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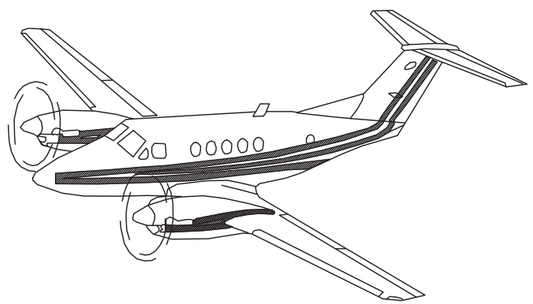
PROPOSED AIRPORT PROJECT

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION

AIP NO. 3-02-0158-024-2024

PROJECT NO. SFAPT00227



SPONSORED BY THE STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SOUTHCOAST REGION

APPROVED BY: DocuSigned by: CFE1F1F341494BA... DATE 4/2/2024

KIRK MILLER P.E., PRECONSTRUCTION ENGINEER, SOUTHCOAST REGION

ACCEPTED FOR CONSTRUCTION: for DocuSigned by: CFE1F1F341494BA... DATE 4/2/2024

CHRISTOPHER GOINS, P.E., REGIONAL DIRECTOR, SOUTHCOAST REGION

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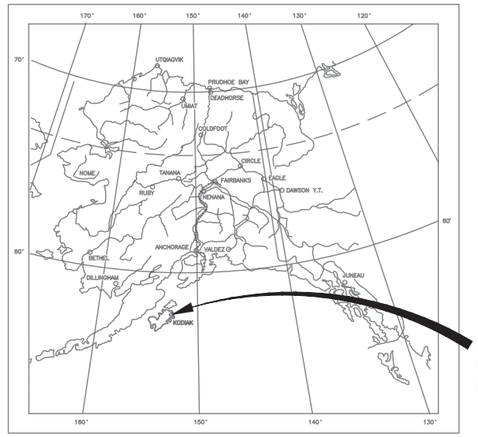

PROJECT LOCATION: KODIAK

LOCATION MAP

VICINITY MAP

SECTIONS 9, 10, 14, 15, 16, 22, 23
TOWNSHIP 28 SOUTH
RANGE 20 WEST
SEWARD MERIDIAN, ALASKA
USGS QUAD KODIAK C-2 & D-2

INDEX OF SHEETS

STANDARD PLANS	
D-01.02	CULVERT PIPE & ARCH INSTALLATION DETAILS
D-04.22	PIPE AND ARCH TABLES
D-06.10	CULVERT END SECTIONS
D-20.05	MANHOLES, FRAMES, AND COVER
D-22.01	STORMDRAIN MANHOLE FRAME & GRATE DETAILS
D-24.00	INLET FRAMES AND GRATES
D-31.01	HEADWALLS, PRECAST, TYPE I AND TYPE II
D-35.10	48" STORM DRAIN MANHOLE (PRECAST CONCRETE) TYPE I MANHOLE
F-01.04	CHAIN LINK FENCE
G-00.05	STANDARD GUARDRAIL HARDWARE

These plans reference three NTP's.

- NTP 1 has been awarded and is NIC.
- NTP 2 is the taxiway C&D project that will be advertised in Spring of 2025.
- NTP 3 is Runway 11/29 and taxiway E that will be advertised in FY26.

DAVID EPSTEIN, P.E., PROJECT MANAGER
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
SOUTHCOAST REGION
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ABBREVIATIONS

ADG	AIRPORT DESIGN GROUP
ADQ	KODIAK AIRPORT
ADOT&PF	ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
AIP	AIRPORT IMPROVEMENT PROGRAM
ANT	ANTENNA
AOA	AIRCRAFT OPERATIONS AREA
ARC	AIRPORT REFERENCE CODE
ARFF	AIRPORT RESCUE AND FIREFIGHTERS
ATCT	AIRPORT TRAFFIC CONTROL TOWER
AWOS	AUTOMATED WEATHER OBSERVING SYSTEM
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BM	BENCH MARK
BMPs	BEST MANAGEMENT PRACTICES
BP	BEGIN PROJECT
CF	CUBIC FEET
℄	CENTERLINE
CTS	CEMENT TREATED SUBGRADE
COMM	COMMUNICATION
CMP	CORRUGATED METAL PIPE
CP	CONTROL POINT
CPM	CRITICAL PATH METHOD
CSPP	CONSTRUCTION SAFETY AND PHASING PLAN
CY	CUBIC YARDS
DIA	DIAMETER
DDC	DEEP DYNAMIC COMPACTION
E	EAST, EASTING, ELECTRICAL
EG	EXISTING GRADE
ELEC	ELECTRICAL
EL, ELEV	ELEVATION
FAA	FEDERAL AVIATION ADMINISTRATION
FASBC	FOAMED ASPHALT STABILIZED BASE COURSE
FDR	FULL–DEPTH RECLAMATION
FG	FINISHED GRADE
FO	FIBER OPTIC
FOD	FOREIGN OBJECT DEBRIS
FSS	FLIGHT SERVICE STATION
FT	FEET
GAL	GALLON
GPS	GLOBAL POSITIONING SYSTEM
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
KVA	KILO VOLT AMPERES
ILS	INSTRUMENT LANDING SYSTEM
INSTR	INSTRUMENT
INV	INVERT
LBS	POUNDS
LF	LINEAR FOOT
LS	LUMP SUM
LT	LEFT
MALSR	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
N	NORTH, NORTHING
N/A	NOT APPLICABLE
NTS	NOT TO SCALE
NO.	NUMBER
OE	OVERHEAD ELECTRICAL
OFA	OBJECT FREE AREA
OFZ	OBSTACLE FREE ZONE
PAPI	PRECISION APPROACH PATH INDICATOR
QUAD	QUADRANT
R	RADIUS
RABC	RECYCLE ASPHALT AGGREGATE BASE COURSE
RAP	RECYCLED ASPHALT PAVEMENT
RAIL	RUNWAY ALIGNMENT INDICATOR LIGHT
RAM	RECYCLED ASPHALT MATERIAL
RECNSTN	RECONSTRUCTION
REIL	RUNWAY END IDENTIFIER LIGHTS
ROW	RIGHT OF WAY
RP	RADIUS POINT
RPZ	RUNWAY PROTECTION ZONE
RSA	RUNWAY SAFETY AREA
RT	RIGHT
RW, RWY	RUNWAY
S	SOUTH
SD	STORM DRAIN
SIDA	SECURITY IDENTIFICATION DISPLAY AREA
SPCD	SAFETY PLAN COMPLIANCE DOCUMENT
SPEC	SPECIFICATION
SPHPS	SURFACE PAINTED HOLDING POSITION SIGN
STA	STATION
SS	SANITARY SEWER
SWPPP	STORM WATER POLLUTION PREVENTION PROGRAM
SY	SQUARE YARD
TELE	TELEPHONE
T/H	THRESHOLD
TW, TWY	TAXIWAY
TDG	TAXIWAY DESIGN GROUP
TOFA	TAXIWAY OBJECT FREE AREA
TSA	TAXIWAY SAFETY AREA
TYP	TYPICAL
UE	UNDERGOUND ELECTRICAL
UG	UNDERGROUND
USGS	UNITED STATES GEOLOGICAL SURVEY
W	WATER, WEST

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644–2000 CERT. OF AUTH. NO. AECC569
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA
49th
Charles M. Tripp
Charles M. Tripp
CE – 9613
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3–02–0158–024–2024/SFAPT00227
NOTES & ABBREVIATIONS SHEET

SHEET 2 OF 82

LEGEND

EXISTING	PROPOSED	
		CENTER LINE
		OFFSET CENTER LINE
		PROPERTY LINE
		LEASE LOT LINE
		RUNWAY/PAVEMENT EDGE
		SHOULDER EDGE
		DEMO LINE
X X	X X	FENCE
E		ELECTRICAL
OE		OVERHEAD ELECTRICAL
UE		UNDER GROUND ELECTRICAL
UT		UNDER TELECOMM
FO	FO	FIBER OPTIC LINE
SD	SD	STORM DRAIN LINE STORM DRAIN HEADWALL
SS	SS	SANITARY SEWER LINE
W	W	WATER LINE
		WATER BOUNDARY
	SC SC	PERIMETER CONTROL
		HAUL ROUTE
		PROPOSED CUT SLOPE LIMIT
		STORM DRAIN FLOW DIRECTION
		FLOW DIRECTION
20	20	MAJOR CONTOUR LINE
19	19	MINOR CONTOUR LINE
		GUARDRAIL
RSA	RSA	RUNWAY SAFETY AREA
ROFA	ROFA	RUNWAY OBJECT FREE AREA
OFZ	OFZ	RUNWAY OBSTACLE FREE ZONE
TSA	TSA	TAXIWAY SAFETY AREA
TOFA	TOFA	TAXIWAY OBJECT FREE AREA
		TREE LINE
		SPECIAL DITCH
		EDGE OF WATER/APPROX HIGH WATER
		CREEK CENTERLINE
		CULVERT PIPE

EXISTING	PROPOSED	
		WATER VALVE
		CATCH BASIN OR DROP INLET
MH	MH	MANHOLE
		SIGN
		BUILDING/STRUCTURE
		RUNWAY THRESHOLD LIGHT, BI-DIRECTIONAL
		RUNWAY END LIGHT
		TAXIWAY EDGE LIGHT
		TELEPHONE PEDESTAL
		LIGHTING JUCTION BOX
	TH DHXX-X	BORE HOLE
		FIRE HYDRANT
		UTILITY MARKER
		POWER POLE
		POLE ANCHOR WITH GUY
		POST
		ANTENNA
		GLOBAL POSITION SYSTEM POINT
		VASI LIGHT
		RUNWAY LIGHT
		ANEMOMETER POLE
		ASOS INSTR. BAR
		BEACON TOP
		WIND SOCK TOP
		BENCH MARK
		INSIDE AIRPORT SIGN
		UTILITY POLE
SS	SS	SEWER MANHOLE
SD	SD	STORM DRAIN MANHOLE
		COMMUNICATIONS PEDESTAL
		INLET PROTECTION
		ELECTRICAL MANHOLE
		COMM/TELE MANHOLE
		DEMO ITEM

EXISTING	PROPOSED	
		STRUCTURAL CONCRETE
		STRUCTURAL SECTION EXPANSION
		REMOVE HMA TO UNDERLYING CONCRETE
		REMOVE HMA AND CONCRETE TO UNDERLYING SOILS
		REMOVE SHOULDER PAVEMENT TO UNDERLYING SOILS
		REMOVE HMA STRUCTURAL PAVEMENT TO UNDERLYING SOILS
		PREPARATION LIMITS
		CLEARING LIMITS
		LIMITS OF FULL DEPTH RECLAMATION (FDR) EXCAVATION LIMITS
		PROPOSED SERVICE ROAD P-161 RAP
		PROPOSED SERVICE ROAD (ASPHALT)
		P-401, HOT MIX ASPHALT TYPE II CLASS B (TYP.)
		P-401, HOT MIX ASPHALT LEVELING COURSE
		P-207, RECYCLED ASPHALT AGGREGATE BASE COURSE (RABC) (NOT STABILIZED)
		P-318, FOAMED ASPHALT STABILIZED BASE COURSE
		P-156, CEMENT TREATED SUBGRADE (CTS)
		EXISTING SUBBASE
		EXISTING GROUND
		TOPSOIL PER T-905 WITH SEED PER T-901
		P-681, GEOTEXTILE, STABILIZATION
		UNCLASSIFIED EXCAVATION/SUITABLE MATERIAL

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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LEGEND SHEET

SHEET 3 OF 82

ESTIMATE OF QUANTITIES FOR NTP 1 (1 OF 2)

ESTIMATE OF QUANTITIES

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
D701.030.0012	HDPE PIPE, 12–INCH	LINEAR FOOT	251
D701.030.0018	HDPE PIPE, 18–INCH	LINEAR FOOT	68
D701.030.0030	HDPE PIPE, 30–INCH	LINEAR FOOT	317
D701.030.0036	HDPE PIPE, 36–INCH	LINEAR FOOT	494
D701.102.0018	GATE VALVE, 18–INCH	EACH	1
D701.102.0036	GATE VALVE, 36–INCH	EACH	1
D701.310.0018	DI PIPE, 18–INCH	LINEAR FOOT	104
D701.310.0036	DI PIPE, 36–INCH	LINEAR FOOT	27
D751.010.0048	MANHOLE, TYPE I, 48–INCH	EACH	3
D751.010.0072	MANHOLE, TYPE II, 72–INCH	EACH	5
D571.080.0000	INLET BOX, TYPE A	EACH	1
D751.150.0000	REPAIR MANHOLE	EACH	3
D751.160.0018	OUTFALL GRATE, 18–INCH	EACH	1
D751.160.0036	OUTFALL GRATE, 36–INCH	EACH	1
D752.040.0000	TRENCH DRAIN	LINEAR FOOT	124
D752.050.0000	TRENCH DRAIN CATCH BASIN	EACH	2
D752.060.3020	CONCRETE HEADWALL, TYPE II	EACH	1
D752.080.0000	OIL WATER SEPARATOR, 250 GAL	EACH	1
D752.080.0000	OIL WATER SEPARATOR, 900 GAL	EACH	1
F162.010.0008	8–FEET CHAIN–LINK FENCE	LINEAR FOOT	114
F162.190.0000	REMOVE FENCE	LINEAR FOOT	114
G100.010.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
G115.010.0000	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
G130.010.0000	FIELD OFFICE	LUMP SUM	ALL REQUIRED
G130.020.0000	FIELD LABORATORY	LUMP SUM	ALL REQUIRED
G130.060.0000	NUCLEAR TESTING EQUIPMENT STORAGE SHED	EACH	1
G130.070.0000	STORAGE CONTAINER	EACH	1
G130.090.0000	ENGINEERING COMMUNICATIONS	CONTINGENT SUM	ALL REQUIRED
G131.010.0000	ENGINEERING TRANSPORTATION (TRUCK)	EACH	3
G135.010.0000	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	ALL REQUIRED
G135.020.0000	EXTRA THREE PERSON SURVEY PARTY	HOUR	120
G150.010.0070	EQUIPMENT RENTAL, DOZER 70–HP MINIMUM	HOUR	50
G200.010.0000	CONTRACTOR QUALITY CONTROL PROGRAM	LUMP SUM	ALL REQUIRED
G200.030.0000	QC TECHNICIAN	EACH	2
G300.010.0000	CPM SCHEDULING	LUMP SUM	ALL REQUIRED
G300.020.0000	SCHEDULE PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
G310.010.0000	PUBLIC UPDATES	LUMP SUM	ALL REQUIRED
G700.010.0000	AIRPORT FLAGGER	CONTINGENT SUM	ALL REQUIRED
G705.010.0000	WATERING FOR DUST CONTROL	MGAL	400
G710.010.0000	HIGHWAY TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
L107.011.0008	8–FEET LIGHTED WIND CONE, SUPPLEMENTAL, IN PLACE	EACH	1
L108.010.2008	UNDERGROUND CABLE #8 AWG, COPPER, 5KV FAA TYPE C, L–824	LINEAR FOOT	7,622
L108.030.0006	#6 BARE COPPER GROUND CONDUCTOR	LINEAR FOOT	6,474
L108.070.0000	GROUND ROD	EACH	8
L110.080.1002	HDPE CONDUIT, 2–INCH	LINEAR FOOT	2,960
L125.040.0000	TAXIWAY EDGE LIGHT, L–861T	EACH	36
L125.070.0000	REMOVE RUNWAY AND TAXIWAY LIGHT	EACH	43
L125.130.0000	AIRPORT SIGN, L–858	EACH	3
L125.150.0000	HANDHOLE, L–867, SIZE B	EACH	1
L125.170.0000	SPARE PARTS	CONTINGENT SUM	ALL REQUIRED
L125.180.0000	TEMPORARY RUNWAY LIGHTING SYSTEM	LUMP SUM	ALL REQUIRED

ESTIMATE OF QUANTITIES

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
L125.210.0000	ADJUST RUNWAY AND TAXIWAY LIGHT	EACH	3
L125.250.0000	REMOVE AIRPORT SIGN	EACH	4
L155.250.0000	FLOOD LIGHTING	LUMP SUM	ALL REQUIRED
P151.030.0000	CLEARING & GRUBBING	ACRE	2.5
P151.090.0000	INVASIVE PLANT SURVEY	LUMP SUM	ALL REQUIRED
P151.100.0000	INVASIVE PLANT SPECIES CONTROL, REMOVAL, AND DISPOSAL	CONTINGENT SUM	ALL REQUIRED
P152.010.0000	UNCLASSIFIED EXCAVATION	CUBIC YARD	13,950
P153.060.0000	CONTROLLED LOW–STRENGTH MATERIAL	CUBIC YARD	5.1
P156.110.0000	CEMENT TREATED SUBGRADE	CUBIC YARD	59,200
P156.120.0000	PORTLAND CEMENT	TON	1,700
P161.010.0000	RECYCED ASPHALT PAVEMENT	SQUARE YARD	1,650
P165.010.0000	REMOVAL OF STRUCTURES	LUMP SUM	ALL REQUIRED
P165.040.0000	REMOVAL OF STORM DRAIN PIPE	LUMP SUM	ALL REQUIRED
P171.010.0000	TEMPORARY CONTAMINATED SOIL STOCKPILE	CONTINGENT SUM	ALL REQUIRED
P180.010.0000	RIPRAP, CLASS I	CUBIC YARD	12
P180.030.0000	RIPRAP, CLASS II	CUBIC YARD	3
P207.110.0000	FDR ASPHALT AGGREGATE BASE COARSE	SQUARE YARD	62,900
P209.010.0000	CRUSHED AGGREGATE BASE COURSE	CUBIC YARD	2,500
P318.010.0000	FOAMED ASPHALT STABILIZED BASE COURSE	CUBIC YARD	64,000
P318.040.0000	ASPHALT BINDER	TON	650
P318.050.0000	PORTLAND CEMENT	TON	260
P401.010.0040	HOT MIX ASPHALT TYPE II, CLASS A	TON	13,700
P401.020.5228	ASPHALT BINDER, PG 52–28	TON	726
P401.130.0000	HMA COMBINED PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
P411.010.0000	INTELLIGENT COMPACTION FOR ASPHALT MIX PAVEMENTS	LUMP SUM	ALL REQUIRED
P603.010.0040	TACK COAT, CSS–1	TON	42
P620.020.0000	RUNWAY AND TAXIWAY PAINTING	LUMP SUM	ALL REQUIRED
P620.060.0000	PAINTED MARKING REMOVAL	LUMP SUM	ALL REQUIRED
P620.090.0000	REFLECTIVE REMOVABLE TAPE	SQUARE FOOT	7,540
P641.010.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
P641.030.0000	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
P641.060.0000	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED
P641.070.0000	SWPPP MANAGER	LUMP SUM	ALL REQUIRED
P641.110.0000	SWPPPTRACK	CONTINGENT SUM	ALL REQUIRED
P650.010.0000	AIRCRAFT TIE–DOWN	EACH	21
P650.040.0000	TEMPORARY TIE–DOWN	EACH	21
P661.010.0000	STANDARD SIGN	SQUARE FOOT	2
P670.010.0000	HAZARD MARKER BARRIER, PLASTIC	EACH	140
P671.010.0000	RUNWAY CLOSURE MARKER, VINYL MESH	EACH	2
P671.020.0000	RUNWAY CLOSURE MARKER, ILLUMINATED	EACH	2
P675.010.0000	W–BEAM GUARDRAIL	LINEAR FOOT	620
P681.010.0000	GEOTEXTILE, SEPARATION	SQUARE YARD	5,300
T901.020.0000	SEEDING	POUND	130
T901.030.0000	WATER FOR MAINTENANCE	MGAL	87
T905.010.0010	TOPSOILING, CLASS A	SQUARE YARD	9,650
U100.050.0000	ADJUST VALVE BOX	EACH	2

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SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

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ESTIMATE OF QUANTITIES (1 OF 2)

SHEET 4 OF 82

ESTIMATE OF QUANTITIES FOR NTP 1 (2 OF 2)

ESTIMATE OF QUANTITIES OF LUMP SUM ITEMS

ITEM NO.	PAY ITEM	UNIT	QUANTITY
P165.010.0000	REMOVAL OF STORM DRAIN MANHOLES	EACH	7
P165.040.0000	REMOVAL OF STORM DRAIN PIPE	LF	1260
P620.020.0000	RUNWAY AND TAXIWAY PAINTING	SQUARE YARD	7,900
P620.060.0000	PAINTED MARKING REMOVAL	SQUARE YARD	500

P165.010.000 REMOVAL OF STRUCTURES

SHEET NO.	DESCRIPTION	STATION	OFFSET
28	MANHOLE	106+25	643 L
29	MANHOLE	106+24	695 L
28	MANHOLE	109+63	210 L
27	MANHOLE	106+26	825 L
27	MANHOLE	106+24	927 L
27	MANHOLE	104+94	1,111 L
29	MANHOLE	114+72	870 L

DISPOSE OF THESE STRUCTURES IN ACCORDANCE WITH P-165-3.1A

TABLE ESTIMATING FACTORS

ITEM NO.	PAY ITEM	ESTIMATING FACTOR	UNITS
P209.020.0000	CRUSHED AGGREGATE BASE COURSE	2.0	TONS/CY
P318.040.0000	ASPHALT BINDER	3	% OF P318.020.0000
P318.050.0000	PORTLAND CEMENT	1.2	% OF P318.020.0000
P401.010.0030	HOT MIX ASPHALT TYPE II, CLASS A	2.025	TONS/CY
P401.020.5228	ASPHALT BINDER, PG 52-28	5.30%	OF P401.010.0030
P603.010.0040	TACK COAT, CSS-1	0.08	GAL/SY
T901.020.0000	SEEDING	1.5	LBS/1,000 SF
T901.030.0000	WATER FOR MAINTENANCE	1.0	GAL/SF

P165.040.000 REMOVAL OF STORM DRAIN PIPE

SHEET NO.	DESCRIPTION	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET
27	EAST OF TAXILANE	106+26	825 L	106+24	927 L
27	CROSSING TAXILANE FROM EAST TO WEST TO FENCE LINE	106+24	927 L	104+50	1,136 L
27	CONNECTOR PIPE WEST OF TAXILANE	104+94	1,111 L	104+80	1,100 L
27, 28	NORTH-SOUTH ACROSS APRON	106+24	695 L	106+26	825 L
28	NORTH-SOUTH ACROSS APRON	106+25	643 L	106+24	695 L
28	NORTHWARDS FROM DITCHLINE SOUTH OF APRON	106+26	365 L	106+25	643 L
28	SOUTHWEST ACCESS ROAD EXISTING PIPE	103+25	388 L	103+85	384 L
28	PIPE FROM INLET TO DRAINAGE DITCH	109+63	210 L	109+56	336 L
29	TRENCH DRAIN	114+20	757 L	114+72	870 L
29	PIPE TO THE LEASE LOT LINE	114+72	870 L	115+49	921 L

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SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

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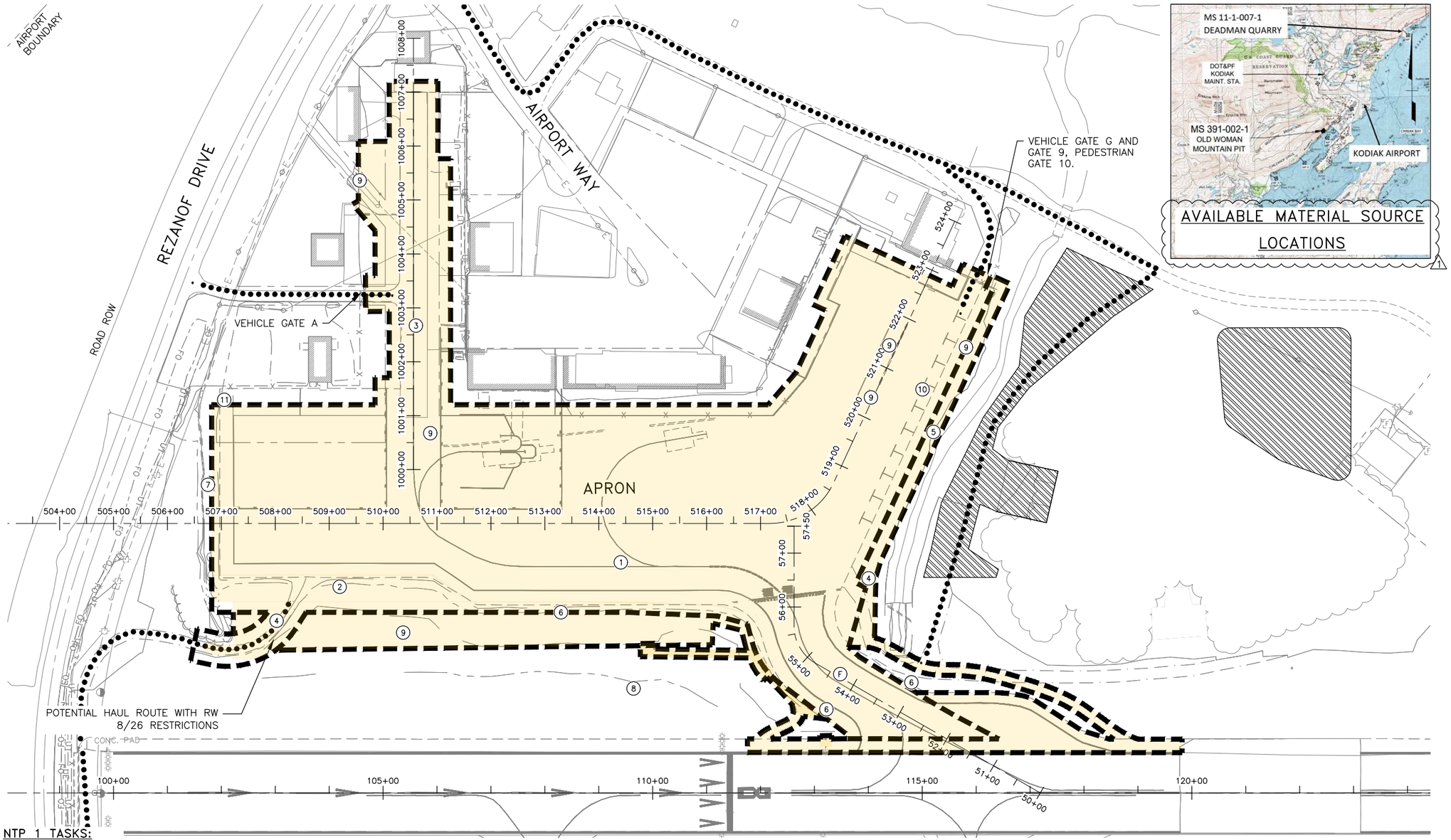
ESTIMATE OF QUANTITIES (2 OF 2)

SHEET 5 OF 82



AVAILABLE MATERIAL SOURCE LOCATIONS 1

0 250 500 Feet

LEGEND:

- (1) PROJECT TASK DESIGNATOR
- (C) TAXIWAY DESIGNATOR
- CONTRACTOR ACCESS/ HAUL ROUTE
- PROPOSED IMPROVEMENT LIMITS
- CONTRACTOR STAGING AREA
- WORK AREA

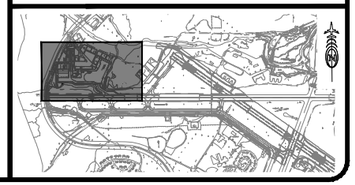
NTP 1 TASKS:

1. RECONSTRUCT THE APRON AND TAXIWAY F.
2. EXTEND TAXIWAY F.
3. RECONSTRUCT THE GA TAXILANE
4. PAVE ACCESS ROAD DRIVEWAYS ON THE APRON.
5. CONSTRUCT A SERVICE ROAD BETWEEN THE GA APRON AND DEVIL'S CREEK.
6. REPLACE EDGE LIGHTING FIXTURES, TRANSFORMERS, LIGHT BASES, CONDUIT AND CONDUCTORS ON THE APRON AND TAXIWAY F.
7. INSTALL APRON EDGE LIGHTING ON THE WEST END OF THE APRON.
8. RELOCATE AND INSTALL SECONDARY WIND CONE.
9. REMOVE AND INSTALL NEW STORM DRAINAGE INFRASTRUCTURE IN VICINITY OF APRON, INCLUDING TRENCH DRAINS, STRUCTURES, OIL WATER SEPARATORS, AND PIPE
10. REPLACE GA TIE-DOWNS
11. INSTALL NEW CARGO APRON FLOOD LIGHT

NOTE:

THIS SHEET IS INTENDED TO BE VIEWED IN COLOR.

KEY PLAN



DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9673 REGISTERED PROFESSIONAL ENGINEER 4/22/2024

BY	DATE	REVISIONS
CCM	4/22/2024	ADDENDUM 4 – CHANGED POTENTIAL TO AVAILABLE MATERIAL SOURCES 1

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
PROJECT LAYOUT PLAN

SHEET 6 OF 82

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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4/2/2024 2:50 AM

SURVEY CONTROL DEVELOPED BY: LOUNSBURY & ASSOCIATES, INC. 3230 C STREET SUITE 201. ANCHORAGE ALASKA, 99503, (907)272-5451 CERT. OF AUTH. NO. AECC391
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HORIZONTAL CONTROL

A GROUND COORDINATE SYSTEM IN U.S. SURVEY FEET DEVELOPED BY DOT&PF (KODIAK) AS A MODIFICATION TO ALASKA STATE PLANE ZONE 5, NAD83(2011).

CONVERSION PARAMETERS

TO CONVERT FROM ALASKA STATE PLANE ZONE 5, NAD83(2002) U.S. FEET TO LOCAL U.S. FEET: TRANSLATE STATE PLANE COORDINATES USING −1,238,937.1390 N, −1,901,866.2400 E.

TO CONVERT FROM LOCAL U.S. FEET TO ALASKA STATE PLANE ZONE 5, NAD83(2002) U.S. FEET: TRANSLATE LOCAL COORDINATES USING +1,238,937.1390 N, +1,901,866.2400 E.

NO SCALE FACTOR OR ROTATION IS NECESSARY TO CONVERT ALASKA STATE PLANE COORDINATE ZONE 5 VALUES TO THE "KODIAK" SYSTEM.

BASIS OF GEODETIC COORDINATES

THE BASIS OF COORDINATES FOR THIS SURVEY IS POINT No. 556, U.S.N. BM 58 (SACS), A 3 ¼" BRASS CAP FLUSH WITH THE GROUND AT THE BASE OF AN ELECTRIC MANHOLE. THE GEODETIC POSITION OF POINT No. 556 IS BASED ON THE NGS DATASHEET FOR (SACS) "BM 58", PID AC7802. POINT No. 556 HAS THE FOLLOWING COORDINATES

NAD83(2011) EPOCH 2010.000
LATITUDE N 57°44'53.40875"
LONGITUDE W 152°29'16.85975"
ELLIPSOID HEIGHT 67.96 USft

ALASKA STATE PLANE ZONE 5
NORTH 1,372,312.7245 USft
EAST 1,935,761.3286 USft

LOCAL (KODIAK) GROUND COORDINATES
NORTH 133375.5856 USft
EAST 33895.0887 USft

BASIS OF VERTICAL CONTROL

THE VERTICAL DATUM IS NAVD88 (GEOID12B). THE BASIS OF VERTICAL CONTROL IS POINT No. 556, U.S.N. BM 58 (SACS), A 3 ¼" BRASS CAP FLUSH WITH THE GROUND AT THE BASE OF AN ELECTRIC MANHOLE. THE NAVD88 (GEOID12B) ORTHOMETRIC HEIGHT (ELEVATION) OF 30.71' FOR POINT No. 556 IS BASED ON THE NGS DATA SHEET FOR (SACS) "BM 58", PID AC7802.

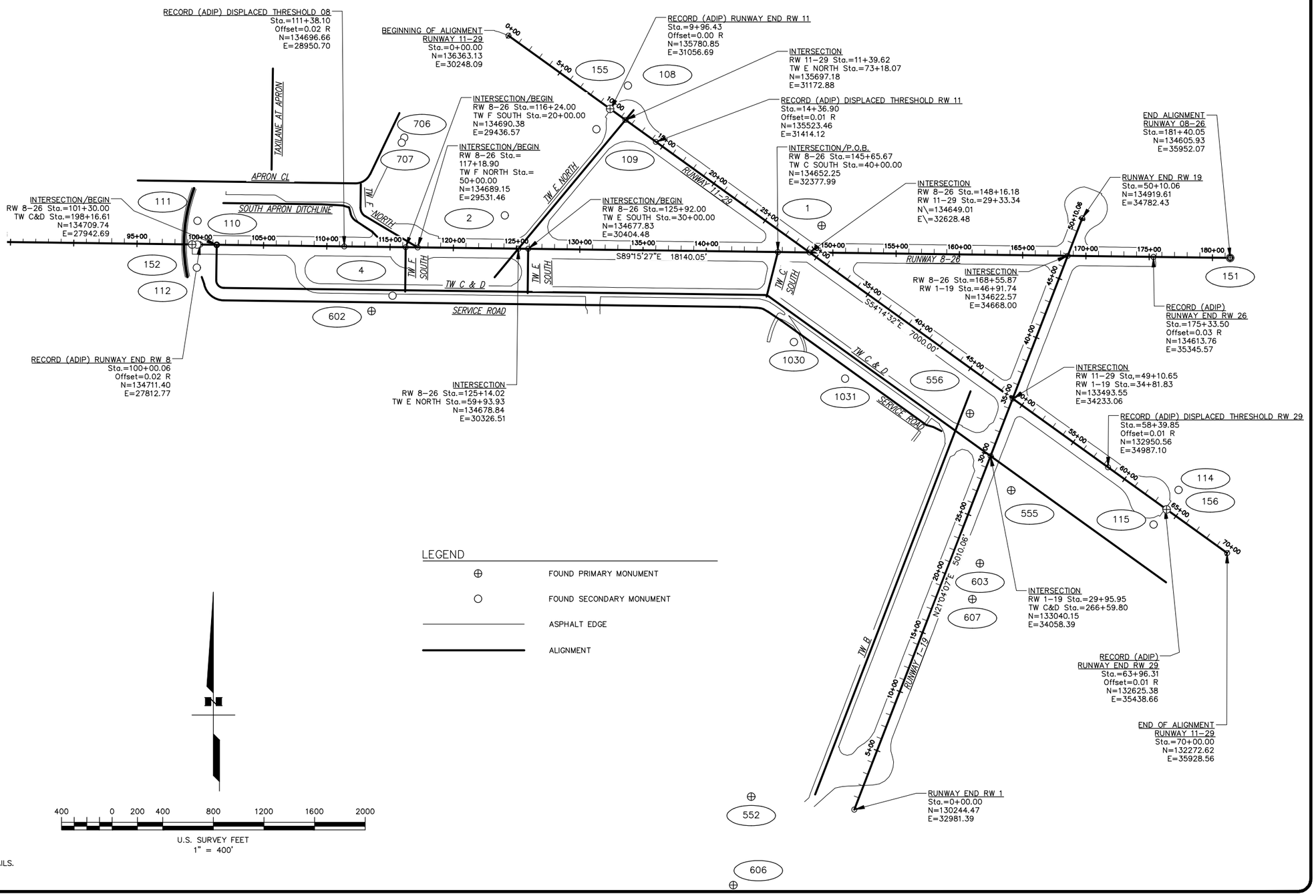
PROJECT ELEVATIONS WERE ESTABLISHED USING FGDC 3rd ORDER DIFFERENTIAL LEVELLING TECHNIQUES WITH A TRIMBLE Dini DIGITAL BAR-CODE LEVEL.

SURVEY NOTES

1. ALL DIMENSIONS AND COORDINATES SHOWN ARE IN U.S. SURVEY FEET.
2. THE FIELD SURVEY WAS CONDUCTED BY LOUNSBURY AND ASSOCIATES, INC. DURING JUNE AND JULY, 2020.
3. PROJECT HORIZONTAL CONTROL WAS SURVEYED USING NETWORKED STATIC GPS AND CONVENTIONAL SURVEY TECHNIQUES. GPS MEASUREMENTS WERE PERFORMED USING TRIMBLE R10 AND R10(2) RECEIVERS AND PROCESSED USING TRIMBLE BUSINESS CENTER VER. 5.31 SOFTWARE.
4. IMPORTED AIRPORT BOUNDARY AS PER KODIAK RECORDING DISTRICT PL 2016-2. IMPORTED LEASE LOT BOUNDARIES AS PER "KODIAK1.DWG" AT RUNWAY 8-26 STATION 100+00. RUNWAY MONUMENT 110 DID NOT HAVE MATCHING COORDINATES IN THE AFOREMENTIONED DRAWINGS. HOLDING RUNWAY 8-26 STATION 100+00 AS ROTATION POINT, ROTATED THE LEASE LOTS LINEWORK TO MATCH THE RUNWAY 8-26 CENTERLINE.

SEE SHEET 2 FOR TAXIWAY, APRON, AND ACCESS ROAD ALIGNMENT DETAILS.
SEE SHEET 3 FOR MONUMENT DETAILS AND TABLES.

RUNWAY ALIGNMENT DETAILS



LEGEND

- ⊕ FOUND PRIMARY MONUMENT
- ○ FOUND SECONDARY MONUMENT
- ASPHALT EDGE
- ALIGNMENT

400 0 200 400 800 1200 1600 2000

U.S. SURVEY FEET
1" = 400'

DESIGN N/A
DRAWN BS
CHECKED JV

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49TH
Jacob M. Gerondale
LS-11758
REGISTERED PROFESSIONAL LAND SURVEYOR
04/02/24

BY	DATE	REVISIONS

KODIAK AIRPORT

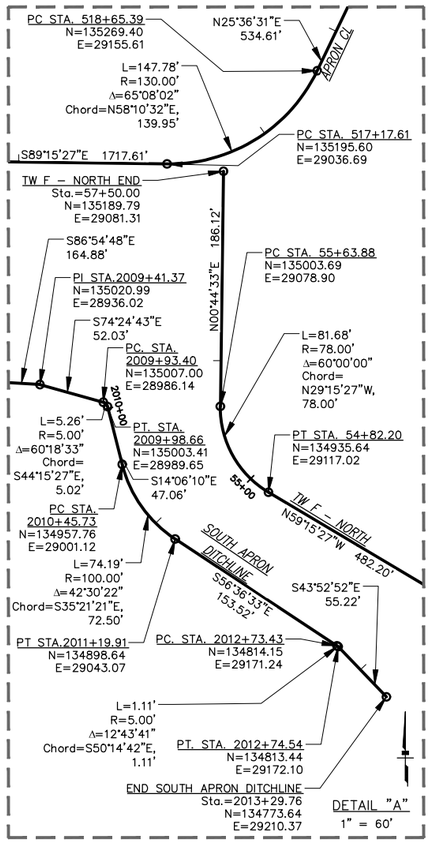
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

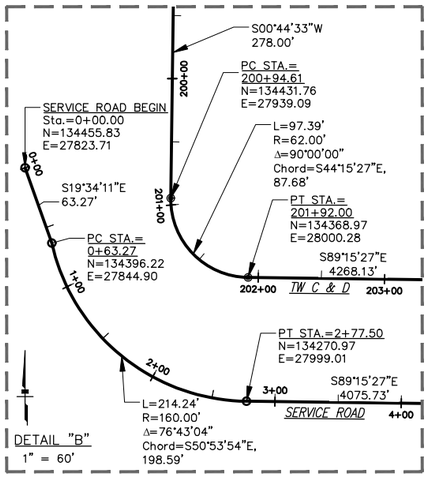
SURVEY CONTROL SHEET

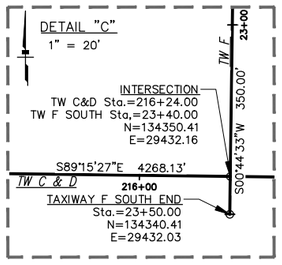
SHEET 7 OF 82

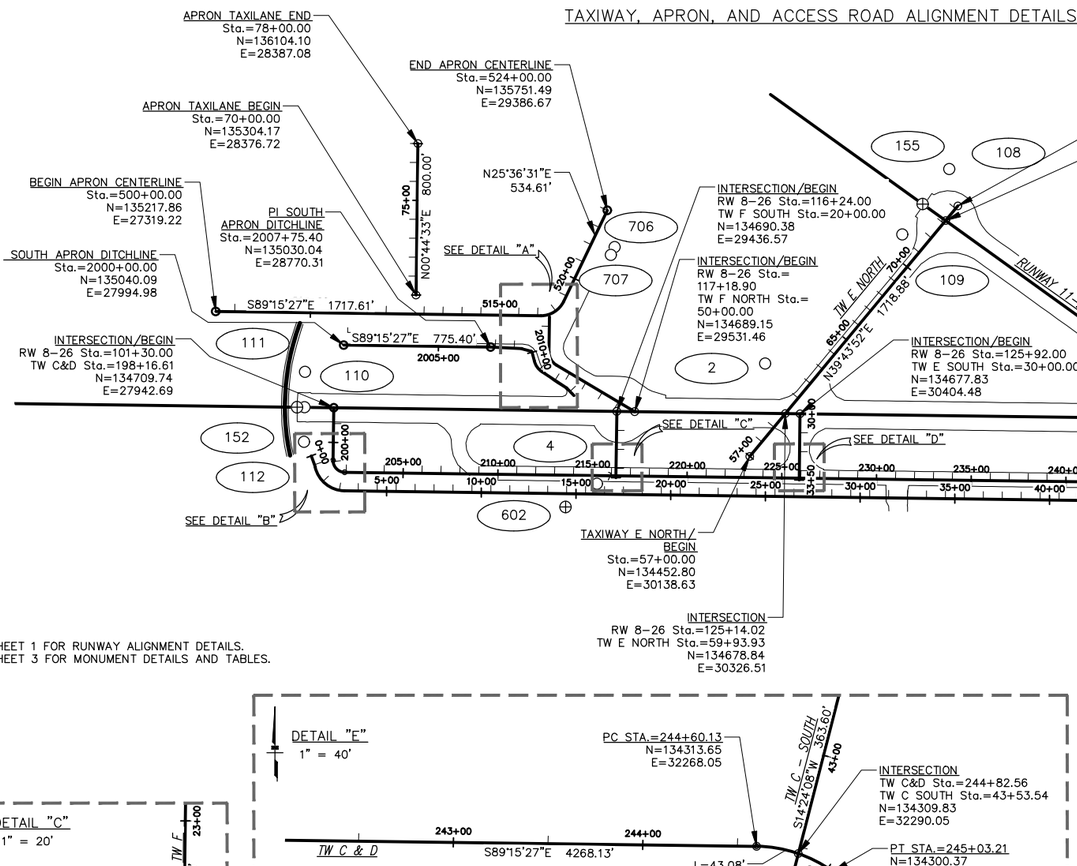
TAXIWAY, APRON, AND ACCESS ROAD ALIGNMENT DETAILS

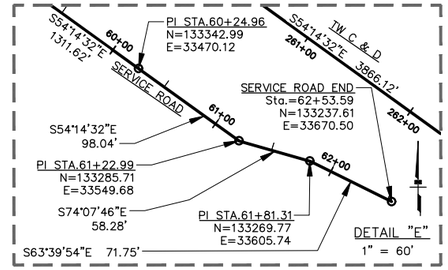
SEE SHEET 1 FOR RUNWAY ALIGNMENT DETAILS.
SEE SHEET 3 FOR MONUMENT DETAILS AND TABLES.











SURVEY CONTROL DEVELOPED BY: LOUNSBURY & ASSOCIATES, INC. 3230 C STREET SUITE 201, ANCHORAGE ALASKA, 99503, (907)272-5451 CERT. OF AUTH. NO. AECC391
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DESIGN N/A
DRAWN BS
CHECKED JV

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49TH
Jacob M. Gerondale
LS-11758
REGISTERED PROFESSIONAL LAND SURVEYOR
04/02/24

BY	DATE	REVISIONS

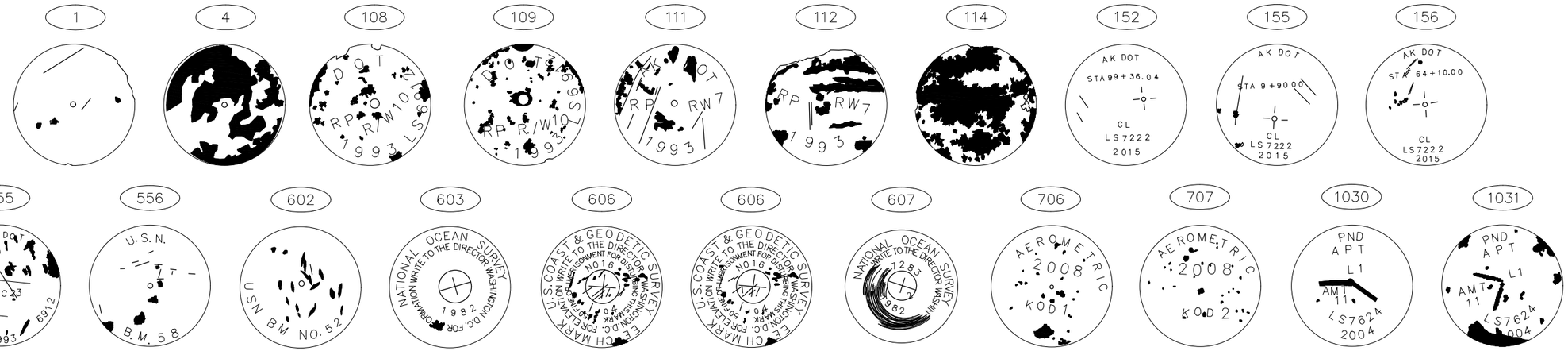
KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND
TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

SURVEY CONTROL SHEET

SHEET 8 OF 82

SURVEY CONTROL MONUMENT DETAILS AND TABLES



MONUMENTS – RUNWAY 8–26						
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET
1	134861.7899	32723.9845	28.66	FD PC/REBAR[AKDOT]: GPS–1	149+08.92	214.00 Lt.
2	134942.6734	30219.5206	53.21	FD PC/REBAR[AKDOT]: GPS–2	124+03.62	262.42 Lt.
4	134307.9887	29332.4113	66.59	FD PC/REBAR[AKDOT]: GPS–3	115+24.81	383.71 Rt.
110	134711.8862	27788.2141	–	FD Rbr: CL RW 8–26	99+75.51	0.14 Lt.
111	134899.2021	27790.6171	–	FD AC/Rbr[AKDOT]: RP RW 8–26	99+75.48	187.47 Lt.
112	134529.3421	27785.8091	–	FD AC/Rbr[AKDOT]: RP RW 8–26	99+75.47	182.42 Rt.
151	134605.9265	35952.0710	–	FD AC/ALUM POST[AKDOT LS–7222]: CL RW 8–26 STA 181+40.00	181+40.05	0.00 Rt.
152	134712.2548	27748.7626	–	FD AC/ALUM POST[AKDOT LS–7222]: CL RW 8–26 STA 99+36.04	99+36.06	0.00 Rt.
602	134185.6718	29166.2896	68.42	FD BC[USN]: BM 52	113+60.29	508.17 Rt.
706	135557.5235	29424.8987	55.63	STS FD AC/RBR[AEROMETRIC]: KOD 1 2008	116+01.10	866.92 Lt.
707	135516.7477	29405.0608	55.51	STS FD AC/RBR[AEROMETRIC]: KOD 2 2008	115+81.79	825.89 Lt.

MONUMENTS – RUNWAY 11–29						
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET
108	135969.3171	31192.3061	–	FD AC/Rbr[AKDOT]: RP RW 11–29	9+96.35	232.19 Lt.
109	135624.1251	30943.7221	–	FD AC/Rbr[AKDOT]: RP RW 11–29	9+96.35	193.20 Rt.
114	132771.4781	35544.0971	–	FD AC/Rbr[AKDOT]: RP RW 29–11	63+96.50	180.16 Lt.
115	132498.1051	35347.3201	–	FD Rbr: RP RW 29–11	63+96.56	156.67 Rt.
155	135784.6113	31051.4686	–	FD AC/ALUM POST[AKDOT LS–7222]: CL RW 11–29 STA 9+90.00	9+90.00	0.00 Rt.
156	132617.4015	35449.7564	–	FD AC/ALUM POST[AKDOT LS–7222]: CL RW 11–29 STA 64+10.00	64+09.98	0.00 Rt.
556	133375.5856	33895.0887	30.71	SACS FD BC[USN]: BM 58 SACS	47+05.32	293.22 Rt.
1030	133941.3167	32504.1423	37.91	FD AC/Rbr[LS–7624]: L1 APT	32+45.98	646.94 Rt.
1031	133651.7212	32908.7835	34.19	FD AC/Rbr[LS–7624]: L1 APT	37+43.58	645.49 Rt.

MONUMENTS – RUNWAY 1–19						
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET
552	130346.6186	32166.9097	64.01	PACS FD SS Rod[NGS]: KODIAK MON 7278 PACS	–	–
555	132768.3854	34221.6136	31.14	SACS FD AC/ALUM POST[AKDOT LS–6912]: C23 KODIAK AIRPORT SACS	28+01.04	250.01 Rt.
603	132191.0850	33974.6229	34.17	FD BC[NOS]: BM 7283 BD	21+73.54	227.06 Rt.
606	129647.4053	32025.6427	20.66	FD BC[USC&GS]: BM 16	–	–
607	131907.9503	33914.7814	31.31	FD BC[NOS]: 7283A	18+87.82	273.00 Rt.

SEE SHEET 1 FOR RUNWAY ALIGNMENT DETAILS.
SEE SHEET 2 FOR TAXIWAY, APRON, AND ACCESS ROAD ALIGNMENT DETAILS.

DESIGN N/A
DRAWN BS
CHECKED JV

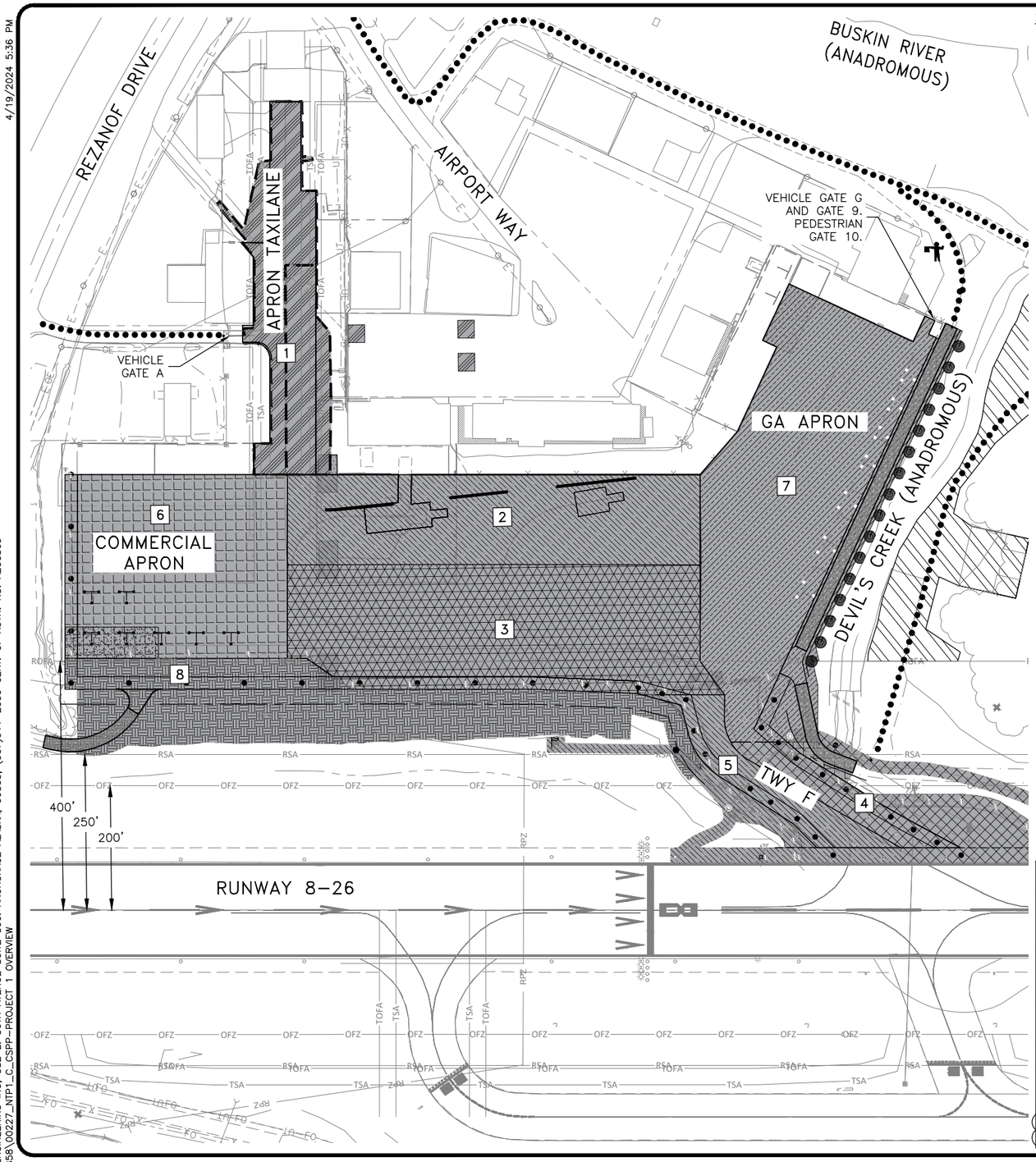
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA
49TH
Jacob M. Gerondale
LS–11758
04/02/24
REGISTERED PROFESSIONAL LAND SURVEYOR

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3–02–0158–024–2024/SFAPT00227
SURVEY CONTROL SHEET

SHEET 9 OF 82

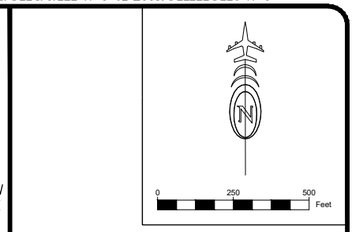


SAFETY PLAN WORK ITEMS:

1. CONSTRUCTION OF PHASES SHALL BE COMPLETED IN SEQUENTIAL ORDER UNLESS APPROVED PER SECTION G-140 OF THE SPECIFICATIONS.
2. STOCK PILE AND CONSTRUCTION EQUIPMENT STORAGE NOT PERMITTED IN ACTIVE ROFAs AND TOFAs.
3. SUBMIT A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) PER FAA AC150/5370-2, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION (SAFETY AC), TO THE ENGINEER FOR REVIEW. DO NOT BEGIN CONSTRUCTION ACTIVITIES UNTIL THE ENGINEER APPROVES THE SPCD IN WRITING. ALLOW 30 DAYS FOR INITIAL REVIEW. INCLUDE CONSTRUCTION SEQUENCING. IF PLAN DIFFERS FROM WHAT IS SHOWN HERE OR IF SUBSEQUENT CHANGES ARE MADE, SUBMIT A REVISION TO THE ENGINEER FOR REVIEW AND APPROVAL. ALLOW 5 DAYS FOR REVIEW OF REVISED SPCD. MAJOR CHANGES TO THE SPCD MAY REQUIRE REEVALUATION BY THE FAA. SEE APPENDIX C OF THE SPECIFICATIONS FOR THE CONSTRUCTION SAFETY AND PHASING PLAN DOCUMENT, AND MORE INFORMATION ON THE REQUIREMENTS OF THE SAFETY AC AND SPCD. SEE SECTION 1.4.3 OF THE SAFETY AC FOR A SUMMARIZED GENERAL LIST OF CONTRACTOR RESPONSIBILITIES REGARDING SAFETY DURING CONSTRUCTION.
4. PROVIDE CONTINUOUS COORDINATION THROUGH THE ENGINEER USING WEEKLY BRIEFINGS WITH AIRPORT, AIRPORT MANAGEMENT, USCG, ARFF PERSONNEL, ATC, AND AIRPORT USERS TO KEEP ALL PARTIES INFORMED OF THE STATUS OF CHANGES OF AIRPORT SURFACES IN RELATION TO AIRCRAFT, AND GROUND TRAFFIC. INDICATE AREAS CLOSED TO AIRCRAFT MOVEMENT AND PARKING. PROVIDE UPDATED DRAWINGS AT WEEKLY CONSTRUCTION MEETINGS AS CONSTRUCTION PROCEEDS.
5. SHOULD PLANS OR SPECIFICATIONS REQUIRE COORDINATION, NOTIFICATION, CONTACT OR OTHER INTERACTION WITH THE FAA, AIRPORT TENANTS, AIRPORT USERS, ANY LOCAL, STATE, OR FEDERAL AGENCY, GROUP, OR ASSOCIATION, OR THE GENERAL PUBLIC, SUCH ACTIVITY SHALL BE DONE THROUGH, IN THE PRESENCE OF, OR WITH THE WRITTEN APPROVAL OF THE ENGINEER. ALLOW SUFFICIENT TIME FOR COORDINATION AND APPROVALS WITHIN PROPOSED WORK SCHEDULES.
6. THE WORK ON THIS PROJECT WILL REQUIRE THAT THE PORTIONS OF RUNWAYS, TAXIWAYS, AND APRONS BEING WORKED ON BE CLOSED TO AIRCRAFT OPERATIONS. NO WORK WILL BE ALLOWED ON RUNWAYS, TAXIWAYS, OR APRONS THAT ARE OPEN TO AIRCRAFT OPERATIONS. SEE THE FOLLOWING PHASE SPECIFIC SAFETY PLAN SHEETS.
7. NO CONSTRUCTION ACTIVITY IS ALLOWED WITHIN THE RUNWAY SAFETY AREA (RSA), RUNWAY PROTECTION ZONE (RPZ), OR OBSTACLE FREE ZONE (OFZ) WHILE THE RUNWAY IS OPEN TO AIRCRAFT OPERATIONS.
8. ALL PERSONS WORKING AND EQUIPMENT OPERATING WITHIN THE AIRPORT PROPERTY SHALL REMAIN IN CONSTANT RADIO CONTACT WITH THE SAFETY OFFICER USING A RADIO FREQUENCY OTHER THAN THE AVIATION RADIO BAND APPROVED FOR USE BY THE FEDERAL COMMUNICATIONS COMMISSION.
9. CONTRACTOR SHALL REPORT ANY SAFETY ISSUES TO THE ENGINEER AND AIRPORT CONSTRUCTION COORDINATOR UPON DISCOVERY, AND SHALL TAKE IMMEDIATE ACTION TO RESOLVE SAFETY ISSUES AS DIRECTED.
10. PROVIDE WATER FOR DUST CONTROL AS REQUIRED, AND AS DIRECTED. DUST, SMOKE, STEAM, OR OTHER AIRBORNE PARTICULATES CAUSED BY CONTRACTOR ACTIVITIES MAY BE CONSIDERED A SAFETY VIOLATION AS DETERMINED BY THE ENGINEER.
11. IMMEDIATELY REMOVE ALL FOREIGN OBJECTS AND DEBRIS (FOD) FROM ACTIVE SURFACES UPON DISCOVERY OR NOTIFICATION PER SECTION 50-13 OF THE GENERAL CONTRACT PROVISIONS. FAILURE TO REMOVE FOD MAY BE CONSIDERED A SAFETY VIOLATION AS DETERMINED BY THE ENGINEER.
12. CONTRACTOR TO WORK WITH EACH TENANT TO MINIMIZE ACCESS DISRUPTIONS AND ALLOW A SMOOTH TRANSITION BETWEEN THE WORK AREAS AND THEIR HANGARS AND PARKING LOCATIONS.
13. SIDA LINE MAY CHANGE FROM THE LOCATIONS DEPICTED IN THE PLANS. CONTRACTOR SHALL CONTACT AIRPORT MANAGER, THROUGH THE ENGINEER, TO SUBMIT A CHANGE CONDITION BEFORE THE CURRENT SIDA LINE CAN CHANGE AND WORK CAN CONTINUE UNTIL TSA APPROVAL.
14. OVERLAP OF STORM DRAIN WORK WILL OCCUR BETWEEN PHASES. CONTRACTOR MUST MAINTAIN ACCESS FOR AIRPORT OPERATIONS AND PROVIDE A TEMPORARY STORM DRAIN PHASING PLAN IN THE SPCD.
15. ANY NECESSARY IMPROVEMENTS TO THE HAUL ROUTE ARE SUBSIDIARY. OBTAIN PERMISSION FROM THE ENGINEER PRIOR. REMOVE SAID IMPROVEMENTS AFTER THE PROJECT.

CONSTRUCTION PHASE SCHEDULE

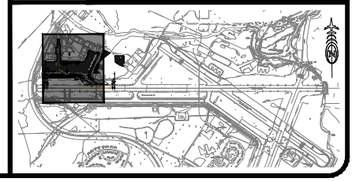
PHASE	PHASE DURATION	AVAILABLE WORK PERIODS	HAZARD MARKER BARRIER QUANTITY
PHASES 1A/1B	14/11 CONSECUTIVE CALENDAR DAYS	7 DAYS/WEEK 2100-0700	140 / 67
PHASE 2	35 CONSECUTIVE CALENDAR DAYS	NO RESTRICTION	135
PHASE 3	42 CONSECUTIVE CALENDAR DAYS	NO RESTRICTION	98
PHASE 4	25 CONSECUTIVE CALENDAR DAYS	7 DAYS/WEEK 2030-0600 2	65
PHASE 5	2 24 CONSECUTIVE CALENDAR DAYS	7 DAYS/WEEK 2030-0600	60
PHASE 6	33 CONSECUTIVE CALENDAR DAYS	NO RESTRICTION	54
PHASE 7	47 CONSECUTIVE CALENDAR DAYS	NO RESTRICTION	112
PHASE 8	15 CONSECUTIVE CALENDAR DAYS	7 DAYS/WEEK 1900-0700	40
PHASE 2&3	4 NIGHTS PAVING FINAL LIFT	1900-0700	N/A
PHASE 4,5,7	3 NIGHTS PAVING FINAL LIFT	1900-0700	N/A
PHASE 6&8 1	2 NIGHTS PAVING FINAL LIFT	1900-0700	N/A



LEGEND:

- # PHASE DESIGNATOR
- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5
- PHASE 6
- PHASE 7
- PHASE 8
- FLAGGER
- PHASE OVERLAP OF STORM DRAIN WORK
- FDR STOCKPILE LOCATIONS

KEY PLAN



BY	DATE	REVISIONS
CCM	4/19/2024	ADDENDUM 4 – TABLE CHANGE 2
CCM	4/16/2024	ADDENDUM 3 – TABLE CORRECTION 1

DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9673 REGISTERED PROFESSIONAL ENGINEER 4/22/2024

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
CSPP OVERVIEW

SHEET 10 OF 82

PLANS DEVELOPED BY: HDR ENGINEERING INC. 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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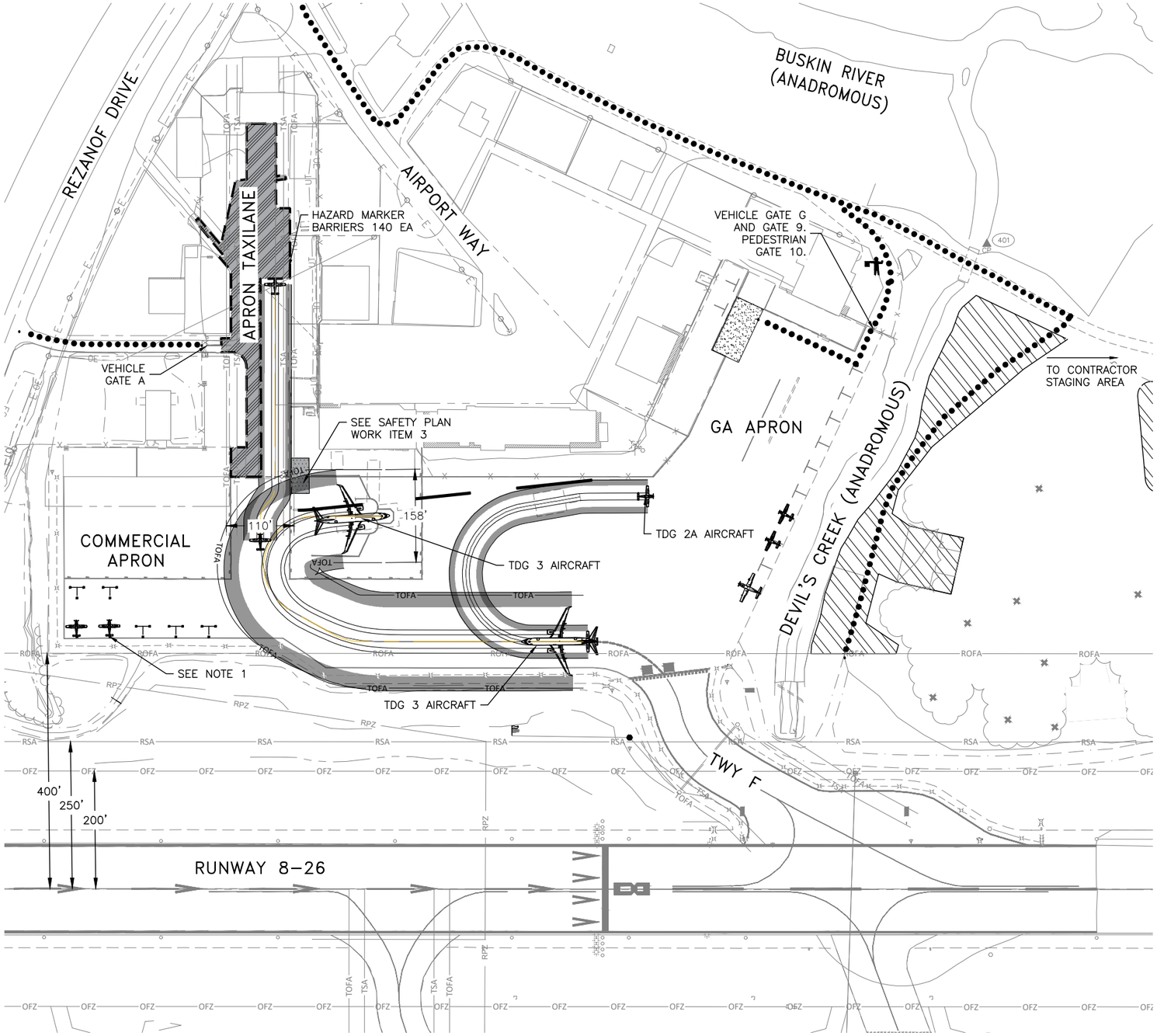


SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
3. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
4. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN THE CLOSE PROXIMITY TO OPERATING AIRCRAFT AND AT OPEN OR UNLOCKED GATES.
5. EMERGENCY RESPONSE VEHICLES ALWAYS HAVE THE RIGHT OF WAY.
6. CEMENT TREATED SUBGRADE SHALL BE MICRO-CRACKED BETWEEN 24 AND 48 HOURS OF COMPACTION PER SECTION 156-6.7 OF THE SPECIFICATIONS. THE SUBGRADE SHALL BE KEPT CONTINUOUSLY MOIST FOR 7 DAYS DURING CURING. PROVIDE TENANT ACCESS AND STOCKPILE OF FDR IN THE PORTION OF THE APRON THAT HAS YET TO BE TREATED OR TREATMENT HAS BEEN COMPLETED. THE CONTRACTOR SHALL COMMUNICATE WITH TENANTS DAILY OF CHANGES TO LEASE LOT ACCESS.

PHASE 1A WORK ITEMS:

1. CONSTRUCT ALL EROSION AND SEDIMENT CONTROL BMP'S REQUIRED FOR THIS PHASE.
2. INSTALL TEMPORARY TIE-DOWNS
3. CLOSE TAXILANE.
4. PLACE HAZARD MARKER BARRIERS.
5. LONG DURATION CLOSURE WORK:
   A. DEMOLISH EXISTING TAXILANE PAVEMENT.
   B. DEMOLISH EXISTING STORM DRAINS.
   C. CONSTRUCT STORM DRAINS.
   D. RECONSTRUCT TAXILANE PAVEMENT.
   E. PAINT PERMANENT TAXILANE MARKINGS.
5. REMOVE HAZARD MARKER BARRIERS.
6. OPEN TAXILANE.

NOTES:

1. FIELD LOCATE TEMPORARY TIE-DOWNS.

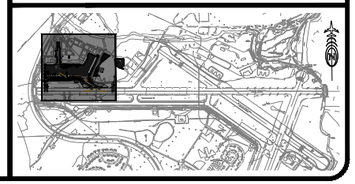
N

0 250 500 Feet

LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- PHASE 1
- LOW PROFILE BARRICADE
- FLAGGER
- WINGTIP CLEARANCE WINGTIP TRACKING
- ENGINE TRACKING MAIN GEAR TRACKING AIRCRAFT TRAFFIC ROUTE MAIN GEAR TRACKING ENGINE TRACKING
- WINGTIP TRACKING WINGTIP CLEARANCE
- TEMPORARY MARKING
- TOFA — TEMPORARY TAXIWAY OR TAXILANE OBJECT FREE AREA
- PHASE OVERLAP OF STORM DRAIN WORK
- FDR STOCKPILE LOCATIONS

KEY PLAN



DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

CSPP PHASE 1A

SHEET 11 OF 82

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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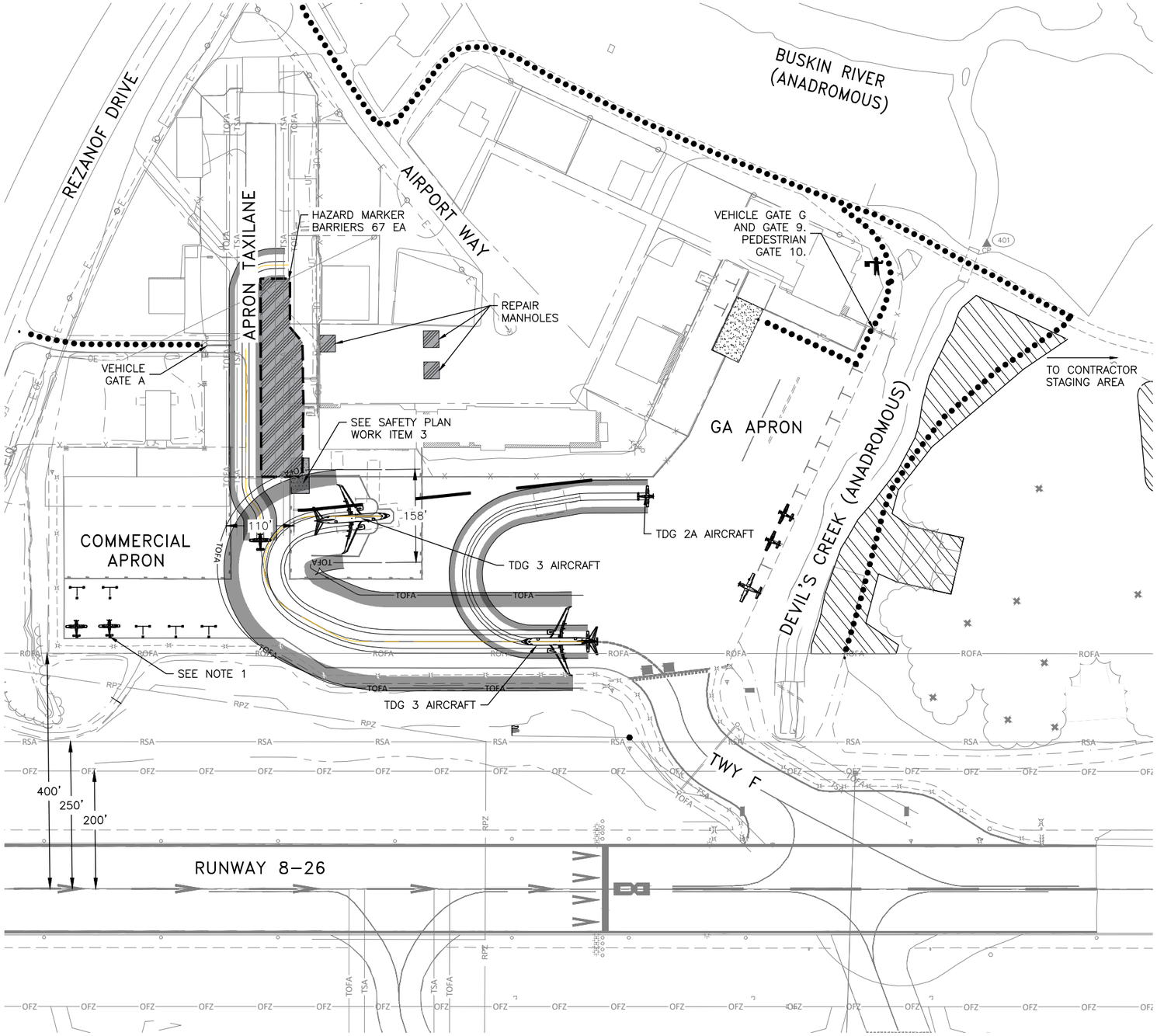


SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
3. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
4. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN THE CLOSE PROXIMITY TO OPERATING AIRCRAFT AND AT OPEN OR UNLOCKED GATES.
5. EMERGENCY RESPONSE VEHICLES ALWAYS HAVE THE RIGHT OF WAY.
6. CEMENT TREATED SUBGRADE SHALL BE MICRO-CRACKED BETWEEN 24 AND 48 HOURS OF COMPACTION PER SECTION 156-6.7 OF THE SPECIFICATIONS. THE SUBGRADE SHALL BE KEPT CONTINUOUSLY MOIST FOR 7 DAYS DURING CURING. PROVIDE TENANT ACCESS AND STOCKPILE OF FDR IN THE PORTION OF THE APRON THAT HAS YET TO BE TREATED OR TREATMENT HAS BEEN COMPLETED. THE CONTRACTOR SHALL COMMUNICATE WITH TENANTS DAILY OF CHANGES TO LEASE LOT ACCESS.

PHASE 1B WORK ITEMS:

1. CONSTRUCT ALL EROSION AND SEDIMENT CONTROL BMP'S REQUIRED FOR THIS PHASE.
2. INSTALL TEMPORARY TIE-DOWNS
3. CLOSE TAXILANE.
4. PLACE HAZARD MARKER BARRIERS.
5. LONG DURATION CLOSURE WORK:
   A. DEMOLISH EXISTING TAXILANE PAVEMENT.
   B. DEMOLISH EXISTING STORM DRAINS.
   C. CONSTRUCT STORM DRAINS.
   D. RECONSTRUCT TAXILANE PAVEMENT.
   E. PAINT PERMANENT TAXILANE MARKINGS.
5. REMOVE HAZARD MARKER BARRIERS.
6. OPEN TAXILANE.

