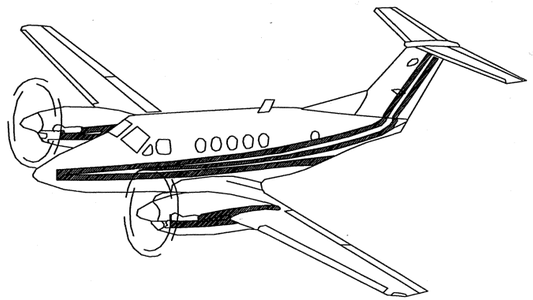
PROPOSED AIRPORT PROJECT

AMBLER AIRPORT REHABILITATION

A.I.P. NO.
3-02-0354-____/61303

2014

VOLUME II



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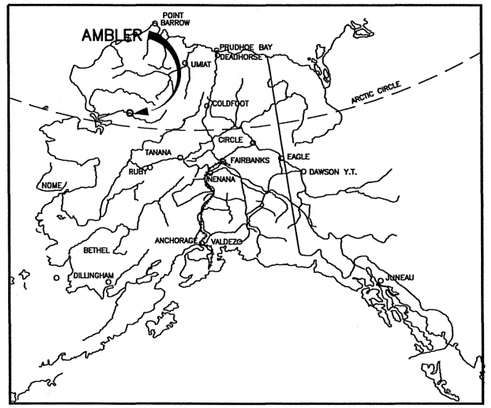
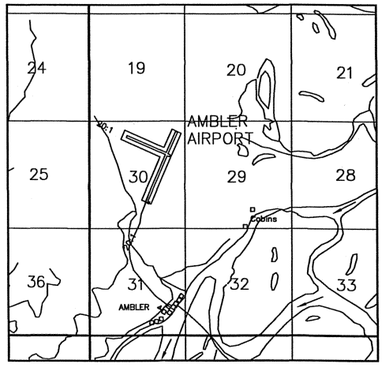
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

APPROVED BY: _____ DATE 2/12/2014
RYAN F. ANDERSON, P.E., PRE-CONSTRUCTION ENGINEER, NORTHERN REGION PRECONSTRUCTION

ACCEPTED FOR CONSTRUCTION: _____ DATE 2/10/14
STEVE TITUS, P.E., REGIONAL DIRECTOR, NORTHERN REGION



LOCATION MAP



VICINITY MAP

SEC 19,20,29,30 & 31, T20N, R5E KRM
USGS AMBLER RIVER (A-4)

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THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:
D-01.02 D-04.21
F-01.01
S-00.11 S-01.00 S-05.01 S-30.03

ESTIMATE OF QUANTITIES – NTP #1

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
D-701a.n1	16 GA. CORRUGATED STEEL PIPE, 24 INCH	LINEAR FOOT	225
D-701a.n1	16 GA. CORRUGATED STEEL PIPE, 36 INCH	LINEAR FOOT	119
G-100a.n1	MOBILIZATION AND DEMOBIIZATION	LUMP SUM	ALL REQUIRED
G-115a.n1	WORKER MEALS AND LODGING	LUMP SUM	ALL REQUIRED
G-130a.n1	FIELD OFFICE	LUMP SUM	ALL REQUIRED
G-130b.n1	FIELD LABORATORY	LUMP SUM	ALL REQUIRED
G-130g.n1	NUCLEAR TESTING EQUIPMENT STORAGE SHED	EACH	1
G-131a.n1	ENGINEERING TRANSPORTATION (TRUCK)	EACH	2
G-131b.n1	ENGINEERING TRANSPORTATION (ATV)	EACH	2
G-135a.n1	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	ALL REQUIRED
G-210a.n1	CONTRACTOR SAFETY PLAN COMPLIANCE DOCUMENT	LUMP SUM	ALL REQUIRED
G-211a.n1	ASBESTOS COMPLIANCE PLAN	LUMP SUM	ALL REQUIRED
G-710a.n1	HIGHWAY TRAFFIC MAINTENANCE	CONTINGENT SUM	ALL REQUIRED
G-710c.n1	HIGHWAY TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
G-710d.n1	HIGHWAY TRAFFIC CONTROL	LUMP SUM	ALL REQUIRED
P-151c.n1	CLEARING AND GRUBBING	ACRE	11
P-152g-NR1.n1	EMBANKMENT, NON-NOA COVER	SQUARE YARD	66,000
P-152i(1)-A.n1	BORROW, A	TON	208,000
P-152i(1)-B.n1	BORROW, B	TON	391,000
P-154a.n1	SUBBASE COURSE	CUBIC YARD	39,700
P-157a.n1	EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
P-157b.n1	TEMPORARY EROSION AND POLLUTION CONTROL	CONTINGENT SUM	ALL REQUIRED
P-157c.n1	TEMPORARY EROSION AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
P-157d.n1	TEMPORARY EROSION AND POLLUTION CONTROL AMENDMENTS	CONTINGENT SUM	ALL REQUIRED
P-157f.n1	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED
P-157g.n1	SWPPP MANAGER	LUMP SUM	ALL REQUIRED
P-180b.n1	RIPRAP, CLASS I	TON	156
P-180c.n1	BALLAST	TON	340
P-208a.n1	CRUSHED AGGREGATE SURFACE COURSE	TON	13,000
P-610a.n2	STRUCTURAL PORTLAND CEMENT CONCRETE	CUBIC YARD	20
P-682a.n1	GEOTEXTILE, DRAINAGE	SQUARE YARD	70,355
T-901a.n1	SEEDING	ACRE	39

ESTIMATE OF QUANTITIES – NPT #2

F-162c.n2	(20') DOUBLE SWING GATE	EACH	1
G-100a.n2	MOBILIZATION AND DEMOBIIZATION	LUMP SUM	ALL REQUIRED
G-115a.n2	WORKER MEALS AND LODGING	LUMP SUM	ALL REQUIRED
G-130a.n2	FIELD OFFICE	LUMP SUM	ALL REQUIRED
G-130b.n2	FIELD LABORATORY	LUMP SUM	ALL REQUIRED
G-130g.n2	NUCLEAR TESTING EQUIPMENT STORAGE SHED	EACH	1
G-131a.n2	ENGINEERING TRANSPORTATION (TRUCK)	EACH	2
G-131b.n2	ENGINEERING TRANSPORTATION (ATV)	EACH	2
G-135a.n2	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	ALL REQUIRED
G-210a.n2	CONTRACTOR SAFETY PLAN COMPLIANCE DOCUMENT	LUMP SUM	ALL REQUIRED
G-211a.n2	ASBESTOS COMPLIANCE PLAN	LUMP SUM	ALL REQUIRED
G-710a.n2	HIGHWAY TRAFFIC MAINTENANCE	CONTINGENT SUM	ALL REQUIRED
G-710c.n2	HIGHWAY TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
G-710d.n2	HIGHWAY TRAFFIC CONTROL	LUMP SUM	ALL REQUIRED
G-710e.n2	CALCIUM CHLORIDE FOR DUST CONTROL	TON	28.0
G-710.n2	CALCIUM CHLORIDE BY DIRECTIVE	CONTINGENT SUM	ALL REQUIRED
L-100a.n2	AIRPORT LIGHTING	LUMP SUM	ALL REQUIRED
L-101b.n2	ROTATING BEACON, MEDIUM INTENSITY, L-801A	EACH	1
L-107a(1).n2	PRIMARY 8-FOOT LIGHTED WIND CONE, IN PLACE	EACH	1
L-107a(2).n2	SUPPLEMENTAL 8-FOOT LIGHTED WIND CONE, IN PLACE	EACH	2
L-109c.n2	ELECTRICAL ENCLOSURE AND FOUNDATION, IN PLACE	EACH	1
L-109d.n3	INSTALLATION OF ELECTRICAL EQUIPMENT IN NEW OR EXISTING STRUCTURE	EACH	1
L-132a.n2	INSTALL APPROACH LIGHTING AIDS (PAPI RACEWAY AND PADS)	LUMP SUM	ALL REQUIRED
L-132b.n2	INSTALL APPROACH LIGHTING AIDS (REIL RACEWAY AND PADS)	LUMP SUM	ALL REQUIRED
L-132c.n2	REMOVE APPROACH LIGHTING AIDS (VASI)	LUMP SUM	ALL REQUIRED
P-151a.n2	CLEARING	ACRE	243
P-152g-NR1.n2	EMBANKMENT, NON-NOA COVER	SQUARE YARD	18,100
P-152i(1)A.n2	BORROW, A	TON	125,000
P-152i(1)B.n2	BORROW, B	TON	17,000
P-152l.n2	EXTRA EXCAVATION BY DIRECTIVE	CONTINGENT SUM	ALL REQUIRED
P-154a.n2	SUBBASE COURSE	CUBIC YARD	100,300
P-157a.n2	EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
P-157b.n2	TEMPORARY EROSION AND POLLUTION CONTROL	CONTINGENT SUM	ALL REQUIRED
P-157c.n2	TEMPORARY EROSION AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
P-157d.n2	TEMPORARY EROSION AND POLLUTION CONTROL AMENDMENTS	CONTINGENT SUM	ALL REQUIRED
P-157f.n2	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED
P-157g.n2	SWPPP MANAGER	LUMP SUM	ALL REQUIRED
P-167a.n2	DUST PALLIATIVE	LUMP SUM	ALL REQUIRED
P-208a.n2	CRUSHED AGGREGATE SURFACE COURSE	TON	57,000
P-610a.n2	STRUCTURAL PORTLAND CEMENT CONCRETE	CUBIC YARD	20
P-640b.n2	SEGMENTED CIRCLE (PANEL-TYPE)	LUMP SUM	ALL REQUIRED
P-650a.n2	SOIL ANCHOR TIE DOWN	SET	3
P-660b.n2	REFLECTIVE MARKER, TYPE II	EACH	40
P-660c.n2	CONE, 18 INCH	EACH	118
P-670a.n2	STANDARD SIGNS	SQUARE FOOT	34.75
S-142p.n2	EQUIPMENT STORAGE BUILDING	LUMP SUM	ALL REQUIRED
P-682a.n2	GEOTEXTILE, DRAINAGE	SQUARE YARD	264,000
S-142a.n2	EQUIPMENT STORAGE BUILDING	LUMP SUM	ALL REQUIRED
T-901a.n2	SEEDING	ACRE	11

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STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION

APPROVED _____ DATE 2.26.14

ALBERT M. L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA 49TH Christopher F. Johnston NO. CE 12585 REGISTERED PROFESSIONAL ENGINEER

02/26/2014

AMBLER AIRPORT REHABILITATION

AIP# 3-02-0354-_____/61303

ESTIMATE OF QUANTITIES SHT 1 OF 2

SHEET 2 OF 81

TABLE OF LUMP SUM QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY
P-167.n2	DUST PALLIATIVE	GALLON	60,000
L-100a.n2	REGULATOR, L-828	EACH	1
L-100a.n2	MEDIUM INTENSITY RUNWAY EDGE AND THRESHOLD LIGHT, L-861 and L-861E	EACH	85
L-100a.n2	TAXIWAY EDGE LIGHT, L-861T	EACH	15
L-100a.n2	WIND CONE HANDHOLE, L-867, Size D	EACH	3
L-100a.n2	REMOVE EXISTING RUNWAY AND TAXIWAY LIGHT	EACH	94
L-100a.n2	HANDHOLE, L-867, Size B	EACH	13
L-100a.n2	MEDIUM INTENSITY THRESHOLD LIGHT, L-861SE	EACH	18
L-100a.n2	UNDERGROUND CABLE #8 AWG, COPPER, 5 KV FAA TYPE "C", L-824	LF	15,785
L-100a.n2	# 6 STRANDED BARE COPPER GROUND CONDUCTOR	LF	14,960
L-100a.n2	GROUND ROD	EACH	138
L-100a.n2	UNDERGROUND CABLE #14 AWG, 3-CONDUCTOR, COPPER, 600V, TYPE "SOOW-A/SOOW"	LF	110
L-100a.n2	CONDUCTORS, #2 AWG, COPPER, 600V, XHHW	LF	2,170
L-100a.n2	CONDUCTORS, #10 AWG, COPPER, 600V, XHHW	LF	520
L-100a.n2	2-INCH RIGID STEEL CONDUIT	LF	870
L-100a.n2	2-INCH HDPE CONDUIT	LF	13,910
L-100a.n2	1-INCH RIGID STEEL CONDUIT	LF	35
L-100a.n2	1-1/4 INCH RIGID STEEL CONDUIT	LF	200
L-100a.n2	CONE, 24 INCH	EACH	118

TABLE OF ESTIMATED EXCAVATION AND FILL QUANTITIES

LOCATION	EXCAVATION (C.Y.)	BORROW A (C.Y.)	BORROW B (C.Y.)
OBSTRUCTION REMOVAL	307,000	0	0
RWY 01-19 EXTENSIONS	0	25,500	230,000
RWY 01-19 REHABILITATION	32,000	21,600	7,000
RWY 10-28 REHABILITATION	27,000	18,000	1,500
TAXIWAY AND APRON	8,100	3,700	0
AIRPORT ACCESS ROAD	1,700	19,000	0
MATERIAL SITE ACCESS ROAD	0	81,000	0

TABLE OF ESTIMATING FACTORS

ITEM NO.	DESCRIPTION		FACTORS
P-152h(3)	BORROW A		2 TON/CY
P-152h(4)	BORROW B		2 TON/CY
P-152j	NON-NOA COVER		2 TON/CY
P-154a	SUBBASE COURSE		2 TON/CY
P-180b	RIPRAP, CLASS I		1.75 TON/CY
P-180c	BALLAST		1.75 TON/CY
P-208a	CRUSHED AGGREGATE SURFACE COURSE		2 TON/CY

ABBREVIATIONS

AIP	AIRPORT IMPROVEMENT PROGRAM	REIL	RUNWAY END IDENTIFIER LIGHT
AVEC	ALASKA VILLAGE ELECTRIC COOPERATIVE	RPZ	RUNWAY PROTECTION ZONE
BOP	BEGINNING OF PROJECT	RSA	RUNWAY SAFETY AREA
C/L	CENTERLINE	ROW	RIGHT OF WAY
EL	ELEVATION	RT	RIGHT
ESCP	EROSION SEDIMENT CONTROL PLAN	R/W	RUNWAY
EOP	END OF PROJECT	STA	STATION
LT	LEFT	TBM	TEMPORARY BENCHMARK
N/A	NOT APPLICABLE	T/W	TAXIWAY
NOA	NATURALLY OCCURRING ASBESTOS	VASI	VISUAL APPROACH SLOPE INDICATOR
OFA	OBJECT FREE AREA	VC	VERTICAL CURVE
OFZ	OBJECT FREE ZONE	VPC	POINT OF VERTICAL CURVATURE
PAPI	PRECISION APPROACH PATH INDICATOR	VPI	POINT OF VERTICAL INTERSECTION
PC	POINT OF CURVATURE	VPT	VERTICAL POINT OF VERTICAL TANGENCY
PT	POINT OF TANGENT		
PI	POINT OF INTERSECTION		

GENERAL NOTES:

1. LOCATIONS OF UTILITIES SHOWN ON THE PLANS (AVEC POWER, OTZ TELEPHONE, AND COMMUNITY FUEL LINE) ARE BASED ON PLANS FROM UTILITIES AND FIELD OBSERVATIONS. LOCATIONS MUST BE FIELD VERIFIED.
2. UNUSABLE EXCAVATION SHALL BE TESTED FOR NOA CONTENT AND USED AS NON-NOA COVER IF IT MEETS NON-NOA REQUIREMENTS
3. EXCESS EXCAVATION MAY BE DISPOSED OF IN THE AREA NORTH OF RUNWAY 10-28 (SEE PLAN SHEET 5).
4. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE NOA MATERIAL SALES AGREEMENT IN APPENDIX H WHEN WORKING IN THE SUBJECT LANDS AS DEFINED WITHIN THE AGREEMENT. ALL MATERIAL EXTRACTION WITHIN THE SUBJECT LANDS MUST BE COMPLETED PRIOR TO THE DATE OF COMPLETION IN THE AGREEMENT.

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DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED _____ DATE 2.26.14
ALBERT M. L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA 49TH "Christopher F. Johnston" NO. CE 12585 REGISTERED PROFESSIONAL ENGINEER 02/26/2014

AMBLER AIRPORT REHABILITATION

AIP# 3-02-0354-_____/61303

ESTIMATE OF QUANTITIES SHT 2 OF 2

SHEET 3 OF 81

EOP = 2150+44.04
N = 4795790.47
E = 1670983.55

BOP = 2000+00.00
N = 4790267.56
E = 1663205.80

LEGEND	
⊕	C/L MONUMENT
⊙	REBAR/CAP

AIRPORT PROPERTY BOUNDARY

#1008

N 67°27'46" W 3822.33'

10

WASTE AREA

T/W 100+00
R/W 21+00

#1027

#1057

ROW

#10

ROW

WARING STREET (AIRPORT ACCESS ROAD)

#1

BASIS OF BEARING
N 22°31'58" E 3399.99'

10

#1003

12

28

#1013

#1022

#1052

R/W 01-19 43+00
R/W 10-28 506+00

#1001

#1056

#1036

#1020

#1050

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STATE OF ALASKA 49TH
Christopher F. Johnston
NO. CE 12585
REGISTERED PROFESSIONAL ENGINEER
02/11/2014

AMBLER AIRPORT REHABILITATION

AIP# 3-02-0354-____/61303

BASIS OF BEARINGL 1 OF 2

SHEET 4 OF 81

MONUMENT COORDINATE TABLE					
STATION	OFFSET	PT#	NORTHING	EASTING	DESCRIPTION
−16+66.89	203.73	1013	4785162.40	1659260.14	BLM MONUMENT RECOVERED
−13+60.53	−93.46	10	4785559.26	1659103.03	REBAR/CAP RECOVERED
−0+22.52	894.66	1036	4786416.47	1660528.46	BLM MONUMENT RECOVERED
7+89.66	−599.63	1027	4787739.28	1659459.49	PRIMARY MONUMENT RECOVERED
7+90.03	599.90	1022	4787279.95	1660567.58	PRIMARY MONUMENT RECOVERED
9+00.00	0.00	1	4787611.41	1660055.62	PRIMARY C/L MONUMENT RECOVERED
18+61.19	888.22	1020	4788158.85	1661244.37	BLM MONUMENT RECOVERED
36+99.90	1299.81	1050	4789699.47	1662329.17	PRIMARY MONUMENT RECOVERED
37+00.03	599.82	1052	4789967.83	1661682.66	PRIMARY MONUMENT RECOVERED
42+99.99	0.00	1003	4790751.85	1661358.54	PRIMARY C/L MONUMENT RECOVERED
43+00.00	599.89	1001	4790521.97	1661912.64	PRIMARY C/L MONUMENT RECOVERED
43+00.30	−3222.43	1008	4791987.01	1658382.23	PRIMARY C/L MONUMENT RECOVERED
61+90.02	599.91	1056	4792267.70	1662636.94	PRIMARY MONUMENT RECOVERED
61+90.17	−600.07	1057	4792727.68	1661528.63	PRIMARY MONUMENT RECOVERED

ACCESS ROAD ASBUILT C/L COORDINATE TABLE				
STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
−15+79.89	240.29	4785228.76	1659327.24	ASBUILT "L" 10+00.00 POT
−15+22.81	159.62	4785312.39	1659274.60	ASBUILT "L" 10+98.83 PC
−10+56.97	−94.56	4785840.07	1659218.34	ASBUILT "L" 16+48.30 PT
−1+58.49	−134.08	4786685.11	1659526.15	ASBUILT "L" 25+47.66 PC
0+58.15	−139.51	4786887.29	1659604.16	ASBUILT "L" 27+64.37 PT
7+89.80	−143.99	4787564.81	1659880.39	ASBUILT "L" 34+96.04 POT
8+76.38	−144.53	4787644.98	1659913.08	ASBUILT "L" 35+82.62 PC
12+57.94	−24.74	4787951.51	1660169.94	ASBUILT "L" 39+89.03 PT
17+47.15	320.48	4788271.08	1660676.28	ASBUILT "L" 45+87.79 POT

ASBUILT C/L ACCESS ROAD			
#	LENGTH	DELTA	RADIUS
C1	549.47	52°12'00"	603.11
C2	216.72	02°10'02"	5729.58
C3	406.41	35°33'39"	654.81

ASBUILT C/L ACCESS ROAD		
#	BEARING	DISTANCE
L1	N 32°11'08" W	98.83
L2	N 20°00'52" E	899.36
L3	N 22°10'53" E	731.67
L4	N 22°10'53" E	86.58
L5	N 57°44'32" E	598.76

GENERAL NOTES

1. THE BASIS OF VERTICAL IS, 205.93 ft (ORTHOMETRIC), AT R/W STATION 9+00.00 = TRAVERSE POINT #1.
2. THE BASIS OF BEARING IS, N 22°31'58 E BETWEEN R/W STATION 9+00.00 = TP#1 AND R/W STATION 42+99.99 (43+00.00 REC) = POINT #1003. OBTAINED FROM 1989 RECORD OF SURVEY, AMBLER AIRPORT.
3. REFER TO AMBLER AIRPORT SURVEY CONTROL DIAGRAM, PREPARED BY USKH, INC. DATED APRIL 2013 FOR ADDITIONAL INFORMATION.

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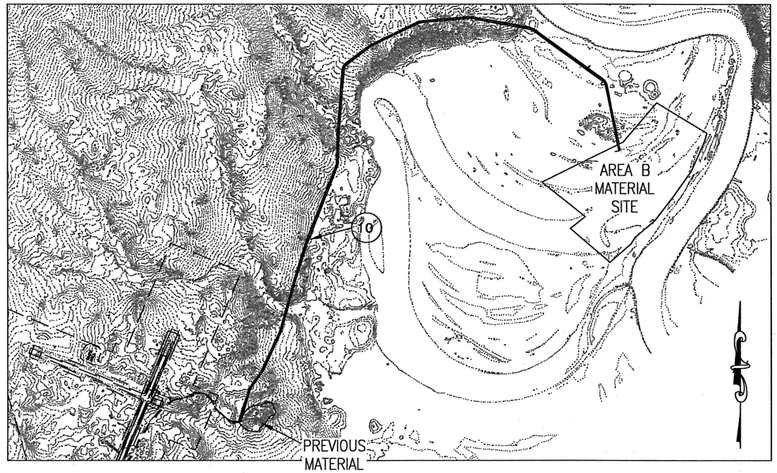
AIP# 3-02-0354-____/61303
BASIS OF BEARING 2 OF 2

SHEET 5 OF 81



R/W 10–28 STA. 531+40
END RUNWAY SAFETY AREA

R/W 10–28 STA. 529+00
RUNWAY THRESHOLD

R/W 01–19 STA. 11+97
BEGIN RUNWAY SAFETY AREA

R/W 01–19 STA. 14+97
RUNWAY THRESHOLD

NDB TOWERS

ANICS CLEAR ZONE

DECOMMISSIONED
DF ANTENNA SITE

WASTE DISPOSAL AREA

WASTE
AREA

R/W 01–19 STA. 54+97
RUNWAY THRESHOLD

R/W 01–19STA. 57+97
END RUNWAY SAFETY
AREA

AWOS

WARING STREET (AIRPORT ACCESS ROAD)

CUT/FILL LIMITS

R/W 10–28 STA. 505+00
RUNWAY THRESHOLD

R/W 10–28 STA. 502+60
BEGIN RUNWAY SAFETY AREA

CONTRACTOR STAGING
AREA/OLD NANA
MATERIAL SITE

FEET
286 0 143 286 572

SCOPE OF PROJECT

1. EXTEND RUNWAY 01–19 (CLEARING, GRUBBING, AND BORROW B ONLY) FROM STA 11+97 TO 17+50 AND STA 51+90 TO 57+97: 75' RUNWAY, 150' RUNWAY SAFETY AREA (NTP #1).
2. RECONSTRUCT RUNWAY 01–19 FROM STA 17+50 TO STA 51+90: WIDEN FROM 60' TO 75' RUNWAY, 120' TO 150' RUNWAY SAFETY AREA AND COMPLETE RUNWAY EXTENSIONS (NTP #2).
3. REHABILITATE RUNWAY 10–28 (NTP #2).
4. REMOVE TERRAIN OBSTRUCTIONS (NTP #1).
5. REHABILITATE TAXIWAY AND APRON (NTP #2).
6. INSTALL AIRPORT LIGHTING, WINDCONES, AND SEGMENTED CIRCLE. REMOVE VASI'S, INSTALL PAPI PAD (NTP #2).
7. REALIGN (INCLUDING CLEARING AND GRUBBING) 1,240' OF WARING STREET (AIRPORT ACCESS ROAD) from STA 34+17 to STA 47+43 (NTP #1).
8. REHABILITATE AND RESURFACE 2,750' OF WARING STREET. APPLY CALCIUM CHLORIDE FROM STA 10+00 TO 34+17.
9. CLEARING (NTP #2).
10. CONSTRUCT MATERIAL SITE ACCESS ROAD (NTP #1).

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BY	DATE	REVISIONS

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

APPROVED _____ DATE 2.12.14
ALBERT M. L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA 49TH
Christopher F. Johnston
NO. CE 12585
REGISTERED PROFESSIONAL ENGINEER
02/11/2014

AMBLER AIRPORT REHABILITATION

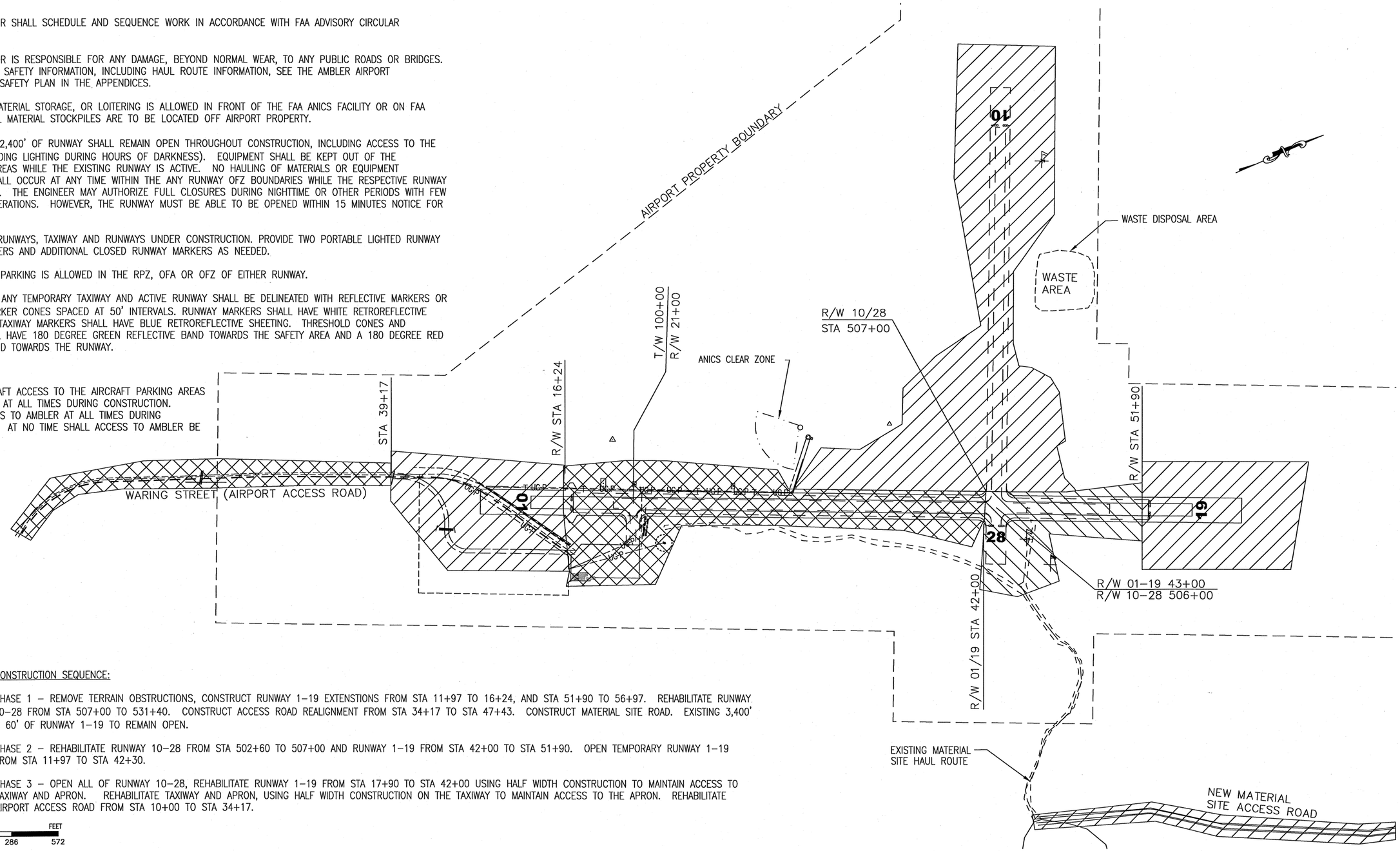
AIP# 3–02–0354–____/61303

PROJECT LAYOUT PLAN

SHEET 6 OF 81

NOTES:

1. THE CONTRACTOR SHALL SCHEDULE AND SEQUENCE WORK IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5370-2F.
2. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE, BEYOND NORMAL WEAR, TO ANY PUBLIC ROADS OR BRIDGES. FOR ADDITIONAL SAFETY INFORMATION, INCLUDING HAUL ROUTE INFORMATION, SEE THE AMBLER AIRPORT REHABILITATION SAFETY PLAN IN THE APPENDICES.
3. NO PARKING, MATERIAL STORAGE, OR LOITERING IS ALLOWED IN FRONT OF THE FAA ANICS FACILITY OR ON FAA PROPERTY. ALL MATERIAL STOCKPILES ARE TO BE LOCATED OFF AIRPORT PROPERTY.
4. A MINIMUM OF 2,400' OF RUNWAY SHALL REMAIN OPEN THROUGHOUT CONSTRUCTION, INCLUDING ACCESS TO THE TAXIWAY (INCLUDING LIGHTING DURING HOURS OF DARKNESS). EQUIPMENT SHALL BE KEPT OUT OF THE OPERATIONAL AREAS WHILE THE EXISTING RUNWAY IS ACTIVE. NO HAULING OF MATERIALS OR EQUIPMENT MOVEMENTS SHALL OCCUR AT ANY TIME WITHIN THE ANY RUNWAY OFZ BOUNDARIES WHILE THE RESPECTIVE RUNWAY IS OPERATIONAL. THE ENGINEER MAY AUTHORIZE FULL CLOSURES DURING NIGHTTIME OR OTHER PERIODS WITH FEW SCHEDULED OPERATIONS. HOWEVER, THE RUNWAY MUST BE ABLE TO BE OPENED WITHIN 15 MINUTES NOTICE FOR EMERGENCIES.
5. MARK CLOSED RUNWAYS, TAXIWAY AND RUNWAYS UNDER CONSTRUCTION. PROVIDE TWO PORTABLE LIGHTED RUNWAY CLOSURE MARKERS AND ADDITIONAL CLOSED RUNWAY MARKERS AS NEEDED.
6. NO EQUIPMENT PARKING IS ALLOWED IN THE RPZ, OFA OR OFZ OF EITHER RUNWAY.
7. THE EDGES OF ANY TEMPORARY TAXIWAY AND ACTIVE RUNWAY SHALL BE DELINEATED WITH REFLECTIVE MARKERS OR REFLECTIVE MARKER CONES SPACED AT 50' INTERVALS. RUNWAY MARKERS SHALL HAVE WHITE RETROREFLECTIVE SHEETING AND TAXIWAY MARKERS SHALL HAVE BLUE RETROREFLECTIVE SHEETING. THRESHOLD CONES AND MARKERS SHALL HAVE 180 DEGREE GREEN REFLECTIVE BAND TOWARDS THE SAFETY AREA AND A 180 DEGREE RED REFLECTIVE BAND TOWARDS THE RUNWAY.
8. MAINTAIN AIRCRAFT ACCESS TO THE AIRCRAFT PARKING AREAS ON THE APRON AT ALL TIMES DURING CONSTRUCTION. MAINTAIN ACCESS TO AMBLER AT ALL TIMES DURING CONSTRUCTION. AT NO TIME SHALL ACCESS TO AMBLER BE RESTRICTED.



CONSTRUCTION SEQUENCE:

PHASE 1 – REMOVE TERRAIN OBSTRUCTIONS, CONSTRUCT RUNWAY 1–19 EXTENSTIONS FROM STA 11+97 TO 16+24, AND STA 51+90 TO 56+97. REHABILITATE RUNWAY 10–28 FROM STA 507+00 TO 531+40. CONSTRUCT ACCESS ROAD REALIGNMENT FROM STA 34+17 TO STA 47+43. CONSTRUCT MATERIAL SITE ROAD. EXISTING 3,400' X 60' OF RUNWAY 1–19 TO REMAIN OPEN.

PHASE 2 – REHABILITATE RUNWAY 10–28 FROM STA 502+60 TO 507+00 AND RUNWAY 1–19 FROM STA 42+00 TO STA 51+90. OPEN TEMPORARY RUNWAY 1–19 FROM STA 11+97 TO STA 42+30.

PHASE 3 – OPEN ALL OF RUNWAY 10–28, REHABILITATE RUNWAY 1–19 FROM STA 17+90 TO STA 42+00 USING HALF WIDTH CONSTRUCTION TO MAINTAIN ACCESS TO TAXIWAY AND APRON. REHABILITATE TAXIWAY AND APRON, USING HALF WIDTH CONSTRUCTION ON THE TAXIWAY TO MAINTAIN ACCESS TO THE APRON. REHABILITATE AIRPORT ACCESS ROAD FROM STA 10+00 TO STA 34+17.

