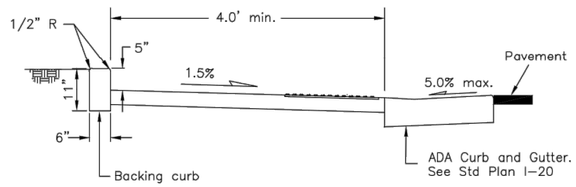
I-21.12 SHEET | of |



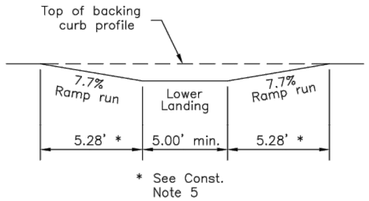
TWO CROSSING DIRECTIONS
At corner



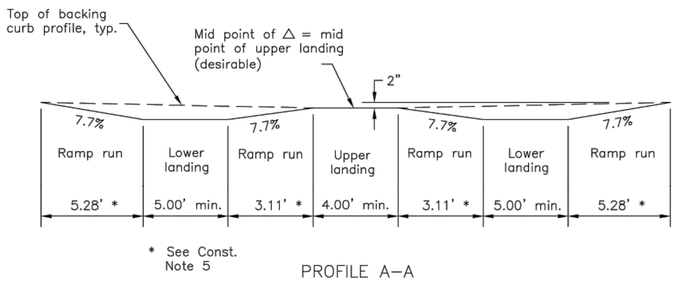
ONE CROSSING DIRECTION
At corner – generic location shown



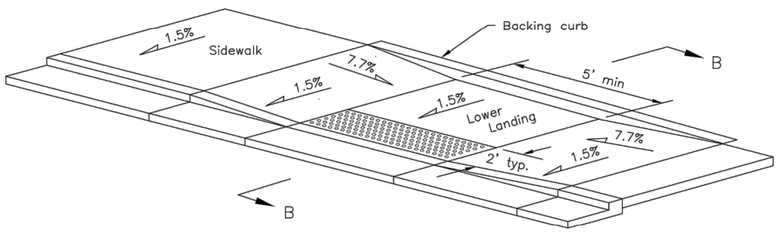
SECTION B–B



PROFILE C–C



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.
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.
10. Provide 4" minimum thick concrete on ramps and landings.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PARALLEL CURB RAMP

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

I-21.12

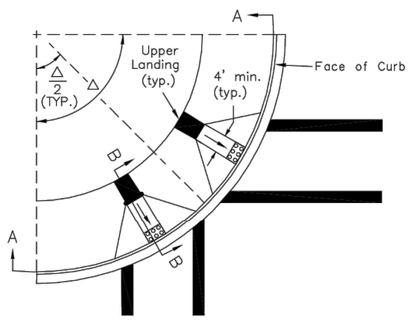
STANDARD PLAN I–21.12

NO.	DATE	REVISION

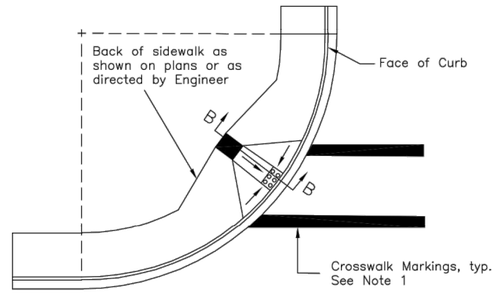
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V5	V11