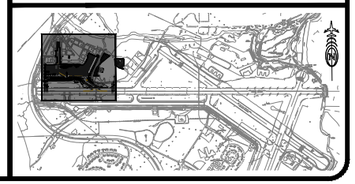
NOTES:

1. FIELD LOCATE TEMPORARY TIE-DOWNS.

LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- PHASE 1
- LOW PROFILE BARRICADE
- FLAGGER
- WINGTIP CLEARANCE WINGTIP TRACKING
- ENGINE TRACKING MAIN GEAR TRACKING AIRCRAFT TRAFFIC ROUTE MAIN GEAR TRACKING ENGINE TRACKING
- WINGTIP TRACKING WINGTIP CLEARANCE
- TEMPORARY MARKING
- TOFA — TEMPORARY TAXIWAY OR TAXILANE OBJECT FREE AREA
- PHASE OVERLAP OF STORM DRAIN WORK
- FDR STOCKPILE LOCATIONS

KEY PLAN



DESIGN CT
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CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th REGISTERED PROFESSIONAL ENGINEER Charles M. Tripp CE - 9613 4/2/2024

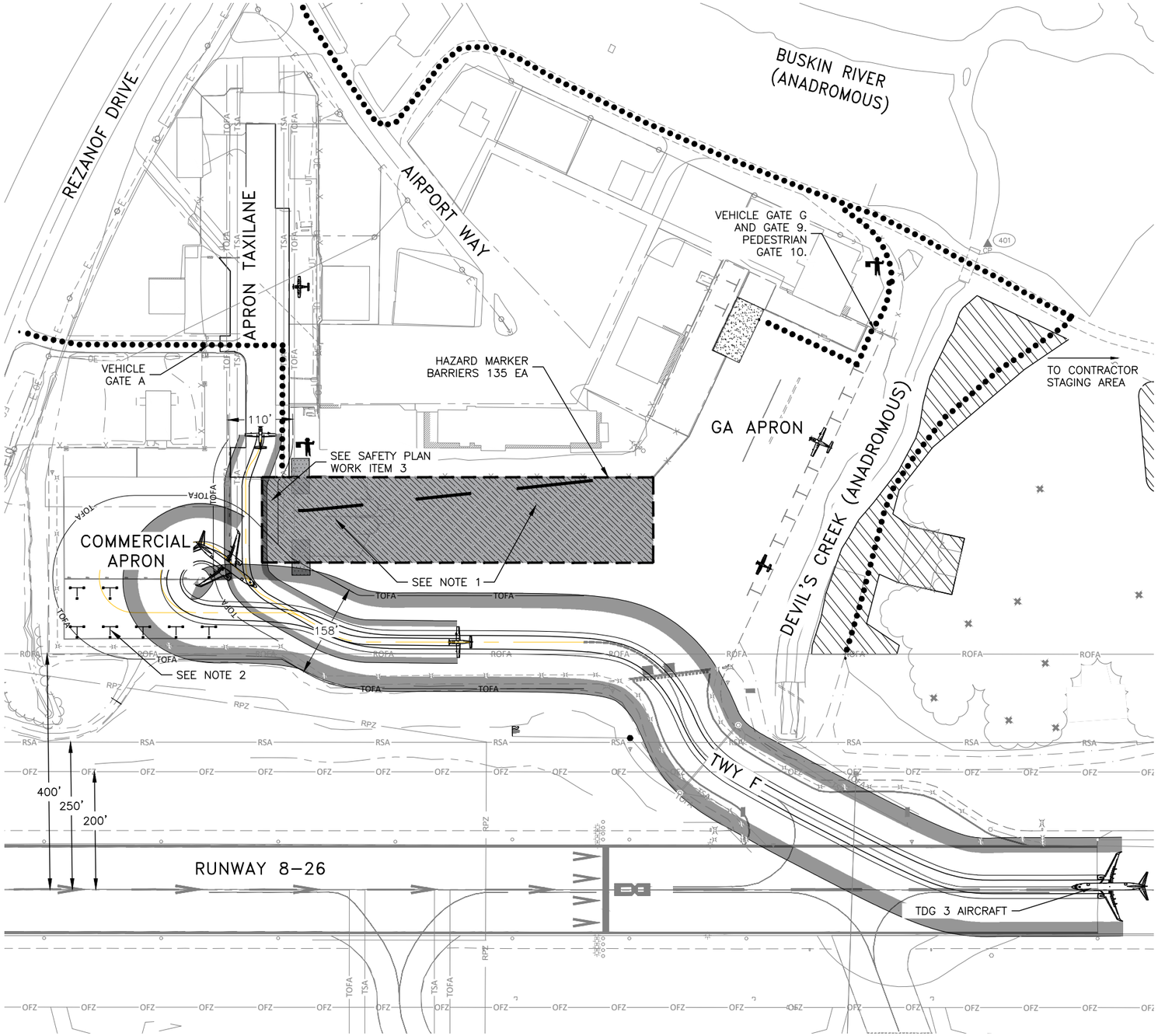
BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

CSPP PHASE 1B

SHEET 12 OF 82



SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
3. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
4. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN THE CLOSE PROXIMITY TO OPERATING AIRCRAFT AND AT OPEN OR UNLOCKED GATES.
5. CONTRACTOR SHALL INSTALL TEMPORARY SIDA LINE BY FABRICATING AND INSTALLING "SIDA – DO NOT ENTER" ALUMINUM SIGNS MOUNTED TO SUPPORTS THAT CAN WITH STAND JET BLAST. TEMPORARY SIDA SHALL BE COORDINATED WITH THE ENGINEER A MINIMUM OF 30 DAYS PRIOR TO CONSTRUCTION.
6. EMERGENCY RESPONSE VEHICLES ALWAYS HAVE THE RIGHT OF WAY.
7. CONTRACTOR SHALL CONSTRUCT EACH PHASE IN TWO PARTS TO ALLOW FOR CEMENT TREATED SUBGRADE TREATMENT, MICRO-CRACKING, AND CURING. CEMENT TREATED SUBGRADE SHALL BE MICRO-CRACKED BETWEEN 24 AND 48 HOURS OF COMPACTION PER SECTION 156-6.7 OF THE SPECIFICATIONS. THE SUBGRADE SHALL BE KEPT CONTINUOUSLY MOIST FOR 7 DAYS DURING CURING. PROVIDE TENANT ACCESS AND STOCKPILE OF FDR IN THE PORTION OF THE APRON THAT HAS YET TO BE TREATED OR TREATMENT HAS BEEN COMPLETED. THE CONTRACTOR SHALL COMMUNICATE WITH TENANTS DAILY OF CHANGES TO LEASE LOT ACCESS.

PHASE 2 WORK ITEMS:

1. CLOSE TERMINAL ACCESS AND RELOCATE COMMERCIAL AVIATION TRAFFIC.
2. CONSTRUCT ALL EROSION AND SEDIMENT CONTROL BMP'S REQUIRED FOR THIS PHASE.
3. PLACE HAZARD MARKER BARRIERS.
4. LONG DURATION CLOSURE WORK:
   A. DEMOLISH EXISTING APRON PAVEMENT.
   B. DEMOLISH EXISTING STORM DRAIN PER DEMO SHEETS. PROTECT IN PLACE TRENCH DRAINS.
   C. CONSTRUCT STORM DRAIN.
   B. RECONSTRUCT APRON PAVEMENT TO FIRST LIFT HMA (FG –2").
   C. CONSTRUCT TEMPORARY ACCESS RAMP TO HARDSTANDS AND OTHER PHASE REGIONS (SEE NOTE 1).
5. PLACE TEMPORARY TAXIWAY MARKINGS.
6. REMOVE AND RELOCATE HAZARD MARKER BARRIERS AS NECESSARY FOR NEXT PHASE OF CONSTRUCTION. REMOVE TEMPORARY MARKINGS. SEE TEMPORARY MARKING PLAN FOR PHASED TEMPORARY MARKING SEQUENCING.
7. OPEN PHASE 2 UNTIL FINAL PAVING OPERATION.

NOTES:

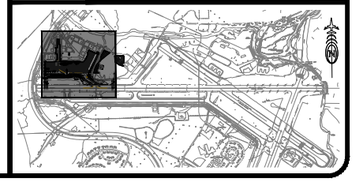
1. CONSTRUCT AND MAINTAIN 1.5% MAX SLOPE RAMP BETWEEN EXISTING GRADE AND PROPOSED GRADE FOR AIRCRAFT MOVEMENT.
2. TEMPORARY TIE-DOWNS NOT USED DURING THIS PHASE. EXISTING TIE-DOWNS ALONG GA APRON TO BE USED.

0 250 500 Feet

LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- PHASE 2
- LOW PROFILE BARRICADE
- FLAGGER
- WINGTIP CLEARANCE / WINGTIP TRACKING
- ENGINE TRACKING / MAIN GEAR TRACKING / AIRCRAFT TRAFFIC ROUTE / MAIN GEAR TRACKING / ENGINE TRACKING
- WINGTIP TRACKING / WINGTIP CLEARANCE
- TEMPORARY MARKING
- TOFA — TEMPORARY TAXIWAY OR TAXILANE OBJECT FREE AREA
- PHASE OVERLAP OF STORM DRAIN WORK
- FDR STOCKPILE LOCATIONS

KEY PLAN



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

CSPP PHASE 2

SHEET 13 OF 82

PLANS DEVELOPED BY: HDR ENGINEERING INC. 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503. (907)644-2000 CERT. OF AUTH. NO. AEC0569
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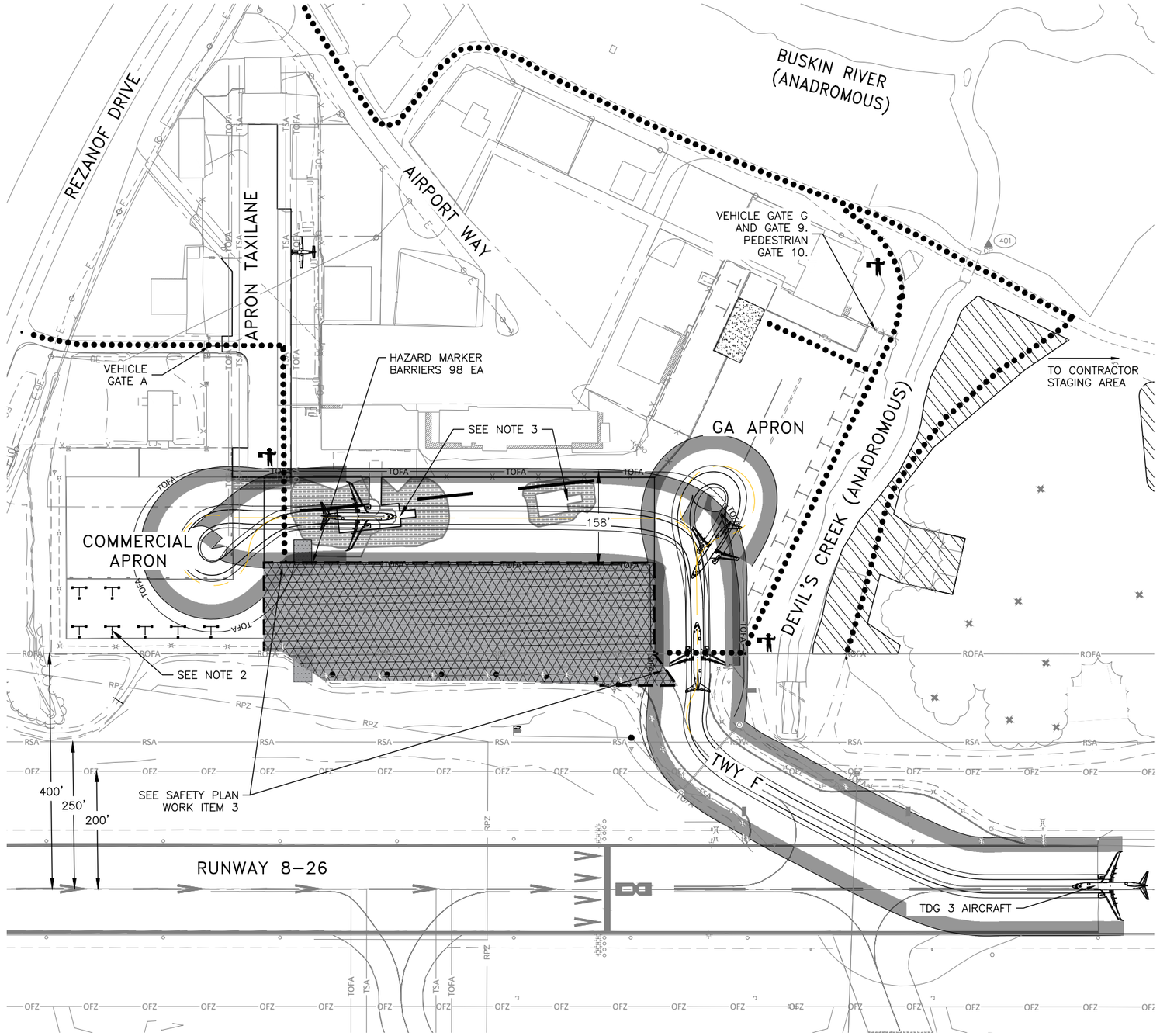


SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
3. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT.TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
4. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN THE CLOSE PROXIMITY TO OPERATING AIRCRAFT AND AT OPEN OR UNLOCKED GATES.
5. CONTRACTOR SHALL INSTALL TEMPORARY SIDA LINE BY FABRICATING AND INSTALLING "SIDA – DO NOT ENTER" ALUMINUM SIGNS MOUNTED TO SUPPORTS THAT CAN WITH STAND JET BLAST. TEMPORARY SIDA SHALL BE COORDINATED WITH THE ENGINEER A MINIMUM OF 30 DAYS PRIOR TO CONSTRUCTION.
6. EMERGENCY RESPONSE VEHICLES ALWAYS HAVE THE RIGHT OF WAY.
7. CONTRACTOR SHALL CONSTRUCT EACH PHASE IN TWO PARTS TO ALLOW FOR CEMENT TREATED SUBGRADE TREATMENT, MICRO-CRACKING, AND CURING. CEMENT TREATED SUBGRADE SHALL BE MICRO-CRACKED BETWEEN 24 AND 48 HOURS OF COMPACTION PER SECTION 156-6.7 OF THE SPECIFICATIONS. THE SUBGRADE SHALL BE KEPT CONTINUOUSLY MOIST FOR 7 DAYS DURING CURING. PROVIDE TENANT ACCESS AND STOCKPILE OF FDR IN THE PORTION OF THE APRON THAT HAS YET TO BE TREATED OR TREATMENT HAS BEEN COMPLETED. THE CONTRACTOR SHALL COMMUNICATE WITH TENANTS DAILY OF CHANGES TO LEASE LOT ACCESS.

PHASE 3 WORK ITEMS:

1. CONSTRUCT ALL EROSION AND SEDIMENT CONTROL BMP'S REQUIRED FOR THIS PHASE.
2. PLACE TEMPORARY TAXIWAY MARKINGS.
3. CLOSE TAXIWAY WITHIN PHASE. DIRECT TRAFFIC TO TEMPORARY TAXIWAY.
4. PLACE HAZARD MARKER BARRIERS.
5. LONG DURATION CLOSURE WORK:
   A. PERFORM FDR OPERATION ON EXISTING PHASE AREA.
   B. DEMOLISH EXISITNG STORM DRAIN AS PRESCRIBED BY DRAINAGE SHEETS.
   C. CONSTRUCT NEW STORM DRAIN AS PRESCRIBED BY DRAINAGE SHEETS.
   B. RECONSTRUCT APRON PAVEMENT TO FIRST LIFT HMA (FG -2").
   C. CONSTRUCT TEMPORARY ACCESS RAMP TO OTHER PHASE REGIONS (SEE NOTE 1).
6. REMOVE AND RELOCATE HAZARD MARKER BARRIERS AS NECESSARY FOR NEXT PHASE OF CONSTRUCTION. REMOVE TEMPORARY MARKINGS. SEE TEMPORARY MARKING PLAN FOR PHASED TEMPORARY MARKING SEQUENCING.
7. OPEN PHASE 3 UNTIL FINAL PAVING OPERATION.

NOTES:

1. CONSTRUCT AND MAINTAIN 1.5% MAX SLOPE RAMP BETWEEN EXISTING GRADE AND PROPOSED GRADE FOR AIRCRAFT MOVEMENT.
2. TEMPORARY TIE-DOWNS NOT USED DURING THIS PHASE. EXISTING TIE-DOWNS ALONG GA APRON TO BE USED.
3. NO PARKING. MAINTAIN ACCESS FOR TAXIING AIRCRAFT.

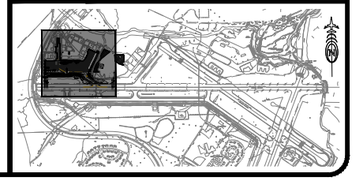
N

0 250 500 Feet

LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- PHASE 3
- LOW PROFILE BARRICADE
- FLAGGER
- WINGTIP CLEARANCE / WINGTIP TRACKING
- ENGINE TRACKING / MAIN GEAR TRACKING / AIRCRAFT TRAFFIC ROUTE / MAIN GEAR TRACKING / ENGINE TRACKING
- WINGTIP TRACKING / WINGTIP CLEARANCE
- TEMPORARY MARKING
- TOFA — TEMPORARY TAXIWAY OR TAXILANE OBJECT FREE AREA
- PHASE OVERLAP OF STORM DRAIN WORK
- FDR STOCKPILE LOCATIONS
- TEMPORARY TRANSITION RAMP

KEY PLAN



DESIGN CT
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9673 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

CSPP PHASE 3

SHEET 14 OF 82

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PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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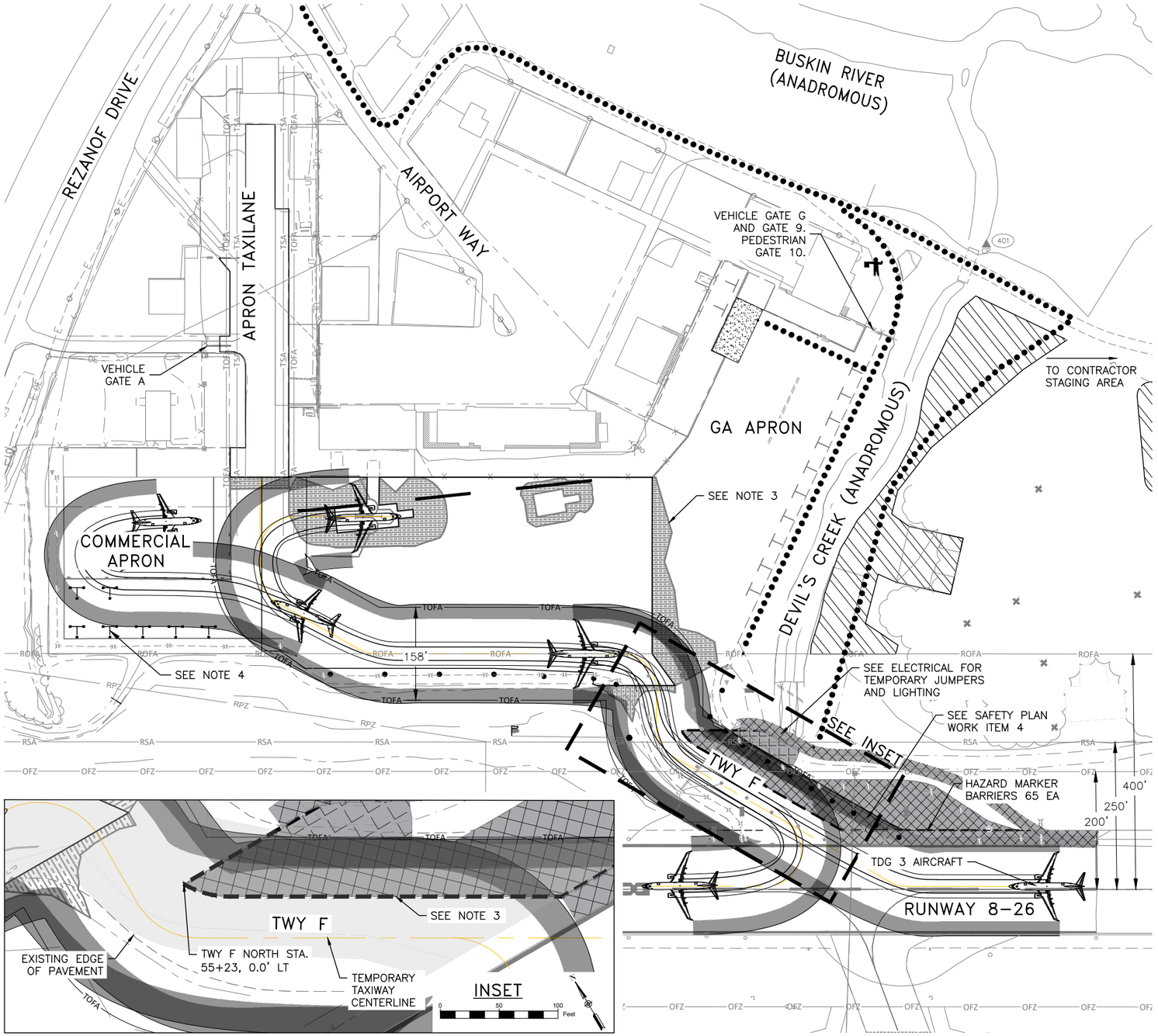


SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. COORDINATE RUNWAY CLOSURE WITH AIRPORT AND FAA FOR ALL WORK WITHIN RSA, INCLUDING APPROPRIATE LEAD TIME COORDINATION AND ALL NECESSARY FORMS.
3. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
4. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
5. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN THE CLOSE PROXIMITY TO OPERATING AIRCRAFT AND AT OPEN OR UNLOCKED GATES.
6. EMERGENCY RESPONSE VEHICLES ALWAYS HAVE THE RIGHT OF WAY.
7. CONTRACTOR SHALL CONSTRUCT EACH PHASE IN TWO PARTS TO ALLOW FOR CEMENT TREATED SUBGRADE TREATMENT, MICRO-CRACKING, AND CURING. CEMENT TREATED SUBGRADE SHALL BE MICRO-CRACKED BETWEEN 24 AND 48 HOURS OF COMPACTION PER SECTION 156-6.7 OF THE SPECIFICATIONS. THE SUBGRADE SHALL BE KEPT CONTINUOUSLY MOIST FOR 7 DAYS DURING CURING. PROVIDE TENANT ACCESS AND STOCKPILE OF FDR IN THE PORTION OF THE APRON THAT HAS YET TO BE TREATED OR TREATMENT HAS BEEN COMPLETED. THE CONTRACTOR SHALL COMMUNICATE WITH TENANTS DAILY OF CHANGES TO LEASE LOT ACCESS.

PHASE 4 WORK ITEMS:

1. CONSTRUCT ALL EROSION AND SEDIMENT CONTROL BMP'S REQUIRED FOR THIS PHASE.
2. PLACE TEMPORARY TAXIWAY MARKINGS.
3. CLOSE EAST HALF OF TAXIWAY F.
4. PLACE HAZARD MARKER BARRIERS.
5. LONG DURATION CLOSURE WORK:
   A. DEMOLISH EXISTING TAXIWAY PAVEMENT, LIGHTING, AND SIGNS.
   B. INSTALL NEW RUNWAY AND TAXIWAY LIGHT CANS, CONDUIT, AND WIRES (SEE NOTE 1). INSTALL BLANK COVER PLATE OVER LIGHT CANS IN PREPARATION FOR PAVING.
   C. RECONSTRUCT APRON PAVEMENT TO FIRST LIFT HMA (FG -2").
   D. CONSTRUCT TEMPORARY ACCESS RAMP TO OTHER PHASE REGIONS (SEE NOTE 2).
6. REMOVE AND RELOCATE HAZARD MARKER BARRIERS AS NECESSARY FOR NEXT PHASE OF CONSTRUCTION. REMOVE TEMPORARY MARKINGS. SEE TEMPORARY MARKING PLAN FOR PHASED TEMPORARY MARKING SEQUENCING.

NOTES:

1. TAXIWAY LIGHTS AND LIGHT BASE TOP SECTION TO BE INSTALLED AFTER CONSTRUCTION OF FINAL LIFT HMA (FG).
2. CONSTRUCT AND MAINTAIN 1.5% MAX SLOPE RAMP BETWEEN EXISTING GRADE AND PROPOSED GRADE FOR AIRCRAFT MOVEMENT.
3. BOUNDARY BETWEEN PHASES 4, 5, AND 7 COINCIDES WITH TWY F CENTERLINE.
4. TEMPORARY TIE-DOWNS NOT USED DURING THIS PHASE. EXISTING TIE-DOWNS ALONG GA APRON TO BE USED.

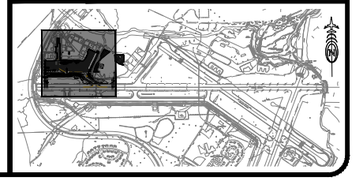
N

0 250 500 Feet

LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- PHASE 4
- LOW PROFILE BARRICADE
- FLAGGER
- WINGTIP CLEARANCE / WINGTIP TRACKING
- ENGINE TRACKING / MAIN GEAR TRACKING / AIRCRAFT TRAFFIC ROUTE / MAIN GEAR TRACKING / ENGINE TRACKING
- WINGTIP TRACKING / WINGTIP CLEARANCE
- TEMPORARY MARKING
- TOFA — TEMPORARY TAXIWAY OR TAXILANE OBJECT FREE AREA
- FDR STOCKPILE LOCATIONS
- TEMPORARY TRANSITION RAMP

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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STATE OF ALASKA
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STATE OF ALASKA 49th Charles M. Tripp CE - 9673 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

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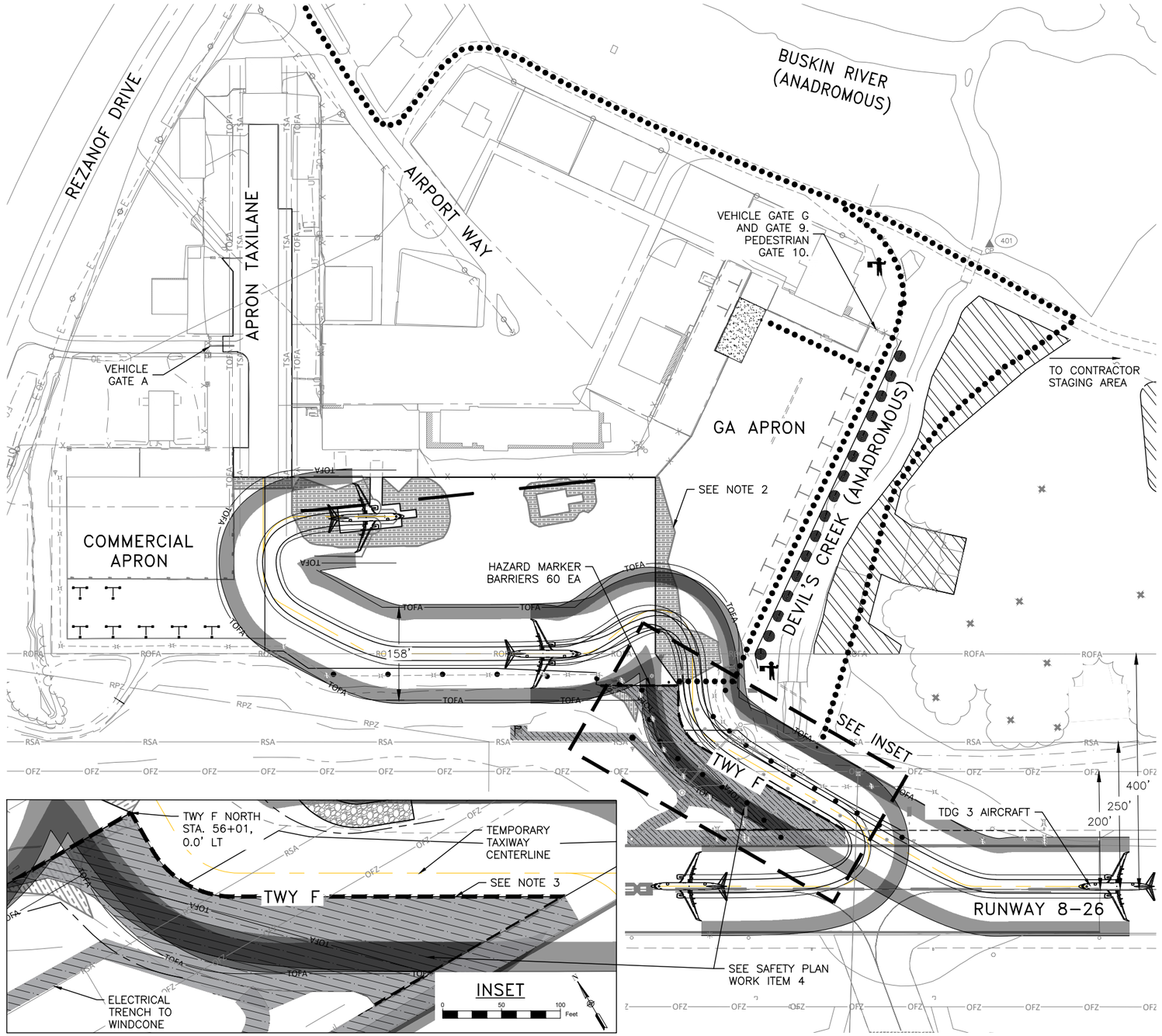
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

CSPP PHASE 4

SHEET 15 OF 82



SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. COORDINATE RUNWAY CLOSURE WITH AIRPORT AND FAA FOR ALL WORK WITHIN RSA, INCLUDING APPROPRIATE LEAD TIME COORDINATION AND ALL NECESSARY FORMS.
3. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY. TAXIWAY. OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
4. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
5. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN THE CLOSE PROXIMITY TO OPERATING AIRCRAFT AND AT OPEN OR UNLOCKED GATES.
6. EMERGENCY RESPONSE VEHICLES ALWAYS HAVE THE RIGHT OF WAY.
7. CONTRACTOR SHALL CONSTRUCT EACH PHASE IN TWO PARTS TO ALLOW FOR CEMENT TREATED SUBGRADE TREATMENT, MICRO-CRACKING, AND CURING. CEMENT TREATED SUBGRADE SHALL BE MICRO-CRACKED BETWEEN 24 AND 48 HOURS OF COMPACTION PER SECTION 156-6.7 OF THE SPECIFICATIONS. THE SUBGRADE SHALL BE KEPT CONTINUOUSLY MOIST FOR 7 DAYS DURING CURING. PROVIDE TENANT ACCESS AND STOCKPILE OF FDR IN THE PORTION OF THE APRON THAT HAS YET TO BE TREATED OR TREATMENT HAS BEEN COMPLETED. THE CONTRACTOR SHALL COMMUNICATE WITH TENANTS DAILY OF CHANGES TO LEASE LOT ACCESS.

PHASE 5 WORK ITEMS:

1. CONSTRUCT ALL EROSION AND SEDIMENT CONTROL BMP'S REQUIRED FOR THIS PHASE.
2. PLACE TEMPORARY TAXIWAY MARKINGS.
3. CLOSE WEST HALF OF TAXIWAY F.
4. PLACE HAZARD MARKER BARRIERS.
5. LONG DURATION CLOSURE WORK:
   - A. DEMOLISH EXISTING TAXILANE PAVEMENT, LIGHTING, AND SIGNS.
   - B. INSTALL NEW RUNWAY AND TAXIWAY LIGHT CANS, CONDUIT, AND WIRES (SEE NOTE 1 BELOW). INSTALL BLANK COVER PLATE OVER LIGHT CANS IN PREPARATION FOR PAVING.
   - C. CONSTRUCT SUPPLEMENTAL WINDCONE.
   - D. RECONSTRUCT APRON PAVEMENT TO FIRST LIFT HMA (FG -2").
   - E. CONSTRUCT ADJACENT ACCESS ROAD.
6. REMOVE AND RELOCATE HAZARD MARKER BARRIERS AS NECESSARY FOR NEXT PHASE OF CONSTRUCTION. REMOVE TEMPORARY MARKINGS. SEE TEMPORARY MARKING PLAN FOR PHASED TEMPORARY MARKING SEQUENCING.
7. PAINT TEMPORARY FULL-WIDTH TAXIWAY MARKINGS.
8. REMOVE HAZARD MARKER BARRIERS.
9. OPEN TAXIWAY.

NOTES:

1. TAXIWAY LIGHTS TO BE INSTALLED AFTER CONSTRUCTION OF FINAL LIFT HMA (FG).
2. MAINTAIN 1.5% MAX SLOPE RAMP BETWEEN EXISTING GRADE AND PROPOSED GRADE FOR AIRCRAFT MOVEMENT.
3. BOUNDARY BETWEEN PHASES 4, 5, AND 7 COINCIDES WITH TWY F CENTERLINE.

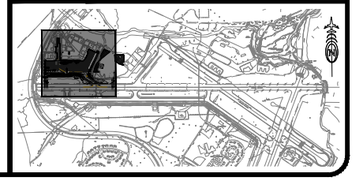
N

0 250 500 Feet

LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- PHASE 5
- LOW PROFILE BARRICADE
- FLAGGER
- WINGTIP CLEARANCE / WINGTIP TRACKING
- ENGINE TRACKING / MAIN GEAR TRACKING / AIRCRAFT TRAFFIC ROUTE / MAIN GEAR TRACKING / ENGINE TRACKING
- WINGTIP TRACKING / WINGTIP CLEARANCE
- TEMPORARY MARKING
- TOFA — TEMPORARY TAXIWAY OR TAXILANE OBJECT FREE AREA
- FDR STOCKPILE LOCATIONS
- TEMPORARY TRANSITION RAMP

KEY PLAN



DESIGN CT
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9673 REGISTERED PROFESSIONAL ENGINEER
4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

CSPP PHASE 5

SHEET 16 OF 82

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PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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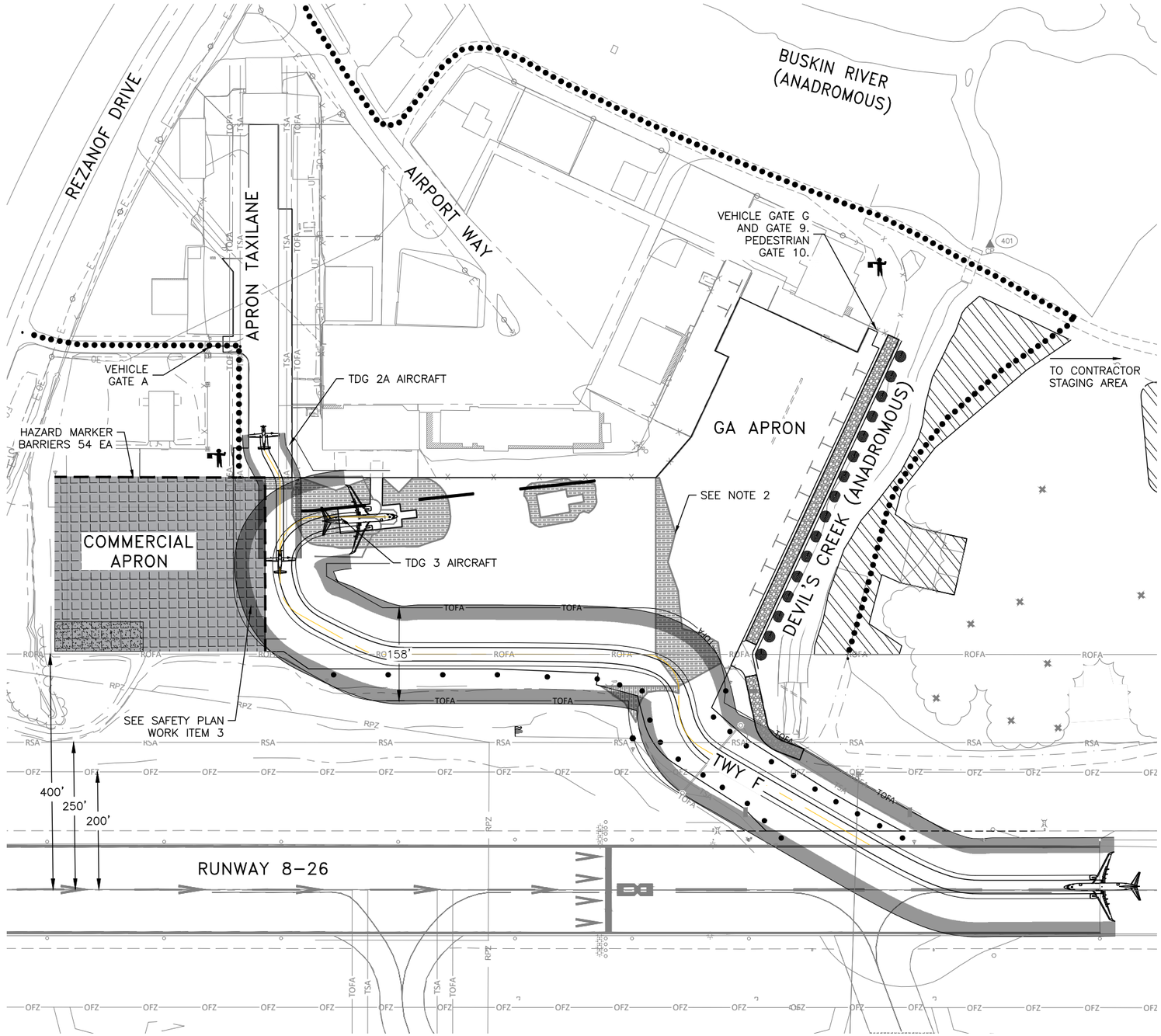


SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
3. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
4. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN THE CLOSE PROXIMITY TO OPERATING AIRCRAFT AND AT OPEN OR UNLOCKED GATES.
5. CONTRACTOR SHALL INSTALL TEMPORARY SIDA LINE BY FABRICATING AND INSTALLING "SIDA – DO NOT ENTER" ALUMINUM SIGNS MOUNTED TO SUPPORTS THAT CAN WITH STAND JET BLAST. TEMPORARY SIDA SHALL BE COORDINATED WITH THE ENGINEER A MINIMUM OF 30 DAYS PRIOR TO CONSTRUCTION.
6. EMERGENCY RESPONSE VEHICLES ALWAYS HAVE THE RIGHT OF WAY.
7. CONTRACTOR SHALL CONSTRUCT EACH PHASE IN TWO PARTS TO ALLOW FOR CEMENT TREATED SUBGRADE TREATMENT, MICRO-CRACKING, AND CURING. CEMENT TREATED SUBGRADE SHALL BE MICRO-CRACKED BETWEEN 24 AND 48 HOURS OF COMPACTION PER SECTION 156-6.7 OF THE SPECIFICATIONS. THE SUBGRADE SHALL BE KEPT CONTINUOUSLY MOIST FOR 7 DAYS DURING CURING. PROVIDE TENANT ACCESS AND STOCKPILE OF FDR IN THE PORTION OF THE APRON THAT HAS YET TO BE TREATED OR TREATMENT HAS BEEN COMPLETED. THE CONTRACTOR SHALL COMMUNICATE WITH TENANTS DAILY OF CHANGES TO LEASE LOT ACCESS.

PHASE 6 WORK ITEMS:

1. CONSTRUCT ALL EROSION AND SEDIMENT CONTROL BMP'S REQUIRED FOR THIS PHASE.
2. PLACE TEMPORARY TAXIWAY MARKINGS.
3. CLOSE PHASE AREA. DIRECT TRAFFIC TO TEMPORARY TAXIWAY CONFIGURATION.
4. PLACE HAZARD MARKER BARRIERS.
5. LONG DURATION CLOSURE WORK:
   A. DEMOLISH EXISTING APRON PAVEMENT.
   B. RECONSTRUCT APRON PAVEMENT TO FIRST LIFT HMA (FG –2").
   C. CONSTRUCT TEMPORARY ACCESS RAMP TO OTHER PHASE REGIONS (SEE NOTE 1).
6. PLACE TEMPORARY TAXIWAY MARKINGS THROUGH PHASE AREA AS NEEDED UNTIL FINAL PAVING.
7. REMOVE HAZARD MARKER BARRIERS.

NOTES:

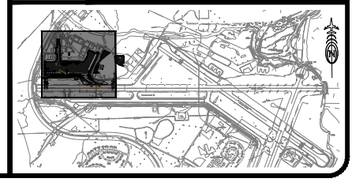
1. CONSTRUCT AND MAINTAIN 1.5% MAX SLOPE RAMP BETWEEN EXISTING GRADE AND PROPOSED GRADE FOR AIRCRAFT MOVEMENT.
2. MAINTAIN 1.5% MAX SLOPE RAMP BETWEEN EXISTING GRADE AND PROPOSED GRADE FOR AIRCRAFT MOVEMENT.

0 250 500 Feet

LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- PHASE 6
- LOW PROFILE BARRICADE
- FLAGGER
- WINGTIP CLEARANCE / WINGTIP TRACKING
- ENGINE TRACKING / MAIN GEAR TRACKING / AIRCRAFT TRAFFIC ROUTE / MAIN GEAR TRACKING / ENGINE TRACKING
- WINGTIP TRACKING / WINGTIP CLEARANCE
- TEMPORARY MARKING
- TOFA — TEMPORARY TAXIWAY OR TAXILANE OBJECT FREE AREA
- FDR STOCKPILE LOCATIONS
- TEMPORARY TRANSITION RAMP

KEY PLAN



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

CSPP PHASE 6

SHEET 17 OF 82

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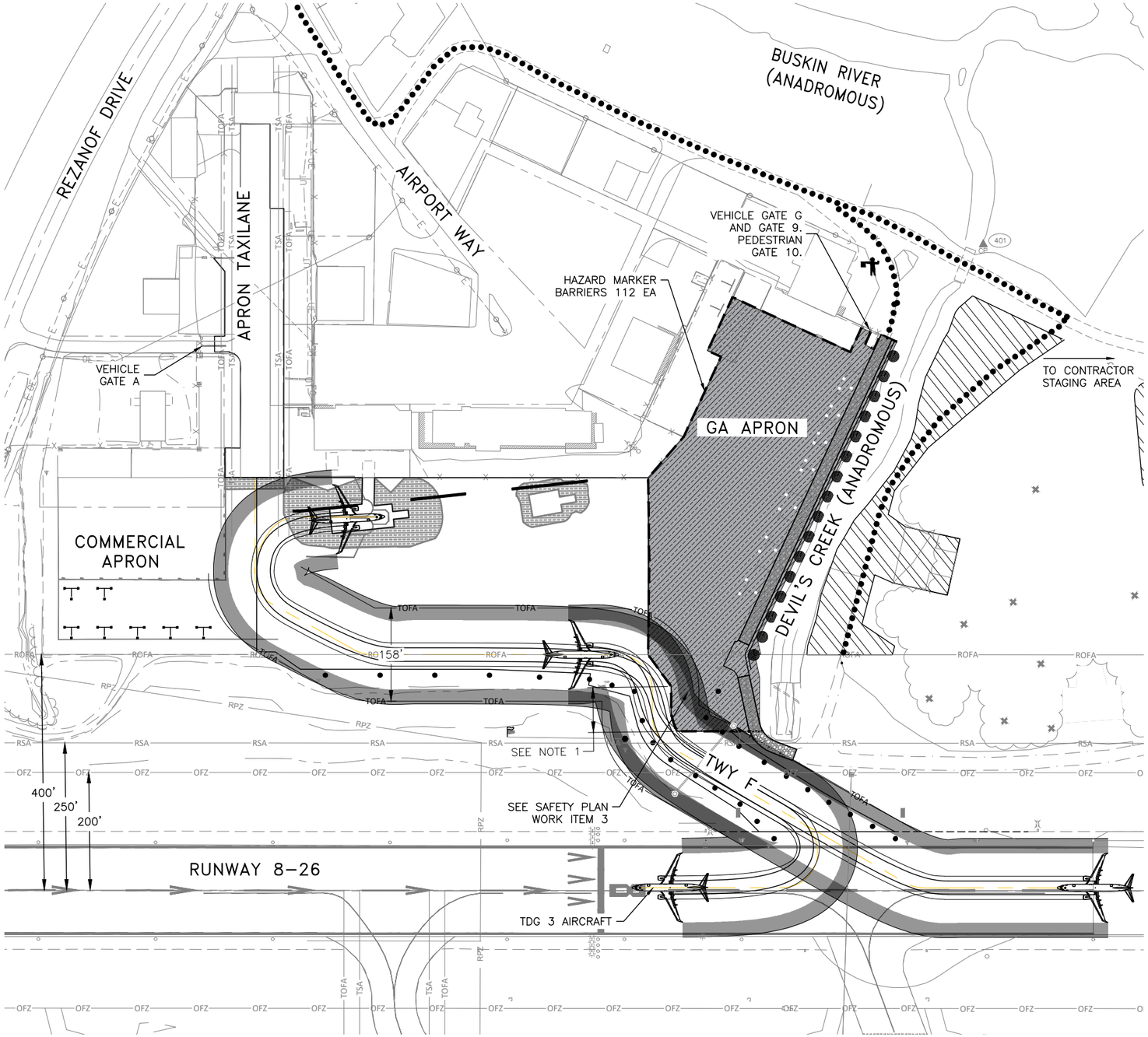

SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
3. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
4. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN THE CLOSE PROXIMITY TO OPERATING AIRCRAFT AND AT OPEN OR UNLOCKED GATES.
5. EMERGENCY RESPONSE VEHICLES ALWAYS HAVE THE RIGHT OF WAY.
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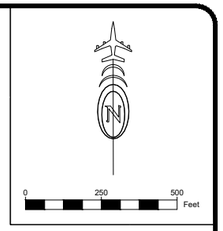
PHASE 7 WORK ITEMS:

1. CONSTRUCT ALL EROSION AND SEDIMENT CONTROL BMP'S REQUIRED FOR THIS PHASE.
2. PLACE TEMPORARY TAXIWAY MARKINGS.
3. SET UP TEMPORARY TIE-DOWN LOCATIONS.
4. CLOSE PHASE 7.
5. PLACE HAZARD MARKER BARRIERS.
6. LONG DURATION CLOSURE WORK:
   A. DEMOLISH EXISTING PAVEMENT AND TIE-DOWNS.
   B. DEMOLISH EXISTING STORM DRAIN.
   C. CONSTRUCT NEW STORM DRAIN.
   D. CONSTRUCT AIRCRAFT TIE-DOWNS.
   E. CONSTRUCT ACCESS ROAD.
   B. RECONSTRUCT APRON PAVEMENT TO FIRST LIFT HMA (FG -2").
6. REMOVE AND RELOCATE HAZARD MARKER BARRIERS AS NECESSARY FOR NEXT PHASE OF CONSTRUCTION. REMOVE TEMPORARY MARKINGS. SEE TEMPORARY MARKING PLAN FOR PHASED TEMPORARY MARKING SEQUENCING.
7. OPEN FULL TAXIWAY.

NOTES:

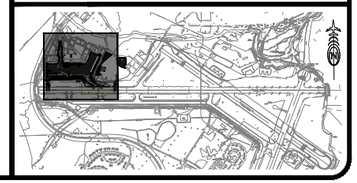
1. BOUNDARY BETWEEN PHASES 4, 5, AND 7 COINCIDES WITH TWY F CENTERLINE.



LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- PHASE 7
- LOW PROFILE BARRICADE
- FLAGGER
- WINGTIP CLEARANCE WINGTIP TRACKING
- ENGINE TRACKING MAIN GEAR TRACKING AIRCRAFT TRAFFIC ROUTE MAIN GEAR TRACKING ENGINE TRACKING
- WINGTIP TRACKING WINGTIP CLEARANCE
- TEMPORARY MARKING
- TOFA — TEMPORARY TAXIWAY OR TAXILANE OBJECT FREE AREA
- FDR STOCKPILE LOCATIONS
- TEMPORARY TRANSITION RAMP

KEY PLAN



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

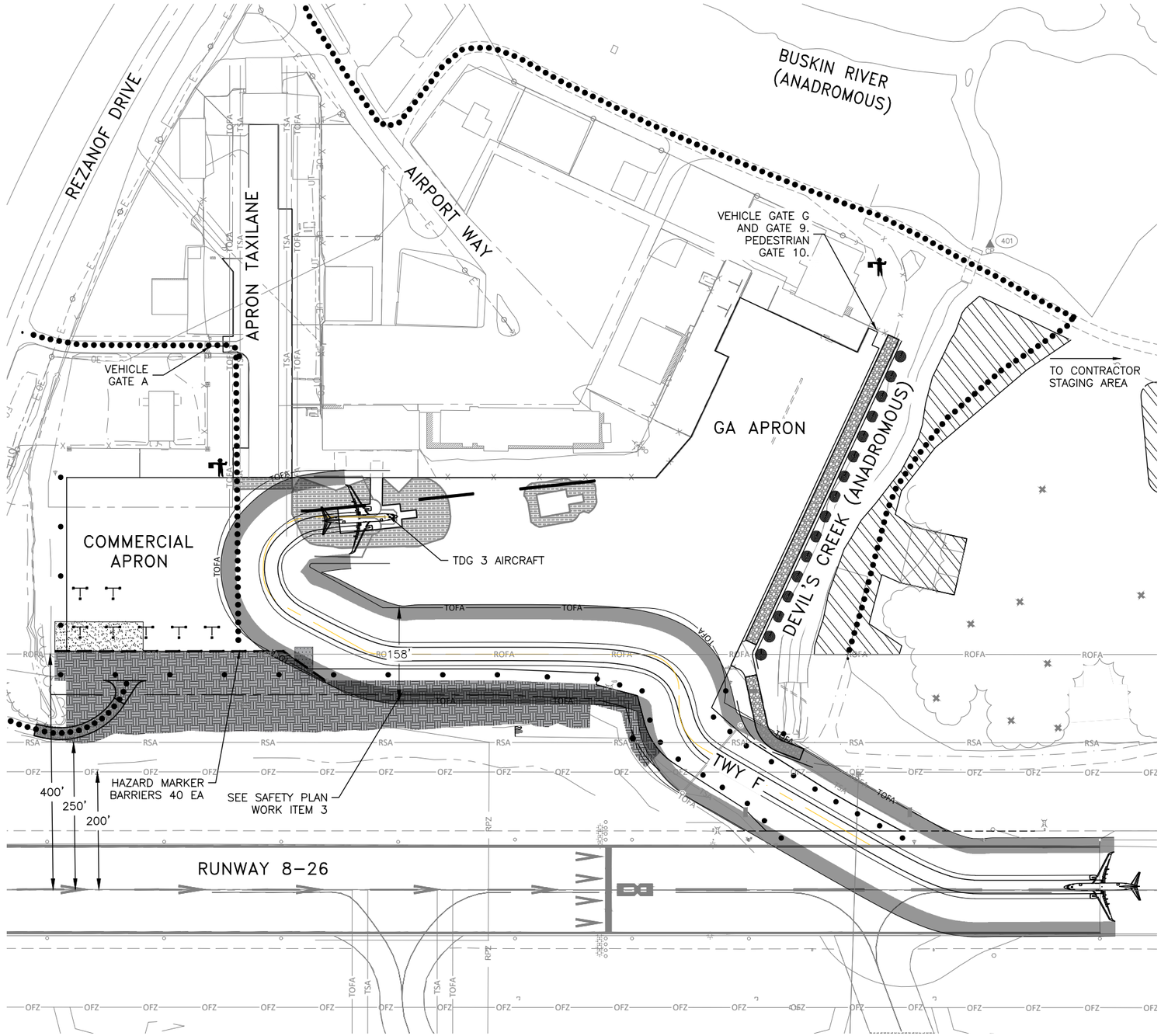
BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

CSPP PHASE 7

SHEET 18 OF 82



SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
3. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
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PHASE 8 WORK ITEMS:

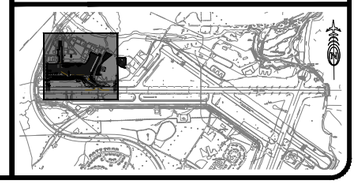
1. CONSTRUCT ALL EROSION AND SEDIMENT CONTROL BMP'S REQUIRED FOR THIS PHASE.
2. PLACE HAZARD MARKER BARRIERS.
3. LONG DURATION CLOSURE WORK:
   A. CONSTRUCT NEW APRON/TAXIWAY PAVEMENT TO FIRST LIFT HMA (FG –2").
   B. RECONSTRUCT ACCESS ROAD.
   C. RE–GRADE INFIELDS AND CONSTRUCT DRAINAGE DITCH.
4. REMOVE HAZARD MARKER BARRIERS.

0 250 500 Feet

LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- PHASE 8
- LOW PROFILE BARRICADE
- FLAGGER
- WINGTIP CLEARANCE / WINGTIP TRACKING
- ENGINE TRACKING / MAIN GEAR TRACKING / AIRCRAFT TRAFFIC ROUTE / MAIN GEAR TRACKING / ENGINE TRACKING
- WINGTIP TRACKING / WINGTIP CLEARANCE
- TEMPORARY MARKING
- TOFA — TEMPORARY TAXIWAY OR TAXILANE OBJECT FREE AREA
- PHASE OVERLAP OF STORM DRAIN WORK
- FDR STOCKPILE LOCATIONS
- TEMPORARY TRANSITION RAMP

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC. 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644–2000 CERT. OF AUTH. NO. AEC0569
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE – 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

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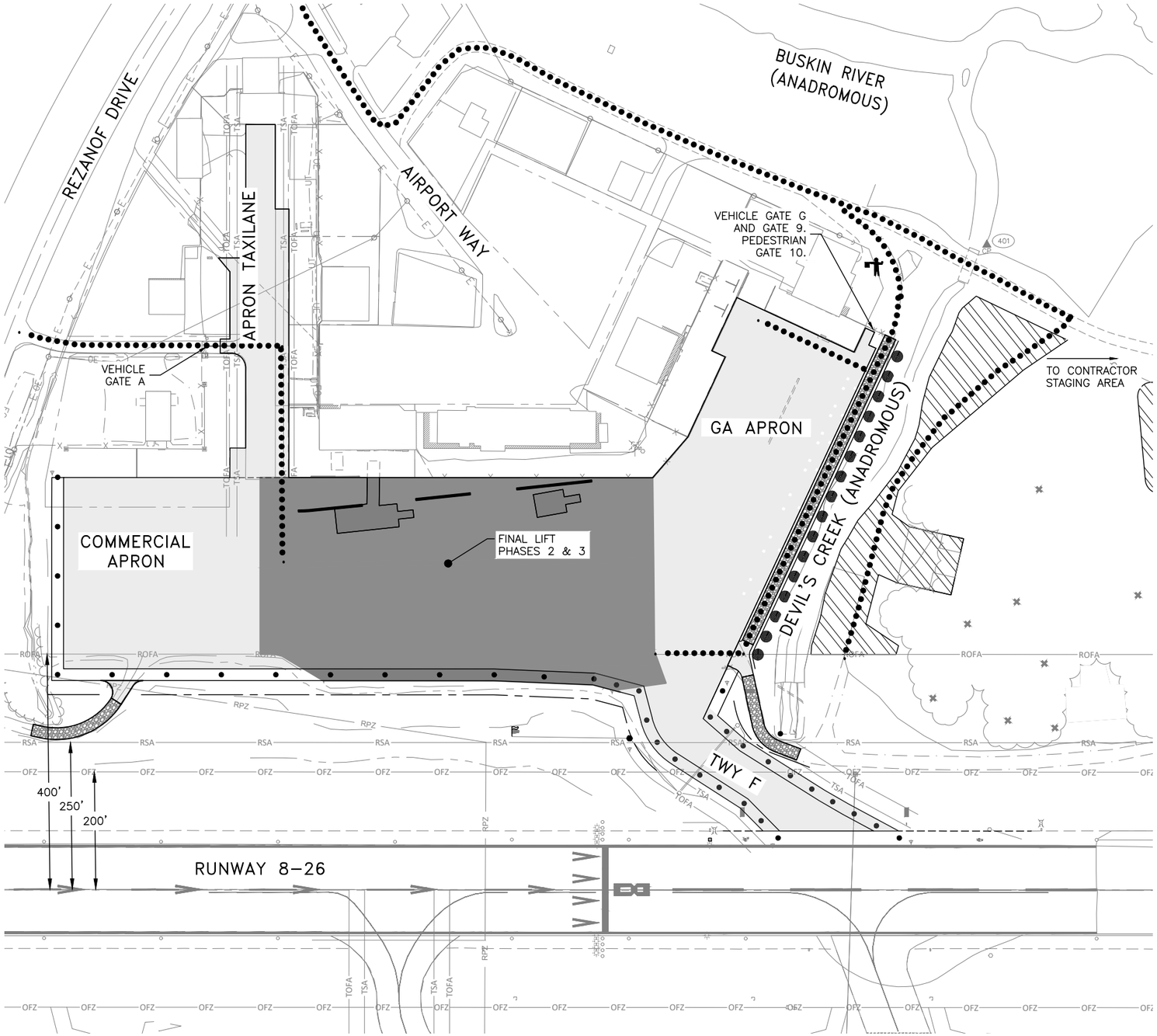
KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3–02–0158–024–2024/SFAPT00227

CSPP PHASE 8

SHEET 19 OF 82



SAFETY PLAN WORK ITEMS:

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2. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
3. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
4. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN THE CLOSE PROXIMITY TO OPERATING AIRCRAFT AND AT OPEN OR UNLOCKED GATES.
5. CONTRACTOR SHALL INSTALL TEMPORARY SIDA LINE BY FABRICATING AND INSTALLING "SIDA – DO NOT ENTER" ALUMINUM SIGNS MOUNTED TO SUPPORTS THAT CAN WITH STAND JET BLAST. TEMPORARY SIDA SHALL BE COORDINATED WITH THE ENGINEER A MINIMUM OF 30 DAYS PRIOR TO CONSTRUCTION.

FINAL LIFT PAVING PHASE 2 & 3 WORK ITEMS:

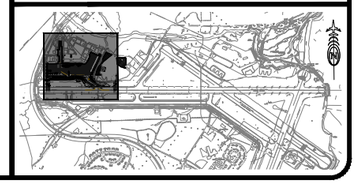
1. PERFORM FINAL 2" LIFT PAVING ACROSS PHASES 2 AND 3.
2. PAINT PERMANENT APRON MARKINGS.
3. OPEN PHASES 2 AND 3 AREA.

0 250 500 Feet

LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- FINAL LIFT PAVING AREA
- LOW PROFILE BARRICADE
- FLAGGER

KEY PLAN



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CSPP FINAL LIFT PHASE 2 & 3

SHEET 20 OF 82

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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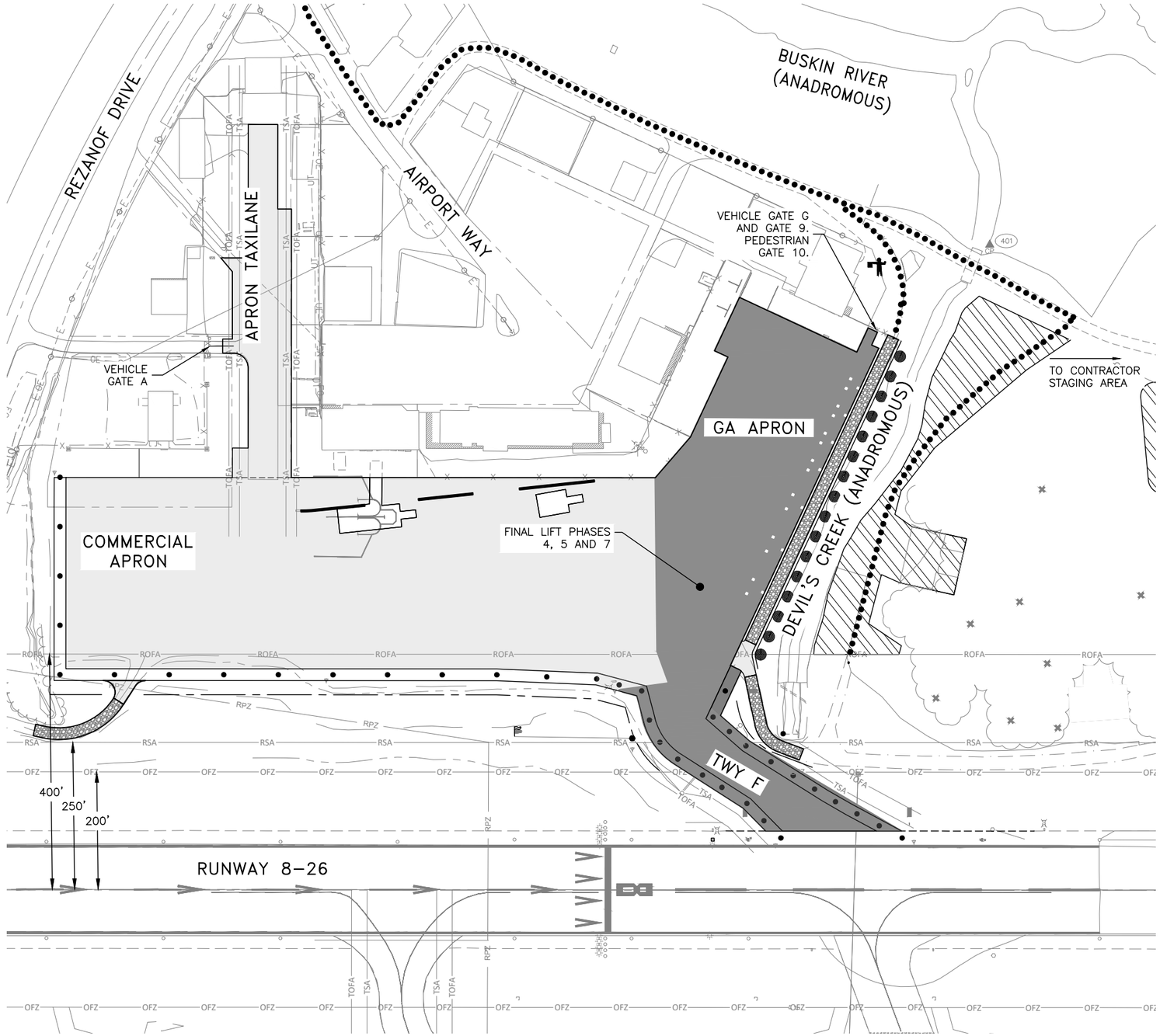


SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
3. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
4. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN THE CLOSE PROXIMITY TO OPERATING AIRCRAFT AND AT OPEN OR UNLOCKED GATES.
5. CONTRACTOR SHALL INSTALL TEMPORARY SIDA LINE BY FABRICATING AND INSTALLING "SIDA – DO NOT ENTER" ALUMINUM SIGNS MOUNTED TO SUPPORTS THAT CAN WITH STAND JET BLAST. TEMPORARY SIDA SHALL BE COORDINATED WITH THE ENGINEER A MINIMUM OF 30 DAYS PRIOR TO CONSTRUCTION.

FINAL LIFT PAVING PHASE 4, 5, & 7 WORK ITEMS:

1. PERFORM FINAL 2" LIFT PAVING ACROSS PHASES 4, 5, AND 7.
2. REMOVE BLANK COVER PLATES AND INSTALL RUNWAY AND TAXIWAY BASE TOP AND LIGHTS.
3. PAINT PERMANENT APRON MARKINGS.
4. OPEN PHASES 4, 5, AND 7 AREA.

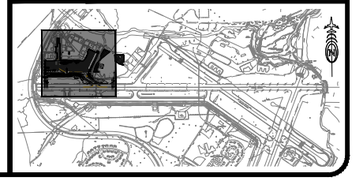
N

0 250 500 Feet

LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- FINAL LIFT PAVING AREA
- LOW PROFILE BARRICADE
- FLAGGER

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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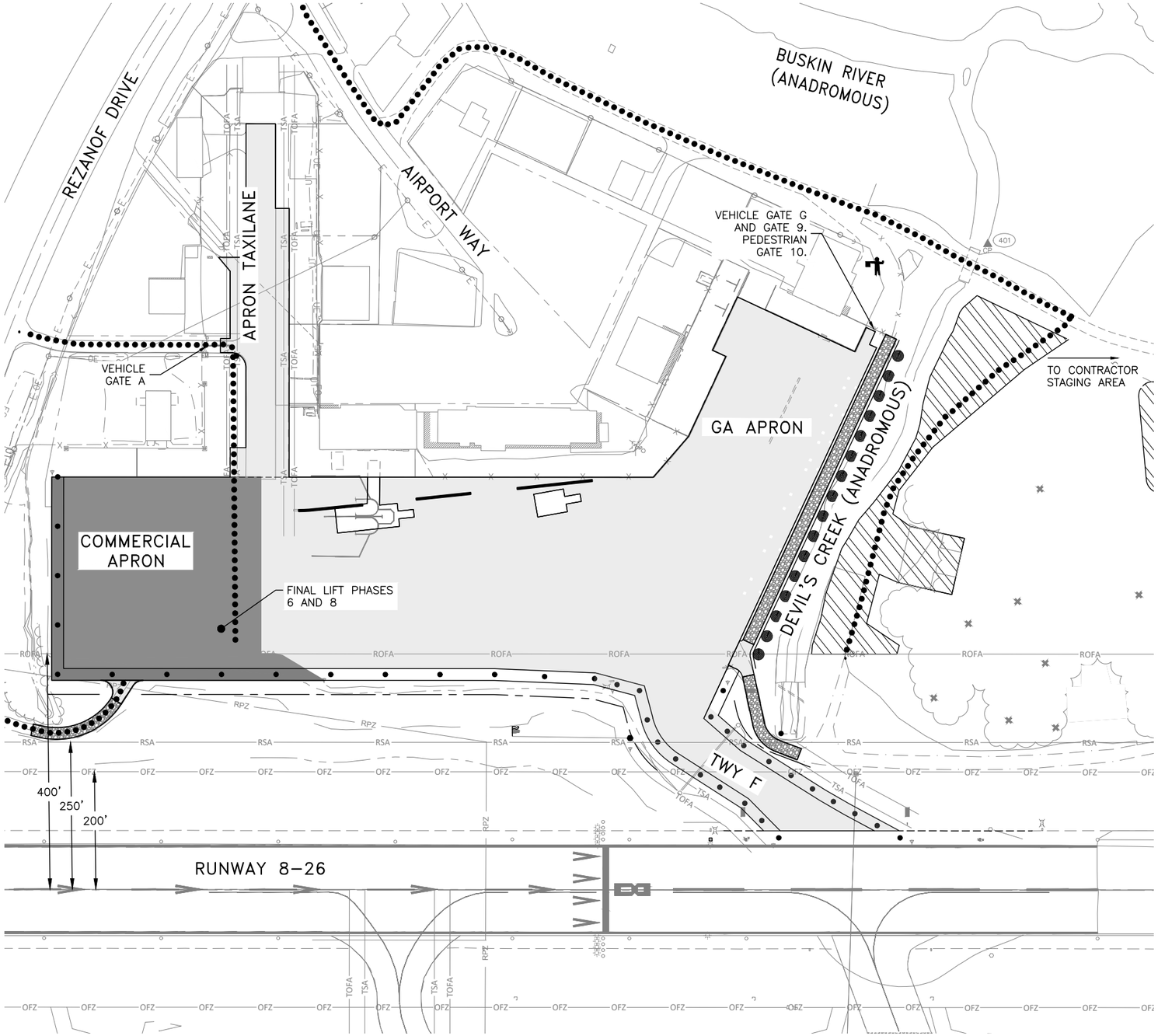
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
CSPP FINAL LIFT PHASE 4, 5, 7

SHEET 21 OF 82



SAFETY PLAN WORK ITEMS:

1. CONTRACTOR SHALL COORDINATE WITH ALL TENANTS AND USERS PRIOR TO WORKING IN THIS PHASE. COORDINATION SHALL INCLUDE OVERVIEW OF PAVEMENTS CLOSED DURING PHASE, AND TENANTS' AND USERS' ACCESS THEIR HANGARS AND PARKING.
2. ALL WORK WITHIN A RUNWAY SAFETY AREA, TAXIWAY SAFETY AREA, OR TAXILANE SAFETY AREA REQUIRES THE CLOSURE OF RELATED RUNWAY, TAXIWAY, OR TAXILANE. PLACE HAZARD AREA BARRIERS TO PREVENT AIRCRAFT FROM ENTERING THE CONSTRUCTION AREA. CONSIDER THE EFFECTS OF JET BLAST AND PROPELLER WASH WHEN PLACING BARRIERS.
3. TAXIING AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY. ALL GROUND VEHICLES MUST YIELD TO AIRCRAFT AT ALL TIMES. USE APPROVED AND MARKED HAUL ROUTES ONLY. THE CONTRACTOR SHALL MOVE ALL PERSONNEL AND EQUIPMENT OUTSIDE THE TEMPORARY OBJECT FREE AREA WHEN AIRCRAFT ARE PRESENT. TAXILANE F OBJECT FREE AREA IS 158' WIDE, 79' FROM CENTERLINE. TAXIWAY F OBJECT FREE AREA IS 171' WIDE, 85.5' FROM CENTERLINE. TAXILANE OBJECT FREE AREA IS 110' WIDE, 55' FROM CENTERLINE.
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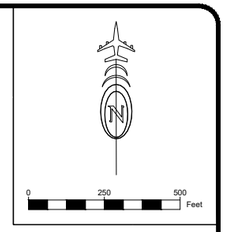
FINAL LIFT PAVING PHASE 6 & 8 WORK ITEMS:

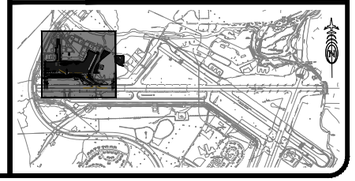
1. PERFORM FINAL 2" LIFT PAVING ACROSS PHASES 6 AND 8.
2. PAINT PERMANENT APRON MARKINGS.
3. OPEN PHASES 6 AND 8 AREA.



LEGEND:

- CONTRACTOR ACCESS/ HAUL ROUTE
- CONTRACTOR STAGING AREA
- PROPOSED PAVEMENT LIMITS
- FINAL LIFT PAVING AREA
- LOW PROFILE BARRICADE
- FLAGGER

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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DESIGN CT
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CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT

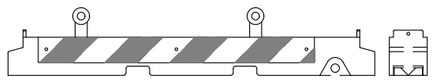
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

CSPP FINAL LIFT PHASE 6 & 8

SHEET 22 OF 82

LOW PROFILE BARRICADE NOTES:

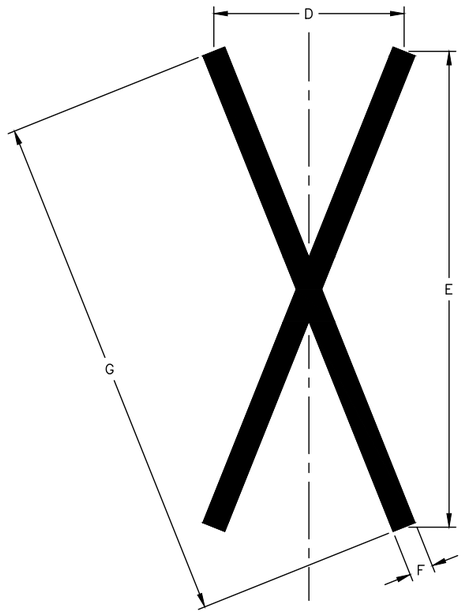
1. PLACE BARRIERS TO LIMIT ACCESS TO THE CLOSED RUNWAY. USE LOW STYLE BARRIERS (LESS THAN 12 INCHES HIGH) WHEN ADJACENT TO AN ACTIVE MOVEMENT AREA AND ON THE RAMP ANYWHERE ADJACENT TO AIRCRAFT TRAFFIC.
2. HAZARD MARKER BARRIERS ARE NOT TO BE PLACED WITHIN THE RSA OF THE ACTIVE RUNWAY.
3. BARRICADES SHALL BE PLACED AS SHOWN IN THE WORK AREA PLANS TO DELINEATE THE CONTRACTOR'S LIMITS OF WORK.
4. BARRICADES SHALL BE WEIGHTED TO AT LEAST 32.5 LB/FT. IF CONTRACTOR ELECTS TO USE WATER FILLED BARRICADES, CONTRACTOR SHALL ROUTINELY INSPECT AND ADD WATER NECESSARY TO MAINTAIN MINIMUM WEIGHT REQUIREMENT.
5. ATTACH TWO STEADY–BURN, SELF–POWERED RED OBSTRUCTION LIGHTS TO EACH BARRICADE.
6. ALL BARRICADES SHALL BE MOVED AT LEAST ONCE A WEEK AND THE CONTRACTOR SHALL SWEEP THE DEBRIS THAT HAS ACCUMULATED AND REMOVE THE FOREIGN OBJECT DEBRIS (FOD) FROM SITE. THE BARRICADES SHALL THEN BE REPLACED AT THE APPROPRIATE LOCATION.
7. ALL BARRICADES SHALL BE CHECKED VISUALLY FOR SIGNS OF WEAR AND TEAR ON A WEEKLY BASIS. THE CONDITIONS OF LIGHTING UNITS SHALL BE CHECKED DAILY. ALL LIGHT FIXTURES SHALL BE VERIFIED IN OPERATING CONDITION AND GOOD WORKING ORDER BY THE CONTRACTOR ON A DAILY BASIS, BEFORE THE CONTRACTOR CEASES OPERATIONS FOR THE DAY AND AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.
8. ALL LOW PROFILE BARRICADES ARE TO BE PLACED SUCH THAT THE MAXIMUM DISTANCE BETWEEN CAUTION LIGHTS DOES NOT EXCEED 10 FEET.

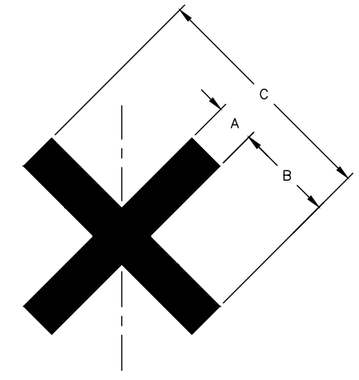


1/23 LOW PROFILE BARRICADE
SCALE: N.T.S. CONCEPTUAL DETAIL, SUBMIT ALTERNATE DESIGN OR COMMERCIAL PRODUCT FOR APPROVAL. COLOR MUST BE ALTERNATING ORANGE AND WHITE SIMILAR AS SHOWN.

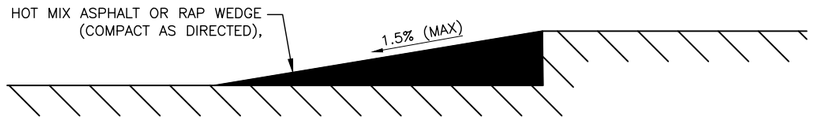
CLOSURE MARKER NOTES:

1. CLOSURE MARKERS SHALL BE POSITIONED TO DENOTE A TEMPORARY CLOSED RUNWAY/TAXIWAY, OR AS DIRECTED.
2. CLOSURE MARKERS SHALL BE CONSTRUCTED USING MATERIAL SUCH AS PLY WOOD, PLASTIC, OR ANCHORED FABRIC, AND SHALL BE YELLOW IN COLOR.





ALTERNATE



3/23 TRANSITION WEDGE DETAIL
SCALE: N.T.S.

PATTERN	SYMBOL TYPE \ DIMENSION	A	B	C	D	E	F	G
	CLOSED RUNWAY	10'	25'	60'	–	–	–	–
	CLOSED RUNWAY (ALTERNATE)	–	–	–	48'	120'	6'	129.25'
	CLOSED TAXIWAY	5'	12.5'	30'	–	–	–	–
	CLOSED TAXIWAY (ALTERNATE)	–	–	–	24'	60'	3'	64.6'

2/23 RUNWAY/TAXIWAY CLOSURE MARKER DETAIL
SCALE: N.T.S.

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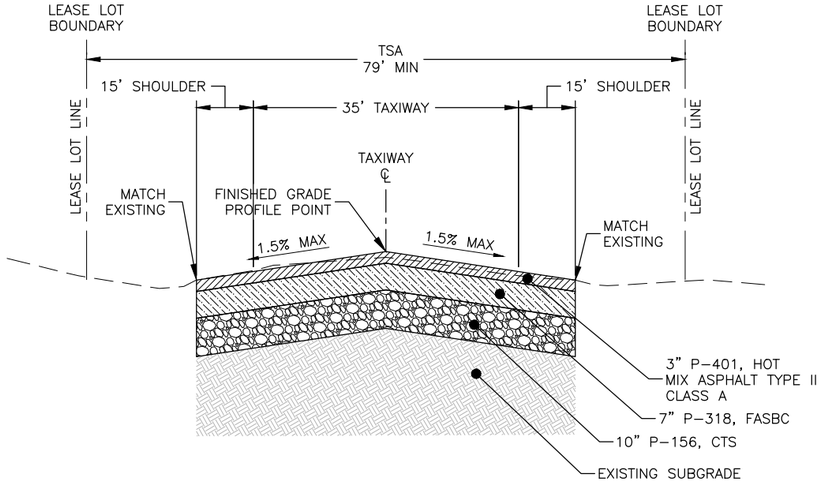
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE – 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

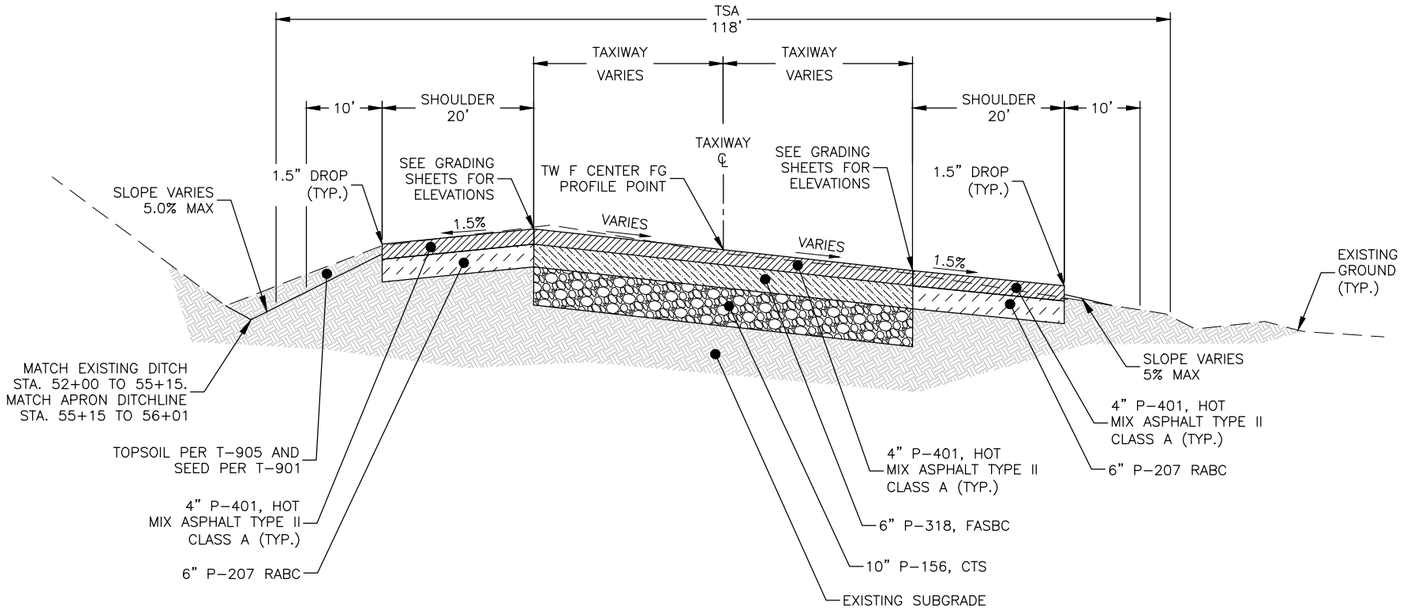
KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3–02–0158–024–2024/SFAPT00227
CSPP DETAILS

SHEET 23 OF 82



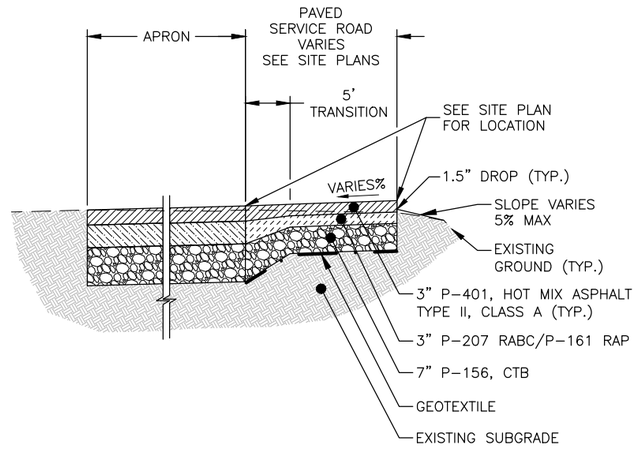
APRON TAXILANE
STA. 1001+00 TO 1007+00

1/24 SCALE: N.T.S.