FEET
286 0 143 286 572

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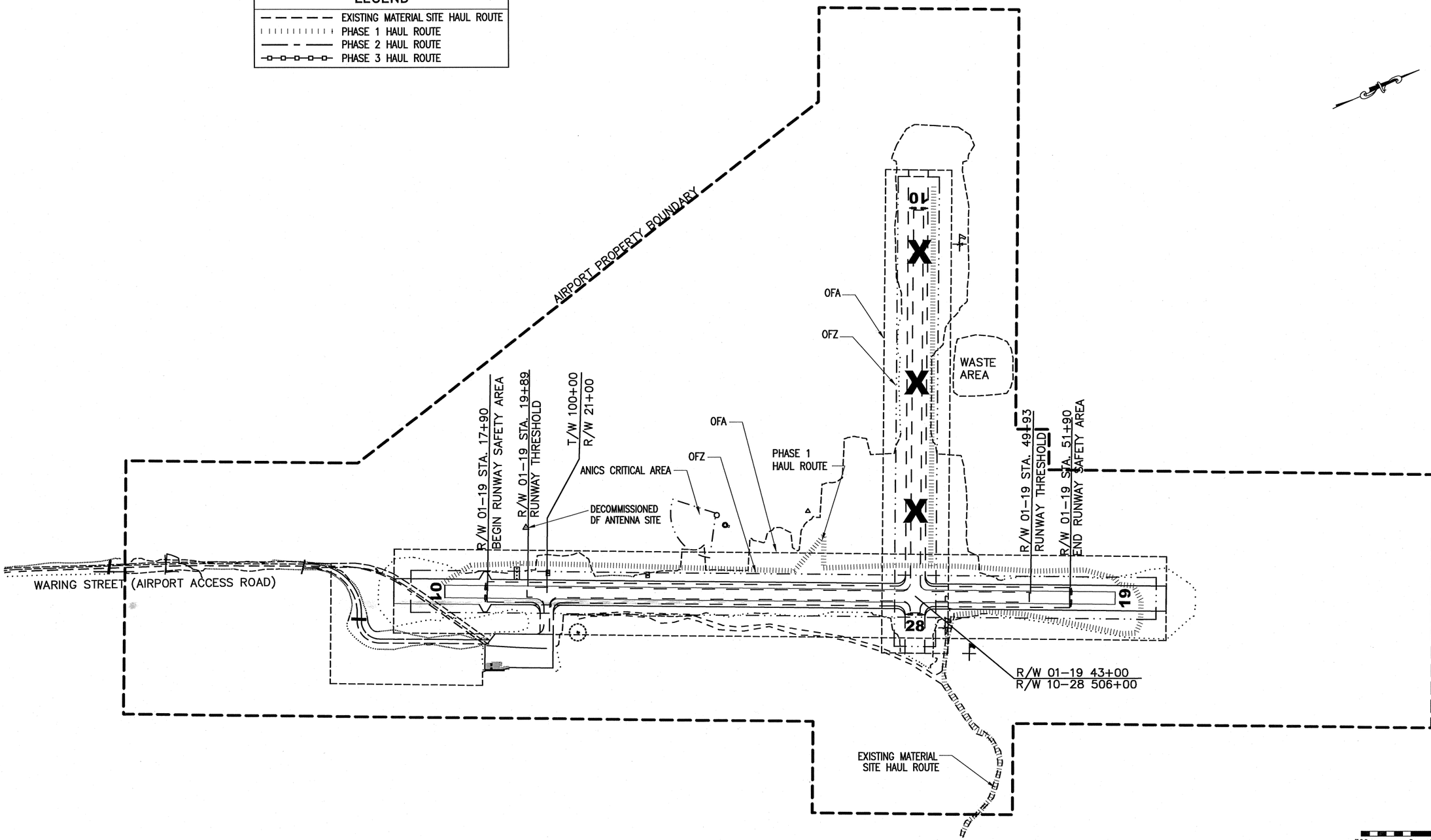
CONSTRUCTION PHASING PLAN

SHEET 7 OF 81

LEGEND

- EXISTING MATERIAL SITE HAUL ROUTE
- PHASE 1 HAUL ROUTE
- PHASE 2 HAUL ROUTE
- PHASE 3 HAUL ROUTE



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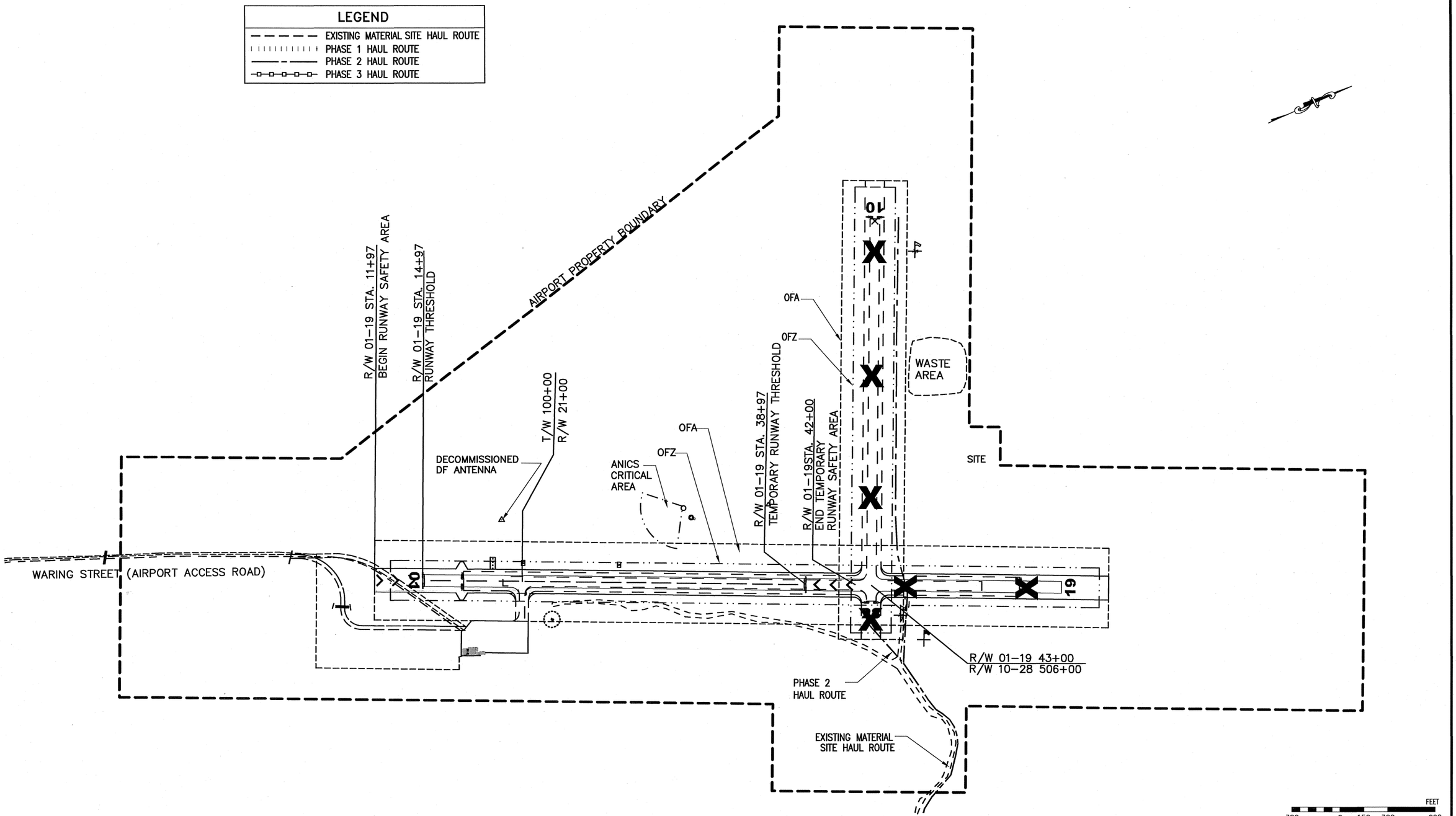
CONSTRUCTION SAFETY PLAN PHASE 1

SHEET 8 OF 81



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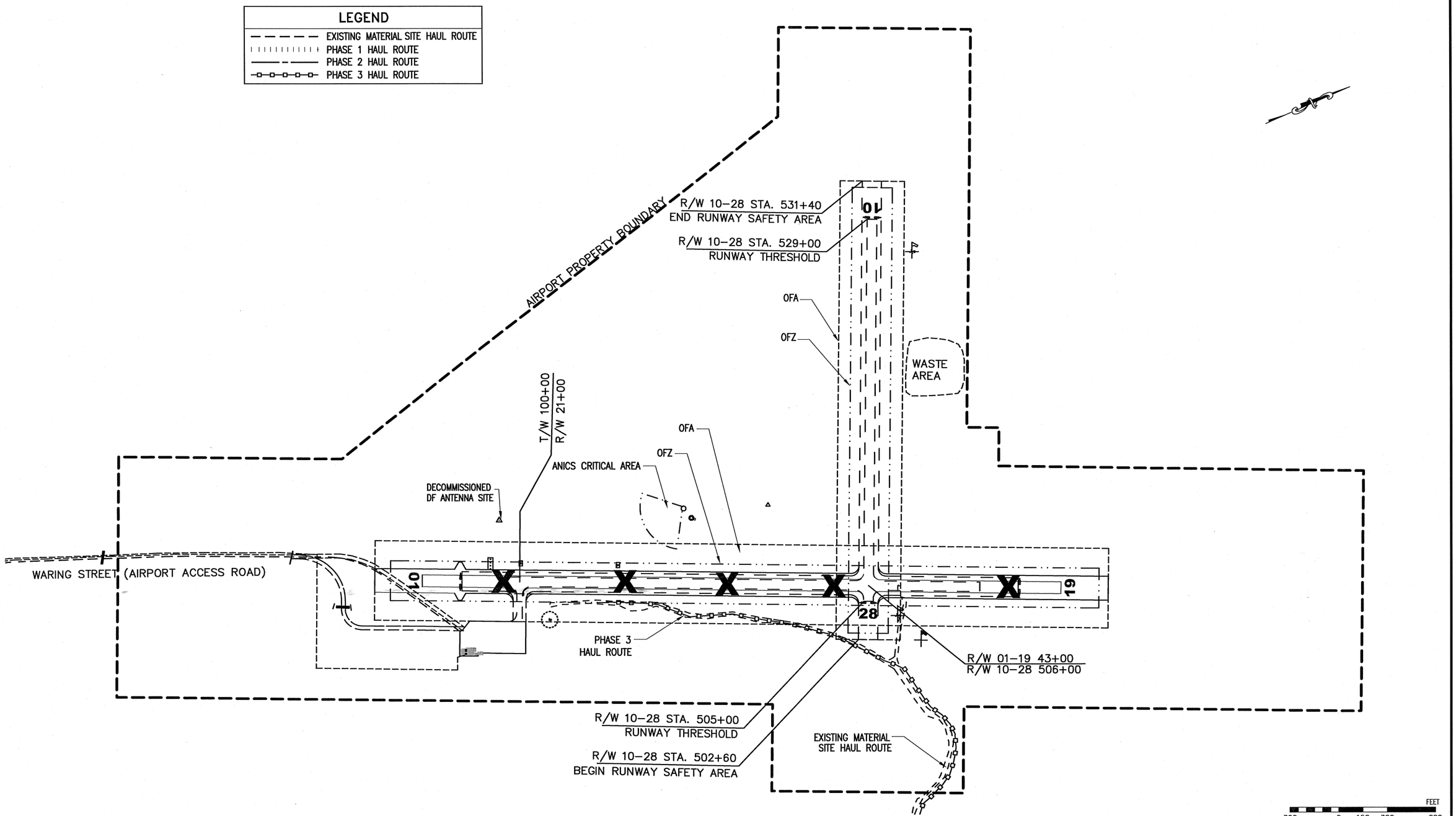
CONSTRUCTION SAFETY PLAN PHASE 2

SHEET 9 OF 81



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AMBLER AIRPORT REHABILITATION

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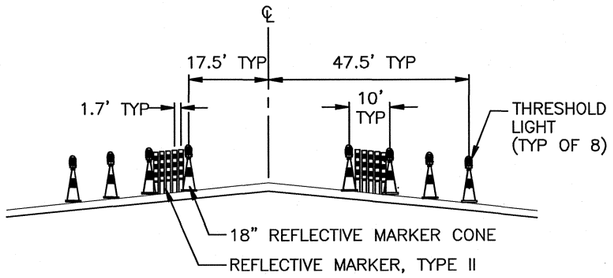
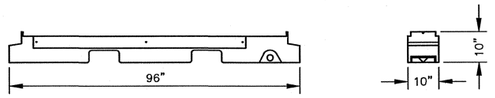
CONSTRUCTION SAFETY PLAN PHASE 3

SHEET 10 OF 81



TEMPORARY THRESHOLD MARKER DETAIL

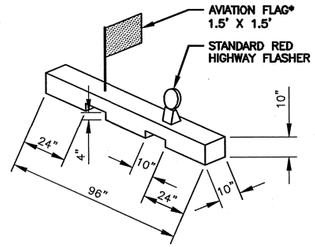


ELEVATION VIEW

SIDE VIEW

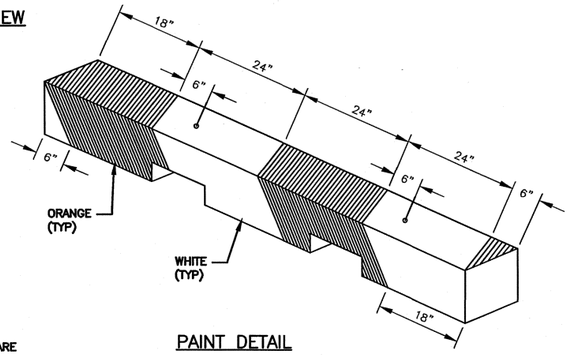
HAZARD MARKER BARRIER NOTES:

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.
2. DISABLE AND PREVENT THE OPERATION OF RUNWAY EDGE LIGHTS AND RUNWAY THRESHOLD LIGHTS DURING CLOSURE OF THE RUNWAY.
3. HAZARD MARKER BARRIERS ARE NOT TO BE PLACED WITHIN THE OFZ OF THE ACTIVE RUNWAY. CONSIDER JET BLAST WHEN PLACING BARRIERS.
4. SEE CSPP SECTION 16 FOR SPACING REQUIREMENTS.

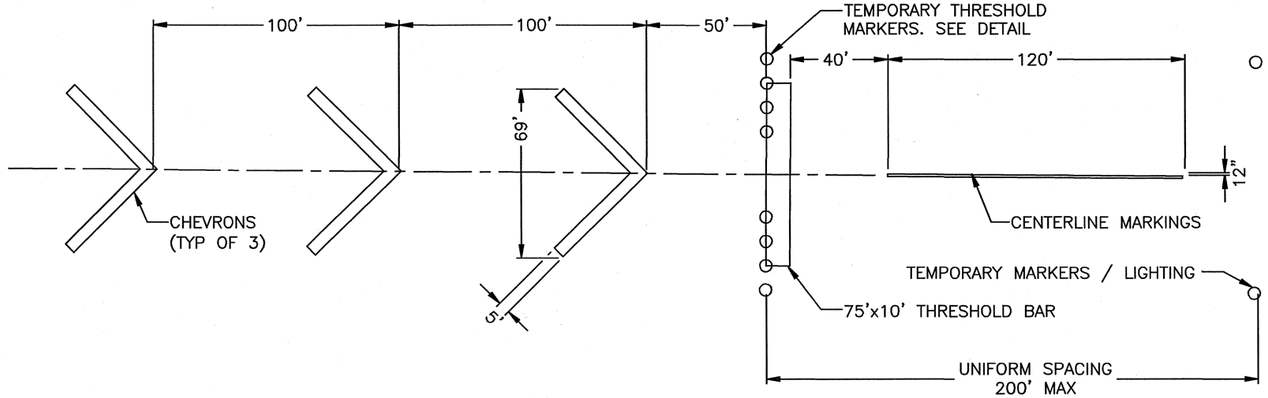


PREPARATION OF FLAG & FLASHER MOUNT DETAIL

* FLAGS SHALL ALTERNATE COLOR (ORANGE/WHITE) ON EACH BARRIER AS THEY ARE PLACED IN THE AIRPORT OPERATIONS AREA, IN SEQUENCE.



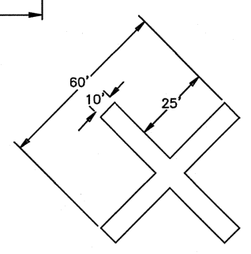
PAINT DETAIL



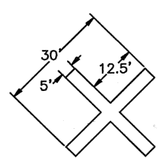
TEMPORARY THRESHOLD MARKING PLAN

NOTES:

1. CHEVRONS SHALL BE YELLOW, CONSTRUCTED OF HEAVY FABRIC OR SNOW FENCE FASTENED SECURELY TO THE SURFACE, OR PAINTED DIRECTLY ON THE SURFACE.
2. THRESHOLD BAR AND CENTERLINE MARKINGS SHALL BE PAINTED DIRECTLY ON THE SURFACE. USE WHITE ACRYLIC LOW VOC ZONE MARKING PAINT, AEXCEL–22W–D010–C08 OR EQUAL.
3. CONTINUE CENTERLINE MARKING WITH 120' STRIPES, 80' SKIP FOR FULL LENGTH OF RUNWAY. ADJUST STRIPE/SKIP LENGTH AT RUNWAY MIDPOINT AS REQUIRED TO PROVIDE DIMENSIONS ON THIS DETAIL.
4. DURING TEMPORARY NIGHT RUNWAY CLOSURES, PROVIDE PORTABLE LIGHTED RUNWAY CLOSURE MARKERS ON CENTERLINE OF EACH THRESHOLD.
5. SAND BAGS OR OTHER BALLAST USED OVER THE MARKERS SHALL BE OF SIMILAR COLOR TO THE MARKER.



CLOSED RUNWAY MARKER



CLOSED TAXIWAY MARKER

NOTES:

1. CLOSED RUNWAY MARKERS ARE TO BE SPACED AT 1,000' MAXIMUM.
2. THE MARKERS SHALL BE PAINTED YELLOW.
3. MARKERS SHALL BE CONSTRUCTED OF PLYWOOD OR HEAVY FABRIC FASTENED TO GROUND
4. MARKERS SHALL NOT MOVE OR DEFORM IN WIND OR PROP BLAST.
5. SAND BAGS OR OTHER BALLAST USED OVER THE MARKERS SHALL BE OF SIMILAR COLOR TO THE MARKER.

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AMBLER AIRPORT REHABILITATION

AIP# 3-02-0354-____/61303

CONSTRUCTION SAFETY PLAN DETAILS 1 OF 2

SHEET 11 OF 81

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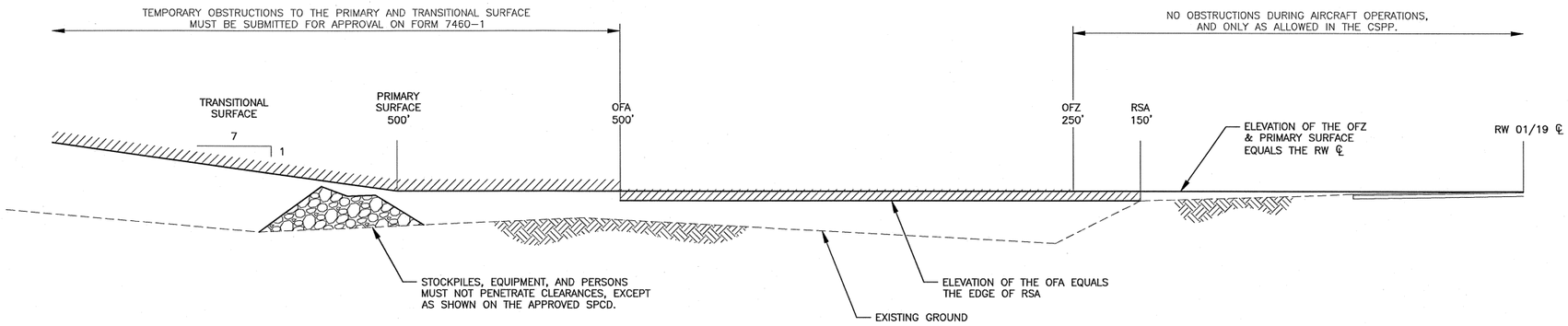
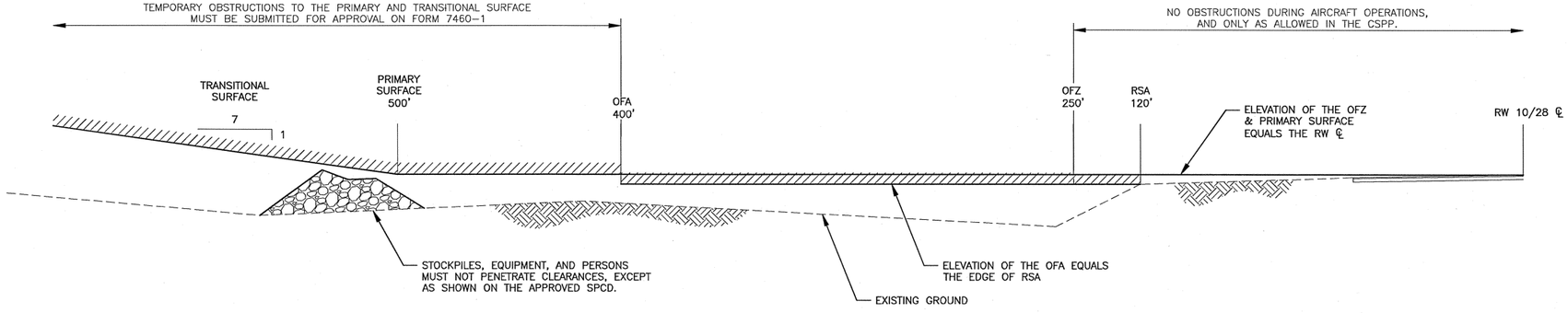


VERTICAL RELATION OF THE RSA, OFZ, AND OFA, RUNWAY 01–19

N.T.S.



VERTICAL RELATION OF THE RSA, OFZ, AND OFA, RUNWAY 10–28

N.T.S.

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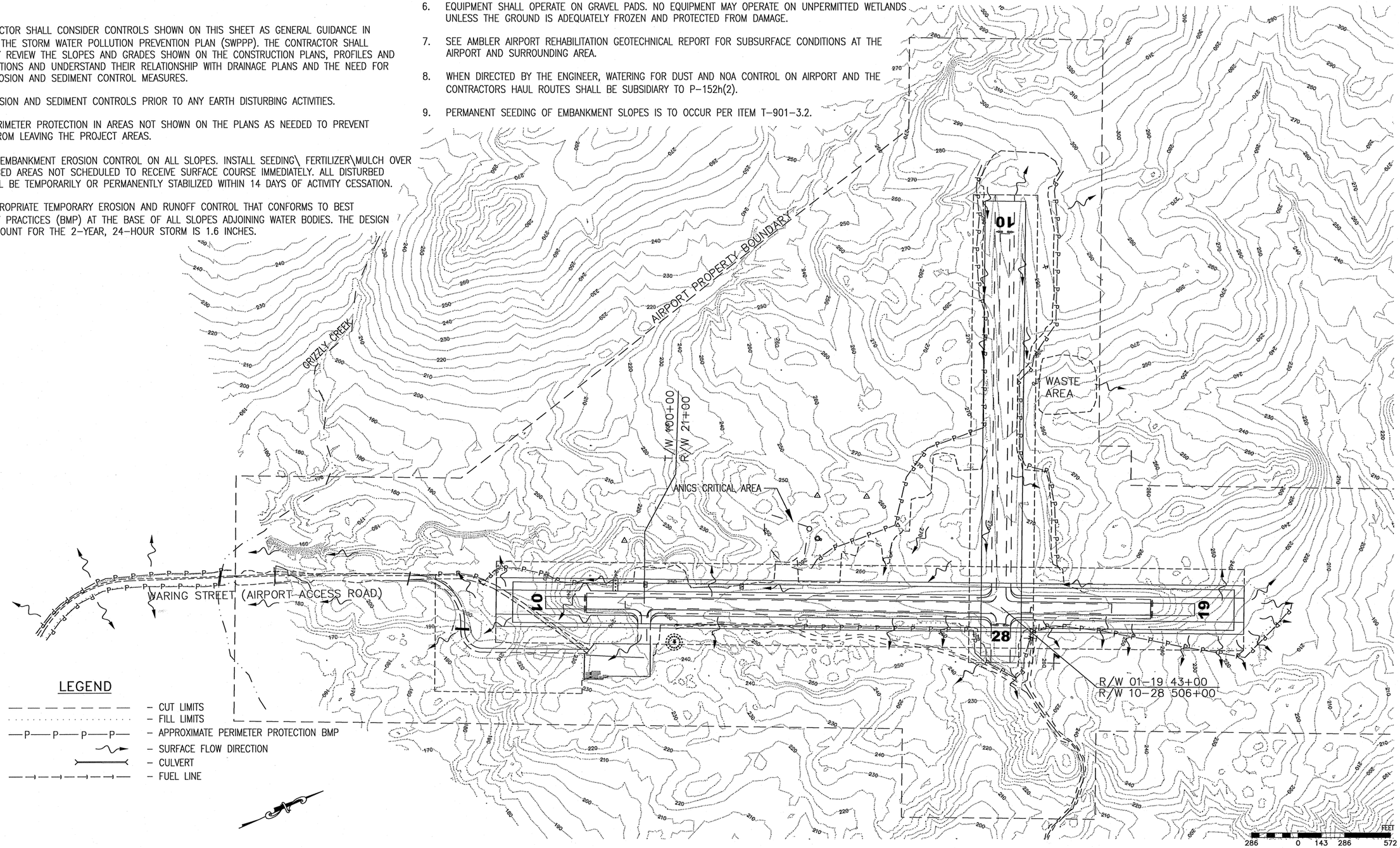
CONSTRUCTION SAFETY PLAN DETAILS 2 OF 2

SHEET 12 OF 81

NOTES:

1. THE CONTRACTOR SHALL CONSIDER CONTROLS SHOWN ON THIS SHEET AS GENERAL GUIDANCE IN DEVELOPING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL THOROUGHLY REVIEW THE SLOPES AND GRADES SHOWN ON THE CONSTRUCTION PLANS, PROFILES AND TYPICAL SECTIONS AND UNDERSTAND THEIR RELATIONSHIP WITH DRAINAGE PLANS AND THE NEED FOR SPECIFIC EROSION AND SEDIMENT CONTROL MEASURES.
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 AREAS.
4. CONSTRUCT EMBANKMENT EROSION CONTROL ON ALL SLOPES. INSTALL SEEDING\ FERTILIZER\MULCH OVER ALL DISTURBED AREAS NOT SCHEDULED TO RECEIVE SURFACE COURSE IMMEDIATELY. ALL DISTURBED AREAS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 14 DAYS OF ACTIVITY CESSATION.
5. INSTALL APPROPRIATE TEMPORARY EROSION AND RUNOFF CONTROL THAT CONFORMS TO BEST MANAGEMENT PRACTICES (BMP) AT THE BASE OF ALL SLOPES ADJOINING WATER BODIES. THE DESIGN RAINFALL AMOUNT FOR THE 2–YEAR, 24–HOUR STORM IS 1.6 INCHES.
6. EQUIPMENT SHALL OPERATE ON GRAVEL PADS. NO EQUIPMENT MAY OPERATE ON UNPERMITTED WETLANDS UNLESS THE GROUND IS ADEQUATELY FROZEN AND PROTECTED FROM DAMAGE.
7. SEE AMBLER AIRPORT REHABILITATION GEOTECHNICAL REPORT FOR SUBSURFACE CONDITIONS AT THE AIRPORT AND SURROUNDING AREA.
8. WHEN DIRECTED BY THE ENGINEER, WATERING FOR DUST AND NOA CONTROL ON AIRPORT AND THE CONTRACTORS HAUL ROUTES SHALL BE SUBSIDIARY TO P–152h(2).
9. PERMANENT SEEDING OF EMBANKMENT SLOPES IS TO OCCUR PER ITEM T–901–3.2.



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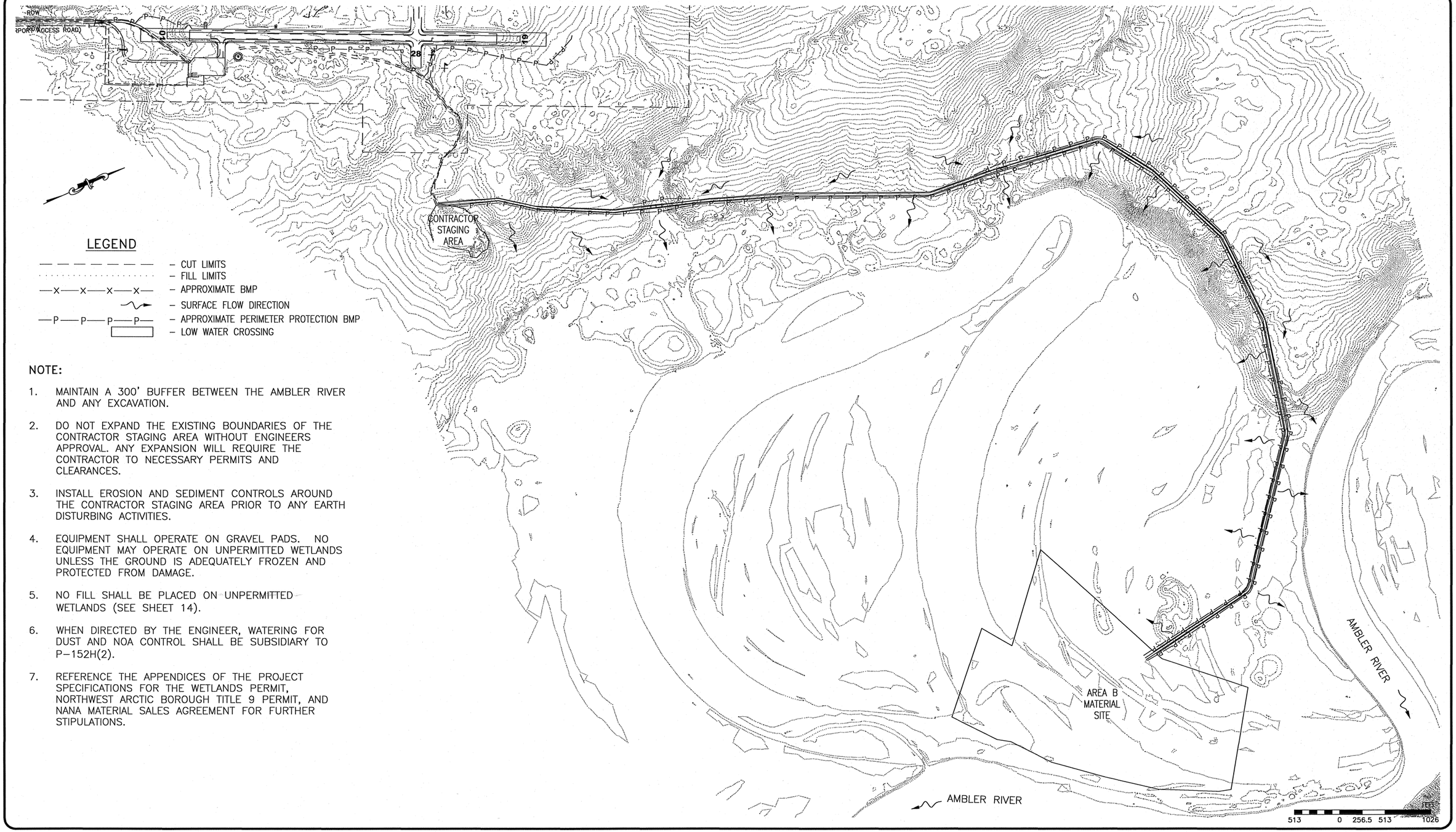
02/11/2014

AMBLER AIRPORT REHABILITATION

AIP# 3–02–0354–_____/61303

ESCP PLAN 1 OF 3

SHEET 13 OF 81



NOTE:

1. MAINTAIN A 300' BUFFER BETWEEN THE AMBLER RIVER AND ANY EXCAVATION.
2. DO NOT EXPAND THE EXISTING BOUNDARIES OF THE CONTRACTOR STAGING AREA WITHOUT ENGINEERS APPROVAL. ANY EXPANSION WILL REQUIRE THE CONTRACTOR TO NECESSARY PERMITS AND CLEARANCES.
3. INSTALL EROSION AND SEDIMENT CONTROLS AROUND THE CONTRACTOR STAGING AREA PRIOR TO ANY EARTH DISTURBING ACTIVITIES.
4. EQUIPMENT SHALL OPERATE ON GRAVEL PADS. NO EQUIPMENT MAY OPERATE ON UNPERMITTED WETLANDS UNLESS THE GROUND IS ADEQUATELY FROZEN AND PROTECTED FROM DAMAGE.
5. NO FILL SHALL BE PLACED ON UNPERMITTED WETLANDS (SEE SHEET 14).
6. WHEN DIRECTED BY THE ENGINEER, WATERING FOR DUST AND NOA CONTROL SHALL BE SUBSIDIARY TO P–152H(2).
7. REFERENCE THE APPENDICES OF THE PROJECT SPECIFICATIONS FOR THE WETLANDS PERMIT, NORTHWEST ARCTIC BOROUGH TITLE 9 PERMIT, AND NANA MATERIAL SALES AGREEMENT FOR FURTHER STIPULATIONS.

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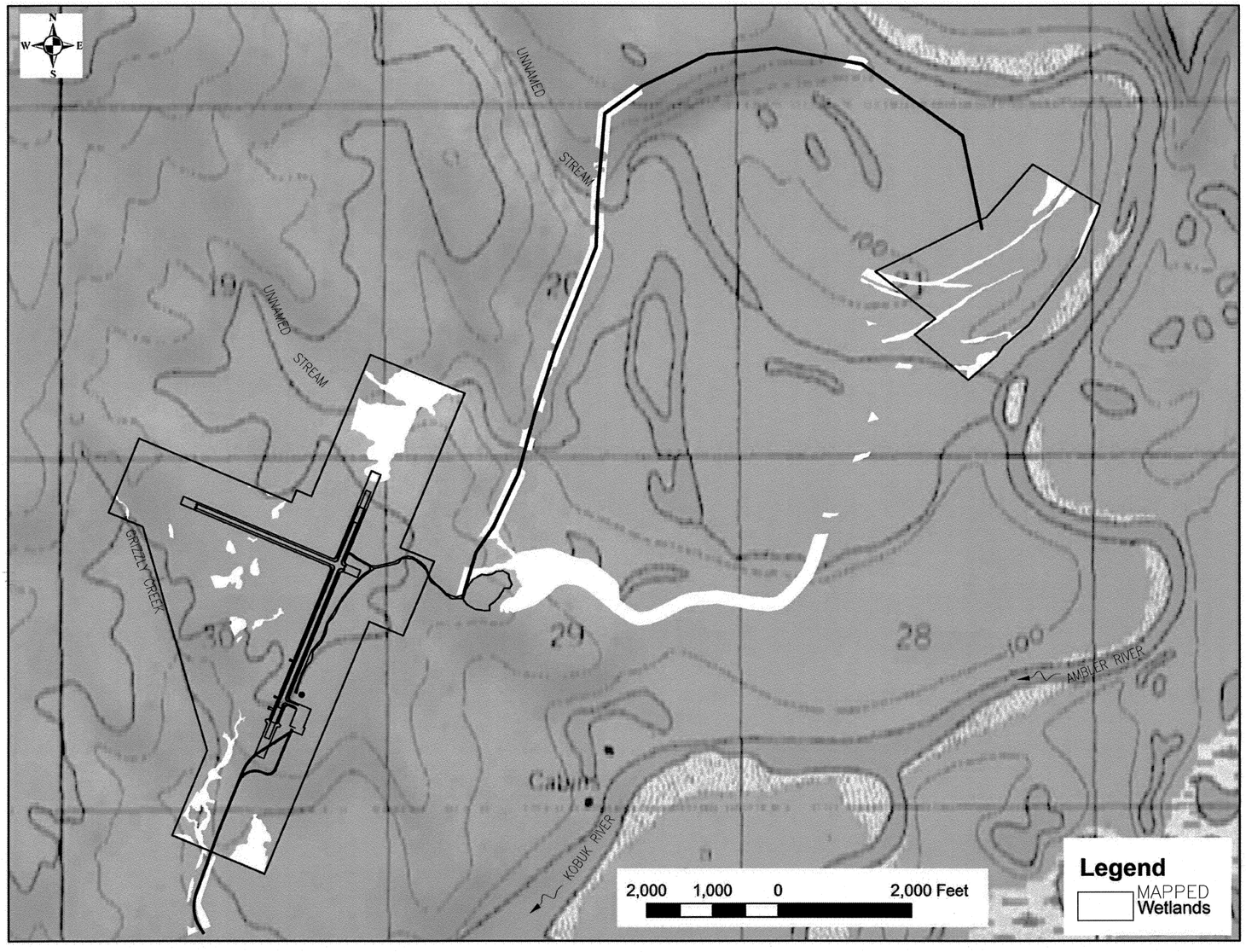
AIP# 3-02-0354-____/61303
ESCP PLAN 2 OF 3

SHEET 14 OF 81



GENERAL SITE INFORMATION:

1. AVERAGE RAINFALL: 23.1 INCHES (WESTERN REGION CLIMATE CENTER)
2. HISTORICAL AVERAGE DATES OF FREEZING TEMPERATURES: SEPTEMBER 25 TO MAY 16 (WESTERN REGION CLIMATE CENTER).
3. APPROXIMATE GROWING SEASON: MAY 3 TO OCTOBER 3 (REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: ALASKA REGION (VERSION 2.0)).
4. SOILS, SLOPES, TOPOGRAPHY: DOMINANT NATIVE SOILS CONSIST OF SILTY SAND/SANDY SILT AND ORGANICS. PERMAFROST IS DISCONTINUOUS. IT SHALL BE EXPECTED THAT FROZEN GROUND MAY BE ENCOUNTERED IN EXCAVATIONS AND TO EXPECT DIFFICULTY HANDLING MOIST OR WET THAWED SILTY SOILS. SLOPES IN THE PROJECT AREA ARE PREDOMINANTLY 4:1, WITH STEEPER SLOPES ALONG ROADS.
5. VEGETATION: THE MAJORITY OF THE PROJECT AREA IS IN UPLANDS WITH THE EXCEPTION OF THE RUNWAY 19 EXTENSION AREA AND THE ROAD TO THE AREA B MATERIAL SITE. THE PREVIOUSLY CLEARED OR DISTURBED UPLAND AREA WITHIN THE AIRPORT PROPERTY IS COMPRISED OF WHITE SPRUCE AND ASPEN TREES. MUCH OF THE UPLAND AREA FOR THIS PROJECT IS PARTIALLY VEGETATED BY LOW SHRUB VEGETATION.