I-22.11

SHEET | of |

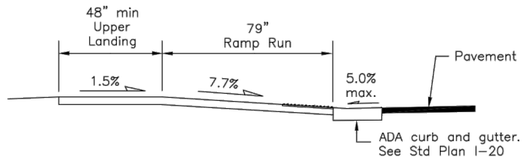


TWO CROSSING DIRECTIONS
At corner

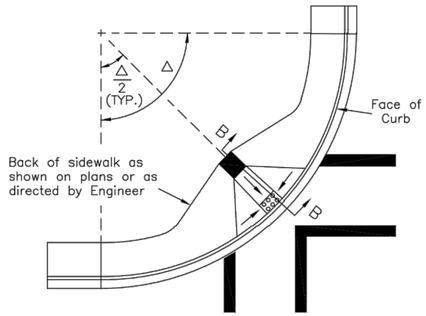


ONE CROSSING DIRECTION
At corner

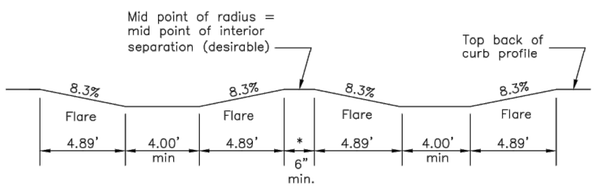
▨ = Detectable Warning Tile See Note 9



SECTION B–B

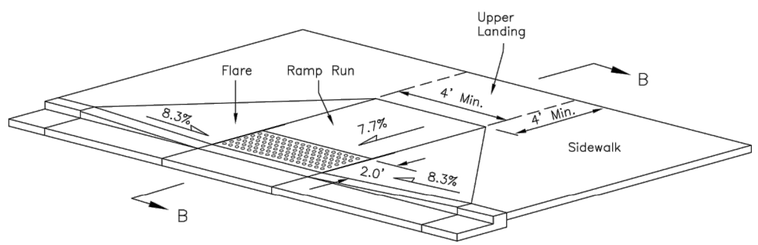


ONE RAMP – TWO DIRECTIONS
At corner



PROFILE A–A

* This dimension is adjustable depending on the curb radius and location of ramps



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 perpendicular to the curb face.
3. Construct ramp runs, flares, and upper landings of concrete, regardless of whether the sidewalk is asphalt or concrete.
4. Ramp run and flare 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. Ramps 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 flare slopes at 8.3% (measured parallel to the curb line adjacent to the top back of curb) or flatter, and sidewalk cross slopes at a nominal 1.5% (1.0% min., 2.0% max). Do not construct flare slopes steeper than 10.0%, or sidewalk cross slopes steeper than 2.0%,
7. Provide a coarse broomed finish running parallel to the curb on ramp runs and flares.
8. When approved by the Engineer, flares may be replaced with a curb at locations where access to the side of a ramp run is blocked by poles, utility boxes, other obstructions, or by a non–accessible surface such as a dirt planter strip. See Standard Plan I–20 for details.
9. Install 24" 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.
10. 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.
11. Provide 4" minimum thick concrete on ramps, flares and landings

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PERPENDICULAR CURB RAMP

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

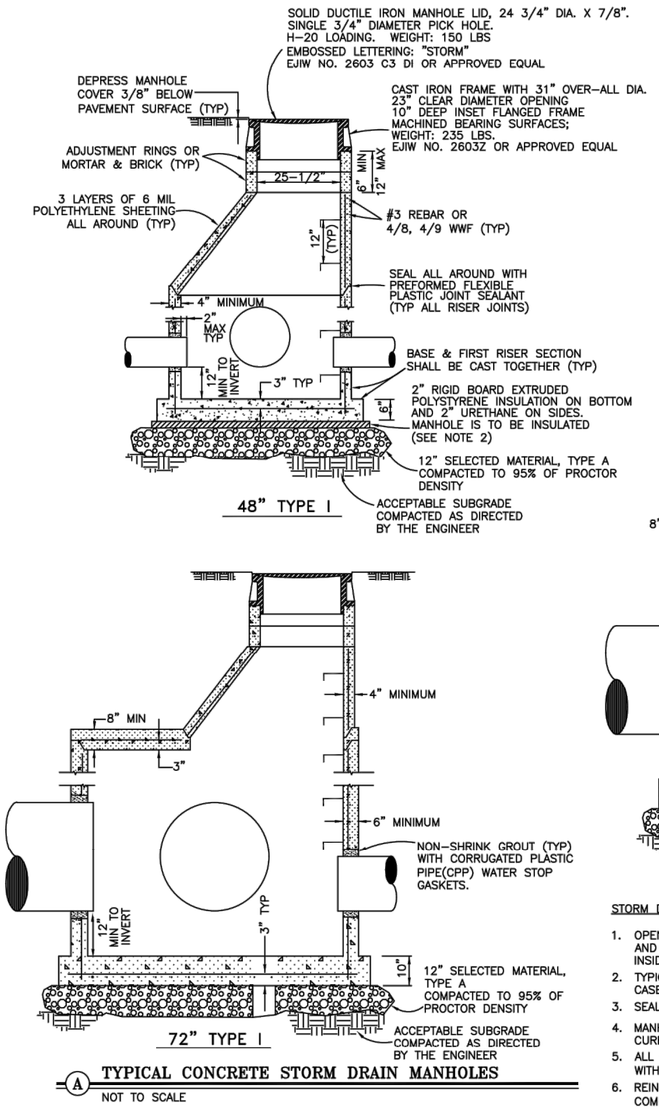
Next Code and Standards Review date: 7/8/2030