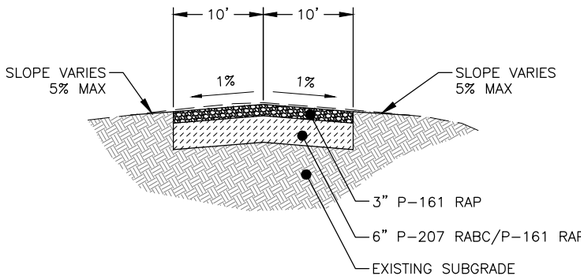
TAXIWAY F
STA. 52+00 TO 56+01

2/24 SCALE: N.T.S.



PAVED SERVICE ROAD

3/24 SCALE: N.T.S.



SERVICE ROAD

4/24 SCALE: N.T.S.

1

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

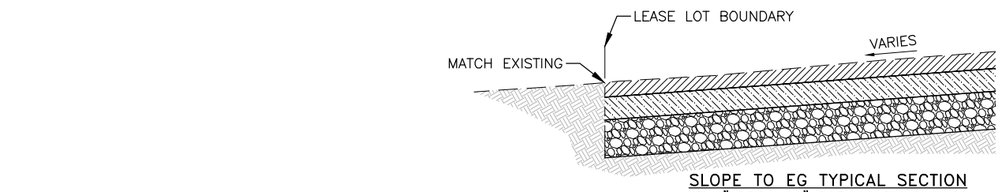
STATE OF ALASKA 49th
Charles M. Tripp
CE - 9613
REGISTERED PROFESSIONAL ENGINEER
4/11/2024

BY	DATE	REVISIONS
CCM	4/11/2024	ADDENDUM 2 – ADDED DETAILS 3 AND 4 1

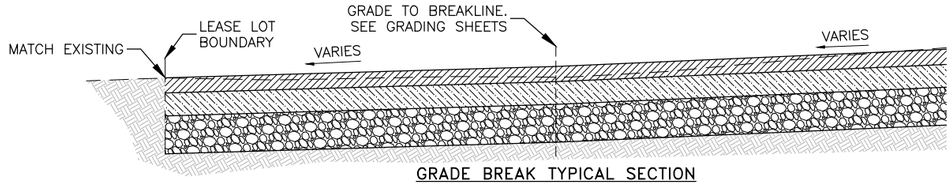
KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

TYPICAL SECTIONS (1 OF 4)

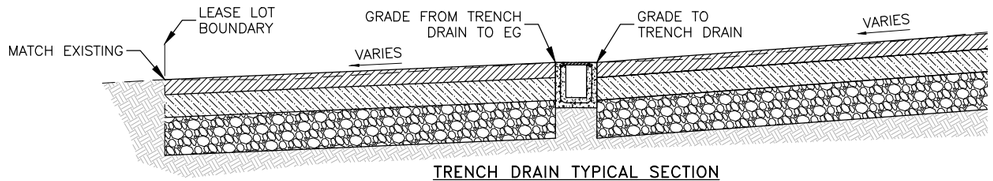
SHEET 24 OF 82



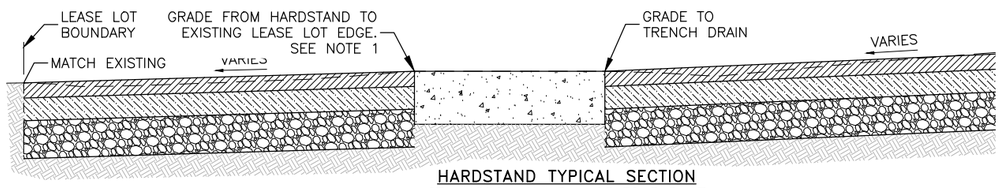
SLOPE TO EG TYPICAL SECTION
STA "APRON CL" 507+22 TO 510+05
STA "APRON CL" 516+19 TO 517+00



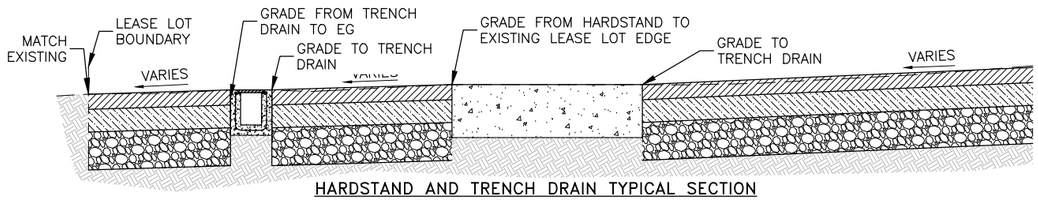
GRADE BREAK TYPICAL SECTION
STA "APRON CL" 510+05 TO 511+39
STA "APRON CL" 516+19 TO 517+00



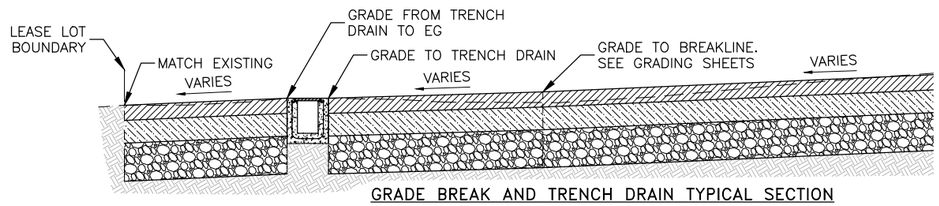
TRENCH DRAIN TYPICAL SECTION
STA "APRON CL" 511+39 TO 511+83
STA "APRON CL" 514+93 TO 515+20



HARDSTAND TYPICAL SECTION
STA "APRON CL" 511+83 TO 513+17



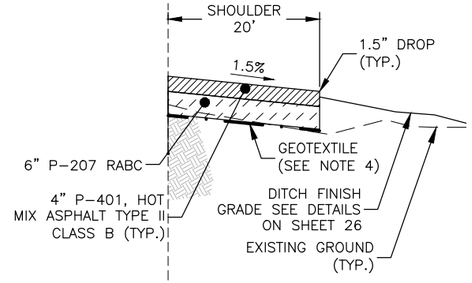
HARDSTAND AND TRENCH DRAIN TYPICAL SECTION
STA "APRON CL" 515+20 TO 516+01



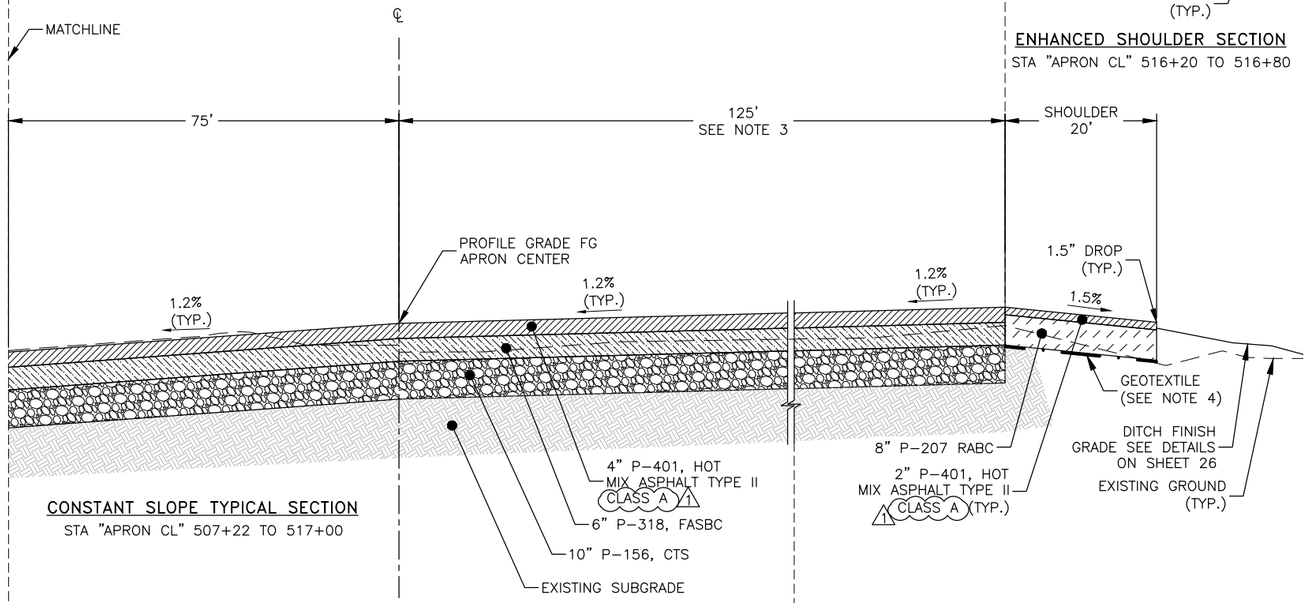
GRADE BREAK AND TRENCH DRAIN TYPICAL SECTION
STA "APRON CL" 516+01 TO 516+19

NOTES:

1. IF TRENCH DRAIN IS ADJACENT HARDSTAND, BEGIN GRADING FROM EDGE OF TRENCH DRAIN TO EXISTING.
2. MATCHLINE APPLIES TO 'CONSTANT SLOPE TYPICAL SECTION' FOR SPECIFIED RANGES. OTHERWISE MATCH TO APRON CL.
3. WIDTH VARIES AT STATION "APRON CL" 514+54 TO 516+25.
4. INSTALL GEOTEXTILE UNDER STRUCTURAL SECTION WHERE FULL DEPTH RECLAMATION DOES NOT OCCUR.



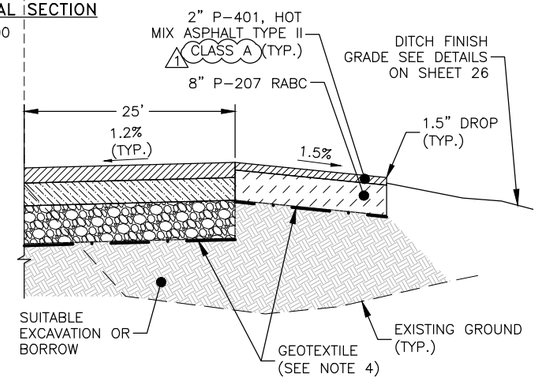
ENHANCED SHOULDER SECTION
STA "APRON CL" 516+20 TO 516+80



CONSTANT SLOPE TYPICAL SECTION
STA "APRON CL" 507+22 TO 517+00

APRON RIGHT OF CENTERLINE TYPICAL SECTION
STA "APRON CL" 507+22 TO 517+00

1/25 APRON TYPICAL SECTION
SCALE: N.T.S.



TAXIWAY F EXTENSION/ APRON EXPANSION
STA "APRON CL" 507+22 TO 511+64

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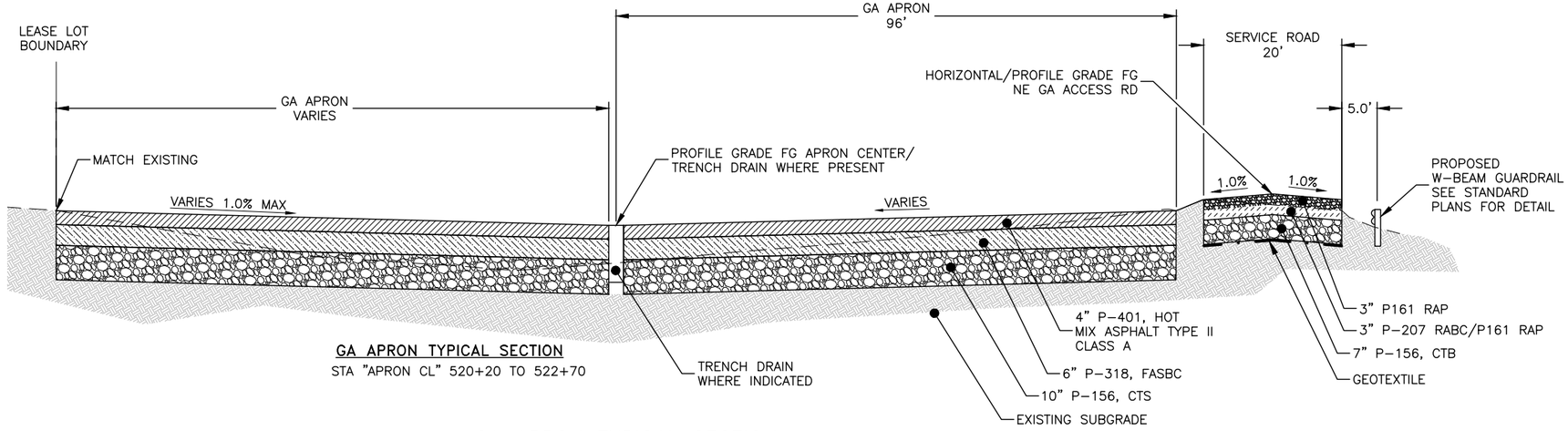
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/16/2024

BY	DATE	REVISIONS
CCM	4/16/2024	ADDENDUM 3 – HMA CLASS CORRECTION 1

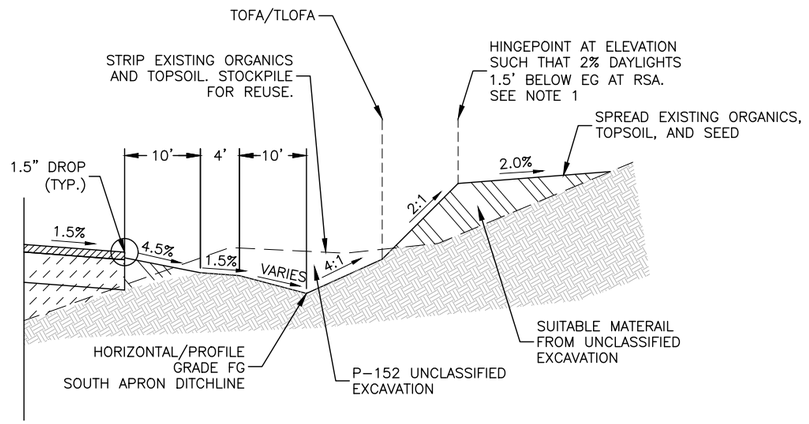
KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
TYPICAL SECTIONS (2 OF 4)

SHEET 25 OF 82



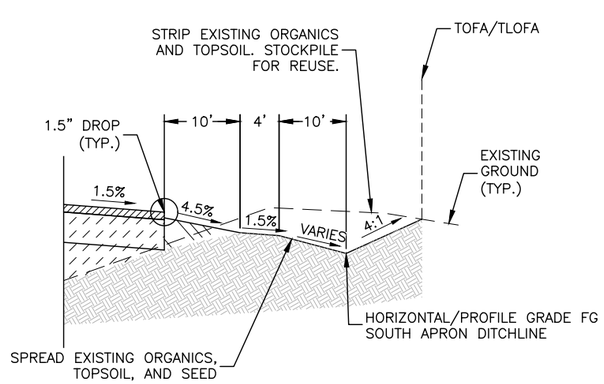
GA APRON TYPICAL SECTION STA "APRON CL" 520+20 TO 522+70

1/26 SCALE: N.T.S.



APRON EXPANSION DITCH TYPICAL SECTION "APRON CL" STA 507+22 TO 516+10

2/26 SCALE: N.T.S.



DITCH TYPICAL SECTION "APRON CL" STA 516+10 TO 517+12

3/26 SCALE: N.T.S.

NOTES:

1. CUT DITCH MATERIAL TO BE USED FOR ALL FILL SOUTH OF DITCH BOTTOM. CEASE FILL SLOPE ONCE DITCH CUT MATERIAL IS USED UP.
2. RE-USE EXISTING ORGANICS PRIOR TO IMPORTING TOPSOIL. SEED ALL DISTURBED AREAS.

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT

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AIP 3-02-0158-024-2024/SFAPT00227

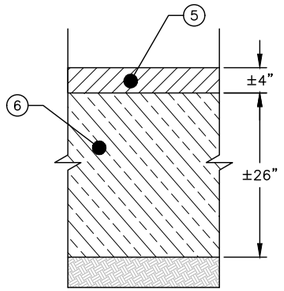
TYPICAL SECTIONS (3 OF 4)

SHEET 26 OF 82

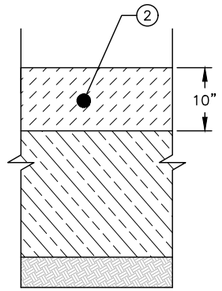
NOTES:

1. 4" P-401 HOT MIX ASPHALT – 2" BOTTOM LIFT, 2" TOP LIFT.
2. P-207 RECYCLED ASPHALT AGGREGATE BASE COURSE, RABC (NOT STABILIZED).
3. P-318 FOAMED ASPHALT STABALIZED BASE COURSE CONTAINING RABC FROM P-207 (STABILIZED).
4. P-156 10" CEMENT-TREATED SUBGRADE.
5. EXISTING ASPHALT PAVEMENT.
6. EXISTING SUBBASE,

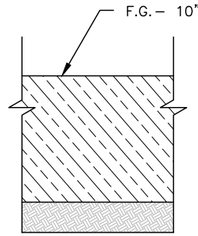
CONSTRUCTION SEQUENCE – WHEN E.G. < 10" BELOW F.G.



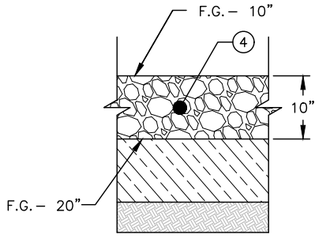
EXISTING SECTION. 4" ASPHALT PAVEMENT



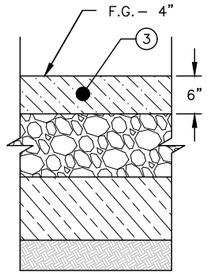
PULVERIZE EXISTING ASPHALT CEMENT CONCRETE AND BLEND WITH UNDERLYING AGGREGATE BASE TO A DEPTH OF 10" (P-207)



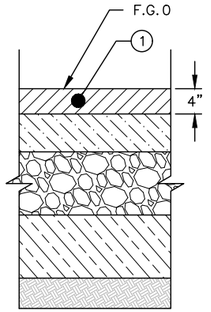
EXCAVATE RABC (P-207) TO FG – 10" (P-152)



STABILIZE UNDERLYING MATERIAL IN PLACE TO A DEPTH OF 10" (P-156)

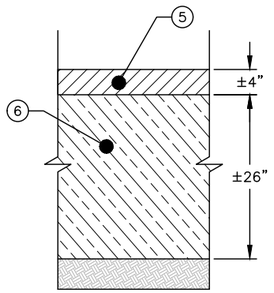


PLACE RABC TO A DEPTH OF 6" (P-152).
USE P209 WHEN RABC QUANTITIES INSUFFICIENT)
FOAM-STABILIZE (P-318)

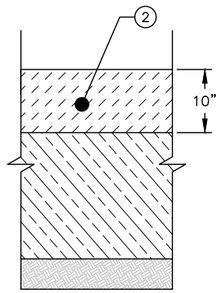


PLACE 1 X 2" LIFT OF HOT MIX ASPHALT (P-401) AS PART OF PHASE,
PLACE FINAL 2" LIFT AS PART OF PROJECT WIDE FINAL PHASE
FINAL STRUCTURAL SECTION

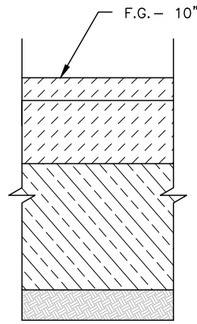
CONSTRUCTION SEQUENCE – WHEN E.G. > 10" BELOW F.G.



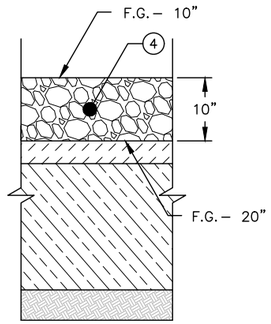
EXISTING SECTION. 4" ASPHALT PAVEMENT



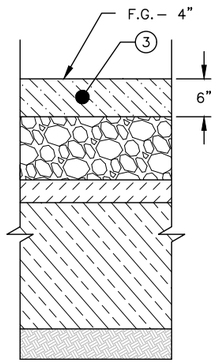
PULVERIZE EXISTING ASPHALT CEMENT CONCRETE AND BLEND WITH UNDERLYING AGGREGATE BASE TO A DEPTH OF 10" (P-207)



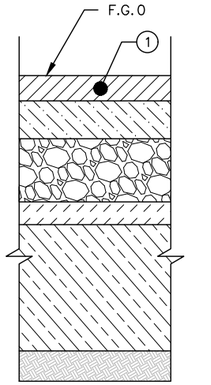
PLACE RABC P-207 TO F.G. – 10" (P-152). USE P-209 WHEN RABC QUANTITIES ARE INSUFFICIENT



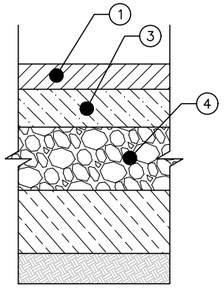
STABILIZE IN PLACE TO A DEPTH OF 10" (P-156)



PLACE RABC TO A DEPTH OF 6" (P-152).
USE P-209 WHEN RABC QUANTITIES INSUFFICIENT.
FOAM-STABILIZE (P-318)



PLACE 1 X 2" LIFT OF HOT MIX ASPHALT (P-401) AS PART OF PHASE,
PLACE FINAL 2" LIFT AS PART OF PROJECT WIDE FINAL PHASE
FINAL STRUCTURAL SECTION



FINAL STRUCTURAL SECTION

DESIGN CT
DRAWN MW
CHECKED CM

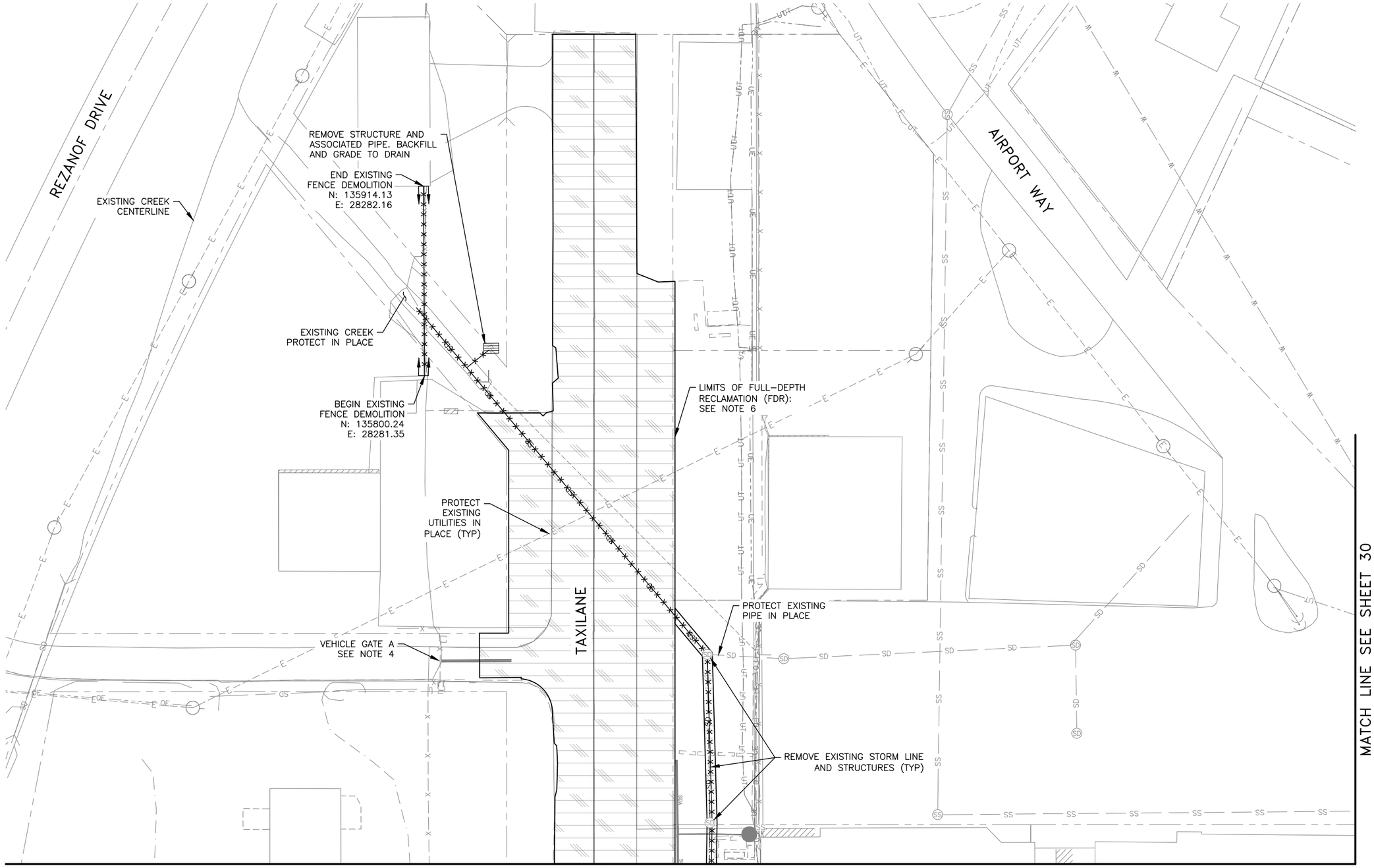
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

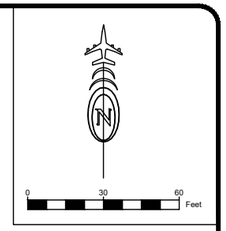
STATE OF ALASKA
49th
Charles M. Tripp
CE – 9673
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
TYPICAL SECTIONS (4 OF 4)

SHEET 27 OF 82

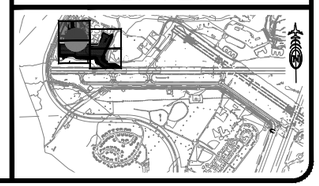




NOTES:

1. APRON ASPHALT THICKNESS IS +/- 4 INCHES AND TAXILANE ASPHALT THICKNESS IS +/- 2 INCHES. REFER TO GEOTECHNICAL MEMORANDUM COMPLETED BY SHANNON & WILSON, INC. ON SEPTEMBER 2020. FOR ADDITIONAL INFORMATION SEE APPENDIX I OF THE SPECIFICATIONS.
2. REMOVE ALL ELECTRICAL FIXTURES IN ACCORDANCE TO THE ELECTRICAL DEMO SHEETS.
3. FOR MARKING DEMOLITION LIMITS, REFERENCE MARKING SHEETS. MARKING SHEETS INCLUDE PROPOSED GEOMETRY FOR NEW MARKINGS WHICH COINCIDE WITH DEMOLITION WORK TO BE PERFORMED ON THE PROJECT.
4. COORDINATES FOR POINTS AT VEHICULAR GATE A ARE APPROXIMATE AND MAY VARY FROM THE PLANS. CONTRACTOR TO ADJUST PROPOSED PAVEMENT LIMITS WITH THIS PROJECT TO TIE INTO NEW ASPHALT PLACED WITH GATE PROJECT CONSTRUCTED BY OTHERS.
5. CONTRACTOR TO PROVIDE VERTICAL FACE AT DEMOLITION LIMITS BY ROTOMILL OR SAW CUT. VERTICAL FACE SHALL BE APPROVED BY THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCIDENTAL TO PAVEMENT REMOVAL ITEMS.
6. REFERENCE POINTS ARE BASED ON CENTERLINE RUNWAY 8-26.

KEY PLAN



DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp, PE CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
DEMOLITION PLAN (1 OF 4)

SHEET 28 OF 82

MATCH LINE SEE SHEET 28

MATCH LINE SEE SHEET 30

MATCH LINE SEE SHEET 31

TAXILANE

LIMITS OF FULL-DEPTH RECLAMATION (FDR): SEE NOTE 5

REMOVE EXISTING STORM LINE AND STRUCTURES (TYP)

PROTECT EXISTING STORM PIPE IN PLACE

REMOVE EXISTING STORM STRUCTURE

PROTECT EXISTING TRENCH DRAIN IN PLACE

PROTECT EXISTING STORM STRUCTURE IN PLACE

PROTECT EXISTING TRENCH DRAIN IN PLACE

PROTECT EXISTING CONCRETE HARDSTAND IN PLACE. SEE SHEET 32 AND 33 FOR COMPLETE CONCRETE HARDSTAND DETAILS

REMOVE CULVERT

101

102

PREPARE AREA FOR PAVED DRIVEWAY

REMOVE CULVERT APPROXIMATELY 39 FEET

REMOVE STORM PIPE

REMOVE STORM STRUCTURE

NTP 1 DEMO SCHEDULE

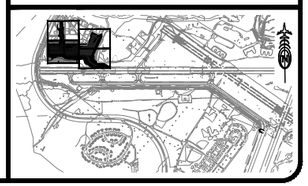
POINT	STATION	OFFSET	REMARKS
101	103+04.44	324.87 L	PI
102	103+20.44	313.29 L	PI

0 30 60 Feet

NOTES:

1. APRON ASPHALT THICKNESS IS +/- 4 INCHES, APRON SHOULDERS AND TAXILANE ASPHALT THICKNESS IS +/- 2 INCHES. REFER TO GEOTECHNICAL REPORT COMPLETED BY SHANNON & WILSON, INC. ON SEPTEMBER 2020 FOR ADDITIONAL INFORMATION PROVIDED AS APPENDIX C AND D OF THE ENGINEERS' DESIGN REPORT.
2. REMOVE ALL ELECTRICAL FIXTURES IN ACCORDANCE TO THE ELECTRICAL DEMO SHEETS.
3. FOR MARKING DEMOLITION LIMITS, REFERENCE MARKING SHEETS. MARKING SHEETS INCLUDE PROPOSED GEOMETRY FOR NEW MARKINGS WHICH COINCIDE WITH DEMOLITION WORK TO BE PERFORMED ON THE PROJECT.
4. CONTRACTOR TO PROVIDE VERTICAL FACE AT DEMOLITION LIMITS BY ROTOMILL OR SAW CUT. VERTICAL FACE SHALL BE APPROVED BY THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCIDENTAL TO PAVEMENT REMOVAL ITEMS.
5. REFERENCE POINTS ARE BASED ON CENTERLINE RUNWAY 8-26.

KEY PLAN



DESIGN CT

DRAWN MW

CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
DEMOLITION PLAN (2 OF 4)

SHEET 29 OF 82

PLANS DEVELOPED BY: HDR ENGINEERING INC. 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503. (907)644-2000 CERT. OF AUTH. NO. AECC569
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4/2/2024 10:11 AM

MATCH LINE SEE SHEET 28

MATCH LINE SEE SHEET 29

ANDREW AIR

ABANDON 76 LF OF 18" CONCRETE PIPE IN PLACE AND FILL WITH CONTROLLED LOW STRENGTH MATERIAL PER SPECIFICATION P-153

PROTECT EXISTING MANHOLE IN PLACE

VEHICLE GATE G AND GATE 9 PEDESTRIAN GATE 10

DEVIL'S CREEK (ANADROMC

REMOVE EXISTING STRUCTURE AND GA APRON TRENCH DRAIN

PROTECT EXISTING UTILITIES IN PLACE (TYP)

REMOVE TRENCH DRAIN (TYP)

REMOVE TIE-DOWN ANCHOR CABLES OR CHAINS WITH PAVEMENT SECTION REMOVAL. WORK IS INCIDENTAL TO PAVEMENT SECTION REMOVAL (TYP)

PROTECT EXISTING CONCRETE HARDSTAND IN PLACE SEE SHEET 32 AND 33 FOR COMPLETE CONCRETE HARDSTAND DETAILS

PROTECT EXISTING UTILITIES IN PLACE (TYP)

LIMITS OF FULL-DEPTH RECLAMATION (FDR): SEE NOTE 6 (TYP)

PROTECT EXISTING TRENCH DRAIN IN PLACE

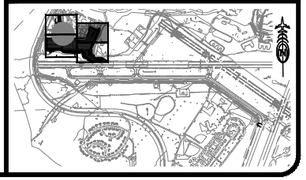
MATCH LINE SEE SHEET 31

0 30 60 Feet

NOTES:

1. APRON ASPHALT THICKNESS IS +/- 4 INCHES. REFER TO GEOTECHNICAL REPORT COMPLETED BY SHANNON & WILSON, INC. ON SEPTEMBER 2020 FOR ADDITIONAL INFORMATION PROVIDED AS APPENDIX C AND D OF THE ENGINEERS' DESIGN REPORT.
2. REMOVE ALL ELECTRICAL FIXTURES IN ACCORDANCE TO THE ELECTRICAL DEMO SHEETS.
3. FOR MARKING DEMOLITION LIMITS, REFERENCE MARKING SHEETS. MARKING SHEETS INCLUDE PROPOSED GEOMETRY FOR NEW MARKINGS WHICH COINCIDE WITH DEMOLITION WORK TO BE PERFORMED ON THE PROJECT.
4. COORDINATES FOR POINTS AT VEHICULAR GATE 9 ARE APPROXIMATE AND MAY VARY FROM THE PLANS CONTRACTOR TO ADJUST PROPOSED PAVEMENT LIMITS WITH THIS PROJECT TO TIE INTO NEW ASPHALT PLACED WITH GATE PROJECT.
5. CONTRACTOR TO PROVIDE VERTICAL FACE AT DEMOLITION LIMITS BY ROTOMILL OR SAW CUT. VERTICAL FACE SHALL BE APPROVED BY THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCIDENTAL TO PAVEMENT REMOVAL ITEMS.

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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DESIGN CT

DRAWN MW

CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
DEMOLITION PLAN (3 OF 4)

SHEET 30 OF 82

MATCH LINE SEE SHEET 30

MATCH LINE SEE SHEET 29

DEVIL'S CREEK (ANADROMOUS)

TWY F

RUNWAY 8-26

REMOVE TIE-DOWN ANCHOR CABLES OR CHAINS WITH PAVEMENT SECTION REMOVAL. WORK IS INCIDENTAL TO PAVEMENT SECTION REMOVAL (TYP)

PROTECT EXISTING UTILITIES IN PLACE (TYP)

EXISTING ACCESS ROAD

LIMITS OF FULL-DEPTH RECLAMATION (FDR): SEE NOTE 5

LIMITS OF RAP GENERATION: SEE NOTE 5

103

104

NTP 1 DEMO SCHEDULE

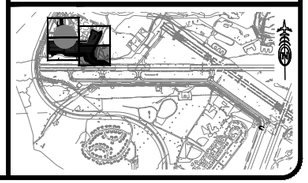
POINT	STATION	OFFSET	REMARKS
103	113+85.95	100.31 L	PI
104	117+85.16	100.59 L	PI

0 30 60 Feet

NOTES:

1. APRON AND TAXIWAY F ASPHALT THICKNESS IS +/- 4 INCHES, AND APRON SHOULDERS AND TAXILANE ASPHALT THICKNESS IS +/- 2 INCHES. REFER TO GEOTECHNICAL REPORT COMPLETED BY SHANNON & WILSON, INC. ON SEPTEMBER 2020 FOR ADDITIONAL INFORMATION PROVIDED AS APPENDIX C AND D OF THE ENGINEERS' DESIGN REPORT.
2. REMOVE ALL ELECTRICAL FIXTURES IN ACCORDANCE TO THE ELECTRICAL DEMO SHEETS.
3. FURTHER ANALYSIS OF STORM NETWORK MAY NECESSITATE ADJUSTMENTS TO PROPOSED NETWORK IN THE FUTURE. PROPOSED DESIGN IS SUBJECT TO CHANGE.
4. FOR MARKING DEMOLITION LIMITS, REFERENCE MARKING SHEETS. MARKING SHEETS INCLUDE PROPOSED GEOMETRY FOR NEW MARKINGS WHICH COINCIDE WITH DEMOLITION WORK TO BE PERFORMED ON THE PROJECT.
5. CONTRACTOR TO PROVIDE VERTICAL FACE AT DEMOLITION LIMITS BY ROTOMILL OR SAW CUT. VERTICAL FACE SHALL BE APPROVED BY THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCIDENTAL TO PAVEMENT REMOVAL ITEMS.
6. REFERENCE POINTS ARE BASED ON CENTERLINE RUNWAY 8-26.

KEY PLAN



DESIGN CT

DRAWN MW

CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

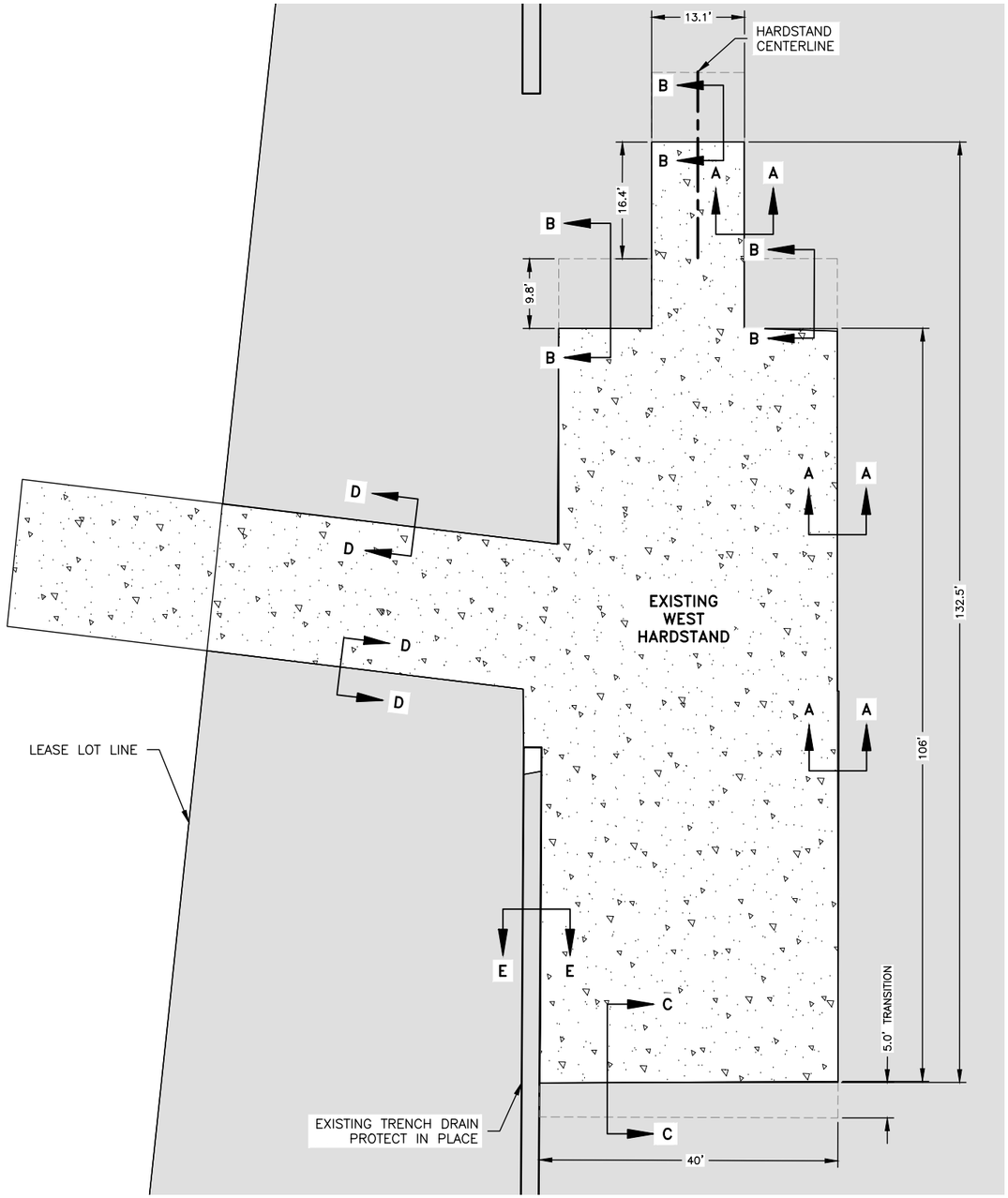
BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

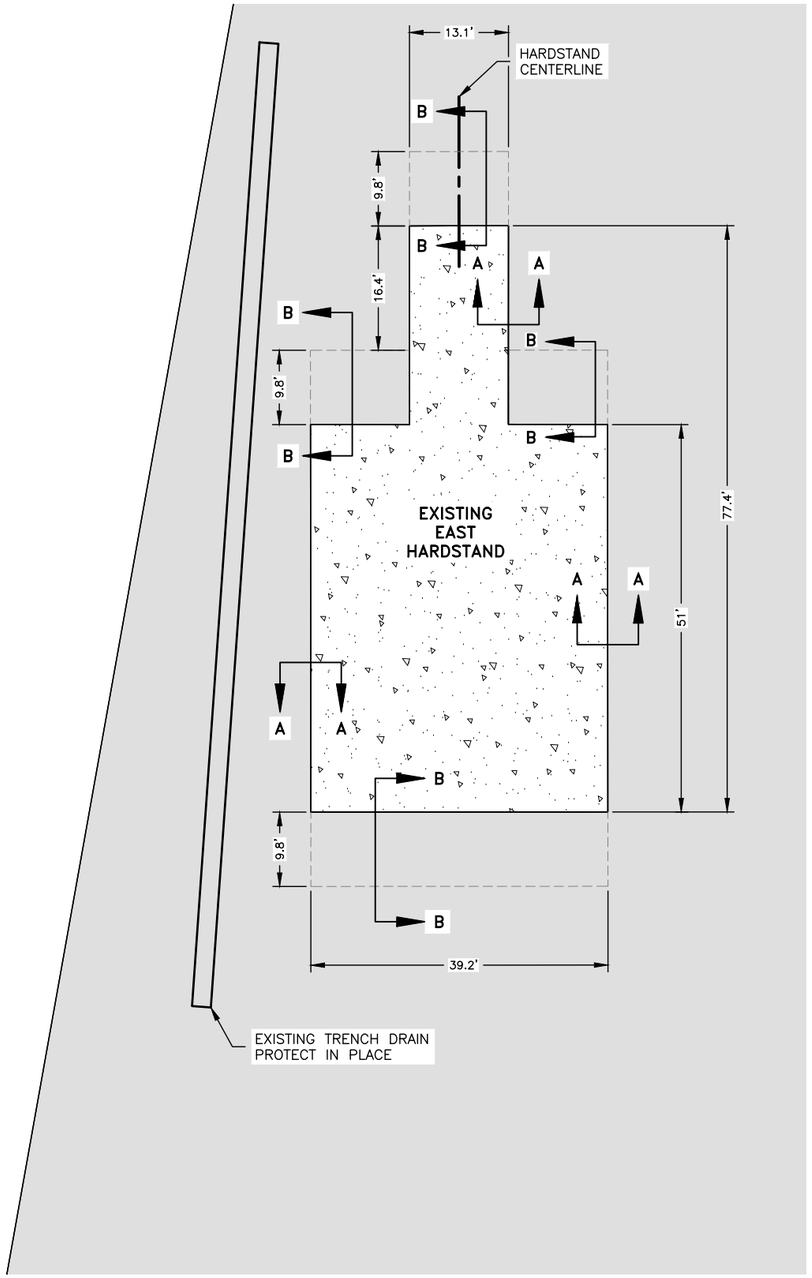
DEMOLITION PLAN (4 OF 4)

SHEET 31 OF 82



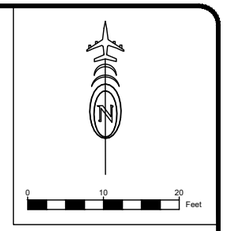
EXISTING WEST HARDSTAND PLAN FOR REFERENCE DURING HMA DEMO AND HMA RECONSTRUCTION

1/32



EXISTING EAST HARDSTAND PLAN TO ASSIST WITH HMA DEMO AND HMA RECOSNTRUCTION

1/32



2/12/2024 10:50 AM

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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DESIGN CT
DRAWN MW
CHECKED CM

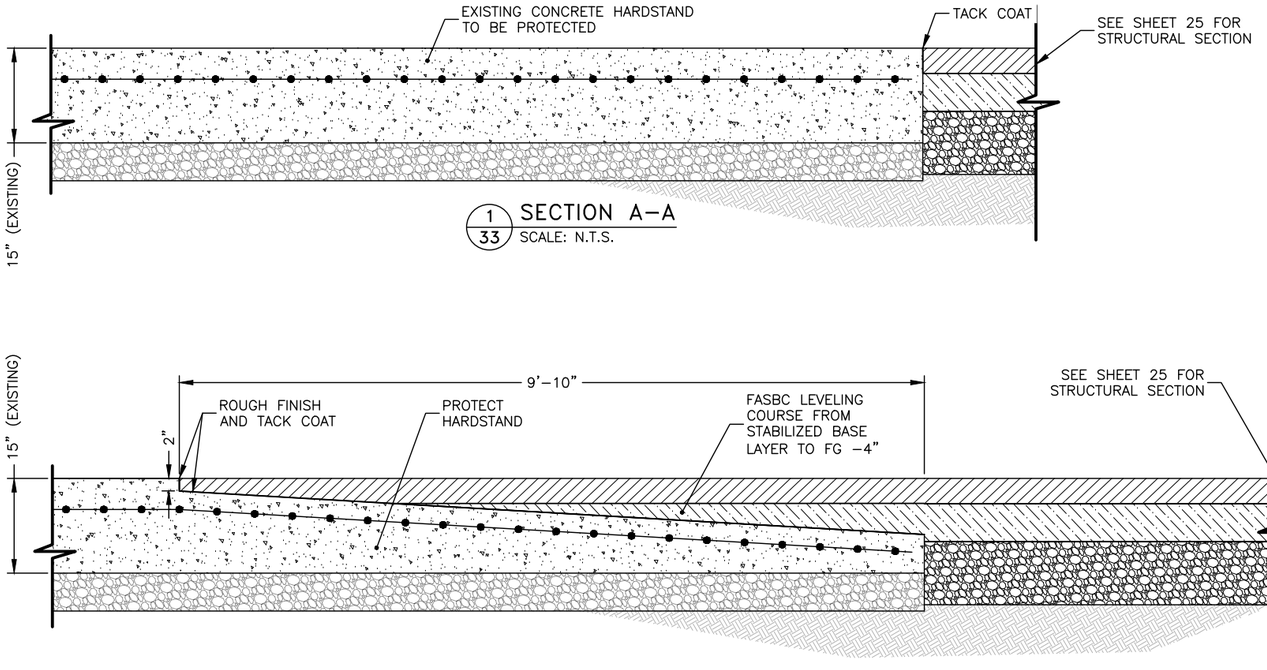
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA
49th
Charles M. Tripp
CE - 9673
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

BY	DATE	REVISIONS

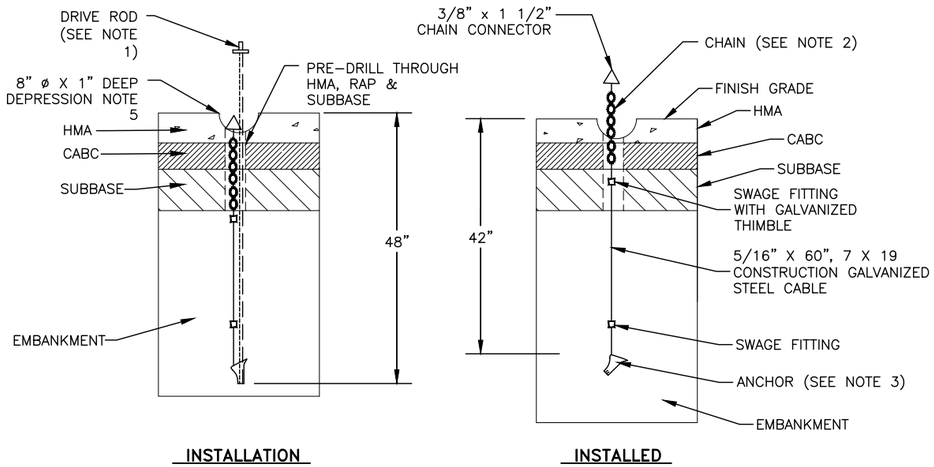
KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
CIVIL DETAILS NTP 1 (1 OF 2)

SHEET 32 OF 82



1/33 SECTION A–A
SCALE: N.T.S.

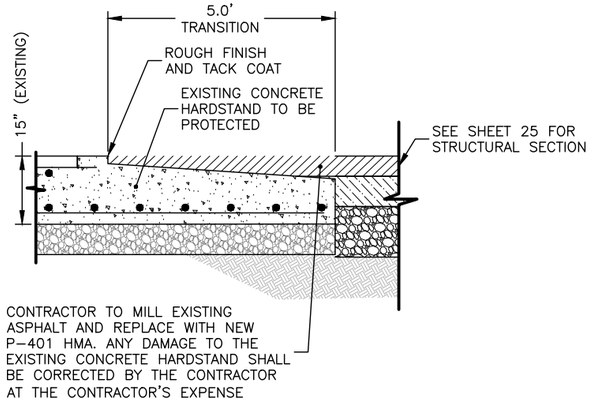
2/33 SECTION B–B
SCALE: N.T.S.



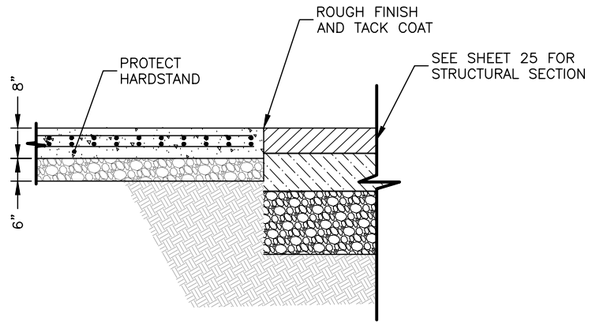
6/33 TIE-DOWN DETAIL
SCALE: N.T.S.

NOTES:

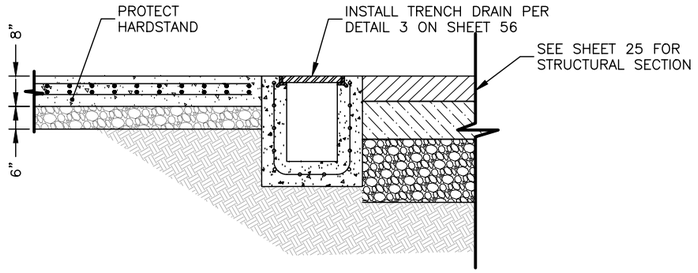
1. USE DRIVE ROD PER MANUFACTURER'S RECOMMENDATIONS.
2. USE 3/8" G-43 HIGH TEST HOT DIPPED GALVANIZED STEEL CHAIN WITH TWO 3/8" (CHAIN TRADE SIZE) GRADE 100 CORROSION RESISTANT ALLOY-STEEL REMOVABLE COUPLING LINKS, ONE AT EACH END OF THE CHAIN.
3. MANTA RAY MODEL MR4 OR APPROVED EQUAL.
4. BACKFILL OF THE DRILL HOLE SHALL CONFORM TO SECTION P-152 OR P-153.
5. SEAL DEPRESSION WITH ADHESIVE COMPOUND, SECTION P-606.
6. ALL TIE-DOWN HARDWARE SHALL LIE BELOW FG.



3/33 SECTION C–C
SCALE: N.T.S.



4/33 SECTION D–D
SCALE: N.T.S.



5/33 SECTION E–E
SCALE: N.T.S.

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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2/16/2024 11:01 AM

DESIGN CT
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CHECKED CM

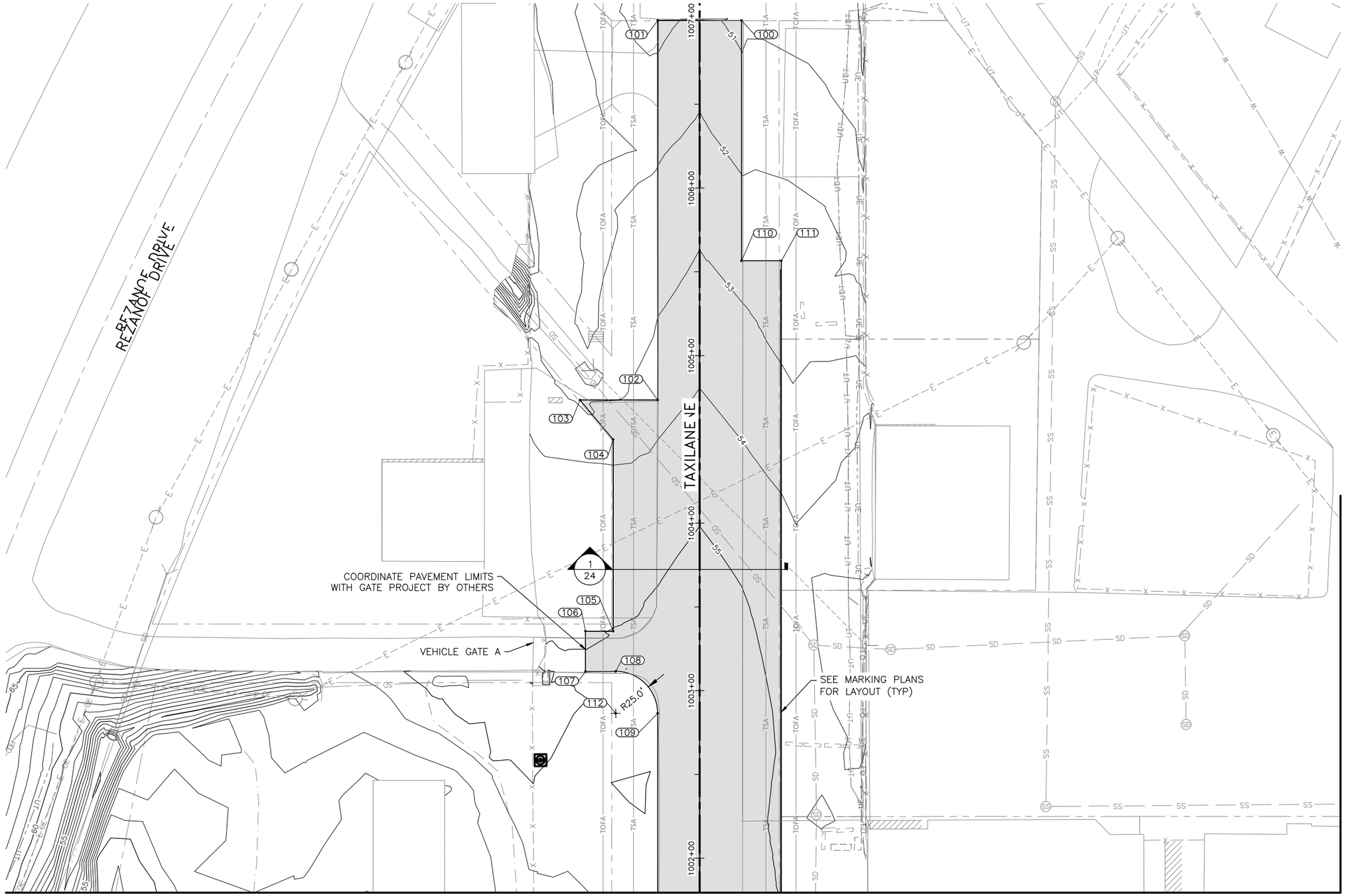
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

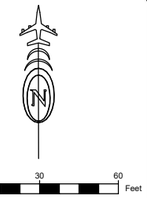
STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
CIVIL DETAILS NTP 1 (2 OF 2)

SHEET 33 OF 82





NOTES:

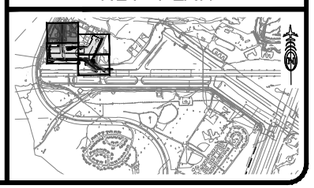
1. REFERENCE POINTS ARE BASED ON TAXILANE CENTERLINE.

APRON/TAXIWAY SCHEDULE

POINT	STATION	OFFSET	ELEV
100	1007+00.00	25.00 R	50.77
101	1007+00.00	25.01 L	50.73
102	1004+73.50	25.00 L	53.67
103	1004+73.50	71.38 L	52.83
104	1004+49.82	51.50 L	53.53
105	1003+35.50	51.50 L	55.05
106	1003+35.50	68.00 L	54.85
107	1003+11.50	68.00 L	55.17
108	1003+11.50	50.01 L	55.14
109	1002+86.50	25.00 L	55.40
110	1005+56.50	25.01 R	52.70
111	1005+56.50	48.75 R	52.58
112	1002+86.50	50.01 L	55.21

1

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC. 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th
Charles M. Tripp
CE - 9673
PROFESSIONAL ENGINEER
4/22/2024

BY	DATE	REVISIONS
CCM	4/19/2024	ADDENDUM 4 – ADDED ELEVATIONS 1

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

SITE PLAN (1 OF 5)

SHEET 34 OF 82

MATCH LINE SEE SHEET 34

TAXILANE E

GA PAVEMENT SECTION

GA PAVEMENT SECTION

COMMERCIAL / CARGO PAVEMENT SECTION

COMMERCIAL / CARGO PAVEMENT SECTION

1/25

20.0' (TYP)

EXISTING TRENCH DRAIN. SEE DRAINAGE SHEETS AND TYPICAL SECTIONS

SEE SHEET 38 FOR HARDSTAND BOUNDARIES

SEE MARKING PLANS FOR LAYOUT (TYP)

2/26

SHOULDER PAVEMENT EDGE

20' (TYP)

R20.0

R20.01

R10.0

4/24

PAVED SERVICE ROAD, SEE DETAIL 3 ON SHEET 24

1

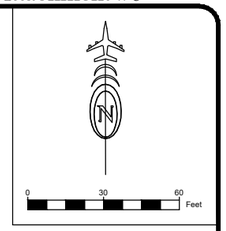
507+00 508+00 509+00 510+00 511+00 512+00 513+00 514+00

1000+00

1001+00

MATCH LINE SEE SHEET 36

MATCH LINE SEE SHEET 37



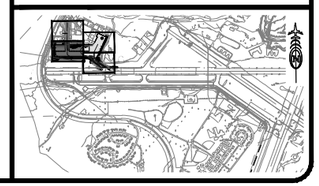
NOTE:

1. REFERENCE POINTS 113–116 ARE BASED ON TAXILANE CENTERLINE.
2. REFERENCE POINTS 117–131 ARE BASED ON APRON CENTERLINE.

APRON/TAXIWAY SCHEDULE

POINT	STATION	OFFSET	ELEV
113	1001+50.23	25.01 L	55.85
114	1001+00.00	48.72 R	54.90
115	1001+50.25	51.50 L	56.14
116	1001+00.00	51.50 L	55.90
117	507+22.00	200.00 L	58.72
118	507+02.00	200.00 L	58.17
119	507+10.66	115.31 R	60.94
120	507+22.00	125.00 R	61.23
121	507+02.00	145.00 R	59.27
122	507+85.67	145.00 R	60.51
123	508+03.24	174.61 R	61.58
124	508+02.37	176.05 R	61.63
125	506+87.71	222.89 R	70.82
126	506+70.79	219.29 R	71.73
127	507+85.69	165.01 R	59.19
128	508+56.95	164.98 R	58.93
129	508+20.13	185.43 R	61.19
130	508+40.12	154.22 R	59.89
131	508+56.96	145.00 R	59.84

△2



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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DESIGN CT

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CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th
Charles M. Tripp
CE - 9613
REGISTERED PROFESSIONAL ENGINEER
4/22/2024

BY	DATE	REVISIONS
CCM	4/19/2024	ADDENDUM 4 – ADDED ELEVATIONS △2
CCM	4/11/2024	ADDENDUM 2 – ADDED DETAIL SECTION CALLOUT △1

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
SITE PLAN (2 OF 5)

SHEET 35 OF 82

MATCH LINE SEE SHEET 34

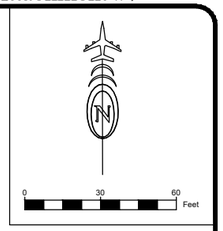
MATCH LINE SEE SHEET 35

MATCH LINE SEE SHEET 37

APRON/TAXIWAY SCHEDULE

POINT	STATION	OFFSET	ELEV
132	519+31.23	154.42 L	57.26
133	520+19.33	129.25 L	56.62
134	521+69.43	128.87 L	56.15
135	521+69.39	153.87 L	56.43
136	522+69.39	153.64 L	56.19
137	522+68.87	66.37 R	55.66
138	523+14.45	66.47 R	55.54
139	523+14.28	83.66 R	55.63
140	522+90.39	83.97 R	55.51
141	522+90.59	97.14 R	55.63
142	523+17.99	101.72 R	55.58
143	523+17.93	121.72 R	55.28
144	522+23.40	75.94 R	55.85
145	522+05.40	75.89 R	55.91
146	522+14.35	93.92 R	56.02
147	521+72.40	75.80 R	55.99
148	521+54.40	75.75 R	56.06
149	521+63.35	93.77 R	56.22
150	521+21.40	75.65 R	56.24
151	521+03.40	75.60 R	56.33
152	521+12.35	93.63 R	56.48
153	520+70.39	75.51 R	56.56
154	520+52.39	75.45 R	56.70
155	520+61.34	93.48 R	56.83
156	520+03.66	69.81 R	57.18
157	519+77.16	69.74 R	57.49
158	519+90.34	93.28 R	57.60
159	519+24.16	69.59 R	58.12
160	518+97.66	69.51 R	58.43
161	519+10.84	93.05 R	58.53
162	518+51.92	70.43 R	58.93
163	518+35.14	74.81 R	59.21
164	518+45.68	95.41 R	59.26

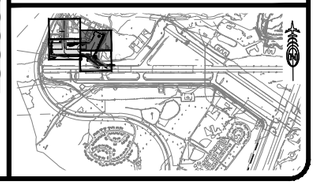
1



NOTE:

1. REFERENCE POINTS ARE BASED ON APRON CENTERLINE.

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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DESIGN CT
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CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th
Charles M. Tripp
CE - 9613
REGISTERED PROFESSIONAL ENGINEER
4/22/2024

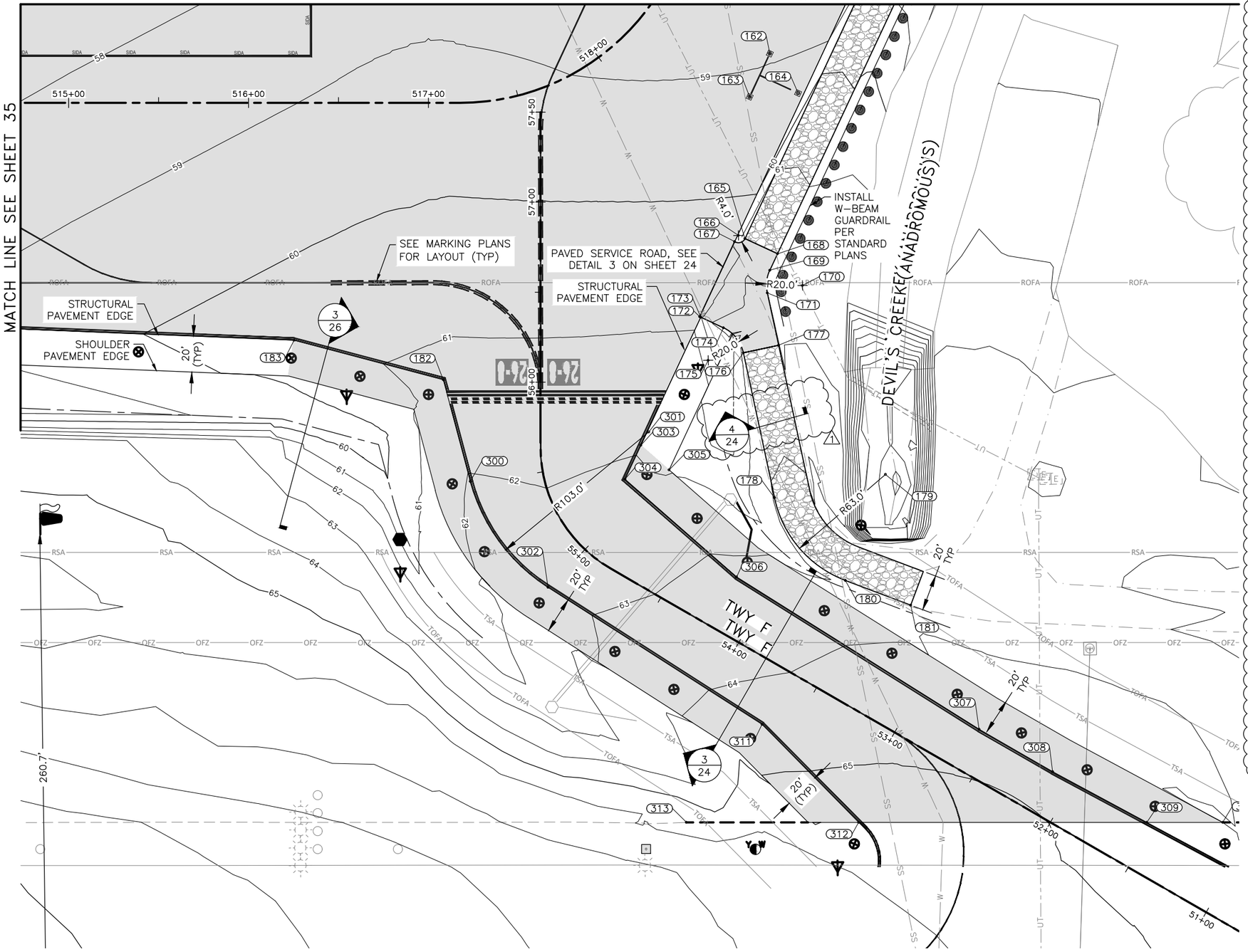
BY	DATE	REVISIONS
CCM	4/19/2024	ADDENDUM 4 - ADDED ELEVATIONS 1

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

SITE PLAN (3 OF 5)

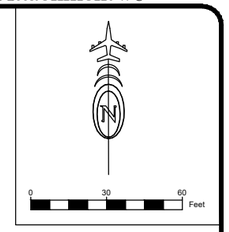
SHEET 36 OF 82



APRON/TAXIWAY SCHEDULE

POINT	STATION	OFFSET	ELEV
165	518+02.98	129.40 R	61.54
166	518+02.05	125.80 R	N/A
167	518+00.14	127.30 R	60.35
168	518+07.29	147.32 R	61.54
169	518+03.09	151.80 R	61.75
170	518+07.07	169.71 R	N/A
171	517+99.13	161.08 R	62.10
172	517+81.47	152.22 R	60.90
173	517+81.66	152.77 R	60.95
174	517+85.35	164.06 R	62.10
175	517+78.40	176.00 R	N/A
176	517+86.47	181.66 R	62.28
177	517+94.23	188.48 R	62.28
178	517+77.89	260.81 R	63.07
179	517+97.22	281.35 R	N/A
180	517+82.13	319.78 R	63.48
181	517+89.00	349.79 R	63.77
182	517+08.30	154.01 R	61.28
183	516+25.30	132.01 R	60.57
184	514+54.30	125.01 R	59.38
300	55+51.25	40.59 L	62.06
301	55+72.28	60.24 R	61.79
302	55+00.48	29.41 L	62.76
303	55+64.84	55.79 R	61.92
304	55+23.04	42.18 R	62.20
305	54+81.49	63.69 R	61.90
306	54+19.23	31.00 R	63.21
307	52+60.23	25.00 R	64.70
308	52+13.00	25.01 R	64.75
309	51+53.58	26.81 R	64.48
310	51+17.00	47.92 R	63.94
311	53+66.00	33.01 L	64.49
312	52+92.27	53.28 L	65.55
313	53+75.18	101.15 L	65.54

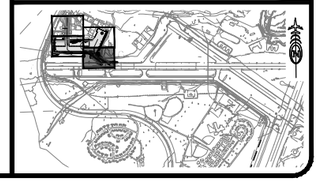
2



NOTE:

1. REFERENCE POINTS 165–184 ARE BASED ON APRON CENTERLINE.
2. REFERENCE POINTS 300–313 ARE BASED ON TAXIWAY F NORTH CENTERLINE.

KEY PLAN



DESIGN CT
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CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA
49th
Charles M. Tripp
CE - 9673
REGISTERED PROFESSIONAL ENGINEER
4/22/2024

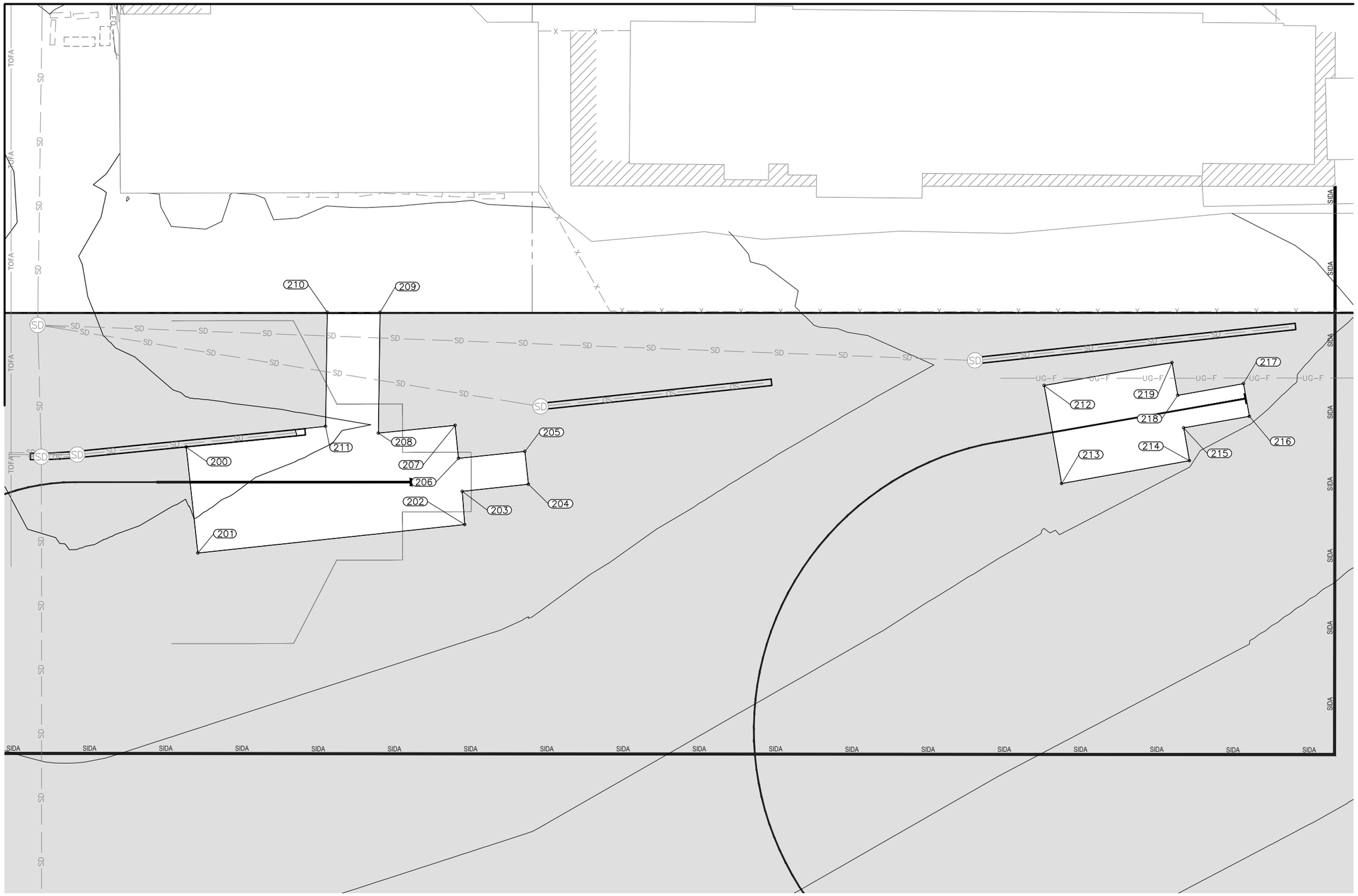
BY	DATE	REVISIONS
CCM	4/19/2024	ADDENDUM 4 – ADDED ELEVATIONS 2
CCM	4/11/2024	ADDENDUM 2 – ADDED DETAIL SECTION CALLOUT 1

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

SITE PLAN (4 OF 5)

SHEET 37 OF 82



NOTE:

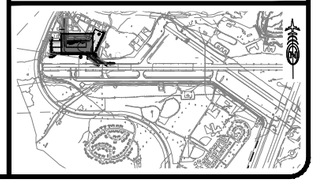
1. REFERENCE POINTS ARE BASED ON APRON CENTERLINE.