PROJECT AREA DATA	
PROJECT AREA DATA	ACRE (AC.)
PROJECT TOTAL	322.50
DISTURBED GROUND TOTAL	129.40
PRE-CONSTRUCTION RUNOFF COEFFICIENT	0.4
POST-CONSTRUCTION RUNOFF COEFFICIENT	0.5

ENVIRONMENTAL INFORMATION:

RECEIVING WATER BODIES: GRIZZLY CREEK, AMBLER AND KOBUK RIVERS

1. IMPAIRED WATER BODIES: NONE
2. TOTAL MAXIMUM DAILY LOAD WATERS: NONE
3. THREATENED AND ENDANGERED SPECIES: SEE APPENDIX C
4. HISTORIC PLACES: SEE APPENDIX C
5. CONTAMINATED SITES OF RECORD: SEE APPENDIX C
6. ALL CONSTRUCTION ACTIVITY SHALL COMPLY WITH THE MIGRATORY BIRD TREATY ACT
7. STORM SEWER: NONE

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DESIGN SLM
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BY	DATE	REVISIONS

STATE OF ALASKA
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NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED
ALBERT M. L. BECK, P.E. DESIGN GROUP CHIEF
DATE 2.12.14

STATE OF ALASKA 49TH Christopher F. Johnston NO. CE 12585 REGISTERED PROFESSIONAL ENGINEER
02/11/2014

AMBLER AIRPORT REHABILITATION

AIP# 3-02-0354-____/61303

ESCP PLAN 3 OF 3

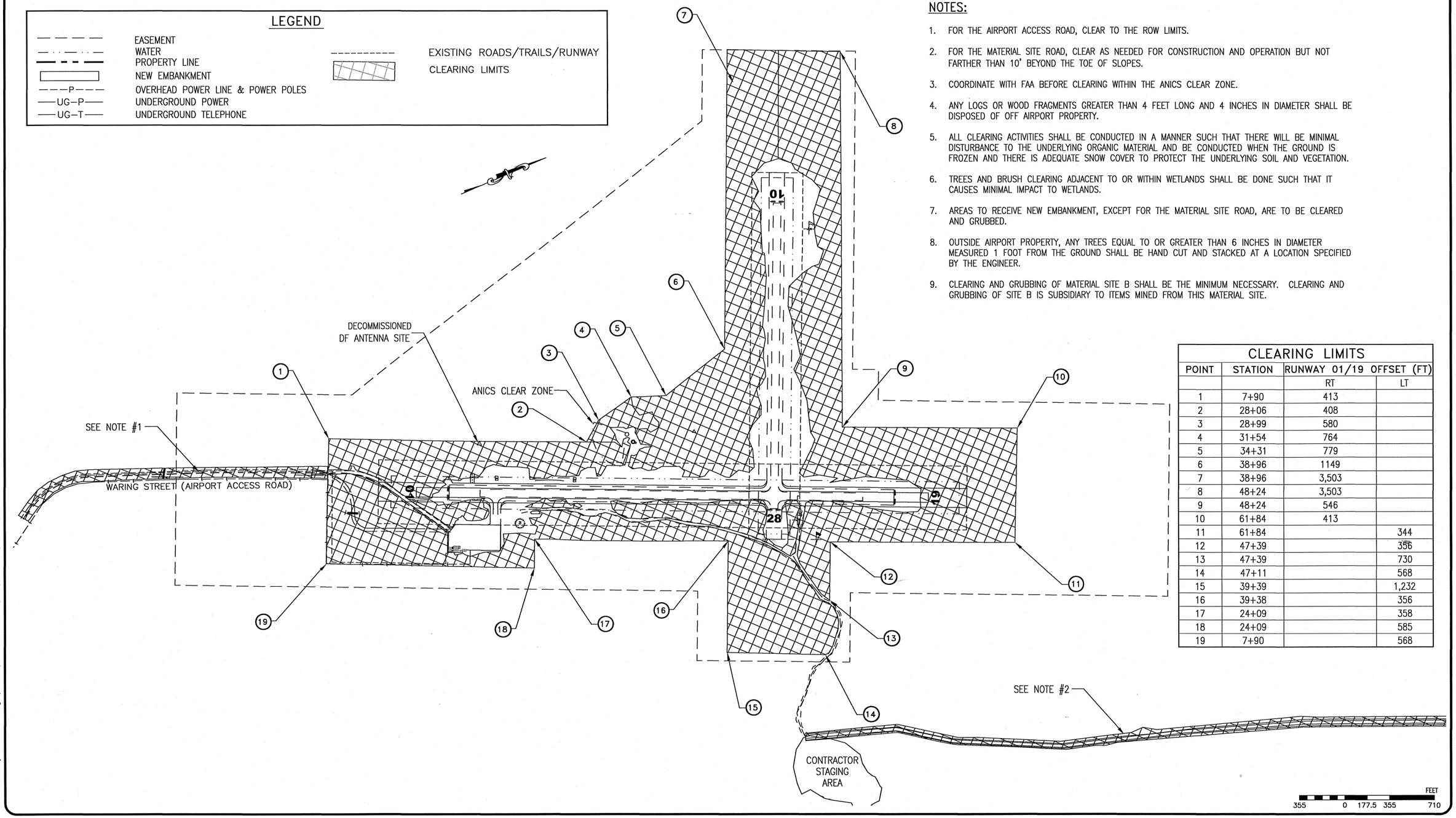
SHEET 15 OF 81

LEGEND

- EASEMENT
- WATER
- PROPERTY LINE
- NEW EMBANKMENT
- OVERHEAD POWER LINE & POWER POLES
- UNDERGROUND POWER
- UNDERGROUND TELEPHONE
- EXISTING ROADS/TRAILS/RUNWAY
- CLEARING LIMITS

NOTES:

1. FOR THE AIRPORT ACCESS ROAD, CLEAR TO THE ROW LIMITS.
2. FOR THE MATERIAL SITE ROAD, CLEAR AS NEEDED FOR CONSTRUCTION AND OPERATION BUT NOT FARTHER THAN 10' BEYOND THE TOE OF SLOPES.
3. COORDINATE WITH FAA BEFORE CLEARING WITHIN THE ANICS CLEAR ZONE.
4. ANY LOGS OR WOOD FRAGMENTS GREATER THAN 4 FEET LONG AND 4 INCHES IN DIAMETER SHALL BE DISPOSED OF OFF AIRPORT PROPERTY.
5. ALL CLEARING ACTIVITIES SHALL BE CONDUCTED IN A MANNER SUCH THAT THERE WILL BE MINIMAL DISTURBANCE TO THE UNDERLYING ORGANIC MATERIAL AND BE CONDUCTED WHEN THE GROUND IS FROZEN AND THERE IS ADEQUATE SNOW COVER TO PROTECT THE UNDERLYING SOIL AND VEGETATION.
6. TREES AND BRUSH CLEARING ADJACENT TO OR WITHIN WETLANDS SHALL BE DONE SUCH THAT IT CAUSES MINIMAL IMPACT TO WETLANDS.
7. AREAS TO RECEIVE NEW EMBANKMENT, EXCEPT FOR THE MATERIAL SITE ROAD, ARE TO BE CLEARED AND GRUBBED.
8. OUTSIDE AIRPORT PROPERTY, ANY TREES EQUAL TO OR GREATER THAN 6 INCHES IN DIAMETER MEASURED 1 FOOT FROM THE GROUND SHALL BE HAND CUT AND STACKED AT A LOCATION SPECIFIED BY THE ENGINEER.
9. CLEARING AND GRUBBING OF MATERIAL SITE B SHALL BE THE MINIMUM NECESSARY. CLEARING AND GRUBBING OF SITE B IS SUBSIDIARY TO ITEMS MINED FROM THIS MATERIAL SITE.



CLEARING LIMITS

POINT	STATION	RUNWAY 01/19 OFFSET (FT)	
		RT	LT
1	7+90	413	
2	28+06	408	
3	28+99	580	
4	31+54	764	
5	34+31	779	
6	38+96	1149	
7	38+96	3,503	
8	48+24	3,503	
9	48+24	546	
10	61+84	413	
11	61+84		344
12	47+39		356
13	47+39		730
14	47+11		568
15	39+39		1,232
16	39+38		356
17	24+09		358
18	24+09		585
19	7+90		568

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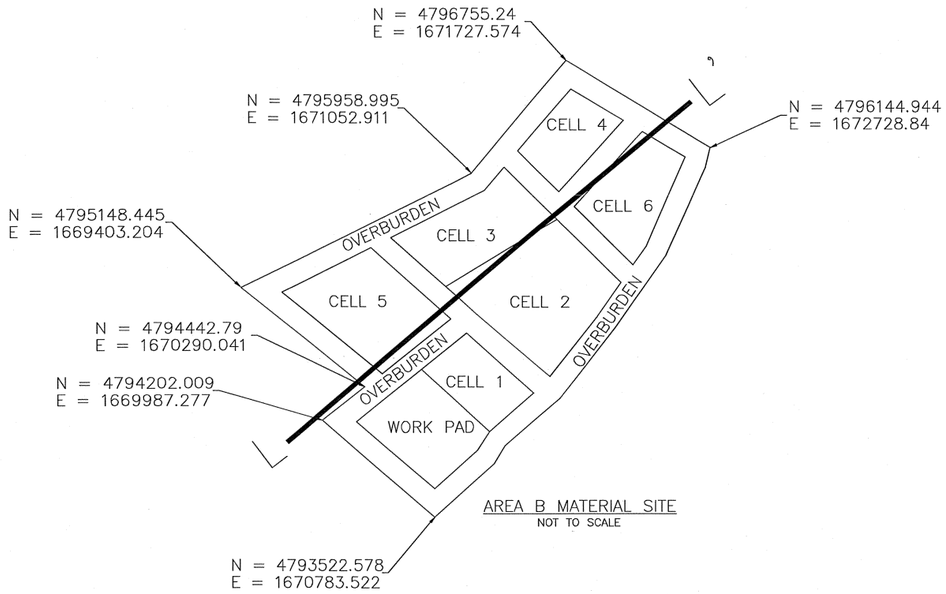
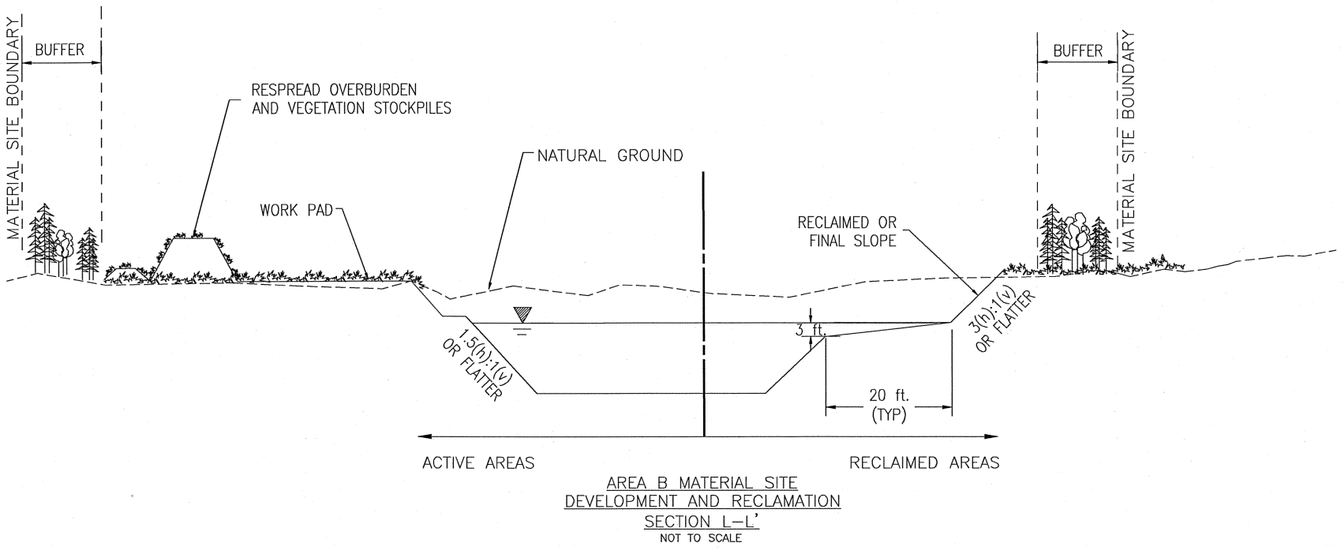
CLEARING PLAN

SHEET 16 OF 81



AREA B MATERIAL SITE
NOT TO SCALE



AREA B MATERIAL SITE
DEVELOPMENT AND RECLAMATION
SECTION L–L'
NOT TO SCALE

NOTES

1. ALL MINING ACTIVITIES SHALL BE IN FULL COMPLIANCE WITH THE MATERIAL SALES AGREEMENT AND SITE SPECIFIC ASBESTOS COMPLIANCE PLAN.
2. NEW PITS SHALL BE DESIGNED TO MINIMIZE THE ENVIRONMENTAL FOOTPRINT.
3. STOCKPILING OF MATERIAL OUTSIDE OF THE MATERIAL SITE BOUNDARIES WILL NOT BE ALLOWED. THE EXACT LOCATION AND DIMENSION OF THE STOCKPILES WITHIN THE BOUNDARIES SHALL BE DETERMINED BY THE CONTRACTOR. OVERBURDEN SHALL BE RECOVERED TO A DESIGNATED AREA FOR USE IN RECLAMATION.
4. MAINTAIN A 300' VEGETATIVE BUFFER BETWEEN OVERBURDEN STORAGE AREAS AND THE AMBLER RIVER.
5. INDIVIDUAL BENCH HEIGHTS SHALL NOT EXCEED 25 FEET.
6. AT COMPLETION OF THE PROJECT, OVERBURDEN STOCKPILES SHALL BE PUSHED INTO THE MINED AREA SUCH THAT THE MATERIAL IS SUBMERGED. VEGETATION STOCKPILES WILL BE SPREAD OVER HIGHWALLS ABOVE THE WATER TABLE, AND THE HIGHWALLS WILL BE GRADED TO SLOPE OF 3 HORIZONTAL TO 1 VERTICAL.

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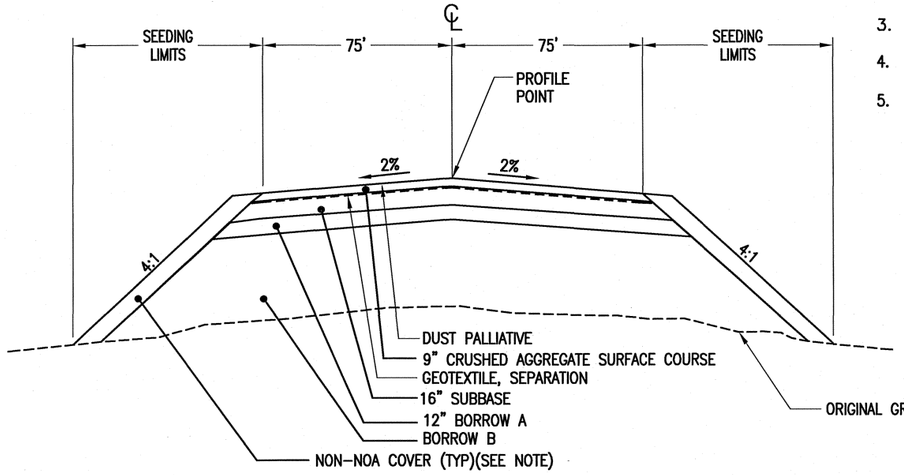
AIP# 3-02-0354-____/61303

MINING PLAN

SHEET 17 OF 81

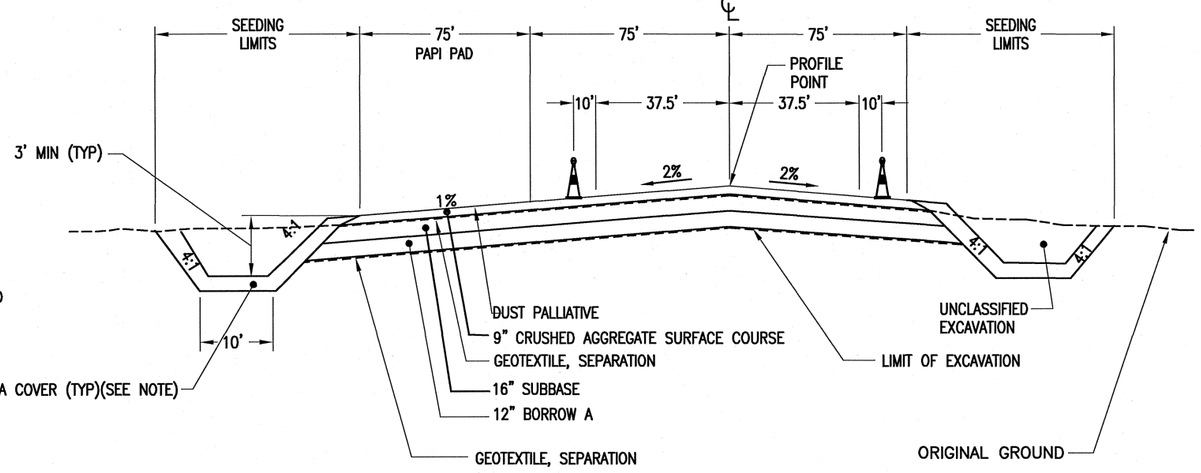
NOTES:

1. ALL SIDESLOPES AND OTHER AREAS TO BE SEEDED SHALL BE COVERED WITH: 6" OF NON–NOA MINERAL SOIL OR 6" OF TOPSOIL WITH VEGETATION OR 12" OF WOOD CHIPS/SHREDS OR SLASH.
2. DITCHES SHALL BE A MINIMUM 3' DEEP. IF ADDITIONAL MATERIAL IS REQUIRED, THE ENGINEER MAY APPROVE DEEPER DITCHES OR FLATTER BACKSLOPES PROVIDED THAT THEY ARE GRADED TO DRAIN AND THERE ARE NO PROPERTY OR OTHER CONFLICTS.
3. RUNWAY LIGHTS ARE EXCLUDED FROM THE RUNWAY SAFETY AREA.
4. BACK SLOPE FOR DITCHES WITH NO SPECIAL CUT LIMIT SPECIFIED SHALL BE 4:1.
5. IN AREAS WITH SPECIAL CUT LIMITS WHERE THE TYPICAL SECTION IS IN FILL CONDITIONS, GRADE A CONSTANT SLOPE FROM 10' BEYOND THE TOE OF SLOPE TO THE SPECIAL CUT LIMIT.

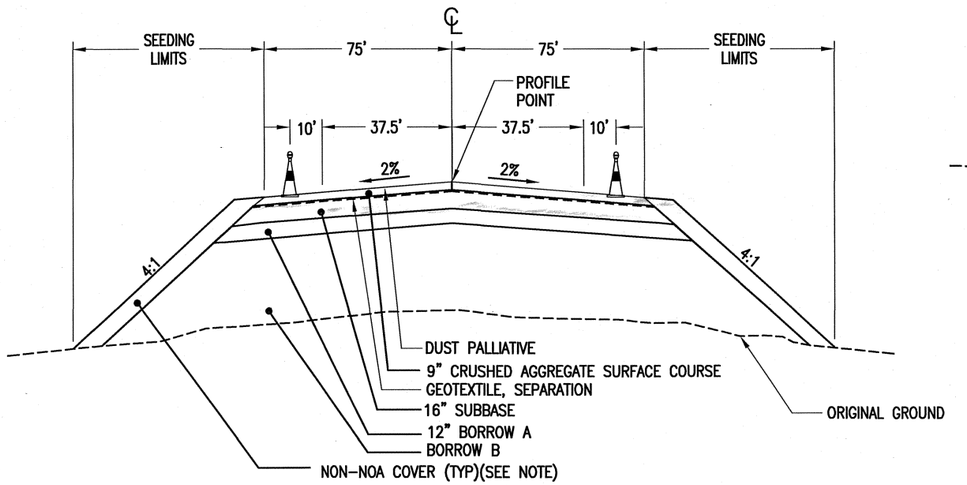


RSA EXTENSIONS TYPICAL SECTION

R/W 01–19 STA. 11+97 TO 14+97
R/W 01–19 STA. 54+97 TO 57+97

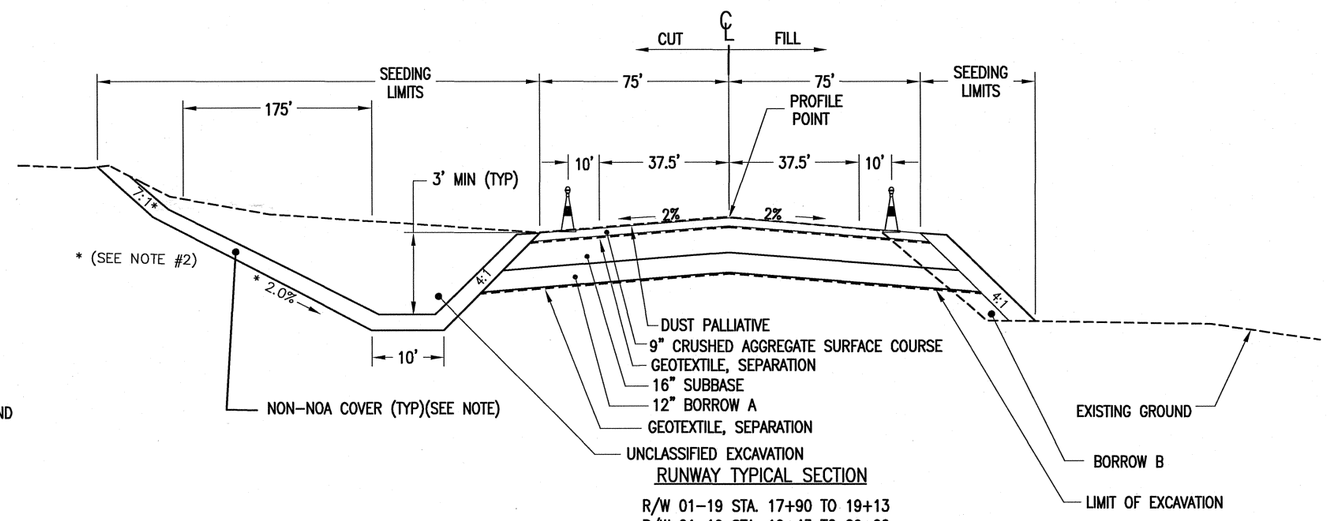


RUNWAY TYPICAL SECTION AT PAPI PAD (TYP)
R/W 01–19 STA 19+13 TO STA 19+43



RUNWAY EXTENSIONS TYPICAL SECTION

R/W 01–19 STA. 14+97 TO 17+90
R/W 01–19 STA. 52+30 TO 54+97



RUNWAY TYPICAL SECTION

R/W 01–19 STA. 17+90 TO 19+13
R/W 01–19 STA. 19+43 TO 29+00
R/W 01–19 STA. 40+60 TO 52+30
SEE SHEET 23 FOR R/W INTERSECTION GRADING

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AIP# 3–02–0354–____/61303
TYPICALS SHT 1 OF 4

SHEET 18 OF 81

NOTES:

1. ALL SIDESLOPES AND OTHER AREAS TO BE SEEDED SHALL BE COVERED WITH: 6" OF NON–NOA MINERAL SOIL OR 6" OF TOPSOIL WITH VEGETATION OR 12" OF WOOD CHIPS/SHREDS OR SLASH.
2. DITCHES SHALL BE A MINIMUM 3' DEEP. IF ADDITIONAL MATERIAL IS REQUIRED, THE ENGINEER MAY APPROVE DEEPER DITCHES OR FLATTER BACKSLOPES PROVIDED THAT THEY ARE GRADED TO DRAIN AND THERE ARE NO PROPERTY OR OTHER CONFLICTS.
3. RUNWAY LIGHTS ARE EXCLUDED FROM THE RUNWAY SAFETY AREA.
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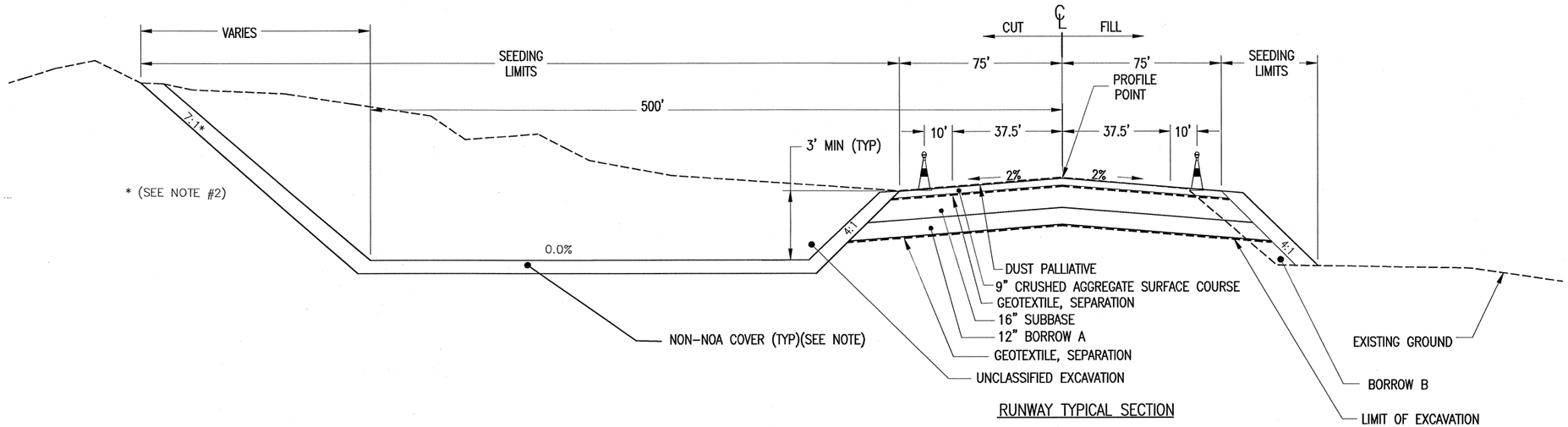
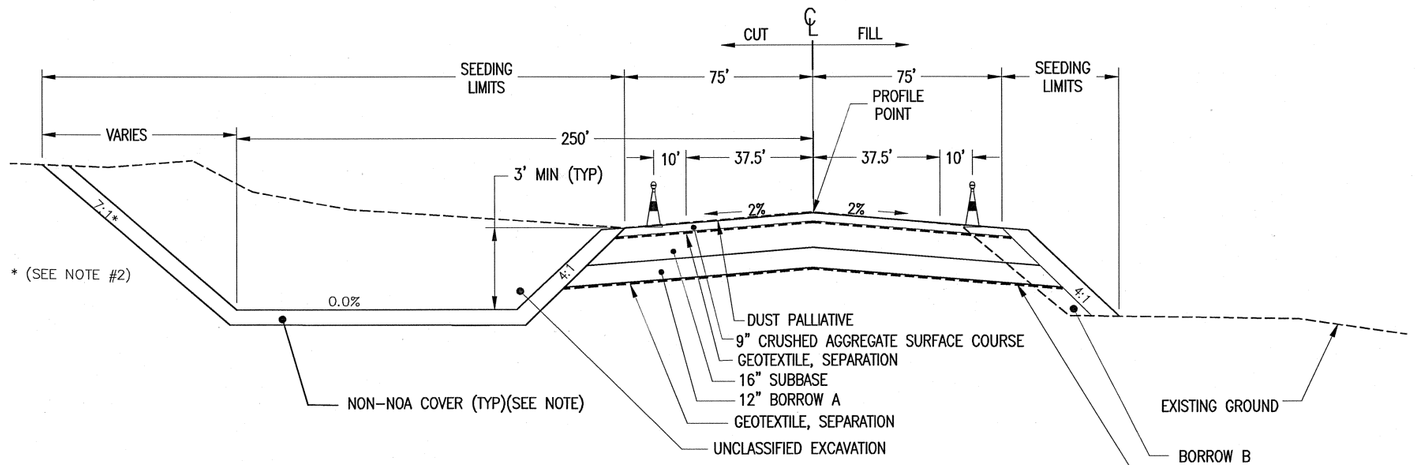
5. IN AREAS WITH SPECIAL CUT LIMITS WHERE THE TYPICAL SECTION IS IN FILL CONDITIONS, GRADE A CONSTANT SLOPE FROM 10' BEYOND THE TOE OF SLOPE TO THE SPECIAL CUT LIMIT.



RUNWAY TYPICAL SECTION

R/W 01–19 STA. 37+35 TO 40+05



RUNWAY TYPICAL SECTION

R/W 01–19 STA. 29+00 TO 37+35
R/W 01–19 STA. 40+05 TO 40+60

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02/11/2014

AMBLER AIRPORT REHABILITATION

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TYPICALS SHT 2 OF 4

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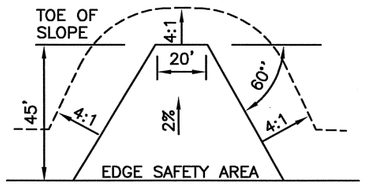
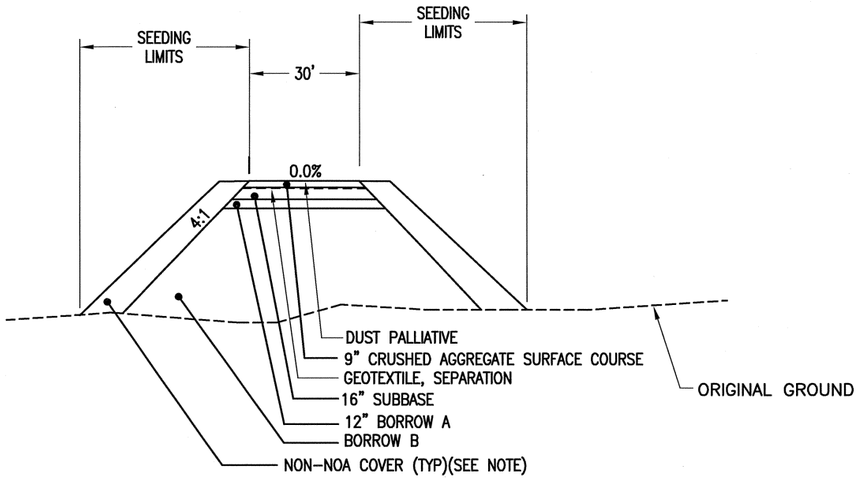
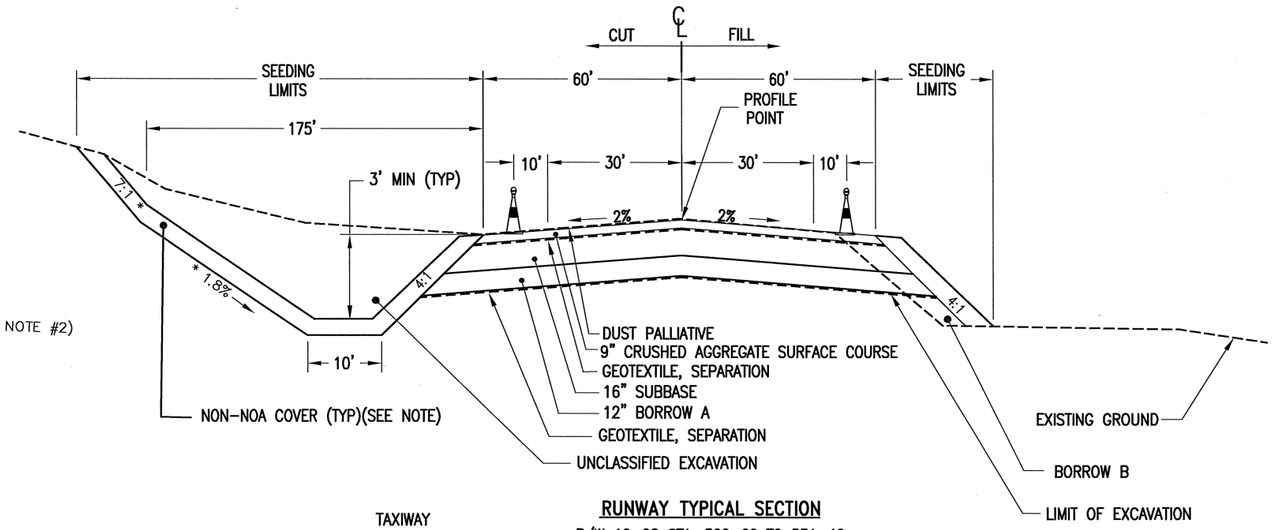


THRESHOLD PAD DETAIL
R/W 01–19 STA. 17+38

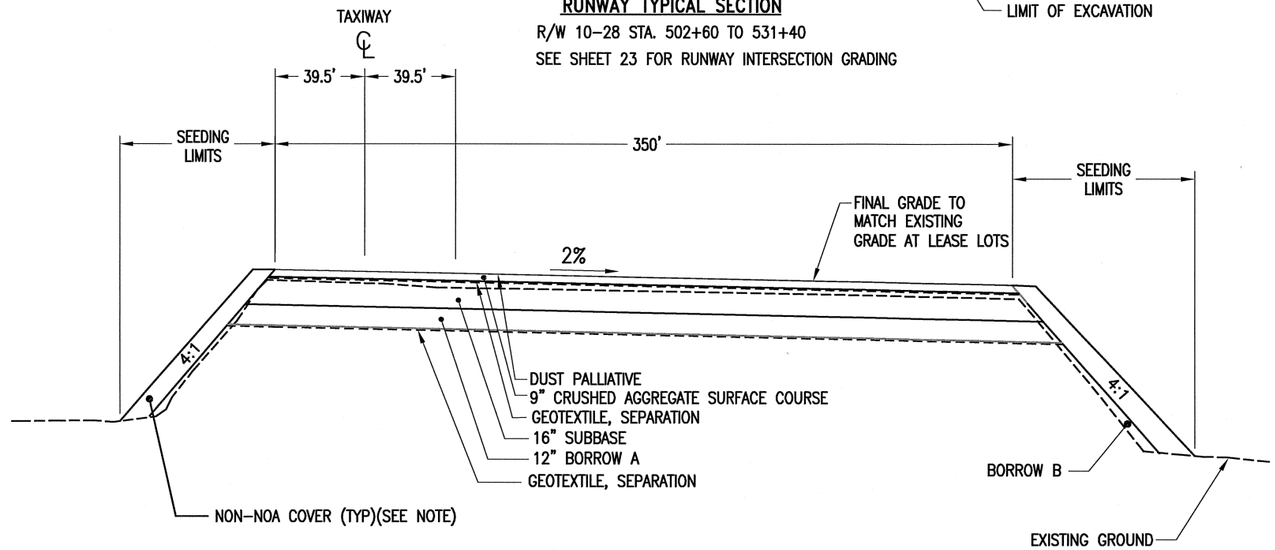


PAPI PAD TYPICAL SECTION
R/W STA. 19+27.6

* (SEE NOTE #2)



RUNWAY TYPICAL SECTION
R/W 10–28 STA. 502+60 TO 531+40
SEE SHEET 23 FOR RUNWAY INTERSECTION GRADING



APRON TYPICAL SECTION
T/W STA. 102+50 TO 104+50
SEE SHEET 27 FOR GRADING DETAILS

NOTES:
1. ALL SIDESLOPES AND OTHER AREAS TO BE SEEDED SHALL BE COVERED WITH: 6" OF NON–NOA MINERAL SOIL 6" OF TOPSOIL WITH VEGETATION, OR 12" OF WOOD CHIPS/SHREDS OR SLASH.
2. DITCHES SHALL BE A MINIMUM 3' DEEP. IF ADDITIONAL MATERIAL IS REQUIRED, THE ENGINEER MAY APPROVE DEEPER DITCHES OR FLATTER BACKSLOPES PROVIDED THAT THEY ARE GRADED TO DRAIN AND THERE ARE NO PROPERTY OR OTHER CONFLICTS.
3. BACK SLOPE FOR DITCHES WITH NO SPECIAL CUT LIMIT SPECIFIED SHALL BE 4:1.
4. IN AREAS WITH SPECIAL CUT LIMITS WHERE THE TYPICAL SECTION IS IN FILL CONDITIONS, GRADE A CONSTANT SLOPE FROM 10' BEYOND THE TOE OF SLOPE TO THE SPECIAL CUT LIMIT.