I-22.11

STANDARD PLAN I–22.11

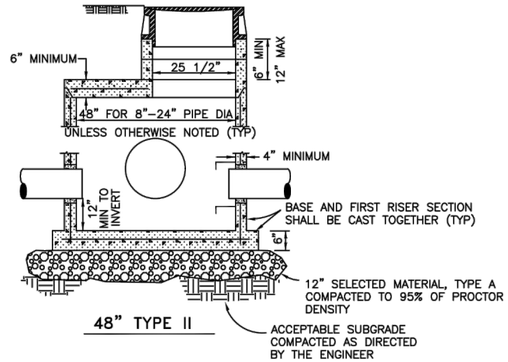
NO.	DATE	REVISION

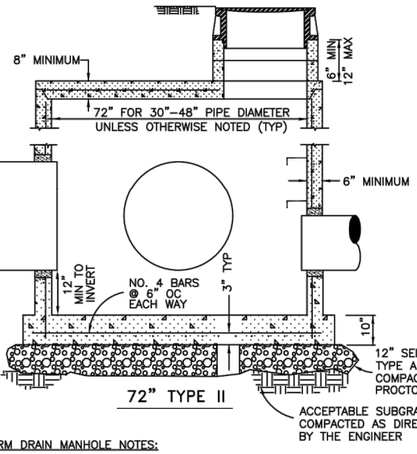
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V6	V11



A TYPICAL CONCRETE STORM DRAIN MANHOLES

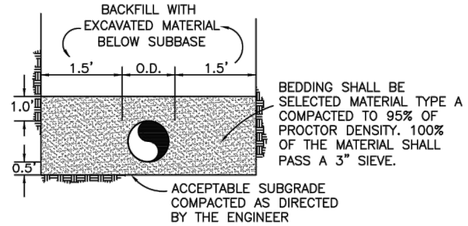
NOT TO SCALE





STORM DRAIN MANHOLE NOTES:

1. OPENINGS IN MANHOLE TO RECEIVE PIPE SHALL BE 1" TO 2" LARGER THEN THE OD AND PIPE. LARGER OPENINGS SHALL BE FILLED AS DIRECTED BY THE ENGINEER. INSIDE GROUT SURFACE SHALL BE SMOOTH. PROVIDE CPP WATER STOP GASKETS.
2. TYPICALLY, STORM DRAIN MANHOLES DO NOT REQUIRE INSULATION. HOWEVER, SPECIAL CASES REQUIRE INSULATION OF ALL OUTSIDE SURFACES. SEE PLANS.
3. SEAL RISER JOINTS WITH FLEXIBLE PLASTIC JOINT SEALERS.
4. MANHOLE STEPS SHALL BE APPROVED GALVANIZED STEEL OR PLASTIC AND MEET CURRENT OSHA STANDARDS.
5. ALL GROUT SHALL BE NON-SHRINK. PROTECT GROUT DURING CURE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED METHOD.
6. REINFORCEMENT IN BASE, RISER, CONE, FLAT LID, AND ADJUSTING RINGS SHALL COMPLY WITH AASHTO SPECIFICATION M199/ASTM478.



PIPE BEDDING DETAIL

NOT TO SCALE

MANHOLE REINFORCEMENT SCHEDULE			
SECTION	MANHOLE SIZE		(SHALL COMPLY WITH AASHTO M 199 /ASTM 478)
	48"	72"	
FLAT BASE	0.39 SQ IN/FT EACH WAY	0.39 SQ IN/FT EACH WAY	*CIRCUMFERENTIAL REINFORCING ALL AREAS ARE MINIMUM CROSS-SECTIONAL AREA OF REINFORCEMENT PER FOOT OF SECTION.
RISER SECTION*	0.12 SQ IN/FT	0.18 SQ IN/FT	
CONE SECTION*	0.12 SQ IN/FT	0.18 SQ IN/FT	
FLAT LID**	0.12 SQ IN/FT EACH WAY	0.12 SQ IN/FT EACH WAY	
ADJUSTING RING	0.024 SQ IN	0.024 SQ IN	

**OPENINGS IN FLAT LIDS SHALL BE ADDITIONALLY REINFORCED WITH A MINIMUM OF THE EQUIVALENT OF 0.2 SQ IN OF STEEL AT 90°.

DATE		BY
3/13/17	WATER STOP GASKETS	RHP
2/3/10	NEW SD1	GSC,RHP
3/23/07		RHP

NOT TO SCALE

DESIGNED:	
DRAWN:	STAFF
CHECKED:	RHP,GSC
DATE:	3/23/07

CITY OF FAIRBANKS, ALASKA
ENGINEERING DIVISION

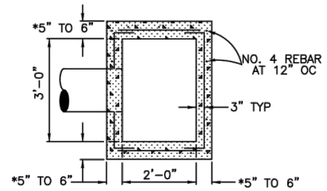
STANDARD DETAILS
STORM DRAIN MANHOLES, THAW TUBES AND BEDDING