APRON/TAXIWAY SCHEDULE

POINT	STATION	OFFSET	ELEV
200	511+82.65	147.02 L	54.79
201	511+87.29	105.31 L	55.10
202	512+92.31	116.53 L	55.62
203	512+91.36	129.61 L	55.50
204	513+17.40	132.38 L	55.58
205	513+16.01	145.33 L	55.48
206	512+89.90	142.55 L	55.37
207	512+88.56	155.57 L	55.25
208	512+58.33	152.54 L	55.15
209	512+59.00	200.00 L	55.60
210	512+38.21	200.00 L	55.54
211	512+37.52	155.19 L	54.95
212	515+20.36	171.22 L	56.40
213	515+27.25	132.63 L	56.76
214	515+77.57	141.63 L	56.97
215	515+75.32	154.56 L	56.86
216	516+01.14	159.13 L	56.96
217	515+98.80	171.98 L	56.84
218	515+72.96	167.36 L	56.76
219	515+70.69	180.24 L	56.68

1

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000
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DESIGN CT
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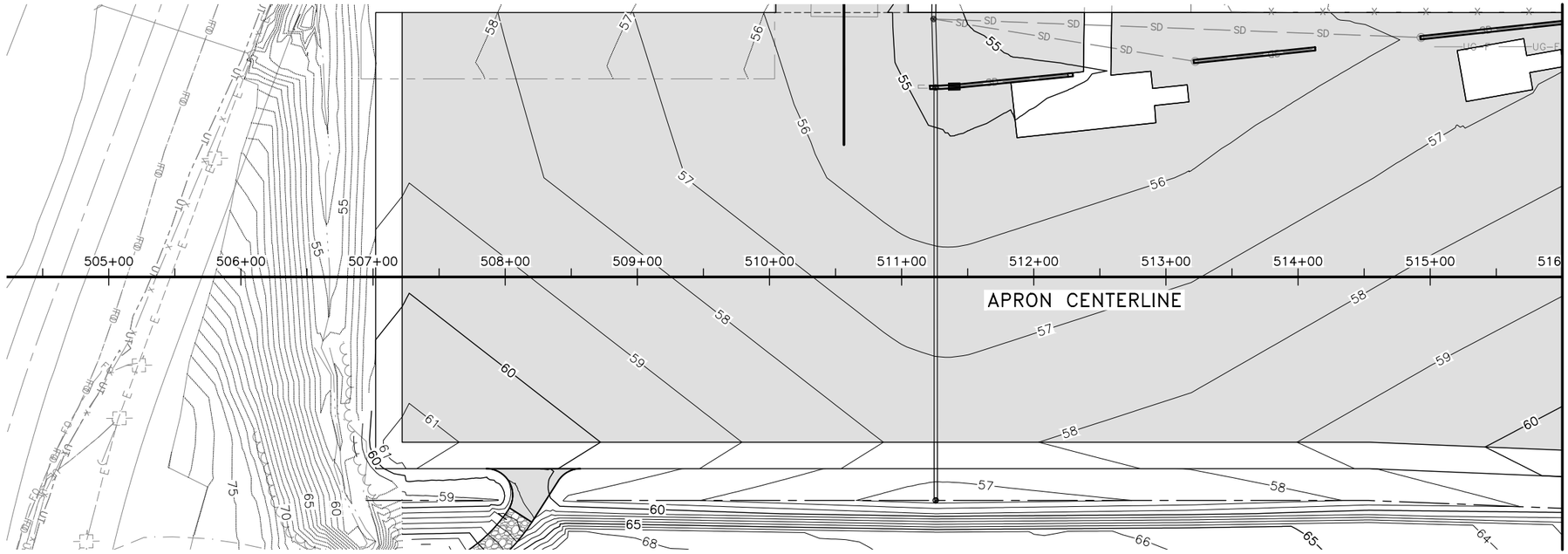
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

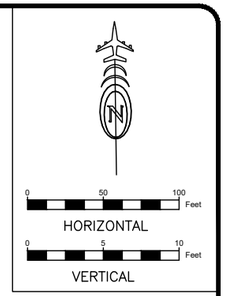
STATE OF ALASKA
49th
Charles M. Tripp
CE - 9673
REGISTERED PROFESSIONAL ENGINEER
4/22/2024

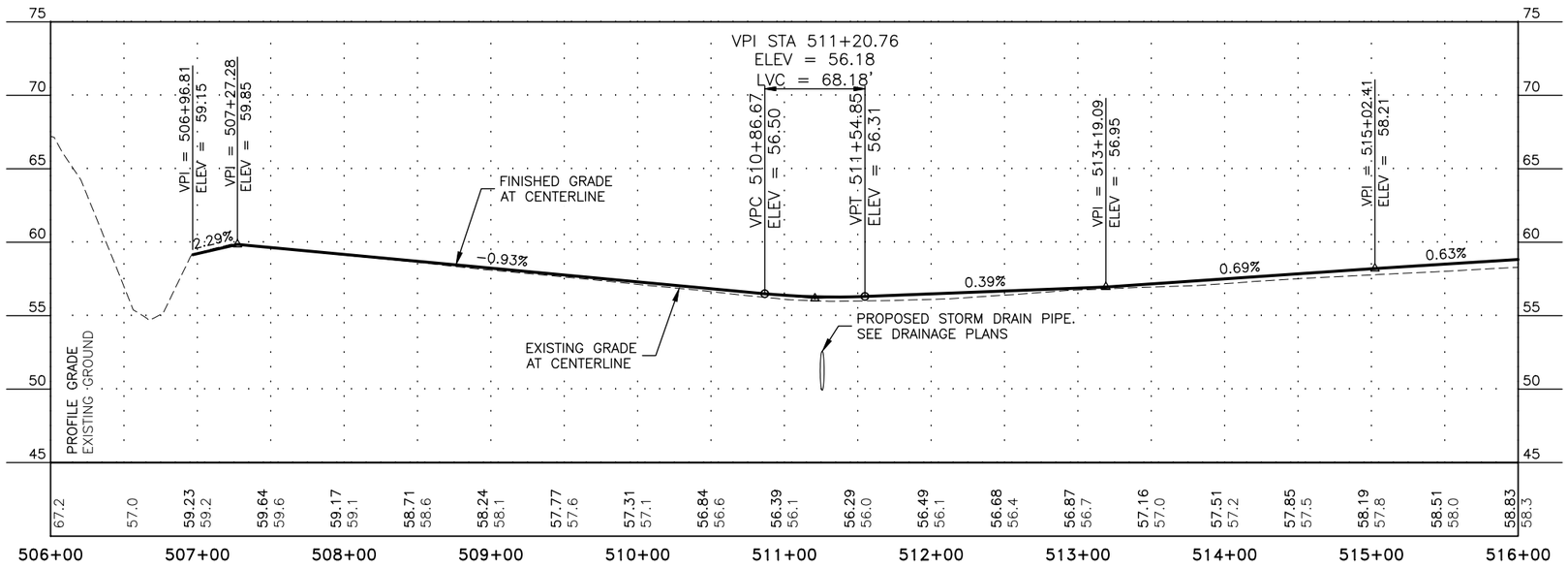
BY	DATE	REVISIONS
CCM	4/19/2024	ADDENDUM 4 – ADDED ELEVATIONS 1

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
SITE PLAN (5 OF 5)

SHEET 38 OF 82

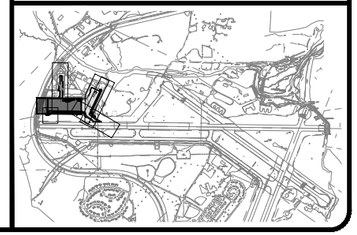






1/39 APRON CENTERLINE PROFILE
(STA 505+00 TO 516+00)

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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DESIGN CT
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CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA
49th
Charles M. Tripp
CE - 9673
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

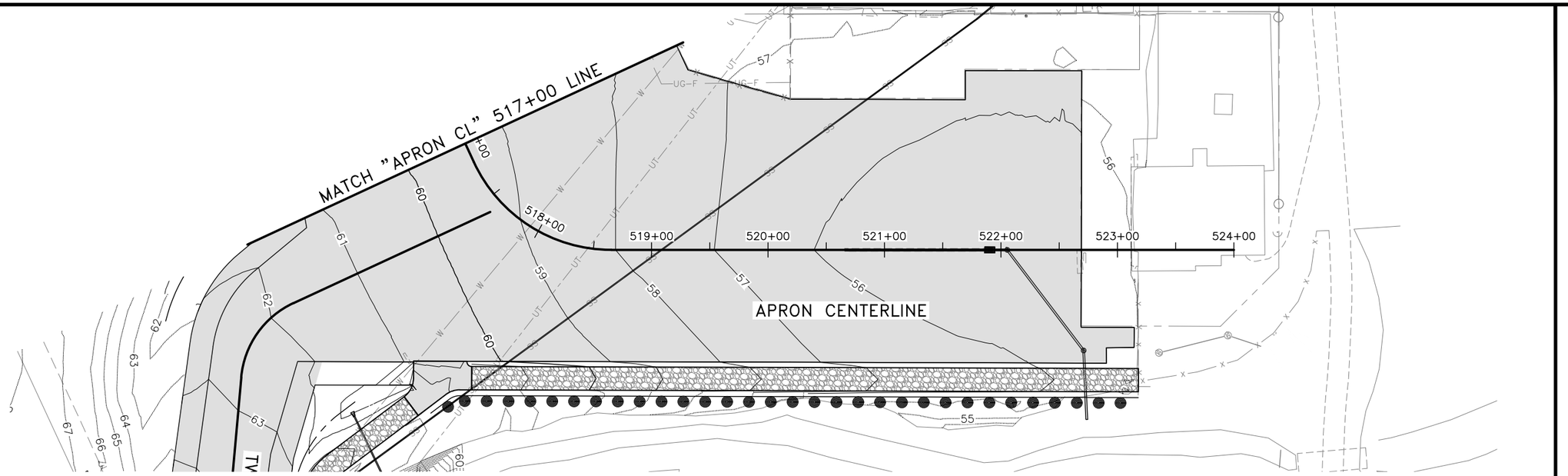
BY	DATE	REVISIONS

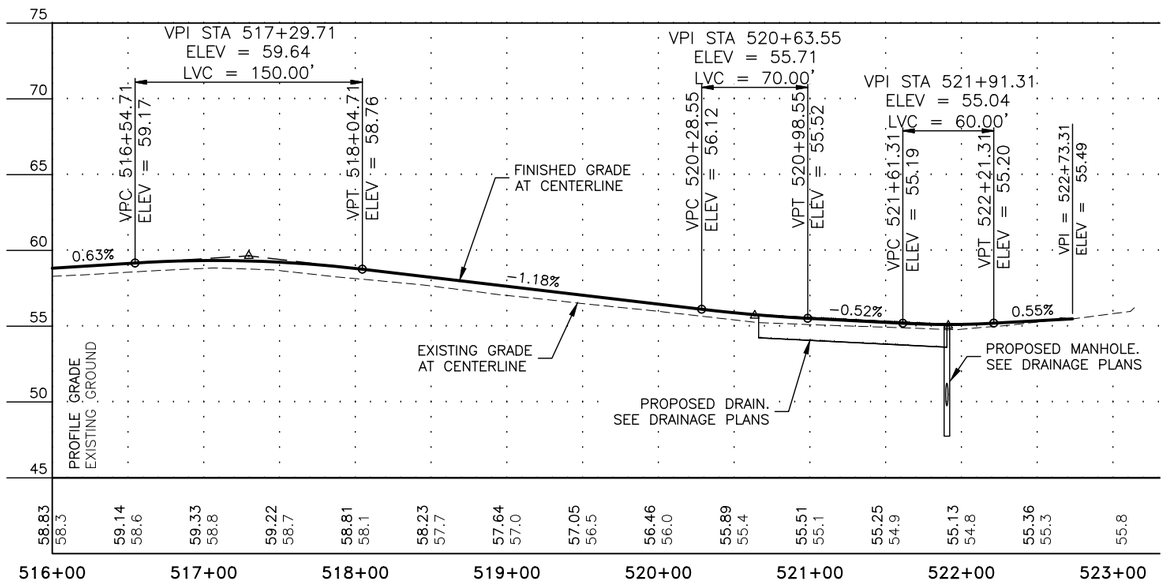
KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND
TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

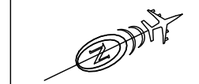
APRON CENTERLINE PLAN AND PROFILE (1 OF 2)

SHEET 39 OF 82

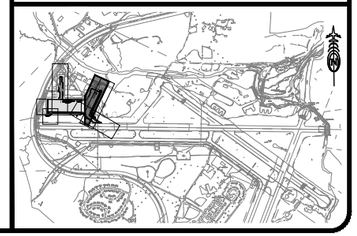




1/40 APRON CENTERLINE PROFILE
(STA 517+00 TO 524+00)



KEY PLAN



DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th
Charles M. Tripp
CE - 9613
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
APRON CENTERLINE PLAN AND PROFILE (2 OF 2)

SHEET 40 OF 82

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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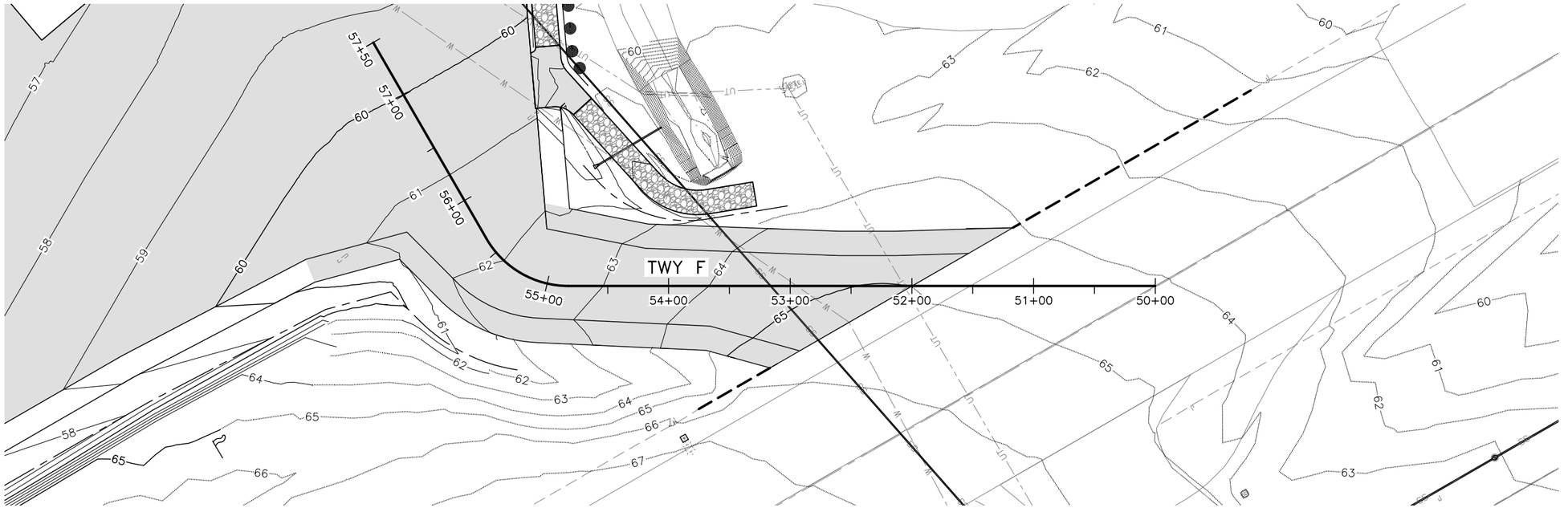
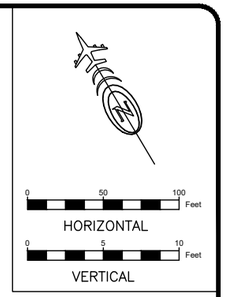
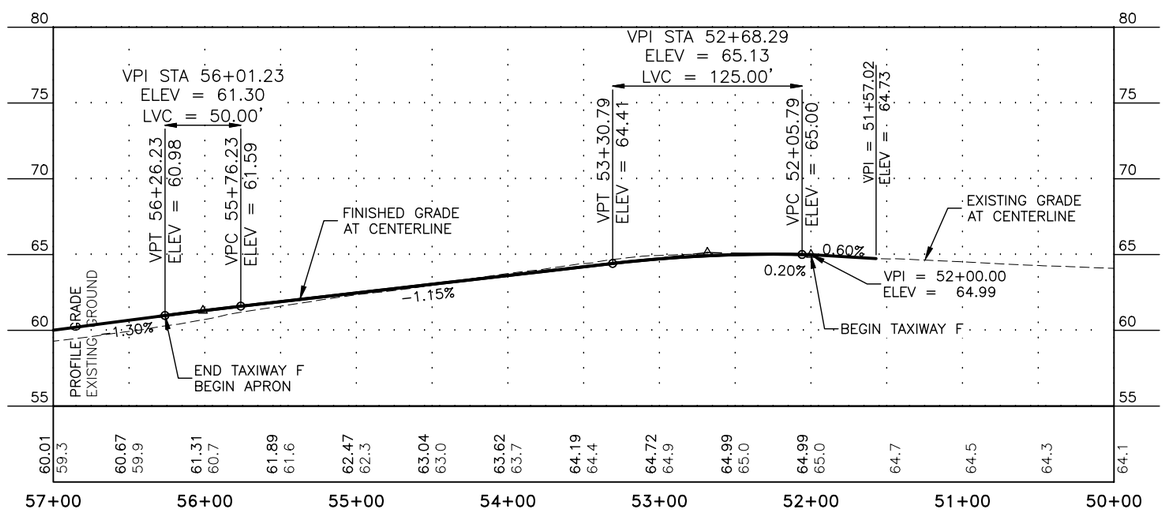
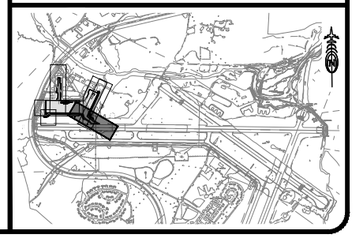






1/41 TAXIWAY F NORTH PROFILE
(STA 50+00 TO 57+00

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC., 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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2/29/2024 7:51 AM

DESIGN CT
DRAWN MW
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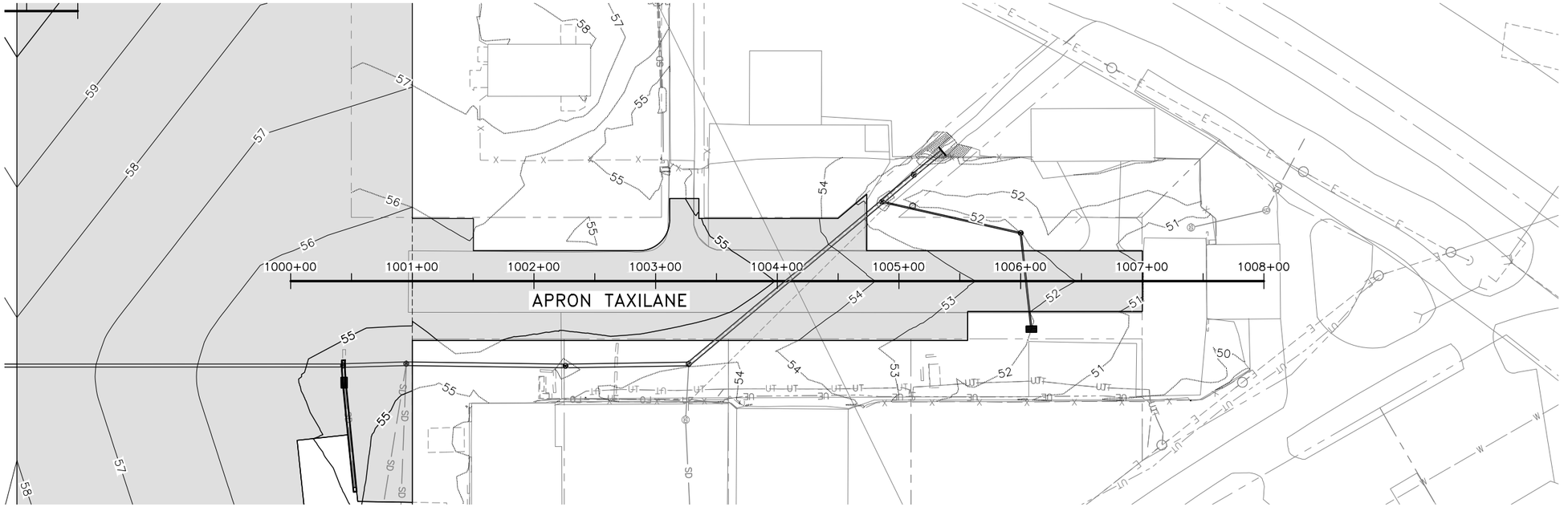
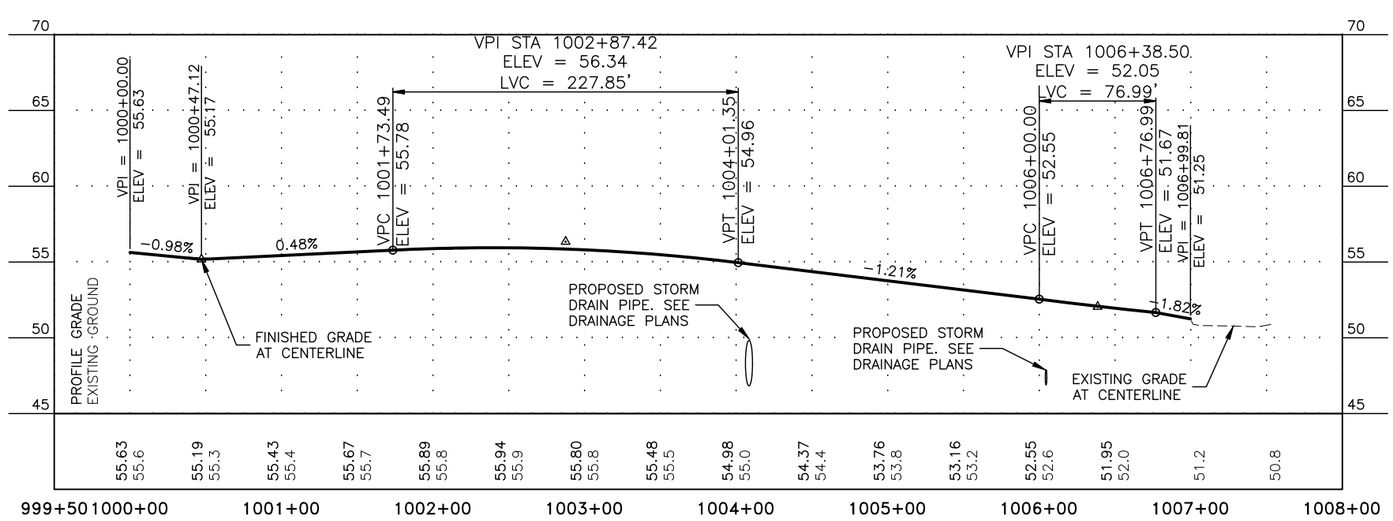
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND
TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
TAXIWAY F NORTH PLAN AND PROFILE

SHEET 41 OF 82

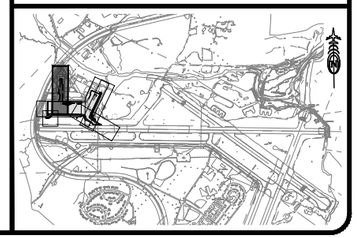




1/42 APRON TAXILANE PROFILE
(STA 1000+00 TO 1008+00)

0 50 100 Feet
HORIZONTAL
0 5 10 Feet
VERTICAL

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
C:\pwworking\west01\d2824858\00227_NTP1_P_PLAN&PROFILE-P4 TL
2/29/2024 7:51 AM

DESIGN CT
DRAWN MW
CHECKED CM

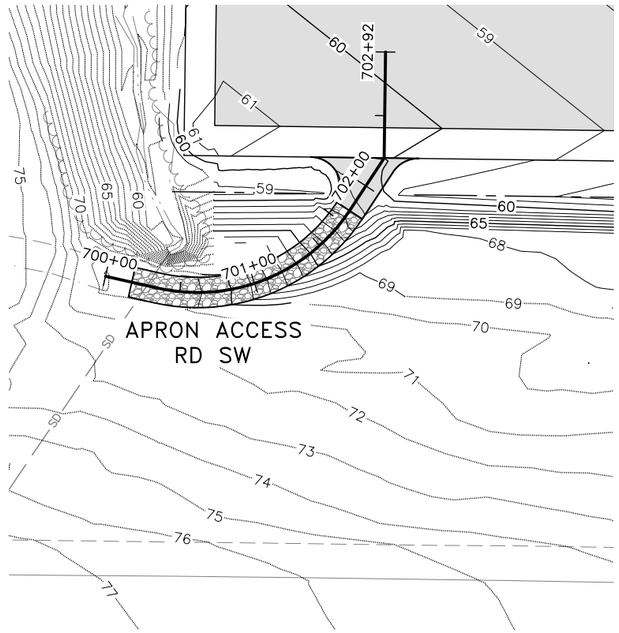
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

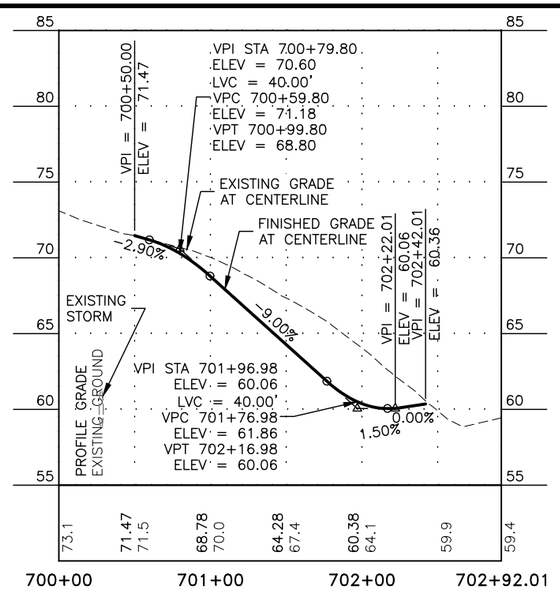
STATE OF ALASKA
49th
Charles M. Tripp
CE - 9613
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

BY	DATE	REVISIONS

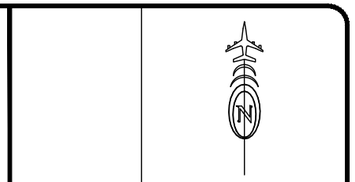
KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND
TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
APRON TAXILANE PLAN AND PROFILE

SHEET 42 OF 82





1/43 APRON ACCESS ROAD SW PROFILE
(STA 700+00 TO 707+74.21)



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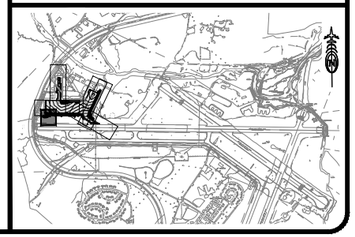


PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
C:\pwworking\west01\d2824858\00227_NTP1_P_PLAN&PROFILE-P5 AR SW

DESIGN CT
DRAWN MW
CHECKED CM

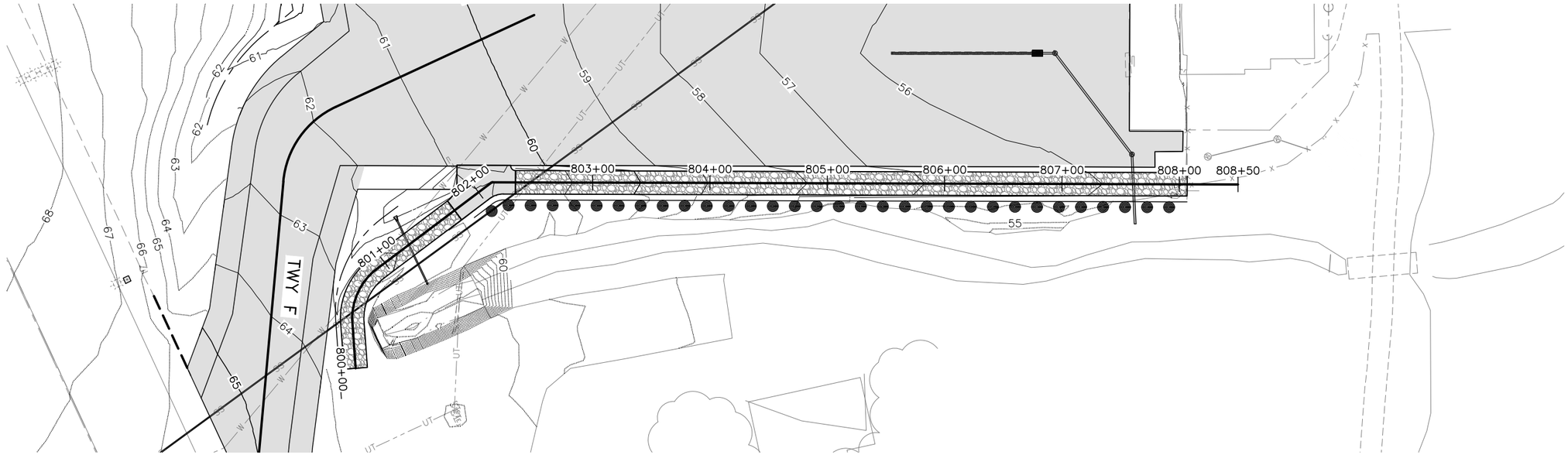
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

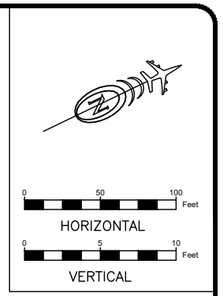
STATE OF ALASKA
49th
Charles M. Tripp
CE - 9613
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

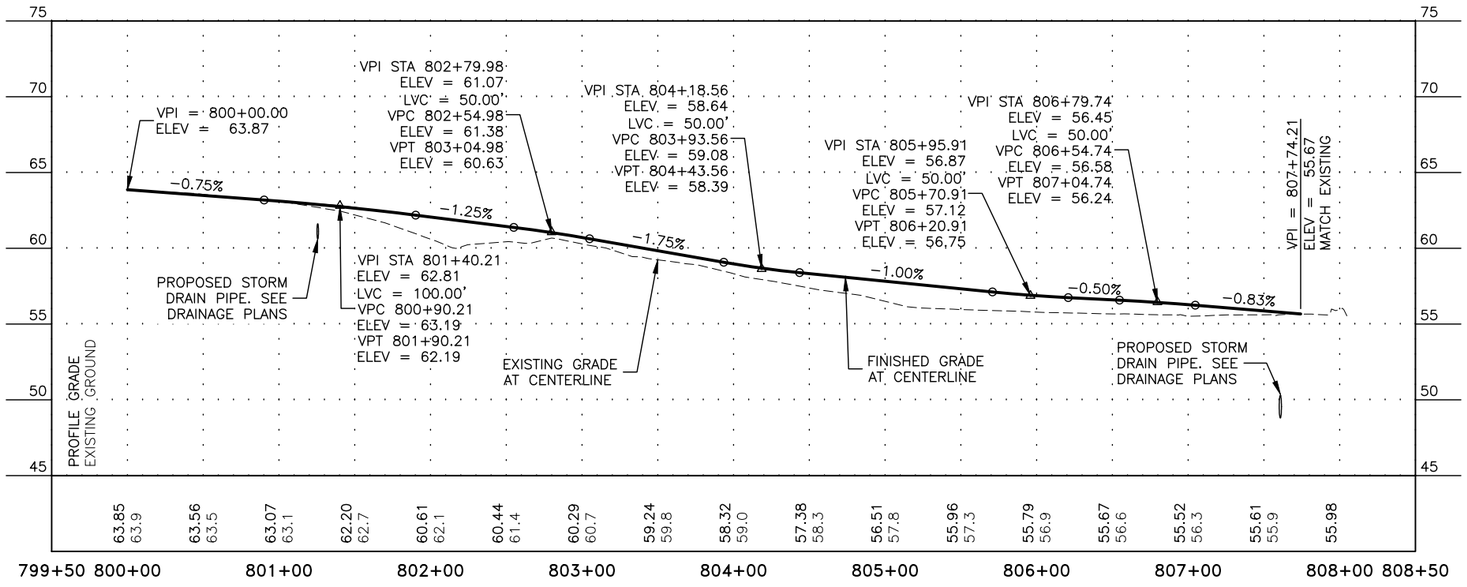
BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND
TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
APRON ACCESS RD SW PLAN AND PROFILE

SHEET 43 OF 82

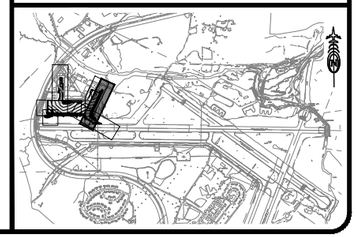






1/44 GA ACCESS ROAD NE PROFILE
(STA 800+00TO 807+75

KEY PLAN



DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th
Charles M. Tripp
CE - 9673
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

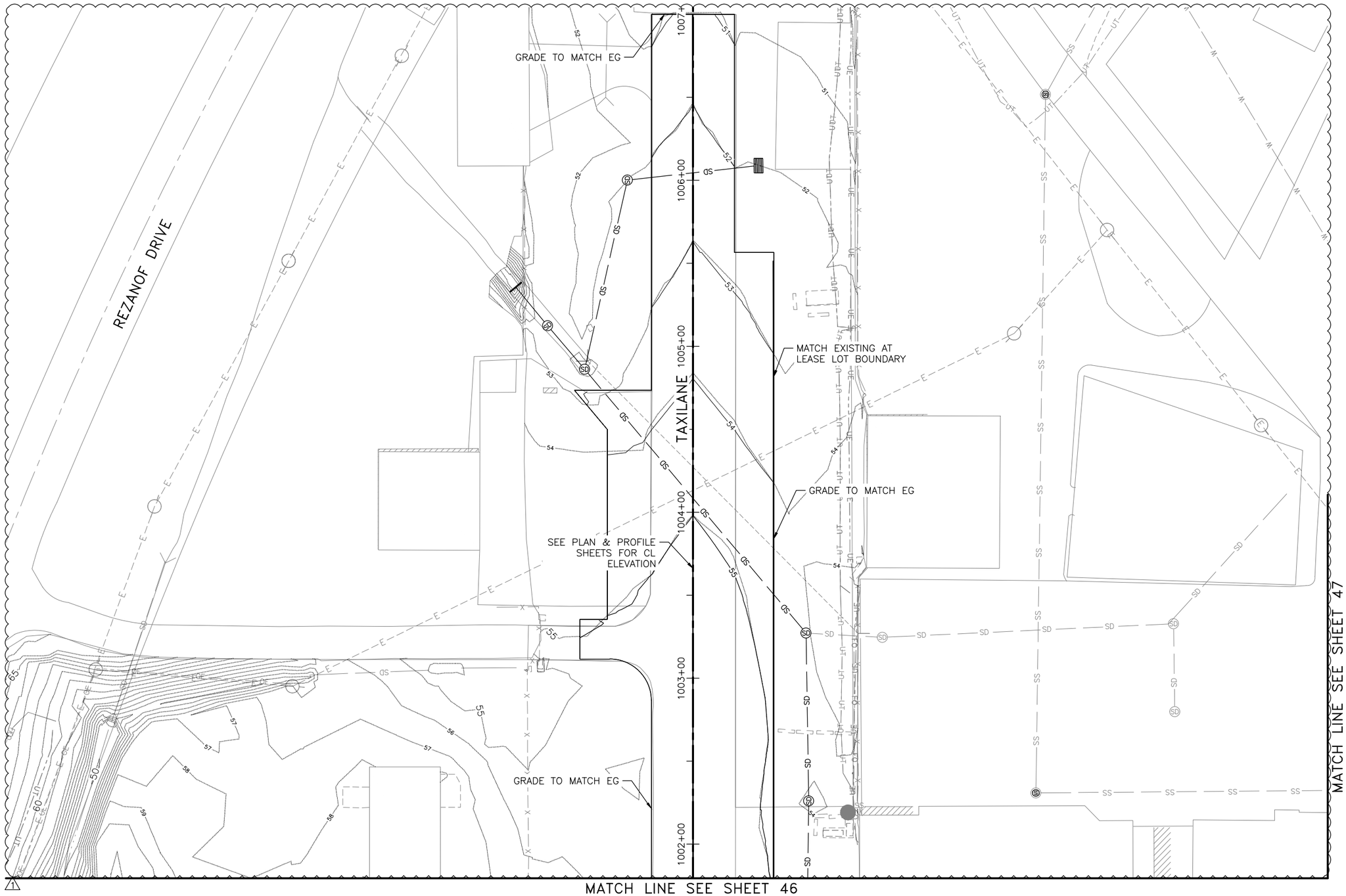
BY	DATE	REVISIONS

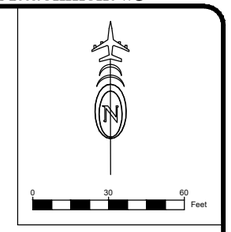
KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

GA ACCESS RD NE PLAN AND PROFILE

SHEET 44 OF 82





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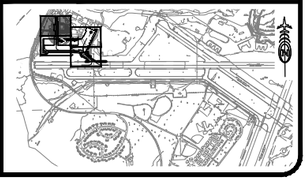


DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9673 REGISTERED PROFESSIONAL ENGINEER 4/12/2024

BY	DATE	REVISIONS
CCM	4/12/2024	ADDENDUM 3 – ADDED EXISTING CONTOURS 1

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

GRADING PLAN (1 OF 4)

SHEET 45 OF 82

MATCH LINE SEE SHEET 45

MATCH LINE SEE SHEET 47

MATCH LINE SEE SHEET 48

TAXILANE

GA PAVEMENT SECTION

COMMERCIAL/CARGO PAVEMENT SECTION

APRON

MATCH EXISTING AT LEASE LOT BOUNDARY

MATCH EXISTING AT LEASE LOT BOUNDARY

"APRON CL" 507+01.99
199.90' LT

"APRON CL" 510+05.00
200.20' LT

"APRON CL" 507+22.00
0.00' T

"APRON CL" 514+13.03
172.51' LT

"APRON CL" 513+21.03
162.88' LT

"APRON CL" 511+38.72
143.97' LT

GRADE BREAK LINE

SHOULDER PAVEMENT EDGE

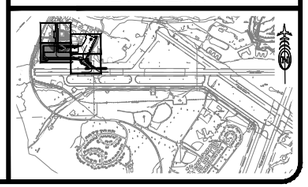
STRUCTURAL PAVEMENT EDGE

507+00 508+00 509+00 510+00 511+00 512+00 513+00 514+00

1000+00

0 30 60 Feet

KEY PLAN



DESIGN	CT
DRAWN	MW
CHECKED	CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9673 REGISTERED PROFESSIONAL ENGINEER 4/12/2024

BY	DATE	REVISIONS
CCM	4/12/2024	ADDENDUM 3 – ADDED EXISTING CONTOURS 1

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
GRADING PLAN (2 OF 4)

SHEET 46 OF 82

MATCH LINE SEE SHEET 45

MATCH LINE SEE SHEET 46

"APRON CL" 522+68.49
153.09' LT

"APRON CL" 521+69.59
153.86' LT

"APRON CL" 521+69.39
128.87' LT

"APRON CL" 520+19.33
129.25' LT

"APRON CL" 516+19.31
194.47' LT

"APRON CL" 514+92.53
180.91' LT

"APRON CL" 519+31.23
154.42' LT

"APRON CL" 519+18.28
173.92' LT

"APRON CL" 516+01.14
159.12' LT

"APRON CL" 522+68.87
66.37' RT

"APRON CL" 522+90.59
97.13' RT

"APRON CL" 518+67.29
95.92' RT

523+00
522+00
521+00
520+00
519+00
518+00
517+00
516+00
515+00
57+50

INSTALL
TRENCH DRAIN

MATCH EXISTING AT
LEASE LOT BOUNDARY

GRADE BREAK LINE

MATCH EXISTING AT
HARDSTAND PERIMETER

STRUCTURAL
PAVEMENT EDGE

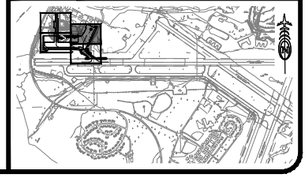
APRON

DEVIL'S CREEK (ANADROMOUS)

MATCH LINE SEE SHEET 48

0 30 60 Feet

KEY PLAN



DESIGN	CT
DRAWN	MW
CHECKED	CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA
49th
Charles M. Tripp
CE - 9673
REGISTERED PROFESSIONAL ENGINEER
4/12/2024

BY	DATE	REVISIONS
CCM	4/12/2024	ADDENDUM 3 – ADDED EXISTING CONTOURS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND
TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

GRADING PLAN (3 OF 4)

SHEET 47 OF 82

MATCH LINE SEE SHEET 46

MATCH LINE SEE SHEET 47

APRON

SEE MARKING PLANS

STRUCTURAL PAVEMENT EDGE

SHOULDER PAVEMENT EDGE

"APRON CL" 514+54.30
125.00' RT

"APRON CL" 516+25.30
132.00' RT

"APRON CL" 516+22.29
151.91' RT

"TW F – NORTH" 56+01.23
72.02' RT

"TW F – NORTH" 55+84.86
70.35' LT

"TW F – NORTH" 56+01.23
54.00' LT

"TW F – NORTH" 55+50.01
60.47' LT

"TW F – NORTH" 55+26.62
35.73' LT

"TW F – NORTH" 55+25.63
55.94' LT

"TW F – NORTH" 55+00.06
29.30' LT

"TW F – NORTH" 54+98.15
49.10' LT

"TW F – NORTH" 55+23.04
42.18' RT

"TW F – NORTH" 54+16.50
50.92' RT

"TW F – NORTH" 54+19.19
31.00' RT

"TW F – NORTH" 52+59.86
25.13' RT

"TW F – NORTH" 52+50.00
45.26' RT

"TW F – NORTH" 53+66.00
33.00' LT

"TW F – NORTH" 53+69.78
53.10' LT

"TW F – NORTH" 53+17.63
67.56' LT

"TW F – NORTH" 52+92.27
53.27' LT

"TW F – NORTH" 51+53.58
26.89' RT

"TW F – NORTH" 51+17.01
47.85' RT

MATCH EXISTING AT RUNWAY SHOULDER

TAXIWAY F

DEVIL'S CREEK (ANADROMOUS)

57+00 56+00 55+00 54+00 53+00 52+00 51+00 50+00

110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00

0 30 60 Feet

KEY PLAN

DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/12/2024

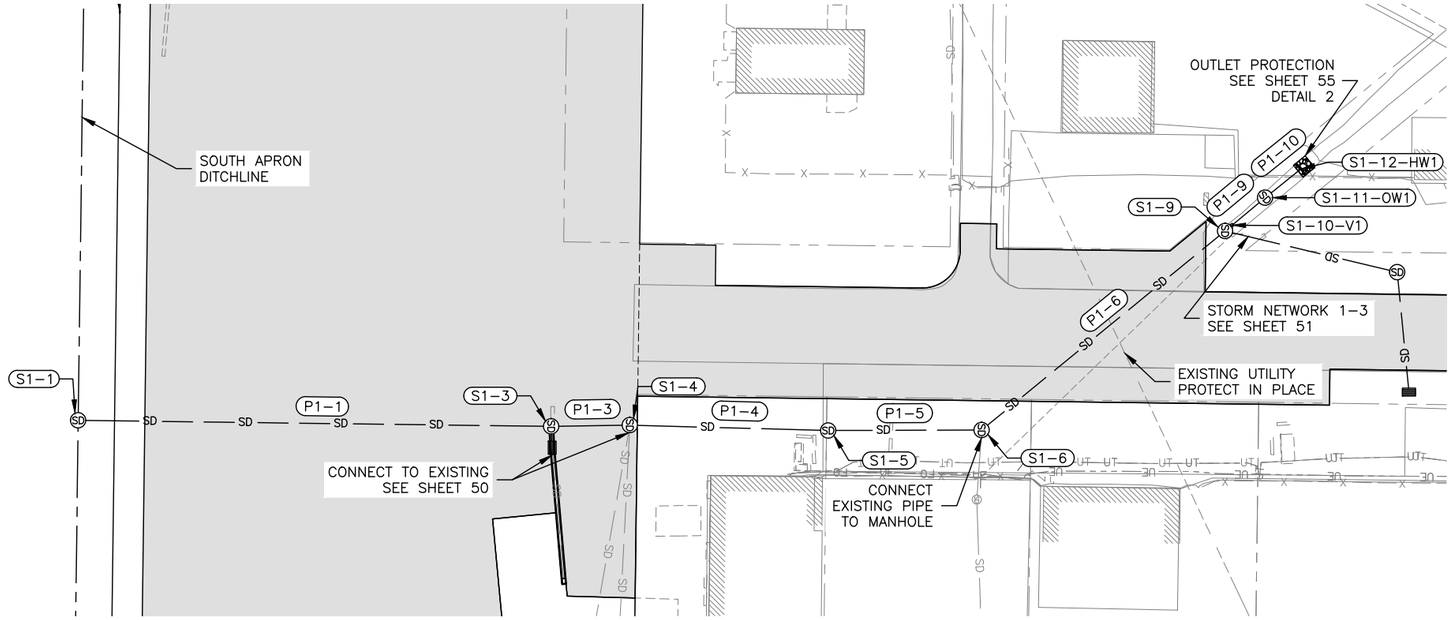
BY	DATE	REVISIONS
CCM	4/12/2024	ADDENDUM 3 – ADDED EXISTING CONTOURS 1

KODIAK AIRPORT

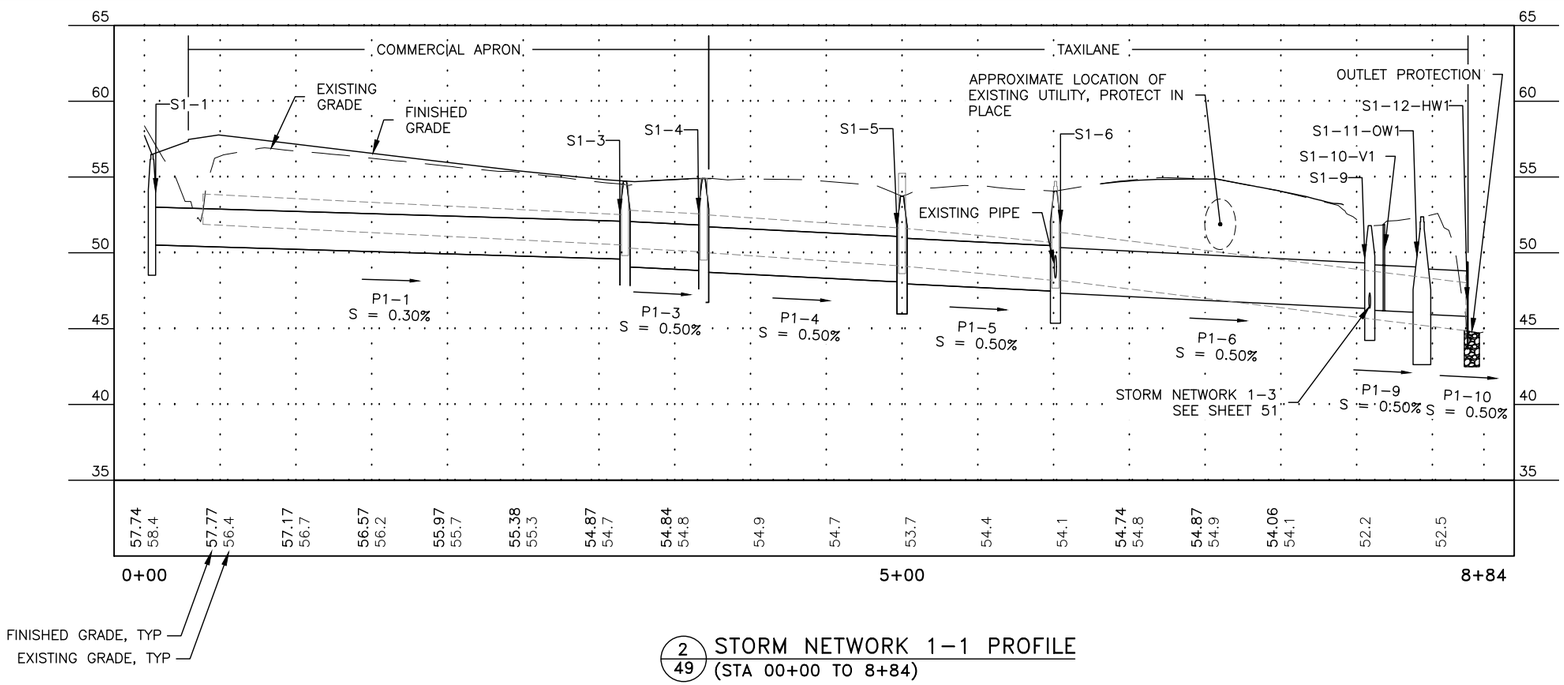
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

GRADING PLAN (4 OF 4)

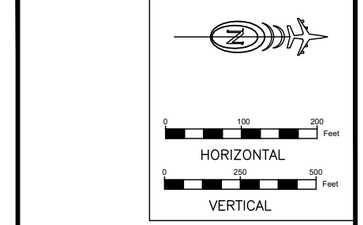
SHEET 48 OF 82



1/49 STORM NETWORK 1-1 PLAN



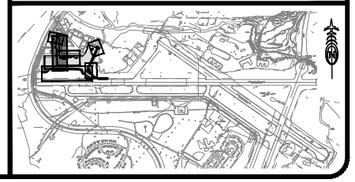
2/49 STORM NETWORK 1-1 PROFILE
(STA 00+00 TO 8+84)



NOTES:

1. REFER TO SUMMARY TABLE ON SHEET 53 FOR PIPE AND STRUCTURE COORDINATES AND ELEVATIONS.
2. ALL DRAINAGE STRUCTURES LOCATED ON APRON SHALL BE AIRCRAFT RATED. SEE DETAIL 3 SHEET 54.

KEY PLAN



DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

DRAINAGE PLAN (1 OF 5)

SHEET 49 OF 82

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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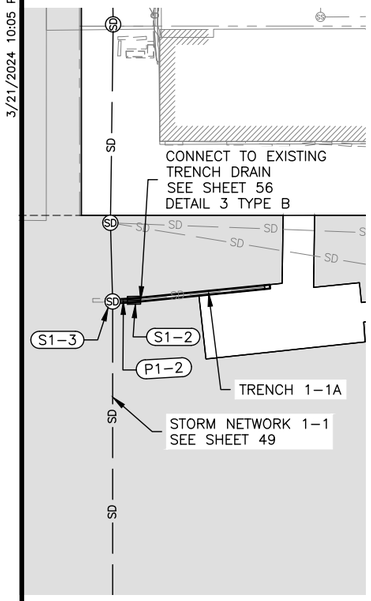
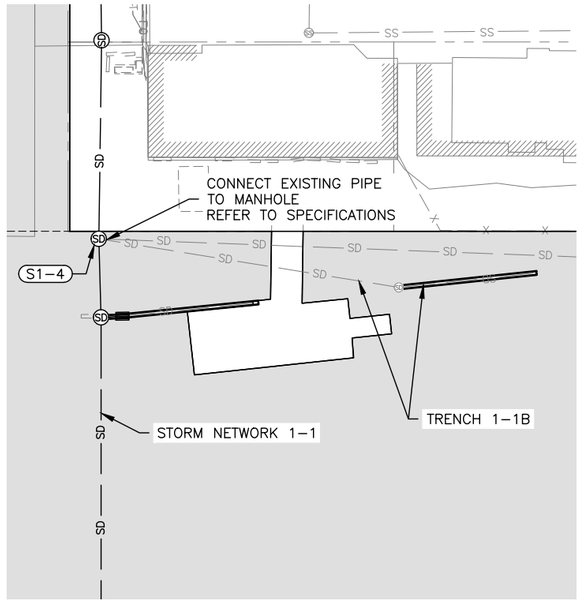
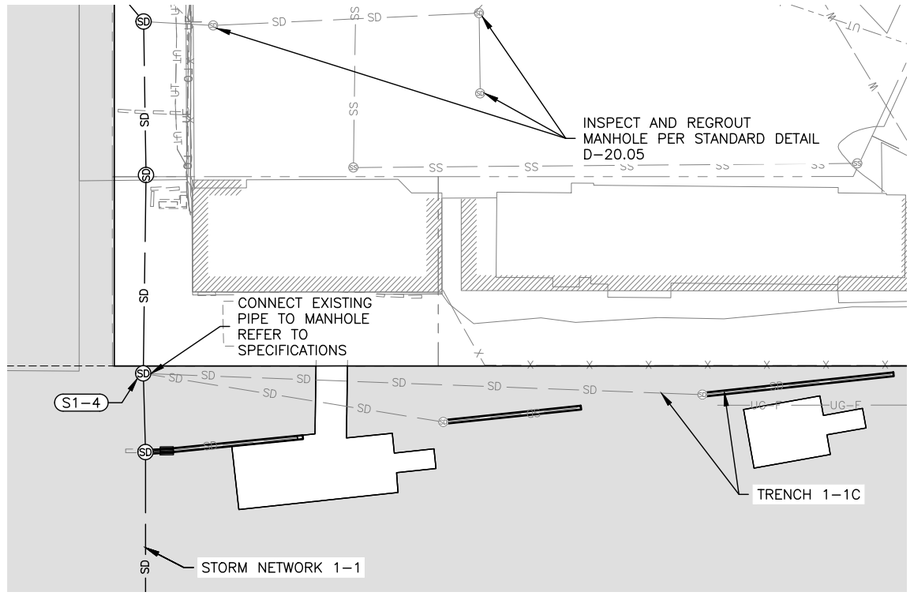


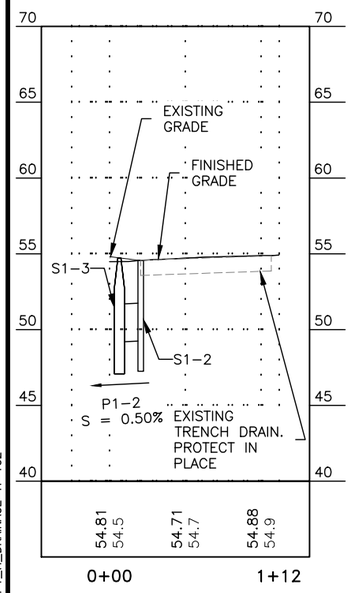
3 / 50 TRENCH 1–1A PLAN



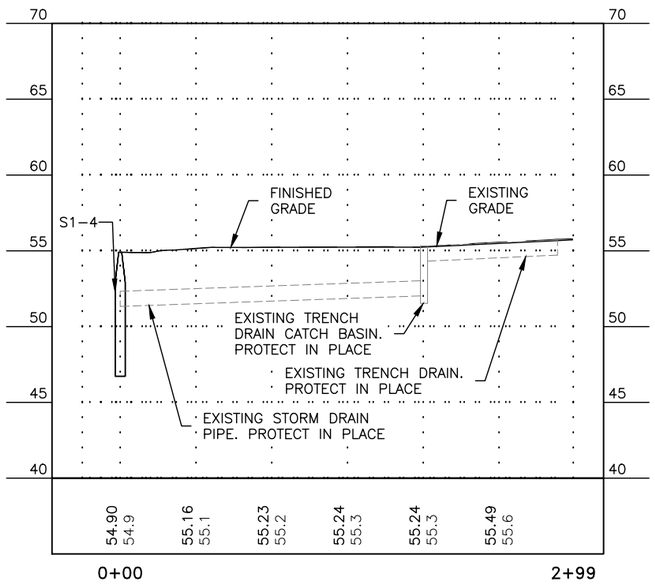
5 / 50 TRENCH 1–1B PLAN



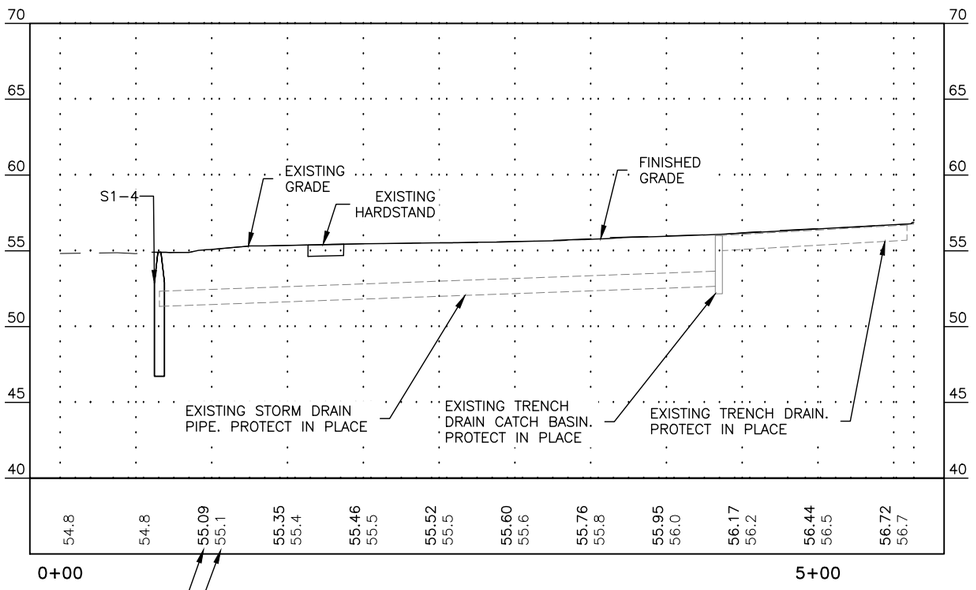
1 / 50 TRENCH 1–1C PLAN



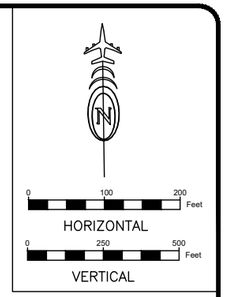
4 / 50 TRENCH 1–1A PROFILE



6 / 50 TRENCH 1–1B PROFILE



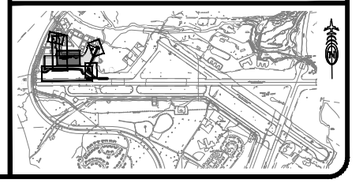
2 / 50 TRENCH 1–1C PROFILE



NOTES:

1. REFER TO SUMMARY TABLE ON SHEET 53 FOR PIPE AND STRUCTURE COORDINATES AND ELEVATIONS.
2. ALL DRAINAGE STRUCTURES LOCATED ON APRON SHALL BE AIRCRAFT RATED. SEE DETAIL 3 SHEET 54.

KEY PLAN



DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE – 9673 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3–02–0158–024–2024/SFAPT00227
DRAINAGE PLAN (2 OF 5)

SHEET 50 OF 82

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644–2000 CERT. OF AUTH. NO. AEC0569
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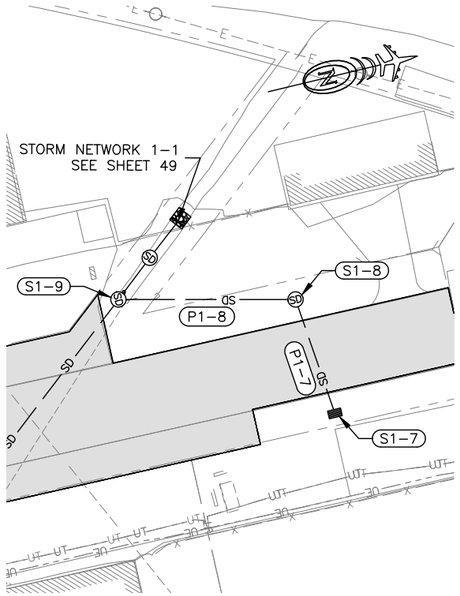
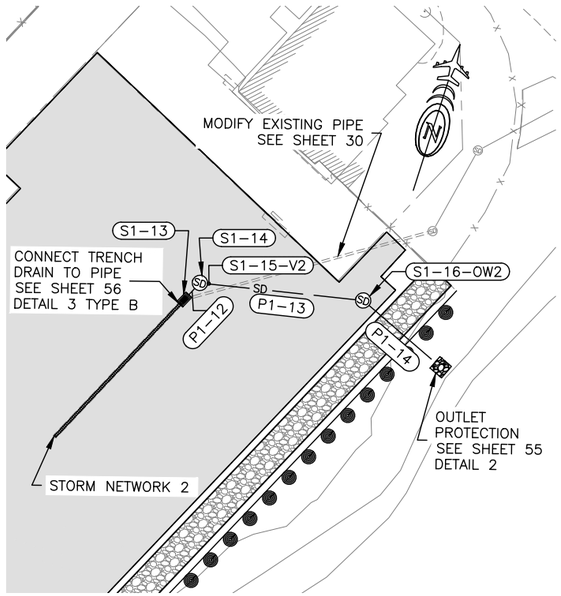
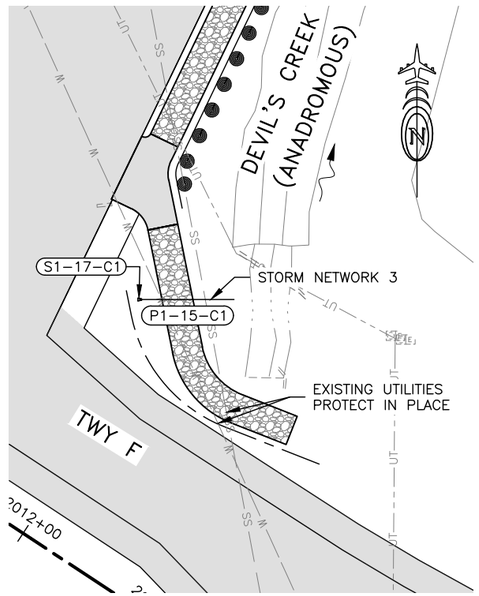


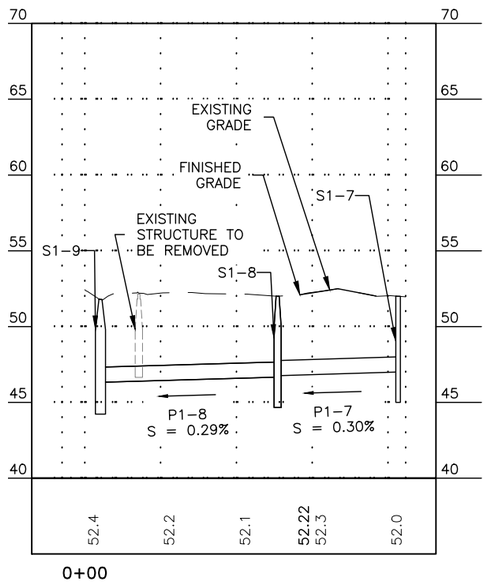
1/51 STORM NETWORK 1-3 PLAN



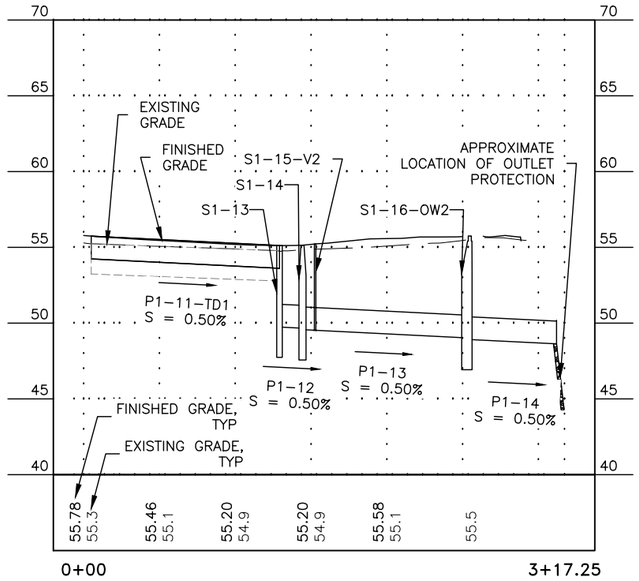
3/51 STORM NETWORK 2 PLAN



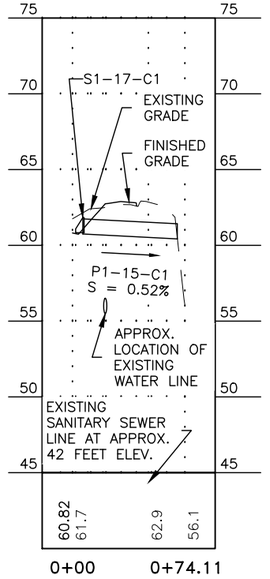
5/51 STORM NETWORK 3 PLAN



2/51 STORM NETWORK 1-3 PROFILE



4/51 STORM NETWORK 2 PROFILE



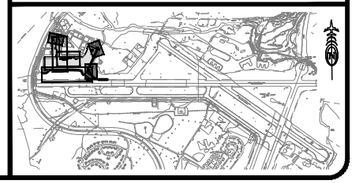
6/51 STORM NETWORK 3 PROFILE

HORIZONTAL 0 100 200 Feet
VERTICAL 0 250 500 Feet

NOTES:

1. REFER TO SUMMARY TABLE ON SHEET 53 FOR PIPE AND STRUCTURE COORDINATES AND ELEVATIONS.
2. ALL DRAINAGE STRUCTURES LOCATED ON APRON SHALL BE AIRCRAFT RATED. SEE DETAIL 3 SHEET 54.

KEY PLAN



DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

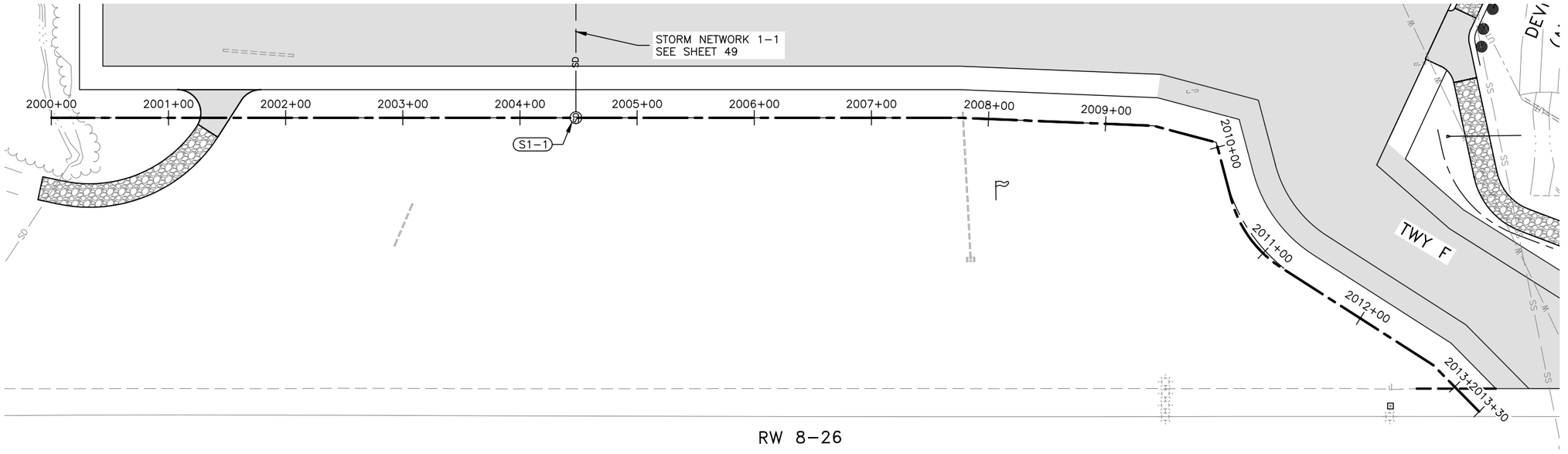
BY	DATE	REVISIONS

KODIAK AIRPORT

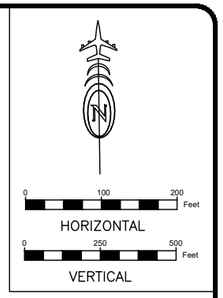
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

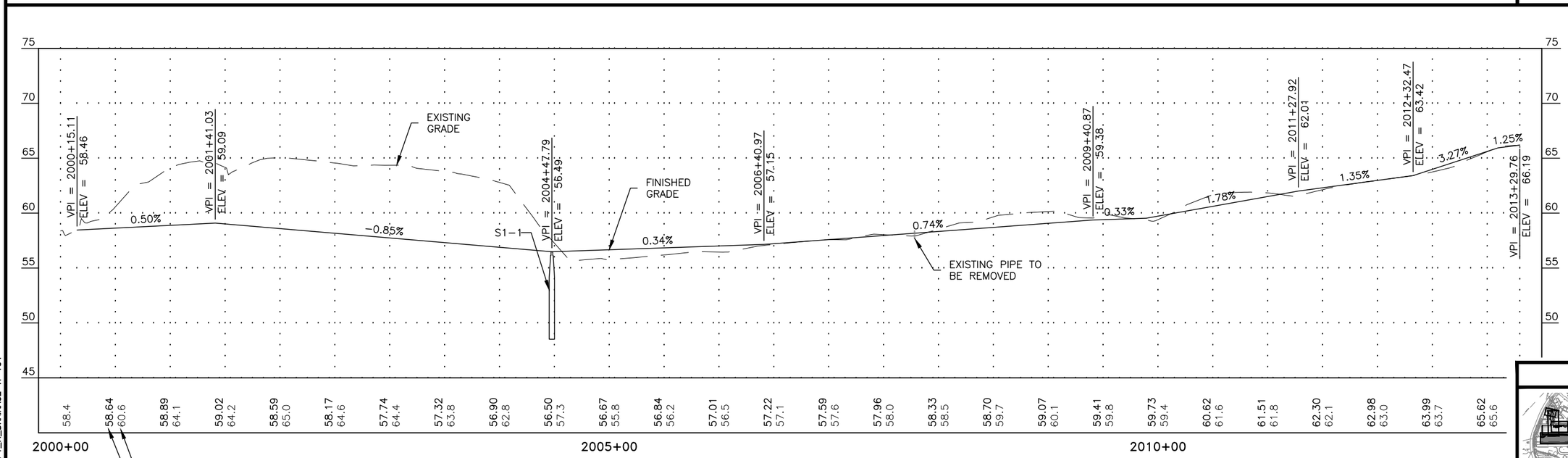
DRAINAGE PLAN (3 OF 5)

SHEET 51 OF 82



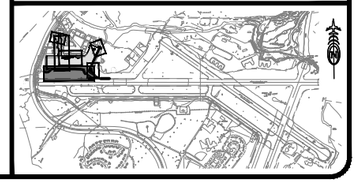
1/52 SOUTH APRON DITCHLILNE PLAN





2/52 SOUTH APRON DITCHLINE PROFILE
(STA 00+00 TO 13+29.76)

KEY PLAN



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DESIGN CT
DRAWN MW
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

DRAINAGE PLAN (4 OF 5)

SHEET 52 OF 82

STRUCTURE TABLE

MH NO.	SHEET NO.	ALIGNMENT	STATION	OFFSET	RIM ELEV.	INVERT ELEV.	REMARKS
S1-1	49	APRON CL	511+25.79	169.00 R	56.49	N 50.52	AIRCRAFT RATED MANHOLE, 48-INCH, TYPE I, WITH GRATE INLET, SEE STANDARD DETAILS D-22.01, D-35.10
S1-2	50,52	APRON CL	511+39.80	144.01 L	54.57	W 49.25	AIRCRAFT RATED TRENCH DRAIN CATCH BASIN, SEE SHEET 56
S1-3	49,50	APRON CL	511+25.72	143.18 L	54.73	S 49.58 E 49.18 N 49.08	AIRCRAFT RATED MANHOLE, 72-INCH, TYPE II, SEE SHEET 57
S1-4	49,50	APRON CL	511+24.25	195.06 L	54.90	S 48.82 N 48.72	AIRCRAFT RATED MANHOLE, 72-INCH, TYPE II, SEE SEE SHEET 57
S1-5	49	APRON TAXILANE	1002+26.01	69.77 R	53.75	S 48.07 N 47.97	AIRCRAFT RATED MANHOLE, 72-INCH, WITH GRATE INLET, TYPE II, SEE SHEET 54 DETAIL 1 AND SHEET 57
S1-6	49	APRON TAXILANE	1003+27.20	68.17 R	54.07	S 47.46 NW 47.36	AIRCRAFT RATED MANHOLE, 72-INCH, TYPE II, SEE SEE SHEET 57
S1-7	51	APRON TAXILANE	1006+08.88	39.50 R	52.00	W 47.00	AIRCRAFT RATED TYPE A INLET BOX, WITH GRATE INLET AND 18-INCH SUMP, SEE STANDARD DETAILS D-24.00, D-26.04
S1-8	51	APRON TAXILANE	1006+00.11	39.50 L	52.00	E 46.76 S 46.66	AIRCRAFT RATED MANHOLE, 48-INCH, TYPE I, WITH GRATE INLET, SEE SHEET 54 DETAIL 1 AND STANDARD DETAIL D-35.10
S1-9	49,51	APRON TAXILANE	1004+86.15	65.20 L	51.79	SE 46.32 N 46.32 NW 46.22	AIRCRAFT RATED MANHOLE, 72-INCH, WITH GRATE INLET, TYPE II, SEE SHEET 54 DETAIL 1 AND SHEET 57
S1-10-V1	49	APRON TAXILANE	1004+90.72	69.09 L	51.81	SEE NOTE 1	GATE VALVE, 36-INCH, SEE SHEET 54 DETAIL 3
S1-11-OW1	49	APRON TAXILANE	1005+12.32	87.52 L	52.38	SE 46.05 NW 45.95	OIL WATER SEPARATOR 900 GAL, SEE SHEET 58
S1-12-HW1	49	APRON TAXILANE	1005+35.62	106.71 L	49.40	SE 45.80	CONCRETE HEADWALL, PRECAST, TYPE II, WITH OUTFALL GRATE, SEE SHEET 55 DETAIL 1 AND STANDARD DETAIL D-31.01
S1-13	51	APRON CL	521+90.38	0.01 R	55.12	NE 49.75	AIRCRAFT RATED TRENCH DRAIN CATCH BASIN, SEE SHEET 56
S1-14	51	APRON CL	522+05.38	0.02 R	55.14	SW 49.67 E 49.57	AIRCRAFT RATED MANHOLE, 48-INCH, TYPE I, SEE STANDARD DETAIL D-35.10
S1-15-V2	51	APRON CL	522+09.01	4.80 R	55.20	SEE NOTE 1	GATE VALVE, 18-INCH, SEE SHEET 54 DETAIL 3
S1-16-OW2	51	APRON CL	522+70.98	86.32 R	55.75	W 49.03 SE 48.93	OIL WATER SEPARATOR 250 GAL, SEE SHEET 59
S1-17-C1	51	APRON CL	517+76.25	219.84 R	61.84	E 60.75	CULVERT END SECTION, 12-INCH, SEE STANDARD DETAIL D-06.10

△1

NOTES:

1. FIELD FIT GATE VALVE INVERT BASED ON EXACT LOCATION INSTALLED IN STORM NETWORK.

PIPE TABLE

PIPE NO.	SHEET NO.	DIAMETER	LENGTH	UPSTREAM STRUCTURE	ALIGNMENT	STATION	OFFSET	INV ELEV.	DOWNSTREAM STRUCTURE	ALIGNMENT	STATION	OFFSET	INV ELEV.	REMARKS
P1-1	49	30.00"	307.2	S1-1	APRON CL	511+25.79	169.00 R	50.52'	S1-3	Apron CL	511+25.72	143.18 L	49.58'	INSTALL HDPE PIPE
P1-2	50	30.00"	9.6	S1-2	APRON CL	511+39.80	144.01 L	49.25'	S1-3	Apron CL	511+25.72	143.18 L	49.18'	INSTALL HDPE PIPE
P1-3	49	36.00"	45.9	S1-3	APRON CL	511+25.72	143.18 L	49.08'	S1-4	Apron CL	511+24.25	195.06 L	48.82'	INSTALL HDPE PIPE
P1-4	49	36.00"	125.0	S1-4	APRON TAXILANE	1000+95.06	67.97 R	48.72'	S1-5	Apron Taxilane	1002+26.01	69.77 R	48.07'	INSTALL HDPE PIPE
P1-5	49	36.00"	95.2	S1-5	APRON TAXILANE	1002+26.01	69.77 R	47.97'	S1-6	Apron Taxilane	1003+27.20	68.17 R	47.46'	INSTALL HDPE PIPE
P1-6	49	36.00"	201.5	S1-6	APRON TAXILANE	1003+27.20	68.17 R	47.36'	S1-9	Apron Taxilane	1004+86.15	65.20 L	46.32'	INSTALL HDPE PIPE
P1-7	51	12.00"	76.5	S1-7	APRON TAXILANE	1006+08.88	39.50 R	47.00'	S1-8	Apron Taxilane	1006+00.11	39.50 L	46.76'	INSTALL HDPE PIPE
P1-8	51	12.00"	111.8	S1-8	APRON TAXILANE	1006+00.11	39.50 L	46.66'	S1-9	Apron Taxilane	1004+86.15	65.20 L	46.32'	INSTALL HDPE PIPE
P1-9	49	36.00"	26.4	S1-9	APRON TAXILANE	1004+86.15	65.20 L	46.22'	S1-11-OW1	Apron Taxilane	1005+12.32	87.52 L	46.05'	INSTALL DUCTILE IRON PIPE
P1-10	49	36.00"	25.8	S1-11-OW1	APRON TAXILANE	1005+12.32	87.52 L	45.95'	S1-12-HW1	Apron Taxilane	1005+35.62	106.71 L	45.80'	INSTALL HDPE PIPE WITH AN OUTFALL GRATE, SEE SHEET 53 DETAIL 1 TYPE A
P1-11-TD1	51	18.00"	124.2		APRON TAXILANE	1001+57.49	863.70 R	54.24'	S1-13	Apron Taxilane	1002+70.19	915.94 R	53.62'	AIRCRAFT RATED TRENCH DRAIN
P1-12	51	18.00"	11.5	S1-13	APRON TAXILANE	1002+70.19	915.94 R	49.75'	S1-14	Apron Taxilane	1002+83.79	922.26 R	49.67'	INSTALL HDPE PIPE
P1-13	51	18.00"	103.4	S1-14	APRON CL	522+05.38	0.02 R	49.57'	S1-16-OW2	Apron CL	522+70.98	86.32 R	49.03'	INSTALL DUCTILE IRON PIPE
P1-14	51	18.00"	56.2	S1-16-OW2	APRON CL	522+70.98	86.32 R	48.93'		Apron CL	522+73.69	145.46 R	48.63'	INSTALL HDPE PIPE WITH AN OUTFALL GRATE, SEE SHEET 53 DETAIL 1 TYPE B
P1-15-C1	51	12.00"	61.9	S1-17-C1	APRON CL	517+76.25	219.84 R	60.75'		Apron CL	517+95.61	250.50 R	60.42'	INSTALL HDPE PIPE, WITH 1 FLARED END

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DESIGN CT
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STATE OF ALASKA
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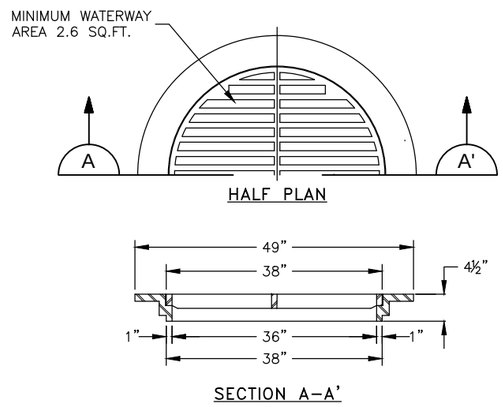
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA — 49th — Charles M. Tripp — CE - 9673 — REGISTERED PROFESSIONAL ENGINEER — 4/22/2024

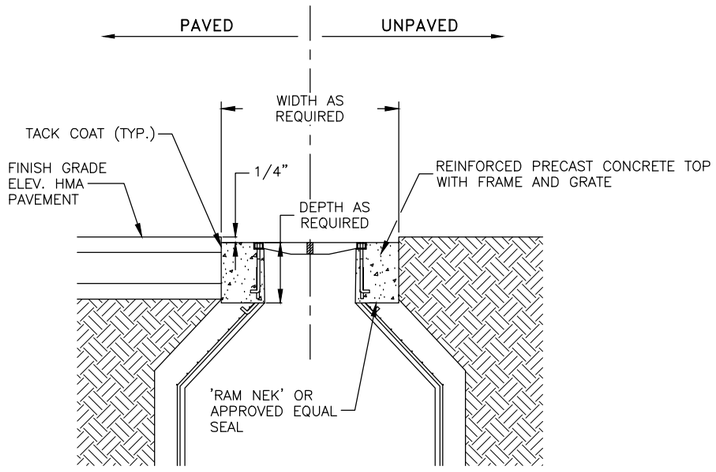
BY	DATE	REVISIONS
CCM	4/22/2024	ADDENDUM 4 – CORRECTED DETAIL CALLOUTS △1

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
DRAINAGE PLAN (5 OF 5)

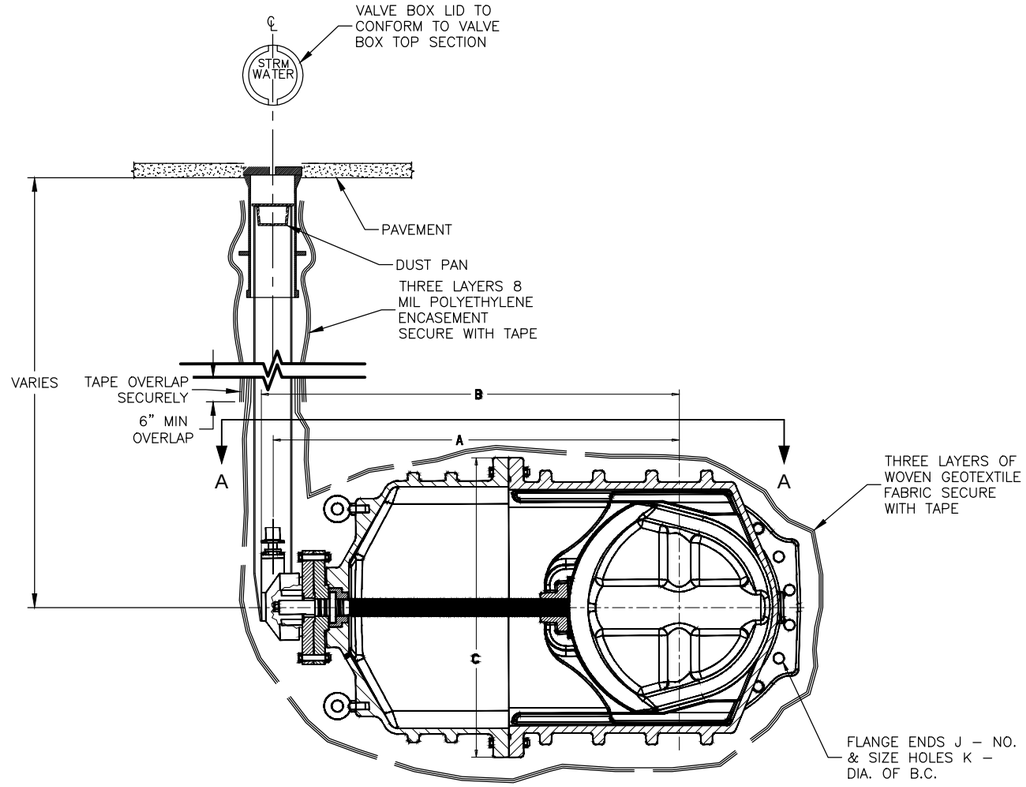
SHEET 53 OF 82



1/54 DETAIL: MANHOLE GRATE INLET
SCALE: N.T.S.