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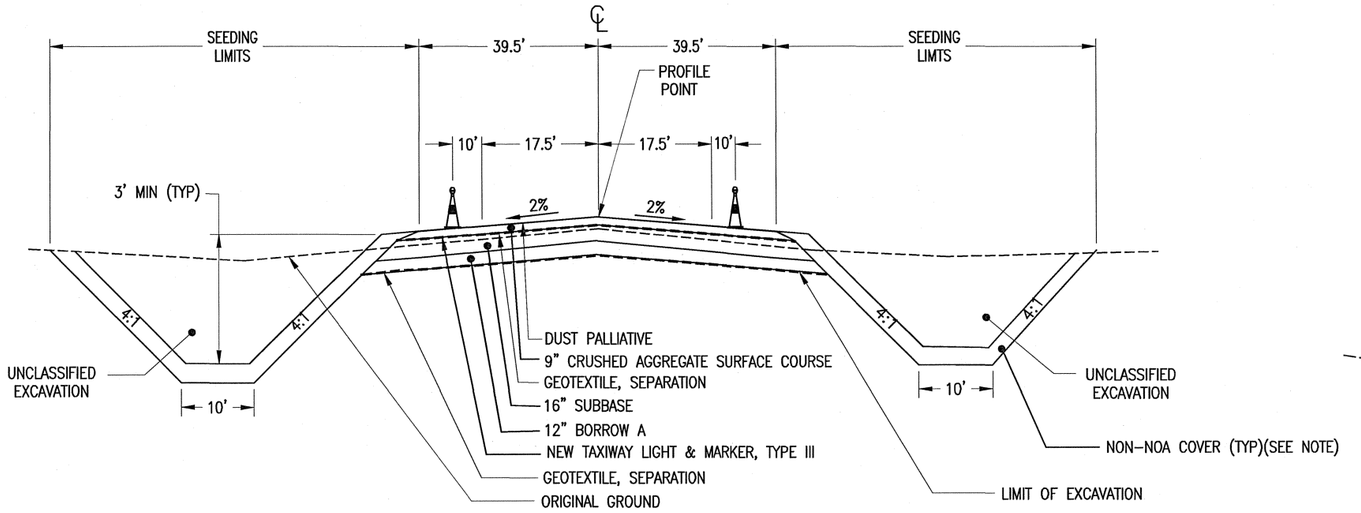
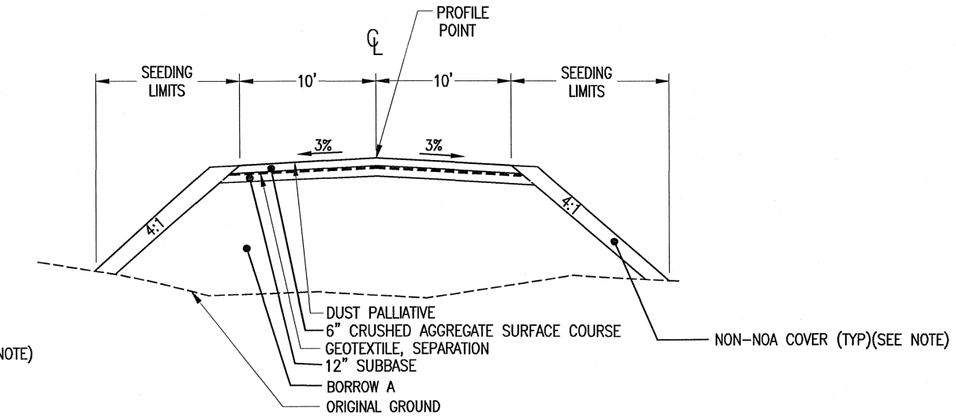
TYPICALS SHT 3 OF 4

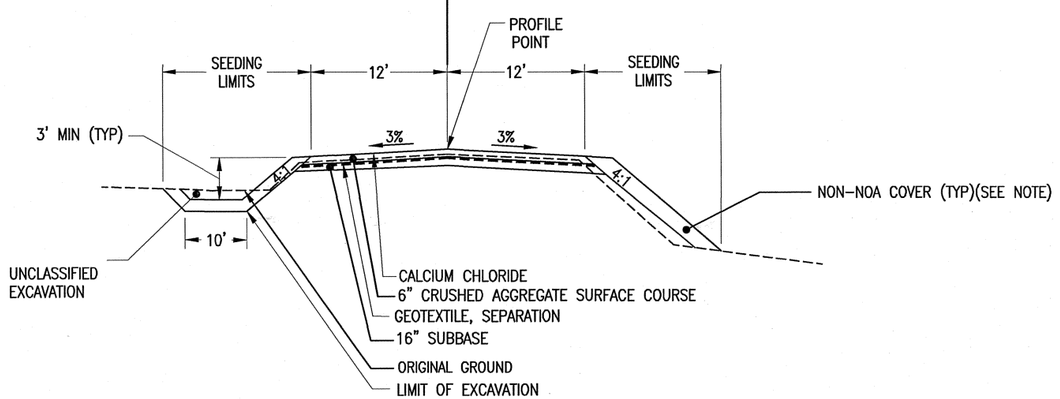
SHEET 20 OF 81



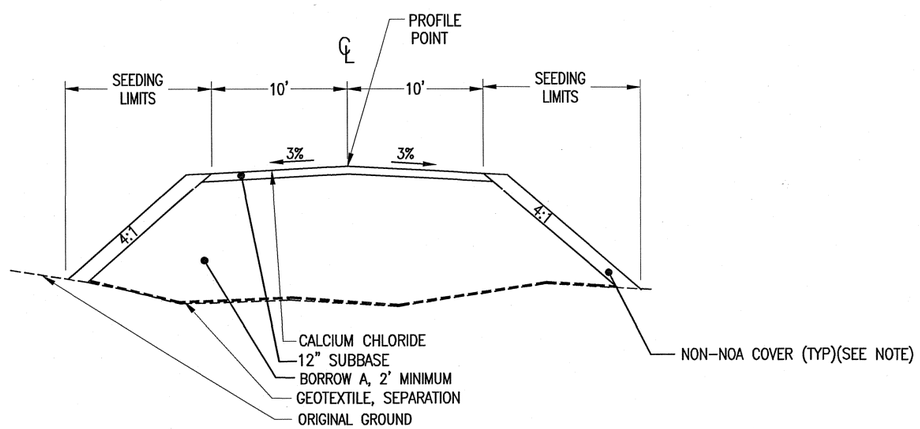
TAXIWAY TYPICAL SECTION
TW STA. 100+60 TO 102+50



ACCESS ROAD TYPICAL SECTION
AIRPORT ACCESS ROAD STA. 34+17 TO 47+43



ACCESS ROAD TYPICAL SECTION
AIRPORT ACCESS ROAD STA. 4+97 TO 34+17



AREA B MATERIAL SITE ROAD TYPICAL SECTION
MATERIAL SITE ROAD STA. 2000+00 TO 2150+44

NOTES:
1. ALL SIDESLOPES AND OTHER AREAS TO BE SEEDED SHALL BE COVERED WITH: 6" OF NON-NOA MINERAL SOIL, 6" OF TOPSOIL WITH VEGETATION, OR 12" OF WOOD CHIPS/SHREDS OR SLASH.
2. DITCHES SHALL BE A MINIMUM 3' DEEP. IF ADDITIONAL MATERIAL IS REQUIRED, THE ENGINEER MAY APPROVE DEEPER DITCHES OR FLATTER BACKSLOPES PROVIDED THAT THEY ARE GRADED TO DRAIN AND THERE ARE NO PROPERTY OR OTHER CONFLICTS.
3. DITCHES ALONG THE ACCESS ROAD SHALL BE NARROWED TO MATCH EXISTING TERRAIN FROM STA 10+00 TO STA 34+60.

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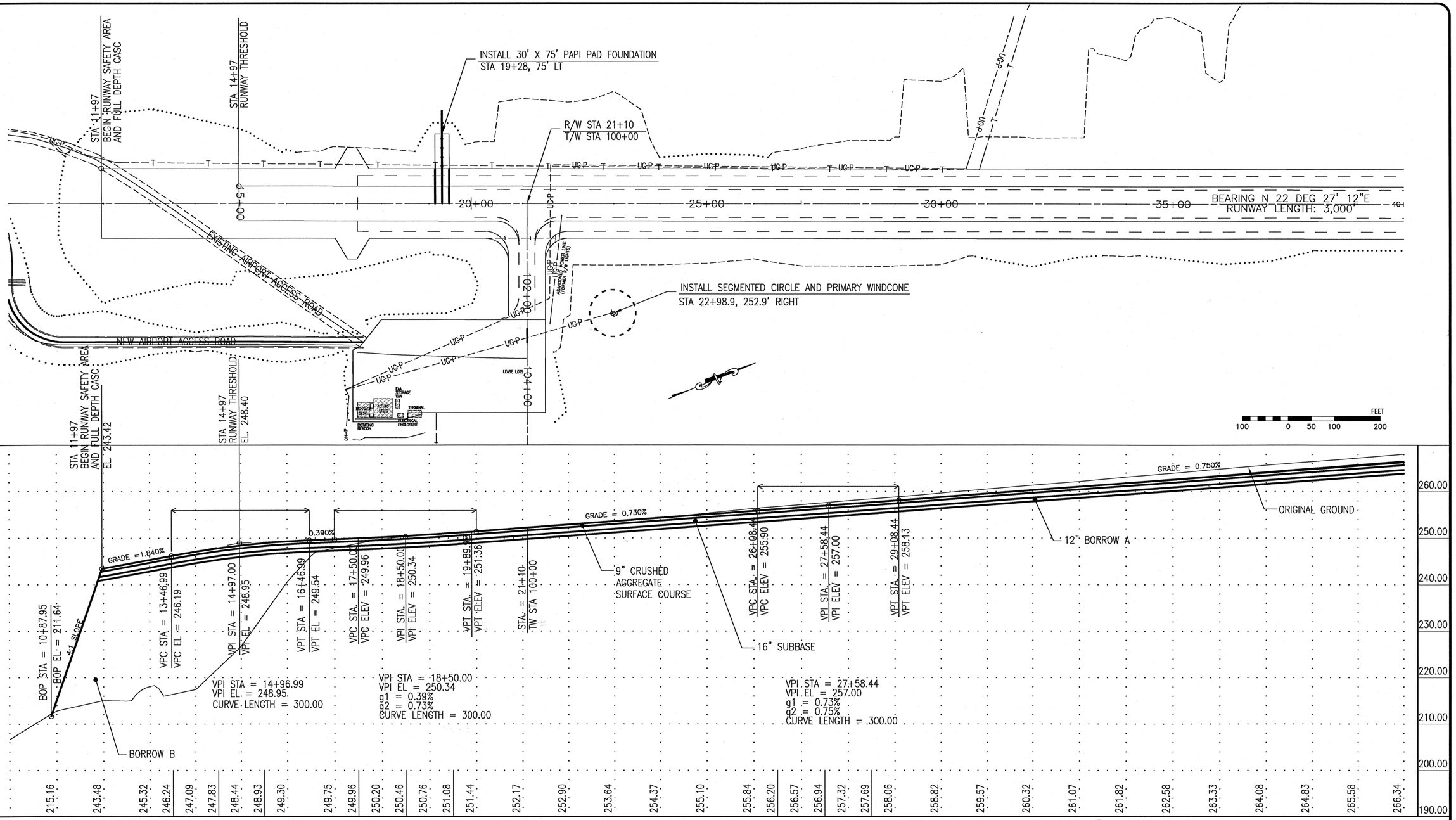

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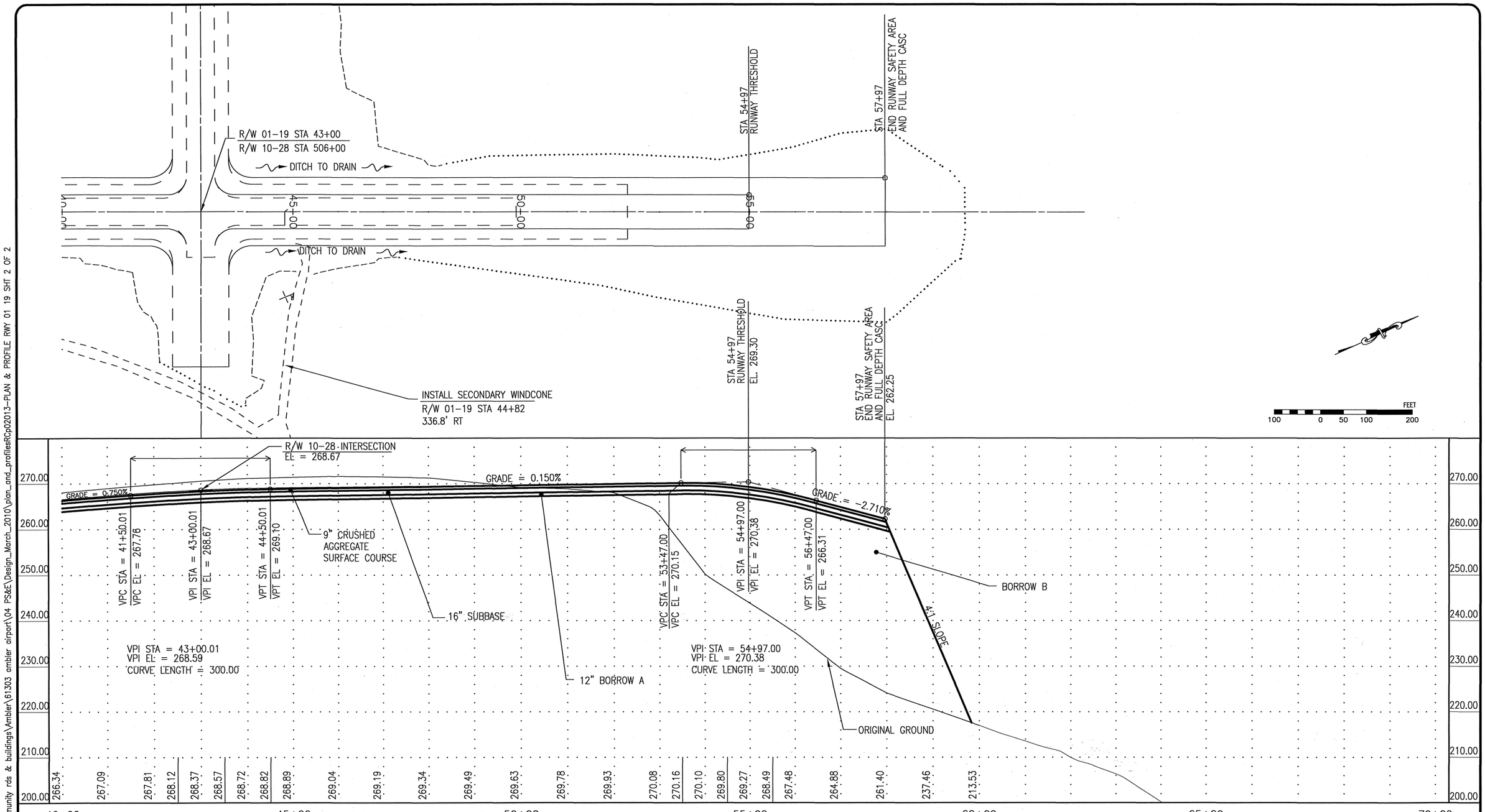

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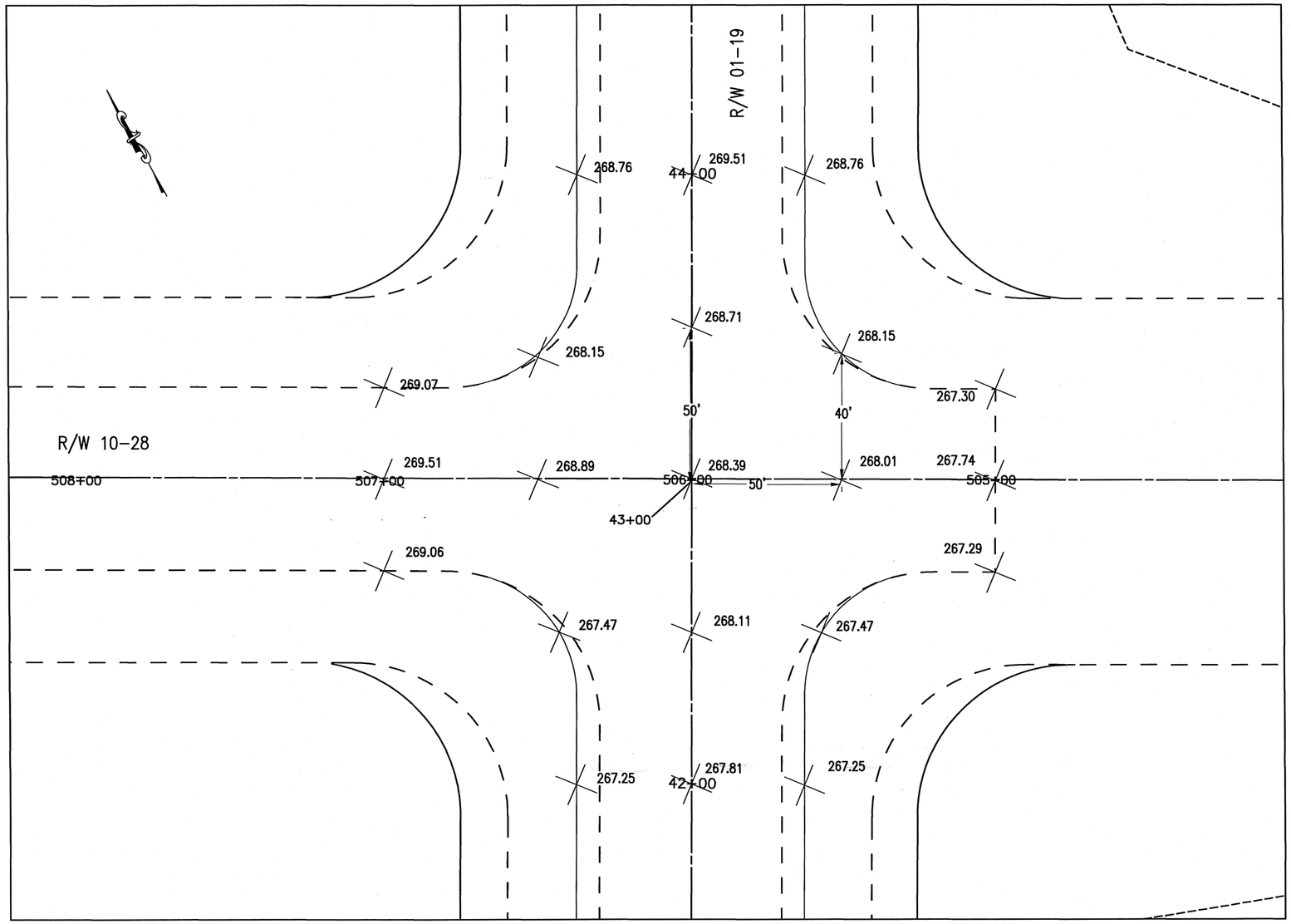
SHEET 23 OF 81



INTERSECTION GRADING PLAN DETAIL

NOTE: ELEVATIONS ARE PROFILE GRADE

FEET
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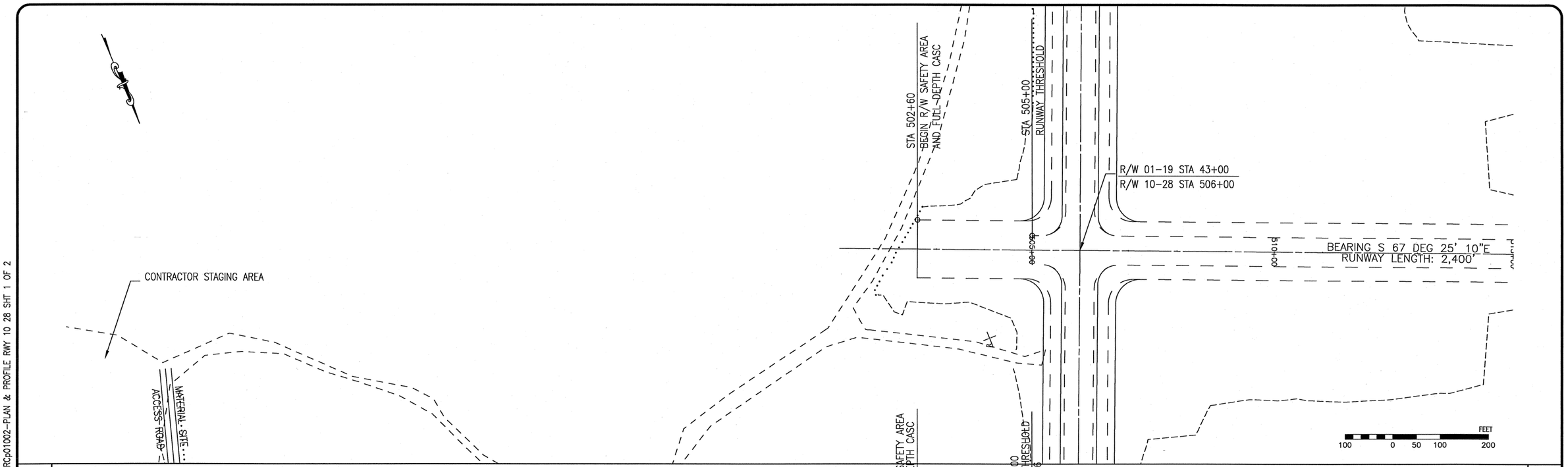
RUNWAY INTERSECTION GRADING PLAN

SHEET 24 OF 81



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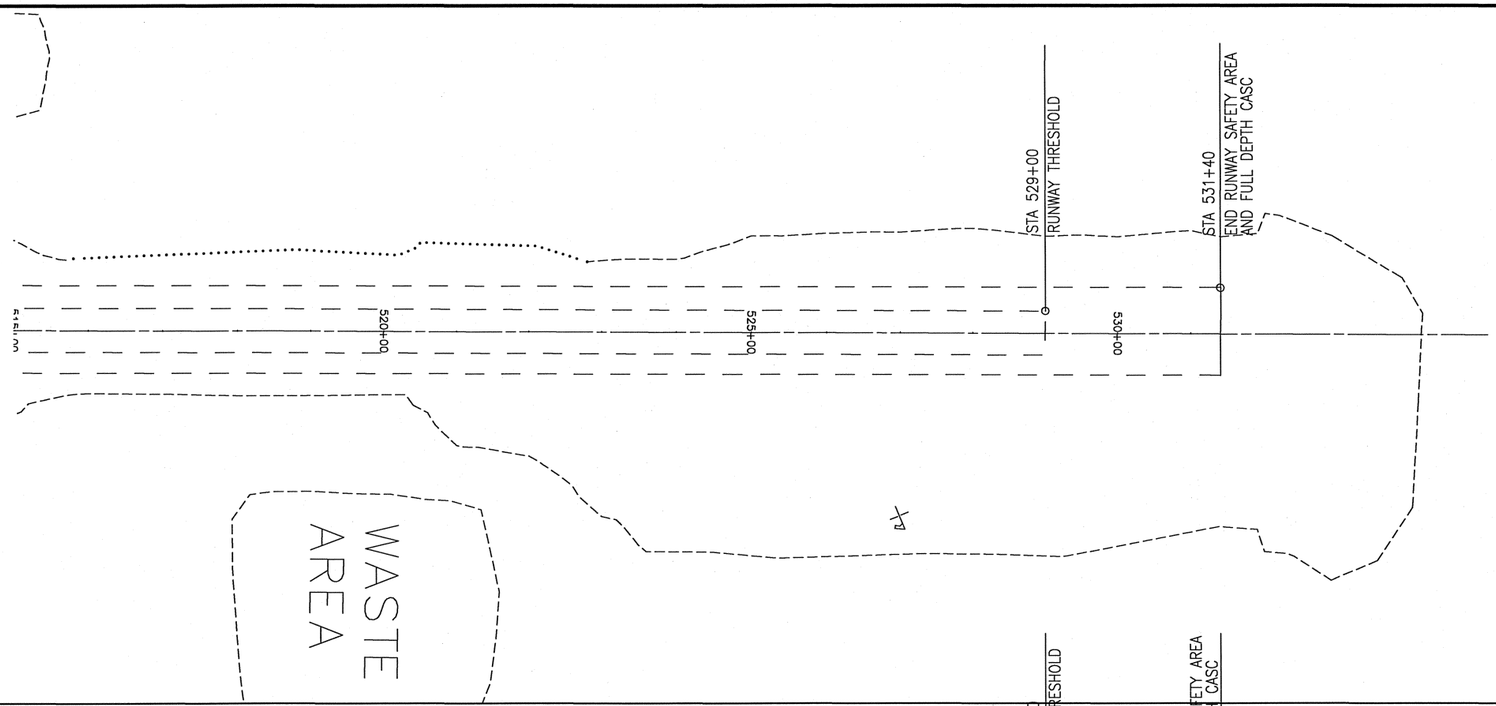
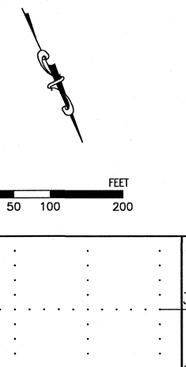
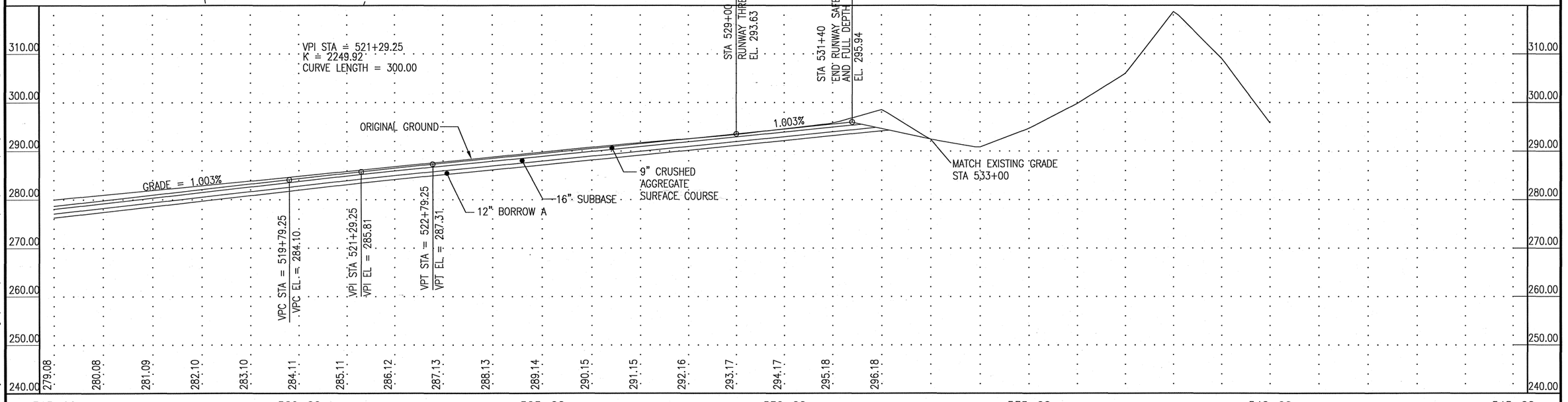


WASTE AREA NOTES:

1. WASTE CONTAINING NOA SHALL BE COVERED WITH NON NOA COVER. SEE TYPICAL SECTIONS FOR NOA COVER REQUIREMENTS.
2. WASTE AREA SHALL BE GRADED TO DRAIN AWAY FROM THE RUNWAY.





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DESIGN	SLM
DRAWN	SLM
CHECKED	CFJ

BY	DATE	REVISIONS

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

APPROVED _____ DATE 2/2/14
ALBERT M. L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA 49TH
Christopher F. Johnston
NO. CE 12585
REGISTERED PROFESSIONAL ENGINEER
02/11/2014

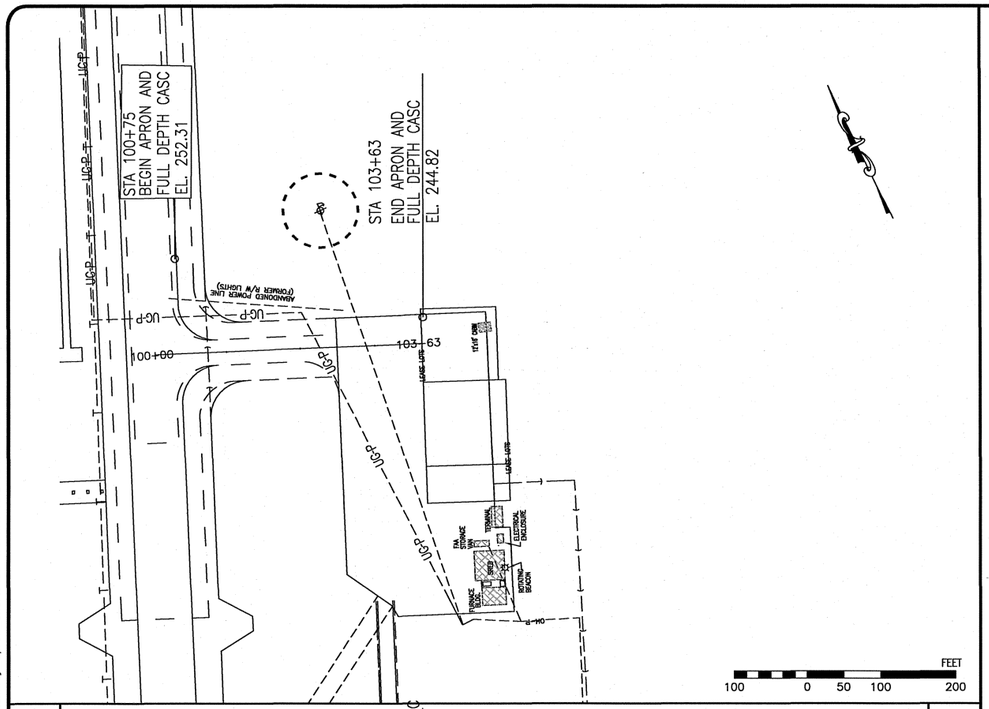
AMBLER AIRPORT REHABILITATION

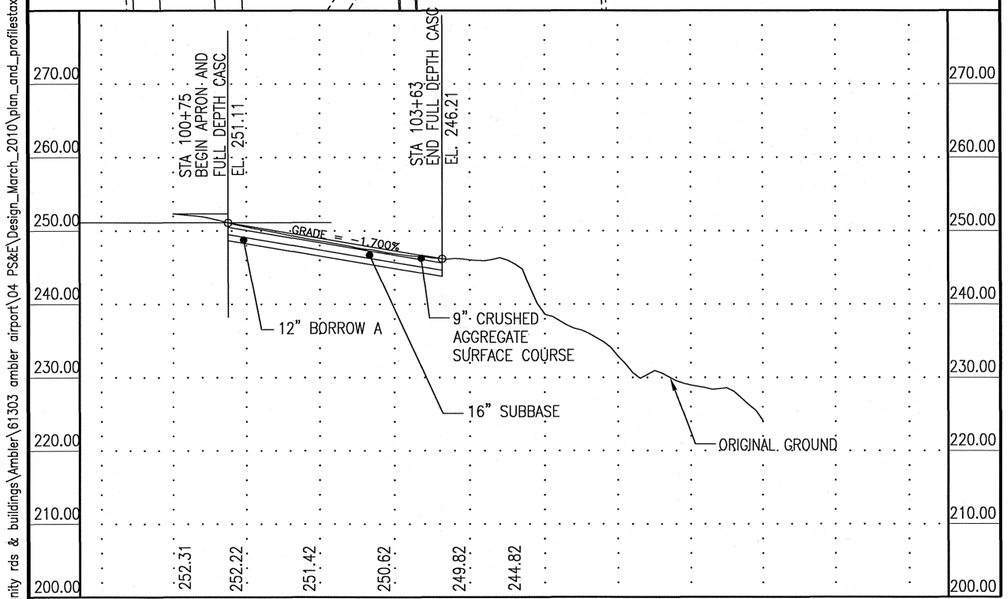
61303

AIP #3–02–0354–_____/61303

PLAN & PROFILE RWY 10 28 SHT 2 OF 2

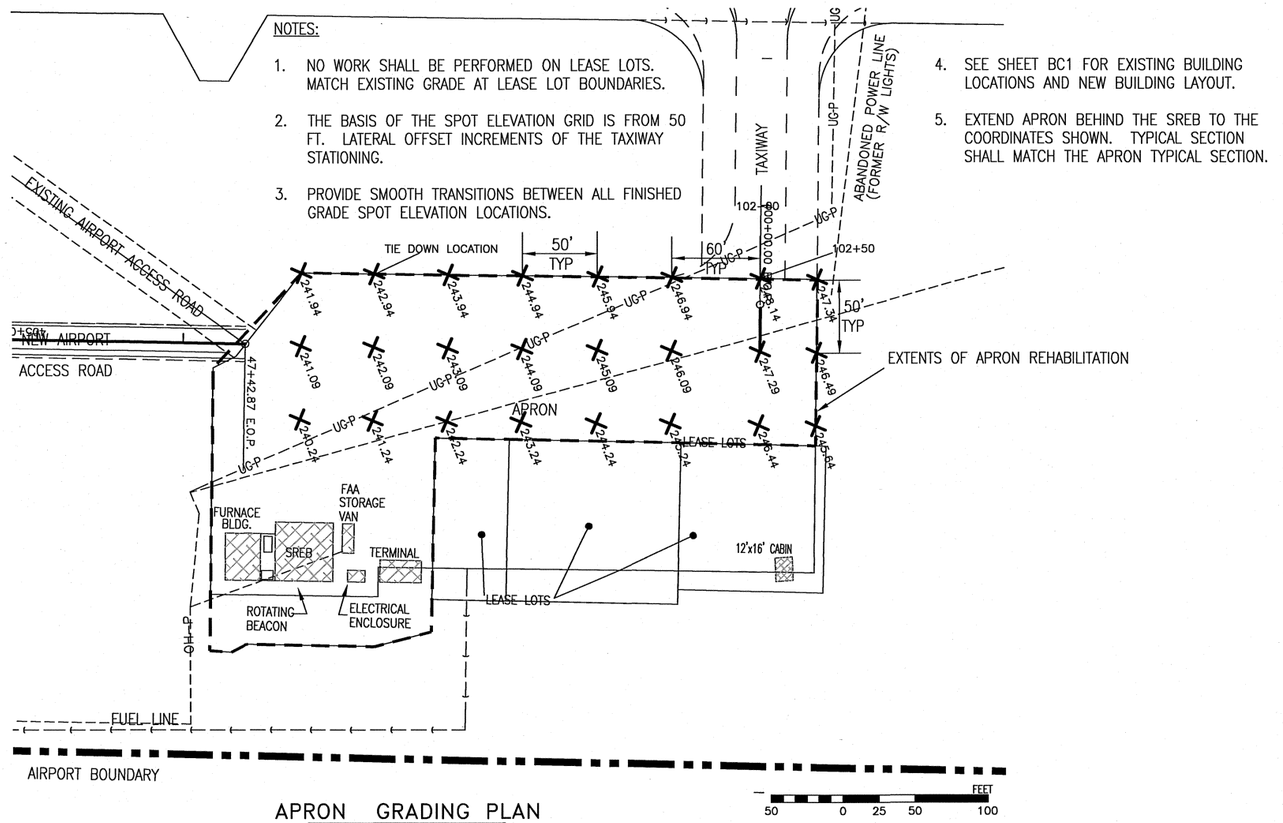
SHEET 26 OF 81



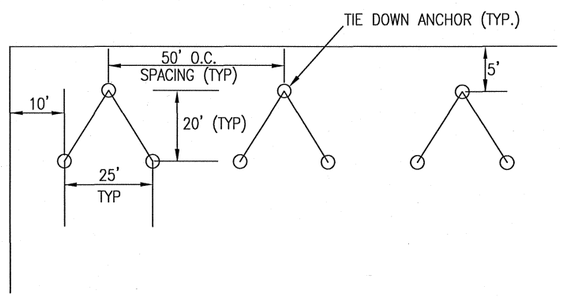


NOTES:

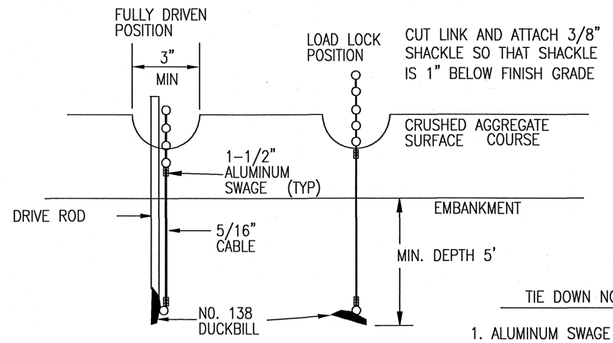
1. NO WORK SHALL BE PERFORMED ON LEASE LOTS. MATCH EXISTING GRADE AT LEASE LOT BOUNDARIES.
2. THE BASIS OF THE SPOT ELEVATION GRID IS FROM 50 FT. LATERAL OFFSET INCREMENTS OF THE TAXIWAY STATIONING.
3. PROVIDE SMOOTH TRANSITIONS BETWEEN ALL FINISHED GRADE SPOT ELEVATION LOCATIONS.
4. SEE SHEET BC1 FOR EXISTING BUILDING LOCATIONS AND NEW BUILDING LAYOUT.
5. EXTEND APRON BEHIND THE SREB TO THE COORDINATES SHOWN. TYPICAL SECTION SHALL MATCH THE APRON TYPICAL SECTION.