SD1

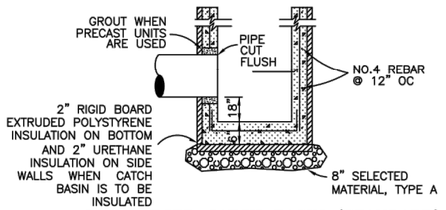
STANDARD PLAN SD-01
SHEET 1 OF 2

NO.	DATE	REVISION

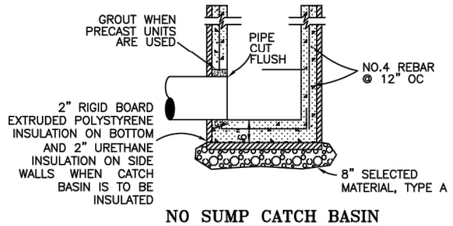
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V7	V11



*DIMENSION WHEN PRECAST INLET BOX WITH CONTINUOUS WWF 6x6 4/4 REINFORCEMENT IS USED



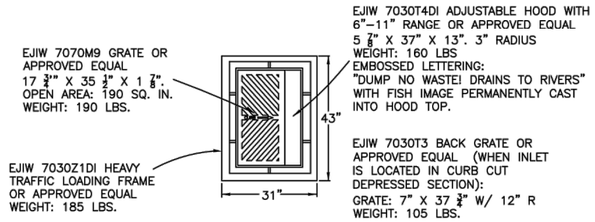
REINFORCED CATCH BASIN (STANDARD)

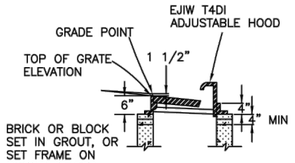


NO SUMP CATCH BASIN

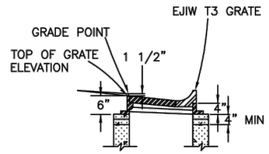
ALTERNATE USED WHERE INDICATED ON PLANS

TYPICAL CURB INLET



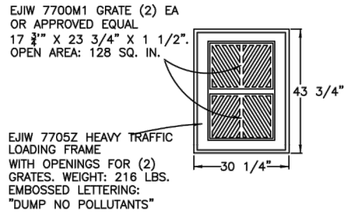


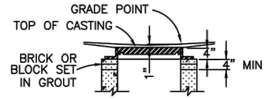
FRAME WITH ADJUSTABLE HOOD FOR INSTALLATION IN CURB FACE



FRAME WITH BACK GRATE FOR INSTALLATION IN CURB CUT

TYPICAL FIELD INLET

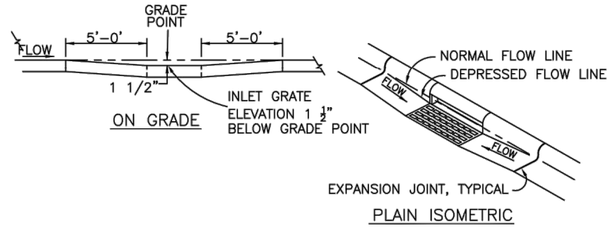




FRAME WITH DOUBLE OPENING

INLET BOX/CATCH BASIN DETAILS

NOT TO SCALE



DEPRESSION IN FLOW LINE AT INLET

CATCH BASIN NOTES:

1. THE WORDS "INLET" AND "CATCH BASIN" SHALL BE INTERCHANGEABLE.
2. ALL GROUT SHALL BE NON-SHRINK. PROTECT GROUT DURING CURE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED METHOD.
4. TYPICALLY, CATCH BASINS ARE NOT INSULATED. HOWEVER, SPECIAL CASES REQUIRE INSULATION OF ALL OUTSIDE SURFACES. SEE PLAN NOTE TO INSULATE CB.
5. GROUT THE INSIDE FACE OF ALL JOINTS SMOOTH.