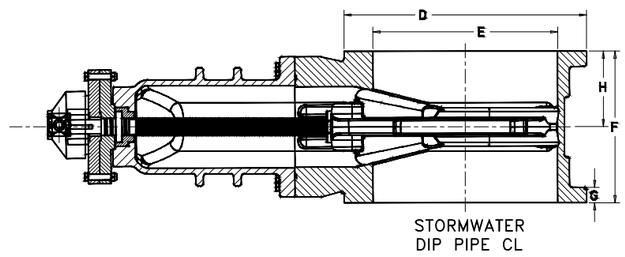


2/54 DETAIL: AIRCRAFT RATED MANHOLE AND RIM ADJUSTMENT
SCALE: N.T.S.



GATE VALVE NOTES:

1. SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS.
2. VALVE BOX ASSEMBLY IS TO BE PLUMB.
3. DIMENSIONS ARE NOMINAL.



SECTION A–A

VALVE SIZE	A	B	C	D	E	F	G	H	J	K
18	44.50	46.06	30.50	24.88	18.38	17.00	1.69	8.50	16-1.25	22.75
36	77.19	78.75	56.50	46.00	36.38	30.00	2.37	15.00	32-1.63	42.75

3/54 DETAIL: GATE VALVE
SCALE: N.T.S.

1

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DESIGN CT
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA
49th
Charles M. Tripp
CE – 9613
REGISTERED PROFESSIONAL ENGINEER
4/23/2024

BY	DATE	REVISIONS
CCM	4/23/2024	ADDENDUM 4 – REPLACED GATE VALVE DETAIL 1

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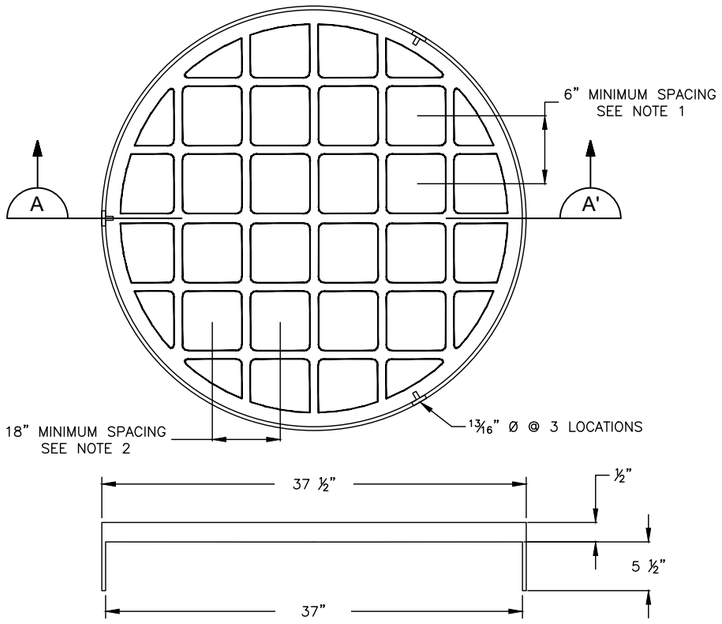
DRAINAGE DETAILS (1 OF 6)

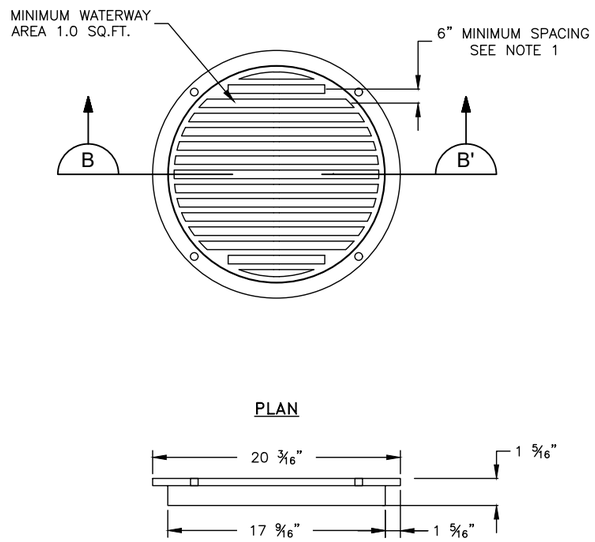
SHEET 54 OF 82



SECTION A–A'

TYPE A

OUTFALL GRATE, 36–INCH



PLAN

SECTION B–B'

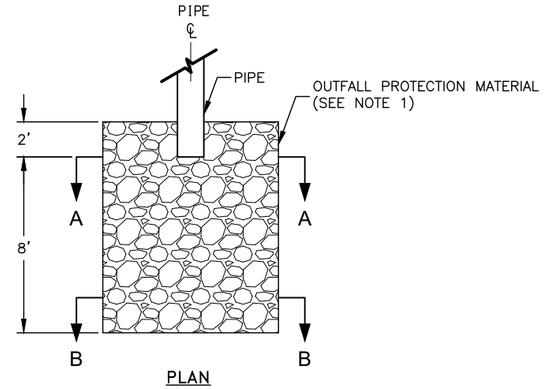
TYPE B

OUTFALL GRATE, 18–INCH

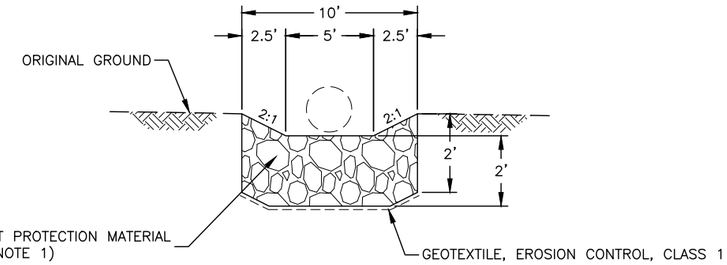
OUTLET GRATE NOTES:

1. THE GRATE SHALL BE COMPOSED OF 0.75–INCH DIAMETER RODS OR 0.5–INCH BARS SPACED NOT MORE THAN 6–INCHES ON CENTER, SET AND WELDED IN AN INTERNAL FRAME.
2. WHERE RODS OR BARS EXCEED 18–INCHES IN LENGTH, SUITABLE SPACER BARS WILL BE PROVIDED AT NOT MORE THAN 18–INCHES ON CENTER, WELDED AT ALL INTERSECTIONS.
3. THE GRATE WILL BE HINGED TO FACILITATE CLEANING AND PROVIDED WITH A LATCH AND PADLOCK.

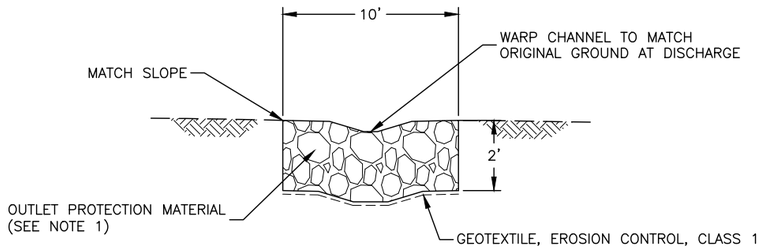
1/55 DETAIL: OUTFALL GRATE
SCALE: N.T.S.



PLAN



SECTION A–A



SECTION B–B

OUTLET PROTECTION NOTES:

1. PLACE OUTLET PROTECTION MATERIAL TO ENSURE CHANNEL SURFACE IS ROUGHENED.

2/55 DETAIL: OUTLET PROTECTION
SCALE: N.T.S.

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STATE OF ALASKA 49th Charles M. Tripp CE – 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

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KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
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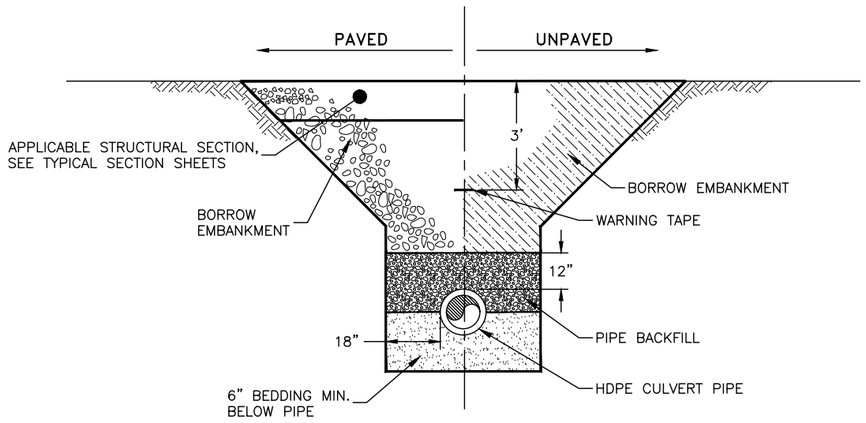
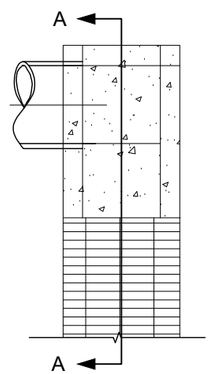
DRAINAGE DETAILS (2 OF 6)

SHEET 55 OF 82

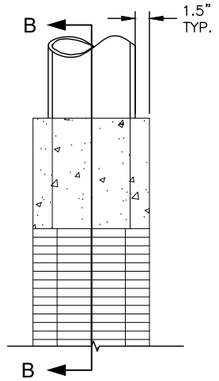


1/56 DETAIL: STORM PIPE BEDDING
SCALE: N.T.S.



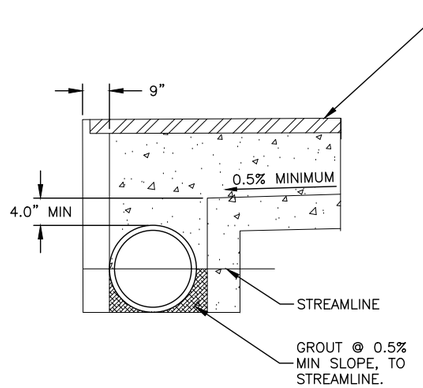
TRENCH TYPE A

PLAN



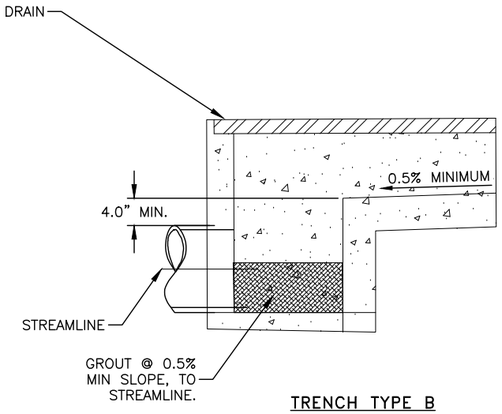
TRENCH TYPE B

PLAN



TRENCH TYPE A

SECTION A–A



TRENCH TYPE B

SECTION B–B

3/56 DETAIL: TRENCH DRAIN CATCH BASIN
SCALE: N.T.S.

2/56 DETAIL: TRENCH DRAIN TYPICAL SECTION
SCALE: N.T.S.

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DESIGN CT
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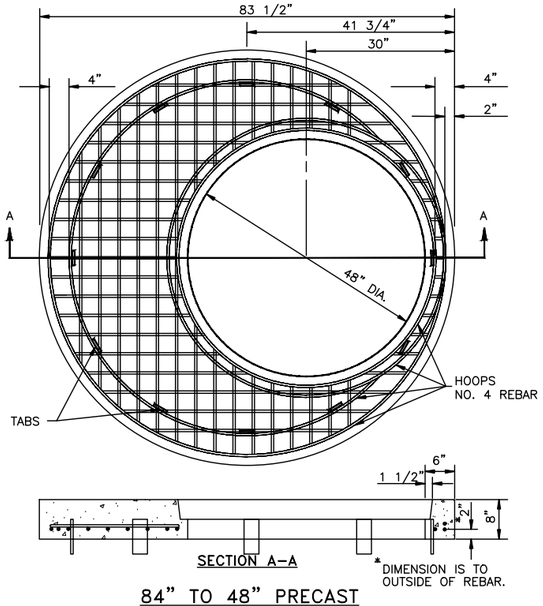
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

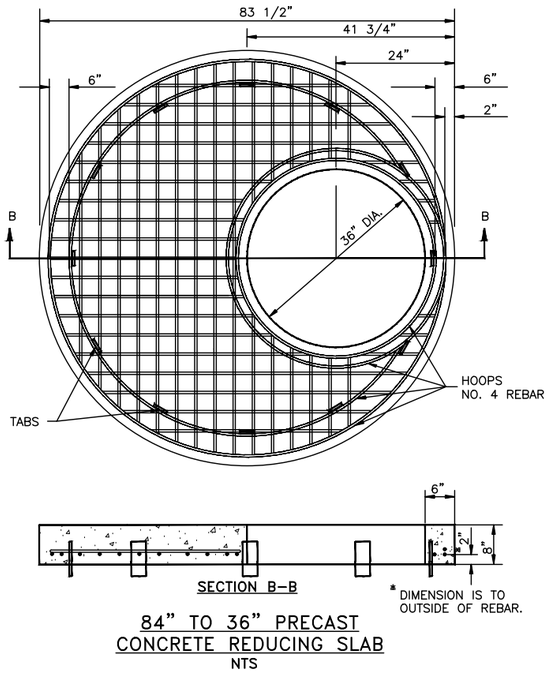
BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
DRAINAGE DETAILS (3 OF 6)

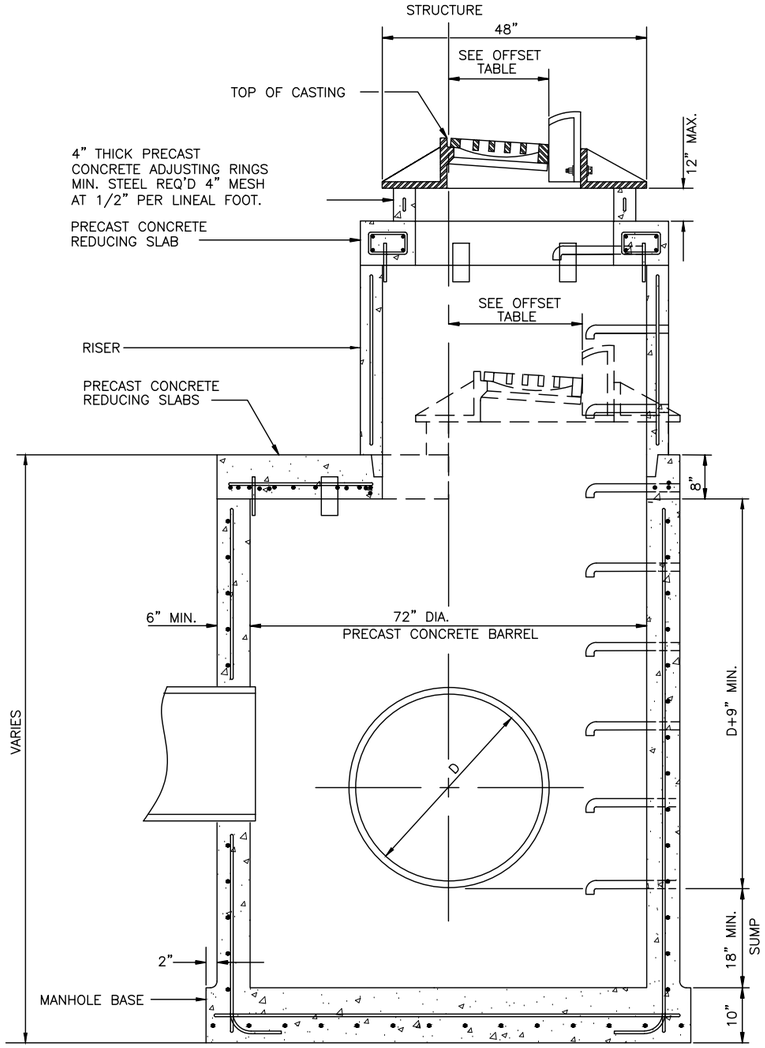
SHEET 56 OF 82



84" TO 48" PRECAST
CONCRETE REDUCING SLAB
NTS



84" TO 36" PRECAST
CONCRETE REDUCING SLAB
NTS



REDUCING SLAB NOTES

1. USE NO. 5 FOR ALL REBAR EXCEPT STIRRUPS AND HOOPS.
2. ALL REBAR SHALL BE SPACED AT 5" CENTERS UNLESS OTHERWISE NOTED.
3. MAINTAIN A MINIMUM OF 1 1/2" OF CONCRETE COVER OVER ALL REBAR.
4. TABS WILL BE 1/2"X3"X7" GALVANIZED STEEL PLATES. EVENLY SPACE 8 TABS AROUND EACH SLAB. INSERT TABS 4" INTO CONCRETE, 6 1/2" FROM OUTSIDE EDGE OF SLAB.

1/57 DETAIL: 72" STORM DRAIN MANHOLE TYPE II
SCALE: N.T.S.

GENERAL NOTES

1. ALL DRAINAGE STRUCTURES SHALL MEET THE REQUIREMENTS OF ASTM C-478.
2. ALL STORM DRAIN MANHOLES AND INLETS SHALL HAVE MINIMUM 18 INCH SUMPS. MANHOLES WITH PETROLEUM SEPARATORS SHALL HAVE 24 INCH MINIMUM SUMPS.
3. RUBBER GASKET JOINTS ARE SHOWN. GROUTED JOINTS OR "RAM NECK" TYPE GASKET JOINTS ARE ACCEPTABLE ALTERNATIVES.
4. MINIMUM CLEARANCE BETWEEN MANHOLE JOINT AND WALL PENETRATION OR BETWEEN TWO WALL PENETRATIONS SHALL BE 12 INCHES.
5. ALL PENETRATIONS AND BLOCKOUTS SHALL BE FORMED.
6. HOLE IN ECCENTRIC REDUCING SLAB IS TO BE 48 INCHES WHEN ADDITIONAL MANHOLE SECTIONS ARE REQUIRED. ABOVE HOLE SHALL BE 36 INCHES WHEN GRADE RING AND CASTING SIT DIRECTLY ON SLAB.
7. STEPS SHALL BE PLACED 12 INCHES O.C. ON THE UNOBSTRUCTED SIDE OF THE STRUCTURE, 19 INCHES FROM TOP OF CASTING AND 18 INCHES MAXIMUM FROM MANHOLE BASE.
8. OFFSETS ARE MEASURED FROM ℄ OF THE ROAD TO ℄ OF THE STRUCTURE.
9. MAINTAIN 12" OF SEPARATION BETWEEN CULVERT ENDS WITHIN THE MANHOLE.
10. CAST IN PLACE STRUCTURES MAY BE USED AS APPROVED BY THE ENGINEER.

TYPE II MANHOLES:

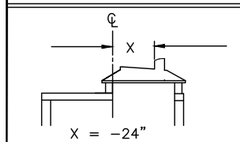
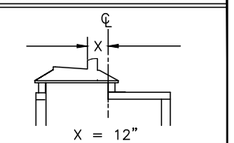
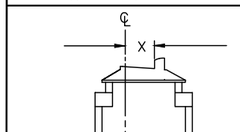
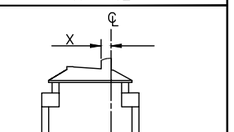
1. MINIMUM STEEL REQUIRED FOR BARREL AS PER ASTM C-478 SHALL BE EMBEDDED IN BASE SO THAT THE FIRST BARREL SECTION IS CONNECTED TO THE BASE BY CONTINUOUS STEEL.
2. PRIMARY PIPES NOT TO EXCEED 42" CMP OR 36" REINFORCED CONCRETE PIPE WITH INCLUDED ANGLE BETWEEN PIPES NO LESS THAN 135° OR PRIMARY PIPES NOT TO EXCEED 36" CMP OR 30" REINFORCED CONCRETE PIPE WITH INCLUDED ANGLE NO LESS THAN 135°.

TYPE III MANHOLES:

1. CIRCUMFERENTIAL WALL REINFORCING SHALL BE DOUBLE OR SINGLE CIRCULAR CAGE WITH TOTAL OF 0.40 SQUARE INCH PER FOOT BOTH WAYS SPACED AS PER A.S.T.M. C-478.
2. ADDITIONAL WALL REINFORCEMENT IS REQUIRED AT ALL JOINTS. A CIRCULAR CAGE 12 INCHES WIDE AND CENTERED AS SHOWN AND HAVE A TOTAL AREA OF 0.20 SQUARE INCHES PER FOOT BOTH WAYS.
3. REINFORCEMENT FOR TOP OF ECCENTRIC REDUCING SLAB SHALL BE WELDED WIRE MESH WITH MINIMUM AREA OF 0.12 SQUARE INCH PER FOOT BOTH WAYS.

TYPE II OFFSET TABLE

DISTANCE TO ℄ OF STRUCTURE FROM FACE OF CURB IS:

STRUCTURE UNDER ROADWAY A	STRUCTURE OUT OF ROADWAY B	
 X = -24"	 X = 12"	WITHOUT RISER. PIPE COVER * < 75".
 X = -18"	 X = 16"	WITH RISER. PIPE COVER * > 75".

* ASSUMING A 6" GRADE RING AND A 3 FOOT RISER.

TYPE II MANHOLE OFFSETS ARE CALCULATED ASSUMING THE MINIMUM RISER HEIGHT IS 3 FEET

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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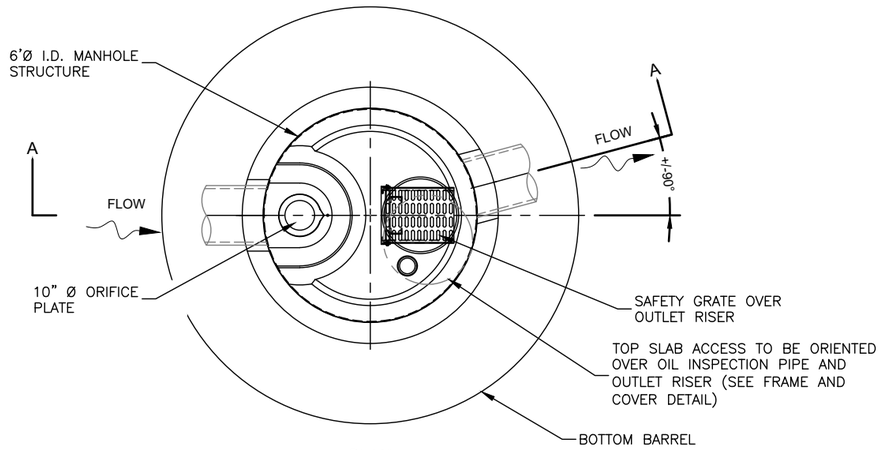
DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

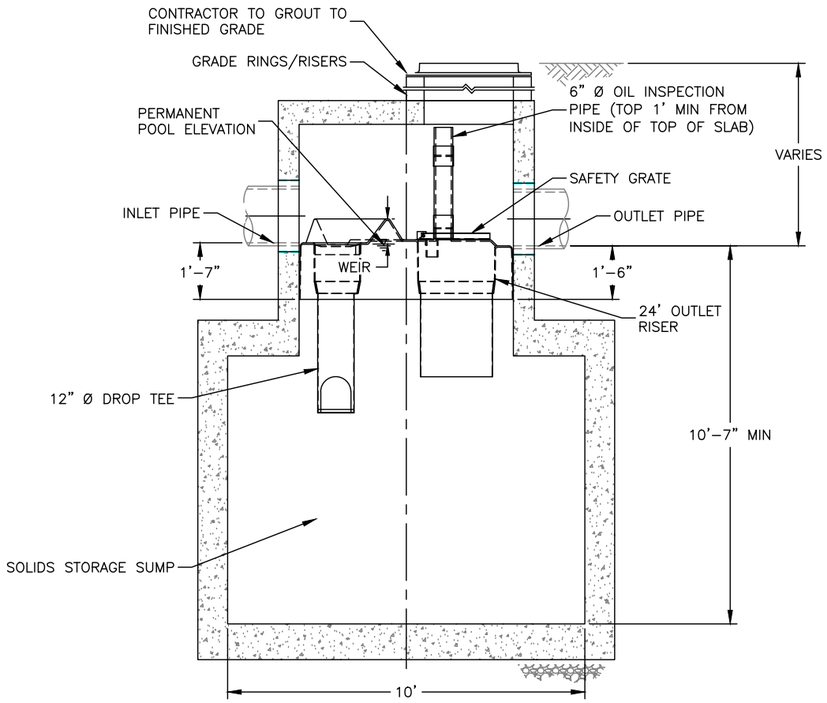
BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
DRAINAGE DETAILS (4 OF 6)

SHEET 57 OF 82

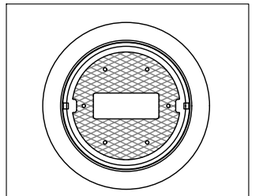


PLAN
TOP OF SLAB NOT SHOWN



SECTION A-A

1/58 DETAIL: OIL WATER SEPARATOR 900 GAL
SCALE: N.T.S.



FRAME AND COVER
(MAY VARY)
SCALE: N.T.S.

INSTALLATION NOTES:

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE OIL WATER SEPARATOR STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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DESIGN CT
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CHECKED CM

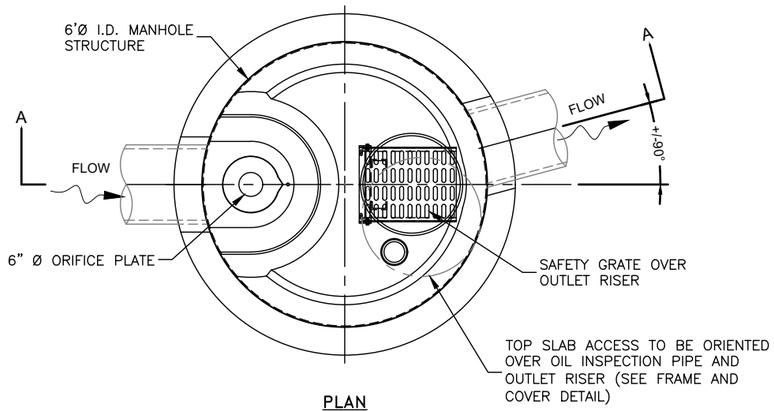
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA
49th
Charles M. Tripp
CE - 9613
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

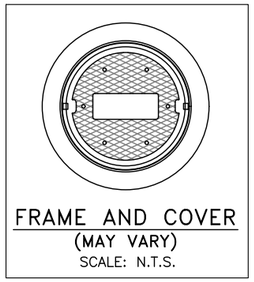
BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
DRAINAGE DETAILS (5 OF 6)

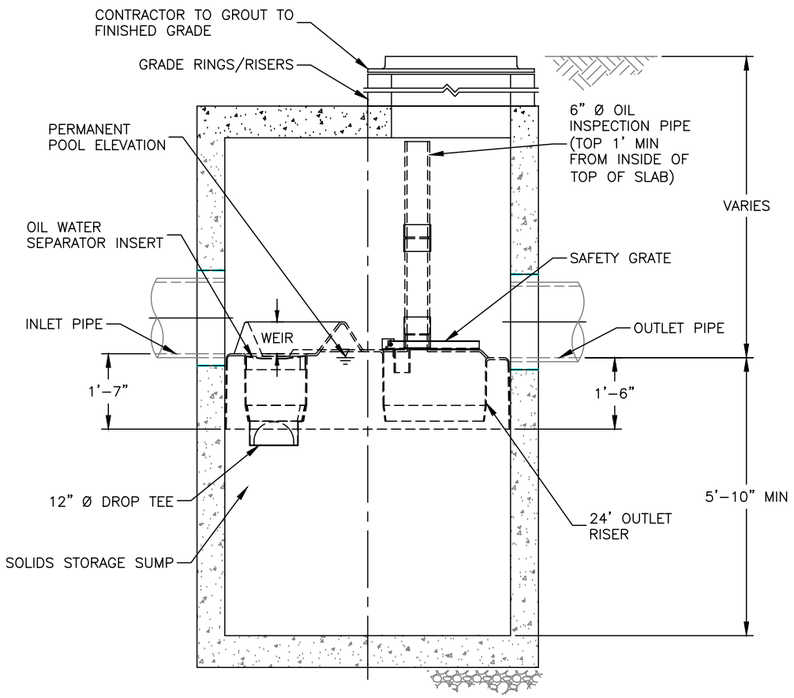
SHEET 58 OF 82



PLAN
TOP OF SLAB NOT SHOWN



FRAME AND COVER
(MAY VARY)
SCALE: N.T.S.



SECTION A-A

1/59 DETAIL: OIL WATER SEPARATOR 250 GAL
SCALE: N.T.S.

INSTALLATION NOTES:

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE OIL WATER SEPARATOR STRUCTURE.

C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.

D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.

E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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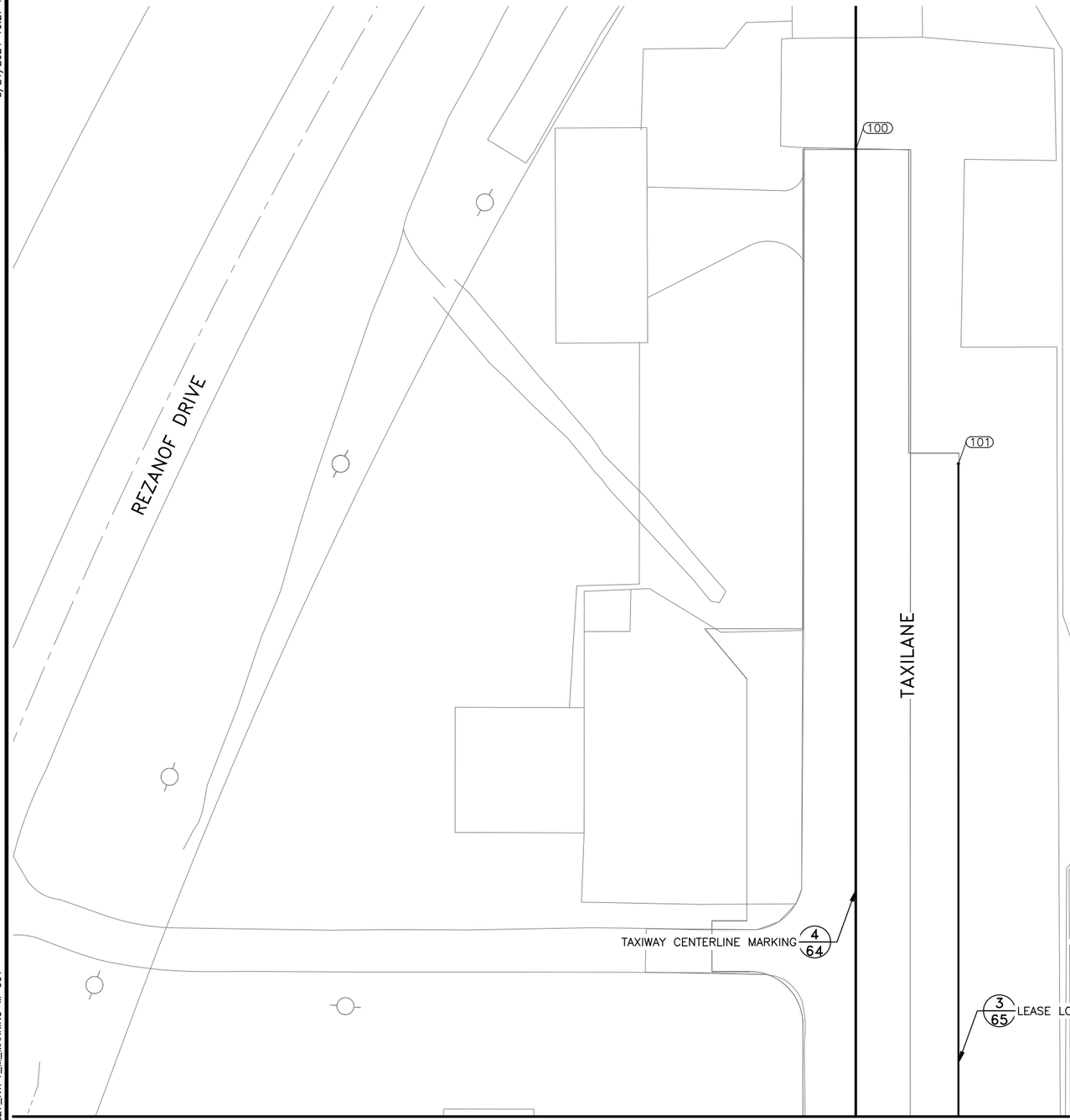
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9673 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

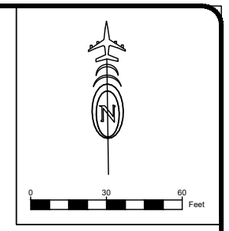
KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
DRAINAGE DETAILS (6 OF 6)

SHEET 59 OF 82



MARKING LAYOUT

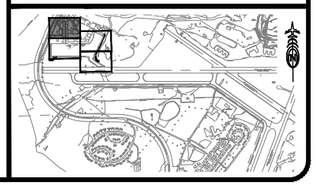
POINT	STATION	OFFSET	REMARKS
100	APRON TAXILANE 1007+00.04	0.00	TAXIWAY CENTERLINE MARKING
101	APRON TAXILANE 1005+51.49	48.47 R	LEASE LOT BOUNDARY MARKING



NOTES:

1. PLAN AND PROFILE SHEETS INCLUDE PROPOSED GEOMETRY FOR NEW PAVEMENT LIMITS WHICH COINCIDE WITH AIRFIELD MARKING WORK TO BE PERFORMED ON THE PROJECT.
2. REFERENCE POINTS ARE BASED ON TAXILANE CENTERLINE.
3. PAINT ALL MARKING IN ACCORDANCE WITH CURRENT AC 150/5340-1 STANDARDS FOR AIRPORT MARKINGS.
4. SIDA LINE MAY CHANGE FROM THE LOCATIONS DEPICTED IN THE PLANS. CONTRACTOR SHALL CONTACT AIRPORT MANAGER, THROUGH THE ENGINEER, TO SUBMIT A CHANGE CONDITION BEFORE THE CURRENT SIDA LINE CAN CHANGE AND NO WORK CAN CONTINUE UNTIL TSA APPROVAL.

KEY PLAN



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

MARKING PLAN (1 OF 4)

SHEET 60 OF 82

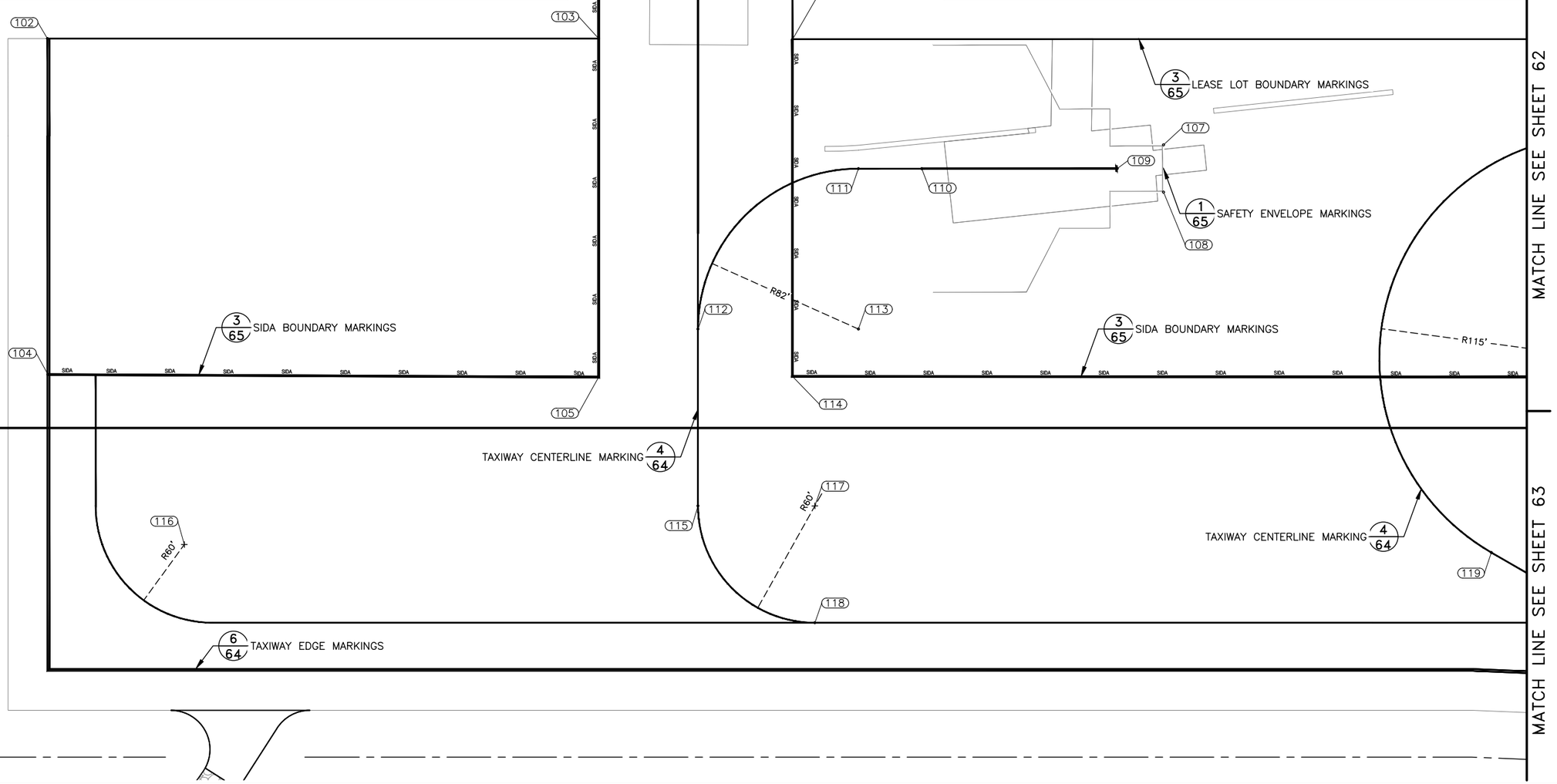
MATCH LINE SEE SHEET 60

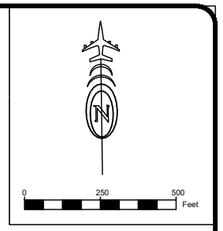
MARKING LAYOUT

POINT	STATION	OFFSET	REMARKS
102	APRON CL 507+22.25	200.00 L	SIDA BOUNDARY MARKING
103	APRON CL 510+05.25	200.00 L	TAXIWAY EDGE MARKING
104	APRON CL 507+22.50	27.47 L	SIDA BOUNDARY MARKING
105	APRON CL 510+05.25	26.13 L	SIDA BOUNDARY MARKING
106	APRON CL 511+04.75	199.51 L	SIDA BOUNDARY MARKING
107	APRON CL 512+95.32	145.41 L	SAFETY ENVELOPE MARKING
108	APRON CL 512+95.33	121.08 L	SAFETY ENVELOPE MARKING
109	APRON CL 512+71.57	133.24 L	STOP MARK
110	APRON CL 511+71.16	133.21 L	STOP MARK

MARKING LAYOUT

POINT	STATION	OFFSET	REMARKS
111	APRON CL 511+38.65	133.20 L	TAXIWAY CENTERLINE PT
112	APRON CL 510+56.28	50.81 L	TAXIWAY CENTERLINE MARKING
113	APRON CL 511+38.67	50.81 L	RADIUS CENTERPOINT
114	APRON CL 511+04.75	26.53 L	SIDA BOUNDARY MARKING
115	APRON CL 510+56.28	40.01 R	TAXIWAY CENTERLINE PT
116	APRON CL 507+92.55	59.83 R	TAXIWAY CENTERLINE PC
117	APRON CL 511+16.28	40.01 R	RADIUS CENTERPOINT
118	APRON CL 511+16.28	100.00 R	TAXIWAY CENTERLINE PT
119	APRON CL 514+63.60	63.93 R	TAXIWAY CENTERLINE PC

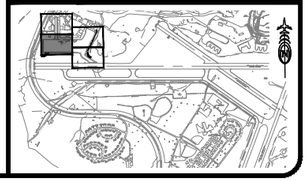




NOTES:

1. PLAN AND PROFILE SHEETS INCLUDE PROPOSED GEOMETRY FOR NEW PAVEMENT LIMITS WHICH COINCIDE WITH AIRFIELD MARKING WORK TO BE PERFORMED ON THE PROJECT.
2. REFERENCE POINTS ARE BASED ON APRON CENTERLINE.
3. PAINT ALL MARKING IN ACCORDANCE WITH CURRENT AC 150/5340-1 STANDARDS FOR AIRPORT MARKINGS.
4. SIDA LINE MAY CHANGE FROM THE LOCATIONS DEPICTED IN THE PLANS. CONTRACTOR SHALL CONTACT AIRPORT MANAGER, THROUGH THE ENGINEER, TO SUBMIT A CHANGE CONDITION BEFORE THE CURRENT SIDA LINE CAN CHANGE AND NO WORK CAN CONTINUE UNTIL TSA APPROVAL. ALLOW 6-8 WEEKS FOR TSA APPROVAL.

KEY PLAN



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA
49th
Charles M. Tripp
CE - 9673
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

MARKING PLAN (2 OF 4)

SHEET 61 OF 82

PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AECC569
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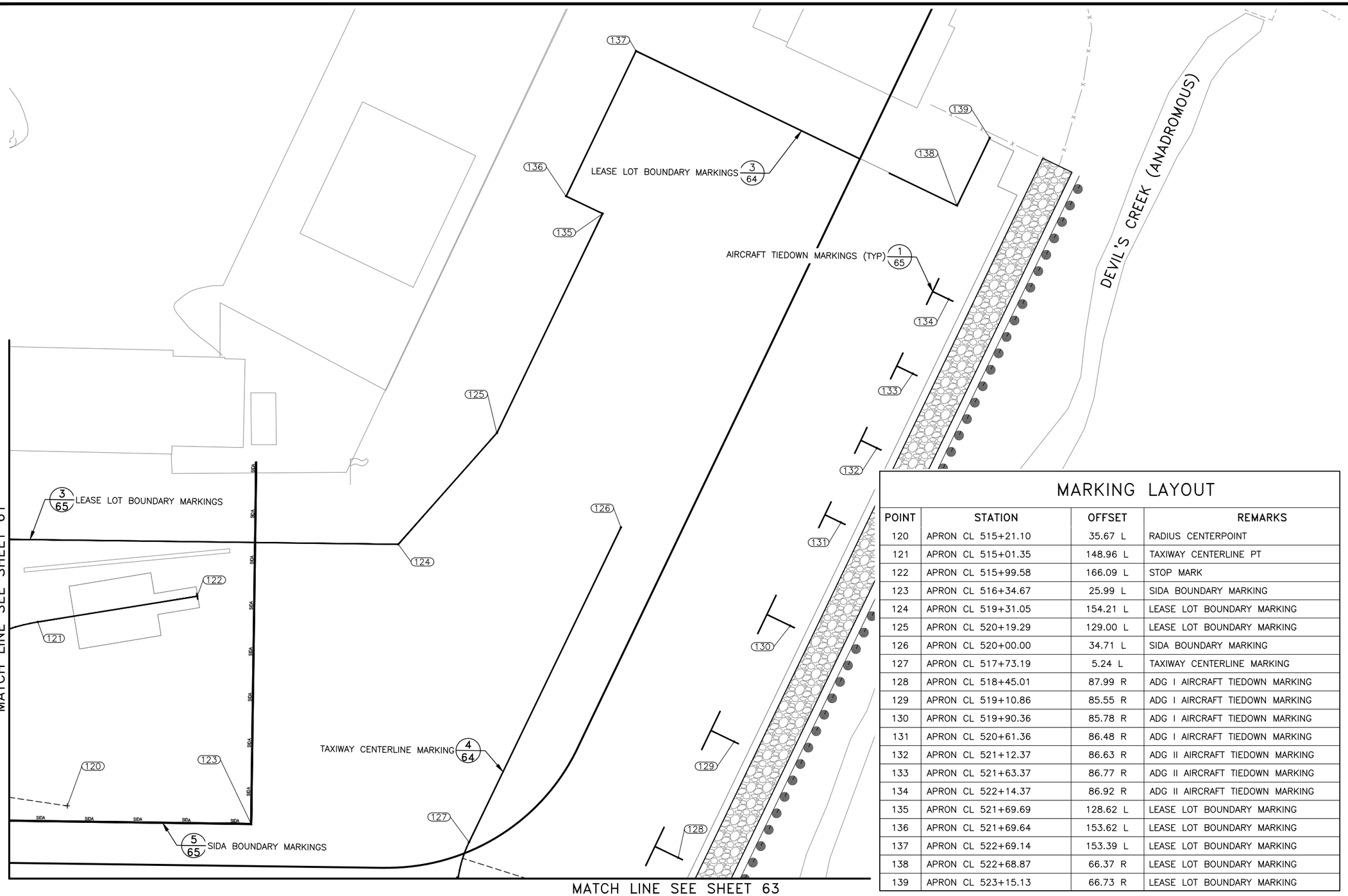
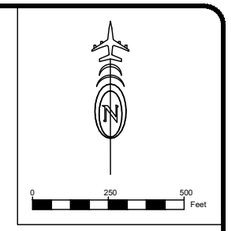




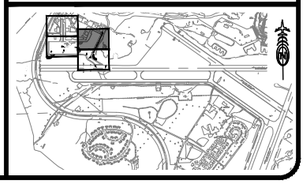
NOTES:

1. PLAN AND PROFILE SHEETS INCLUDE PROPOSED GEOMETRY FOR NEW PAVEMENT LIMITS WHICH COINCIDE WITH AIRFIELD MARKING WORK TO BE PERFORMED ON THE PROJECT.
2. REFERENCE POINTS ARE BASED ON APRON CENTERLINE.
3. PAINT ALL MARKING IN ACCORDANCE WITH CURRENT AC 150/5340-1 STANDARDS FOR AIRPORT MARKINGS.
4. SIDA LINE MAY CHANGE FROM THE LOCATIONS DEPICTED IN THE PLANS. CONTRACTOR SHALL CONTACT AIRPORT MANAGER, THROUGH THE ENGINEER, TO SUBMIT A CHANGE CONDITION BEFORE THE CURRENT SIDA LINE CAN CHANGE AND NO WORK CAN CONTINUE UNTIL TSA APPROVAL.

MARKING LAYOUT

POINT	STATION	OFFSET	REMARKS
120	APRON CL 515+21.10	35.67 L	RADIUS CENTERPOINT
121	APRON CL 515+01.35	148.96 L	TAXIWAY CENTERLINE PT
122	APRON CL 515+99.58	166.09 L	STOP MARK
123	APRON CL 516+34.67	25.99 L	SIDA BOUNDARY MARKING
124	APRON CL 519+31.05	154.21 L	LEASE LOT BOUNDARY MARKING
125	APRON CL 520+19.29	129.00 L	LEASE LOT BOUNDARY MARKING
126	APRON CL 520+00.00	34.71 L	SIDA BOUNDARY MARKING
127	APRON CL 517+73.19	5.24 L	TAXIWAY CENTERLINE MARKING
128	APRON CL 518+45.01	87.99 R	ADG I AIRCRAFT TIEDOWN MARKING
129	APRON CL 519+10.86	85.55 R	ADG I AIRCRAFT TIEDOWN MARKING
130	APRON CL 519+90.36	85.78 R	ADG I AIRCRAFT TIEDOWN MARKING
131	APRON CL 520+61.36	86.48 R	ADG I AIRCRAFT TIEDOWN MARKING
132	APRON CL 521+12.37	86.63 R	ADG II AIRCRAFT TIEDOWN MARKING
133	APRON CL 521+63.37	86.77 R	ADG II AIRCRAFT TIEDOWN MARKING
134	APRON CL 522+14.37	86.92 R	ADG II AIRCRAFT TIEDOWN MARKING
135	APRON CL 521+69.69	128.62 L	LEASE LOT BOUNDARY MARKING
136	APRON CL 521+69.64	153.62 L	LEASE LOT BOUNDARY MARKING
137	APRON CL 522+69.14	153.39 L	LEASE LOT BOUNDARY MARKING
138	APRON CL 522+68.87	66.37 R	LEASE LOT BOUNDARY MARKING
139	APRON CL 523+15.13	66.73 R	LEASE LOT BOUNDARY MARKING

KEY PLAN



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th
Charles M. Tripp
CE - 9613
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

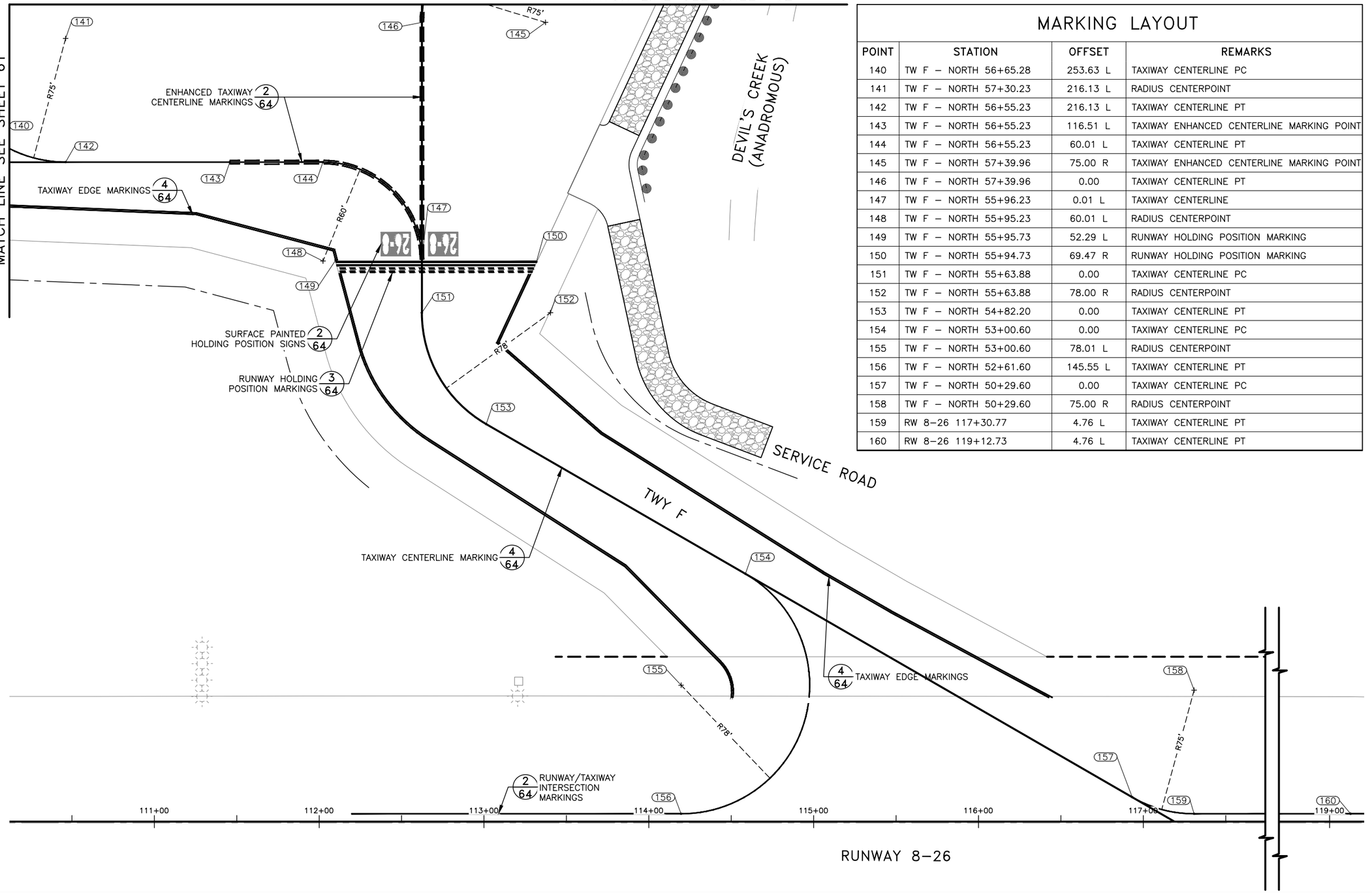
BY	DATE	REVISIONS

KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

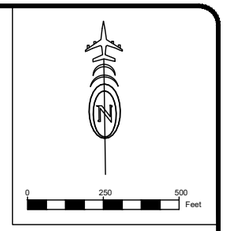
MARKING PLAN (3 OF 4)

SHEET 62 OF 82



MARKING LAYOUT

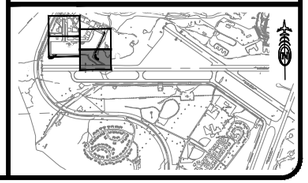
POINT	STATION	OFFSET	REMARKS
140	TW F – NORTH 56+65.28	253.63 L	TAXIWAY CENTERLINE PC
141	TW F – NORTH 57+30.23	216.13 L	RADIUS CENTERPOINT
142	TW F – NORTH 56+55.23	216.13 L	TAXIWAY CENTERLINE PT
143	TW F – NORTH 56+55.23	116.51 L	TAXIWAY ENHANCED CENTERLINE MARKING POINT
144	TW F – NORTH 56+55.23	60.01 L	TAXIWAY CENTERLINE PT
145	TW F – NORTH 57+39.96	75.00 R	TAXIWAY ENHANCED CENTERLINE MARKING POINT
146	TW F – NORTH 57+39.96	0.00	TAXIWAY CENTERLINE PT
147	TW F – NORTH 55+96.23	0.01 L	TAXIWAY CENTERLINE
148	TW F – NORTH 55+95.23	60.01 L	RADIUS CENTERPOINT
149	TW F – NORTH 55+95.73	52.29 L	RUNWAY HOLDING POSITION MARKING
150	TW F – NORTH 55+94.73	69.47 R	RUNWAY HOLDING POSITION MARKING
151	TW F – NORTH 55+63.88	0.00	TAXIWAY CENTERLINE PC
152	TW F – NORTH 55+63.88	78.00 R	RADIUS CENTERPOINT
153	TW F – NORTH 54+82.20	0.00	TAXIWAY CENTERLINE PT
154	TW F – NORTH 53+00.60	0.00	TAXIWAY CENTERLINE PC
155	TW F – NORTH 53+00.60	78.01 L	RADIUS CENTERPOINT
156	TW F – NORTH 52+61.60	145.55 L	TAXIWAY CENTERLINE PT
157	TW F – NORTH 50+29.60	0.00	TAXIWAY CENTERLINE PC
158	TW F – NORTH 50+29.60	75.00 R	RADIUS CENTERPOINT
159	RW 8–26 117+30.77	4.76 L	TAXIWAY CENTERLINE PT
160	RW 8–26 119+12.73	4.76 L	TAXIWAY CENTERLINE PT



NOTES:

1. PLAN AND PROFILE SHEETS INCLUDE PROPOSED GEOMETRY FOR NEW PAVEMENT LIMITS WHICH COINCIDE WITH AIRFIELD MARKING WORK TO BE PERFORMED ON THE PROJECT.
2. REFERENCE POINTS 140–158 ARE BASED ON TAXIWAY F NORTH CENTERLINE.
3. REFERENCE POINTS 159 AND 160 ARE BASED ON RUNWAY 8–26 CENTERLINE.
4. PAINT ALL MARKING IN ACCORDANCE WITH CURRENT AC 150/5340–1 STANDARDS FOR AIRPORT MARKINGS.
5. SIDA LINE MAY CHANGE FROM THE LOCATIONS DEPICTED IN THE PLANS. CONTRACTOR SHALL CONTACT AIRPORT MANAGER, THROUGH THE ENGINEER, TO SUBMIT A CHANGE CONDITION BEFORE THE CURRENT SIDA LINE CAN CHANGE AND NO WORK CAN CONTINUE UNTIL TSA APPROVAL.

KEY PLAN



DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE – 9673 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

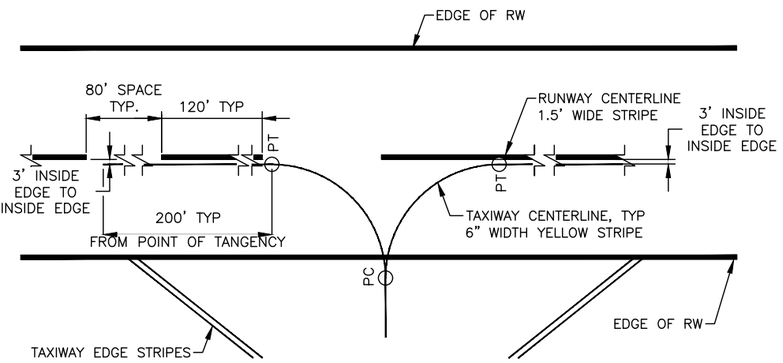
BY	DATE	REVISIONS

KODIAK AIRPORT

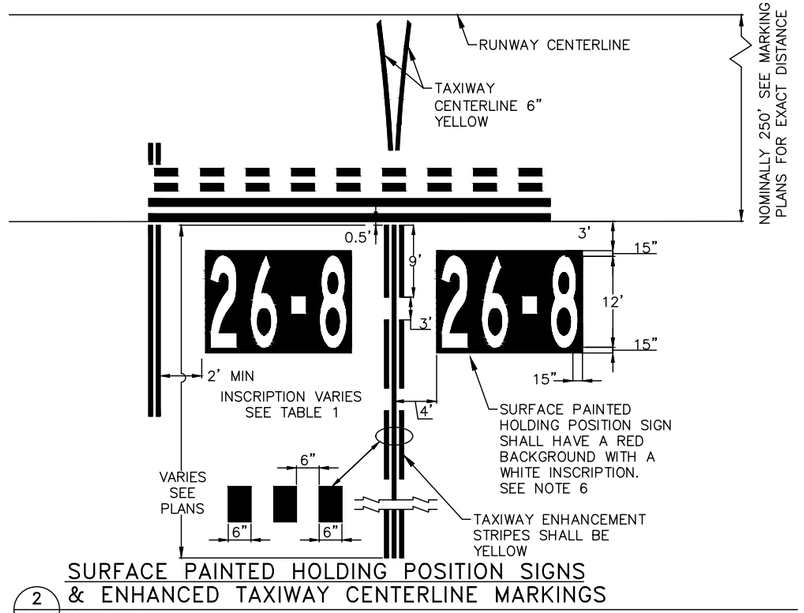
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3–02–0158–024–2024/SFAPT00227

MARKING PLAN (4 OF 4)

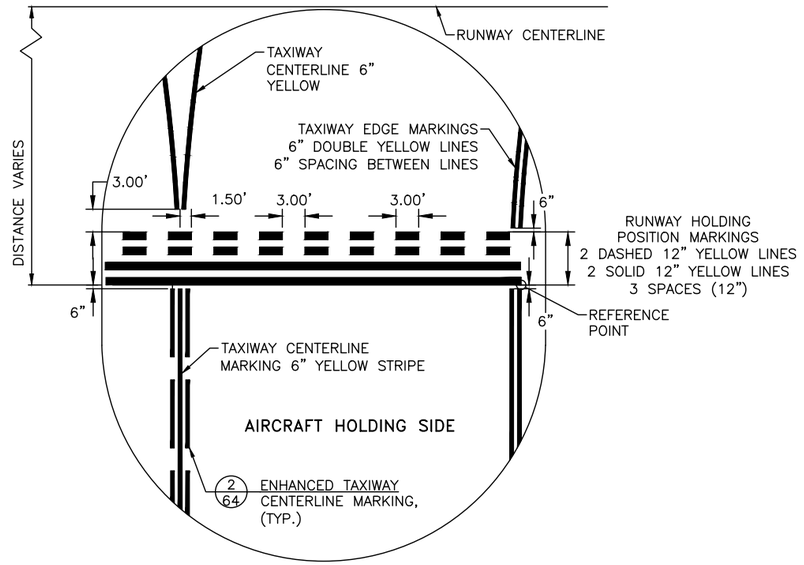
SHEET 63 OF 82



1/64 RUNWAY/TAXIWAY INTERSECTION MARKINGS
SCALE: N.T.S.



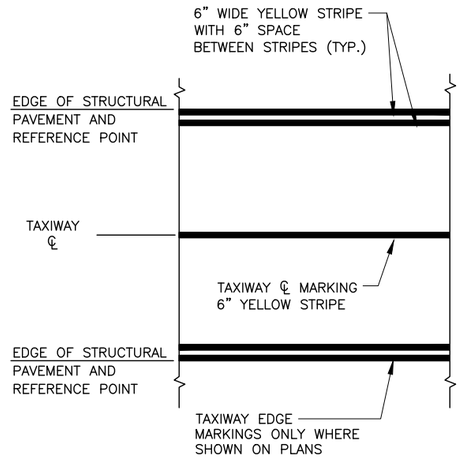
2/64 SURFACE PAINTED HOLDING POSITION SIGNS & ENHANCED TAXIWAY CENTERLINE MARKINGS
SCALE: N.T.S.



3/64 RUNWAY HOLDING POSITION, TAXIWAY CENTERLINE & TAXIWAY EDGE MARKING
SCALE: N.T.S.

NOTES:

1. PROVIDE REFLECTIVE MEDIA (GLASS BEADS) WITH ALL PERMANENT MARKINGS.
2. THE 200' TAXIWAY STRIPE ON THE RUNWAY SHALL BE LIMITED TO THE EXTENDS OF AVAILABLE ASPHALT PAVEMENT.
3. IF ANY TAXIWAY MARKINGS CROSS A RUNWAY MARKING, BREAK THE CENTER LINE MARKING TO MAINTAIN A 6" CLEAR SPACE BETWEEN MARKINGS.
4. ALL TAXIWAY MARKINGS ARE YELLOW.
5. ALL RUNWAY MARKINGS ARE WHITE.
6. SURFACE PAINTED HOLDING POSITION SIGNS: ALL NUMERALS AND CHARACTERS ARE HORIZONTALLY SPACED 15 INCHES APART.



4/64 TAXIWAY MARKINGS
SCALE: N.T.S.

PLANS DEVELOPED BY: HDR ENGINEERING INC. 582 E. 36TH AVENUE SUITE 500. ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th
Charles M. Tripp
CE - 9613
REGISTERED PROFESSIONAL ENGINEER
4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
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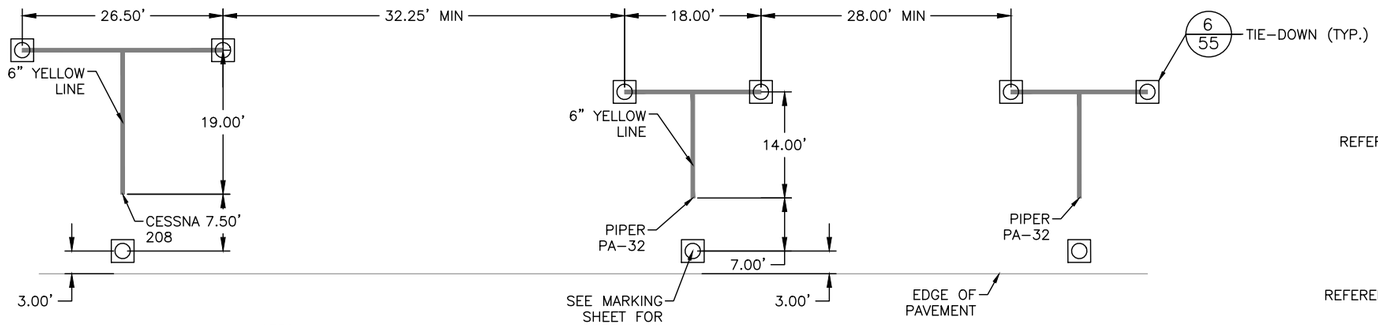
MARKING DETAILS (1 OF 2)

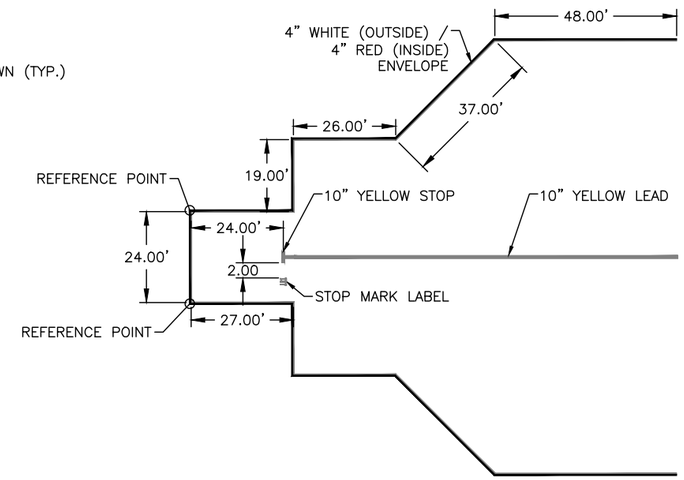
SHEET 64 OF 82



NOTES:

1. TIE-DOWN MARKINGS ARE YELLOW.
2. CESSNA 208 TIEDOWN SPACING = 36.50'
3. PIPER PA-32 TIEDOWN SPACING = 28.00'

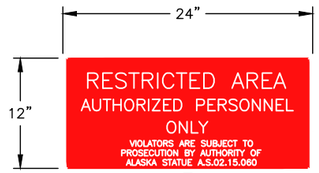
1/65 AIRCRAFT TIEDOWN MARKINGS
SCALE: N.T.S.



STOP MARK LABELS:

1. STOP MARK LABEL INSCRIPTIONS ARE 10" TALL YELLOW LABEL.
2. CONTRACTOR TO PROCURE STENCILS FOR USE ON THIS PROJECT. AT COMPLETION OF THE PROJECT, CONTRACTOR WILL TURN THE STENCILS OVER TO THE AIRPORT.

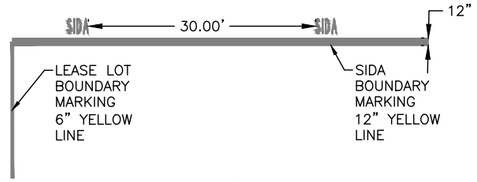
2/65 SAFETY ENVELOPE MARKINGS
SCALE: N.T.S.



RESTRICTED AREA SIGN NOTES:

1. INSTALL ON FENCE, 6' ABOVE GROUND TO TOP OF SIGN.
2. SECURE TO FENCE VIA 6 X 3/16" HOLES 1.5" FROM EDGE WITH HOG RINGS.

4/65 RESTRICTED AREA SIGN DETAIL
SCALE: N.T.S.



SIDA MARK LABELS:

1. SIDA MARK LABEL INSCRIPTIONS ARE 2' TALL YELLOW LABEL.
2. CONTRACTOR TO PROCURE STENCILS FOR USE ON THIS PROJECT. AT COMPLETION OF THE PROJECT, CONTRACTOR WILL TURN THE STENCILS OVER TO THE AIRPORT.

5/65 SIDA AND LEASE LOT BOUNDARY MARKINGS
SCALE: N.T.S.