APRON GRADING PLAN
NTS



TRANSIENT AIRCRAFT TIEDOWN LAYOUT
NTS



TYPICAL SECTION TIE DOWN ANCHOR-DUCKBILL

TIE DOWN NOTES

1. ALUMINUM SWAGE AND COIL CHAIN SHALL EXCEED IN STRENGTH THE 5/16" CABLE.

DESIGN SLM
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STATE OF ALASKA
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Christopher F. Johnston NO. CE 12585 REGISTERED PROFESSIONAL ENGINEER
02/11/2014

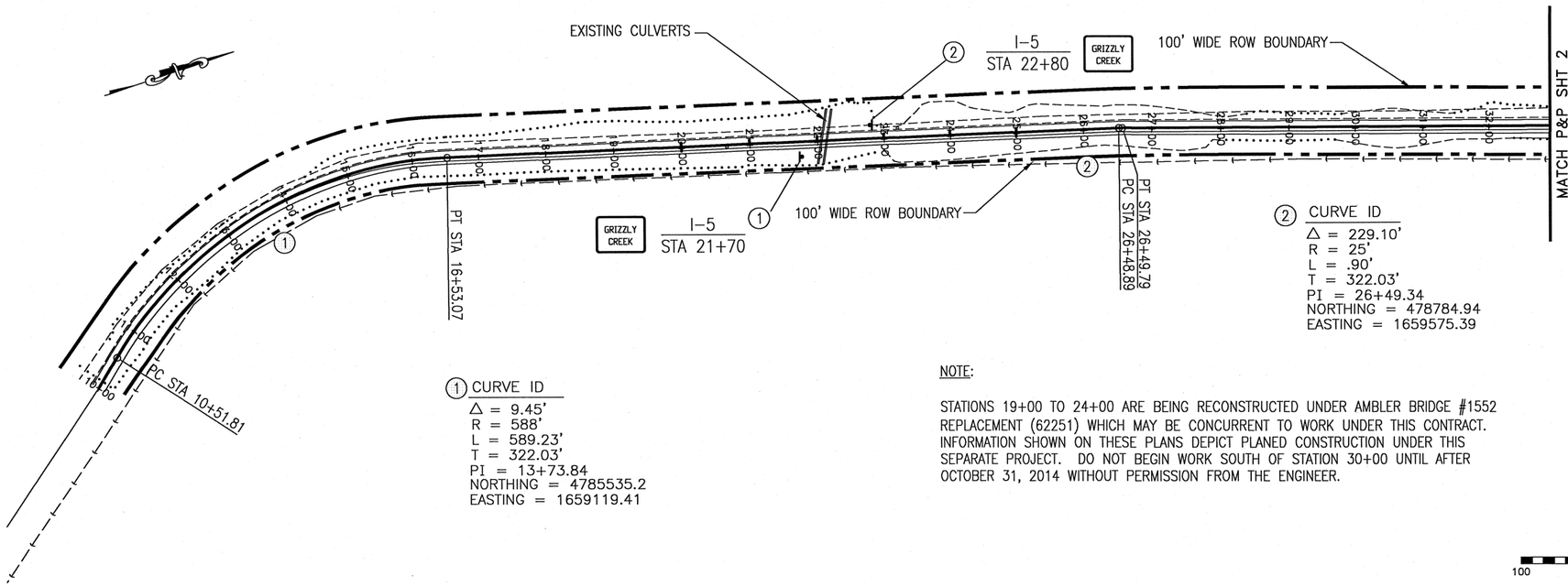
AMBLER AIRPORT REHABILITATION

AIP# 3-02-0354-____/61303

TAXIWAY AND APRON PLAN & PROFILE

SHEET 27 OF 81

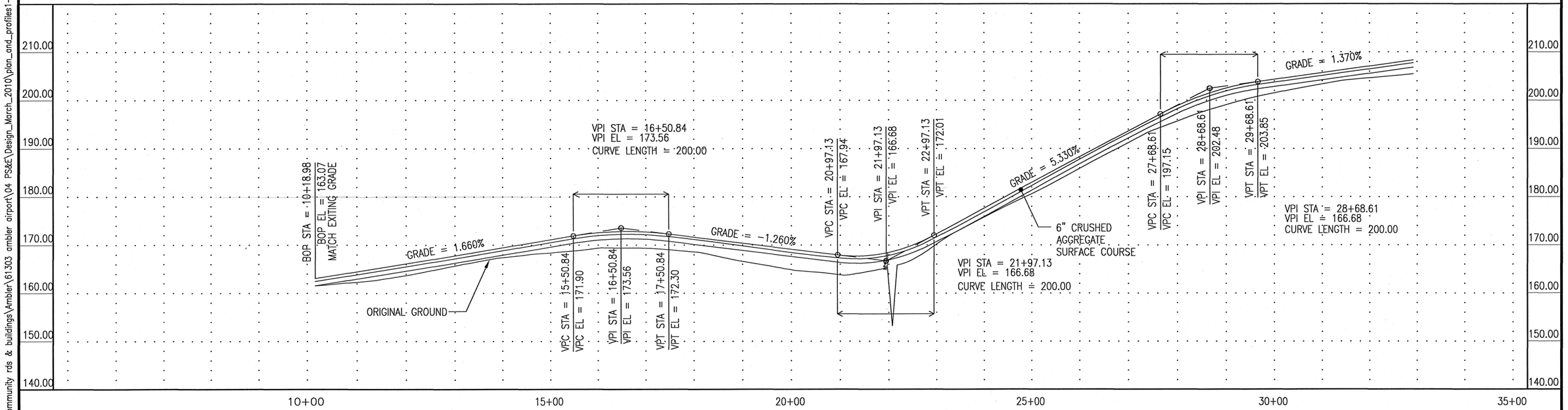
\\dotfpgfs03\design\00 aviation & community rds & buildings\Ambler\61303 ambler airport\04 PS&E\Design_March_2010\plan_and_profiles\taxiway_apron_shortened-TAXIWAY AND APRON P&P



NOTE:

STATIONS 19+00 TO 24+00 ARE BEING RECONSTRUCTED UNDER AMBLER BRIDGE #1552 REPLACEMENT (62251) WHICH MAY BE CONCURRENT TO WORK UNDER THIS CONTRACT. INFORMATION SHOWN ON THESE PLANS DEPICT PLANED CONSTRUCTION UNDER THIS SEPARATE PROJECT. DO NOT BEGIN WORK SOUTH OF STATION 30+00 UNTIL AFTER OCTOBER 31, 2014 WITHOUT PERMISSION FROM THE ENGINEER.

FEET
100 0 50 100 200



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DESIGN SLM
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BY	DATE	REVISIONS

STATE OF ALASKA
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NORTHERN REGION–DESIGN AND CONSTRUCTION–AVIATION
APPROVED Albert M Beck DATE 2.12.14
ALBERT M. L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA 49TH Christopher F. Johnston No. CE 12585 REGISTERED PROFESSIONAL ENGINEER
02/11/2014

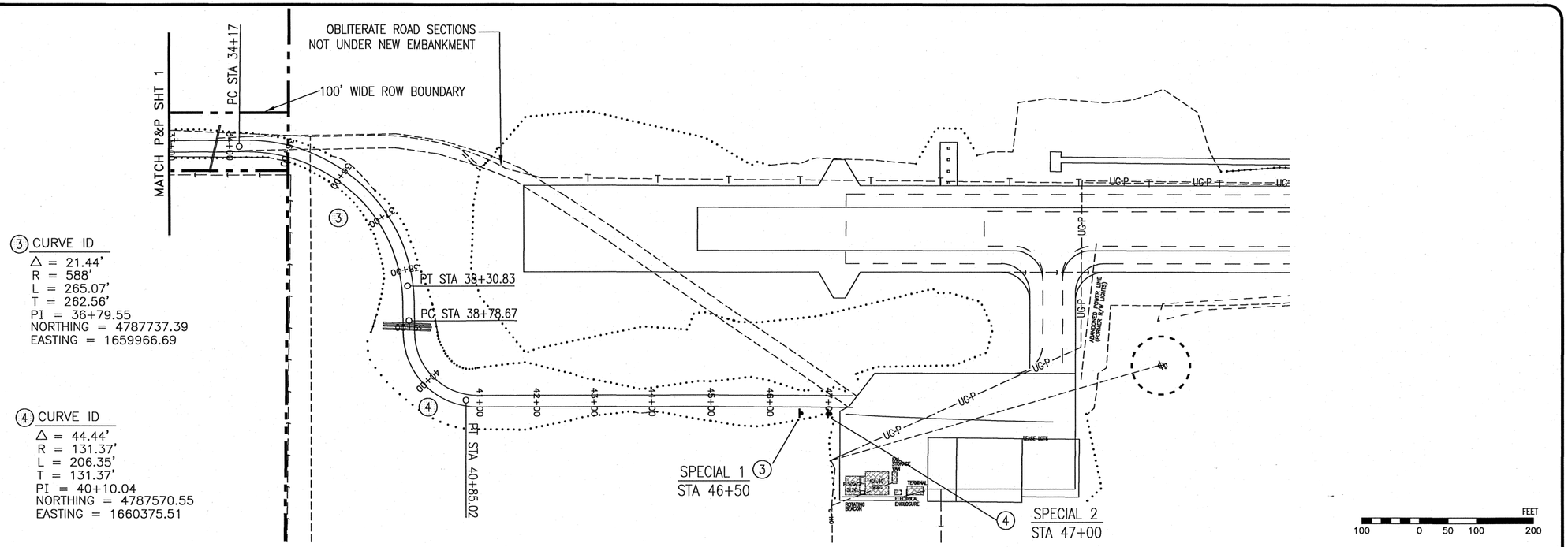
AMBLER AIRPORT REHABILITATION

61303

AIP # 3-02-0354-____/61303

ACCESS ROAD PLAN & PROFILE SHT 1 OF 2

SHEET 28 OF 81



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R = 588'
L = 265.07'
T = 262.56'
PI = 36+79.55
NORTHING = 4787737.39
EASTING = 1659966.69

④ CURVE ID
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L = 206.35'
T = 131.37'
PI = 40+10.04
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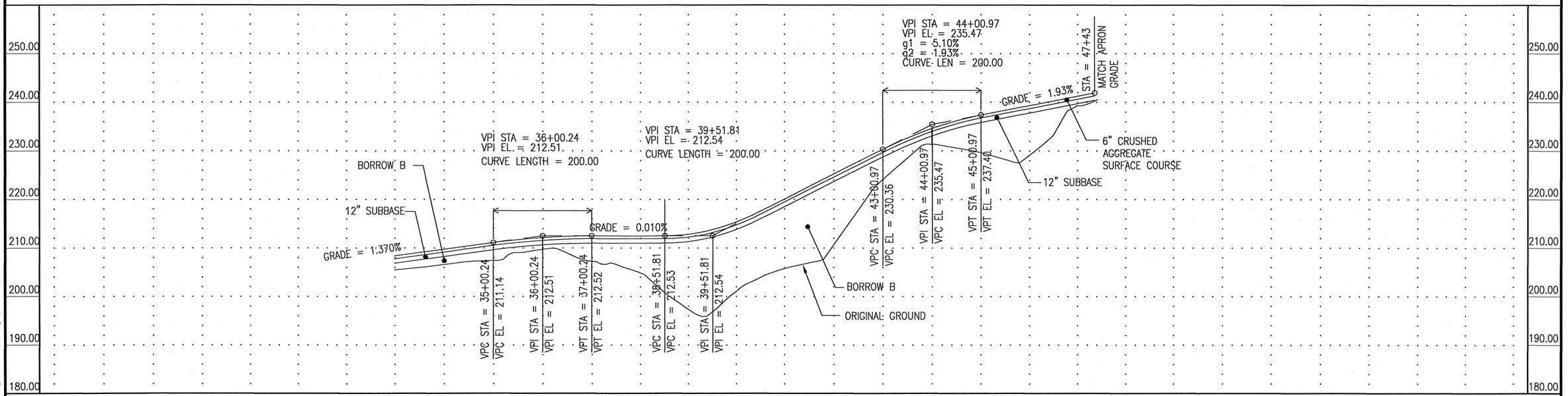

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DESIGN SLM
DRAWN SLM
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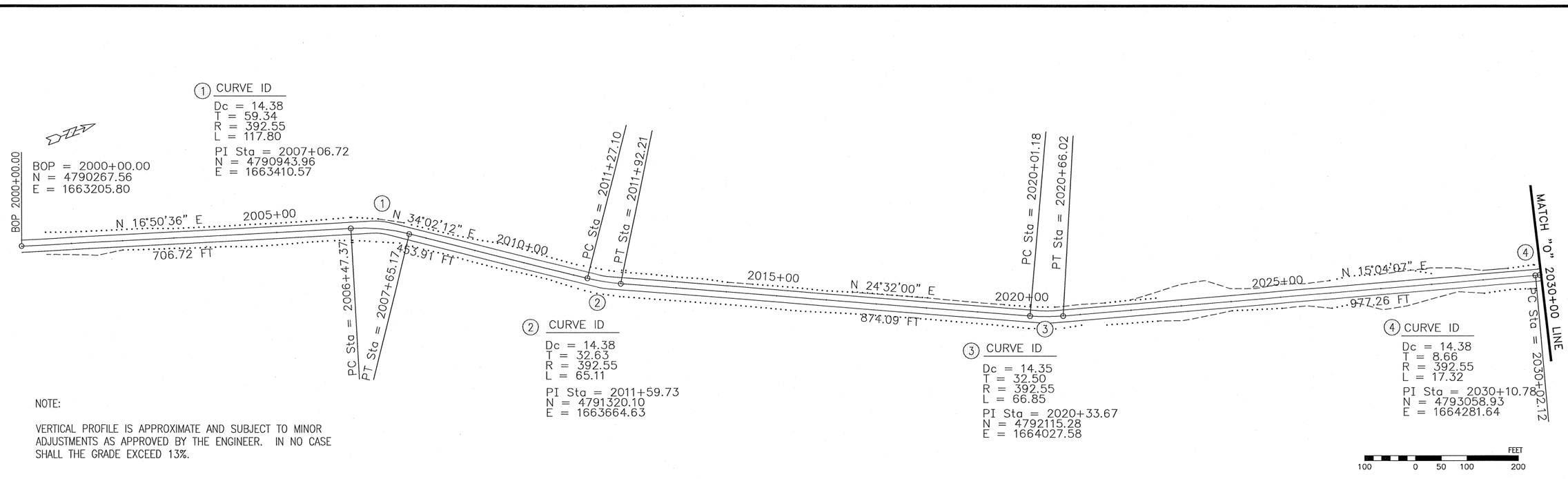
STATE OF ALASKA 49TH
Christopher F. Johnston No. CE 12585 REGISTERED PROFESSIONAL ENGINEER
02/11/2014

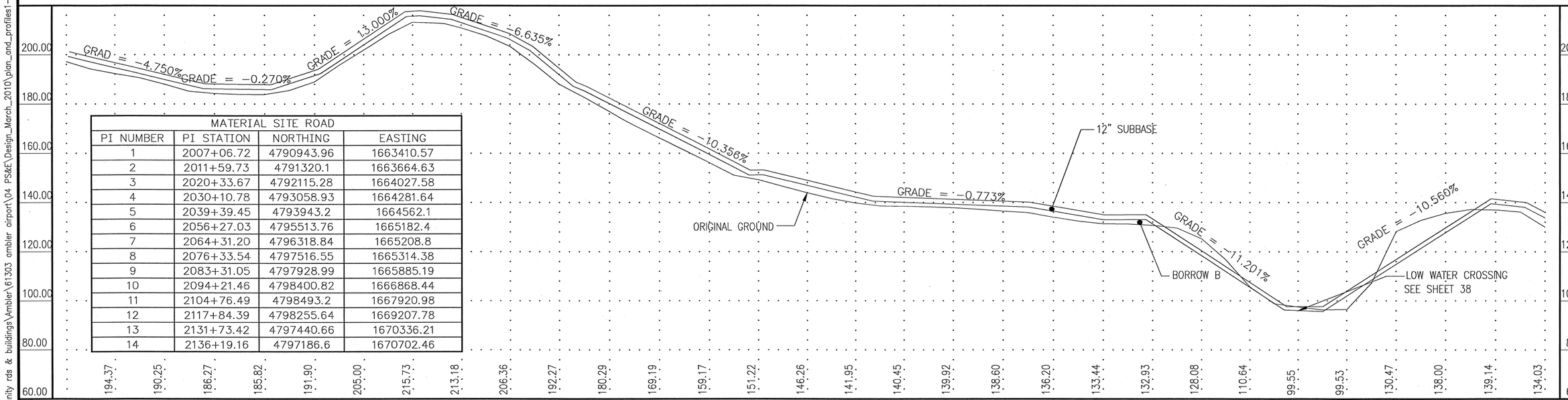
AMBLER AIRPORT REHABILITATION
61303
AIP # 3-02-0354-____/61303
ACCESS ROAD PLAN & PROFILE SHT 2 OF 2

SHEET 29 OF 81



NOTE:

VERTICAL PROFILE IS APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS AS APPROVED BY THE ENGINEER. IN NO CASE SHALL THE GRADE EXCEED 13%.



MATERIAL SITE ROAD			
PI NUMBER	PI STATION	NORTHING	EASTING
1	2007+06.72	4790943.96	1663410.57
2	2011+59.73	4791320.1	1663664.63
3	2020+33.67	4792115.28	1664027.58
4	2030+10.78	4793058.93	1664281.64
5	2039+39.45	4793943.2	1664562.1
6	2056+27.03	4795513.76	1665182.4
7	2064+31.20	4796318.84	1665208.8
8	2076+33.54	4797516.55	1665314.38
9	2083+31.05	4797928.99	1665885.19
10	2094+21.46	4798400.82	1666868.44
11	2104+76.49	4798493.2	1667920.98
12	2117+84.39	4798255.64	1669207.78
13	2131+73.42	4797440.66	1670336.21
14	2136+19.16	4797186.6	1670702.46

DESIGN SLM
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AMBLER AIRPORT REHABILITATION

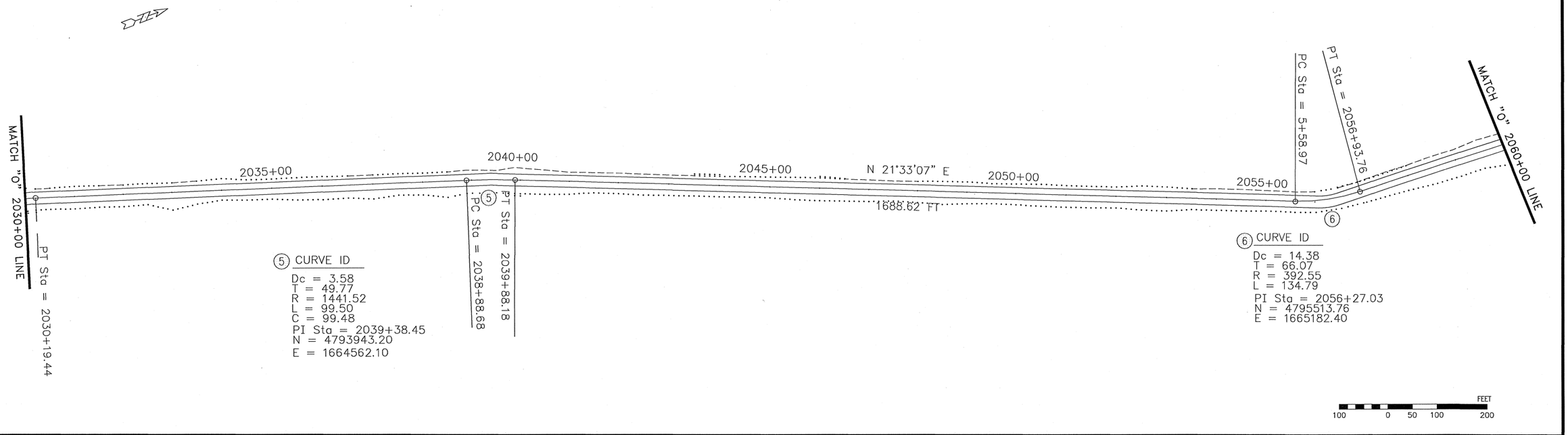
61303

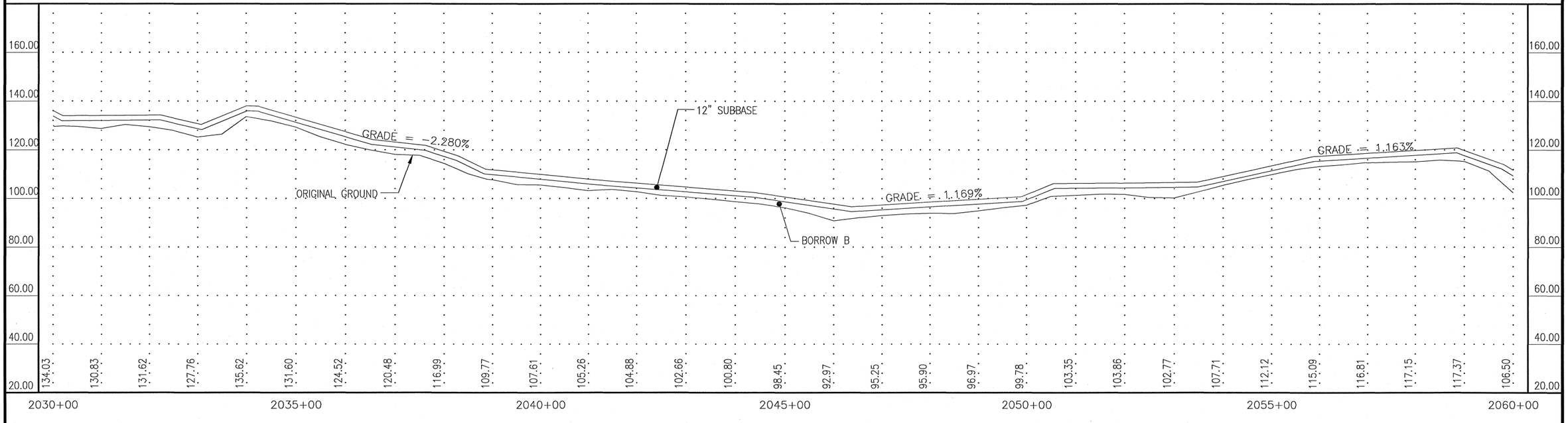
AIP # 3-02-0354-_____/61303

MATERIAL SITE ROAD SHT 1 OF 5

SHEET 30 OF 81

\\dotfpgfs03\design\00 aviation & community rds & buildings\Ambler\61303 ambler airport\04 PS&E\Design_March_2010\plan_and_profiles1-MATERIAL SITE RD SHT 1





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DESIGN SLM
DRAWN SLM
CHECKED CFJ

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STATE OF ALASKA 49TH
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AMBLER AIRPORT REHABILITATION

61303

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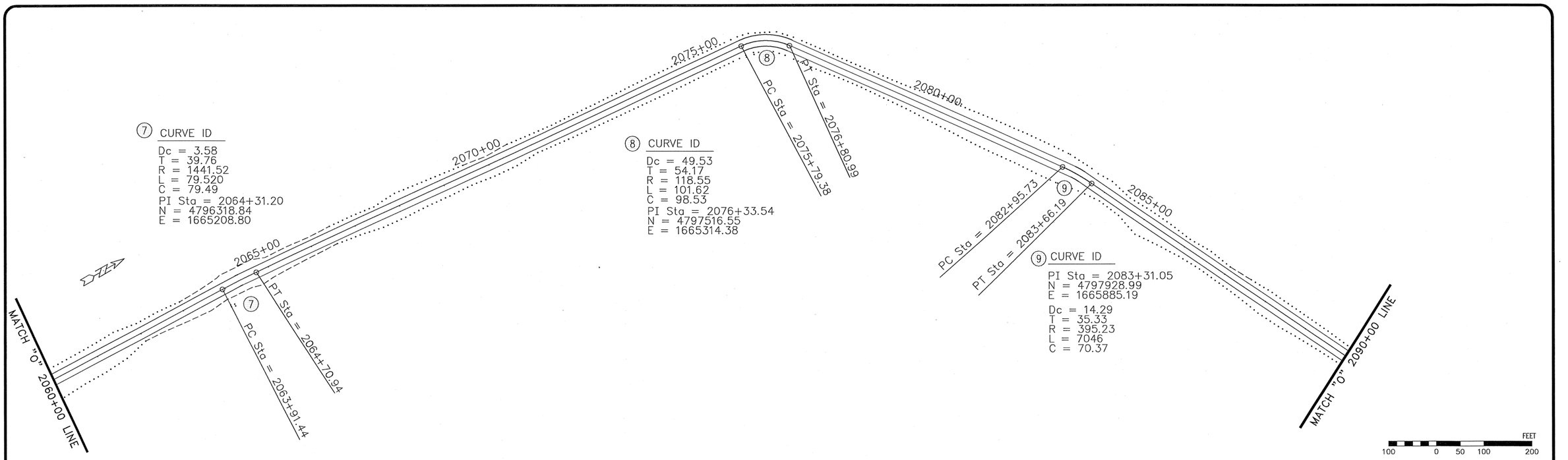
MATERIAL SITE ROAD SHT 2 OF 5

SHEET 31 OF 81



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DESIGN SLM
DRAWN SLM
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STATE OF ALASKA
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NORTHERN REGION–DESIGN AND CONSTRUCTION–AVIATION
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STATE OF ALASKA 49TH
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02/11/2014

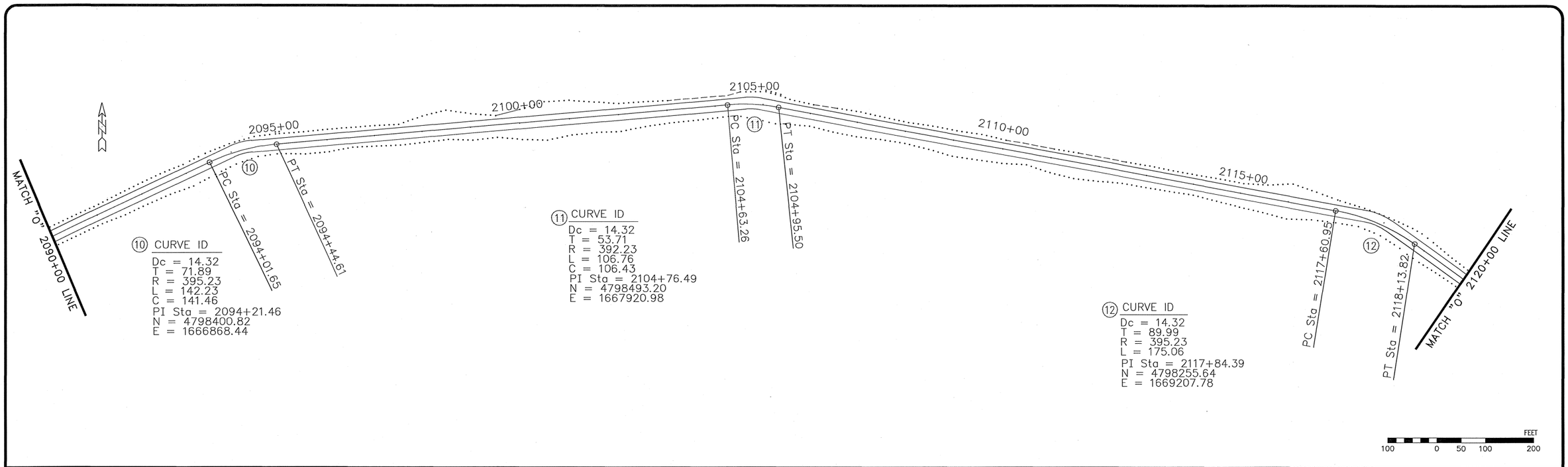
AMBLER AIRPORT REHABILITATION

61303

AIP # 3-02-0354-_____/61303

MATERIAL SITE ROAD SHT 3 OF 5

SHEET 32 OF 81



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C = 141.46
PI Sta = 2094+21.46
N = 4798400.82
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R = 392.23
L = 106.76
C = 106.43
PI Sta = 2104+76.49
N = 4798493.20
E = 1667920.98

(12) CURVE ID
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T = 89.99
R = 395.23
L = 175.06
PI Sta = 2117+84.39
N = 4798255.64
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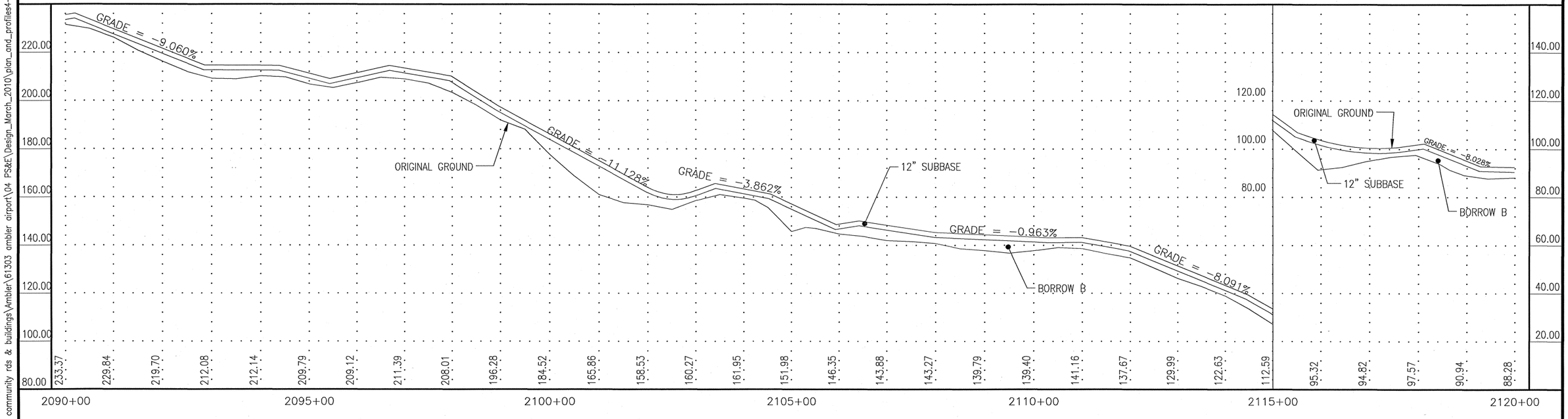

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DESIGN SLM
DRAWN SLM
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NORTHERN REGION–DESIGN AND CONSTRUCTION–AVIATION
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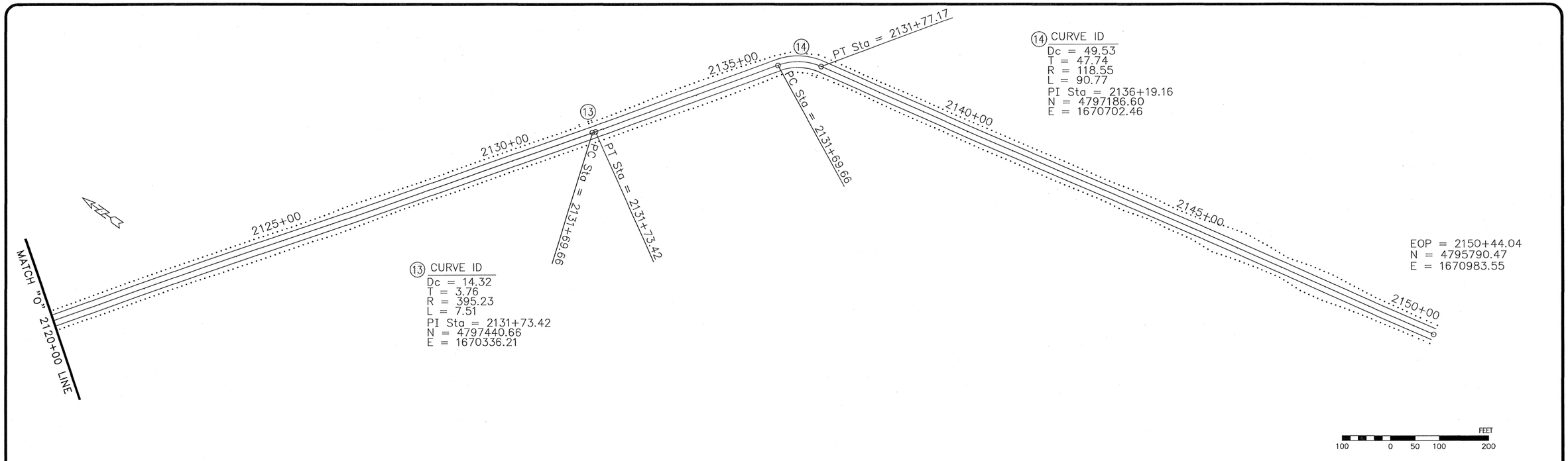
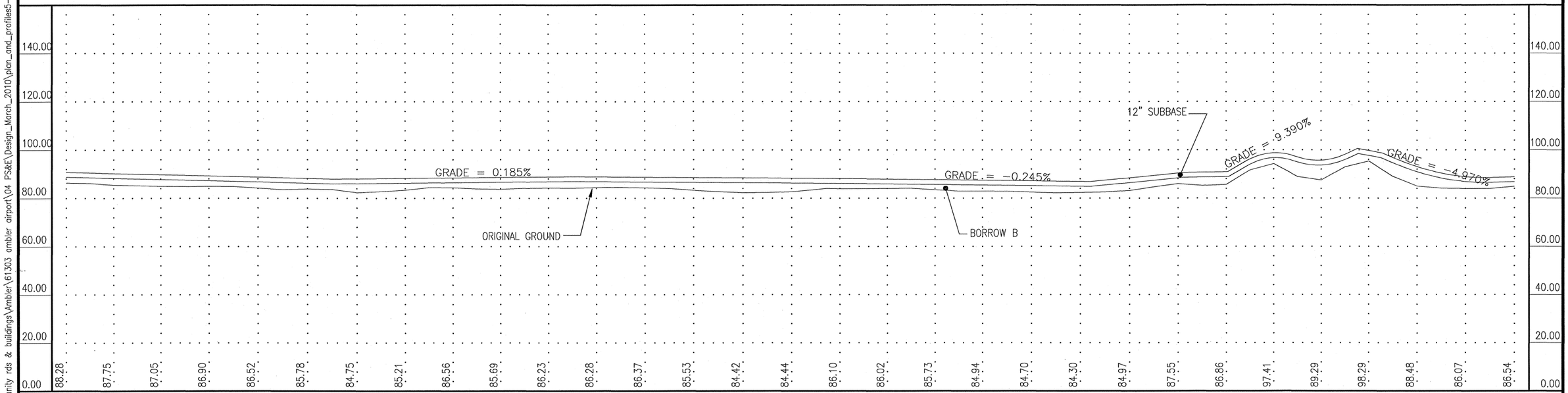
61303