DATE	REVISION	BY
2/3/10	NEW SD2	GSC,RHP
3/23/07		RHP

NOT TO SCALE

DESIGNED:	
DRAWN:	STAFF
CHECKED:	RHP,GSC
DATE:	3/23/07

CITY OF FAIRBANKS, ALASKA
ENGINEERING DIVISION

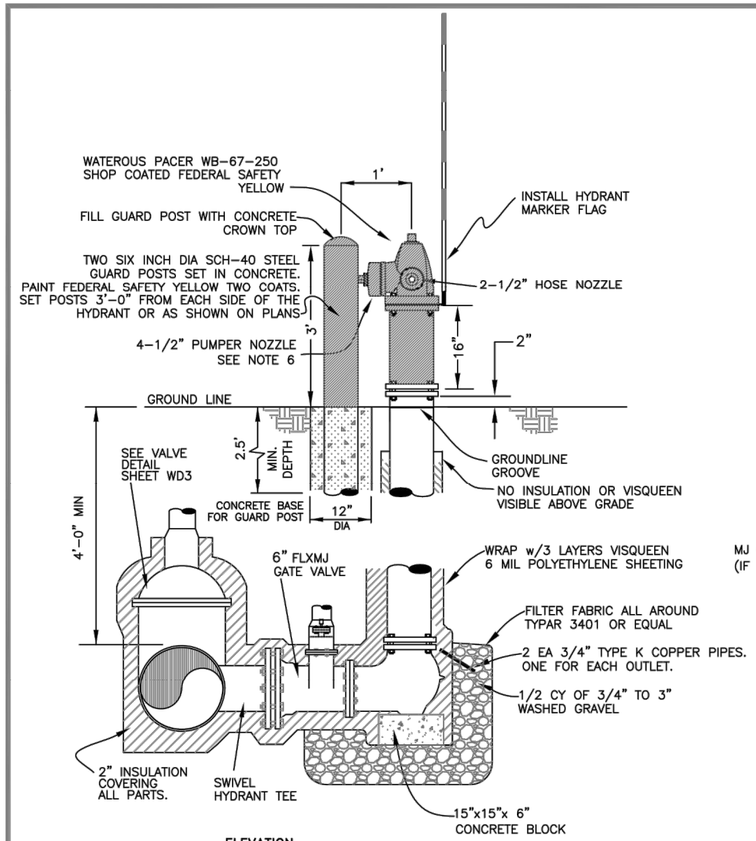
STANDARD DETAILS
STORM DRAIN CATCH BASIN

SD2

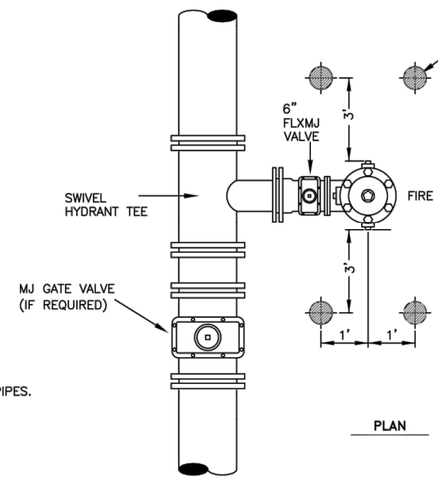
STANDARD PLAN SD-02
SHEET 2 OF 2

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V8	V11



ELEVATION

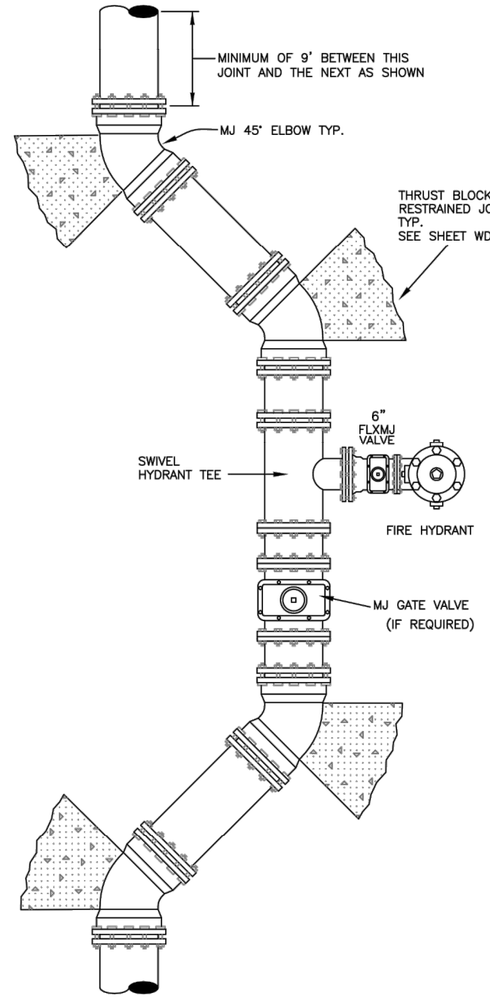


PLAN

A TYPICAL FIRE HYDRANT

NOT TO SCALE

1. A BREAKAWAY FLANGE IS REQUIRED ON FIRE HYDRANT BASE FLANGE.
2. FIRE HYDRANT LOCATIONS AS SPECIFIED ON PLAN SHEETS.
3. EXCAVATION SHALL CONFORM TO OSHA STANDARDS.
4. ALL FIRE HYDRANTS SHALL BE PLUMB.
5. ALL FIRE HYDRANTS SHALL RECEIVE 3 LAYERS 6 MIL POLYETHYLENE SHEETING AROUND BURIED BARREL PORTION.
6. ORIENT PUMPER NOZZLE PER ENGINEERS DIRECTIONS.