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

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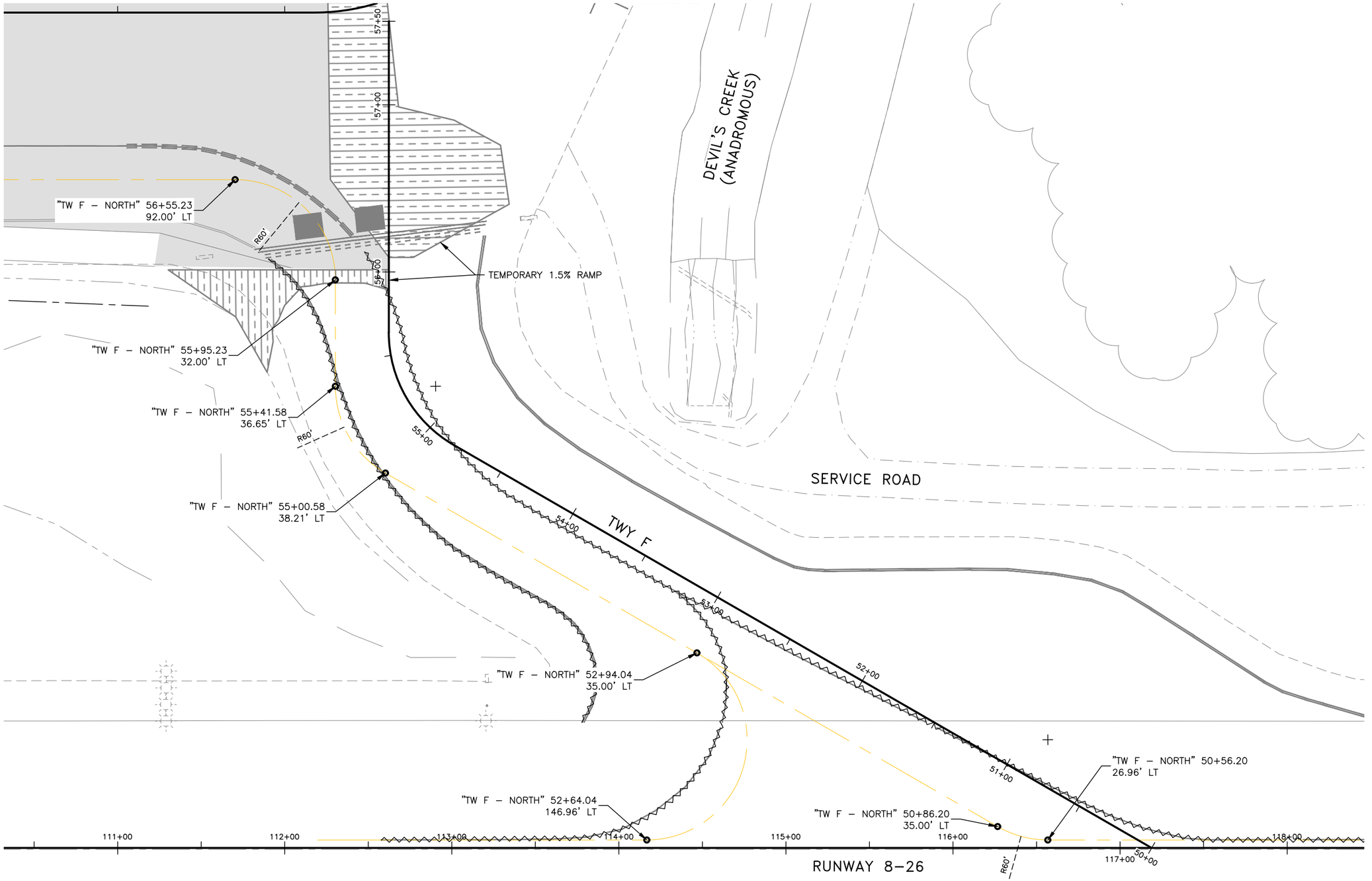
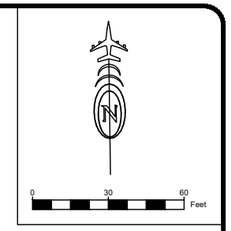
KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
MARKING DETAILS (2 OF 2)

SHEET 65 OF 82

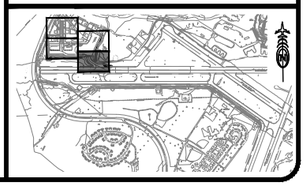




LEGEND:

- TEMPORARY CENTERLINE
- CENTERLINE DEMO
- TEMPORARY 1.5% RAMP

KEY PLAN



DESIGN CT

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CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9673 REGISTERED PROFESSIONAL ENGINEER
4/2/2024

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KODIAK AIRPORT

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TWY F RECONSTRUCTION
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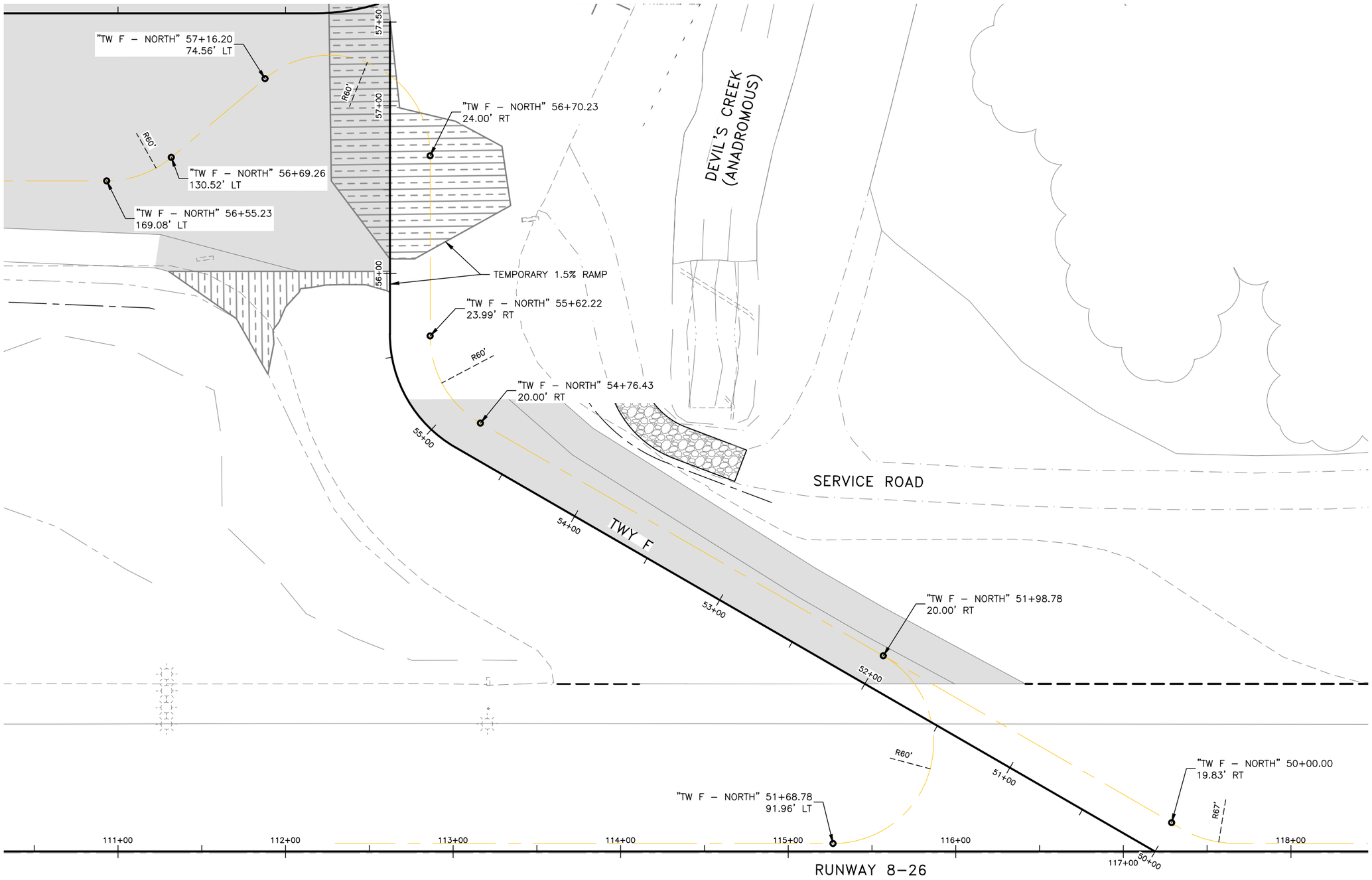
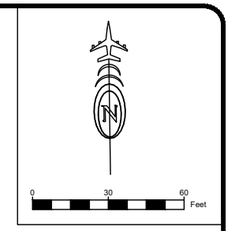
TEMPORARY MARKING PLAN–PHASE 4

SHEET 66 OF 82

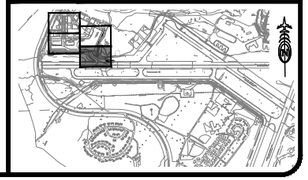




LEGEND:

- TEMPORARY CENTERLINE
- CENTERLINE DEMO
- TEMPORARY 1.5% RAMP

KEY PLAN



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DESIGN CT
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA
49th
Charles M. Tripp
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KODIAK AIRPORT

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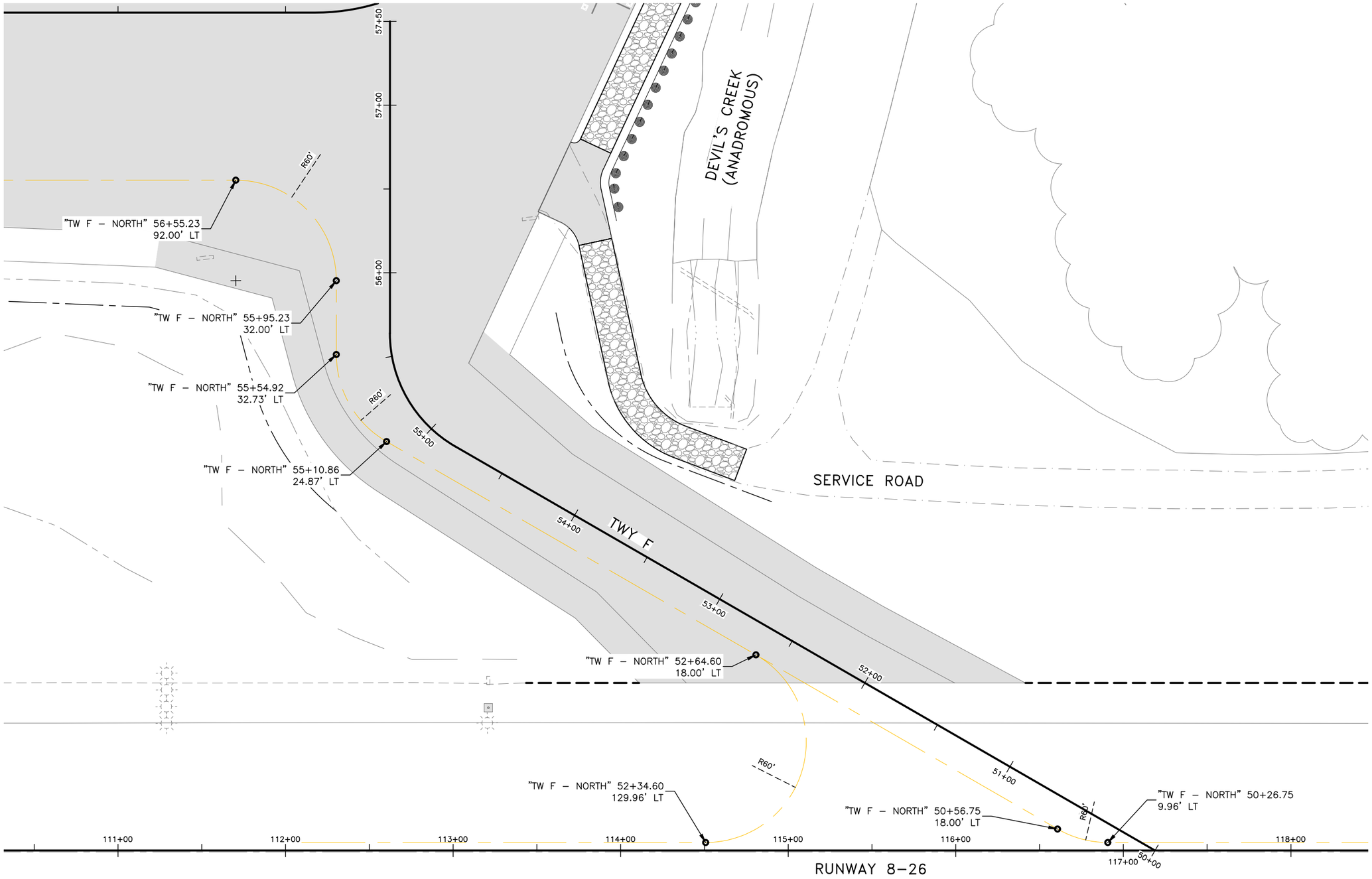
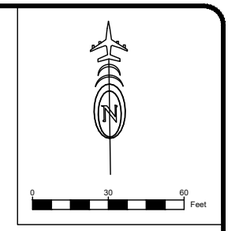
TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227

TEMPORARY MARKING PLAN–PHASE 5

SHEET 67 OF 82



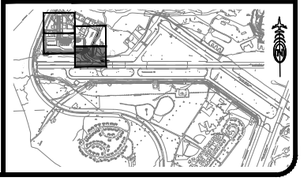


LEGEND:

TEMPORARY CENTERLINE

CENTERLINE DEMO

KEY PLAN



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

BY	DATE	REVISIONS

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KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
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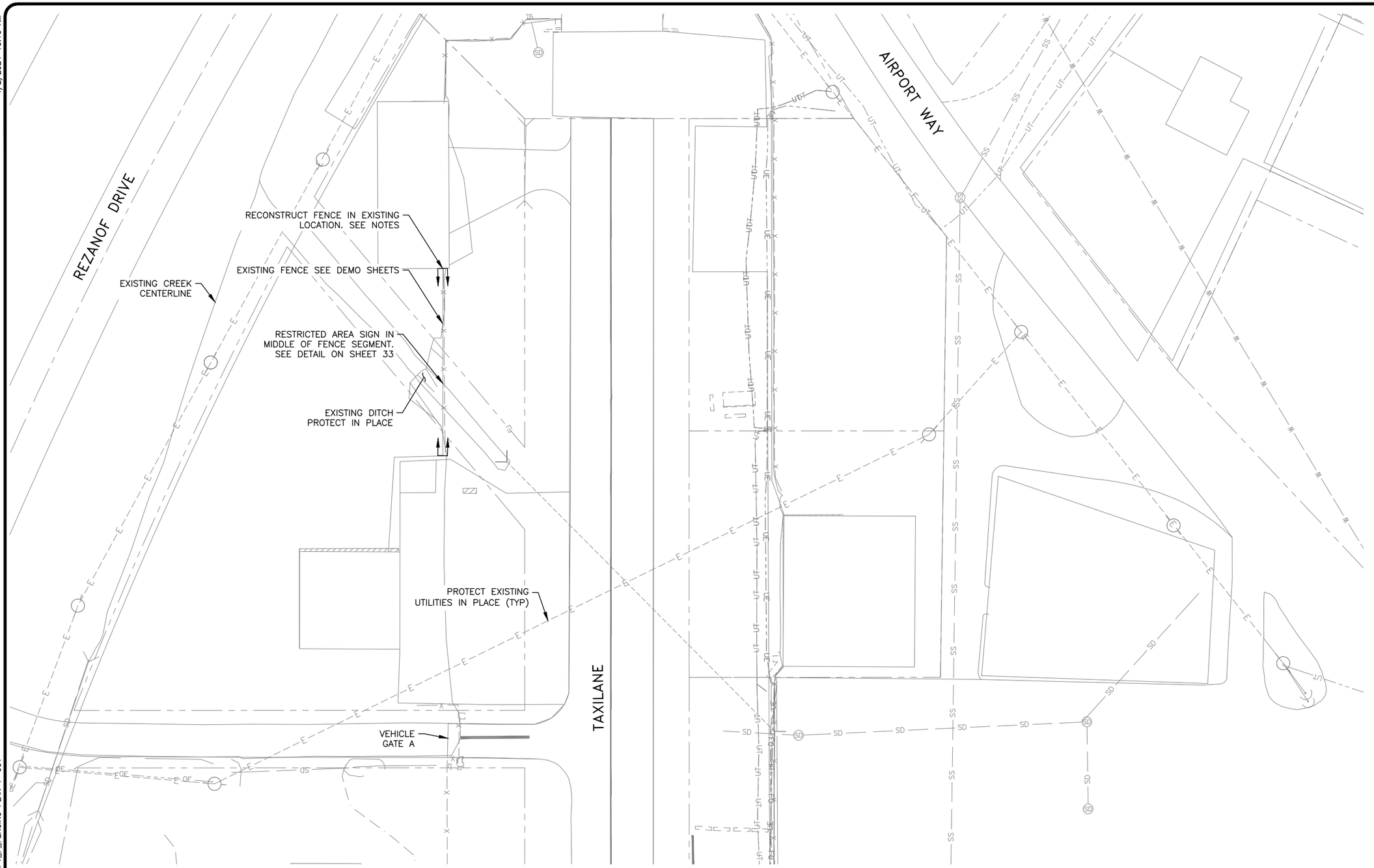
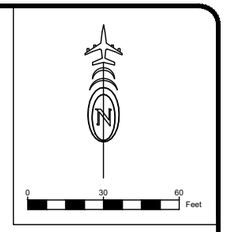
TEMPORARY MARKING PLAN–PHASE 6

SHEET 68 OF 82

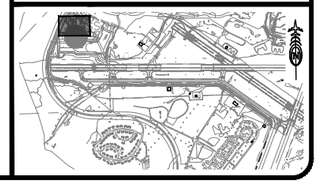




NOTES:

1. RECONSTRUCT FENCE WITHIN 5 DAYS OF COMPLETION OF STORM DRAINAGE AT THIS LOCATION.
2. PREVENT UNAUTHORIZED ACCESS IN ACCORDANCE WITH CSPP 5(b)(vi)(!) "FENCES AND GATES".

KEY PLAN



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49th
Charles M. Tripp
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KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
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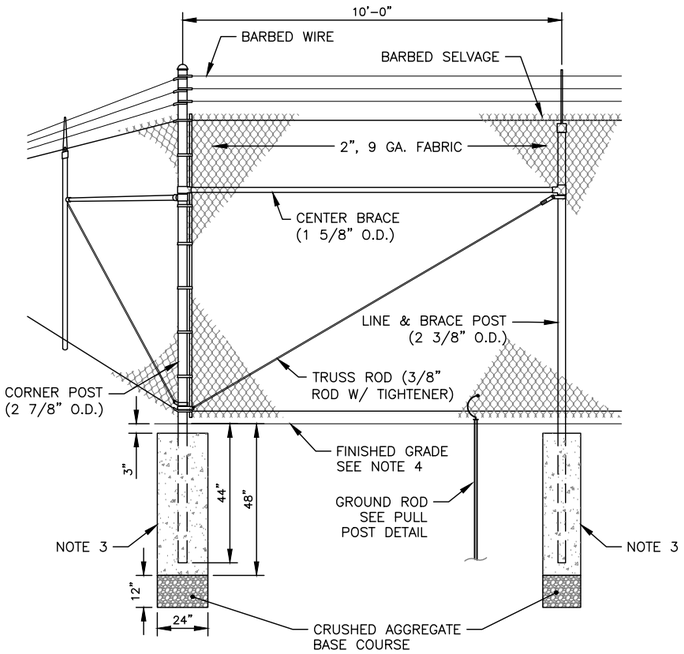
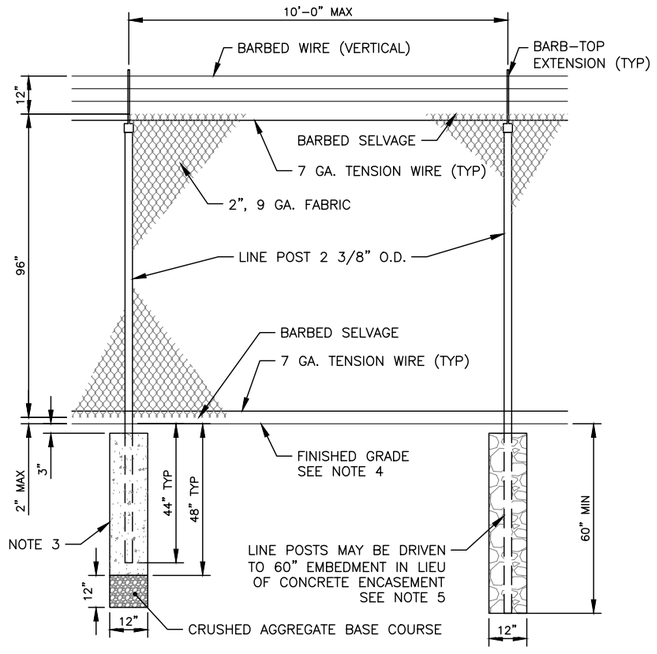
FENCING PLAN

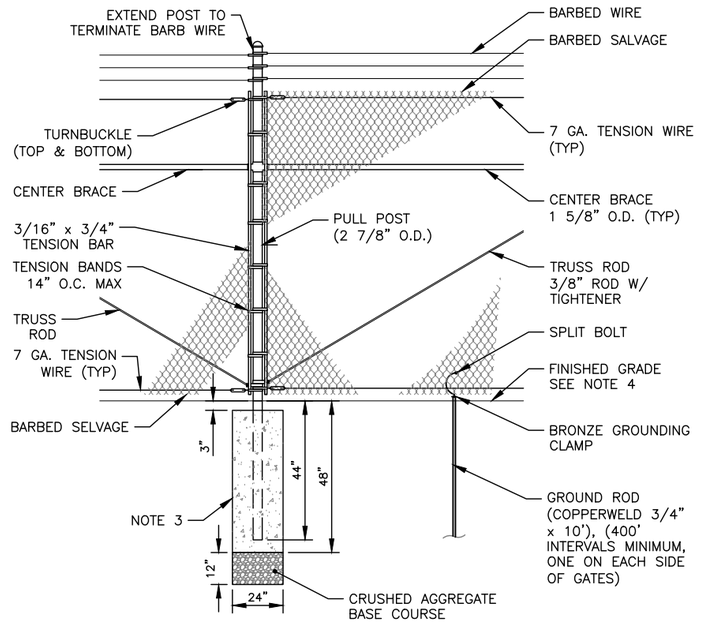
SHEET 69 OF 82



1 / 70 FENCE CORNER TERMINAL DETAIL
SCALE: N.T.S.



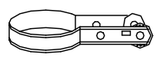
2 / 70 FENCE LINE SECTION
SCALE: N.T.S.



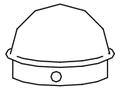
3 / 70 FENCE PULL/TERMINAL POST
SCALE: N.T.S.

GENERAL FENCE NOTES:

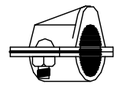
1. FINISHED CONCRETE TO BE RECESSED 3" BELOW THE GROUND LINE. BACKFILL AND COMPACT AROUND RECESSED CONCRETE WITH EXCAVATED MATERIAL (TYPICAL ALL CONCRETE POSTS IN GROUND).
2. FINISHED CONCRETE TO BE FLUSH WITH PAVEMENT (TYPICAL ALL CONCRETE POSTS IN PAVEMENT).
3. AUGER 12 INCHES BELOW CONCRETE FOOTING, AND INSTALL LAYER OF CRUSHED AGGREGATE BASE COURSE (CABC). USE DISPOSABLE FORM TUBE (E.G., SONOTUBE) FOR CONCRETE FOOTINGS, AND WRAP WITH 3 LAYERS OF 6 MIL POLYETHYLENE SHEETING. BACKFILL ANNULUS WITH CABC OR STRUCTURAL FILL.
4. INSTALL 24 INCH WIDE VEGETATION CONTROL UNDER ALL NEW FENCING, CENTERED ABOUT THE FENCE.
5. DRIVE LINE POSTS A MINIMUM OF 60 INCHES BELOW EXISTING GRADE. BORE A 12 INCH DIAMETER HOLE 66 INCHES DEEP AND BACKFILL WITH SUBBASE AND COMPACT BEFORE DRIVING THE POSTS.



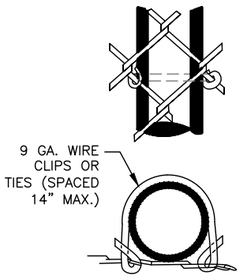
BARB WIRE BAND WITH
RATCHET No. 60



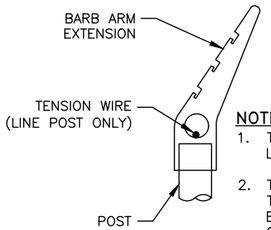
ACORN OR DOME CAP FOR
GATE/TERMINAL POST



BACK STOP C-2

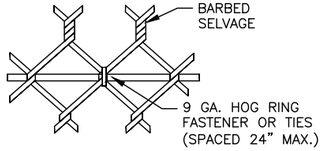


TYPICAL METHOD OF TYING
FABRIC TO TUBULAR POSTS



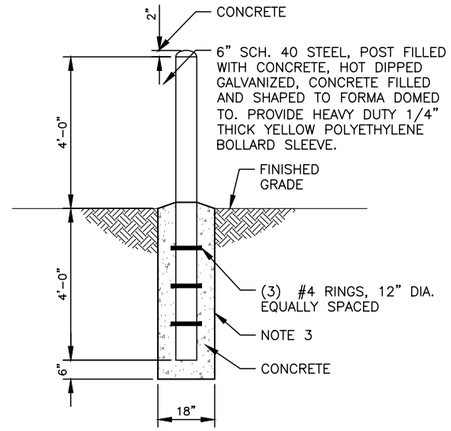
NOTE:
1. TYPICAL TOP FOR ALL LINE AND PULL POST.
2. TENSION WIRE TO BE THREADED THROUGH EYE-TOP, AS SHOWN, ON ALL POST.

TYPICAL EYE-TOP BARB-TOP
EXTENSION



TYPICAL METHOD OF TYING FABRIC
TO TENSION WIRE

4 / 70 FENCE HARDWARE
SCALE: N.T.S.



5 / 70 BOLLARD DETAIL
SCALE: N.T.S.

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA
49th
Charles M. Tripp
Charles M. Tripp
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4/2/2024

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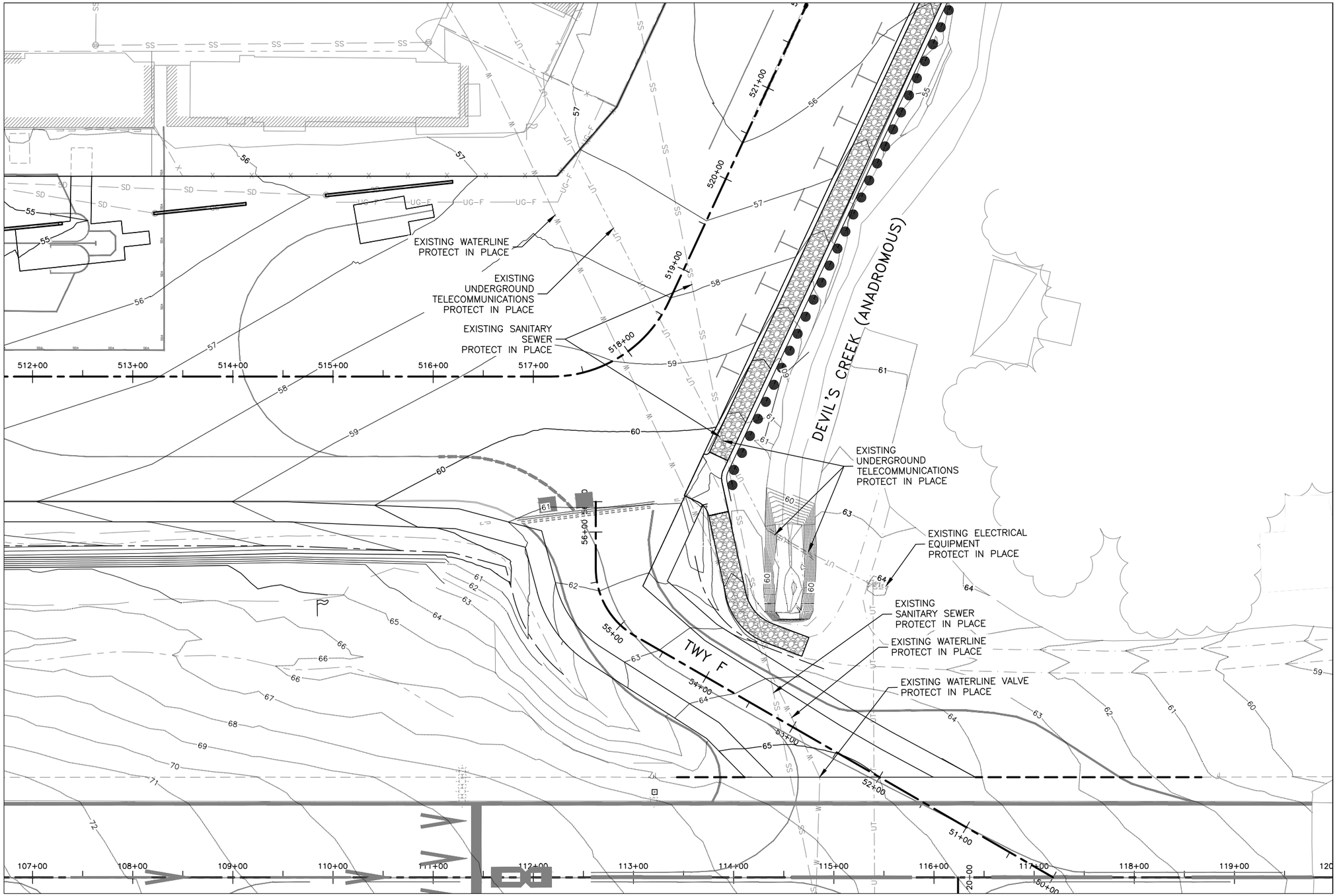
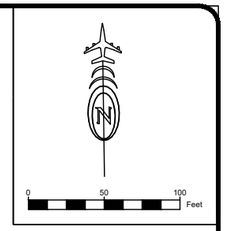
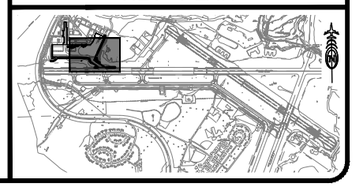
KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND
TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
FENCING DETAILS

SHEET 70 OF 82





KEY PLAN



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UTILITIES PLAN

SHEET 71 OF 82

GENERAL SITE INFORMATION:

1. PROJECT TYPE: RECONSTRUCT (SHORTEN AND NARROW) RUNWAY, NEW LIGHTING, SHIFT AND REPAVE TAXIWAYS, AND GATE INSTALLATION.
   AIRPORT REFERENCE POINT (ARP) LAT: 64°48'45"N LONG: 147°51'00"W
2. CLIMATE: THE CLIMATE IN KODIAK IS CLASSIFIED AS SUBARCTIC.
3. AVERAGE RAINFALL: 77.04 INCHES.
4. 2 YEAR 24 HOUR RAINFALL: 3.18 INCHES (NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES, KODIAK NF STATION 50-4984).
5. HISTORICAL AVERAGE DATES OF FREEZING TEMPERATURES: OCTOBER 15 TO MAY 27 (NOAA ONLINE WEATHER DATA)
6. APPROXIMATE GROWING SEASON: MAY 15 TO OCTOBER 1 (REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: ALASKA REGION (VERSION 2.0)). SEEDING SHALL OCCUR IN THE MONTH OF MAY.
7. SOILS IN THE AREA CONSIST OF SANDY SILT. AIRPORT EMBANKMENTS CONSIST OF GRAVELY SAND TO SANDY GRAVEL FILL.
8. WETLANDS SURROUNDING THE PROJECT INCLUDE FRESHWATER EMERGENT WETLAND, FRESHWATER FORESTED/SHRUB WETLAND, AND OPEN WATER.

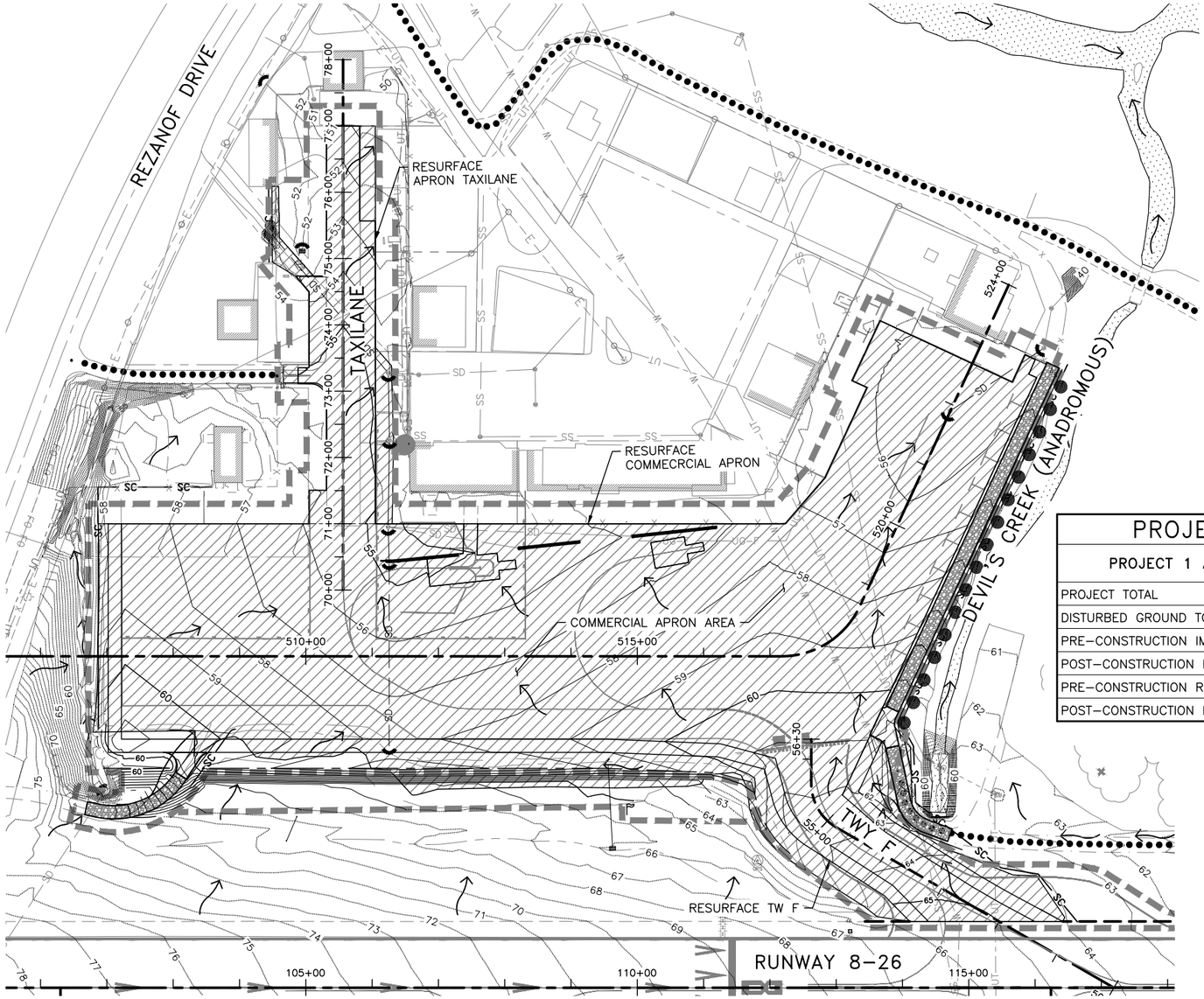
ENVIRONMENTAL INFORMATION:

1. RECEIVING WATER BODIES: DEVIL'S CREEK, BUSKIN RIVER, CHINIAK BAY
2. IMPAIRED WATER BODIES: NONE
3. TOTAL MAXIMUM DAILY LOAD WATERS: N/A
4. THREATENED AND ENDANGERED SPECIES: PROJECT SITE IS ADJACENT TO THE CHINIAK BAY IMPORTANT BIRD AREA WHICH IT SUPPORTS A MINIMUM OF 23 SEABIRD COLONIES DURING THE SUMMER AND INCLUDES WINTERING HABITAT FOR NUMEROUS MARINE AND LAND BASED AVIAN SPECIES, INCLUDING THE STELLER'S EIDER (POLYSTICTA STELLERI), EMPEROR GOOSE (CHEN CANAGICA), AND YELLOW-BILLED LOON (GAVIA ADAMSII).

   THE PROJECT SITE IS 1 MILE FROM CHINIAK BAY. THE PROPOSED PROJECT WOULD TAKE PLACE ENTIRELY ON AIRPORT PROPERTY. SPECIES OR HABITAT NOT ANTICIPATED TO BE ADVERSELY AFFECTED BY STORM WATER DISCHARGE.
5. HISTORIC PLACES: FINDING OF NO ADVERSE EFFECTS TO HISTORIC PROPERTIES FOR THE NATIONAL HISTORIC LANDMARK KODIAK NAVAL OPERATING BASE FORTS GREELY AND ABERCROMBIE.
6. CONTAMINATED SITES OF RECORD: YES, SEE SECTION 3.2 OF THE ESCP.
7. ALL CONSTRUCTION ACTIVITY SHALL COMPLY WITH THE MIGRATORY BIRD TREATY ACT.
8. STORM SEWER: YES

ESCP NOTES:

1. DEVELOP A SINGLE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) THAT COVERS EACH CONSTRUCTION PHASE. THE PLAN SHALL COMPLY WITH THE ALASKA POLLUTION DISCHARGE ELIMINATION SYSTEM (APDES) REQUIREMENTS FOR STORM WATER DISCHARGE FROM THE PROJECT CONSTRUCTION SITE. SEE P-156 OF THE SPECIFICATIONS.
2. INSTALL EROSION AND SEDIMENT CONTROLS PRIOR TO ANY EARTH DISTURBING ACTIVITIES.
3. PROVIDE PERIMETER PROTECTION IN AREAS NOT SHOWN ON THE PLANS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE PROJECT AREA.
4. STABILIZED CONSTRUCTION ENTRANCES AND EXITS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS, INCLUDING DRAINAGE SWALES, DISTURBED BY CONTRACT ACTIVITIES TO PRECONSTRUCTION CONDITION.
6. PREPARE A HAZARDOUS MATERIAL CONTROL PLAN (HMCP) FOR PREVENTION OF POLLUTION FROM THE STORAGE, USE, CONTAINMENT, CLEANUP, AND DISPOSAL OF HAZARDOUS MATERIAL, INCLUDING PETROLEUM PRODUCTS RELATED TO CONSTRUCTION ACTIVITIES AND EQUIPMENT.
7. PROVIDE SEDIMENT CONTROL AS SHOWN ON PLANS, AND AS NECESSARY, TO PREVENT MIGRATION OF SEDIMENT USING SILT FENCE, FIBER ROLLS, OR OTHER APPROVED BMPS.



LEGEND:

- WORK LIMITS
- WATER
- WETLAND
- CONTRACTOR ACCESS/ HAUL ROUTE
- SC — PERIMETER CONTROL
- FLOW
- 25' VEGETATION BUFFER
- INLET PROTECTION

0 100 200 Feet

PROJECT AREA DATA

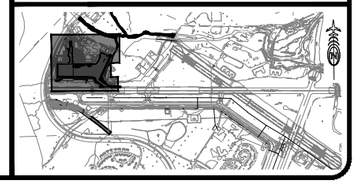
PROJECT 1 AREA DATA	ACRE (AC) ESTIMATE
PROJECT TOTAL	32.79
DISTURBED GROUND TOTAL	15.17
PRE-CONSTRUCTION IMPERVIOUS AREA	13.65
POST-CONSTRUCTION IMPERVIOUS AREA	13.06
PRE-CONSTRUCTION RUNOFF COEFFICIENT	0.869
POST-CONSTRUCTION RUNOFF COEFFICIENT	0.869

WEATHER DATA

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
AVERAGE MAX. TEMP (F)	35.4	36.0	38.3	43.6	50.0	55.6	60.1	61.7	56.1	47.2	39.6	36.4	46.7
AVERAGE MIN. TEMP (F)	26.1	25.7	27.5	32.5	38.6	44.4	49.0	49.0	43.5	34.8	28.7	25.9	35.5
AVERAGE TOTAL PRECIPITATION (in)	8.53	6.07	5.15	5.50	6.10	5.35	4.61	4.72	7.67	8.49	6.66	8.18	77.04
AVERAGE TOTAL SNOWFALL (in)	15.8	16.0	13.1	7.2	0.4	0.0	0.0	0.0	0.0	1.3	7.5	14.8	76.1

SOURCE: NOAA ONLINE WEATHER DATA

KEY PLAN



PLANS DEVELOPED BY: HDR ENGINEERING INC, 582 E. 36TH AVENUE SUITE 500, ANCHORAGE ALASKA, 99503, (907)644-2000 CERT. OF AUTH. NO. AEC0569
C:\pwworking\west01\d2824858\D0227_NTP1_Q_EROSION_SEDIMENT_CONTROL_PLAN-Q-001
3/1/2024 11:33 AM

DESIGN CT
DRAWN MW
CHECKED CM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49th Charles M. Tripp CE - 9613 REGISTERED PROFESSIONAL ENGINEER 4/2/2024

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
EROSION SEDIMENT CONTROL PLAN

SHEET 72 OF 82

DEMOLITION GENERAL NOTES:

1. DECOMMISSIONED CONDUCTORS AND GROUND WIRES IN RACEWAY SHALL BE REMOVED. DECOMMISSIONED CONDUIT SHALL BE REMOVED. ABANDONED WIRING AND CONDUIT RUNS EXPOSED DURING EXCAVATION SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. THIS WORK SHALL BE SUBSIDIARY TO EXCAVATION AND NO SEPARATE PAYMENT WILL BE MADE.
2. THE CONTRACTOR SHALL RESTORE GRADE AND FINISH SURFACES DISTURBED BY THE REMOVAL OF STRUCTURES. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE.
3. DEMOLISHED SIGNS, FIXTURES, TRANSFORMERS, AND WIND CONE, SHALL BE SALVAGED AND OFFERED TO DOT MAINTENANCE. EQUIPMENT DEEMED OF NO SALVAGE VALUE BY DOT MAINTENANCE PERSONNEL, AND ALL OTHER EQUIPMENT AND MATERIALS NOT LISTED ABOVE, INCLUDING LIGHT BASES, HANDHOLES, SIGN BASES, WIRE, AND RACEWAYS, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL STATUTES.
4. REMOVAL OF EXISTING CONDUCTORS AND GROUND WIRE SHALL BE SUBSIDIARY TO THE REMOVAL OF THE ASSOCIATED EQUIPMENT AND NO SEPARATE PAYMENT WILL BE MADE.
5. LOCATE EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK.

TEMPORARY LIGHTING NOTES:

1. TEMPORARY AIRFIELD LIGHTING AND JUMPERS TO BE PROVIDED AND MAINTAINED TO PROVIDE A FULLY OPERATIONAL SYSTEM TO THE SATISFACTION OF THE ENGINEER, REVISE AS NECESSARY TO COORDINATE WITH PROJECT PHASING. TEMPORARY LIGHTING SYSTEM SHALL MEET THE REQUIREMENTS OF A MEDIUM INTENSITY LIGHTING SYSTEM PER AC 150/5340-30J. PAID FOR UNDER L125.180.0000.
2. RESTORE AIRFIELD LIGHTING POWER AND CONTROL CIRCUITS ONE HOUR PRIOR TO ANY SCHEDULED FLIGHT, OR AS DIRECTED BY THE PROJECT ENGINEER.
3. WHEN TEMPORARY LIGHTING IS NO LONGER NEEDED, REMOVE UNUSED COMPONENTS, CONDUIT AND WIRING.
4. TEMPORARY JUMPERS SHALL BE #8 AWG, 5KV, TYPE 'C' AIRPORT CABLE. RUN JUMPERS IN HDPE CONDUIT, 1-1/4IN MINIMUM, AND SAND BAG EVERY 10 FT ON CENTER. ELECTRICAL CONNECTORS SHALL BE FIELD ATTACHED PLUG-IN SPLICES PER SECTION L-108. TEMPORARY JUMPERS SHALL BE SUBSIDIARY TO ITEM L125.180.0000 AND NO SEPARATE PAYMENT WILL BE MADE.
5. TEMPORARY LIGHT BASES SHALL BE CONSTRUCTED OF STEEL CHANNEL. BOLT THE FIXTURE BASE PLATE TO THE CHANNEL AND SECURE IN PLACE WITH SAND BAGS. AT THE CONTRACTOR'S OPTION, AND ENGINEERS APPROVAL, A SELF-CONTAINED TEMPORARY LIGHTING SYSTEM MAY BE PROVIDED. SECURE THE LIGHTS IN PLACE PER THE MANUFACTURER'S INSTRUCTIONS. TEMPORARY LIGHT BASES SHALL BE SUBSIDIARY TO ITEM L125.180.0000 AND NO SEPARATE PAYMENT WILL BE MADE.
6. PROVIDE 1/2IN BLANK STEEL COVERS PER SAFETY PLAN OR AS DIRECTED BY THE ENGINEER AND SECURE TO LIGHT BASES. BLANK STEEL COVERS SHALL BE SUBSIDIARY TO ITEM L125.180.0000 AND NO SEPARATE PAYMENT WILL BE MADE.
7. TEMPORARY LIGHTING LAYOUT IS SHOWN ON SHEET E2.
8. REMOVE EDGE LIGHTS THAT CONFLICT WITH CONSTRUCTION ACTIVITIES AND PROVIDE MEANS OF BLANKING OUT EXISTING TAXIWAY EDGE LIGHTS AND SIGNS ON CLOSED PORTIONS OF TAXIWAYS AND APRON AS INDICATED IN THE PHASING PLANS AND AS DIRECTED BY THE ENGINEER. THIS MAY BE ACCOMPLISHED BY REMOVING THE FIXTURES AND PROVIDING SHORTING CAPS, OR BY BAGGING THE FIXTURES AND SIGNS. IF FIXTURES ARE REMOVED, PROVIDE STEEL COVER PLATES. THE CONTRACTOR SHALL PROVIDE SAFE STORAGE AND RE-INSTALL THE FIXTURES OR REMOVE BAGS, AND CLEAN EACH FIXTURE AT THE END OF EACH PHASE. THIS WORK SHALL BE PAID UNDER ITEM L125.180.0000 AND NO SEPARATE PAYMENT WILL BE MADE.

GENERAL NOTES:

1. CONDUITS AND LIGHT BASES SHALL BE INSTALLED PRIOR TO PLACEMENT OF FINISH COURSE.
2. REMOVE POWER FROM TAXIWAY LIGHTING CIRCUIT DURING ASSOCIATED WORK, RESTORE POWER WHEN WORK IS COMPLETE.
3. AIRFIELD LIGHTING CABLE SHALL BE #8 AWG, 5kV, FAA TYPE "C" AIRPORT CABLE.
4. CONNECT HDPE CONDUIT TO DISSIMILAR CONDUIT USING A LISTED TRANSITION FITTING.
5. PROVIDE LIGHT BASES WITH HUB CONFIGURATIONS TO ACCOMMODATE THE LAYOUT AS SHOWN IN THE PLANS. ROUTE CONDUIT FROM POINT TO POINT, IN A STRAIGHT LINE, EXCEPT AS REQUIRED TO AVOID AN OBSTRUCTION.
6. ALL BOLTS, NUTS, AND THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE LUBRICANT PER SPECIFICATIONS.
7. ARRANGE THE LIGHTING CIRCUIT TO FLOW CLOCKWISE AROUND THE RUNWAY AND TAXIWAY WITH THE FEMALE CONNECTOR ON THE REGULATOR SIDE OF THE TRANSFORMER. SEE SHEET E8.
8. ALL TRANSFORMER CONNECTIONS SHALL BE MADE ON THE FEED SIDE OF THE SERIES LOOP. RETURN AND LOOP CONDUCTORS SHALL BE CONTINUOUS AND UNSPLICED.
9. HAND HOLE LOCATIONS MAY BE FIELD ADJUSTED AS APPROVED BY THE ENGINEER.
10. CONDUIT ROUTING SHOWN FOR CLARITY. ROUTE CONDUITS ON SHOULDER. CONDUITS THAT RUN IN CLOSE PROXIMITY MAY BE INSTALLED IN SAME TRENCH.
11. CONTRACTOR SHALL PROVIDE A LIST OF PROPOSED SPARE PARTS AND THE COST FOR EACH CATEGORY TO THE ENGINEER FOR REVIEW PRIOR TO PLACING THE ORDER FOR THE PARTS. QUANTITIES SHALL BE REDUCED IF NECESSARY UNTIL THE COSTS ARE WITHIN THE LIMITS OF THE FAA REQUIREMENTS. SEE SECTION L-125 FOR ADDITIONAL INFORMATION.
12. EDGE LIGHTS TO REMAIN IN SERVICE OUTSIDE CONSTRUCTION LIMITS, SEE CONSTRUCTION SAFETY AND PHASING PLANS. PROVIDE AND MAINTAIN TEMPORARY JUMPERS AS REQUIRED: #8, 5KV AIRPORT CABLE IN HDPE CONDUIT. SAND BAG 10 FEET ON CENTER WITH 50 LB SAND BAGS.
13. SLOPE CONDUITS TO DRAIN TO LOW SPOT. INSTALL 2" CONDUIT DRAIN FROM LIGHT BASE OR HANDHOLE TO DESIGNATED DRAIN LOCATION, VERIFY LOCATION.
14. CONDUCTORS OF SEPARATE CIRCUITS SHALL BE IDENTIFIED BY COLORABLE INSULATION. THE COLORS GREEN AND WHITE SHALL NOT BE USED TO IDENTIFY SERIES CIRCUITS. R-8/26 CIRCUIT = ORANGE, T-E/F = TERRA COTTA.

LEGEND:

EXISTING	DEMOLITION	NEW	
———	— — —	—/—	2" HDPE CONDUIT. HASH MARKS INDICATE NUMBER OF NEW #8 AWG. 5KV AIRPORT CABLES, TYPE "C", PLUS ONE #6 BARE COPPER GROUND CONDUCTOR.
———	— — —	=/=	2" RSC CONDUIT. HASH MARKS INDICATE NUMBER OF NEW #8 AWG. 5KV AIRPORT CABLES, TYPE "C", PLUS ONE #6 BARE COPPER GROUND CONDUCTOR.
———	— — —	=/=	THRESHOLD LIGHT, GREEN/RED
○	⊗	R G	RUNWAY EDGE LIGHT, WHITE/YELLOW
○	⊗	W Y	RUNWAY EDGE LIGHT, WHITE/WHITE
○	⊗	◐	RUNWAY EDGE LIGHT, WHITE/YELLOW, FLUSH
○	⊗	W Y	RUNWAY EDGE LIGHT, WHITE/WHITE, FLUSH
○	⊗	◈	TAXIWAY EDGE LIGHT
Ⓑ	⊗	⊗	TAXIWAY EDGE LIGHT, FLUSH
Ⓑ	⊗	◈	HANDHOLE, L-867
⬡	⊗	⬢	LIGHTED AIRPORT SIGN
▭	▭	▬	WIND CONE, L-806 OR L-807
◥	◥	◥	TYPE II H20 RATED J-BOX
(HH)	(HH)	(HH)	DRYWELL
		(DW)	3/4" X 10' COPPER COATED GROUND ROD
		▽	LIGHT OR HANDHOLE NUMBER "X" - SEE SCHEDULE
		RXXX	SIGN NUMBER "X" - SEE SCHEDULE
		(X)	TEMPORARY TAXIWAY EDGE LIGHT
		Ⓑ	

ABBREVIATION:

AWG	AMERICAN WIRE GAUGE
BCU	BARE COPPER GROUND
C	CONDUIT
CBA	CRUSHED BASE AGGREGATE
CCR	CONSTANT CURRENT REGULATOR
CSPP	CONSTRUCTION SAFETY AND PHASING PLAN
CU	COPPER
DEB	DIRECT EARTH BURY
DEG	DEGREES
EEB	ELECTRICAL EQUIPMENT BUILDING
ETR	EXISTING TO REMAIN
FAA	FEDERAL AVIATION ADMINISTRATION
FT	FOOT
HDPE	HIGH DENSITY POLYETHYLENE
HIRL	HIGH INTENSITY RUNWAY LIGHTING
IN	INCH
KV	KILOVOLT
LED	LIGHT EMITTING DIODE
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
NRTL	NATIONALLY RECOGNIZED TESTING LABORATORY
MAX	MAXIMUM
MIN	MINIMUM
OC	ON CENTER
UON	UNLESS OTHERWISE NOTED
PCT	PERCENT
PRI	PRIMARY
REIL	RUNWAY END IDENTIFIER LIGHT
RSC	RIGID STEEL CONDUIT
RW	RUNWAY
RW(X)	RW CIRCUIT, NUMBER IN () INDICATES # OF CONDUCTORS
SCO	SERIES CUT OUT
STA	STATION
TH	THRESHOLD
TOC	TOP OF CONCRETE
TW(X)	TW CIRCUIT, NUMBER IN () INDICATES # OF CONDUCTORS
TW	TAXIWAY
TYP	TYPICAL
VASI	VISUAL APPROACH SLOPE INDICATOR
XFMR	TRANSFORMER

DESIGN JBM
DRAWN JBM
CHECKED EWC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49TH
EDWARD W. CARLSON
4/02/2024
EE-9354
REGISTERED PROFESSIONAL ENGINEER

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
APRON AND TAXIWAY FOXTROT LEGEND

SHEET E1 OF 82

DEMOLITION SHEET NOTES:

1. REMOVE RUNWAY EDGE LIGHTS, THRESHOLD LIGHTS, OR TAXIWAY LIGHTS, TRANSFORMERS, AND UNUSED WIRING. PAID UNDER ITEM L125.070.0000, NO OTHER PAYMENT WILL BE MADE.
2. DISCONNECT AND REMOVE EXISTING CONDUCTORS BACK TO NEAREST LIGHT BASE OR PULL BOX OUTSIDE OF THE EXCAVATION LIMITS.
3. REMOVE SIGN, SIGN BASE, ADJACENT HANDHOLE, TRANSFORMER, UNUSED WIRING AND CONDUIT. PAID UNDER ITEM L125.250.0000, NO OTHER PAYMENT WILL BE MADE.
4. REMOVE RUNWAY LIGHT FIXTURE, TRANSFORMER, FLANGE AND SPACER RINGS, AND TOP SECTION FROM LIGHT BASE. LIGHT BASE TO BE REUSED. DEMO PAID UNDER ITEM L125.070.0000, NO OTHER PAYMENT WILL BE MADE FOR DEMO WORK. SEE E3 FOR NEW WORK. SEE DETAIL 1/E5 AND 2/E5.
5. REMOVE TAXIWAY FIXTURE AND TRANSFORMER. BASE TO BE REUSED AS HANDHOLE.
6. REMOVE CONDUCTORS TO NEAREST LIGHT BASE LEAVING REQUIRED SLACK FOR FIELD SPLICE. CUT CONDUIT AND REMOVE LIGHT BASE. REPAIR CONDUIT AND PROOF CONDUIT PRIOR TO PAVING OPERATIONS. PAID UNDER ITEM L125.210.000, NO OTHER PAYMENT WILL BE MADE.

DEMOLISH DAMAGED LIGHT POLE, FLOOD LIGHTS, AND WIND CONE. POLE BASE, HANDHOLE, AND WIRING TO SOURCE ARE TO REMAIN FOR REUSE, PROTECT IN PLACE.

APRON

APRON

REMOVE TAXIWAY LIGHT, TYP. (1)

(3) REMOVE SIGN, TYP.

50' 25' 0 50' 100'

KEY PLAN

CROSSING CONDUIT AND HANDHOLES TO BE PROTECTED AND WORKED AROUND. USE EXISTING CONDUCTORS FOR TEMP LIGHTING.

TEMPORARY JUMPER
(1) #8 5KV R-8/26
(2) #8 5KV T-E/F
(1) #6 BCU

TEMPORARY JUMPER
(1) #8 5KV R-8/26
(1) #6 BCU

TAXIWAY F

TEMPORARY JUMPER
(2)#8 5KV T-E/F
(1)#6 BCU

LIGHT BASE TO REMAIN. (4)

MATCH LINE "RW 08-26" STA 116+83.69 SEE 2/E2

1 LIGHTING DEMO
E2 SCALE: 1" = 50'

TEMPORARY JUMPER, SEE 1/E2.

LIGHT BASE TO REMAIN. (5)

REMOVE TAXIWAY LIGHT, TYP. (1)

REMOVE SIGN, TYP. (3)

R02

LIGHT BASE TO REMAIN. (4)

MATCH LINE "RW 08-26" STA 116+83.69 SEE 1/E2

2 LIGHTING DEMO
E2 SCALE: 1" = 50'

PLANS DEVELOPED BY: MBA CONSULTING ENGINEERS INC. 16515 CENTERFIELD DR., STE. 101 EAGLE RIVER, AK (907)274-2622 CERT. OF AUTH. NO. AECC578
C:\Users\JAMESM~1\AppData\Local\Temp\AcPublish_448796\00277-ADQ-APRN-E2 DEMO

DESIGN JBM
DRAWN JBM
CHECKED EWC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

STATE OF ALASKA 49TH
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KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
APRON AND TAXIWAY FOXTROT DEMO

SHEET E2 OF 82

4/2/2024 10:32 AM

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C:\Users\JAMESM~1\AppData\Local\Temp\AcPublish_448796\00277-ADQ-APRN-E3 NEW

PROVIDE NEW STRUCTURAL BASE, LIGHT POLE, (2) LED FLOOD LIGHT FIXTURES AND MOUNTIGN ARMS PER E9. SUPPLY POLE WITH (3)#10 XHHW FROM CLOSEST J-BOX. SEE SHEET E9 FOR DETAILS. PAID UNDER ITEM L155.010.0000.

(1)2" RSC
(3)#10 XHHW-2

EXISTING GATE A LEAD CENTER. (8)

PROVIDE 15 AMP 120V BREAKER IN EXISTING LOAD CENTER AT GATE A. EXTEND (1)1" RSC, (3)#10 XHHW-2 APPROXIMATELY 45 FT NORTH AND UP INTO LOAD CENTER.

HH1 HH2 HH3 HH4

T01 T02 T03 T04 T05 T06 T07 T08 T09 T10 T11 T12 T13 T14 T15 T16 T17 T18 T19 T20 T21 T22 T23 T24 T25 T26 T27 T28 T29 T30 T31 T32 T33 T34 T35 T36

TOFA TSA ROFA RPZ RSA OFZ

510+00 515+00 520+00 55+00 57+50 1000+00

APRON

TW LIGHT, TYP. (6)

LIGHTING NOTES:

1. CONNECT NEW CONDUIT TO EXISTING JUNCTION BOX, LIGHT BASE, HANDHOLE OR CONDUIT USING LISTED DEVICES.
2. CONNECT NEW #8 5KV AIRPORT CABLES AND #6 BCU TO EXISTING CONDUCTORS FOR CONTINUATION OF THE CIRCUIT. PROVIDE NEW NEOPRENE GASKET AND SEAL WASHERS.
3. PROVIDE NEW TOP SECTION WITH EDGE LIGHT BOLT PATTERN, REQUIRED SPACERS, BOLTS, GASKET, L-862 LIGHT FIXTURE AND ALL REQUIRED MATERIALS TO INSTALL. SEE DETAILS ON SHEET E5. PAID UNDER ITEM L125.210.0000. NO OTHER PAYMENT WILL BE MADE. SEE DETAIL 3/E5.
4. INSTALL NEW CONDUCTORS IN EXISTING HANDHOLES. PROVIDE NEW COVERS, GASKETS, AND BOLTS. PAID UNDER ITEM L125.070.0000. NO OTHER PAYMENT WILL BE MADE.
5. SEE SIGN SCHEDULE FOR PANEL IDENTIFICATION AND STATIONING. PAID UNDER ITEM L125.130.0000. NO OTHER PAYMENT WILL BE MADE.
6. INSTALL NEW TAXIWAY LIGHT BASE AND LIGHT FIXTURE. PAID UNDER ITEM L125.040.0000. NO OTHER PAYMENT WILL BE MADE.
7. ALL NEW HDPE TO HDPE CONDUIT CONNECTIONS SHALL BE BUTT WELDED. LISTED DEVICES SHALL BE ALLOWED TO CONNECT TO EXISTING HDPE OR RIGID CONDUIT.
8. PROVIDE TEMPORARY POWER FROM EXISTING GATE A LOAD CENTER. FUTURE PERIMETER FENCING PROJECT TO PROVIDE PERMANENT POWER IN FOLLOWING CONSTRUCTION SEASON.
9. SEE SHEET E2 FOR DEMO WORK DETAIL FOR THIS AREA.
10. DAY LIGHT DRAIN TO DITCH. PROVIDE MINIMUM .25% SLOPE OR AS INSTRUCTED BY THE ENGINEER. PROVIDE MARINE GRADE STAINLESS STEEL MESH AND BAND CLAMP. SUBSIDIARY TO ITEM L110.080.1002 AND NO FURTHER PAYMENT WILL BE MADE.
11. DRAIN TO STORM RISER. PROVIDE MINIMUM .25% SLOPE OR AS DIRECTED BY THE ENGINEER. CORED HOLE IN RISER SHALL BE SEALED ON THE INTERIOR AND EXTERIOR WITH FAST SETTING GROUT PRIOR TO BACKFILLING TRENCH. PAID UNDER ITEM L110.080.1002 AND NO FURTHER PAYMENT WILL BE MADE. SEE CIVIL FOR RISER DETAILS.

CIRCUIT LOAD NOTES:

RUNWAY FIXTURE LOAD REMOVED = 400 WATTS
RUNWAY FIXTURE LOAD ADDED = 240 WATTS
RUNWAY FIXTURE LOAD NET CHANGE = -160 WATTS

TAXIWAY FIXTURE LOAD REMOVED = 848 VA
TAXIWAY FIXTURE LOAD ADDED = 784 VA
TAXIWAY FIXTURE LOAD NET CHANGE = -64 VA

PROVIDE NEW REPLACEMENT LIGHT POLE, NEW LED FLOOD LIGHT FIXTURES (4) AND MOUNTING ARMS PER SHEET E9. FOUNDATION TO BE REUSED. SUPPLY POLE WITH (3)#10 XHHW-2 FROM CLOSEST J-BOX. EXISTING FIXTURES ARE 400W METAL HALIDE. EXISTING POWER FEED AND LIGHTING CONTROL TO BE REUSED. SEE SHEET E9 FOR DETAILS. PAID UNDER ITEM L155.010.0000.

EXISTING HANDHOLE ADJACENT TO LIGHT POLE TO REMAIN.

50' 25' 0 50' 100'

KEY PLAN

(1) #8 5KV R-8/26
(2) #8 5KV T-E/F
(1) #6 BCU

T-E/F(2)

WC-1

NEW SUPPLEMENTAL WIND CONE, "RW 08-26" STA 109+84.35, 260.00' L

SPARE CONDUIT

TAXIWAY F

F 8-26

REUSE LIGHT BASE AS HAND HOLE. (4)
PROVIDE NEW MARKER.

R01 R02

SEE 1/E2
MATCH LINE "RW 08-26" STA 116+83.69

SEE 2/E2
MATCH LINE "RW 08-26" STA 116+83.69

2 E3 LIGHTING NEW
SCALE: 1" = 50'

1 E3 LIGHTING NEW
SCALE: 1" = 50'

DESIGN	JBM
DRAWN	JBM
CHECKED	EWC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION-DESIGN AND CONSTRUCTION-AVIATION

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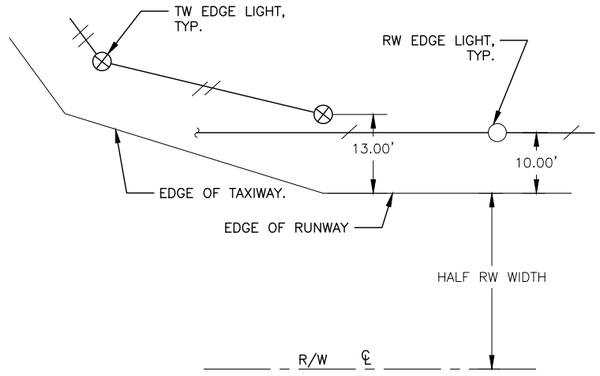
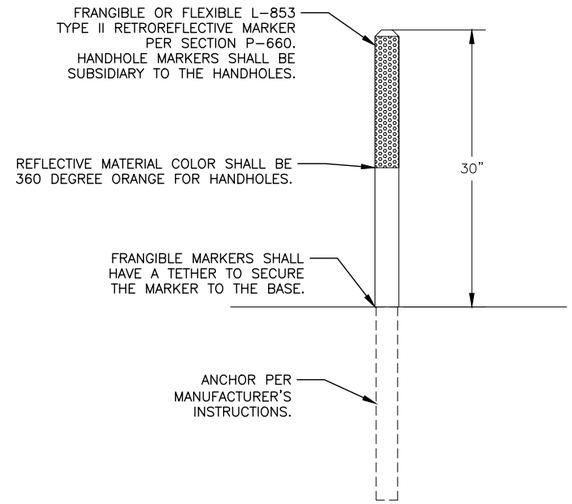
KODIAK AIRPORT

KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
APRON AND TAXIWAY FOXTROT NEW

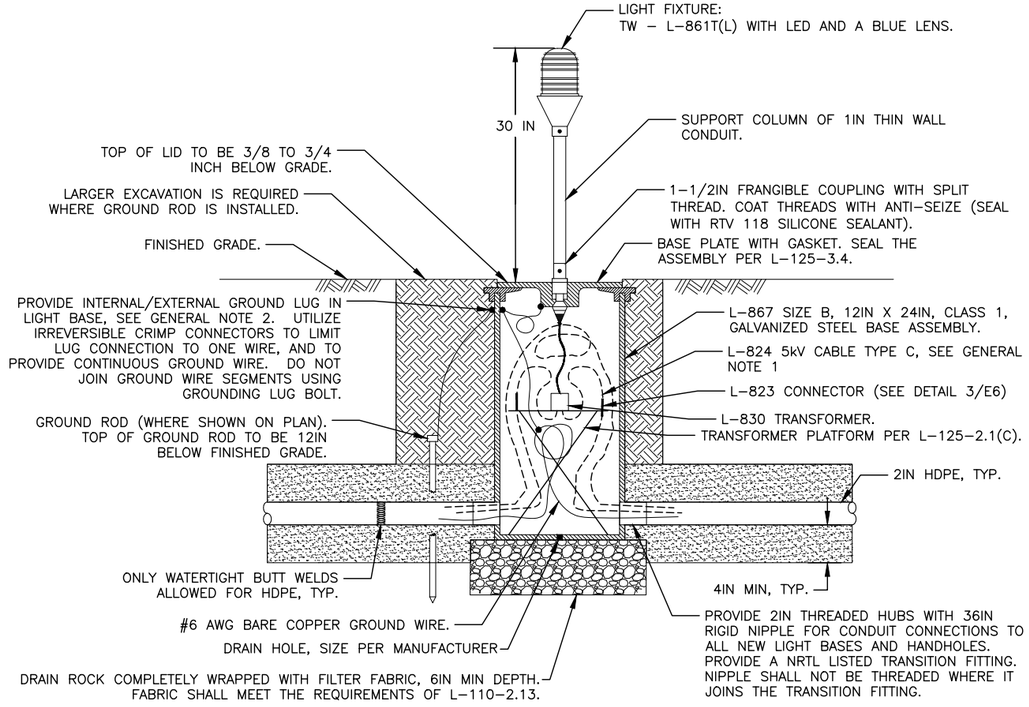
SHEET E3 OF 82



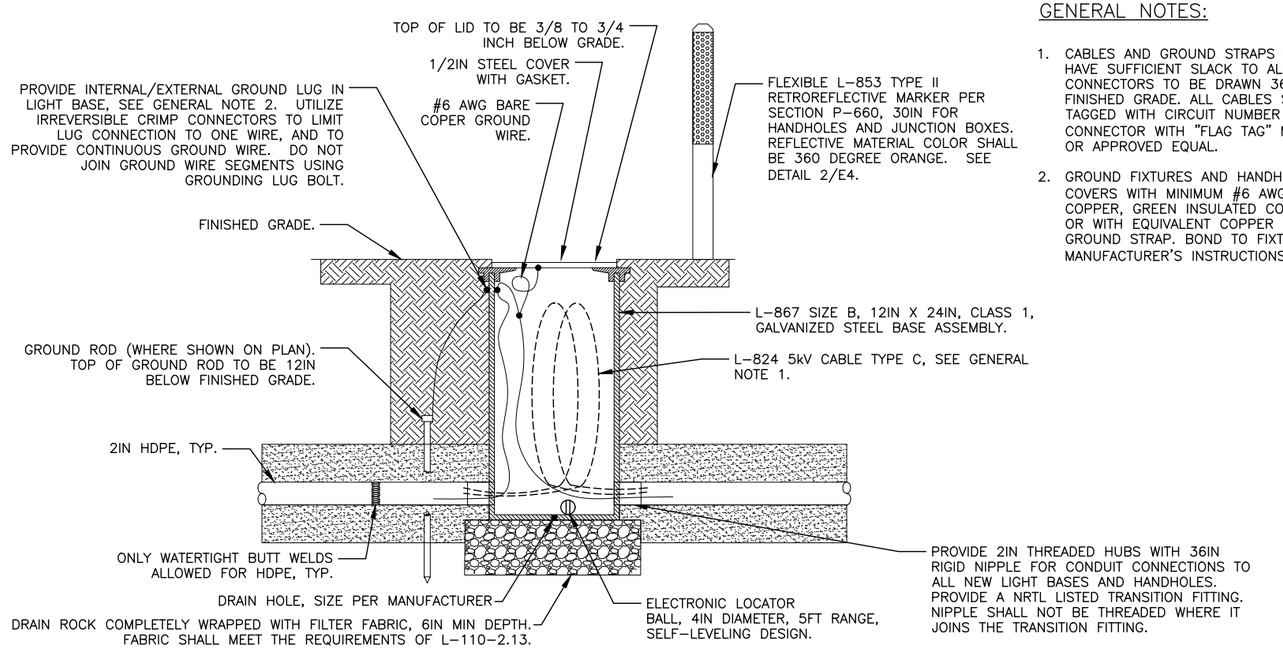
1 / E4 TW ENTRANCE/EXIT FILLET LIGHT DETAIL
NTS



2 / E4 RETROREFLECTIVE MARKER DETAIL
NTS



3 / E4 L-867 BASE MOUNTED LIGHT DETAIL
NTS



4 / E4 L-867 HANDHOLE DETAIL
NTS

GENERAL NOTES:

1. CABLES AND GROUND STRAPS SHALL HAVE SUFFICIENT SLACK TO ALLOW CONNECTORS TO BE DRAWN 36IN ABOVE FINISHED GRADE. ALL CABLES SHALL BE TAGGED WITH CIRCUIT NUMBER 6IN FROM CONNECTOR WITH "FLAG TAG" MARKERS OR APPROVED EQUAL.
2. GROUND FIXTURES AND HANDHOLE COVERS WITH MINIMUM #6 AWG STRANDED COPPER, GREEN INSULATED CONDUCTOR OR WITH EQUIVALENT COPPER BRAIDED GROUND STRAP. BOND TO FIXTURE PER MANUFACTURER'S INSTRUCTIONS.

DESIGN JBM
DRAWN JBM
CHECKED EWC

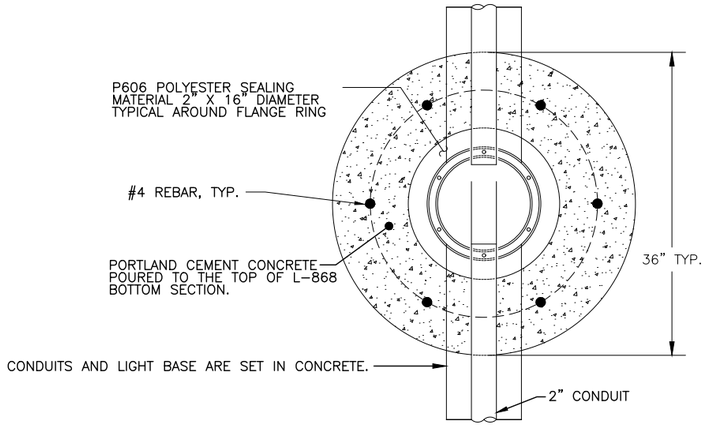
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49TH
EDWARD W. CARLSON
4/02/2024
EE-9354
REGISTERED PROFESSIONAL ENGINEER

BY	DATE	REVISIONS

KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
TAXIWAY LIGHT BASE DETAILS

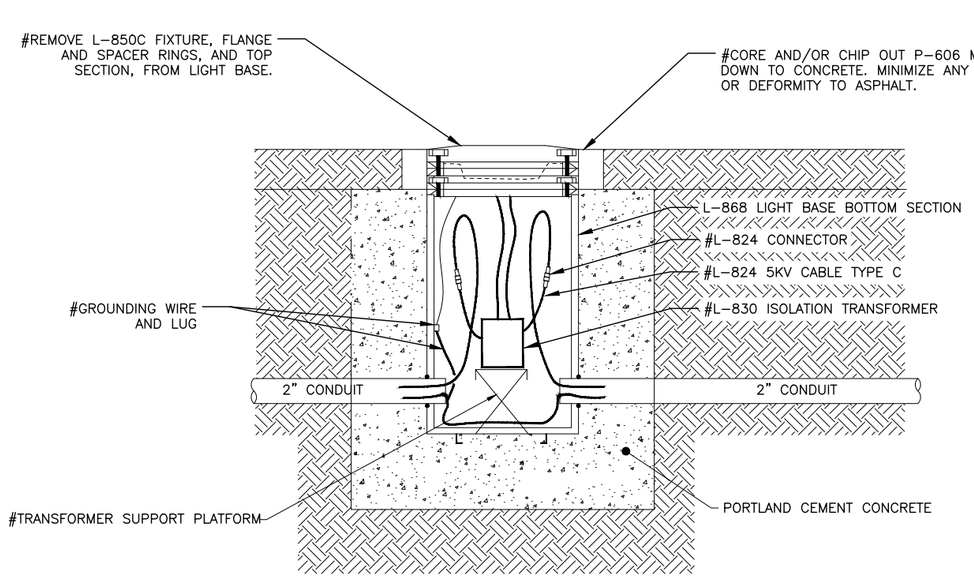
SHEET E4 OF 82



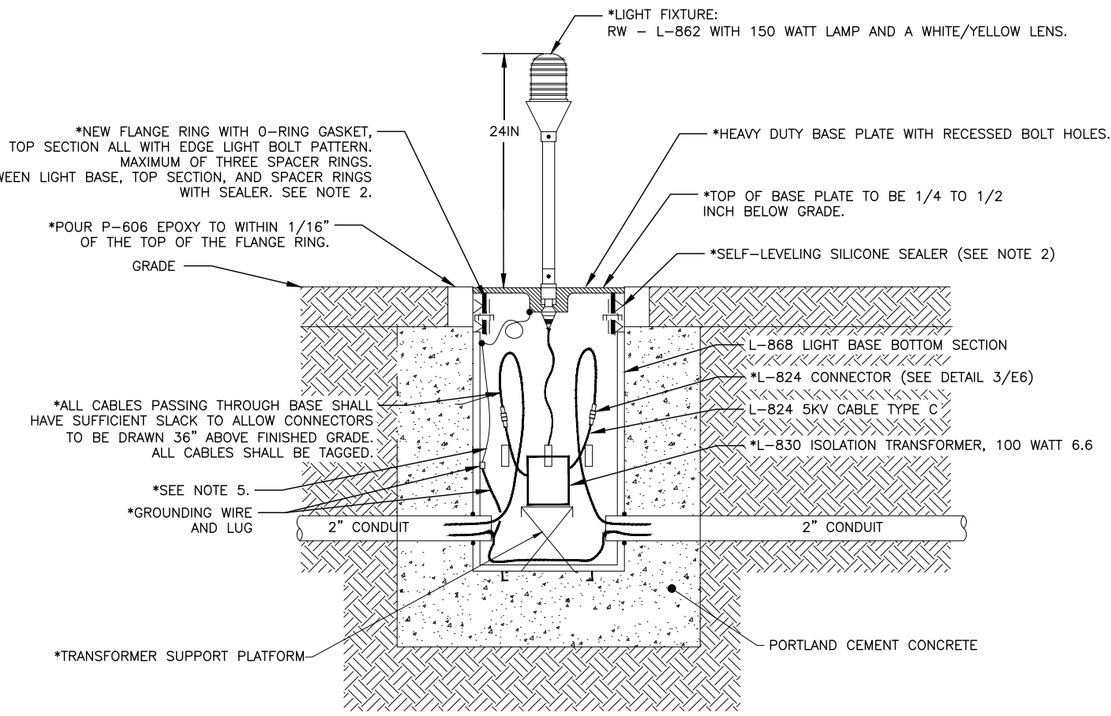
1 / E5 EXISTING RUNWAY EDGE LIGHT BASE – PLAN VIEW
NTS, FOR REFERENCE ONLY

NOTES:

1. POLYESTER SEALING MATERIAL SHALL MEET THE REQUIREMENTS OF ITEM P-606. SURFACE SHALL BE COMPLETELY CLEAN AND DRY BEFORE INSTALLING.
2. SELF-LEVELING SILICONE SEALER SHALL BE RTV 118 OR APPROVED EQUAL. SEAL BETWEEN ALL SPACER RINGS AND BOTTOM SECTION.
3. FIXTURE SHALL BE A L-862 STEM MOUNT EDGE LIGHT.
4. CONDUIT SYSTEM IS EXISTING, PROOF CONDUITS PRIOR TO PAVING OPERATIONS AND ALERT ENGINEER OF ANY CONCERNS.
5. GROUND FIXTURE WITH MINIMUM #6 AWG STRANDED COPPER INSULATED CONDUCTOR (GREEN) OR WITH EQUIVALENT COPPER BRAIDED GROUND STRAP. BOND TO FIXTURE PER MANUFACTURER'S INSTRUCTIONS.
6. CONTRACTOR SHALL INSTALL ONE 1/2" SPACER RING FOR FUTURE ADJUSTMENT AND ANY OTHER SPACER RINGS AS REQUIRED TO MEET FINAL ELEVATION. THESE RINGS ARE SUBSIDIARY TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE.
7. ALIGN LIGHT BASE PLATE TO ALLOW FIXTURE AIMING PER MANUFACTURER'S INSTRUCTIONS.
8. # INDICATES DEMO WORK REQUIRED ON EXISTING LIGHT BASES.
9. * INDICATES NEW WORK REQUIRED ON EXISTING LIGHT BASES.



2 / E5 EXISTING FLUSH LIGHT BASE ASSEMBLY
NTS, (#DEMO WORK)



3 / E5 EXISTING FLUSH LIGHT BASE ASSEMBLY
NTS, (*NEW WORK)

DESIGN	JBM
DRAWN	JBM
CHECKED	EWC

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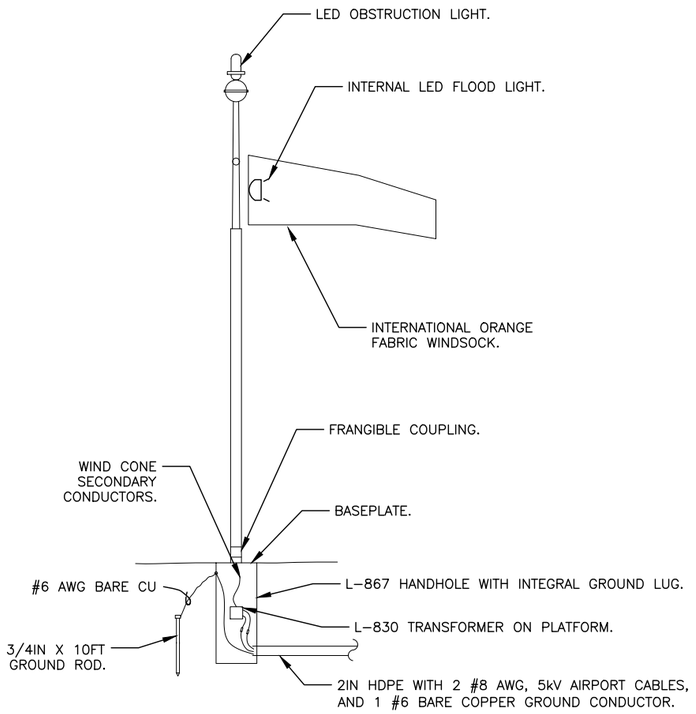
AIP 3-02-0158-024-2024/SFAPT00227
RUNWAY FLUSH LIGHT MODIFICATION DETAILS

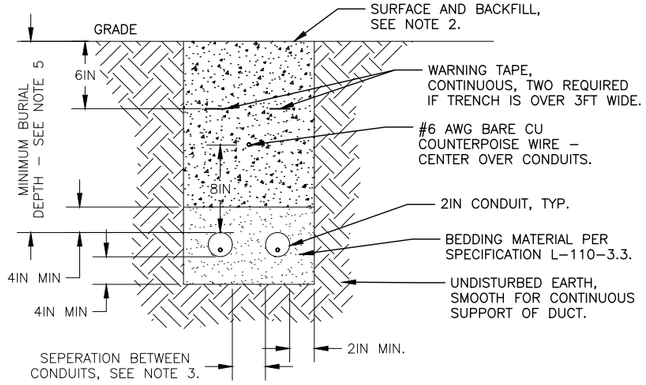
SHEET E5 OF 82



DETAIL NOTES:

1. SUPPLEMENTAL WIND CONE: L-806, SIZE 1, INTERNALLY LIGHTED WITH 6.6 AMP SERIES CIRCUIT LAMPS.
2. HDPE CONDUIT, AND 5 kV WIRING ARE PAID UNDER L110.080.1002, AND L108.010.2008 RESPECTIVELY. GROUND WIRE AND COUNTERPOISE ARE PAID UNDER (L108.030.0006). THE HANDHOLE, GROUND ROD, SECONDARY WIRING, TRANSFORMER, AND ALL OTHER REQUIRED ITEMS ARE SUBSIDIARY TO PAY ITEM L107.011.0008.