AIP # 3-02-0354-____/61303

MATERIAL SITE ROAD SHT 4 OF 5

SHEET 33 OF 81





\\dotfpgfs03\design\00 aviation & community rds & buildings\Ambler\61303 ambler airport\04 PS&E\Design_March_2010\plan_and_profiles5-MATERIAL SITE RD SHT 5

DESIGN SLM
DRAWN SLM
CHECKED CFJ

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STATE OF ALASKA
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NORTHERN REGION–DESIGN AND CONSTRUCTION–AVIATION
APPROVED Albert M. L. Beck DATE 2.12.14
ALBERT M. L. BECK, P.E. DESIGN GROUP CHIEF

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MATERIAL SITE ROAD SHT 5 OF 5

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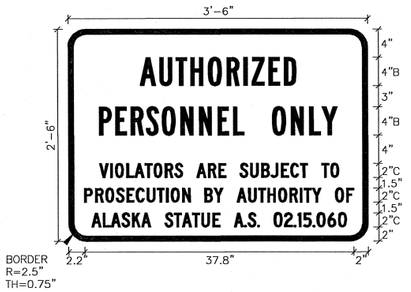
LOCATION NUMBER	STATION	LOCATION LT.	LOCATION RT.	ASDS CODE	LEGEND	SIZE HxV (INCHES)	BRACING/FRAMING BRACED	BRACING/FRAMING FRAMED	AREA (SQ FT)	MOUNTING HEIGHT	DIRECTION	POSTS TYPE	POSTS SIZE (INCHES)	POSTS NO.	REMARKS
1	21+70		X	I-5	Grizzly Creek	48x24	X		8.00		S	WOOD	6x6	1	REUSE EXISTING SIGN PANEL
2	22+80	X		I-5	Grizzly Creek	48x24	X		8.00		S	WOOD	6x6	1	REUSE EXISTING SIGN PANEL
3	46+50		X	SPECIAL 1	AUTHORIZED PERSONNEL ONLY	42x30		X	8.75		E	PST	2.5	2	LOCATION IS APPROXIMATE AND MAY REQUIRE FIELD ADJUSTMENT
4	47+00		X	SPECIAL 2	DANGER KEEP OFF RUNWAY	30x48		X	10.00		E	PST	2.5	2	LOCATION IS APPROXIMATE AND MAY REQUIRE FIELD ADJUSTMENT
								TOTAL	34.75	SQ FT					



SPECIAL SIGN 1 DETAIL

SIGN SHALL HAVE RED BACKGROUND
WITH WHITE LEGEND

SIGNING NOTES

1. REMOVE AND DISPOSE OF ALL EXISTING SIGNS AND SIGN FOUNDATIONS WITHIN THE PROJECT LIMITS, EXCEPT THOSE DESIGNATED FOR REINSTALLATION, SALVAGE OR OTHERWISE NOTED.
2. MOUNTING HEIGHTS ARE PER STANDARD DRAWING S-05.01 UNLESS OTHERWISE NOTED..
3. DETERMINE POST LENGTHS IN THE FIELD. DO NOT EXTEND POSTS ABOVE TOP OF SIGN.
4. INSTALL PST SIGN POSTS WITH SLEEVE TYPE CONCRETE FOUNDATION PER STANDARD DRAWING S-30.03. ATTACH THE SIGN POST TO THE SLEEVE USING GALVANIZED ⅜" BOLT, NUT, SPLIT LOCK WASHER AND TWO FLAT WASHERS.
5. ATTACH ALL SIGNS TO THEIR SUPPORTS WITH ⅜" BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO PST POSTS WITH ALUMINUM DRIVE RIVETS. WIND WASHERS ARE NOT REQUIRED WITH DRIVE RIVETS. INCLUDE SPLIT LOCK WASHERS WHEN BOLTS ARE USED.
6. ALL FASTENER HARDWARE SHALL MEET THE REQUIREMENTS OF THE FASTENER SPECIFICATION TABLE ON THIS SHEET.
7. MAINTAIN EXISTING SIGNS UNTIL NEW SIGNS ARE INSTALLED. DO NOT LEAVE DUPLICATE OR CONFLICTING SIGNING UP AT ANY TIME.
8. ALL SIGNS NOTED FOR REMOVAL AND REINSTALLATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE IF THEY ARE DAMAGED DURING THE RELOCATION EFFORT.
9. ALL LETTERING THAT INCLUDES UPPER AND LOWER CASE LETTERS SHALL BE SERIES E-MODIFIED AS NOTED IN APPENDIX C OF THE ASDS, EXCEPT FOR D3-1 SIGNS WHICH ARE SERIES 2000 LETTERS
10. LOCATE AND PROTECT ALL NEW AND EXISTING UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO: PIPELINES, INTERCONNECT CABLES, SIGNAL SYSTEMS, LIGHTING SYSTEMS, STORM AND SANITARY SEWERS, WATER SYSTEMS, AND TELEPHONE AND ELECTRICAL CABLES, PRIOR TO INSTALLING SIGN POSTS. NOT ALL EXISTING UTILITIES MAY BE SHOWN ON THE PLANS

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

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

SPECIAL SIGN 2 DETAIL

DESIGN
DRAWN
CHECKED

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED _____ DATE 7.17.14
ALBERT M. L. BECK, P.E. DESIGN GROUP CHIEF

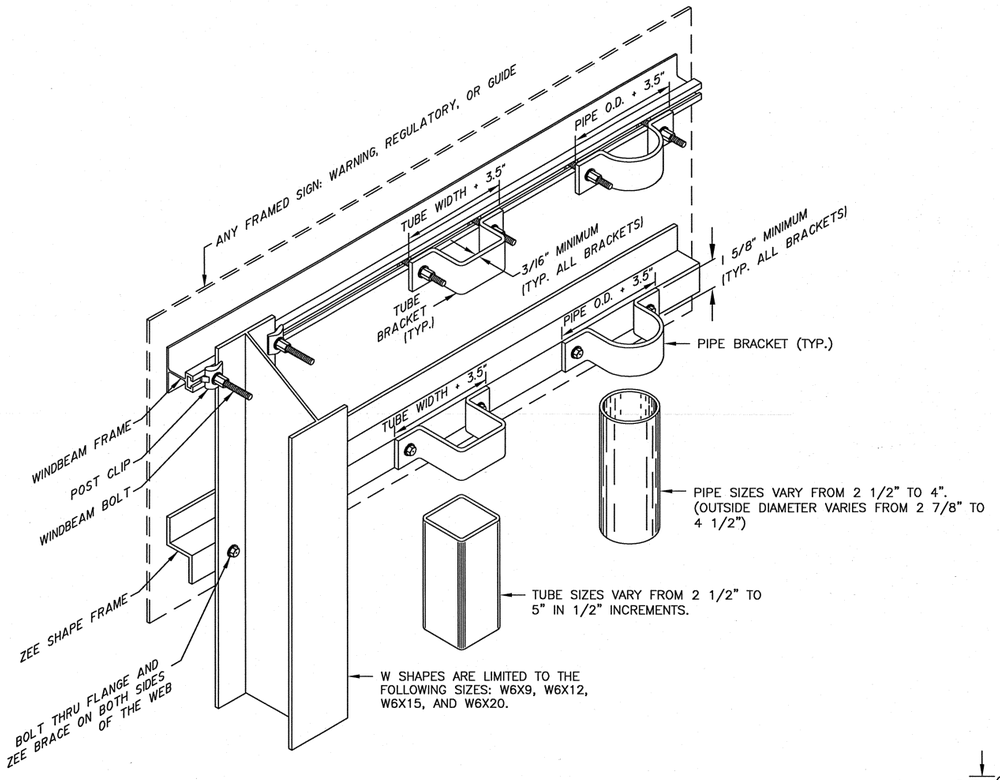
STATE OF ALASKA 49TH
Christopher F. Johnston
No. CE 12585
REGISTERED PROFESSIONAL ENGINEER
02/1/2014

AMBLER AIRPORT REHABILITATION

AIP# 3-02-0354-____/61303

SIGN DETAILS 1 OF 2

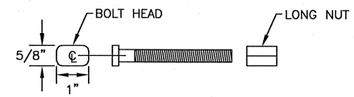
SHEET 35 OF 81



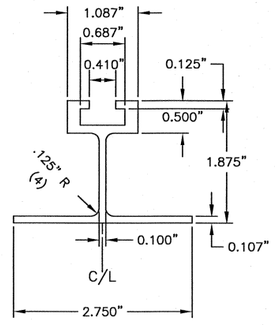
FRAMED SIGN ATTACHMENT BRACKETS

NOTES:

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



3/8" WINDBEAM BOLT AND LONG NUT



EXTRUDED ALUMINUM WINDBEAM

NOTES:

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

DESIGN
DRAWN
CHECKED

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED _____ DATE 2-12-14
ALBERT M. L. BECK, P.E. DESIGN GROUP CHIEF

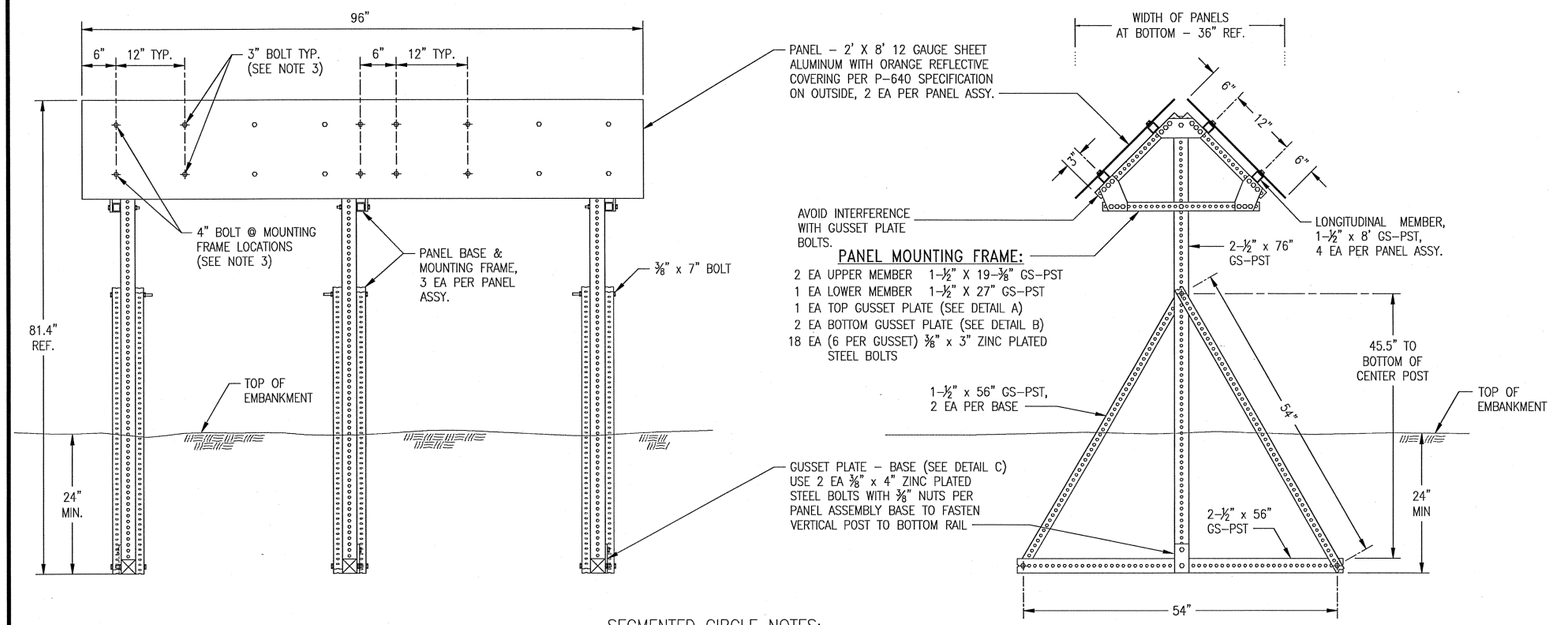
STATE OF ALASKA 49 TH
Christopher F. Johnston
No. CE 12585
REGISTERED PROFESSIONAL ENGINEER
02/11/2014

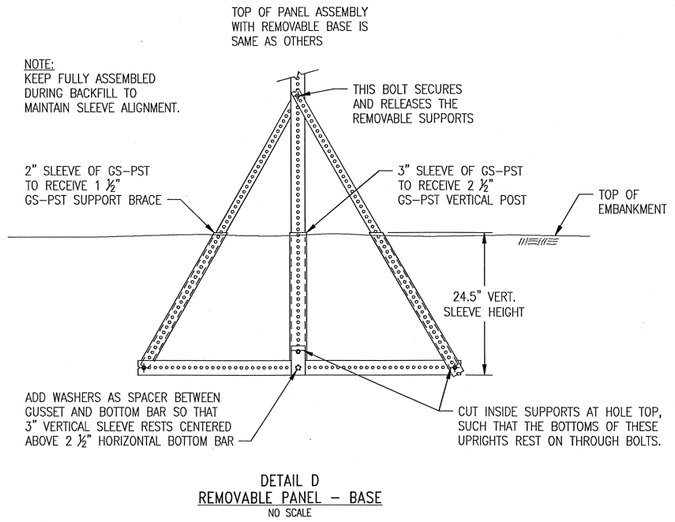
AMBLER AIRPORT REHABILITATION

AIP# 3-02-0354-____/61303

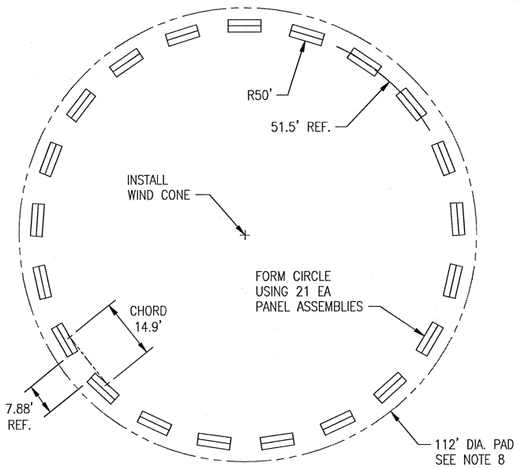
SIGN DETAILS 2 OF 2

SHEET 36 OF 81





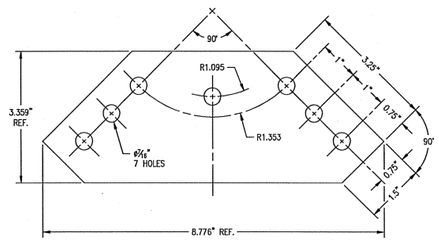
DETAIL D
REMOVABLE PANEL – BASE
NO SCALE



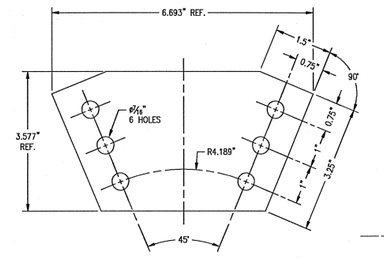
SEGMENTED CIRCLE LAYOUT
NO SCALE

SEGMENTED CIRCLE NOTES:

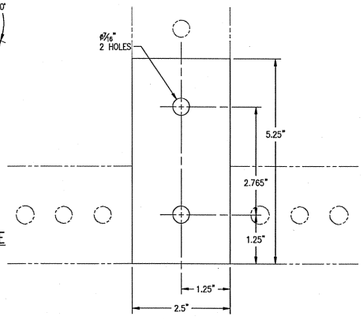
1. ALL STRUCTURAL MEMBERS ARE GS-PST (GALVANIZED STEEL – PERFORATED SQUARE TUBING). SIZE AS INDICATED IN DRAWING.
2. ALL BOLTS USED TO FASTEN PANEL ASSEMBLY TOGETHER SHALL BE ⅜" DIA. ZINC PLATED STEEL BOLTS AND WILL INCLUDE 2 EA 1" WASHERS AND 1 EA ⅜" NUT. USE 5" LENGTH UNLESS OTHERWISE NOTED.
3. PLACE 7/16" HOLES IN ALUMINUM SHEET PANELS AT BOLT LOCATIONS AS INDICATED IN DRAWING. ATTACH TO FRAME USING ⅜" X 4" ZINC PLATED STEEL BOLTS WHERE LONGITUDINAL AND MOUNTING FRAME MEMBERS INTERSECT, AND ⅜" X 3" ZINC PLATED STEEL BOLTS THROUGH LONGITUDINAL MEMBERS ONLY.
4. ALL GUSSET PLATES SHALL BE FABRICATED FROM 1/4" GALVANIZED STEEL PLATE. SEE DETAIL SHEET FOR FABRICATION DIMENSIONS.
5. PERFORM NECESSARY EARTH WORK TO MEET 2' BURIAL DEPTH AND PROVIDE STABLE ANCHOR WEIGHT AROUND CIRCLE AS DIRECTED BY ENGINEER.
6. ONE PANEL ASSEMBLY IN THE CIRCLE SHALL BE DETACHABLE FROM BASE AT TOP OF EMBANKMENT TO ALLOW EQUIPMENT ACCESS INTO CIRCLE. LOCATION OF REMOVABLE PANEL TO BE DETERMINED BY ENGINEER. (SEE DETAIL D)
7. DIMENSIONS LABELED "REF." ARE FOR INFORMATIONAL PURPOSES ONLY.
8. CONSTRUCT PAD OF APPROXIMATELY THREE FEET OF BORROW EMBANKMENT.



DETAIL A
TOP GUSSET PLATE – PANEL MOUNTING FRAME
NO SCALE



DETAIL B
BOTTOM GUSSET PLATE – PANEL MOUNTING FRAME
NO SCALE



DETAIL C
GUSSET PLATE – BASE
NO SCALE

DESIGN	SLM	
DRAWN	SLM	
CHECKED	CFJ	

BY	DATE	REVISIONS

STATE OF ALASKA
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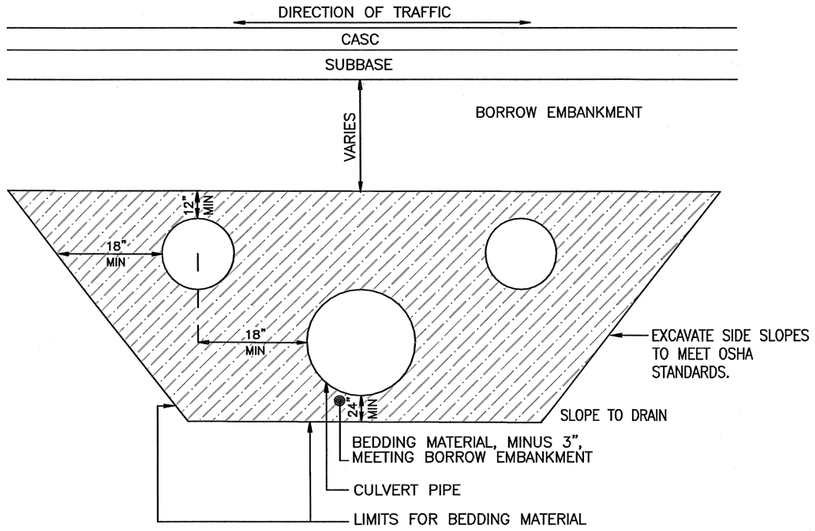
STATE OF ALASKA 49 TH Christopher F. Johnston No. CE 12585 REGISTERED PROFESSIONAL ENGINEER
02/11/2014

AMBLER AIRPORT REHABILITATION
AIP# 3-02-0354-____/61303
SEGMENTED CIRCLE DETAILS

SHEET 37 OF 81

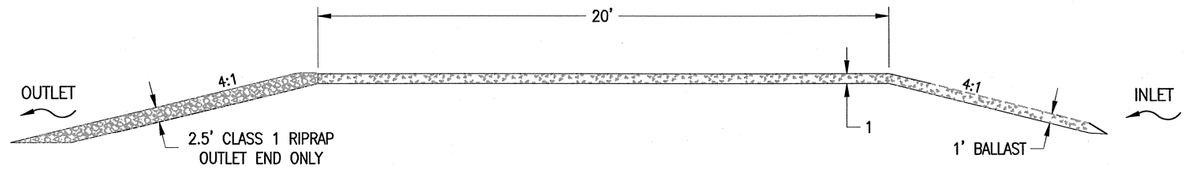


TYPICAL CULVERT CROSS SECTION

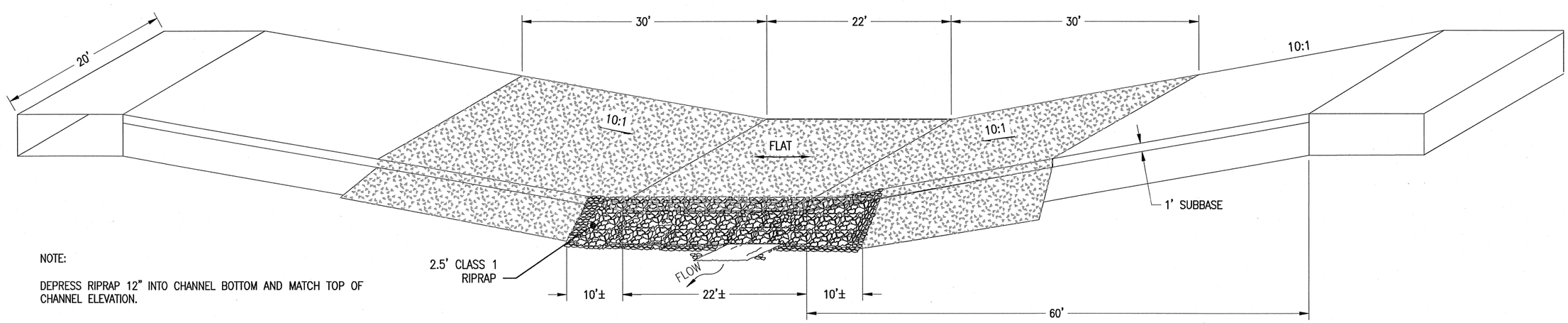
CULVERT SUMMARY				
STATION	DIAMETER	LENGTH	SKEW	REMARKS
APT ACCESS RD STA 38+95.5	24"	105'		
APT ACCESS RD STA 39+00	36"	118'	0 DEG	
APT ACCESS RD STA 39+04.5	24"	116'	0 DEG	

NOTE:

OVERFLOW PIPES AT AIRPORT ACCESS ROAD STATIONS 38+95.5, 39+04.5 SHALL BE VERTICALLY SKEWED SUCH THAT THE INLET INVERTS (NORTH) ARE AT THE ELEVATION 200.5' AND THE OUTLET INVERTS (SOUTH) ARE AT ELEVATION 189'.



LOW WATER CROSSING TYPICAL



NOTE:

DEPRESS RIPRAP 12" INTO CHANNEL BOTTOM AND MATCH TOP OF CHANNEL ELEVATION.

LOW WATER CROSSING DETAIL

MATERIAL SITE ROAD STA. 2025+10, 2064+42

\\dotfpgfs03\Design\00 aviation & community rds & buildings\Ambler\61303 ambler airport\04 PS&E\ambler_planset\Ambler-CULVERT SUMMARY AND DETAIL

DESIGN SLM
DRAWN SLM
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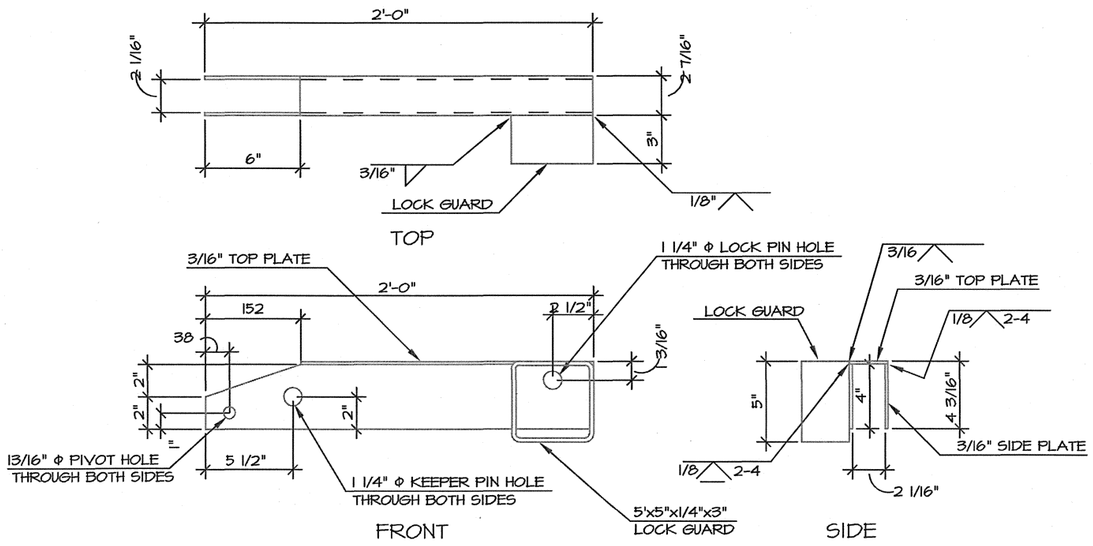
STATE OF ALASKA 49TH Jeffrey P. Stutzke No. 11357 REGISTERED PROFESSIONAL ENGINEER 2/13/14

AMBLER AIRPORT REHABILITATION

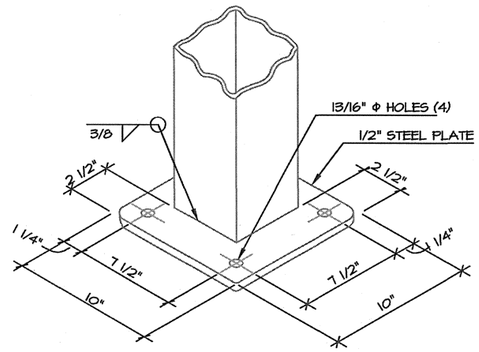
AIP# 3-02-0354-____/61303

CULVERT SUMMARY AND DETAIL

SHEET 38 OF 81

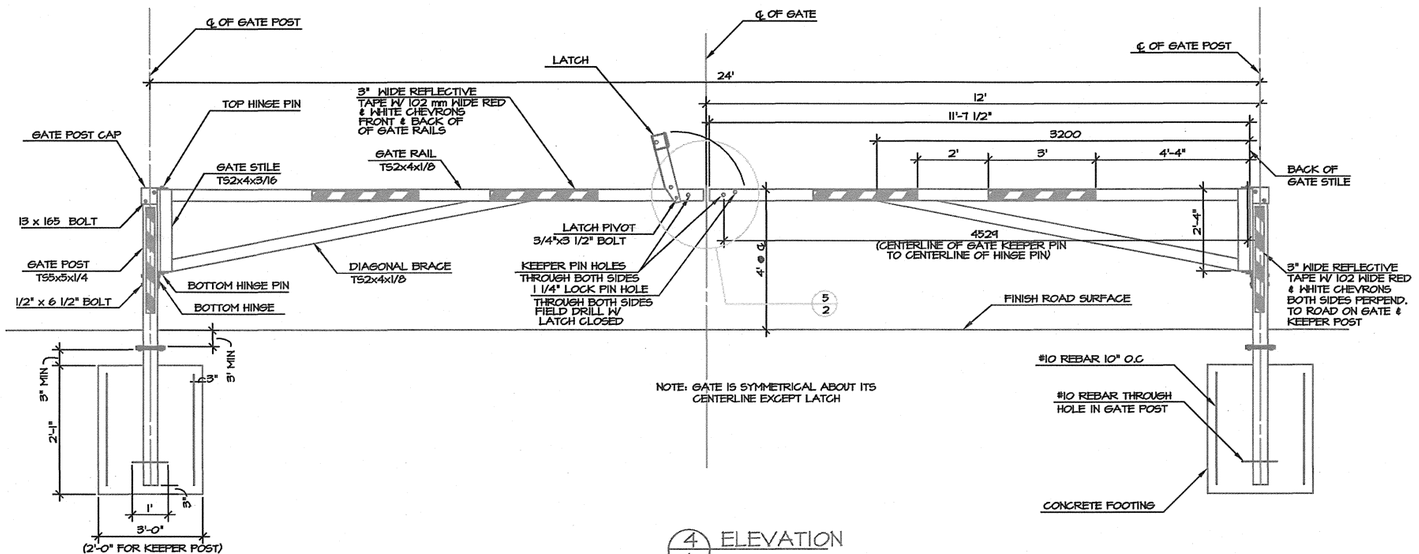


1 LATCH



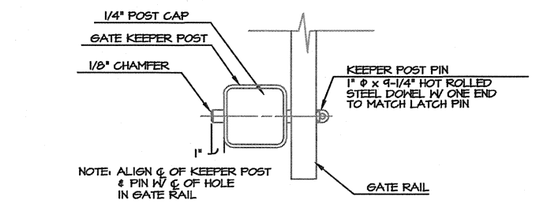
NOTE: FASTEN PLATES WITH 4 - 3/4" x 1-3/4" STEEL BOLTS WITH FLAT WASHERS, LOCK WASHERS, AND NUTS

2 STEEL PLATE (TYP.)



4 ELEVATION

MATERIAL SITE ROAD STA. 2000+30



3 KEEPER POST

\\dotfpgfs03\Design\00 aviation & community rds & buildings\Ambler\61303 ambler airport\04 PS&E\ambler_planset\Ambler-GATE DETAILS 1 OF 2

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DRAWN SLM
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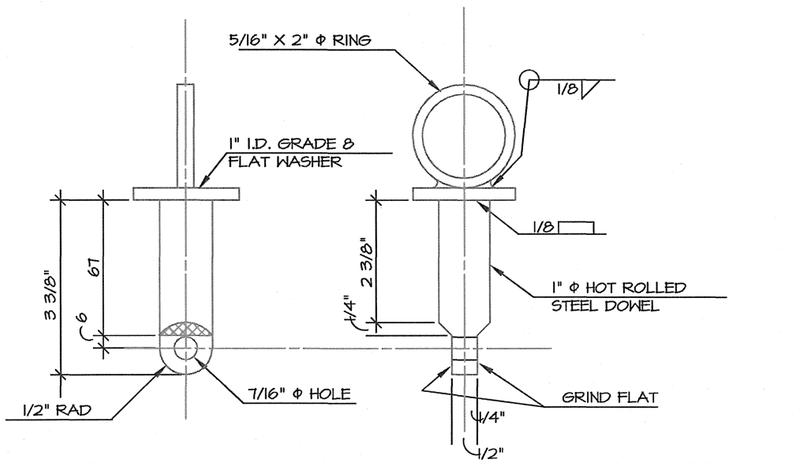
AMBLER AIRPORT REHABILITATION

AIP# 3-02-0354-____/61303

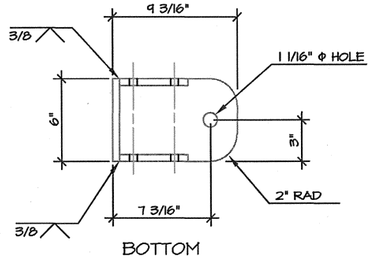
GATE DETAILS 1 OF 2

SHEET 39 OF 81

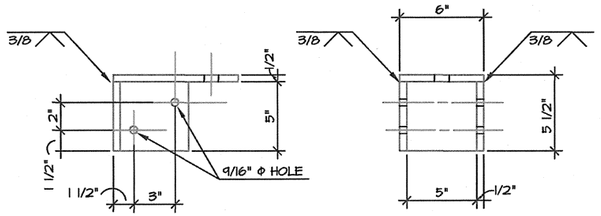


ATTACH PIN TO GATE RAIL W/ 1/5" X 18" 5.5 WIRE ROPE LANYARD. LOOP THROUGH PIN RING. USE EYELET & 1/4" x 1" TAPPING SCREWIN GATE RAIL

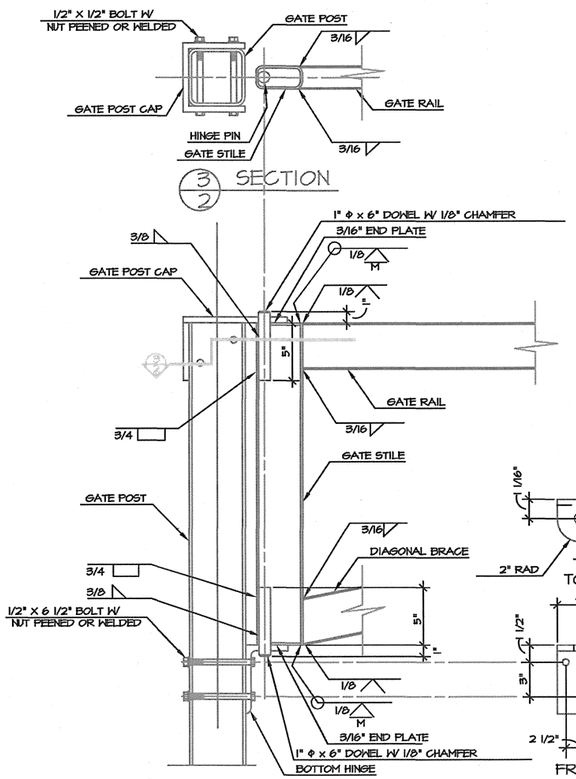
1/2 LATCH PIN



BOTTOM



2/2 GATE POST CAP

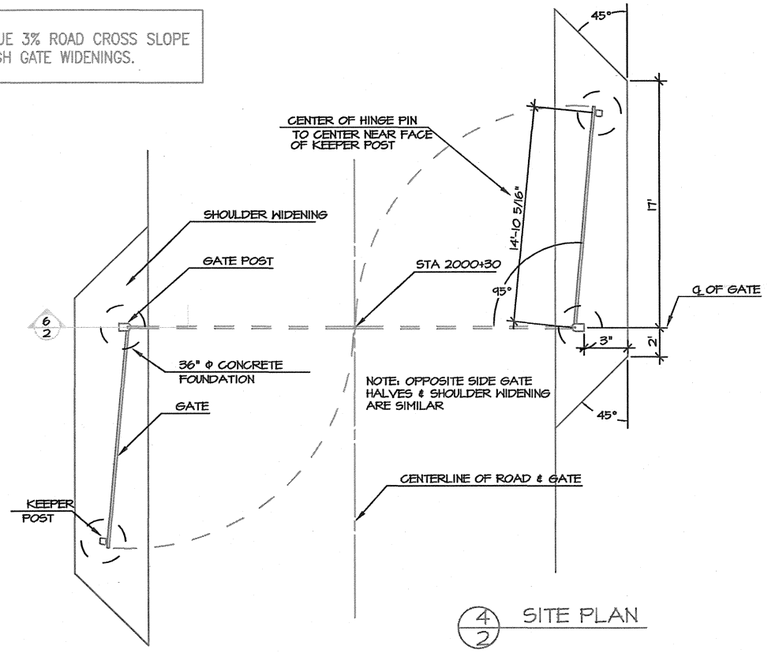


3/2 SECTION

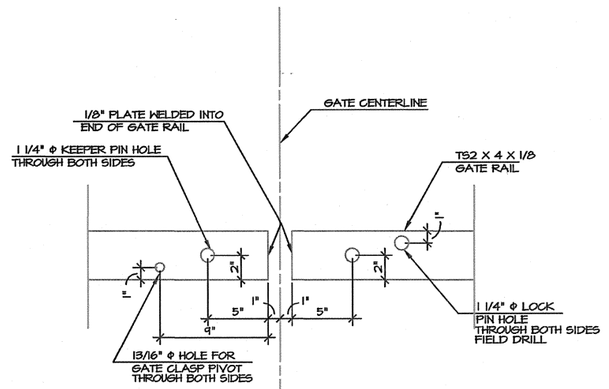
6/2 SECTION

1/2 BOTTOM HINGE

CONTINUE 3% ROAD CROSS SLOPE THROUGH GATE WIDENINGS.