B OFFSET FIRE HYDRANT

NOT TO SCALE

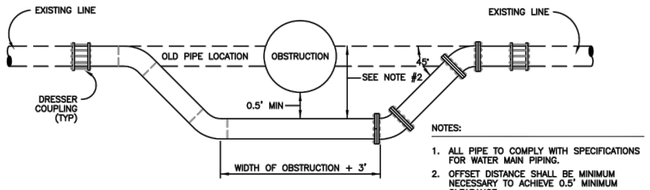
WATER SYSTEM DETAILS
FIRE HYDRANT INSTALLATION WD1

STANDARD PLAN WD-01
SHEET 1 OF 4

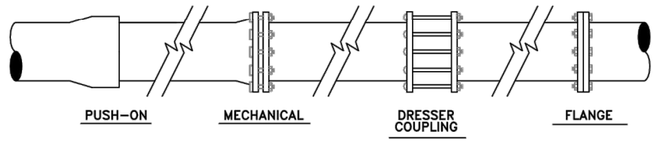
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_V08-V11_WD-1-4-V08 Thu, Dec/22/22 11:12am

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V9	V11

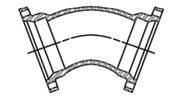


A TYPICAL RELOCATION DETAIL
NOT TO SCALE



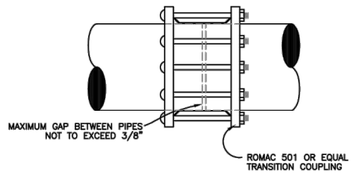
WHEN USING DIP, ALL FOUR JOINT TYPES SHALL BE ALLOWED.
WHEN USING STEEL PIPE FOR SERVICE LINES, DRESSER AND FLANGE FITTINGS ONLY WILL BE ALLOWED.
FLANGED JOINTS/FITTINGS ARE NOT ACCEPTABLE UNDERGROUND (EXCEPT AT HYDRANT BASE)

B WATER PIPE JOINTS
NOT TO SCALE

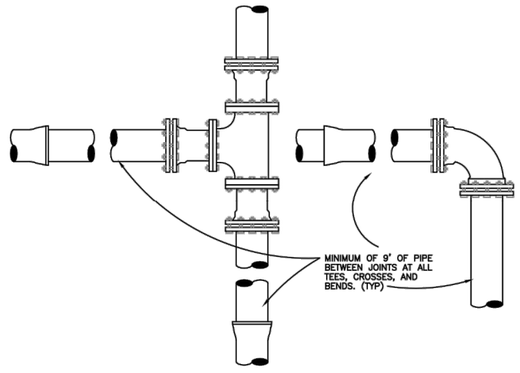


DIP FITTINGS SHALL BE MECHANICAL JOINT COMPACT FITTINGS CONFORMING TO AWWA C153

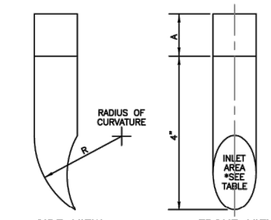
C PIPE FITTINGS
NOT TO SCALE

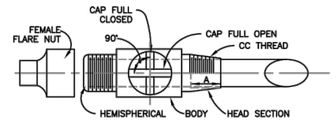


D ADAPTATION – STEEL TO DUCTILE IRON PIPE
NOT TO SCALE



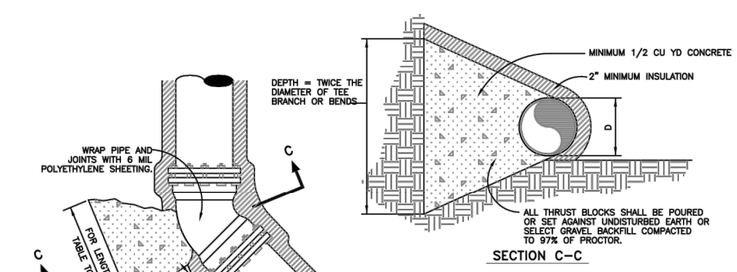
F PIPE LENGTHS REQUIRED AT TEES AND ELBOWS
NOT TO SCALE





PITORIFICE BASIC DIMENSIONS			
NOMINAL SIZE	A (INCHES)	R (INCHES)	AREA INLET (IN)
3/4	.75	2	0.75
1	1	2.25	1.34
1 1/2	1.25	2.75	3.00
2	1.25 TO 1.5	3.25	5.4

G STANDARDS FOR PITORIFICE TYPE CORPORATION STOPS
NOT TO SCALE



NOTE: RESTRAINED JOINT SYSTEM (eg. "TR FLEX"; "FLEX-RING"; "SNAP LOC"; "FIELD LOK" GASKETS; "MEGA LUG"; RODS AND SHACKLES, ETC.) MAY BE USED IN LIEU OF THRUST BLOCKS SUBJECT TO APPROVAL BY THE ENGINEER.