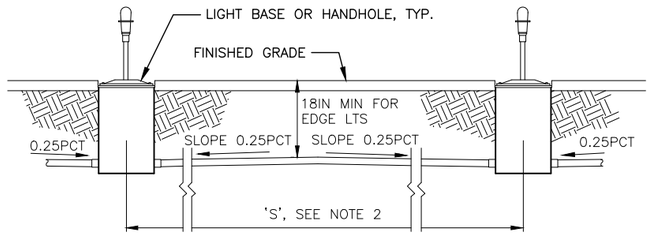
1 / E6 SUPPLEMENTAL WIND CONE DETAIL
NTS



DETAIL NOTES:

1. WIDTH OF TRENCH AND NUMBER OF CONDUITS PER TRENCH TO BE DETERMINED IN FIELD (2 SHOWN).
2. IN AREAS OF NEW CONSTRUCTION, SEE CIVIL FOR SURFACING AND BACKFILL. IN EXISTING AREAS, MATCH EXISTING SURFACING AND BACKFILL.
3. SEPARATION BETWEEN CONDUITS SHALL BE 4IN MINIMUM FOR LIGHTING SYSTEMS, 12 IN MINIMUM BETWEEN LIGHTING AND FAA SYSTEMS.
4. PLOWING OF CONDUITS WILL NOT BE ALLOWED.
5. MINIMUM BURIAL DEPTH SHALL BE AS FOLLOWS:
   A) AIRPORT LIGHTING CONDUITS: 18IN
   B) ALL OTHER CONDUITS: 30IN OR AS INDICATED

2 / E6 TRENCH DETAIL
NTS



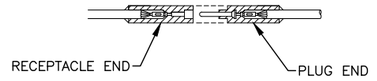
DETAIL NOTES:

1. CONDUIT SHALL BE INSTALLED WITH CROWN TO DRAIN TO LIGHT BASES AS SHOWN.
2. IF 'S' IS LESS THAN 20FT, OR IF 0.25PCT SLOPE CAN BE MAINTAINED IN ONE DIRECTION DUE TO SLOPE OF GRADE, LAY CONDUIT STRAIGHT WITHOUT CROWN BETWEEN BASES/HANDHOLES.

4 / E6 TYPICAL INTERCONNECTION DETAIL
NTS

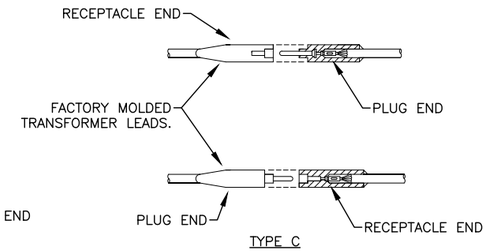
DETAIL NOTES:

1. CABLE SHALL MEET SPECIFICATION L-824. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE. CONNECTOR SHALL BE SUPPLIED TO MATCH CABLE PER MANUFACTURER'S INSTRUCTIONS.
2. 5 kV CONDUCTORS SHALL BE PENCILED USING A PENCILING TOOL MANUFACTURED FOR USE ON #8 AWG, 5 kV, TYPE C AIRPORT CABLE.
3. CONNECTORS SHALL BE CRIMPED USING A RATCHET TYPE CRIMPING TOOL PER MANUFACTURER'S RECOMMENDATION. EACH CRIMP SHALL BE MADE WITH TWO CRIMPS, ROTATED 90DEG.
4. WRAP WITH A MINIMUM OF ONE LAYER OF RUBBER OR SYNTHETIC RUBBER, SELF FUSING TAPE, AND ONE LAYER OF VINYL ELECTRICAL TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1.5IN ON EACH SIDE OF CONNECTOR TO CONNECTOR JOINT.
5. WRAP WITH A MINIMUM OF ONE LAYER OF RUBBER OR SYNTHETIC RUBBER, SELF FUSING TAPE, AND ONE LAYER OF VINYL ELECTRICAL TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1.5IN ON EACH SIDE OF WHERE CONDUCTOR PENETRATES CONNECTOR.
6. MALE PINS SHALL HAVE A THIN COATING OF THE MANUFACTURES RECOMMENDED DIELECTRIC GREASE.



TYPE B

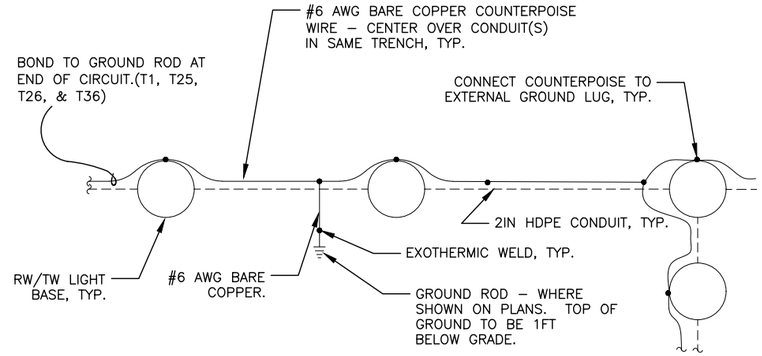
FOR SPLICES FOR USE AT JUNCTION OF HOMERUN WITH LOOP CIRCUIT



TYPE C

FOR SPLICES AT RUNWAY LIGHTS

3 / E6 L-823 CONNECTOR DETAILS
NTS



5 / E6 AIRFIELD LIGHTING COUNTERPOISE TYPICAL LAYOUT PLAN
NTS

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PLANS DEVELOPED BY: MBA CONSULTING ENGINEERS INC. 16515 CENTERFIELD DR., STE. 101 EAGLE RIVER, AK (907)274-2622 CERT. OF AUTH. NO. AECC578
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DESIGN JBM
DRAWN JBM
CHECKED EWC

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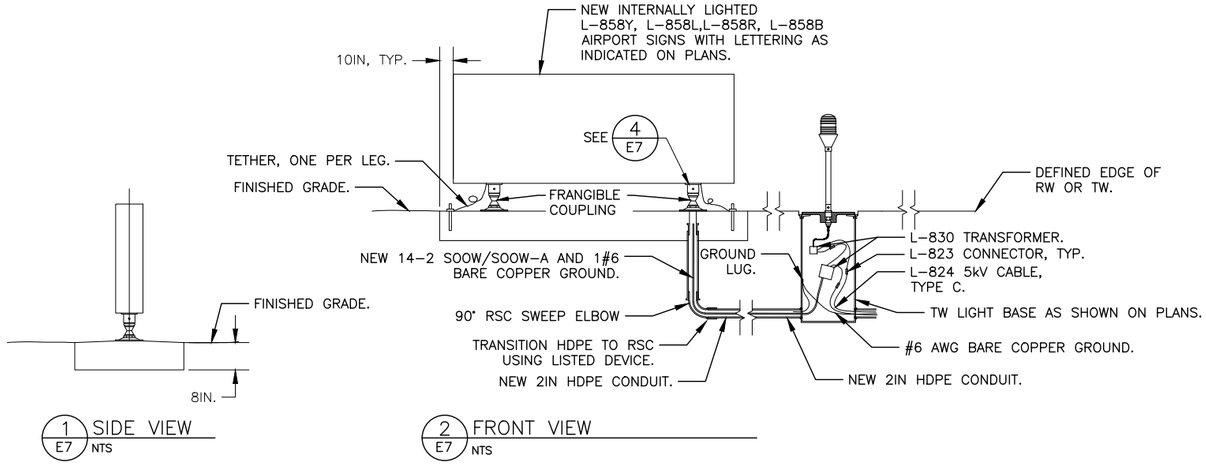
AIP 3-02-0158-024-2024/SFAPT00227
WIND CONE & LIGHTING DETAILS

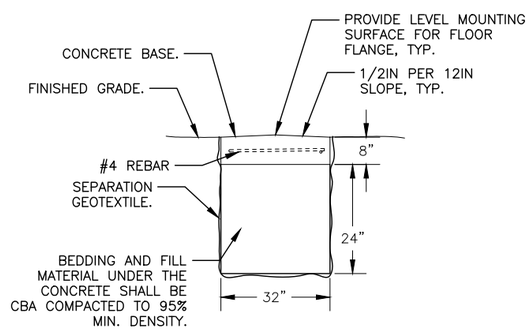
SHEET E6 OF 82



1 E7 SIDE VIEW NTS

2 E7 FRONT VIEW NTS

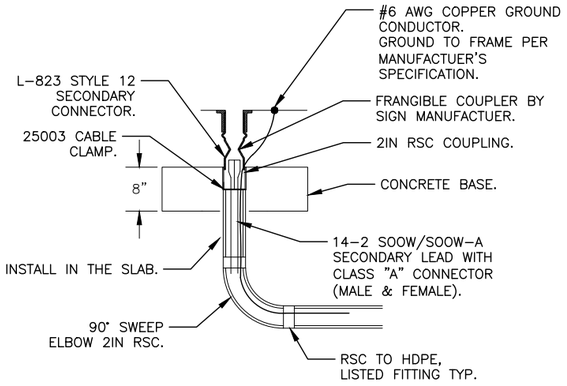
L-858 SIGN DETAILS



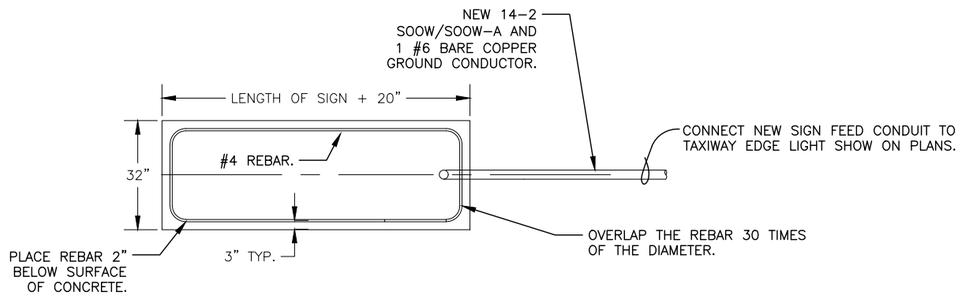
3 E7 CONCRETE BASE SIDE VIEW NTS

SIGN NOTES:

1. ALL NEW SIGNS – LED, SIZE 2, STYLE 2, CLASS 2, MODE 2.
2. ALL CIRCUITS 6.6 A
3. PROVIDE NEW TRANSFORMERS, SECONDARY WIRING, AND GROUNDING. TRANSFORMER WATTAGE SIZE PER MANUFACTURER'S SPECIFICATION.
4. ATTACH SIGNS TO CONCRETE BASE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
5. THE CONTRACTOR SHALL CERTIFY THE CONCRETE BASE IS CONSTRUCTED TO MEET SPECIFICATION P610. CONCRETE BASE SHALL BE LEVEL AND PERPENDICULAR TO RW OR TW CENTERLINE.
6. CONDUIT SHALL MEET SPECIFICATION L-110.
7. CABLE AND CONDUCTORS SHALL MEET SPECIFICATION L-108.
8. BEDDING, BACK FILL AND FINISH GRADE RESTORATION SHALL BE SUBSIDIARY TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE.
9. ALL CABLES PASSING THROUGH BASE SHALL HAVE SUFFICIENT SLACK TO ALLOW CONNECTORS TO BE DRAWN 3' ABOVE FINISHED GRADE. ALL CABLES SHALL BE TAGGED.
10. SIGNS TO BE INSTALLED SO THAT THE FACE IS PERPENDICULAR TO THE CENTERLINE OF RUNWAY OR TAXIWAY.
11. STATION AND OFFSET REFER TO THE EDGE OF THE SIGN NEAREST THE RUNWAY OR TAXIWAY. SEE SCHEDULE.
12. OFFSETS LISTED IN THE SIGN SCHEDULE ARE FROM THE CENTERLINE OF THE RUNWAY OR TAXIWAY.
13. SIGN PANELS ARE NUMBERED STARTING WITH THE PANEL CLOSEST TO THE RUNWAY OR TAXIWAY EDGE.



4 E7 ELECTRICAL CONNECTION DETAIL NTS



5 E7 CONCRETE BASE PLAN NTS

DESIGN JBM
DRAWN JBM
CHECKED EWC

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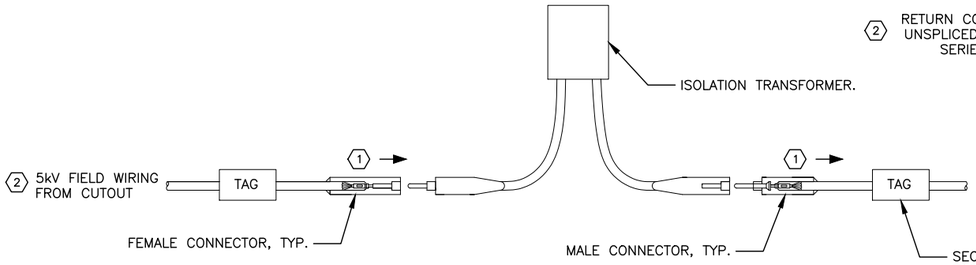
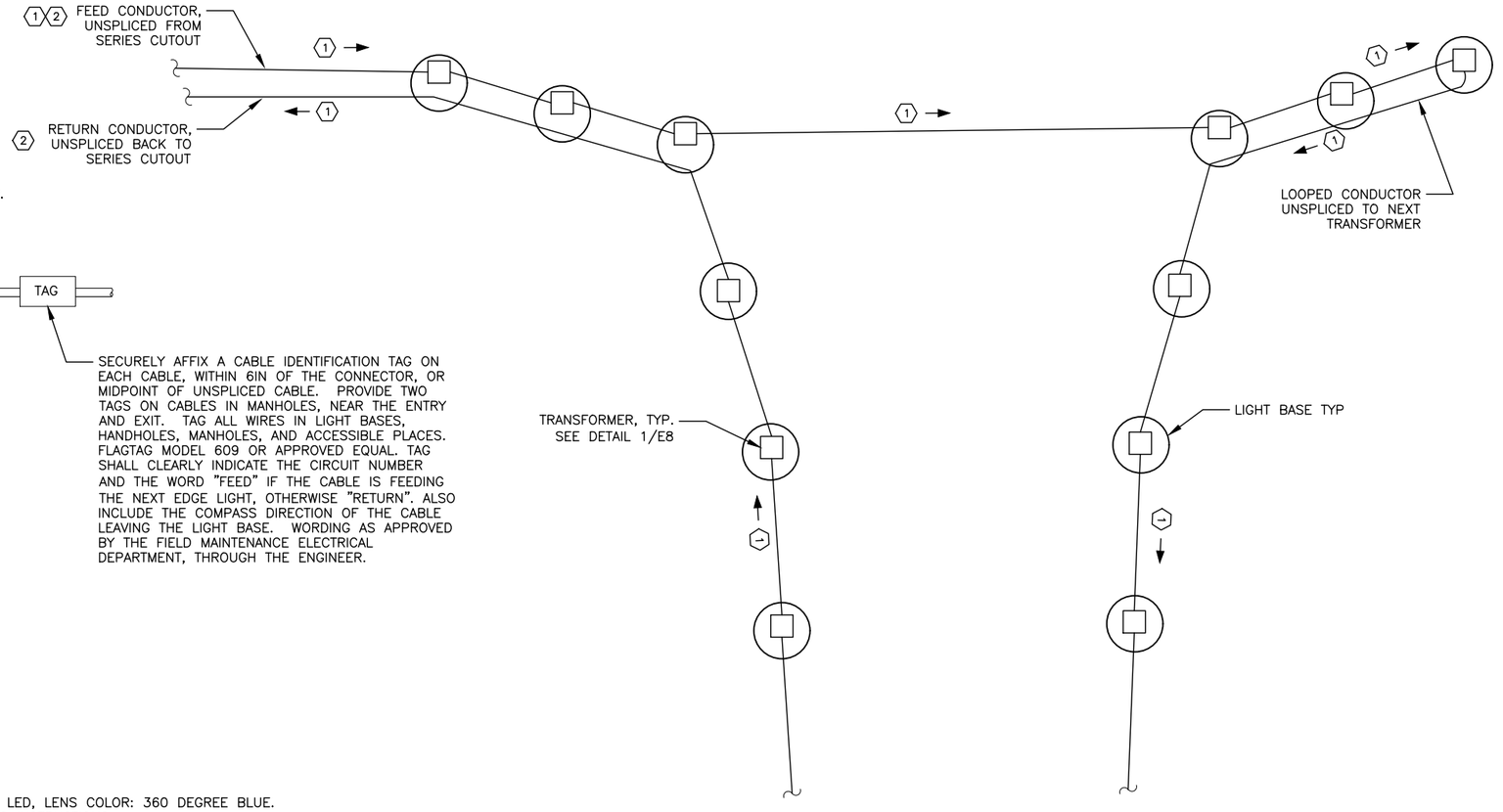
SIGN DETAILS

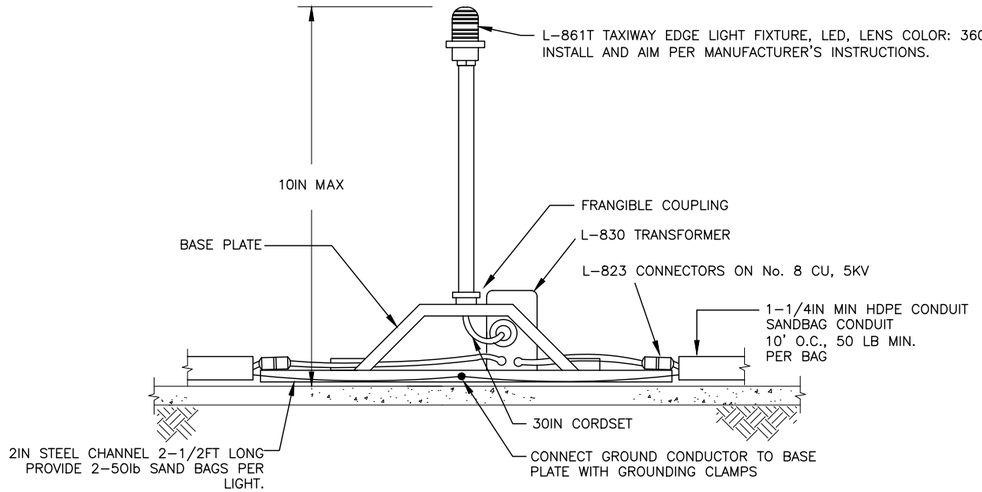
SHEET E7 OF 82



1 E8 CONNECTOR ORIENTATION DETAIL
NTS



2 E8 FIELD WIRING SCHEMATIC
NTS



3 E8 TEMPORARY RUNWAY EDGE LIGHT DETAIL
NTS

* CONSTRUCTION, INSTALLATION, MAINTENANCE AND DEMOLITION OF TEMPORARY EDGE LIGHTS, THRESHOLD LIGHTS AND JUMPERS ARE SUBSIDIARY TO PAY ITEM L-125.180.0000

* TEMPORARY EDGE LIGHTS SHALL BE LAID OUT SYMMETRICAL TO EDGE LIGHTS ON OPPOSITE SIDE OF TAXIWAY. MAINTAIN A STRAIGHT LINE.

DETAIL NOTES:

1. ARRANGE THE LIGHTING CIRCUIT TO FLOW CLOCKWISE AROUND THE RUNWAY AND TAXIWAY WITH THE FEMALE CONNECTOR ON THE REGULATOR SIDE OF THE TRANSFORMER.
2. ALL TRANSFORMER CONNECTIONS SHALL BE MADE ON THE FEED SIDE OF THE SERIES LOOP. RETURN AND LOOP CONDUCTORS SHALL BE CONTINUOUS AND UNSPLICED.

PLANS DEVELOPED BY: MBA CONSULTING ENGINEERS INC. 16515 CENTERFIELD DR., STE. 101 EAGLE RIVER, AK (907)274-2622 CERT. OF AUTH. NO. AECC578
C:\Users\JAMESM~1\AppData\Local\Temp\AcPublish_448796\00277-ADQ-DETAILS-APRON-E8

DESIGN JBM
DRAWN JBM
CHECKED EWC

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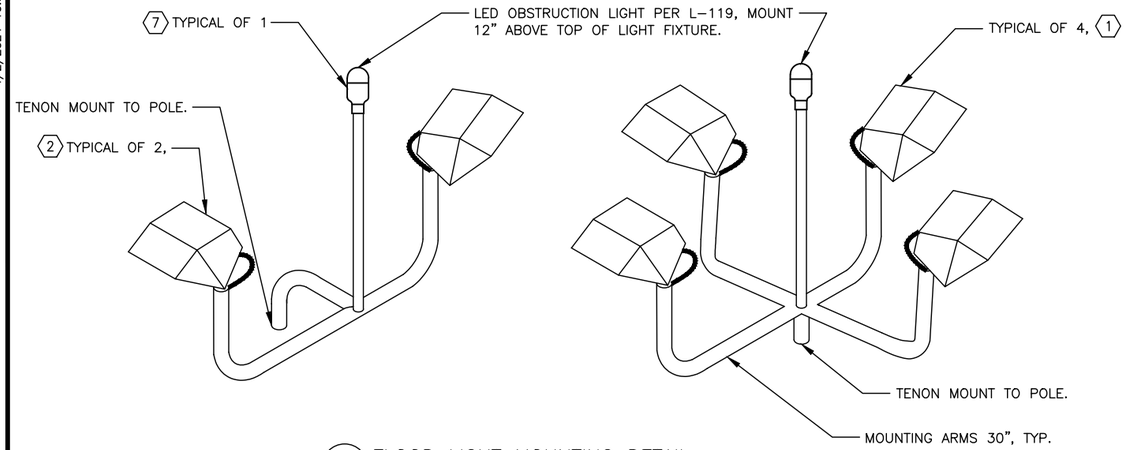
AIP 3-02-0158-024-2024/SFAPT00227
WIRING & TEMPORARY LIGHT BASE DETAIL

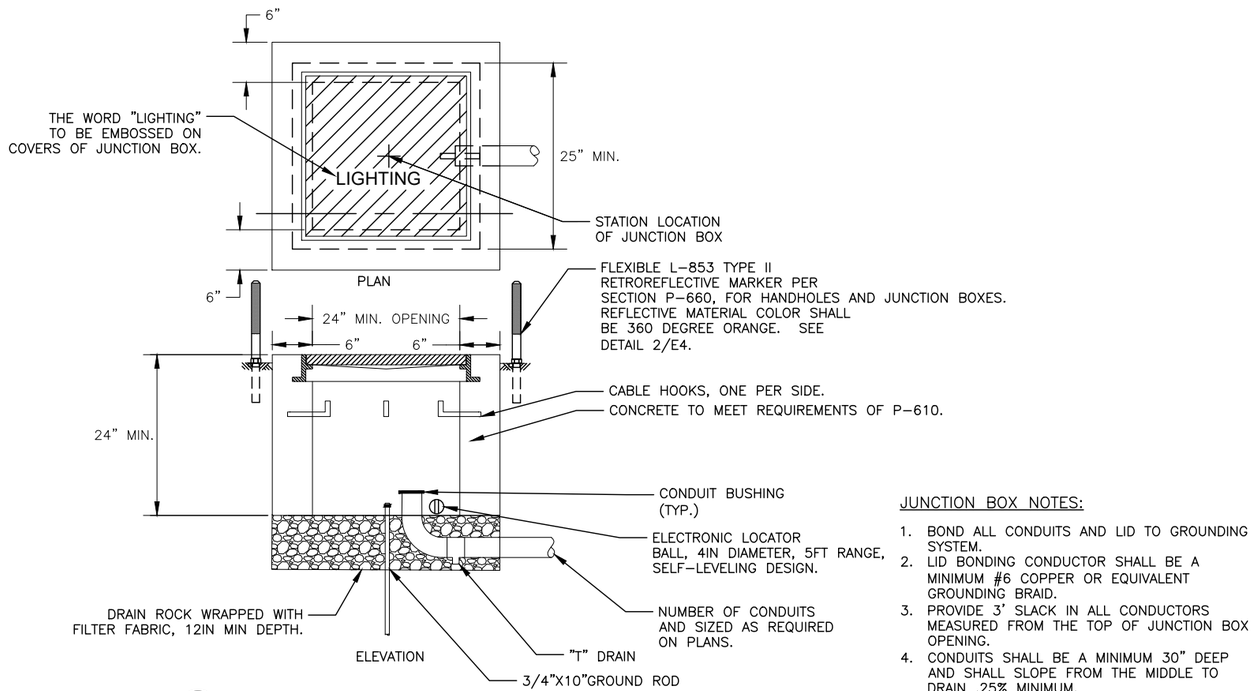
SHEET E8 OF 82



1 / E9 FLOOD LIGHT MOUNTING DETAIL
NTS

APRON FLOOD LIGHTING NOTES:

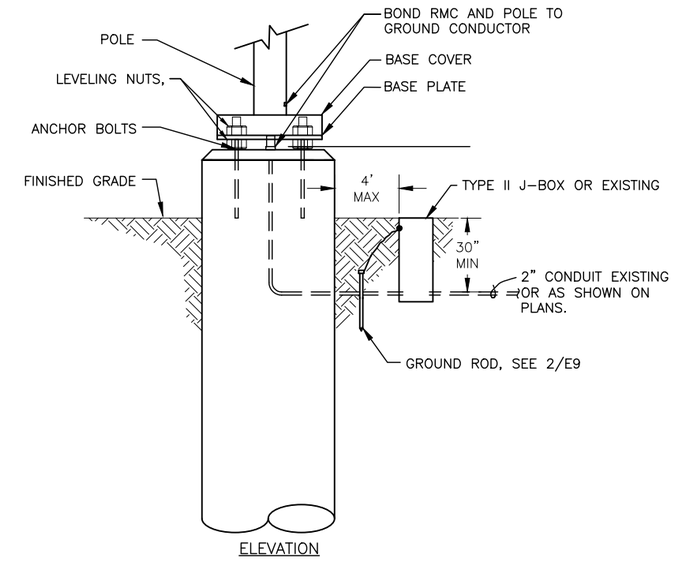
1. LED AREA LIGHT, TYPE R5, FULL CUTOFF, 5K CCT, MVOLT DRIVER, 40K LUMENS (MIN), 70 CRI (MIN) WITH ADJUSTABLE TENON MOUNT. FIXTURE NOT TO EXCEED 3 AMPS. FIXTURES SHALL BE MOUNTED AT 90 DEGREES UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER.
2. LED AREA LIGHT, TYPE R3, FULL CUTOFF, 5K CCT, MVOLT DRIVER, 40K LUMENS (MIN), 70 CRI (MIN) WITH INTEGRAL PE CELL FOR CONTROL AND ADJUSTABLE TENON MOUNT. FIXTURES SHALL BE MOUNTED AT 90 DEGREES UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER.
3. PROVIDE NEW 40FT GALVANIZED ROUND TAPERED POLES AND MOUNTING ARMS AS SHOWN IN DETAIL 1/E9. PROVIDE POLES WITH MOUNTING HOLES TO MATCH EXISTING POLE TO BE REPLACED.
4. POLES SHALL HAVE LOWER HAND HOLES WITH REMOVABLE COVERS THAT PROVIDE ADEQUATE CLEARANCE TO CIRCUIT WIRING AND FUSE HOLDERS.
5. PROVIDE WATERPROOF FUSE HOLDERS AND KTN TYPE FUSES SIZED PER FIXTURE MANUFACTURE RATINGS.
6. PROVIDE BIRD PROTECTION SPIKES FOR VERTICAL SURFACES AND FIXTURES, AND ATTACH PER FIXTURE MANUFACTURER INSTRUCTIONS.
7. PROVIDE L-810 OBSTRUCTION LIGHT WITH PE CELL CONTROL FOR THIS LOCATION ONLY.
8. PAYMENT SUBSIDIARY TO L155.010.0000.



2 / E9 TYPE II JUNCTION BOX DETAIL
NTS

JUNCTION BOX NOTES:

1. BOND ALL CONDUITS AND LID TO GROUNDING SYSTEM.
2. LID BONDING CONDUCTOR SHALL BE A MINIMUM #6 COPPER OR EQUIVALENT GROUNDING BRAID.
3. PROVIDE 3' SLACK IN ALL CONDUCTORS MEASURED FROM THE TOP OF JUNCTION BOX OPENING.
4. CONDUITS SHALL BE A MINIMUM 30" DEEP AND SHALL SLOPE FROM THE MIDDLE TO DRAIN .25% MINIMUM.



ELEVATION

NOTES:

1. PROVIDE STRUCTURAL FOUNDATION FOR SPECIFIED POLE AND WIND SPEED. PROVIDE STAMPED APPROVED BY STATE OF ALASKA REGISTERED STRUCTURAL ENGINEER.
2. VERIFY ANCHOR BOLT SIZE, BOLT CIRCLE, AND FOUNDATION SIZE WITH MANUFACTURER'S SHOP DRAWINGS.
3. PROVIDE 40' ROUND, TAPERED, HOT DIPPED GALVANIZED POLE RATED FOR 100 MPH WITH APPROVED FIXTURES.

3 / E9 FLOOD LIGHT POLE BASE DETAIL
NTS

DESIGN JBM
DRAWN JBM
CHECKED EWC

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RAMP FLOOD LIGHTING DETAILS

SHEET E9 OF 82

KODIAK AIRPORT TAXIWAY EDGE LIGHT SCHEDULE

LIGHT #	COLOR	TYPE	LAMP	XFMR	ALIGNMENT	STATION	OFFSET	NOTES
T1	BLUE	L861T	LED	10/15	APRON CL	507+12	200.37' L	
T2	BLUE	L861T	LED	10/15	APRON CL	507+12	116.53' L	
T3	BLUE	L861T	LED	10/15	APRON CL	507+12	32.69' L	
T4	BLUE	L861T	LED	10/15	APRON CL	507+12	51.16' R	
T5	BLUE	L861T	LED	10/15	APRON CL	507+12	135.00' R	
T6	BLUE	L861T	LED	10/15	APRON CL	508+04.76	135.00' R	
T7	BLUE	L861T	LED	10/15	APRON CL	508+97.52	135.00' R	
T8	BLUE	L861T	LED	10/15	APRON CL	509+90.29	135.00' R	
T9	BLUE	L861T	LED	10/15	APRON CL	510+83.05	135.00' R	
T10	BLUE	L861T	LED	10/15	APRON CL	511+75.81	135.00' R	
T11	BLUE	L861T	LED	10/15	APRON CL	512+68.57	135.00' R	
T12	BLUE	L861T	LED	10/15	APRON CL	513+61.33	135.00' R	
T13	BLUE	L861T	LED	10/15	APRON CL	514+54.10	135.00' R	
T14	BLUE	L861T	LED	10/15	APRON CL	515+38.95	138.47' R	
T15	BLUE	L861T	LED	10/15	APRON CL	516+23.80	141.95' R	
T16	BLUE	L861T	LED	10/15	APRON CL	516+61.96	152.06' R	
T17	BLUE	L861T	LED	10/15	TW F – NORTH	55+93.05	62.18' L	
T18	BLUE	L861T	LED	10/15	TW F – NORTH	55+51.37	50.65' L	
T19	BLUE	L861T	LED	10/15	TW F – NORTH	55+25.66	45.62' L	
T20	BLUE	L861T	LED	10/15	TW F – NORTH	54+98.85	39.15' L	
T21	BLUE	L861T	LED	10/15	TW F – NORTH	54+57.06	38.80' L	
T22	BLUE	L861T	LED	10/15	TW F – NORTH	54+18.07	40.60' L	
T23	BLUE	L861T	LED	10/15	TW F – NORTH	53+67.58	42.94' L	
T24	BLUE	L861T	LED	10/15	TW F – NORTH	53+27.92	53.84' L	
T25	BLUE	L861T	LED	10/15	TW F – NORTH	52+88.29	64.85' L	
T26	BLUE	L861T	LED	10/15	TW F – NORTH	55+93.06	79.99' L	
T27	BLUE	L861T	LED	10/15	TW F – NORTH	55+10.48	53.75' R	
T28	BLUE	L861T	LED	10/15	TW F – NORTH	54+54.44	48.15' R	
T29	BLUE	L861T	LED	10/15	TW F – NORTH	54+18.07	40.96' R	
T30	BLUE	L861T	LED	10/15	TW F – NORTH	53+67.58	39.06' R	
T31	BLUE	L861T	LED	10/15	TW F – NORTH	53+23.00	37.38' R	
T32	BLUE	L861T	LED	10/15	TW F – NORTH	52+80.34	35.77' R	
T33	BLUE	L861T	LED	10/15	TW F – NORTH	52+38.75	35.00' R	
T34	BLUE	L861T	LED	10/15	TW F – NORTH	51+96.89	35.49' R	
T35	BLUE	L861T	LED	10/15	TW F – NORTH	51+53.98	36.79' R	
T36	BLUE	L861T	LED	10/15	TW F – NORTH	51+09.93	38.13' R	

KODIAK AIRPORT SIGN SCHEDULE

SIGN NUMBER	SIZE	STYLE	CLASS	MODE	STATUS	SIDE	TYPE	PURPOSE	LEGEND	LEGEND COLOR	FACE COLOR	ALIGNMENT	STATION	OFFSET
1	2	2	2	2	NEW	NORTH	L-858L(L)	TAXIWAY LOCATION SIGN	F	YELLOW	BLACK	TW F – NORTH	55+92.73	104.11' R
							L-858R(L)	MANDATORY INSTRUCTION SIGN	8–26	WHITE	RED			
						SOUTH	L-858L(L)	TAXIWAY LOCATION SIGN	F	YELLOW	BLACK			
									BLANK		BLACK			
2	2	2	2	2	NEW	EAST	L-858L(L)	TAXIWAY DIRECTION SIGN	F↗	BLACK	YELLOW	TW F – NORTH	51+10.63	63.15' R
						WEST			BLANK		BLACK			
3	2	2	2	2	NEW	WEST	L-858L(L)	TAXIWAY DIRECTION SIGN	↙ F	BLACK	YELLOW	TW F – NORTH	53+53.04	76.20' L
						EAST			BLANK		BLACK			

KODIAK AIRPORT HANDHOLE SCHEDULE

UNIT #	SYSTEM	TYPE	PAY ITEM	USE	REMARKS	ALIGNMENT	STATION	OFFSET	NOTES
HH1	TAXIWAY	L867	L125.150.0000	LIGHTING	EACH	TW F – NORTH	55+39.06	86.30' L	4
HH2	APRON	II	L150.010.0000	LIGHTING	LUMP SUM	APRON CL	509+61.30	358.48' L	3, 4
HH3	APRON	II	L150.010.0000	LIGHTING	LUMP SUM	RW 8–26	509+61.48	248.47' L	3, 4
HH4	APRON	II	L150.010.0000	LIGHTING	LUMP SUM	RW 8–26	507+26.27	248.47' L	3, 4

KODIAK AIRPORT RUNWAY EDGE LIGHT SCHEDULE

LIGHT #	COLOR	TYPE	LAMP	XFMR	ALIGNMENT	STATION	OFFSET	NOTES
R1	W/Y	L862	120	100	RW 8–26	113+81.34	82.00' L	1, 2
R2	W/Y	L862	120	100	RW 8–26	117+78.99	82.00' L	1, 2

NOTES:

1. STATION AND OFFSET BASED ON LEGACY PLANS. FIELD VERIFY. EXISTING LIGHT BASE TO REMAIN.
2. PROVIDE 120 WATT REPLACEMENT LAMPS TO MATCH EXISTING.
3. TYPE II H20 RATED HANDHOLE.
4. FIELD ADJUST AS REQUIRED WITH ENGINEERS APPROVAL.

TAXIWAY LIGHT BASE SPACING

FROM	TO	DISTANCE
T01	T02	83.84
T02	T03	83.84
T03	T04	83.84
T04	T05	83.84
T05	T06	92.76
T06	T07	92.76
T07	T08	92.76
T08	T09	92.76
T09	T10	92.76
T10	T11	92.76
T11	T12	92.76
T12	T13	92.76
T13	T14	84.92
T14	T15	84.92
T15	T16	39.48
T16	T17	39.48
T17	T18	51.44
T18	T19	41.68
T19	T20	41.68
T20	T21	50.00
T21	T22	39.04
T22	T23	50.55
T23	T24	41.13
T24	T25	41.13
T26	T27	49.11
T27	T28	37.07
T28	T29	37.07
T29	T30	50.53
T30	T31	44.38
T31	T32	42.91
T32	T33	41.60
T33	T34	41.87
T34	T35	42.92
T35	T36	44.08

DESIGN JBM
DRAWN JBM
CHECKED EWC

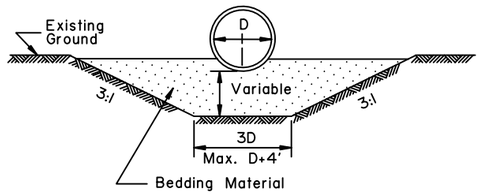
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION–DESIGN AND CONSTRUCTION–AVIATION

STATE OF ALASKA 49TH
EDWARD W. CARLSON
4/02/2024
EE-9354
REGISTERED PROFESSIONAL ENGINEER

BY	DATE	REVISIONS

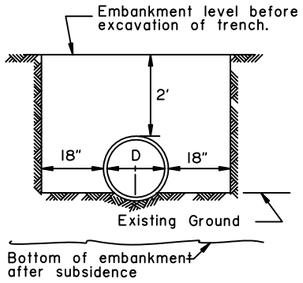
KODIAK AIRPORT
KDK: ADQ AIRPORT APRON AND TWY F RECONSTRUCTION
AIP 3-02-0158-024-2024/SFAPT00227
SCHEDULES

SHEET E10 OF 82

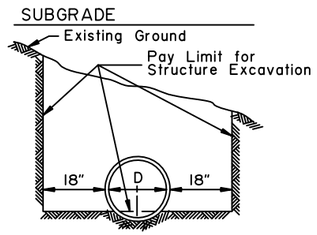


TYPE "A"
FOUNDATION STABILIZATION

To be used in unstable areas as directed by the Engineer.



TYPE "B"



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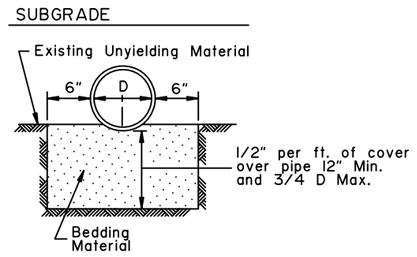
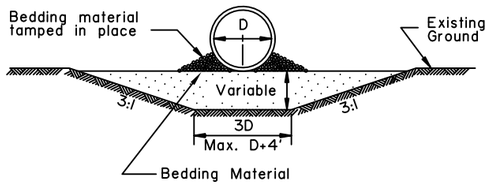
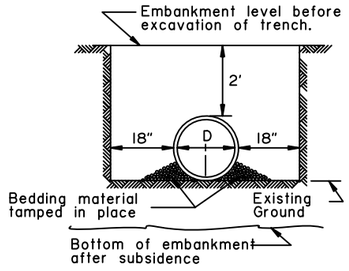


TYPE "D"
ROCK OR UNYIELDING MATERIAL



'ALTERNATE'
TYPE "A"
FOUNDATION STABILIZATION

To be used in unstable areas as directed by the Engineer.



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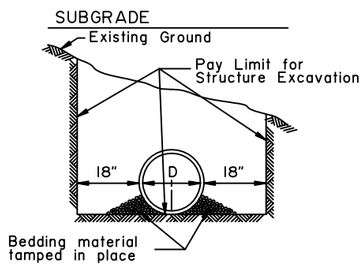
TYPE "B"



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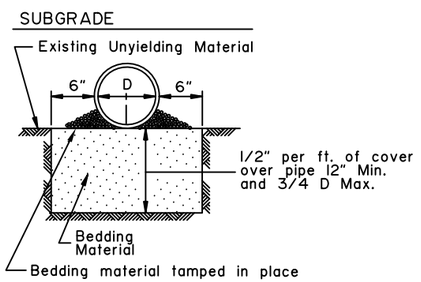
TYPE "C"

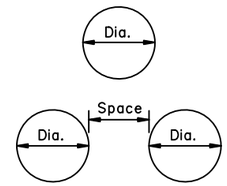


'ALTERNATE' TYPE "D"
ROCK OR UNYIELDING MATERIAL

GENERAL NOTES:

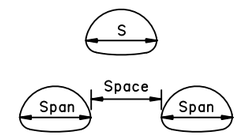
1. Sidefill shall be placed and compacted with care under haunches of pipe and shall be brought up evenly and simultaneously on both sides of pipe to 1 foot above the top of the full length of the pipe.
2. Alternate installation methods may only be used when specified or approved by the Engineer.

D = Nominal Pipe Diameter



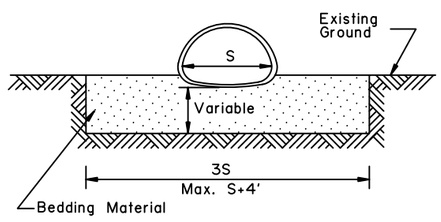
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Dia. of pipe or 3', whichever is less.

S = Nominal Pipe Arch Span



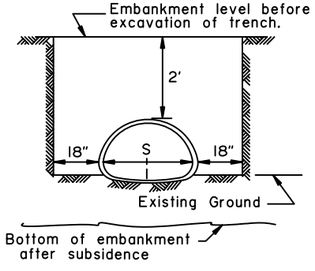
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Span of pipe arch or 3', whichever is less.

CULVERT PIPE

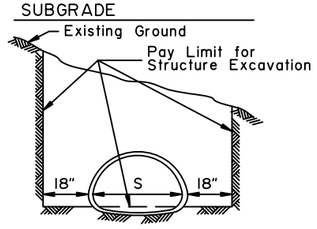


TYPE "A"
FOUNDATION STABILIZATION

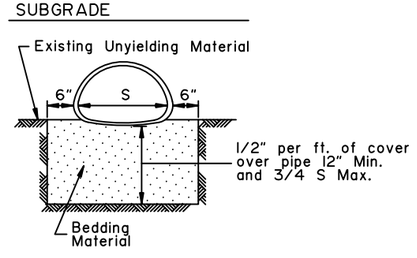
To be used in unstable areas as directed by the Engineer.



TYPE "B"



TYPE "C"



TYPE "D"
ROCK OR UNYIELDING MATERIAL

ARCH

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CULVERT PIPE & ARCH INSTALLATION DETAILS

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-01.02

GENERAL NOTES:

1. All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
2. The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
3. No more than one type of pipe may be used on any single installation or installation grouping.
4. All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
5. See Standard Plan D-01 "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
6. Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the bottom of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflection.
7. These tables have been developed for an HL-93 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2017 AASHTO "LRFD Bridge Design Specifications".

CORRUGATED CIRCULAR ALUMINUM PIPE

Minimum & Maximum Cover for 2 2/3"X 1/2" Aluminum Pipe

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

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

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

Minimum & Maximum Cover for 9" X 2 1/2" Aluminum Structural Plate Pipe*

Thickness		0.125	0.150
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)
84	18	31	
90	18	27	
96	18	27	
102	18	24	
108	18	24	
114	18	21	
120	24	21	
126	24	19	
132	30	19	
138	30	18	
144	30	18	
150	30		22
156	30		22
162	36		20
168	36		20

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

CORRUGATED ALUMINUM PIPE-ARCH

Minimum & Maximum Cover for 2 2/3"X 1/2" Aluminum Pipe-Arch

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

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

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

Minimum & Maximum Cover for 9" x 2 1/2" Aluminum Multiplate Pipe-Arch*

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

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

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

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

Adoption Date: 7/17/2020

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

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

Minimum & Maximum Cover for 2 2/3" x 1/2" Steel Pipe						
Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
12	12	100+	100+	100+	100+	100+
15	12	100+	100+	100+	100+	100+
18	12	100+	100+	100+	100+	100+
21	12	100+	100+	100+	100+	100+
24	12	100+	100+	100+	100+	100+
30	12	83	100+	100+	100+	100+
36	12	69	86	100+	100+	100+
42	12	59	74	100+	100+	100+
48	12	51	64	91	100+	100+
54	12		57	80	100+	100+
60	12			72	93	100+
66	12			66	85	100+
72	12				78	95
78	12					84
84	12					73

Minimum & Maximum Cover fo 3" x 1" Steel Pipe						
Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
36	12			100+	100+	100+
42	12			100+	100+	100+
48	12		74	100+	100+	100+
54	12	53	66	93	100+	100+
60	12	47	59	83	100+	100+
66	12	43	54	76	98	100+
72	12	39	49	69	89	100+
78	12	36	45	64	82	100+
84	12	33	42	59	77	94
90	12	31	39	55	71	87
96	12	29	37	52	67	82
102	18	27	34	49	63	77
108	18		32	46	59	73
114	18		31	43	56	69
120	18		29	41	53	65
126	18			39	51	62
132	18			37	48	59
138	18			36	46	57
144	18				44	54

Minimum & Maximum Cover for 5" x 1" Steel Pipe						
Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
36	12	71	88	100+	100+	100+
42	12	60	76	100+	100+	100+
48	12	53	66	93	100+	100+
54	12	47	59	82	100+	100+
60	12	42	53	74	96	100+
66	12	38	48	67	87	100+
72	12	35	44	62	79	97
78	12	32	40	57	73	90
84	12	30	37	53	68	83
90	12	28	35	49	63	78
96	12	26	33	46	59	73
102	18	24	31	43	56	69
108	18		29	41	53	65
114	18		27	39	50	61
120	18		26	37	47	58
126	18			35	45	55
132	18			33	43	53
138	18			32	41	50
144	18				39	48

Minimum & Maximum Cover for 6" x 2" Steel Multiplate Pipe*								
Gage		12	10	8	7	5	3	1
Thickness		0.111	0.140	0.170	0.188	0.218	0.249	0.280
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
60	12	46	67	87	100	100+	100+	100+
66	12	42	60	79	91	100+	100+	100+
72	12	38	55	73	83	100+	100+	100+
78	12	35	51	67	77	93	100+	100+
84	12	32	47	62	71	86	100+	100+
90	12	30	44	58	67	80	95	100+
96	12	28	41	54	62	75	89	97
102	18	27	39	51	59	71	84	91
108	18	25	37	48	55	67	79	86
114	18	24	35	45	52	63	75	82
120	18	22	33	43	50	60	71	77
126	18	21	31	41	47	57	68	74
132	18	20	30	39	45	54	64	70
138	18	19	28	37	43	52	62	67
144	18	18	27	36	41	50	59	64

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

GENERAL NOTES

1. All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
2. The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
3. No more than one type of pipe may be used on any single installation or installation grouping.
4. All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
5. See Standard Plan D-01 "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
6. Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the bottom of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflecton.
7. These tables have been developed for an HL-93 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2017 AASHTO "LRFD Bridge Design Specifications".

CORRUGATED CIRCULAR STEEL PIPE

CORRUGATED STEEL PIPE-ARCH

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

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

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

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

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

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

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

Adoption Date: 7/17/2020

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

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

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

GENERAL NOTES

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

2. For foundation and structural backfill details see Standard Plan D-01 "Culvert Pipe & Arch Installation Details".

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

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

Adopted as an Alaska Standard Plan by: Carolyn Morehouse
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Chief Engineer

Adoption Date: 7/17/2020

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By: KLH Date: 7/8/2020

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

Minimum & Maximum Cover for Aluminum Spiral Rib Circular Pipe*					
Gage		16	14	12	10
Thickness		0.064	0.079	0.109	0.138
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
18	12	43	61		
21	12	38	52	84	
24	12	33	45	73	
30	15	26	36	58	
36	18	21	30	49	69
42	21		25	41	59
48	24			36	51
54	24			32	46
60	24			29	41
66	24				37
72	30				34

*¾ x ¾ x 7½ in. Corrugations

Minimum & Maximum Cover for Aluminum Spiral Rib Pipe-Arch*						
Gage			16	14	12	10
Thickness			0.060	0.075	0.105	0.135
Span (Ft.-In.)	Rise (Ft.-In.)	Min. Cover (In)	Max. Cover (Ft)			
20	16	12	16			
23	19	12	15			
27	21	15	13	13		
33	26	18	13	13	13	
40	31	21		13	13	
46	36	24			13	13
53	41	24			13	13
60	46	24			13	13
66	51	24				13

*¾ x ¾ x 7½ in. Corrugations

ALUMINUM SPIRAL RIB PIPE

STEEL SPIRAL RIB PIPE

Minimum & Maximum Cover for Steel and Aluminized Steel Spiral Rib Circular Pipe*					
Gage		16	14	12	10
Thickness		0.064	0.079	0.109	0.138
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
18	12	91			
24	12	68	95	100+	
30	12	54	76	100+	
36	12	45	63	100+	
42	12	38	54	90	
48	12	33	47	79	
54	18	30	42	70	
60	18	27	38	63	92
66	18	24	34	57	83
72	18		31	52	76
78	24		29	48	70
84	24		27	45	65
90	24			42	61
96	24			39	56
102	30			36	50
108	30			32	45

*¾ x ¾ x 7½ in. Corrugations.

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

*¾ x ¾ x 7½ in. Corrugations

GENERAL NOTES

1. All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
2. The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
3. No more than one type of pipe may be used on any single installation or installation grouping.
4. All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
5. See Standard Plan D-01 "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
6. Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the bottom of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflecton.
7. These tables have been developed for an HL-93 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2017 AASHTO "LRFD Bridge Design Specifications".

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

Adopted as an Alaska Standard Plan by: Carolyn Morehouse

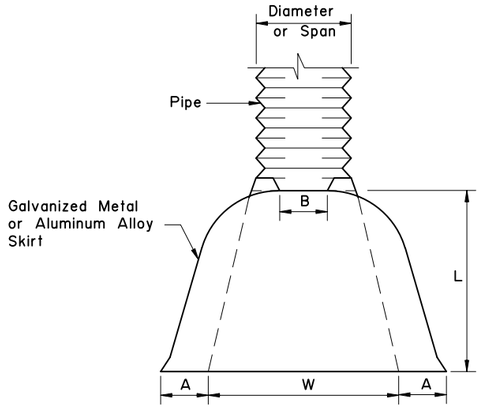
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

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

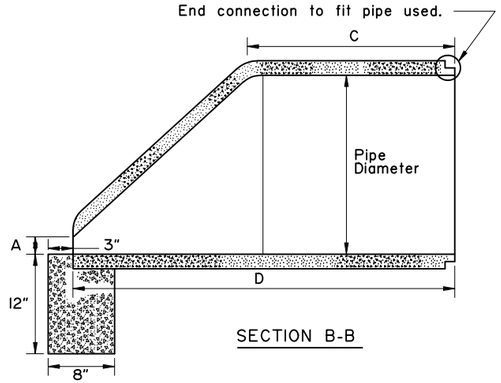
Next Code and Standards Review date: 7/8/2030

D-04.22



PLAN

ROUND AND PIPE ARCH

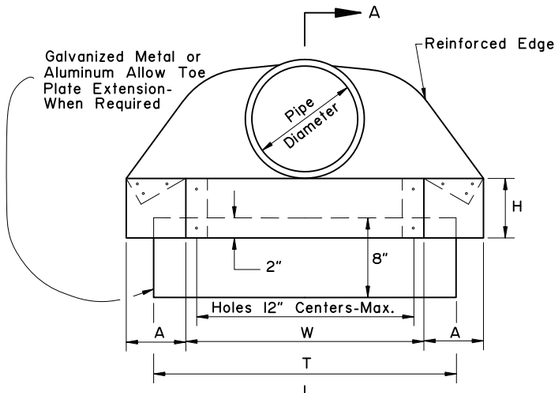


SECTION B-B

MINIMUM DIMENSIONS					
Pipe Diameter	A	B	C	D	E
12"	4"	1 3/4"	24"	46"	24"
18"	9"	2"	25"	50"	36"
24"	9 1/2"	2 1/2"	30"	72"	48"
30"	12"	3"	20"	73"	60"
36"	15"	3 3/8"	35"	97"	72"
42"	21"	3 3/4"	35"	98"	78"
48"	24"	4 1/4"	26"	98"	84"
54"	27"	4 5/8"	33"	99"	82"

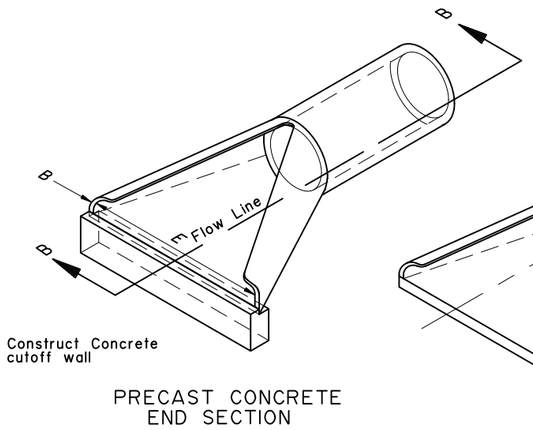
ROUND PIPE										
Pipe Diam. Inches	Thickness For Aluminum	Thk. for Galv. Metal	Dimension Inches A 1" Tol.	B Max.	H 1" Tol.	L 1 1/2" Tol.	W 2" Tol.	T 2" Tol.	Skirt	Approx. Slope
12"	0.060	0.064	6"	6"	6"	21"	24"	34"	1 Pc.	2 1/2
15"	0.060	0.064	7"	8"	6"	26"	30"	40"	1 Pc.	2 1/2
18"	0.060	0.064	8"	10"	6"	31"	36"	46"	1 Pc.	2 1/2
21"	0.060	0.064	9"	12"	6"	36"	42"	52"	1 Pc.	2 1/2
24"	0.075	0.064	10"	13"	6"	41"	48"	58"	1 Pc.	2 1/2
30"	0.075	0.079	12"	16"	8"	51"	60"	70"	1 Pc.	2 1/2
36"	0.105	0.079	14"	19"	9"	60"	72"	94"	2 Pc.	2 1/2
42"	0.105	0.109	16"	22"	11"	69"	84"	106"	2 Pc.	2 1/2
48"	0.105	0.109	18"	27"	12"	78"	90"	112"	2 Pc.	2 1/4
54"	0.105	0.109	18"	30"	12"	84"	102"	122"	2 Pc.	2 1/4
60"	0.135	0.109	18"	33"	12"	87"	114"	134"	3 Pc.	2 1/4
66"	0.135	0.109	18"	36"	12"	87"	120"	142"	3 Pc.	2 1/4
72"	0.135	0.109	18"	39"	12"	87"	126"	146"	3 Pc.	2 1/4
78"	— —	0.109	18"	42"	12"	87"	132"	152"	3 Pc.	1 1/4
84"	— —	0.109	18"	45"	12"	87"	138"	158"	3 Pc.	1 1/6

PIPE-ARCH										
Pipe-Arch Dimension Inches Span	Rise	Thickness for Aluminum	Thk. for Galv. Metal	Dimension Inches A 1" Tol.	B Max.	H 1" Tol.	L 1 1/2" Tol.	W 2" Tol.	T 2" Tol.	Skirt	Approx. Slope
17"	13"	0.060	0.064	7"	9"	6"	19"	30"	40"	1 Pc.	2 1/2
21"	15"	0.060	0.064	7"	10"	6"	23"	36"	46"	1 Pc.	2 1/2
24"	18"	0.060	0.064	8"	12"	6"	28"	42"	52"	1 Pc.	2 1/2
28"	20"	0.075	0.064	9"	14"	6"	32"	48"	58"	1 Pc.	2 1/2
35"	24"	0.075	0.079	10"	16"	6"	39"	60"	70"	1 Pc.	2 1/2
42"	29"	0.105	0.079	12"	18"	8"	46"	75"	85"	1 Pc.	2 1/2
49"	33"	0.105	0.109	13"	21"	9"	53"	85"	103"	2 Pc.	2 1/2
57"	38"	0.105	0.109	18"	26"	12"	63"	90"	114"	2 Pc.	2 1/2
64"	43"	0.105	0.109	18"	30"	12"	70"	102"	130"	2 Pc.	2 1/4
71"	47"	0.135	0.109	18"	33"	12"	77"	114"	144"	3 Pc.	2 1/4
77"	52"	0.135	0.109	18"	36"	12"	84"	120"	158"	3 Pc.	2 1/4
83"	57"	0.135	0.109	18"	39"	12"	90"	126"	170"	3 Pc.	2 1/4

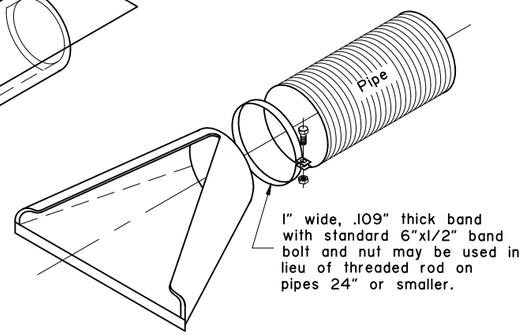


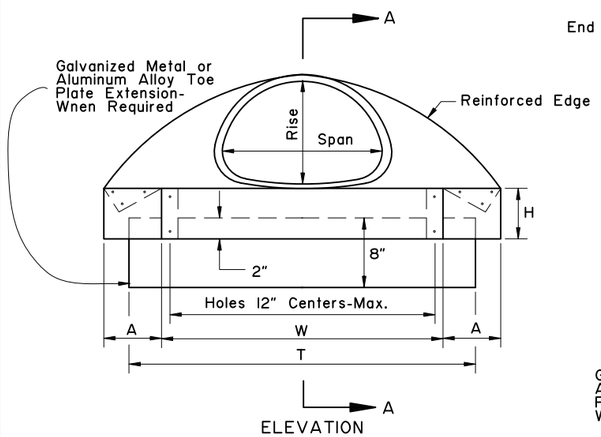
ELEVATION

ROUND PIPE



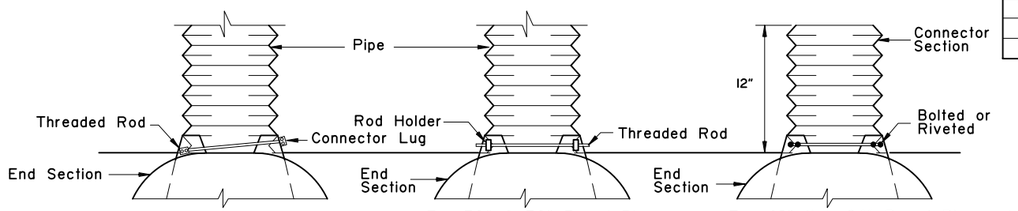
PRECAST CONCRETE END SECTION





ELEVATION

PIPE ARCH

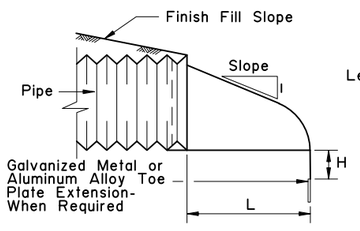


For 12" thru 24" Round Pipe with Annular Corrugations

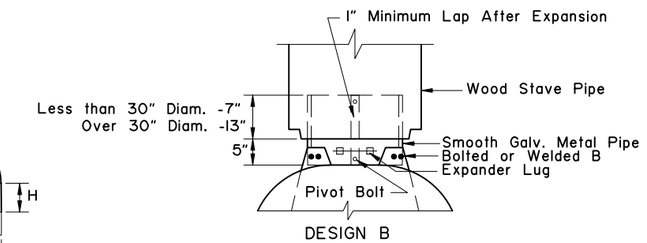
For 30" & 36" Round Pipe and 18"x11" thru 58"x36" Pipe Arch with Annular Corrugations.

For 42" thru 84" Round Pipe and 65"x40" thru 85"x54" Pipe Arch with Annular Corrugations and All Helically Corrugated Pipe and Pipe Arch.

DESIGN A



SECTION A-A



DESIGN B

METAL END SECTION CONNECTED TO WOOD STAVE PIPE

GENERAL NOTES:

1. Toe plate extensions will be required only when provided for on the plans. When required, the toe plate extensions shall be punched with holes to match those in lip of skirt and fastened with 3/8 inch or larger galvanized nuts and bolts and shall be the same gage as the end section.
2. Galvanized Metal or Aluminum Alloy End Sections may be used on Wood Stave and Plastic Pipe.
3. All 3 piece bodies shall have 12 gage sides and 10 gage center panels. Multiple panel bodies shall have lap seams which are to be tightly joined by 3/8" galvanized rivets or bolts.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CULVERT END SECTIONS

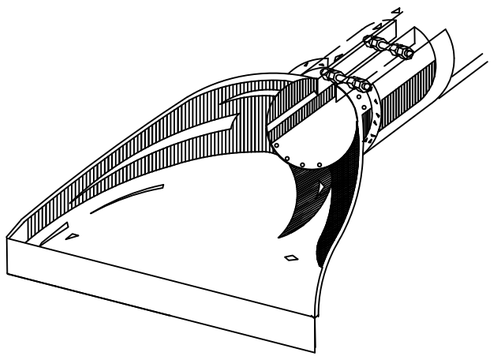
Adopted as an Alaska Standard Plan by: Kenneth J. Fisher, P.E. Chief Engineer

Adoption Date: 02/08/2019

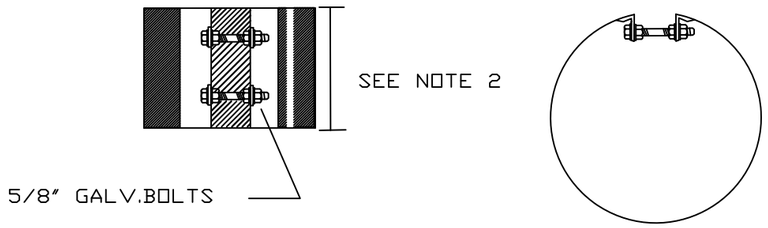
Last Code and Stds. Review By: Date:

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

D-06.10



FOR CONNECTING CONCRETE PIPE OR CORRUGATED POLYETHYLENE PIPE TO METAL END SECTION.



GENERAL NOTES

1. See general notes on sheet 1 of 3.
2. See sheet 1 of 3 for metal end section dimensions.
3. Insert bolts, washers and rivets shall be galvanized. Insert thickness is the same as the end section.
4. Use culvert inserts only at inlet.

METAL INSERTS FOR USE WITH CORRUGATED PLASTIC PIPE AND METAL END SECTIONS

State of Alaska DOT&PF
ALASKA STANDARD PLAN

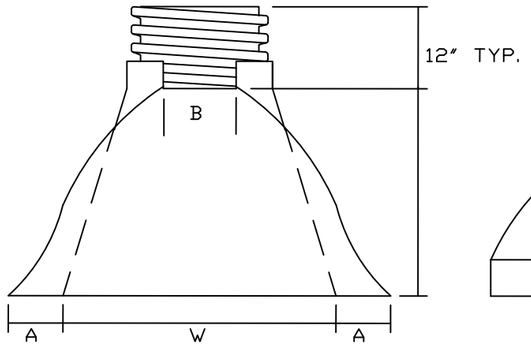
CULVERT END SECTIONS

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

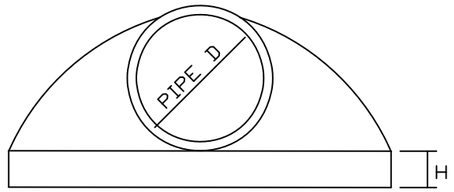
Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

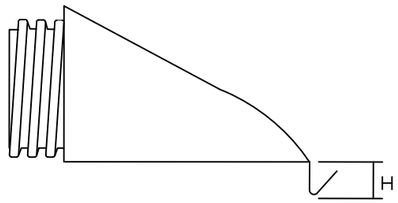
Next Code and Standards Review date: 02/08/2029



TOP VIEW



END VIEW



SIDE VIEW

PIPE DIAMETER	DIMENSIONS IN MILLIMETERS				
	A(1"±)	B MAX	H(1"±)	L(1/2"±)	W(2"±)
12" and 15"	6 1/2"	10"	6 1/2"	25"	29"
18"	7 1/2"	15"	6 1/2"	32"	35"
24"	7 1/2"	18"	6 1/2"	36"	45"
30"	10 1/2"	N/A	7"	53"	68"
36"	10 1/2"	N/A	7"	53"	68"

PLASTIC END SECTION FOR CORRUGATED PLASTIC PIPE

GENERAL NOTES

1. Plastic flared end sections may be used with HDPE corrugated culvert pipes where noted in project plans or approved by project engineer.
2. Consult manufacturer's recommendations for proper sizing and coupling devices. Recommended fasteners may include connecting bands or cinch ties. Fittings across dimension B may include threaded rods with wing nuts or bolts and washers. plastic welds may be recommended.
3. Align coupling to accomodate pipe corrugations.
4. Metal components e.g. bolts or washers must be galvanized.
5. Attachment of end section should preserve culvert alignment and not impair pipe function. Use end sections only on culvert inlet.
6. Toe plate extensions will be required only when designated on the plans.
7. End sections will not be used on HDPE culvert pipes larger than 36" unless indicated by project plans or approved by the Engineer.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

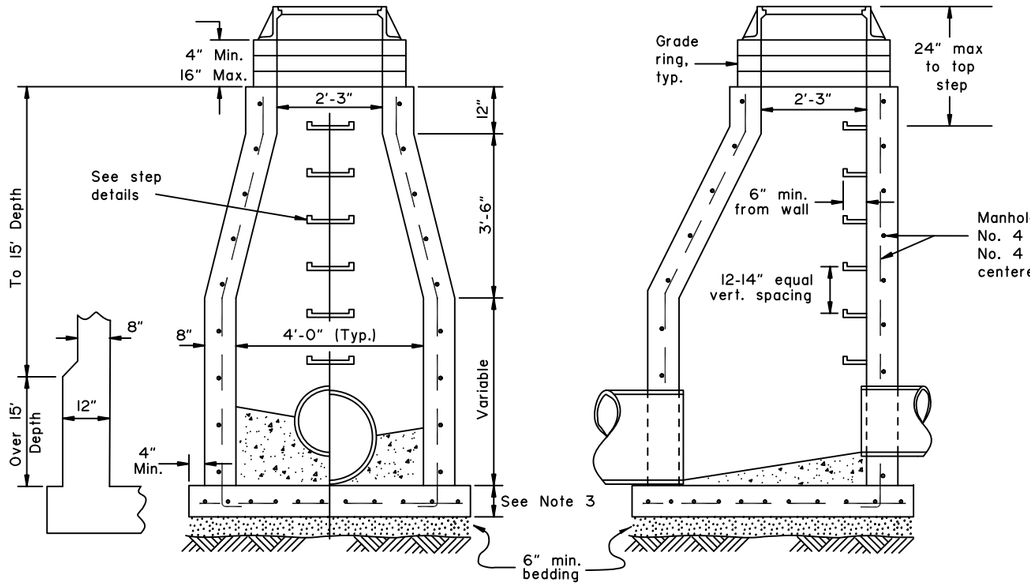
CULVERT END SECTIONS

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

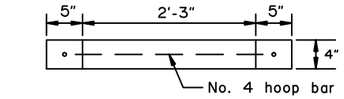
Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

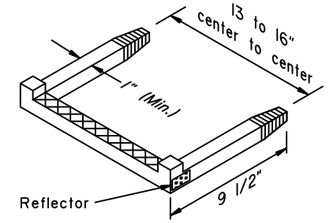
Next Code and Standards Review date: 02/08/2029



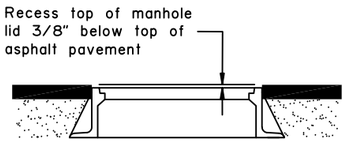
CAST-IN-PLACE MANHOLE



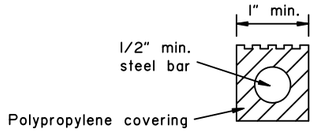
GRADE RING



STEP DETAIL



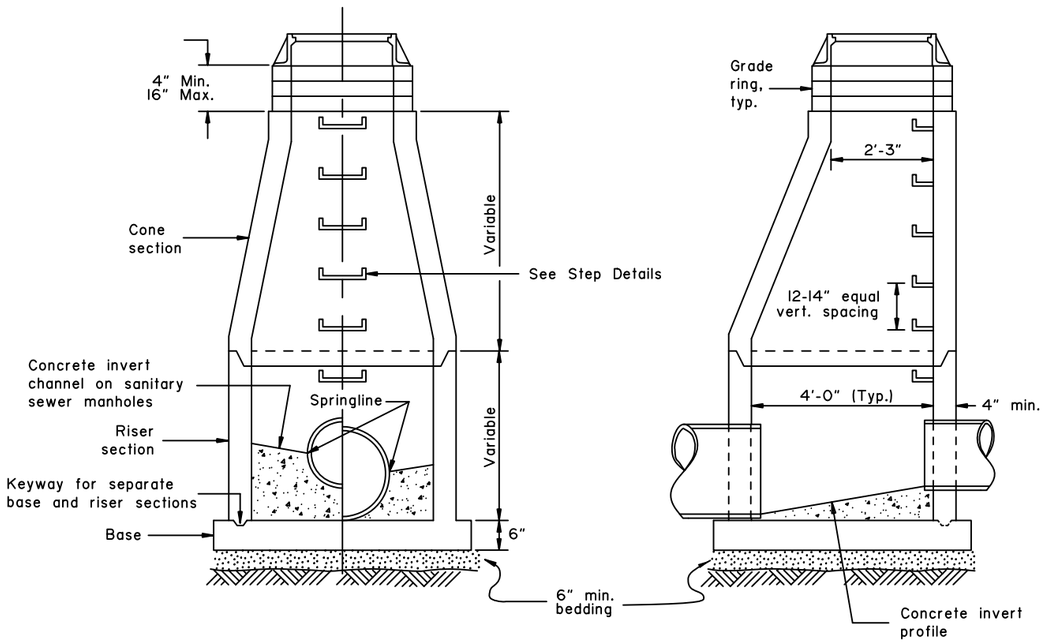
MANHOLE IN PAVEMENT



STEP CROSS SECTION

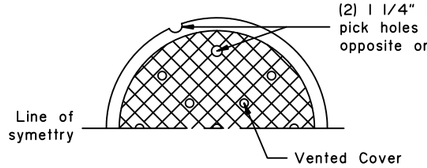
GENERAL NOTES:

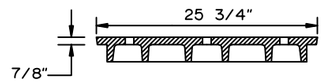
1. Either precast or cast-in-place manholes may be used.
2. Details for manhole frame, cover and step are generic in nature and may vary from shown depending on manufacturer
3. Use 8" thick cast-in-place concrete bases for depths less than 15' and 12" thick bases for depths 15' or greater.
4. Manhole frames shall have a depth of 6" unless otherwise indicated on the plans.
5. Step requirements:
   a. 18" max. vertical clearance to bottom of manhole or concrete invert.
   b. 3" minimum embedment.
   c. 1,500 lb. min. pullout force.
   d. ASTM A-615 grade 60 steel bar.
   e. Injection molded polypropylene covering meeting ASTM D-41010
   f. Slip resistant foot tread with "wings" to prevent feet from sliding off the edge.
   g. Reflectors at step corners
6. Reinforcement for precast manhole sections shall meet AASHTO M 199.



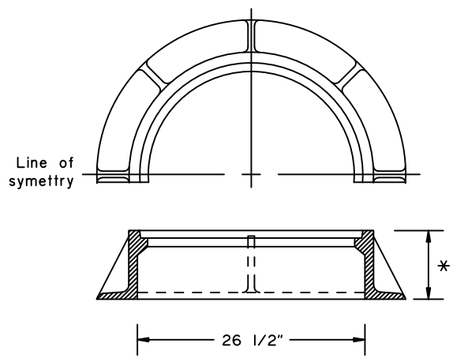
PRECAST CONCRETE MANHOLE

Reinforcement not shown for clarity
See Note 6





MANHOLE COVER



MANHOLE FRAME

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

State of Alaska DOT&PF
ALASKA STANDARD PLAN

MANHOLES, FRAME AND COVER

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

Adoption Date: 02/08/2019

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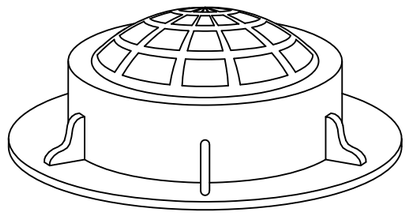
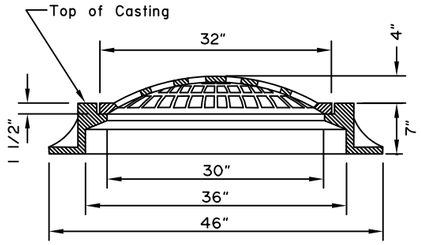
By: Date:

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

D-20.05

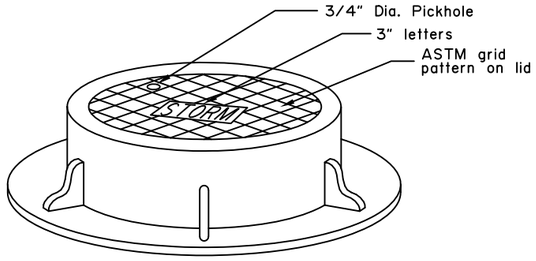


Surround field inlets with a 24" wide rock rubble collar 10" deep, 3" maximum size rock.



FIELD INLET FRAME & GRATE

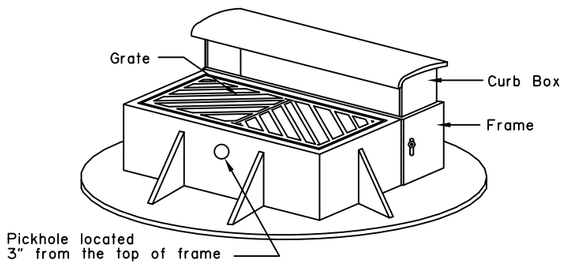
To be supplied for storm drain manholes where field inlets are specified. Field inlet frame and grate shall have a Minimum total weight of 525 lb.



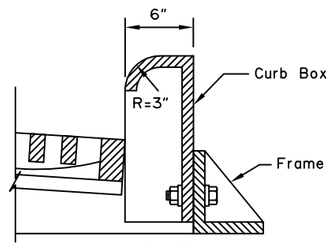
MANHOLE LID FRAME AND GRATE

NOTES:

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

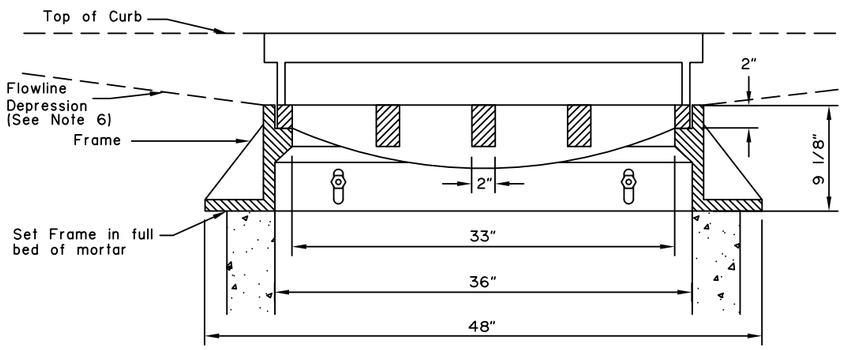


NOTE:
Curb Box, Grate and frame shall have a minimum total weight of 725 lb.