4/2 SITE PLAN



5/2 DETAIL

\\dotfgfs03\Design\00 aviation & community rds & buildings\Ambler\61303 ambler airport\04 PS&E\ambler_planset\Ambler-GATE DETAILS 2 OF 2

DESIGN SLM
DRAWN SLM
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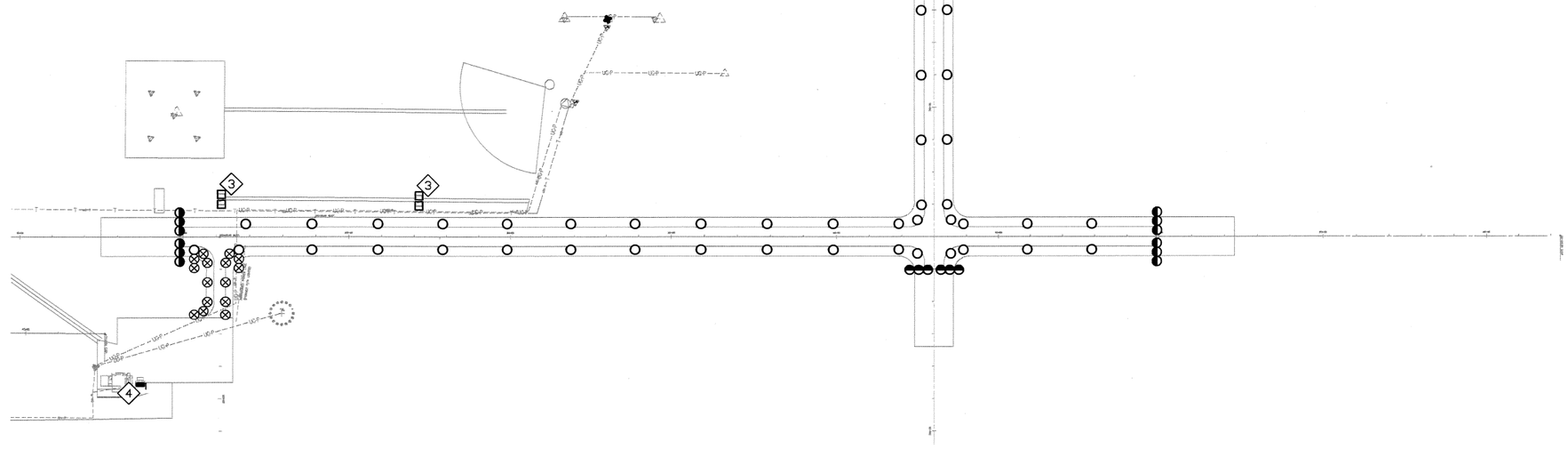
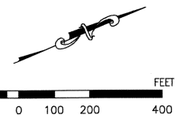
02/11/2014

AMBLER AIRPORT REHABILITATION
AIP# 3-02-0354-____/61303
GATE DETAILS 2 OF 2

SHEET 40 OF 81





NOTES

1. REMOVE RUNWAY, THRESHOLD, TAXIWAY LIGHTS & LIGHT BASES, AND CORRESPONDING ISOLATION TRANSFORMERS. EXTENT OF DEMOLITION INCLUDES ALL EXISTING UNDERGROUND RACEWAY, CABLE, AND GROUNDING COMPONENTS ENCOUNTERED DURING EXCAVATION FOR THIS WORK.
2. THIS DRAWING SHEET DOES NOT SHOW WORK ASSOCIATED WITH THE AMBLER SREB SCOPE. REFER TO DRAWINGS WITH SHEET NUMBERS BEGINNING WITH "B".

(3) VASI LIGHT DEMOLITION TO BE COORDINATED WITH FAA/DOT. SEE SHEET E19.

(4) DEMOLISH AND REMOVE THE EXISTING EEB, THE SIZE BEING APPROXIMATELY EQUAL TO THE ADOT PORTION OF THE NEW EEB. SEE CIVIL SHEETS BCxx FOR ADDITIONAL APRON WORK.

5. ALL REMOVED ITEMS, DETERMINED NOT USABLE BY THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR WHO IS RESPONSIBLE FOR DISPOSAL. THE CONTRACTOR SHALL DELIVER THE REMAINING REMOVED EQUIPMENT TO THE ADOT&PF.
6. COORDINATE ALL ELECTRIC UTILITY LINE WORK, ELECTRIC SERVICE OUTAGES, AND METER REMOVALS WITH THE AVEC PLANT OPERATOR.

DESIGN MNW
DRAWN JLC
CHECKED MSG

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ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49TH Michael S. Goulding Feb 03, 2014 EE-9705 REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
PDC, INC.

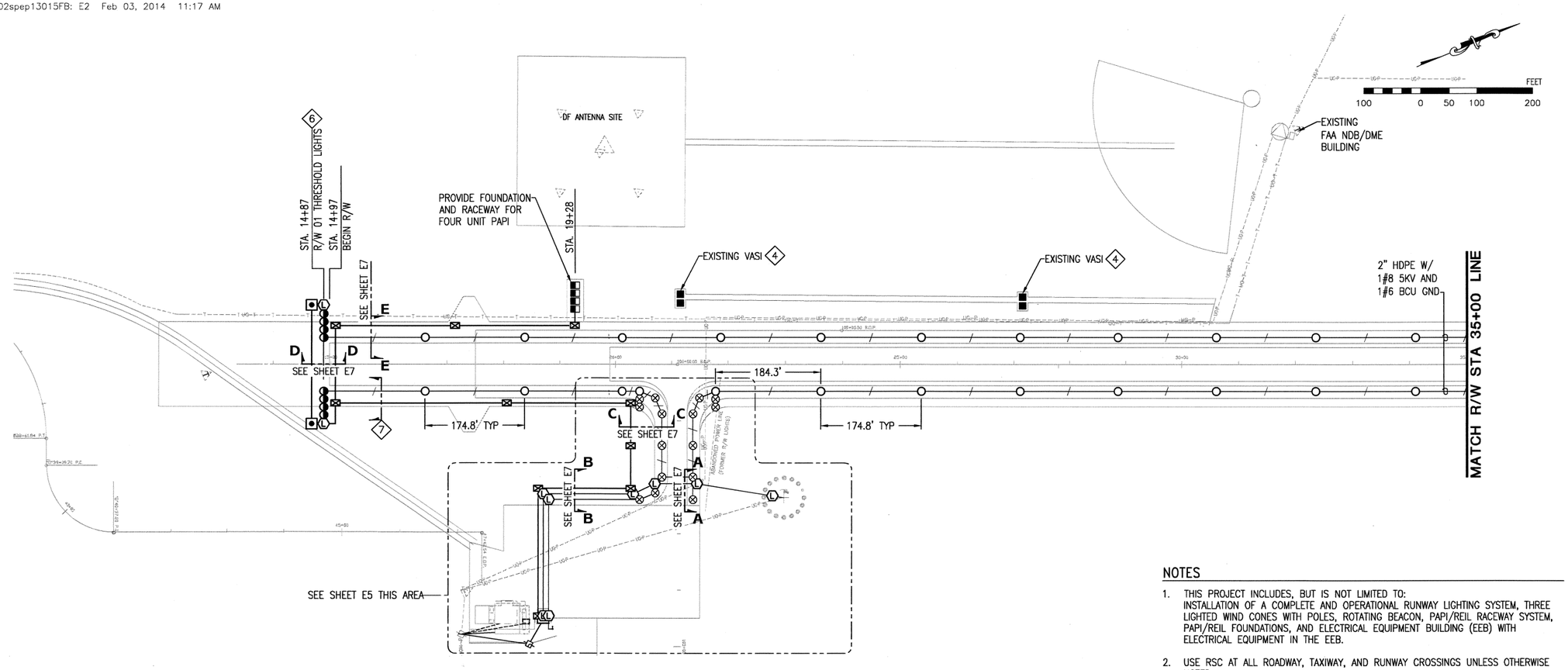
AMBLER AIRPORT

AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303

DEMOLITION PLAN

SHEET E1 OF 81

P:\2013\13015FB\E\E0002spep13015FB: E2 Feb 03, 2014 11:17 AM



NOTES

1. THIS PROJECT INCLUDES, BUT IS NOT LIMITED TO: INSTALLATION OF A COMPLETE AND OPERATIONAL RUNWAY LIGHTING SYSTEM, THREE LIGHTED WIND CONES WITH POLES, ROTATING BEACON, PAPI/REIL RACEWAY SYSTEM, PAPI/REIL FOUNDATIONS, AND ELECTRICAL EQUIPMENT BUILDING (EEB) WITH ELECTRICAL EQUIPMENT IN THE EEB.
2. USE RSC AT ALL ROADWAY, TAXIWAY, AND RUNWAY CROSSINGS UNLESS OTHERWISE NOTED.
3. GROUNDING:
   TWO SEPARATE GROUNDING SYSTEMS ARE DEPICTED ON THE DRAWINGS. EACH GROUNDING SYSTEM INCLUDES A SEPARATE SET OF GROUND RODS. THE SYSTEMS SHALL BE KEPT ELECTRICALLY SEPARATE EXCEPT FOR CONNECTION TO THE GROUNDING ELECTRODE SYSTEM ASSOCIATED WITH STRUCTURES SERVED BY THE BURIED RACEWAY SYSTEM. SEE SPECIFICATIONS L-108.

   A. LIGHTNING PROTECTION COUNTERPOISE (LPC)
   – THIS IS INSTALLED ABOVE THE FAA PAPI/REIL CONDUITS AND CABLES. THE LPC GUARD WIRE IS BONDED TO GROUND RODS USING EXOTHERMIC WELDS. LPC GROUND RODS ARE LOCATED AT EACH PAPI/REIL JUNCTION BOX.

   B. EQUIPMENT GROUNDING SYSTEM (EGC)
   – FOR RUNWAY AND TAXIWAY LIGHTING, A GROUND ROD IS TO BE INSTALLED AT EACH LIGHT BASE AND HANDHOLE.

   THE LOCATIONS OF THE EGC GROUND RODS ARE NOT SHOWN ON THE PLANS. ANY GROUND RODS SHOWN ON THE PLANS ARE IN ADDITION TO THOSE REQUIRED ABOVE.
4. VASI SYSTEM TO BE DEMOLISHED. SEE PREVIOUS SHEET.
5. ALL PAPI/REIL J-BOXES SHALL BE THE STACKED TYPE AS SHOWN ON SHEET E18.
6. REFER TO SHEET E8 FOR THRESHOLD.
7. TRENCH SECTION SIMILAR TO B-B BUT WITHOUT WIND CONE CONDUIT.

LEGEND

- RUNWAY MARKER LIGHT (WHITE)
- TAXIWAY MARKER LIGHT (BLUE)
- THRESHOLD MARKER LIGHT (L-861E)(GREEN & RED)
- SE THRESHOLD MARKER LIGHT (L-861SE)(GREEN & RED)
- RUNWAY MARKER LIGHT (WHITE & YELLOW)
- 2" CONDUIT, SCHEDULE 40 PE (HDPE) U.O.N. // DENOTES NUMBER OF 5KV CONDUCTORS U.O.N.
- GROUND RODS
- ROTATING BEACON
- HANDHOLE
- PAPI
- PAPI/REIL J-BOX
- VASI
- REIL
- UTILITY POLE

ABBREVIATIONS

AVEC	ALASKA VILLAGE ELECTRIC COOPERATIVE
AWWF	ALL-WEATHER WOOD FOUNDATION
BCU	BARE COPPER WIRE (SOLID)
EEB	ELECTRICAL EQUIPMENT BUILDING (ENCLOSURE)
EMT	ELECTRICAL METALLIC TUBING
EGC, GND	EQUIPMENT GROUNDING CONDUCTOR
RSC	RIGID STEEL CONDUIT, GALVANIZED
HDPE, PE	HIGH DENSITY POLYETHYLENE (RACEWAY)
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
LPC	LIGHTNING PROTECTION COUNTERPOISE
MTD	MOUNTED
NFS	NON-FROST SUSCEPTIBLE
PT	POINT OF TANGENCY
RTV	SILICONE SEALANT
RWY, R/W	RUNWAY
SREB	SNOW REMOVAL EQUIPMENT BUILDING
TCH	THRESHOLD CROSSING HEIGHT
TWY, T/W	TAXIWAY
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF

DESIGN MNW
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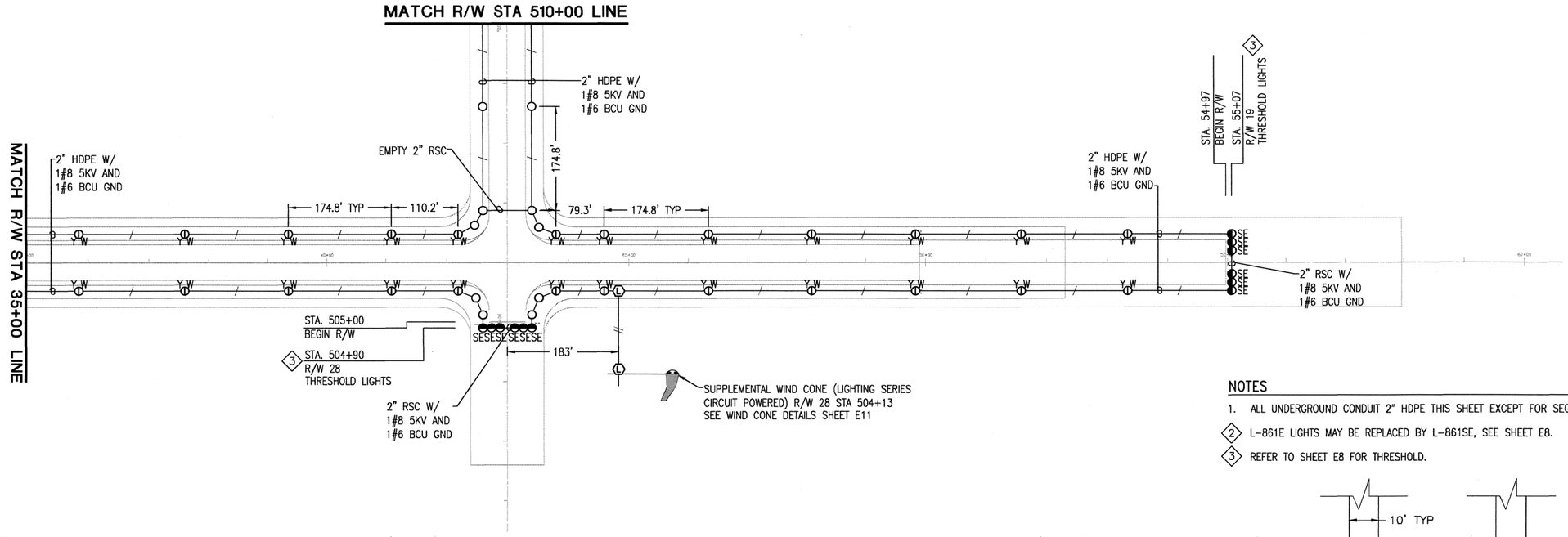
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49 TH Michael S. Goulding Feb 03, 2014 EE-9705 REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
PDC, INC.

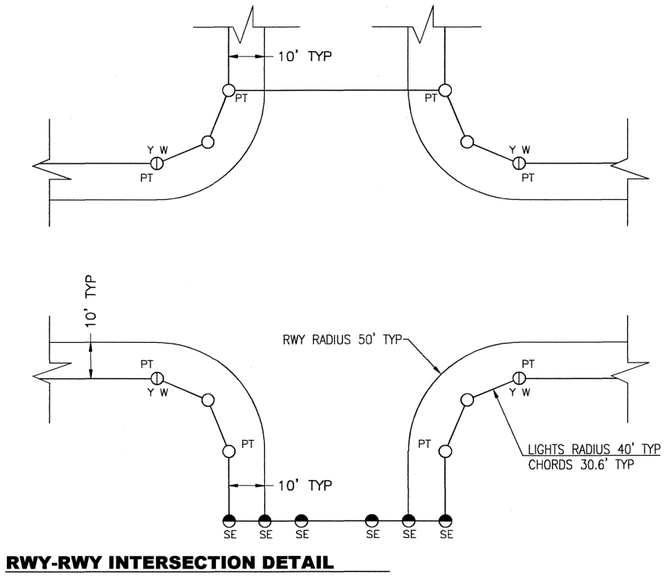
AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
RUNWAY LIGHTING PLAN (1 OF 3)

SHEET E2 OF 81



NOTES

1. ALL UNDERGROUND CONDUIT 2" HDPE THIS SHEET EXCEPT FOR SEGMENTS INDICATED.
2. L-861E LIGHTS MAY BE REPLACED BY L-861SE, SEE SHEET E8.
3. REFER TO SHEET E8 FOR THRESHOLD.



RWY-RWY INTERSECTION DETAIL
NO SCALE

RUNWAY AND TAXIWAY LIGHT SCHEDULE

LIGHT	APPLICATION	NUMBER REQUIRED	LIGHT DETAILS		
			LIGHT COLOR	LAMP TYPE	TRANSFORMER *
L-861	RUNWAY	53	WHITE	45W, INCANDESCENT 6.6 AMP	L-830-1, 30/45 WATT
L-861	RUNWAY	24	180° WHITE - 180° YELLOW	45W, INCANDESCENT 6.6 AMP	L-830-1, 30/45 WATT
L-861SE	THRESHOLD	18	180° RED - 180° GREEN	45W, INCANDESCENT 6.6 AMP	L-830-6, 200 WATT
2 L-861E	THRESHOLD	8	180° RED - 180° GREEN	45W, INCANDESCENT 6.6 AMP	L-830-1, 30/45 WATT
L-861T	TAXIWAY	15	BLUE	45W, INCANDESCENT 6.6 AMP	L-830-1, 30/45 WATT
L-807	PRIMARY WIND CONE	1		LED	N/A
L-807	SUPPLEMENTAL WIND CONE	2		LED	L-830, 200 WATT
L-849V	REIL -- FAA TO INSTALL				N/A
L-88x	PAPI -- FAA TO INSTALL				N/A

* TRANSFORMER RATING SHALL BE MATCHED TO REQUIREMENTS OF EQUIPMENT INSTALLED

DESIGN MNW
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NORTHERN REGION
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ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49 TH
Michael S. Goulding
Feb 03, 2014
EE-9705
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
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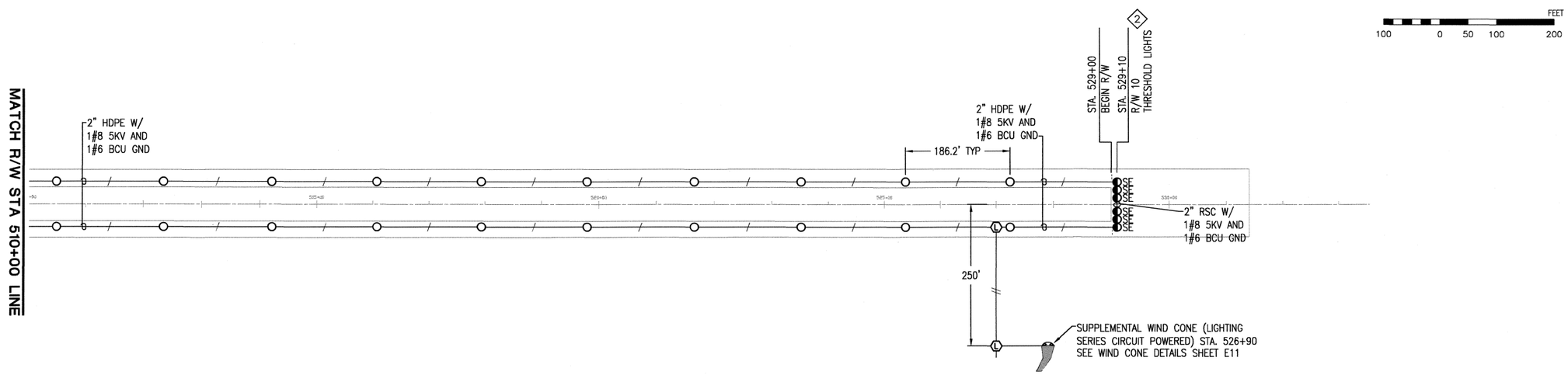
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
RUNWAY LIGHTING PLAN (2 OF 3)

SHEET E3 OF 81



NOTES

1. ALL UNDERGROUND CONDUIT 2" HDPE THIS SHEET EXCEPT FOR SEGMENTS INDICATED.

(2) REFER TO SHEET E8 FOR THRESHOLD.

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK DESIGN GROUP CHIEF

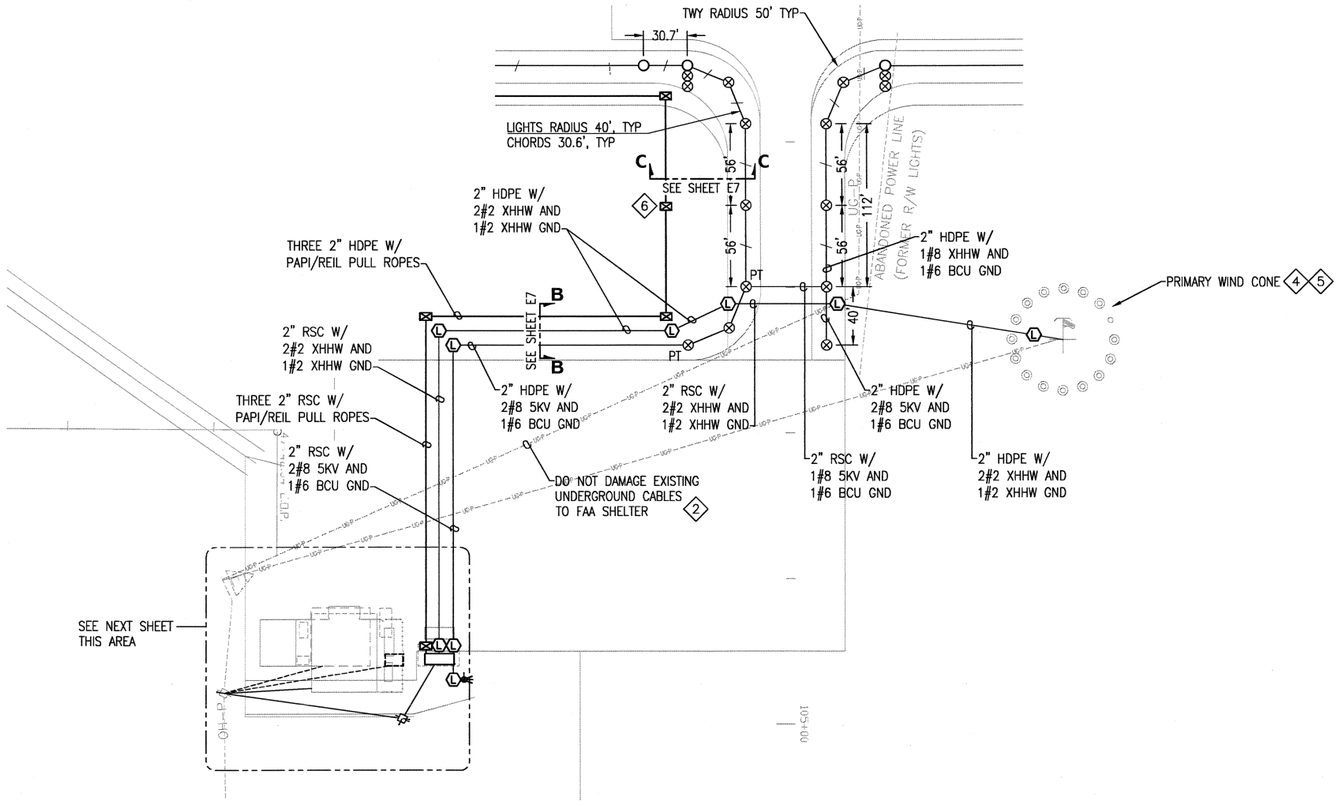
STATE OF ALASKA 49 TH
Michael S. Goulding
Feb 03, 2014
EE-9705
REGISTERED PROFESSIONAL ENGINEER

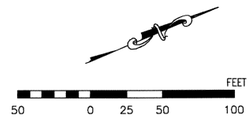
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT

AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
RUNWAY LIGHTING PLAN (3 OF 3)

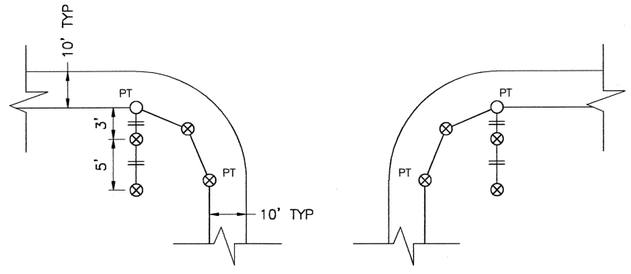
SHEET E4 OF 81





NOTES

1. THIS DRAWING SHEET DOES NOT SHOW WORK ASSOCIATED WITH THE AMBLER SREB SCOPE. REFER TO DRAWINGS WITH SHEET NUMBERS BEGINNING WITH "B".
2. UNDERGROUND POWER CABLES NOT ACCURATELY LOCATED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE CIRCUITS BEFORE STARTING WORK AND AVOID DAMAGE.
3. RUNWAY/TAXIWAY LIGHTING CIRCUIT HANDHOLES ARE L-867, CLASS IA, SIZE B.
4. PRIMARY WIND CONE HANDHOLE IS L-867, CLASS IA, SIZE D, LOCATED WITHIN 8' OF WIND CONE. OTHER HANDHOLES IN PRIMARY WIND CONE CIRCUIT ARE L-867, CLASS IA, SIZE B.
5. SEE WIND CONE DETAILS SHEET E11.
6. JUNCTION BOX SERVES AS LOW POINT DRAIN THROUGH SWALE.



T/W TURNOUT LIGHTING DETAIL
NO SCALE

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

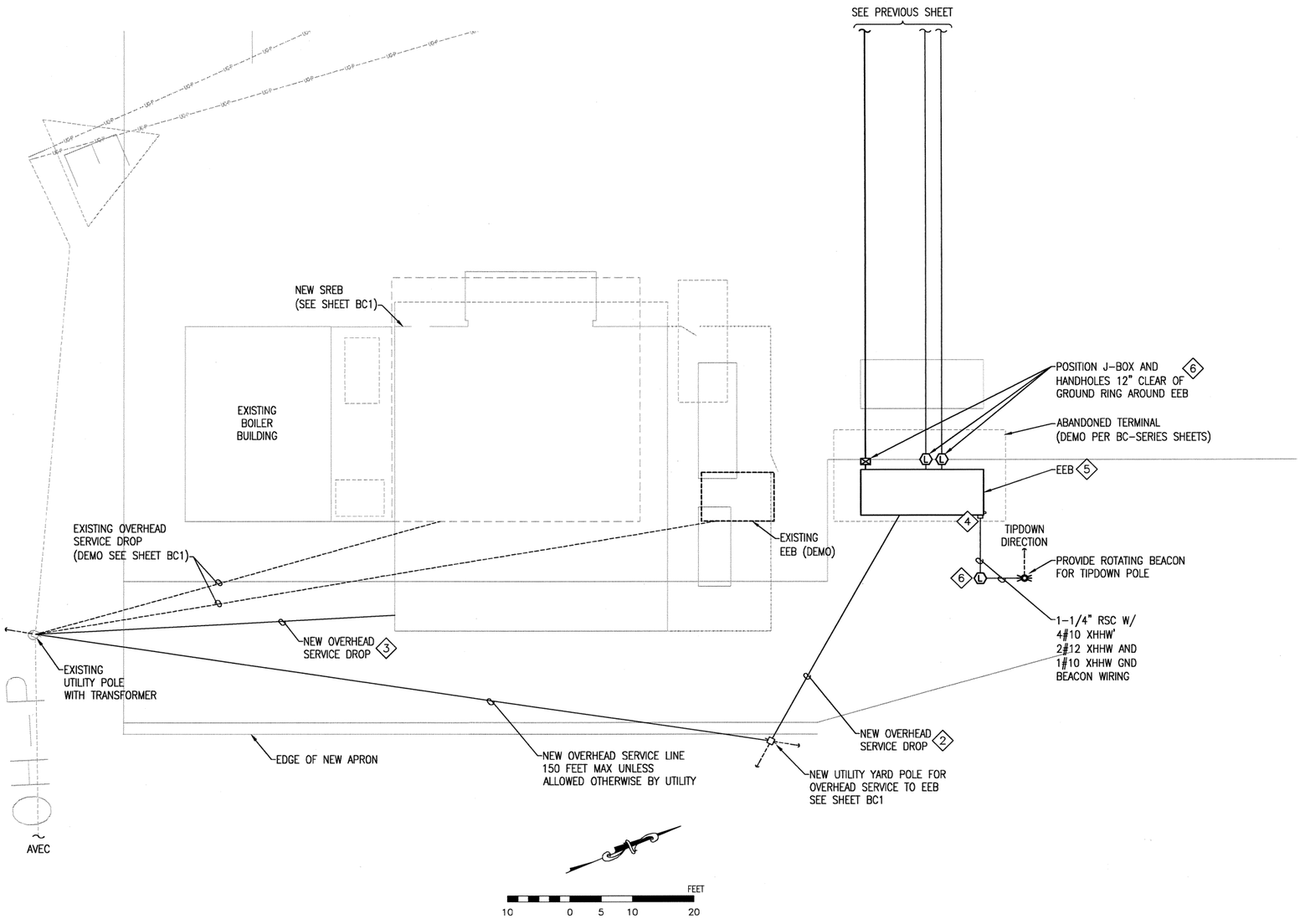
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
APPROVED _____ DATE 2·12·14
ALBERT M.L. BECK DESIGN GROUP CHIEF

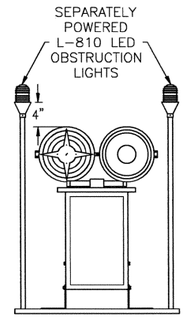
STATE OF ALASKA 49TH
Michael S. Goulding
Feb 03, 2014
EE-#7705
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
APRON DETAIL

SHEET E5 OF 81





ROTATION SPEED – 12 RPM
BEAM POWER 150 WATT
METAL HALIDE CLEAR;
150 WATT METAL HALIDE GREEN

OVERALL
DIMENSIONS
30"x20"x20"

BEACON DETAIL
NO SCALE

NOTES

1. THIS DRAWING SHEET DOES NOT SHOW APRON EXPANSION, SREB REPLACEMENT, TIPDOWN AIRPORT BEACON POLE DETAILS, AND OTHER WORK ASSOCIATED WITH THE AMBLER SREB SCOPE. REFER TO DRAWINGS WITH SHEET NUMBERS BEGINNING WITH "B".
2. COORDINATE WITH AVEC TO CONNECT OVERHEAD SERVICE LATERAL TO THE EEB. SERVICE LATERAL SHALL NOT EXCEED 50 FEET IN LENGTH. NEW EEB LOAD IS HIGHER THAN EXISTING, SEE SHEET E14.
3. COORDINATE WITH AVEC TO CONNECT OVERHEAD SERVICE LATERAL TO THE SREB. REFER TO AMBLER SREB SHEETS BE1 AND BE4 FOR ADDITIONAL LOAD INFORMATION.
4. PROVIDE AIRPORT BEACON DISCONNECT SWITCH ON EEB AND UNDERGROUND RACEWAY AND WIRING INDICATED ON SHEET E13 AND E17. NEW TIPDOWN BEACON POLE PROVIDED AS INDICATED UNDER AMBLER SREB SCOPE.
5. FAA AND DOT HAVE SEPARATE SPACES IN NEW EEB. SEE EEB ELECTRICAL PLANS FOR CONDUIT ENTRANCE.
6. HANDHOLE SHALL BE L-867, CLASS IA, SIZE B.
7. AIRPORT LIGHTING CONDUIT BURIAL DEPTH MINIMUM 18". SLOPE CONDUIT INSTALLATION TO DRAIN TOWARD HANDHOLES AND J-BOXES.

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

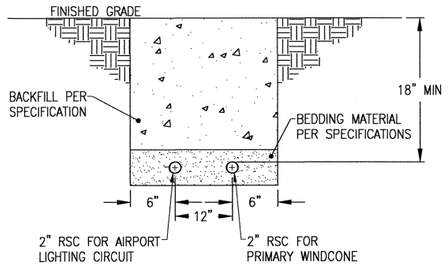
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49 TH
Michael S. Goulding
Feb 03, 2014
EE-9705
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
PDC, INC.

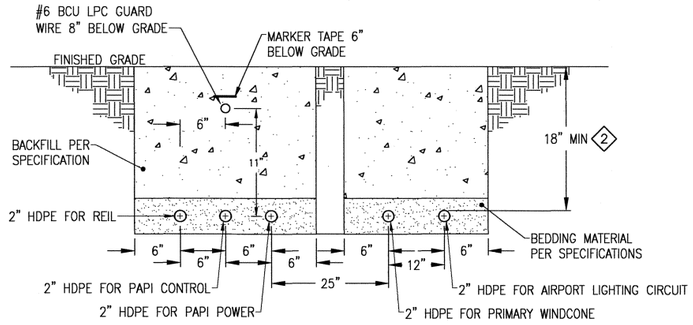
AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
EEB SITE PLAN

SHEET E6 OF 81



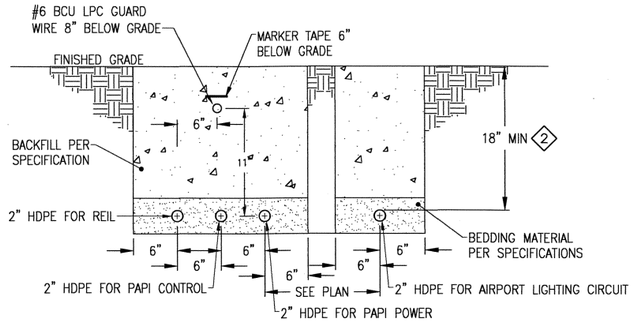
SECTION A-A TRENCH FOR AIRPORT LIGHTING AND PRIMARY WINDCONE UNDER TAXIWAY

NO SCALE



SECTION B-B
TRENCH FOR APRON WEST SIDE

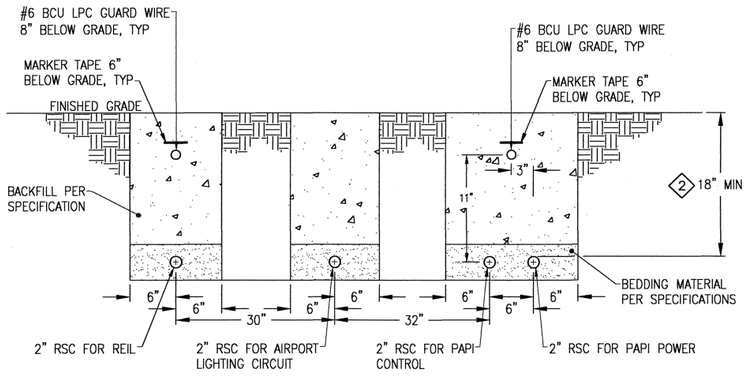
NO SCALE



SECTION C-C
TRENCH FOR TAXIWAY SOUTH SIDE

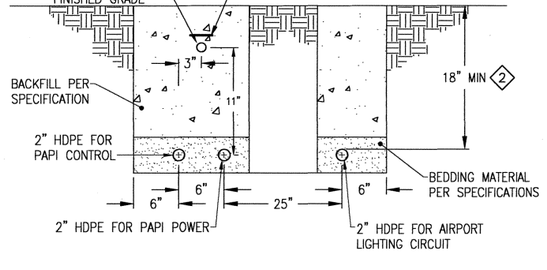
NO SCALE

SECTION CUTS ON SHEETS E2, E5 AND E22



SECTION D-D
TRENCH FOR THRESHOLD RUNWAY 01

NO SCALE



SECTION E-E
TRENCH FOR PAPI AND AIRPORT LIGHT CIRCUIT

NO SCALE

SHEET NOTES

1. All HDPE DUCTS FOR FAA PAPI AND REIL SHALL HAVE A PULL ROPE PROVIDED AS SUPPLIED BY MANUFACTURER IF NO CONDUCTORS ARE INSTALLED.