BEND DEGREES	LENGTH OF BEARING AREA					
	D=4"	D=6"	D=8"	D=10"	D=12"	D=14"
22°30'*	0'-10"	0'-10"	1'-2"	1'-4"	1'-8"	2'-0"
45°	1'-8"	1'-8"	2'-2"	2'-9"	3'-3"	3'-9"
60°**	2'-2"	2'-2"	2'-10"	3'-6"	4'-3"	5'-0"
90°	3'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"

* FOR BENDS GREATER THAN 5°, BUT LESS THAN 22°30', USE LENGTH FOR A 22°30'.
** FOR DEAD END, TEE, OR CROSS, USE LENGTH FOR A 60° BEND.

E THRUST BLOCK DETAILS
NOT TO SCALE

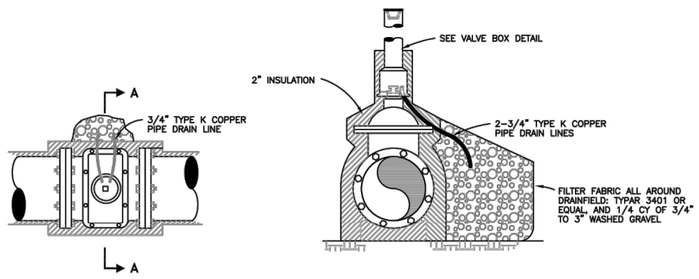
WATER SYSTEM DETAILS
PIPE, JOINTS, THRUST RESTRAINT

WD2

STANDARD PLAN WD-02
SHEET 2 OF 4

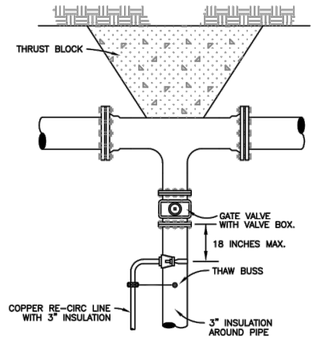
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V10	V11



SECTION A–A

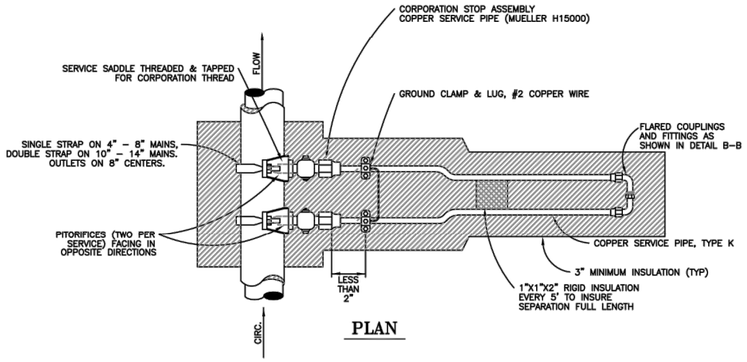
GATE VALVE



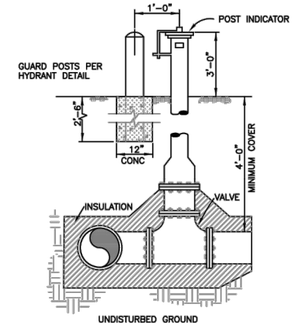
(B) FIRE SPRINKLER SERVICE

NOT TO SCALE

(CONTACT UTILITY FOR ALTERNATE DESIGNS)