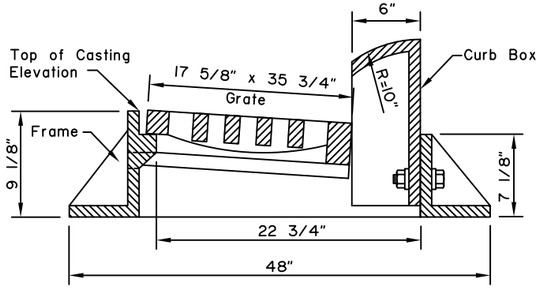


SIDE VIEW
MOUNTABLE CURB AND GUTTER

REQUIRED FRAME AND GRATES (See Note 7)			
STRUCTURE	INLET TYPE	CURB TYPE	TYPE FRAME AND GRATE
INLET BOX, TYPE A	Curb	Mountable	Standard Curb Inlet
	Curb	Expressway	Mountable Curb Inlet
	Curb	Rolled Curb	Depressed Inlet
	Field	------	Field Inlet
STORM DRAIN MANHOLES, TYPE I, II AND III	Curb	Mountable	Mountable Curb Inlet
	Curb	Expressway	Expressway Curb Inlet
	Curb	Rolled Curb	Depressed Inlet
	Field	------	Field Inlet
	Manhole Lids	------	Field Inlet Frame, Solid MH. Lid



FRONT VIEW



SIDE VIEW
EXPRESSWAY CURB AND GUTTER

CURB INLET FRAME AND GRATE

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

NOT TO SCALE

State of Alaska DOT&PF
ALASKA STANDARD PLAN

STORMDRAIN MANHOLE FRAME AND GRATE DETAILS

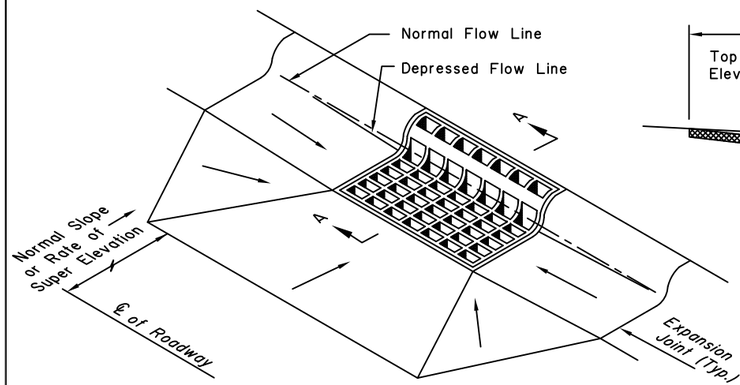
Adopted as an Alaska Standard Plan by: Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

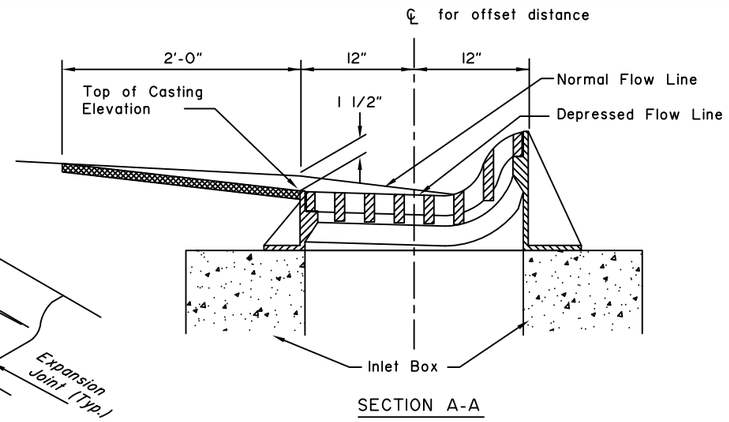
Last Code and Stds. Review
By: Date:

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

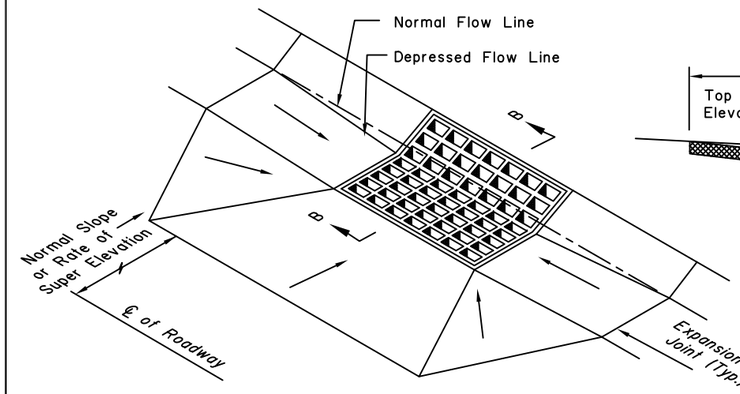
D-22.01



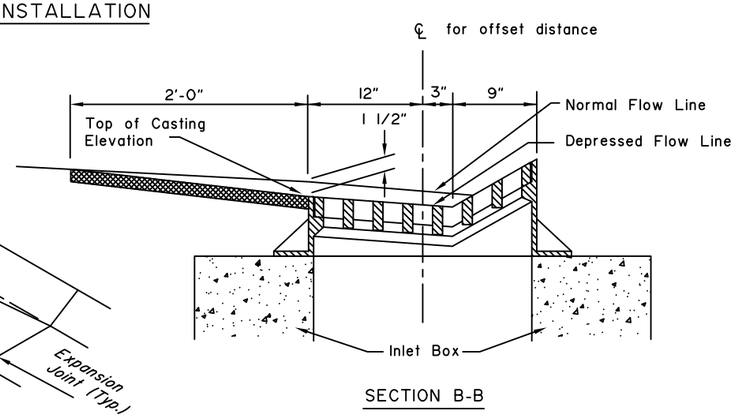
MOUNTABLE CURB INLET INSTALLATION



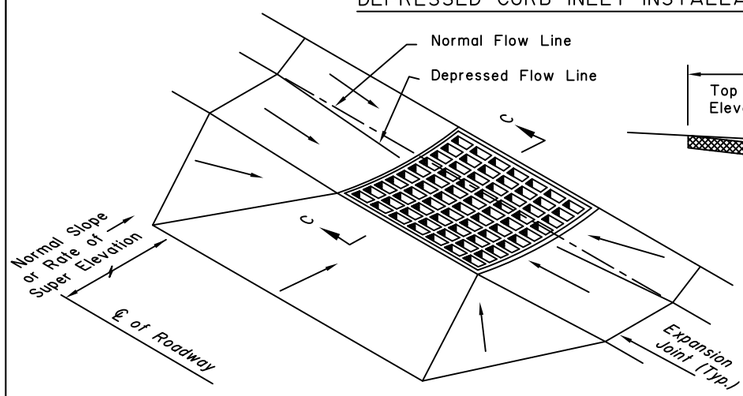
SECTION A-A



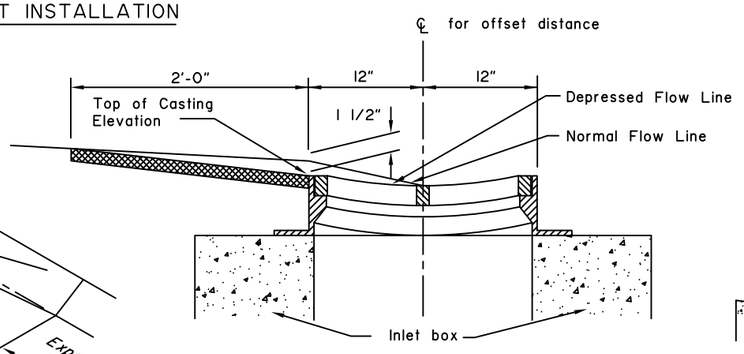
DEPRESSED CURB INLET INSTALLATION



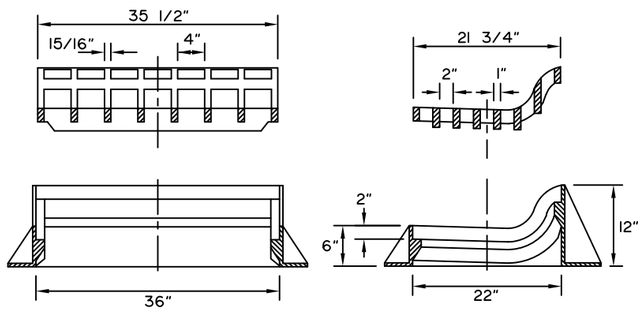
SECTION B-B



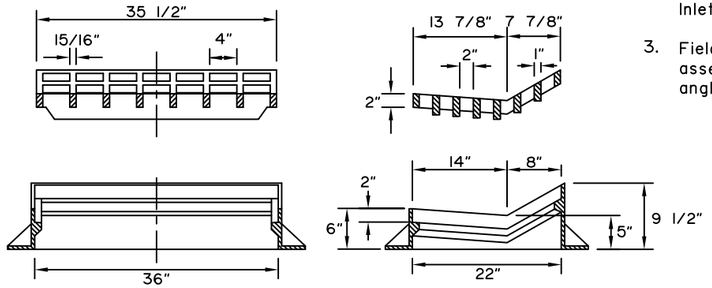
GUTTER INLET INSTALLATION



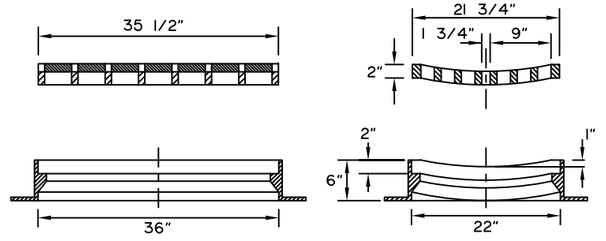
SECTION C-C



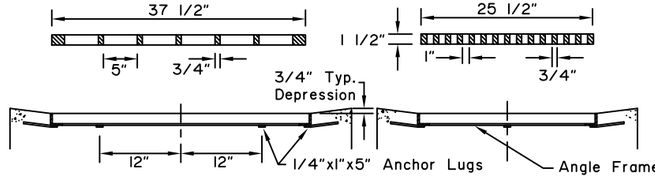
MOUNTABLE CURB INLET FRAME AND GRATE



DEPRESSED CURB INLET FRAME AND GRATE

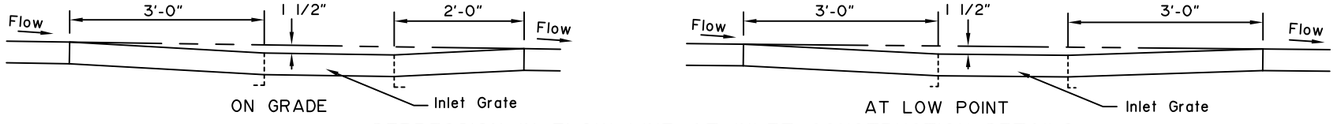


GUTTER INLET FRAME AND GRATE



NOTE: All Angle Frame shall have Anchor Lugs

FIELD INLET FRAME AND GRATE



DEPRESSION IN FLOW LINE AT INLET CONSTRUCTION DETAILS

D-24.00

SHEET 1 of 1

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"x1 3/4"x1/4" 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

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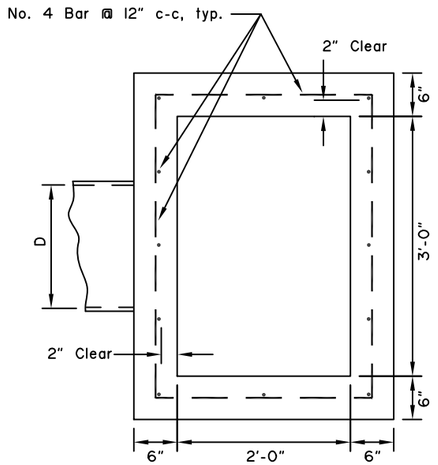
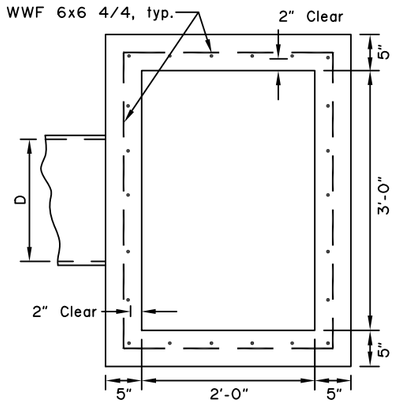
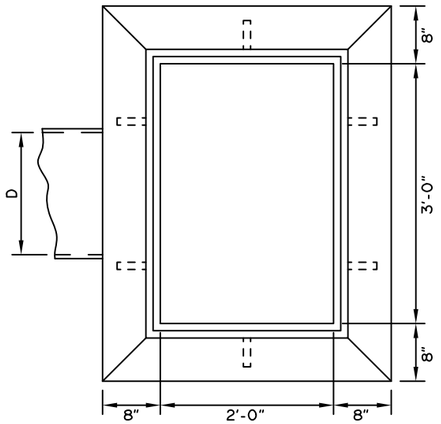
By: Date:

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

D-24.00

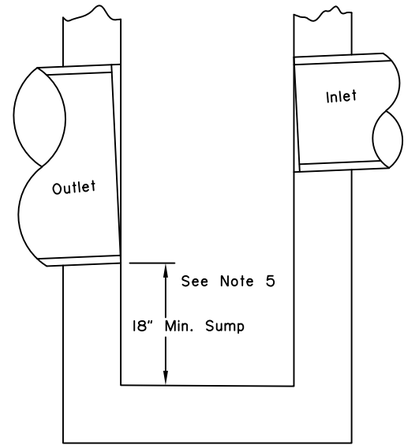




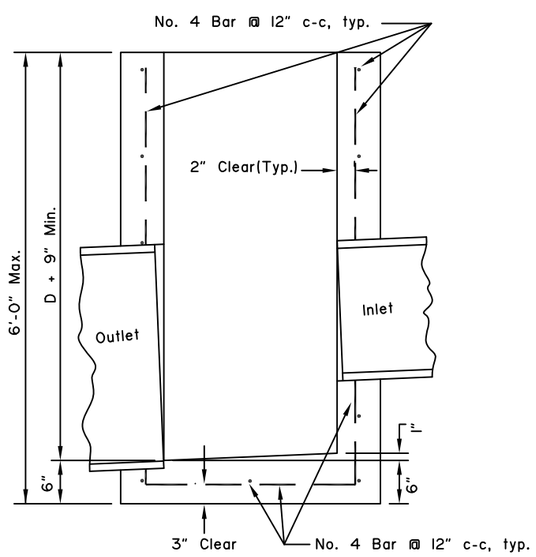


GENERAL NOTES:

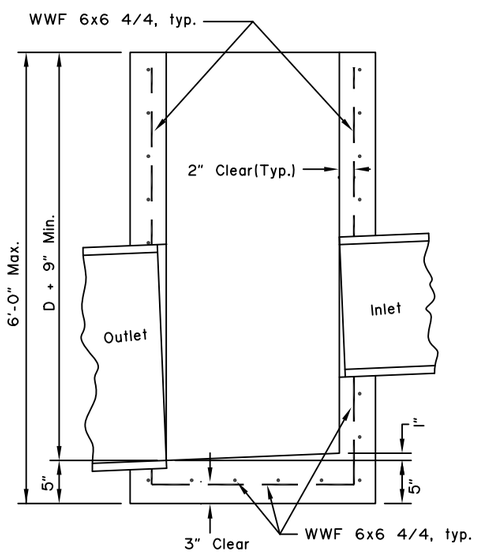
1. Install inlet boxes parallel to the curb line.
2. The plans will indicate which inlet boxes require a sump.
3. Shape floors to drain.
4. Use Grade 40 minimum reinforcing steel.
5. The plans will indicate which inlet boxes require sumps.



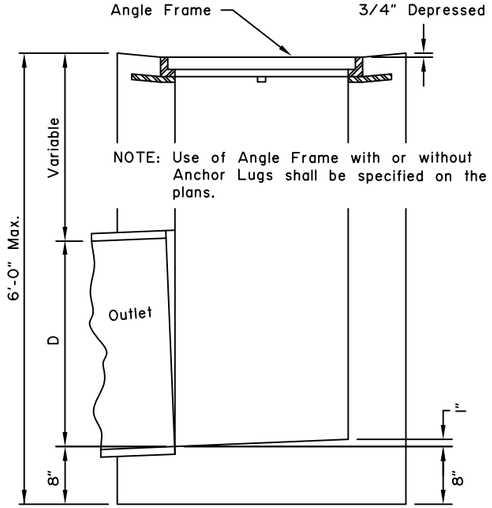
SUMP DETAIL



REINFORCED
CAST IN PLACE



PRECAST



FIELD INLET BOX
CAST* IN PLACE

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

TYPE "A" CONCRETE INLET BOXES

NOT TO SCALE

State of Alaska DOT&PF
ALASKA STANDARD PLAN

**TYPE "A"
INLET BOX**

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

Adoption Date: 02/08/2019

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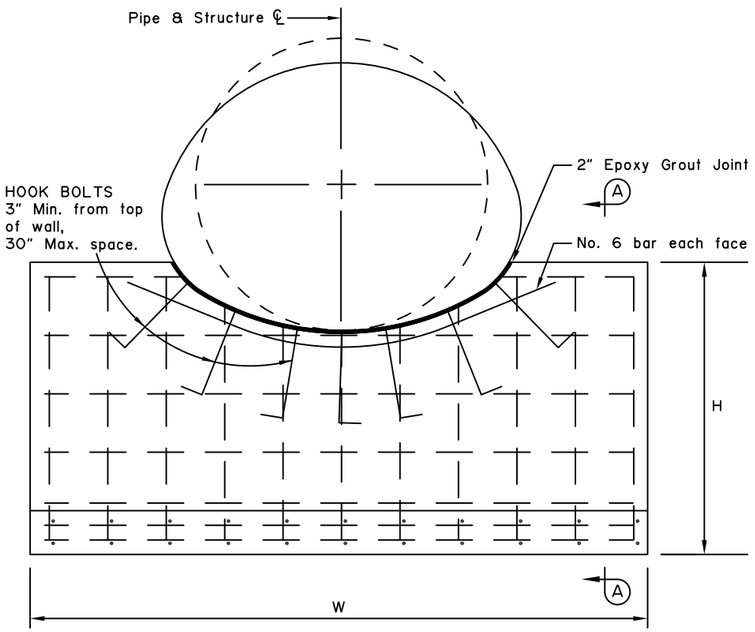
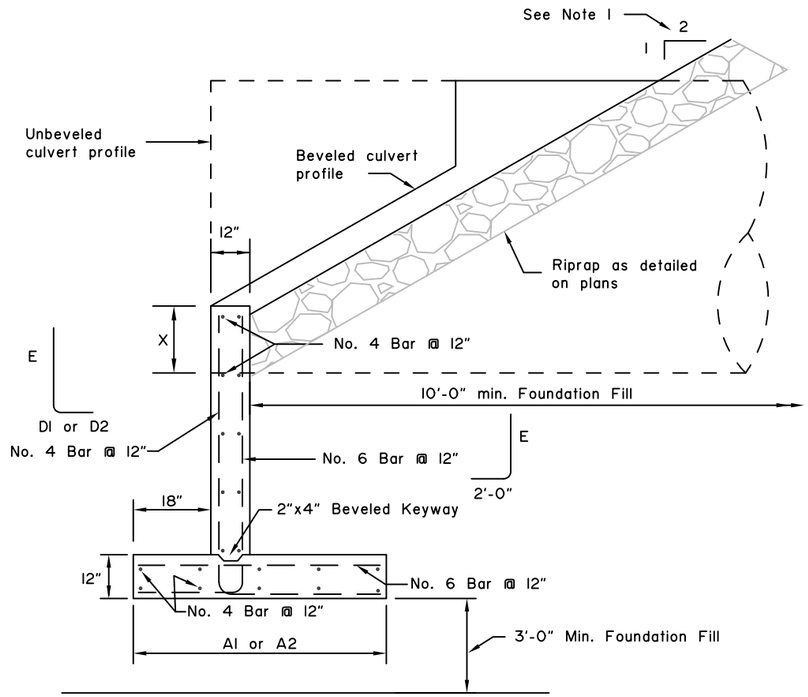
Next Code and Standards Review date: 02/08/2029

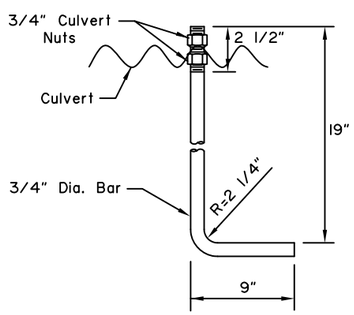
D-26.04



ELEVATION



SECTION A-A



HOOK BOLT

CORRUGATED METAL PIPE ✳ SEE NOTE II							
Dia.	W	H	A1 ✳	A2 ✳	D1 ✳	D2 ✳	E
5'-0"	9'-0"	4'-0"	4'-0"	4'-0"	2'-0"	2'-0"	3'-6"
5'-6"	10'-0"	4'-6"	4'-0"	4'-0"	2'-0"	2'-0"	4'-0"
6'-0"	11'-0"	4'-6"	4'-0"	4'-0"	2'-0"	2'-0"	4'-0"
6'-6"	12'-0"	4'-6"	4'-0"	4'-0"	2'-0"	2'-0"	4'-0"
7'-0"	12'-6"	4'-6"	4'-0"	4'-0"	2'-0"	2'-0"	4'-0"
7'-6"	13'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
8'-0"	14'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
8'-6"	15'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
9'-0"	16'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
9'-6"	17'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
10'-0"	18'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
10'-6"	19'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
11'-0"	20'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"

CORRUGATED METAL PIPE ARCH ✳ SEE NOTE II								
SPAN	RISE	W	H	A1 ✳	A2 ✳	D1 ✳	D2 ✳	E
6'-1"	4'-7"	14'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
6'-4"	4'-9"	14'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
6'-9"	4'-11"	15'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
7'-0"	5'-1"	15'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
7'-3"	5'-3"	16'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
7'-8"	5'-5"	16'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
7'-11"	5'-7"	17'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
8'-2"	5'-9"	17'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
8'-7"	5'-11"	18'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
8'-10"	6'-1"	18'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
9'-4"	6'-3"	19'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
9'-6"	6'-5"	19'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
9'-9"	6'-7"	20'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
10'-3"	6'-9"	20'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
10'-8"	6'-11"	21'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
10'-11"	7'-1"	21'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"

GENERAL NOTES:

1. For use on 2:1 or flatter backfill slopes only.
2. See plans for pipe beveling requirements. See Std. Dwg. D-07 for "X" dimension and culvert beveling geometry.
3. Use Class A concrete.
4. Use epoxy-coated ASTM A706, Grade 60 reinforcing steel fy=60,000 psi.
5. Place reinforcement 3" clear from surface of concrete unless otherwise noted.
6. Chamfer all exposed concrete corners 3/4".
7. If unsuitable foundation material is encountered, remove and backfill with Foundation Fill as directed by the Engineer.
8. Furnishing and installing hook bolts in place is incidental to Class A concrete.
9. Use galvanized ASTM A307 hook bolts and nuts. Torque culvert nuts to 140 ft-lbs.
10. Headwalls for skewed culverts to be parallel to road centerline. See plans for dimensions of openings in headwalls for skewed culverts.
11. For backfill soil with:
    ϕ=30°, γ=130 pcf
    Use A1 and D1
    ϕ=34°, γ=135 pcf
    Use A2 and D2

State of Alaska DOT&PF
ALASKA STANDARD PLAN

HEADWALLS
PRECAST
TYPE I

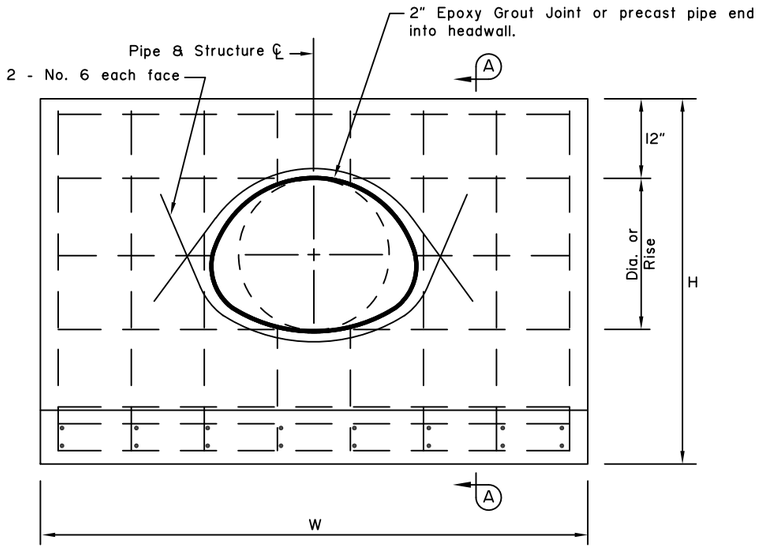
Adopted as an Alaska Standard Plan by: Kenneth J. Fisher
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

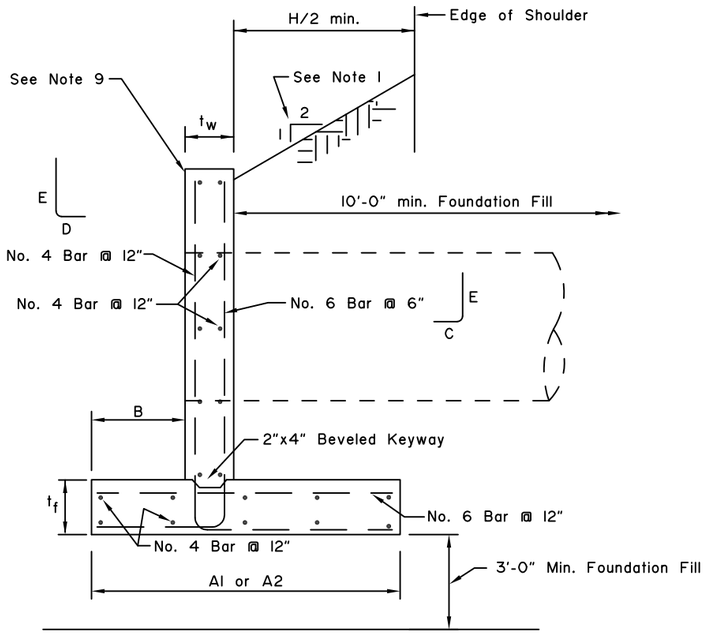
Last Code and Stds. Review
By: Date:

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

D-31.01



ELEVATION



SECTION A-A

CORRUGATED METAL PIPE											✳ SEE NOTE 8
Dia.	W	t_w	t_f	H	A1✳	A2✳	B	C	D1✳	D2✳	E
1'-6"	8'-0"	1'-0"	1'-0"	4'-6"	6'-0"	4'-0"	1'-6"	2'-0"	4'-0"	2'-0"	4'-0"
1'-9"	9'-0"	1'-0"	1'-0"	4'-9"	6'-6"	4'-0"	1'-6"	2'-0"	4'-6"	2'-0"	4'-3"
2'-0"	9'-6"	1'-0"	1'-0"	5'-0"	7'-0"	4'-0"	1'-6"	2'-0"	5'-0"	2'-0"	4'-6"
2'-6"	11'-6"	1'-0"	1'-0"	5'-6"	7'-6"	4'-0"	1'-6"	2'-0"	5'-6"	2'-0"	5'-0"
3'-0"	13'-0"	1'-0"	1'-0"	6'-0"	8'-6"	4'-6"	1'-6"	2'-0"	6'-6"	2'-6"	5'-6"
3'-6"	14'-6"	1'-0"	1'-0"	6'-6"	9'-0"	5'-0"	1'-6"	2'-0"	7'-0"	3'-0"	6'-0"
4'-0"	16'-0"	1'-0"	1'-0"	7'-0"	10'-0"	5'-6"	2'-0"	2'-6"	7'-6"	3'-0"	6'-6"
4'-6"	18'-0"	1'-3"	1'-3"	7'-9"	11'-0"	6'-0"	2'-0"	2'-9"	8'-6"	3'-6"	7'-3"
5'-0"	19'-6"	1'-6"	1'-6"	8'-6"	12'-0"	6'-6"	2'-6"	3'-6"	9'-0"	3'-6"	8'-0"

CORRUGATED METAL PIPE ARCH											✳ SEE NOTE 8	
SPAN	RISE	W	t_w	t_f	H	A1✳	A2✳	B	C	D1✳	D2✳	E
1'-5"	1'-1"	6'-6"	1'-0"	1'-0"	4'-1"	5'-6"	4'-0"	1'-6"	2'-0"	3'-6"	2'-0"	3'-7"
1'-9"	1'-3"	7'-0"	1'-0"	1'-0"	4'-3"	5'-6"	4'-0"	1'-6"	2'-0"	3'-6"	2'-0"	3'-9"
2'-0"	1'-6"	8'-0"	1'-0"	1'-0"	4'-6"	6'-0"	4'-0"	1'-6"	2'-0"	4'-0"	2'-0"	4'-0"
2'-4"	1'-8"	8'-6"	1'-0"	1'-0"	4'-8"	6'-0"	4'-0"	1'-6"	2'-0"	4'-0"	2'-0"	4'-2"
2'-11"	2'-0"	9'-6"	1'-0"	1'-0"	5'-0"	7'-0"	4'-0"	1'-6"	2'-0"	5'-0"	2'-0"	4'-6"
3'-6"	2'-5"	11'-0"	1'-0"	1'-0"	5'-5"	7'-6"	4'-0"	1'-6"	2'-0"	5'-6"	2'-0"	4'-11"
4'-1"	2'-9"	12'-0"	1'-0"	1'-0"	5'-9"	8'-0"	4'-0"	1'-6"	2'-0"	6'-0"	2'-6"	5'-3"
4'-9"	3'-2"	13'-6"	1'-0"	1'-0"	6'-2"	8'-6"	4'-0"	1'-6"	2'-0"	6'-6"	2'-6"	5'-8"
5'-4"	3'-7"	15'-0"	1'-0"	1'-0"	6'-7"	9'-0"	5'-0"	1'-6"	2'-0"	7'-0"	3'-0"	6'-1"
5'-11"	3'-11"	16'-0"	1'-0"	1'-0"	6'-11"	10'-0"	5'-6"	2'-0"	2'-6"	7'-6"	3'-0"	6'-5"
6'-5"	4'-4"	17'-0"	1'-3"	1'-3"	7'-7"	10'-6"	5'-6"	2'-0"	2'-9"	8'-0"	3'-0"	7'-1"
7'-1"	4'-9"	19'-0"	1'-6"	1'-6"	8'-3"	11'-6"	6'-6"	2'-6"	3'-6"	8'-6"	3'-6"	7'-9"

GENERAL NOTES:

1. For use on 2:1 or flatter backfill slopes only.
2. Use Class A concrete.
3. Use epoxy-coated ASTM A706, Grade 60 reinforcing steel fy=60,000 psi.
4. Place reinforcement 3" clear from surface of concrete unless otherwise noted.
5. Chamfer all exposed concrete corners 3/4".
6. If unsuitable foundation material is encountered, remove and backfill with Foundation Fill as directed by the Engineer.
7. Headwalls for skewed culverts to be parallel to road centerline. See plans for dimensions of openings in headwalls for skewed culverts.
8. For backfill soil with:
   ϕ=30°, γ=130 pcf
   Use A1 and D1
   ϕ=34°, γ=135 pcf
   Use A2 and D2
9. See plans for railing requirements.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

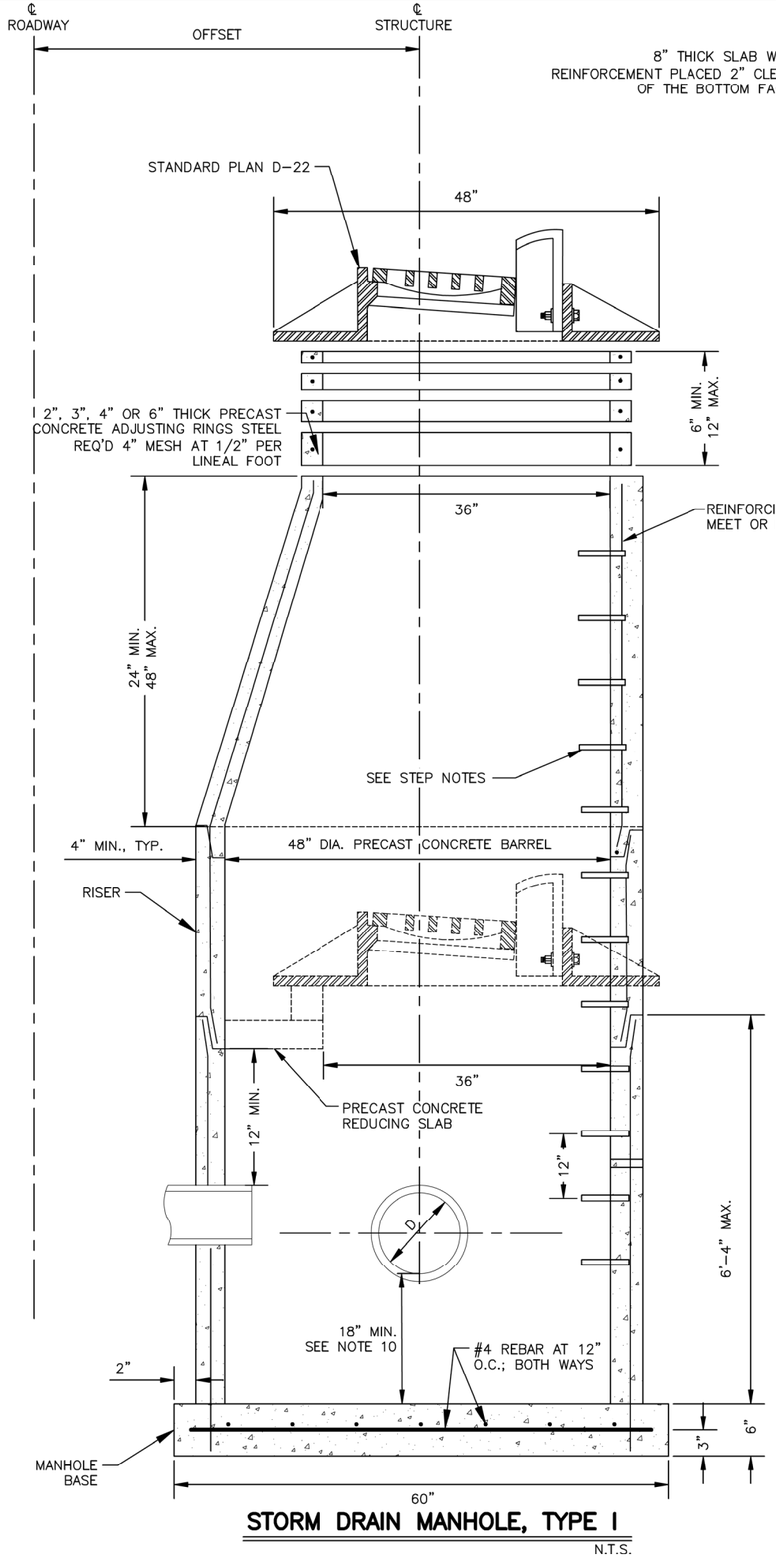
HEADWALLS PRECAST TYPE II

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

Adoption Date: 02/08/2019

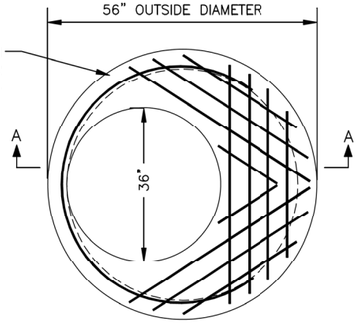
Last Code and Stds. Review By: Date:

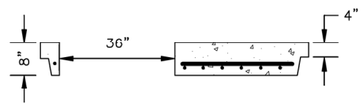
Next Code and Standards Review date: 02/08/2029



STORM DRAIN MANHOLE, TYPE I

N.T.S.





SECTION A-A

PRECAST CONCRETE REDUCING SLAB (48" TO 36")

N.T.S.

MANHOLE STEP NOTES:

1. MEET CURRENT OSHA STANDARDS FOR STEPS AND ACCESS OPENINGS.
2. PLACE STEPS 12" O.C. ON AN UNOBSTRUCTED SIDE OF THE STRUCTURE, 18" MAXIMUM FROM MANHOLE BASE. IF UNOBSTRUCTED SIDE NOT AVAILABLE, PLACE BOTTOM STEP 6" OVER SMALLEST PIPE. WHEN USING A CONE, FIRST LADDER RUNG IS 8" MAXIMUM FROM TOP OF CONE. WHEN USING A FLAT LID, FIRST LADDER RUNG IS 4" MAXIMUM FROM TOP OF RISER.
3. PROVIDE INJECTION MOLDED POLYPROPYLENE COVERED GRADE 60 STEEL STEPS TIGHTLY IMBEDDED AT LEAST 3" INTO CONCRETE.
4. INSTALL STEPS TO RESIST A PULLOUT FORCE OF 1500 LB.
5. THE MINIMUM DIAMETER OF CLEAR ACCESS TO STEPS IS 24".
6. THE CONTRACTOR SHALL TAKE SPECIAL CARE FOR ANY MANHOLE THAT FALLS IN A CURB LINE TO SEE THAT WHEN MANHOLE IS OFFSET DURING INSTALLATION THAT THE STEPS FALL UNDER THE CURB INLET.

REDUCING SLAB NOTES:

1. SPACE ALL REBAR AT 6" CENTERS UNLESS OTHERWISE NOTED.
2. MAINTAIN A MINIMUM OF 1 1/2" OF CONCRETE COVER OVER ALL REBAR.
3. REINFORCING STEEL SHOWN IS A MINIMUM PER ASTM C478. PRECAST MFR TO COMPLETE AND SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR ENGINEER'S REVIEW.

GENERAL NOTES:

1. THESE DRAWINGS ARE FOR PRECAST REINFORCED CONCRETE FOR HIGHWAY USE. CAST IN PLACE STRUCTURES MAY BE USED AS APPROVED BY THE ENGINEER.
2. MEET THE REQUIREMENTS OF ASTM C-478 FOR ALL DRAINAGE STRUCTURES AND APPURTENANCES.
3. MINIMUM STEEL REQUIRED FOR BARREL AS PER ASTM C-478 SHALL BE IMBEDDED IN BASE SO THAT THE FIRST BARREL SECTION IS CONNECTED TO THE BASE BY CONTINUOUS STEEL. PROVIDE REINFORCING STEEL TYPE AND GRADE PER DOT&PF STANDARD SPECIFICATIONS.
4. USE CLASS A OR CLASS B CONCRETE PER DOT&PF STANDARD SPECIFICATIONS.
5. SEAL RISER JOINTS WITH FLEXIBLE PLASTIC JOINT SEALERS.
6. PROVIDE NON-SHRINK GROUT. PROTECT GROUT DURING CURE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED METHOD.
7. FORM ALL BLOCK-OUTS.
8. MANHOLE SHALL HAVE A MINIMUM OF ONE 6" GRADE RING.
9. ALL STORM DRAIN MANHOLES AND INLETS SHALL HAVE 18" MINIMUM SUMPS. MANHOLES WITH PETROLEUM SEPARATORS SHALL HAVE 24" MINIMUM SUMPS.
10. OFFSET IS MEASURED TO CENTERLINE OF STRUCTURE.
11. EXTEND PIPE 2" INTO MANHOLE. SEAL PIPE PENETRATIONS WITH NON-SHRINKABLE GROUT MIXED WITH POTABLE WATER PER MANUFACTURER'S RECOMMENDATIONS.
12. CATCH BASIN LEADS SHALL ENTER THE MANHOLE AT LEAST ONE PRIMARY LEAD DIAMETER ABOVE THE TOP OF THE PRIMARY LEAD UNLESS MINIMUM PIPE SLOPES CANNOT BE ACHIEVED.
13. MAXIMUM PIPE DIAMETER SHALL NOT EXCEED HALF OF THE STRUCTURE DIAMETER. PRIMARY LEADS MUST BE A MINIMUM OF 135 DEGREES APART.
14. USE 72" STORM DRAIN MANHOLE OR LARGER WHEN BOTH CATCH BASIN AND ACCESS FUNCTIONS ARE REQUIRED.
15. LIVE LOAD FOR DESIGN OF THE MANHOLE BARRELS, RISERS AND REDUCING SLABS IS AASHTO HL-93 (HS20 AND DESIGN TANDEM AXLE/WHEEL LOADS).
16. A FLAT LID WITH A SMALLER OPENING MAY ALSO BE USED IF CALLED FOR IN THE PLANS.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

48" STORM DRAIN MANHOLE (PRECAST CONCRETE)

TYPE I MANHOLE

Adopted as an Alaska Standard Plan by:

Lauren Little, P.E.
Interim Chief Engineer

Adoption Date: 01/29/2024

Last Code and Stds. Review
By: BMM Date: 12/13/2023

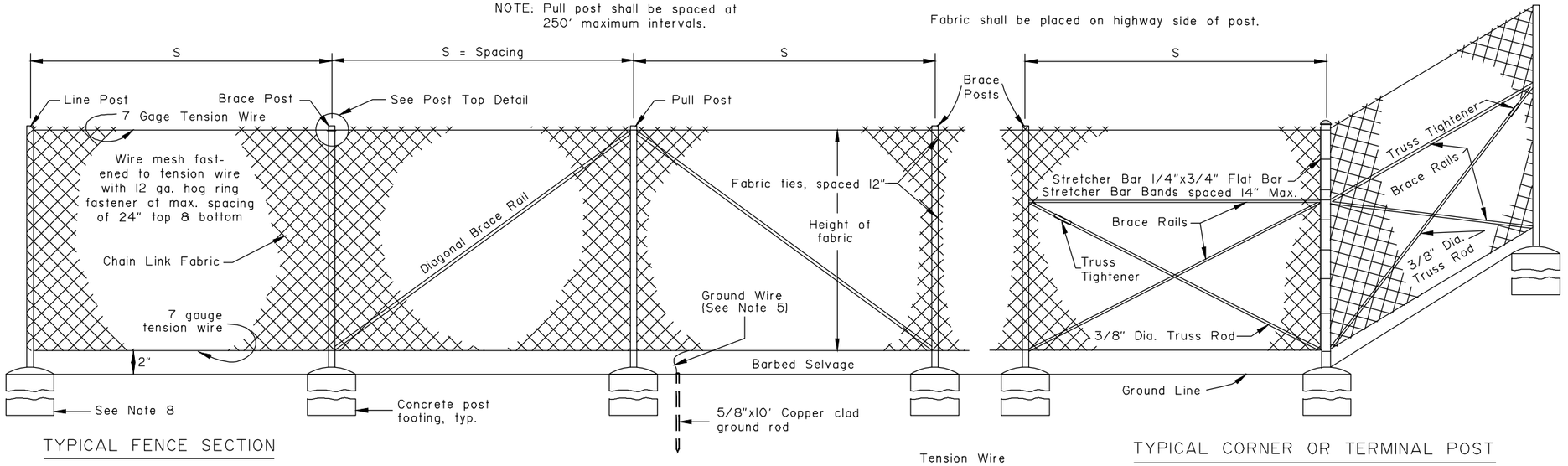
Next Code and Standards Review Date: 12/13/2033

F-01.04

SHEET | of |

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

Fabric shall be placed on highway side of post.



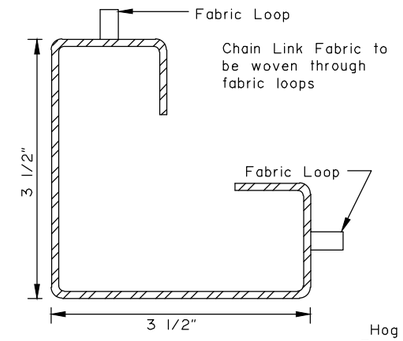
TYPICAL FENCE SECTION

TYPICAL PULL POST

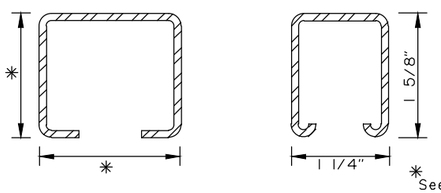
TYPICAL CORNER OR TERMINAL POST

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.

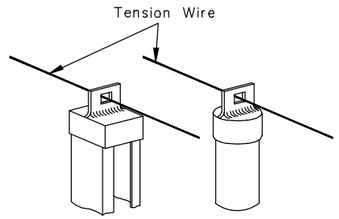


ROLL FORMED POST

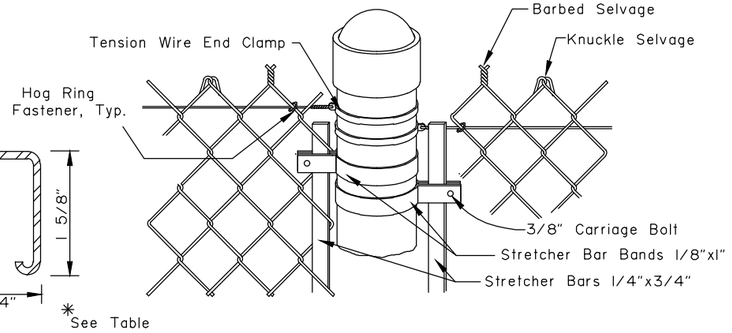


C POST

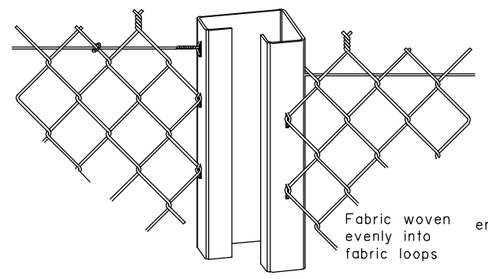
ROLL FORMED BRACE



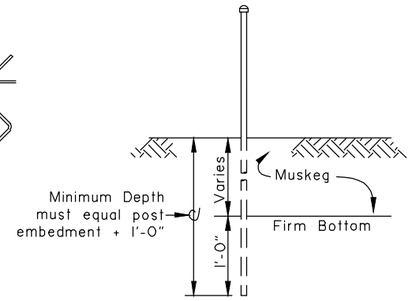
LINE POST TOPS



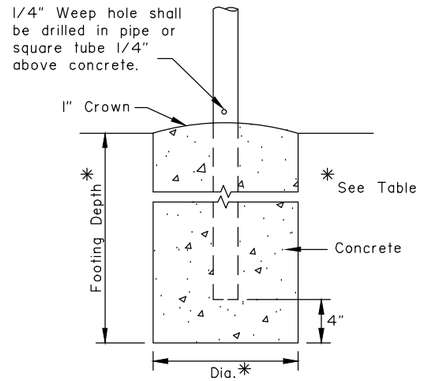
PIPE STYLE POST TOP



ROLL FORMED POST TOP

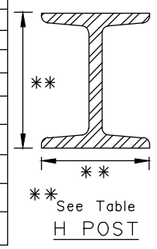


POST SETTING IN MUSKEG AREAS



CONCRETE POST FOOTING

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"xl 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"xl 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"xl 5/8"	2.28 #	28"	10"	"	"	"	"	"	"	1 7/8"xl 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"xl 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"xl 45/64"	2.64 #	40"	12"	"	"	"	"	"	"	2 1/4"x2"	4.1 #



State of Alaska DOT&PF
ALASKA STANDARD PLAN

CHAIN LINK FENCE

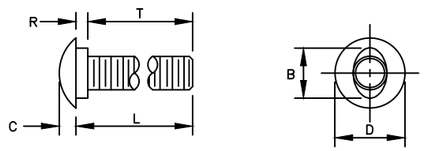
Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

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

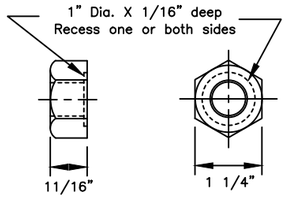
Next Code and Standards Review date: 7/8/2030

F-01.04

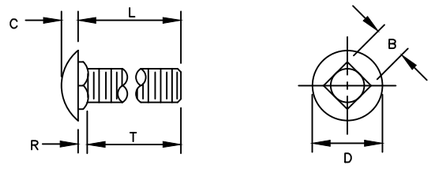


B	C	D	L (Length)	R	T (Thread Length)
15/16"	5/16"	1 5/16" or 1 7/16"	As Required	7/32"	As Required

5/8" BUTTONHEAD BOLT
(FBB01–05)

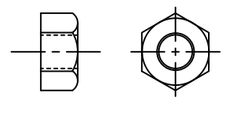


5/8" Dia. RECESSED HEX NUT
(FBB01–05)



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

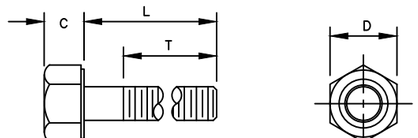
5/8" Dia. CARRIAGE BOLT
(FBC10–20)



STANDARD HEX NUT

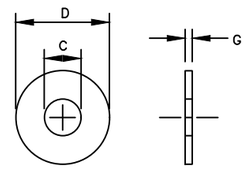
GENERAL NOTES:

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



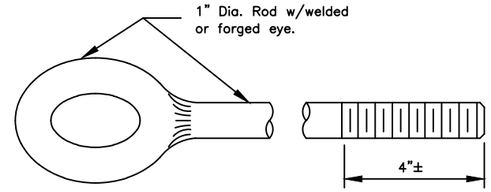
Bolt Size	C	D	L (Length)	T (Thread Length)
5/16"	——	——	1 1/2"	7/8"
5/16"	——	——	1"	1"
3/8"	——	——	7 1/2"	1 1/2"
1/2"	——	——	1 1/2"	1 1/2"
1/2"	——	——	1 1/4"	1 1/4"
5/8" H.S.	5/16"	7/8"	8"	1 1/2"
5/8"–11	——	——	1 1/2"	1 1/2"
3/4"	——	——	1 1/2"	1 1/2"
3/4"	——	——	As Required	2"
3/4" H.S.	15/32"	1 1/4"	2"	1 1/2"

STANDARD HEX BOLTS

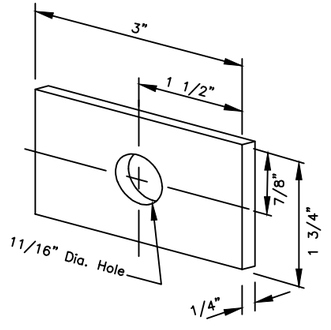


For Bolt ø	C	D	G
3/8"	7/16"	1"	5/64"
1/2"	17/32"	1 1/16"	3/32"
1/2" H.S.	17/32"	1 1/16"	3/32"
5/8"	11/16"	1 3/4"	9/64"
3/4"	13/16"	1 15/32"	9/64"
3/4" H.S.	13/16"	2"	5/32"
1"	1 1/16"	2"	9/64"

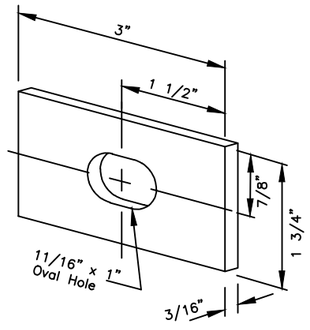
STANDARD STEEL WASHERS



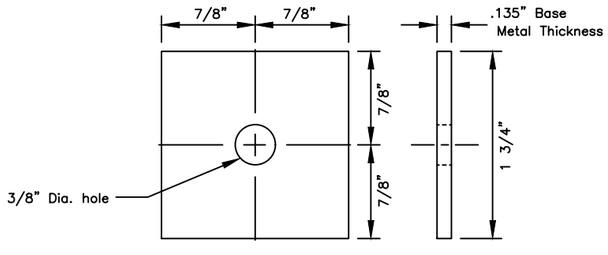
EYE BOLT



FLAT PLATE WASHER



RECTANGULAR POST BOLT WASHER
(FWR03)



SQUARE STEEL WASHER
(FWR01)

State of Alaska DOT&PF
ALASKA STANDARD PLAN

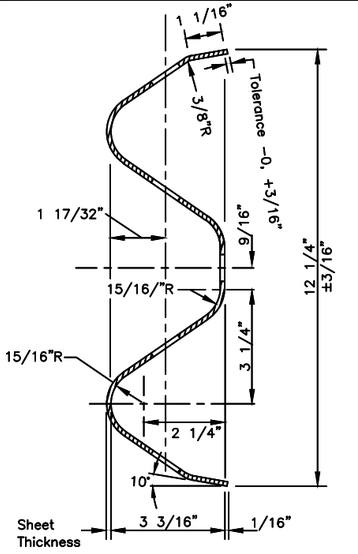
STANDARD GUARDRAIL HARDWARE
(NUTS, BOLTS & WASHERS)

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

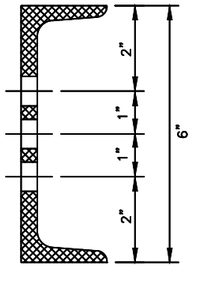
Adoption Date: 7/17/2020

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

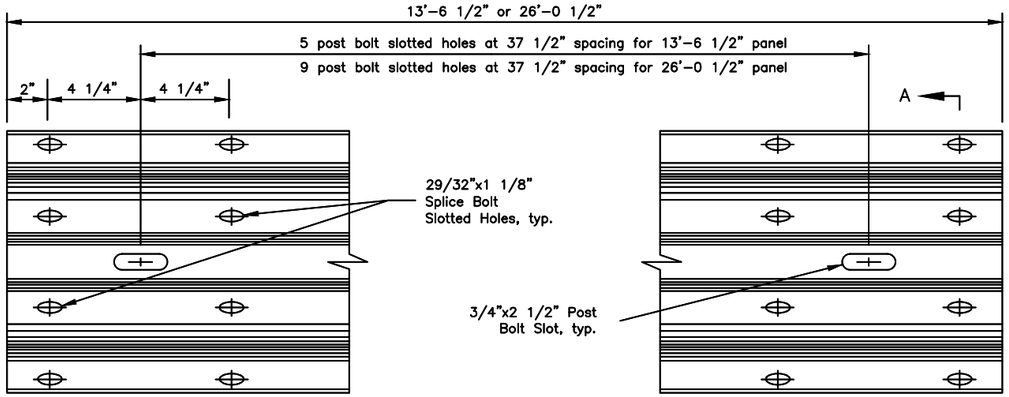
Next Code and Standards Review Date: 7/8/2030



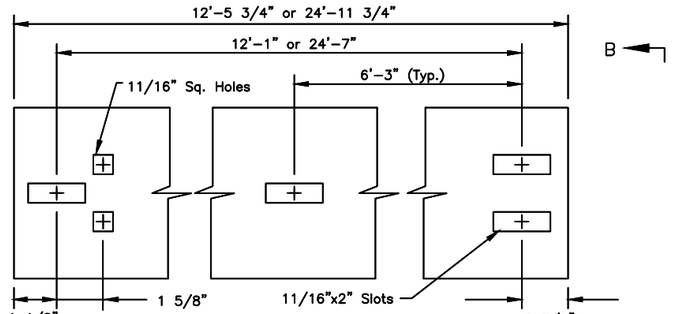
SECTION A–A
(cross section same as RWM02a–b)



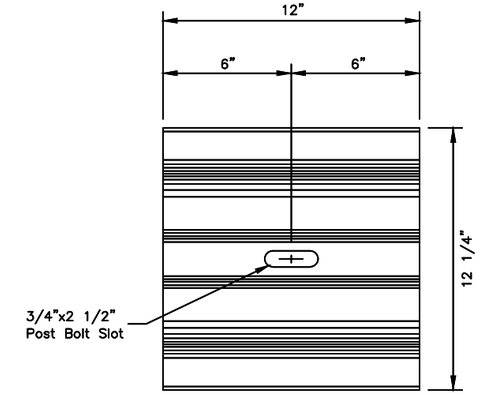
SECTION B–B



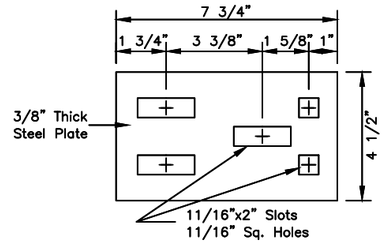
STANDARD W–BEAM PANEL (RWM04a–b)



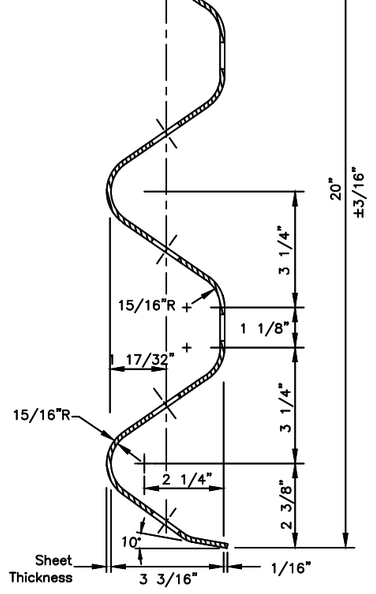
C6 x 8.2 RUB RAIL (RLR01)
ASTM A36 STEEL



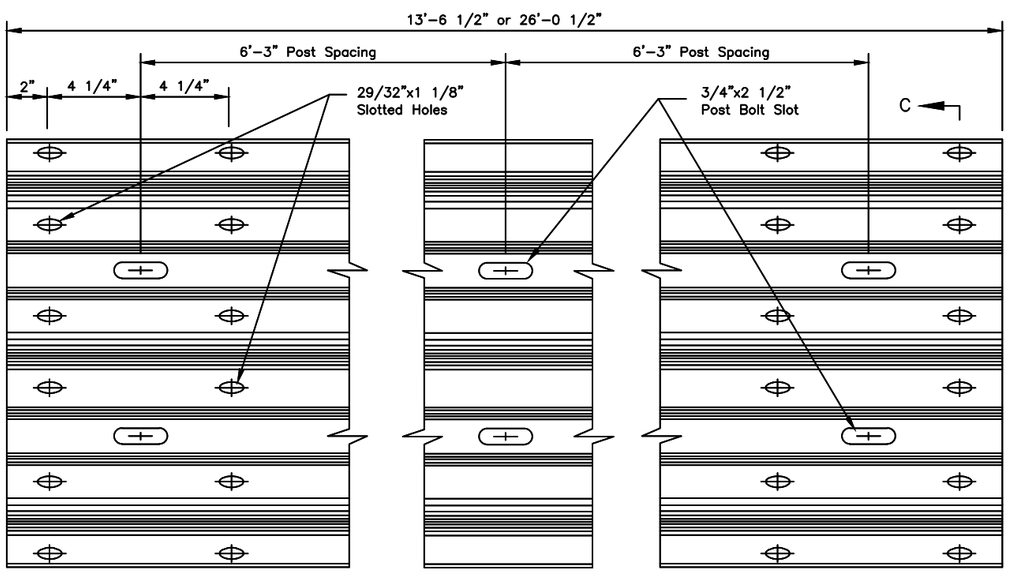
W–BEAM BACKUP PLATE
(RWB01a–b)



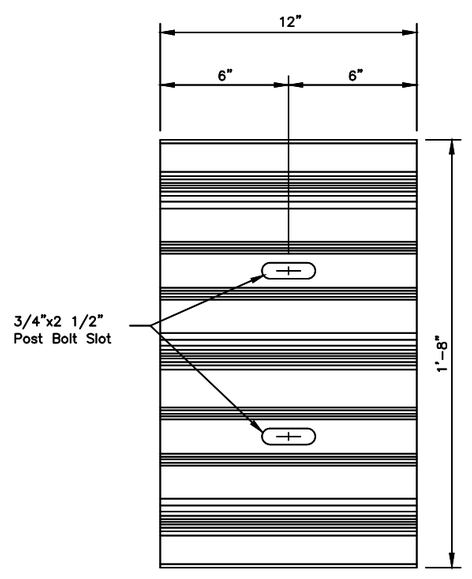
SPLICE PLATE (RLR01)
ASTM A36 STEEL



SECTION C–C
(RTM01a–02b)



STANDARD THRIE BEAM PANEL (RTM01a–02b)



THRIE BEAM BACKUP PLATE
(RTB01a–02b)

GENERAL NOTES:

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

State of Alaska DOT&PF
ALASKA STANDARD PLAN

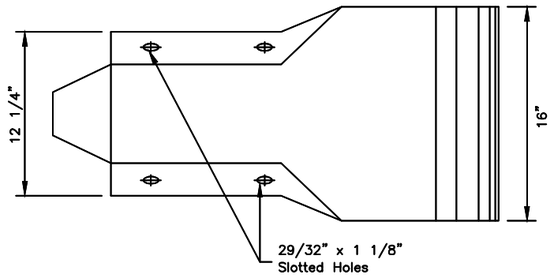
STANDARD GUARDRAIL HARDWARE (RAILS AND SPLICES)

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

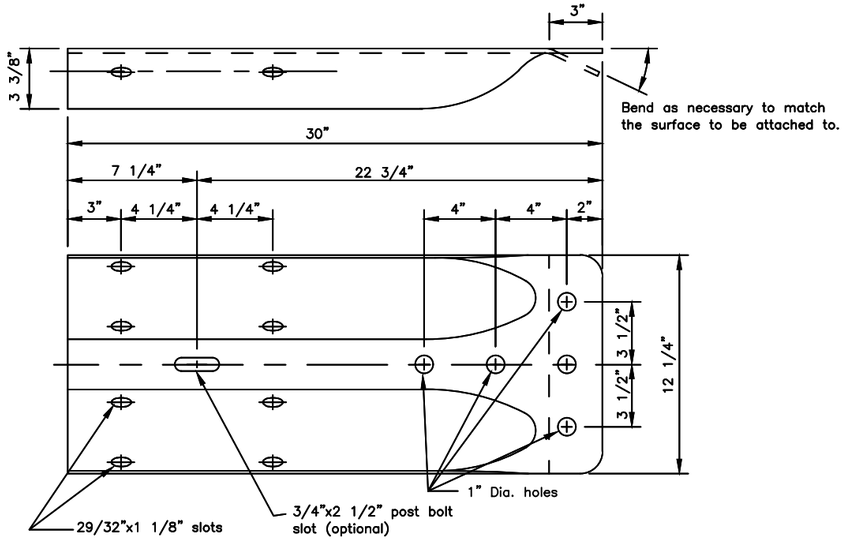
Adoption Date: 7/17/2020

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

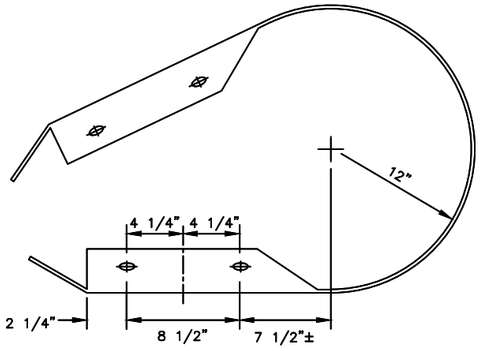
Next Code and Standards Review Date: 7/8/2030



PROFILE

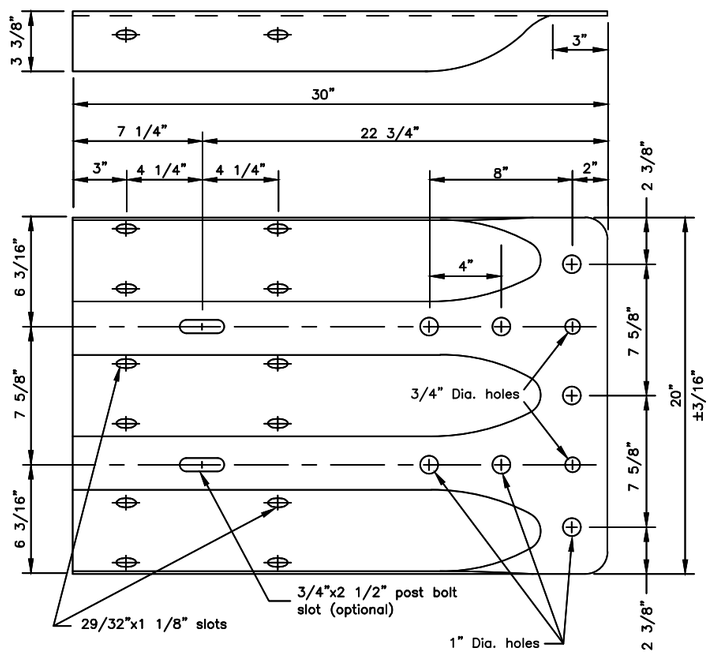


STANDARD W-BEAM TERMINAL CONNECTOR
(RWE02)



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

STANDARD W-BEAM END SECTION
(RWE06)



STANDARD THRIE BEAM TERMINAL CONNECTOR
(RTE01b)

GENERAL NOTES:

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

State of Alaska DOT&PF
ALASKA STANDARD PLAN

STANDARD GUARDRAIL HARDWARE (TERMINAL CONNECTORS)

Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
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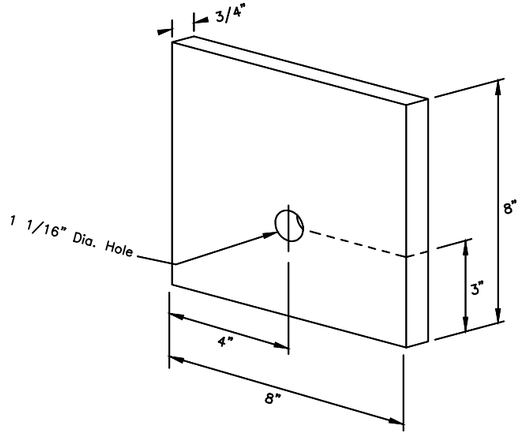
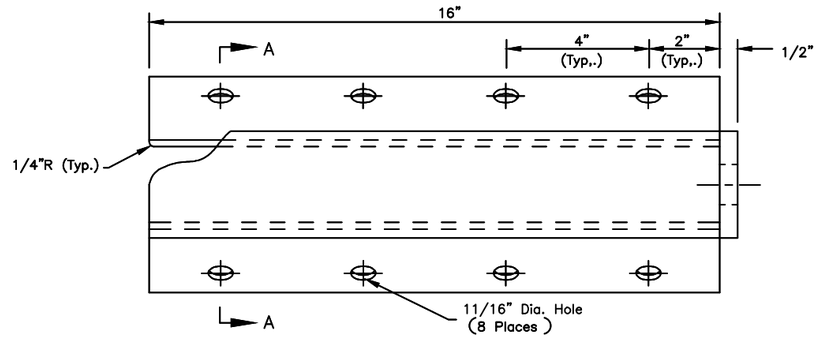
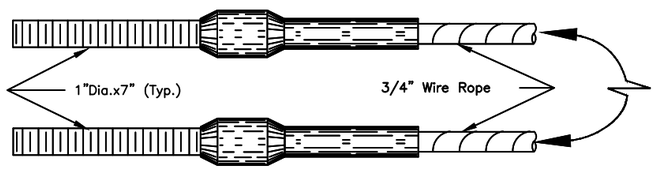
G-00.05



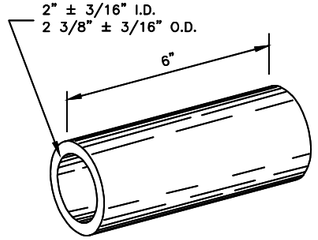
BEARING PLATE for CRT TERMINAL ANCHOR
(FPB01)



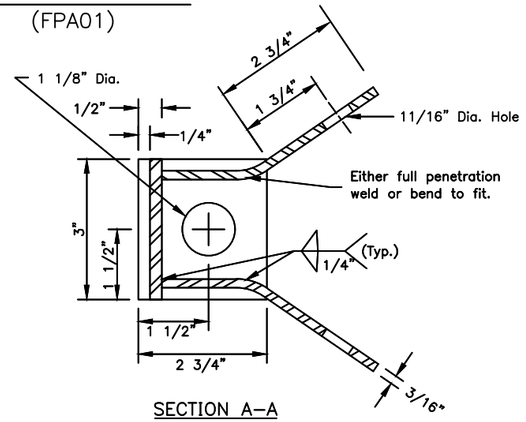
CABLE ANCHOR PLATE
(FPA01)



SWAGED FITTING DETAIL
(FCA01–02)



SLEEVE DETAIL
(FMM02)

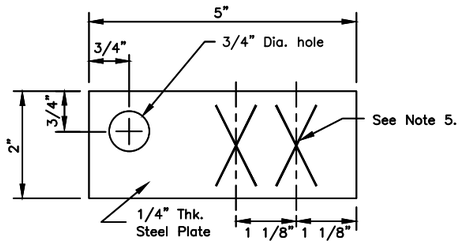


SECTION A–A

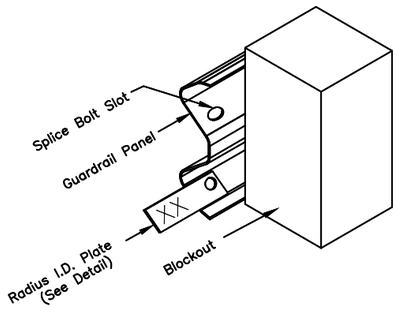
CONTROLLED RELEASE TERMINAL HARDWARE DETAILS

GENERAL NOTES:

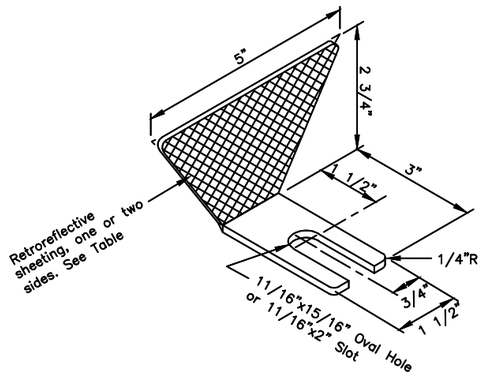
1. Cable Anchor Plate may be formed in single unit or welded fabrication.
2. Anchor Cable Assembly must conform to AASHTO M 30 with Type II Wire Rope.
3. Provide Sleeve for Wood Posts meeting the requirements of ASTM A53 and made of 2–inch galvanized standard pipe. Sleeve shall be a tight, pressed fit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



RADIUS I.D. PLATE



RADIUS I.D. PLATE MOUNTING DETAIL



GUARDRAIL REFLECTOR

Guardrail Reflector Table

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

State of Alaska DOT&PF
ALASKA STANDARD PLAN

STANDARD GUARDRAIL HARDWARE (MISCELLANEOUS)

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

Adoption Date: 7/17/2020

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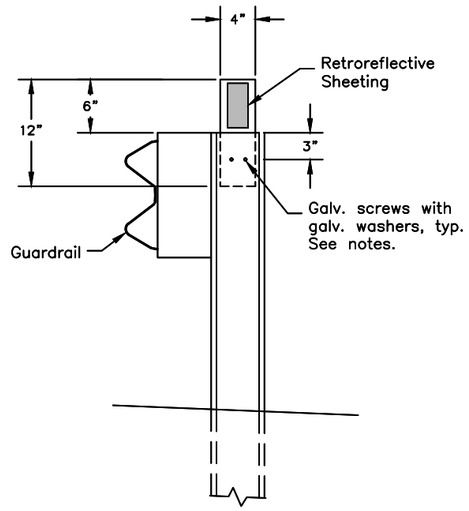
Next Code and Standards Review Date: 7/8/2030



GUARDRAIL FLEXIBLE DELINEATOR DETAIL

(Steel post shown – similar for wood post)

CONSTRUCTION NOTES

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

State of Alaska DOT&PF
ALASKA STANDARD PLAN

STANDARD GUARDRAIL HARDWARE (FLEXIBLE DELINEATORS)

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

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G–00.05

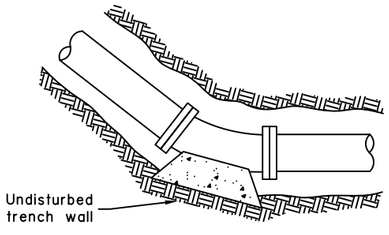
THRUST BLOCK MINIMUM SIZE TABLE

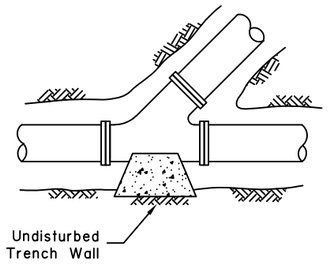
For Bends Greater Than 45°, Tee Branches & Crosses

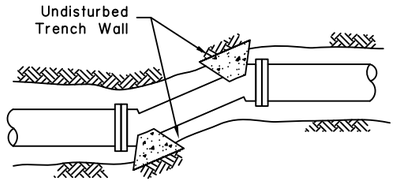
Pipe Diam. (In.)	Water Pressure in Pipe (P.S.I.) 50 Bearing Area (Sq. Ft.)	50 Concrete Volume (Cu. Ft.)	150 Bearing Area (Sq. Ft.)	150 Concrete Volume (Cu. Ft.)	250 Bearing Area (Sq. Ft.)	250 Concrete Volume (Cu. Ft.)
2	0.5	0.5	0.8	1.0	1.0	1.3
3	0.6	0.8	1.0	1.3	1.1	1.5
4	0.8	1.0	1.6	3.1	1.5	3.0
6	1.0	1.3	1.9	4.0	3.2	7.0
8	1.1	1.5	3.2	7.0	5.4	11.0
10	1.7	3.2	4.9	10.0	8.3	19.0
12	2.4	5.2	7.1	17.0	11.8	24.3
14	3.2	7.0	9.8	21.0	16.1	32.0
16	4.1	8.0	12.3	25.0	20.5	40.0
18	5.4	11.0	16.2	32.0	27.1	50.0
20	6.8	15.0	20.6	40.0	34.4	70.0
24	8.2	19.0	25.3	50.0	42.0	80.0

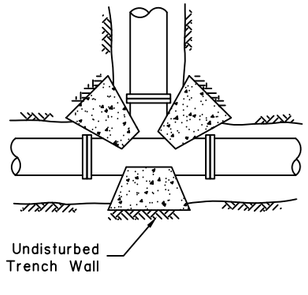
For Bends 45° or Less

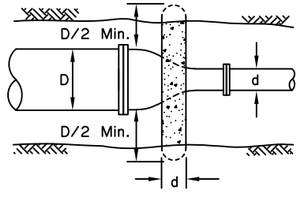
2	0.5	0.5	0.5	0.5	0.6	0.8
3	0.5	0.5	0.7	0.9	0.8	1.0
4	0.5	0.5	0.9	1.1	1.0	1.5
6	0.6	0.8	1.2	2.0	1.7	3.2
8	0.8	1.0	1.8	3.6	2.9	6.0
10	1.0	1.3	2.7	5.8	4.5	9.0
12	1.3	2.5	3.8	7.5	6.4	14.0
14	1.7	3.2	5.2	11.0	8.6	19.0
16	2.2	4.5	6.7	15.0	11.2	24.0
18	2.8	5.9	8.5	19.0	14.1	30.0
20	3.5	7.0	10.5	22.2	17.5	35.0
24	4.2	8.0	12.8	26.0	21.5	40.0

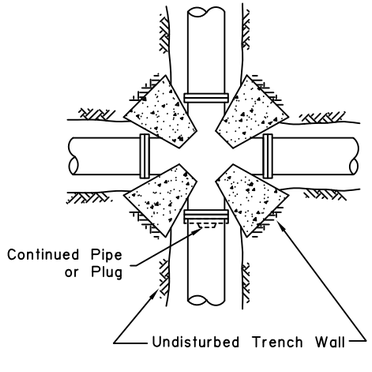








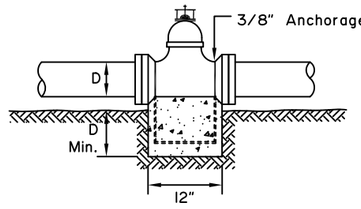




PLACEMENT OF THRUST BLOCKS

VALVES REQUIRING ANCHORAGE

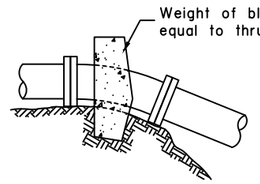
WORKING PRESSURE (P.S.I.)	VALVES REQUIRING ANCHORAGE
50 - 100	12 Inch and up
101 - 150	8 Inch and up
151 - 200	All Sizes



ANCHORAGE OF VALVES

THRUST AT VERTICAL BEND PER DEGREE DEFLECTION AT 100 P.S.I. WATER PRESSURE

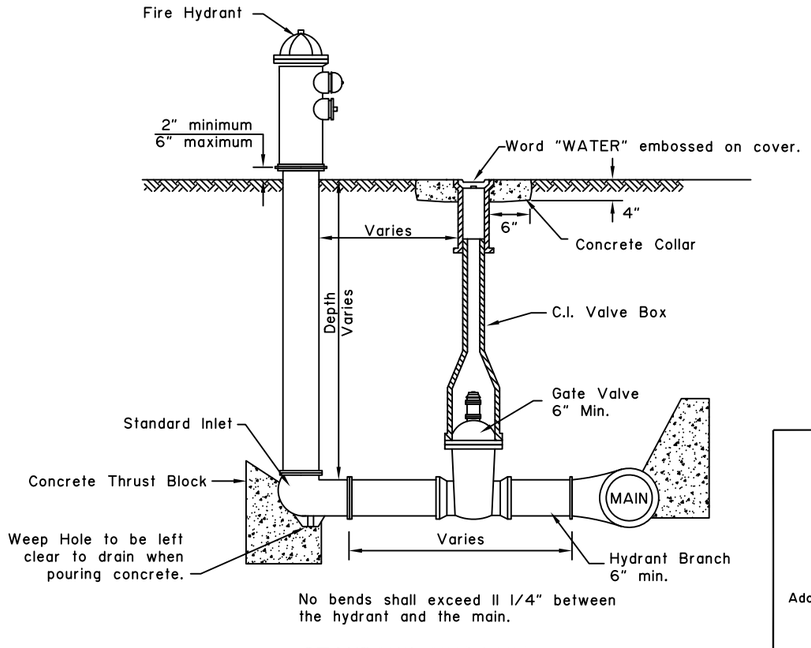
PIPE SIZE	THRUST (LB.)	PIPE SIZE	THRUST (LB.)
4"	35	10"	197
6"	72	12"	278
8"	122	14"	377
		16"	486



VERTICAL BENDS

GENERAL NOTES:

1. Thrust blocks are to be concrete poured in place between the fitting and undisturbed trench wall.
2. Concrete shall be kept centered behind bell of fitting and not obstructing pipe joints.
3. Thrust blocks are required whenever pipe-line changes direction, changes size, dead ends, or develops thrust at valves.
4. Material, behind the thrust blocks, deemed unsuitable by the engineer shall be removed and replaced as directed by the engineer.
5. In impervious soils, a hole shall be dug beneath the hydrant thrust block tp a minimum volume of 7 cubic feet. The hole shall be filled with porous backfill material.
6. Refer to AWWA C600-64 Section II for placement of hydrant
7. Orient hydrant with nozzles facing street.



No bends shall exceed 11 1/4" between the hydrant and the main.

STANDARD HYDRANT

State of Alaska DOT&PF
ALASKA STANDARD PLAN

THRUST BLOCKS

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

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By: Date:

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

U-03.01