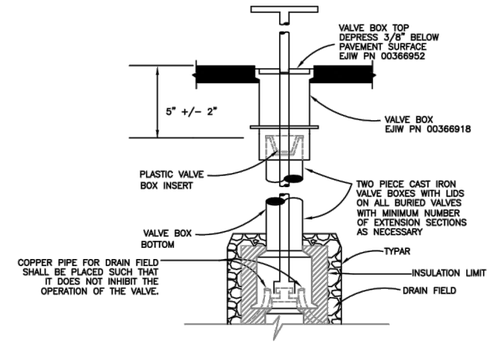
PLAN



POST INDICATOR VALVE INSTALLATION

(A) VALVES

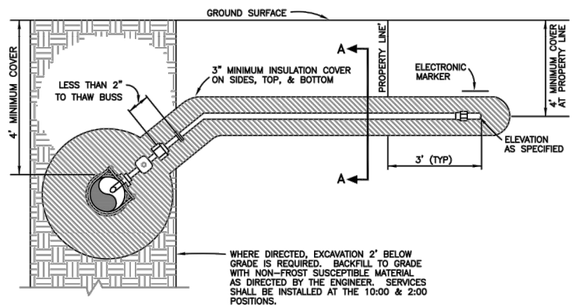
NOT TO SCALE



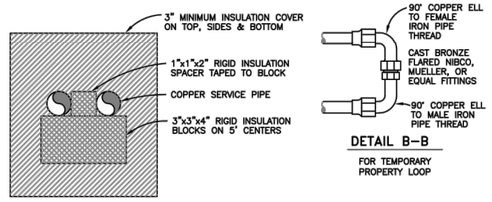
(C) VALVE BOX

NOT TO SCALE

NOTES:
1. VALVE BOX ASSEMBLY SHALL BE GENERALLY PLUMB AFTER ROAD IS RESURFACED.
2. FOR ACCEPTANCE, IT MUST BE POSSIBLE TO OPERATE A VALVE WITH THE KEY IN A VERTICAL POSITION WITHOUT INTERFERENCE FROM VALVE BOX BOTTOM, RISERS, OR CAN.
3. FOR ACCEPTANCE, VALVE BOX TOP MUST SIT FLAT IN FRAME.
4. FOR ACCEPTANCE, THE BOX ASSEMBLY MUST BE CLEARED OF DEBRIS (MUD, GRAVEL, ETC.)



ELEVATION



SECTION A–A

DETAIL B–B

FOR TEMPORARY PROPERTY LOOP

(D) DOMESTIC WATER SERVICE

NOT TO SCALE

WATER SYSTEM DETAILS
VALVES AND SERVICES

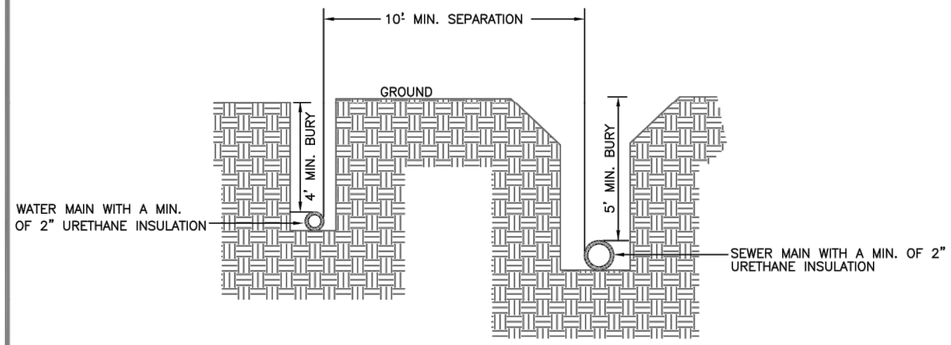
WD3

STANDARD PLAN WD–03
SHEET 3 OF 4

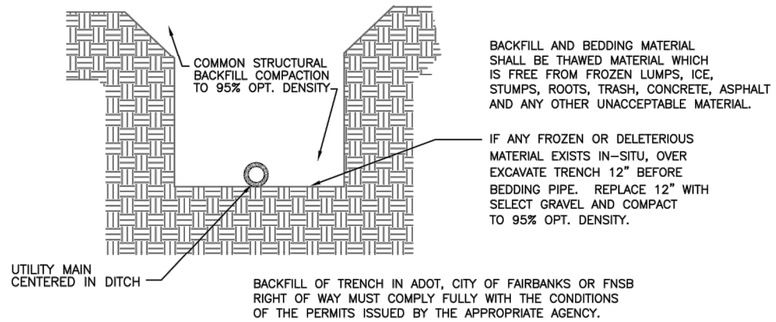
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\DOTPF\385_airport & cushman reconstruction\DWGS\C\Sheets\64078_V08-V11_WD-1-4-V10 Thu, Dec/22/22 11:12am

NO.	DATE	REVISION

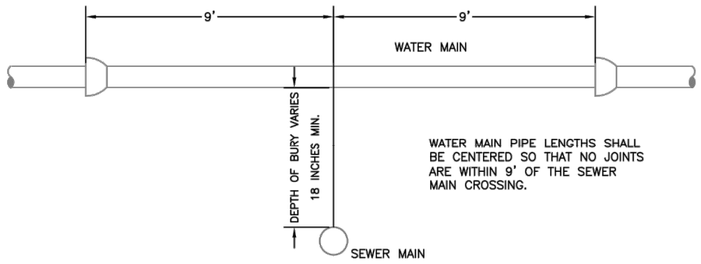
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002312/Z640780000	2024	V11	V11



1 **PIPE PLACEMENT DETAIL**
NOT TO SCALE



3 **PIPE BEDDING AND BACKFILL DETAIL**
NOT TO SCALE



2 **MAIN CROSSING DETAIL**
NOT TO SCALE

WATER AND SEWER TRENCH AND CROSSING DETAILS	WD4

STANDARD PLAN WD-04
SHEET 4 OF 4