(2) PAPI/REIL CONDUIT SLOPES DOWN TO J-BOX. SEE SHEET E18.

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

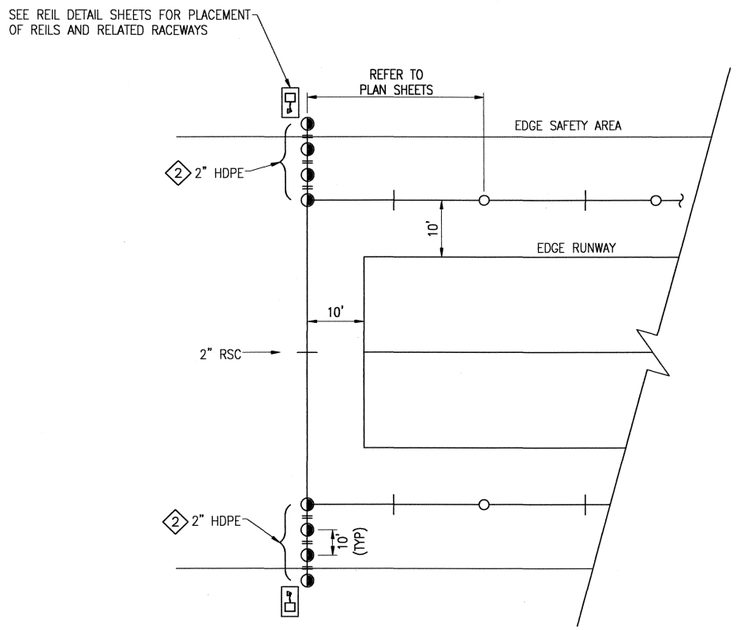
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
APPROVED
ALBERT M.L. BECK — DESIGN GROUP CHIEF
DATE 2.12.14

STATE OF ALASKA 49 TH Michael S. Goulding Feb 03, 2014 AS-14705 REGISTERED PROFESSIONAL ENGINEER

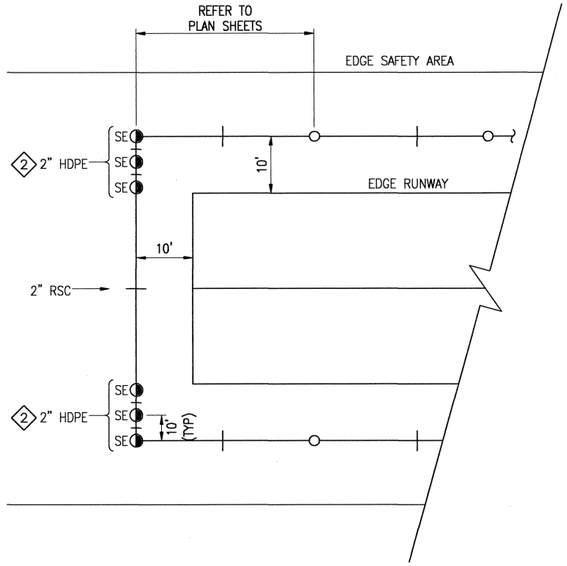
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
TRENCH SECTIONS

SHEET E7 OF 81



1 THRESHOLD LIGHTING DETAIL
RUNWAY 01
NO SCALE



THRESHOLD LIGHTING DETAIL
RUNWAY 10, 19, 28
NO SCALE

SHEET NOTES

1. IF REIL FLASHING UNITS ARE MADE OPERATIONAL THRESHOLD LIGHTS SHALL BE L-861E. IF REIL FLASHING UNITS ARE NOT MADE OPERATIONAL THRESHOLD LIGHTS SHALL BE L-861SE. COORDINATE WITH FAA.
2. SEE NEXT SHEET FOR ADDITIONAL DETAILS.

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

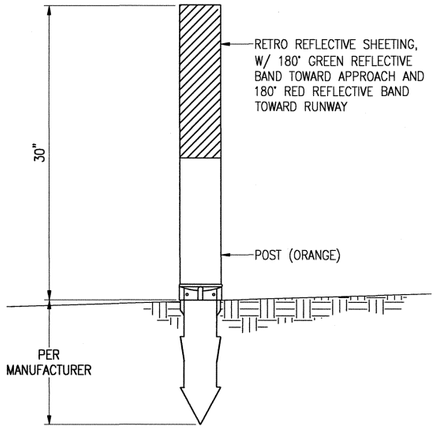
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49 TH
Michael S. Goulding
Feb 03, 2014
EE-9705
REGISTERED PROFESSIONAL ENGINEER

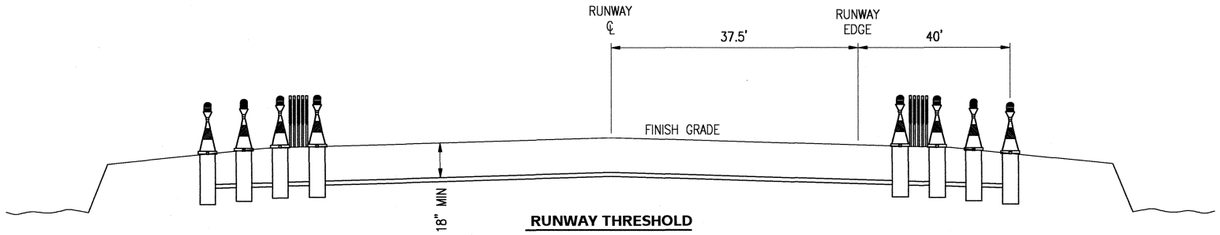
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
AIRPORT LIGHTING DETAILS (1 OF 3)

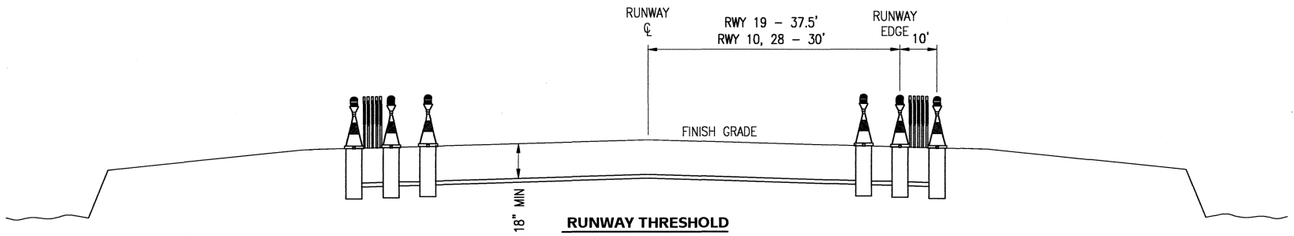
SHEET E8 OF 81



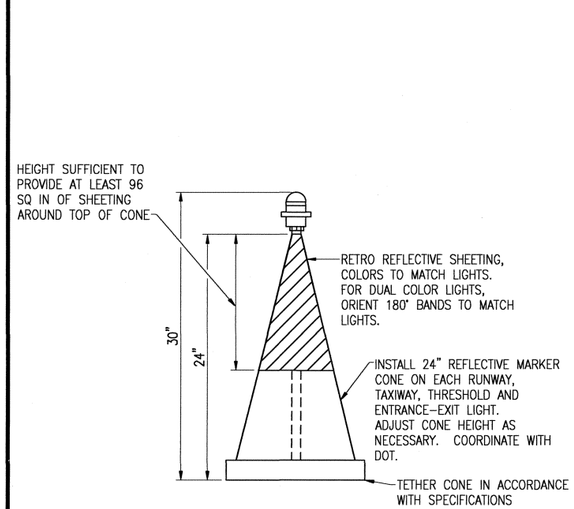
REFLECTIVE MARKER TYPE II - THRESHOLD
NO SCALE



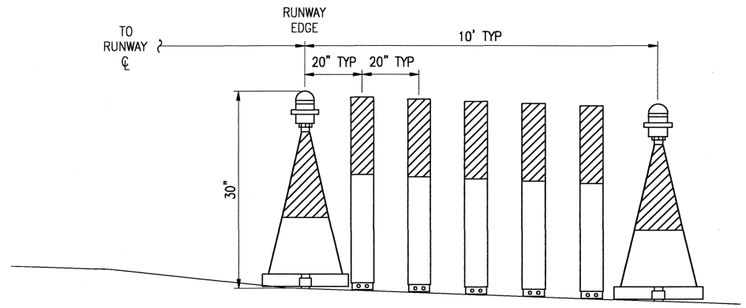
THRESHOLD LIGHTING SECTION RWY 01
NO SCALE



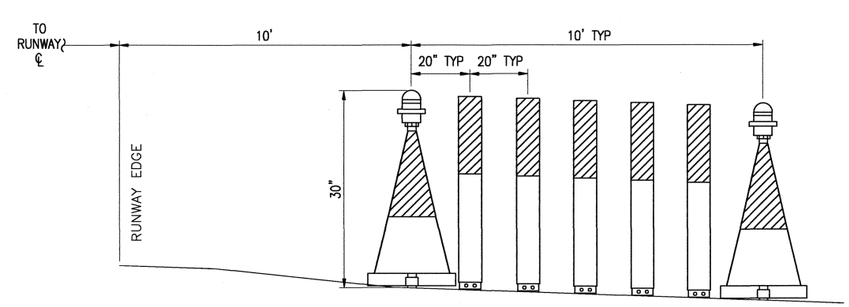
THRESHOLD LIGHTING SECTION RWY 10, 19, 28
NO SCALE



24" CONE
NO SCALE



THRESHOLD DETAIL RWY 01, 19, 28
NO SCALE



THRESHOLD DETAIL RWY 10
NO SCALE

TYPE II REFLECTIVE MARKER SCHEDULE

LOCATION	REFLECTIVE SHEETING COLOR	QTY
THRESHOLD	SEE DETAIL THIS SHEET	40
TOTAL		40

REFLECTIVE CONE SCHEDULE

LOCATION	TYPE	REFLECTIVE SHEETING COLOR	QTY
THRESHOLD LIGHTS	CONE, 24"	GREEN/RED	26
TAXIWAY LIGHTS	CONE, 24"	BLUE	15
RUNWAY LIGHTS	CONE, 24"	WHITE	53
RUNWAY LIGHTS	CONE, 24"	YELLOW/WHITE	24
TOTAL			118

DESIGN MNW
DRAWN JLC
CHECKED MSG

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STATE OF ALASKA
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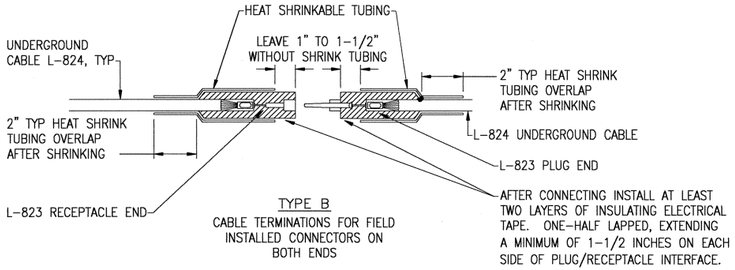
NORTHERN REGION
APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49 TH Michael S. Goulding Feb 03, 2014 EE-9705 REGISTERED PROFESSIONAL ENGINEER

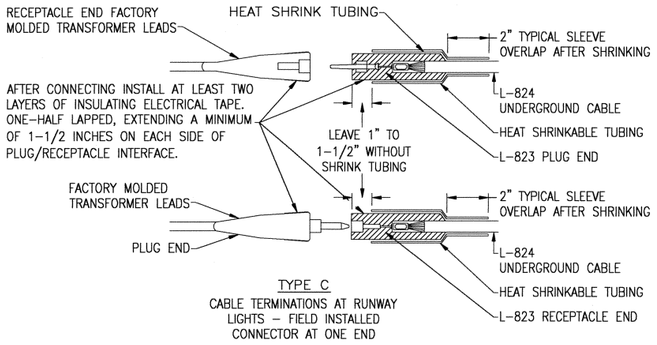
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
AIRPORT LIGHTING DETAILS (2 OF 3)

SHEET E9 OF 81



TYPE B
CABLE TERMINATIONS FOR FIELD INSTALLED CONNECTORS ON BOTH ENDS

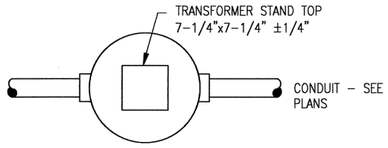


TYPE C
CABLE TERMINATIONS AT RUNWAY LIGHTS - FIELD INSTALLED CONNECTOR AT ONE END

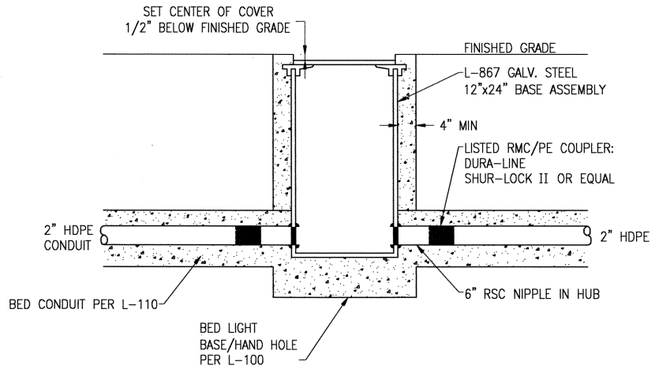
CABLE TERMINATION NOTES:

1. PROVIDE L-823 PLUG AND RECEPTACLE TERMINALS AT ALL LIGHT BASES AND HAND HOLES AS REQUIRED.
2. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
3. APPLY HEAT SHRINKABLE TUBING TO FIELD INSTALLED CONNECTORS ONLY. DO NOT APPLY TO FACTORY INSTALLED CONNECTORS. APPLY TAPE AFTER HEAT SHRINKABLE TUBING IS INSTALLED.
4. PROPERLY SEAT BOTH PLUG AND RECEPTACLE ENDS ONTO CABLE AND CHECK FOR PROPER CONNECTOR PIN POSITIONING PRIOR TO WRAPPING JOINT WITH TAPE.

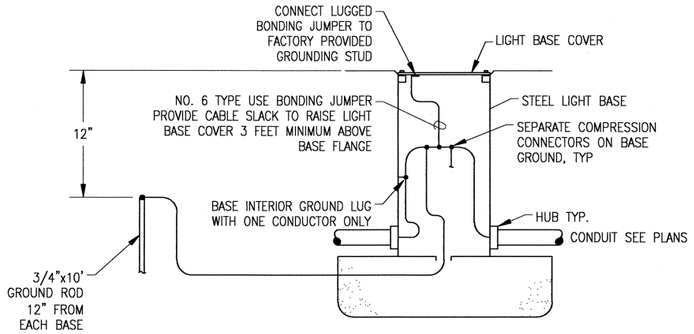
PRIMARY CABLE TERMINATION DETAILS
NO SCALE



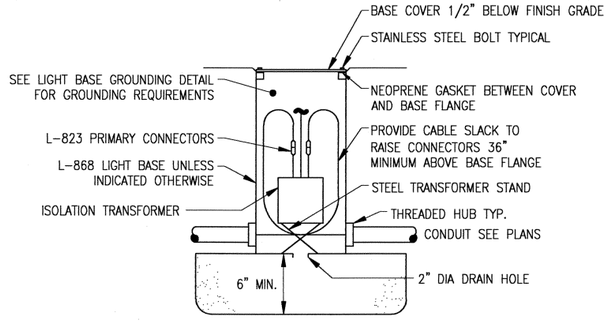
TRANSFORMER STAND IN 12" DIA. BASE
NO SCALE



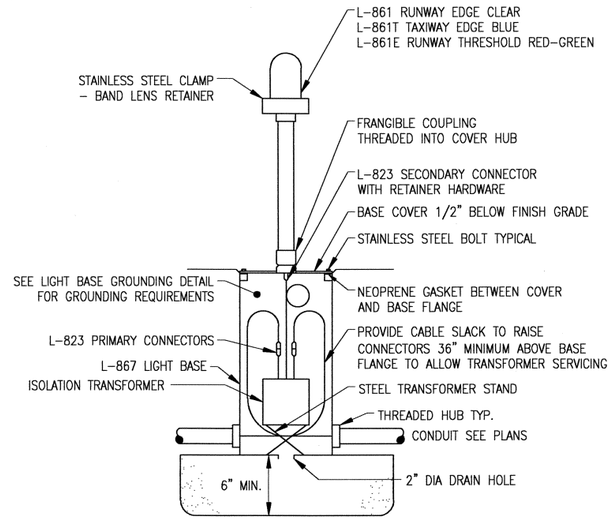
STEEL LIGHT BASE BURIAL WITH PE CONDUIT
NO SCALE



LIGHT BASE GROUNDING
NO SCALE



HANDHOLE DETAIL
NO SCALE



MEDIUM INTENSITY LIGHT DETAIL
NO SCALE

SHEET NOTES:

1. THE LIGHT BASE ASSEMBLIES SHALL BE GALVANIZED STEEL, TYPE L-867, SIZE B, CLASS IA.
2. STEEL COVERS FOR HAND HOLES AND LIGHT BASES SHALL BE RATED FOR AIRPLANE WHEEL LOADING AND AUTOMOTIVE TRAFFIC. COVER GASKET TO BE NEOPRENE.
3. STEEL COVERS FOR HAND HOLES AND LIGHT BASES SHALL BE GROUNDED. SEE GROUNDING DETAILS ON THIS SHEET.
4. TAXIWAY AND APRON LIGHTS SHALL BE INCANDESCDENT TYPE, AS INDICATED ON AIRPORT LIGHTING PLANS.

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

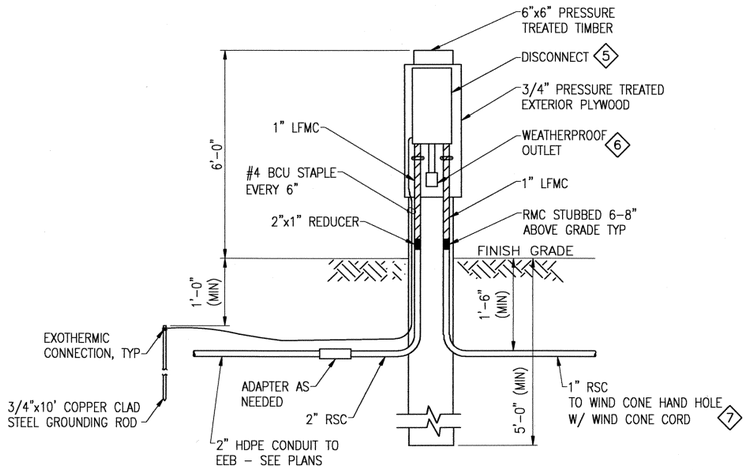
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49TH Michael S. Goulding Feb 03, 2014 EE-9795 REGISTERED PROFESSIONAL ENGINEER

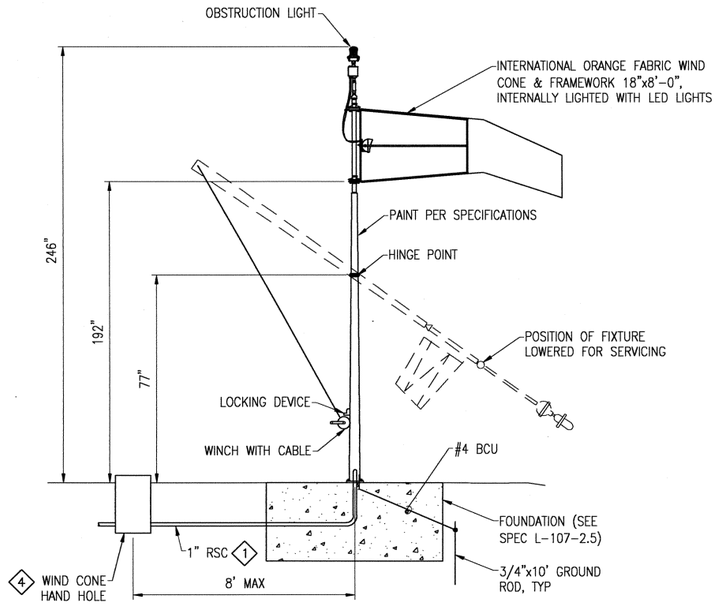
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
AIRPORT LIGHTING DETAILS (3 OF 3)

SHEET E10 OF 81



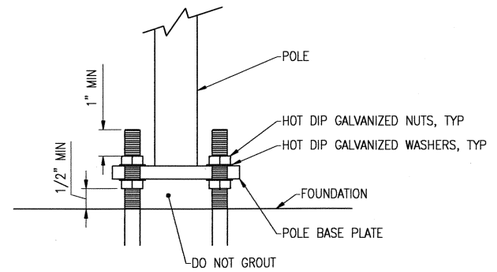
PRIMARY WIND CONE DISCONNECT - FRONT VIEW
NO SCALE



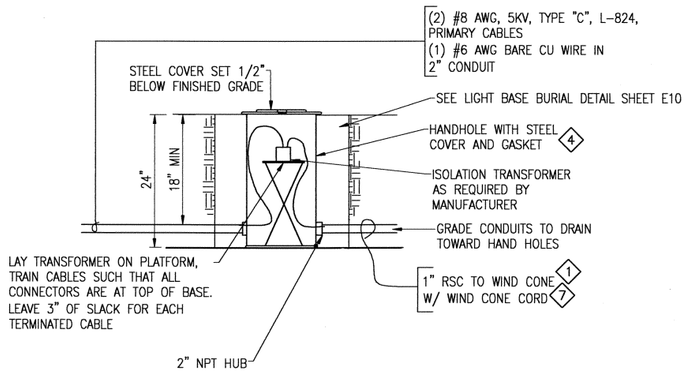
WIND CONE ASSEMBLY - TYPICAL
NO SCALE 2 3

SHEET NOTES

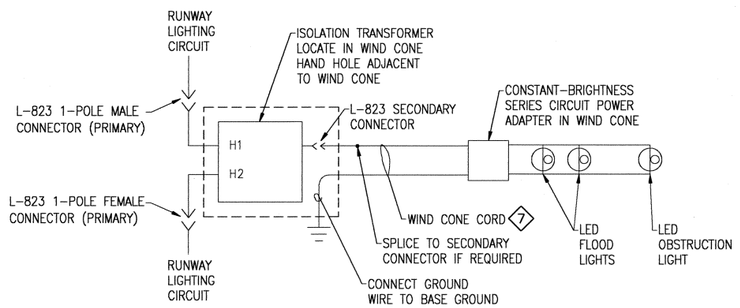
1. TYPE, SIZE, AND POSITIONING OF ANCHOR BOLTS AND ASSOCIATED HARDWARE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ANCHOR BOLTS SHALL BE THREADED FOR NUTS INDICATED. CONDUIT SIZE AND POSITIONING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. PRIMARY WIND CONE SHALL BE FAA TYPE L-807 STYLE 1-B, SIZE 1, 18" X 8', INTERNALLY LIGHTED WITH LED LIGHTS AND OBSTRUCTION LIGHT FOR OPERATION ON 120 VOLTS.
3. SUPPLEMENTAL WIND CONE SHALL BE FAA TYPE L-807 STYLE 1-B, SIZE 1, 18" X 8', INTERNALLY LIGHTED WITH LED LIGHTS AND OBSTRUCTION LIGHT FOR OPERATION ON 6.6 AMP SERIES LIGHTING CIRCUIT WITH BUILT IN CONSTANT BRIGHTNESS SERIES CIRCUIT POWER ADAPTER.
4. INSTALL L-867 HAND HOLE, CLASS IA (GALVANIZED STEEL), SIZE D (16" DIAMETER BY 24" DEEP). INSTALL WITHIN 8' OF WIND CONE.
5. PRIMARY WIND CONE DISCONNECT SHALL BE HEAVY DUTY NEMA 3R, 30 AMP BLADE TYPE, LOCKABLE, UNFUSED, WITH GROUND BAR AND INSULATED NEUTRAL BAR. CONNECT SO AS TO ISOLATE LINE POWER TO WINDCONE LIGHTS. LOCATE WITHIN 10' OF WIND CONE, ADJACENT TO HAND HOLE.
6. WEATHER PROOF OUTLET SHALL BE 20 AMP DUPLEX RECEPTACLE IN WEATHER PROOF BOX WITH "IN USE" TYPE METAL COVER. CONNECT OUTLET TO SOURCE SIDE OF WINDCONE DISCONNECT SWITCH.
7. PROVIDE WIND CONE FLEXIBLE CORD, #14 AWG, 600 V, 3 CONDUCTOR COPPER, TYPE SOOW-A/SOOW, UNLESS OTHERWISE REQUIRED BY MANUFACTURER.



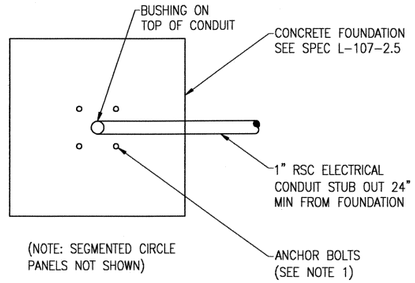
1 WIND CONE POLE MOUNTING ELEVATION
NO SCALE



SUPPLEMENTAL WIND CONE HAND HOLE DETAIL
NO SCALE



SUPPLEMENTAL WIND CONE WIRING DIAGRAM
NO SCALE



1 WIND CONE POLE MOUNTING PLAN VIEW
NO SCALE

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49 TH Michael S. Goulding Feb 03, 2014 EE-W705 REGISTERED PROFESSIONAL ENGINEER

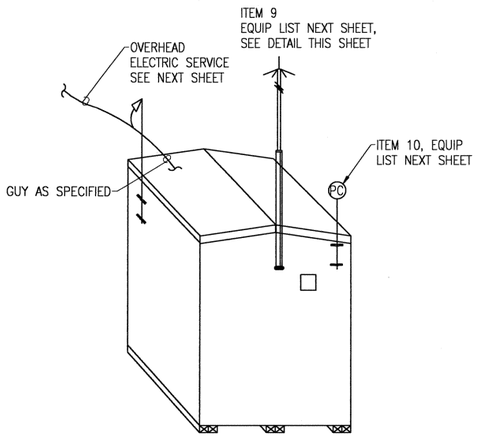
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
WIND CONE DETAILS

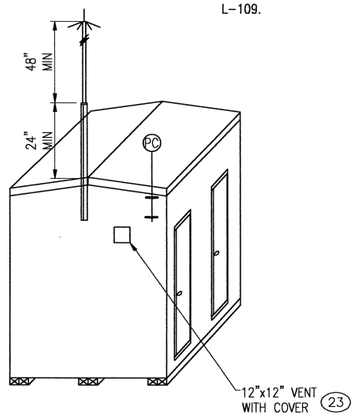
SHEET E11 OF 81

EEB NOTES:

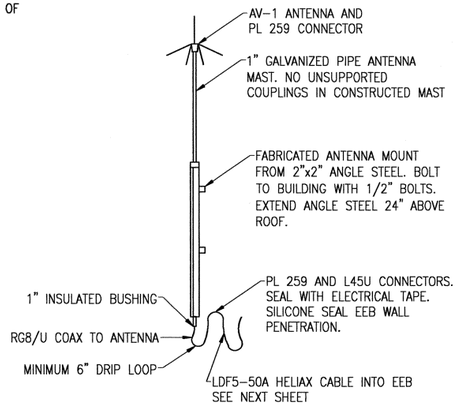
1. ELECTRICAL EQUIPMENT BUILDING (EEB) AND INCLUDED EQUIPMENT SHALL CONFORM TO SPECIFICATION L-109. CONSTRUCTION OF THE BUILDING SHALL BE AS DESCRIBED IN THE "ELECTRICAL ENCLOSURE" SECTION OF L-109.



EEB NORTHEAST ELEVATION
NO SCALE

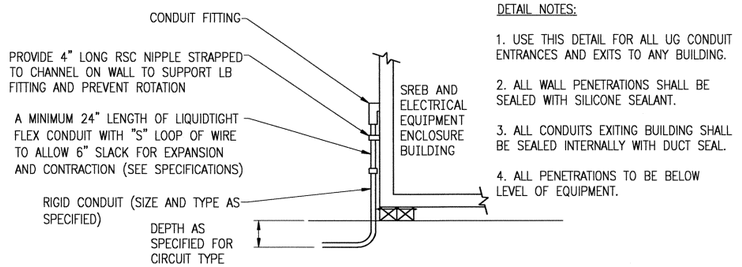


EEB NORTHWEST ELEVATION
NO SCALE



ANTENNA MOUNTING DETAIL
NO SCALE

NOTES
1. PRIME AND PAINT STEEL ANGLE SUPPORT WITH TWO COATS OF CORROSION INHIBITING ENAMEL.
2. BOLT, SPACERS AND HARDWARE SHALL BE GALVANIZED OR STAINLESS STEEL.

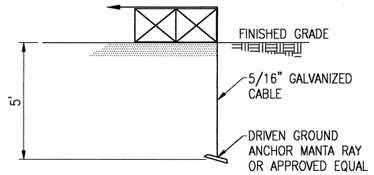


DETAIL NOTES:

1. USE THIS DETAIL FOR ALL UG CONDUIT ENTRANCES AND EXITS TO ANY BUILDING.
2. ALL WALL PENETRATIONS SHALL BE SEALED WITH SILICONE SEALANT.
3. ALL CONDUITS EXITING BUILDING SHALL BE SEALED INTERNALLY WITH DUCT SEAL.
4. ALL PENETRATIONS TO BE BELOW LEVEL OF EQUIPMENT.

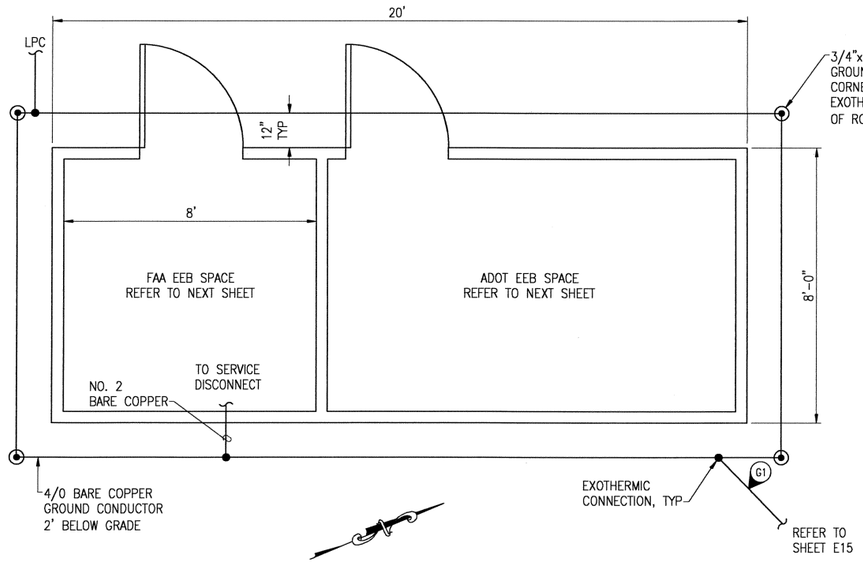
CONDUIT ENTRANCE (TYP)
NO SCALE

SECURE TIMBERS TO EQUIPMENT ENCLOSURE BUILDING FLOOR WITH 3/4" GALVANIZED MACHINE BOLTS AND COUNTERSINK BOLT HEADS INTO BOTTOM OF TIMBERS

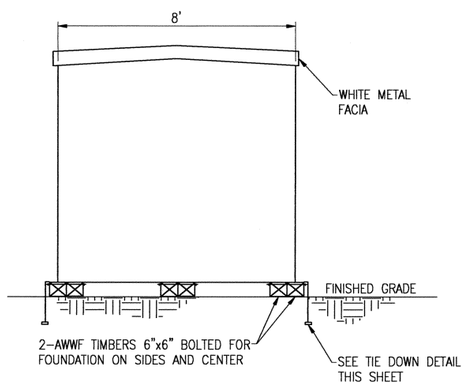


EQUIPMENT ENCLOSURE BUILDING TIE DOWN DETAIL
NO SCALE

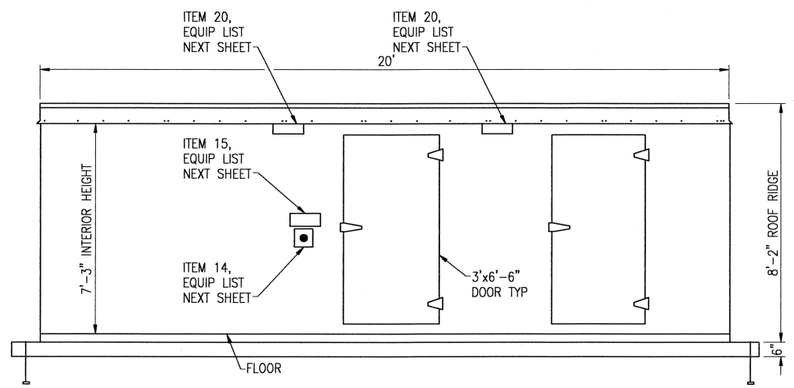
NOTE: INSTALL A TOTAL OF FOUR ANCHORS, ONE AT EACH CORNER



PLAN VIEW OF EEB BLDG
NO SCALE



EQUIPMENT ENCLOSURE BUILDING - SECTION
NO SCALE



NOTE:

1. PROVIDE PADLOCK AND PADLOCK PROVISIONS FOR DOOR.

ENCLOSURE DOOR SIDE ELEVATION
NO SCALE

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

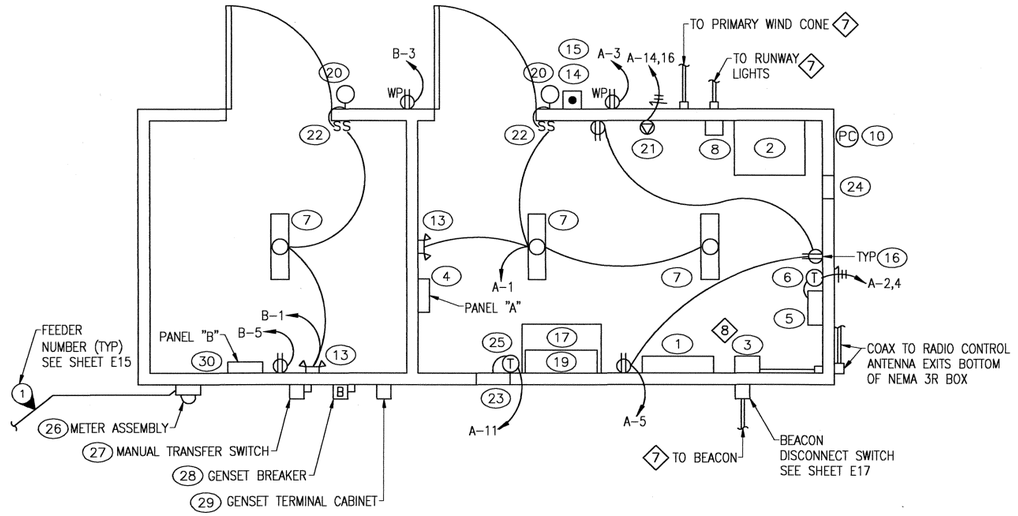
APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK — DESIGN GROUP CHIEF

STATE OF ALASKA 49 TH
Michael S. Goulding
Feb 03, 2014
EE-#7726
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
PDC, INC.

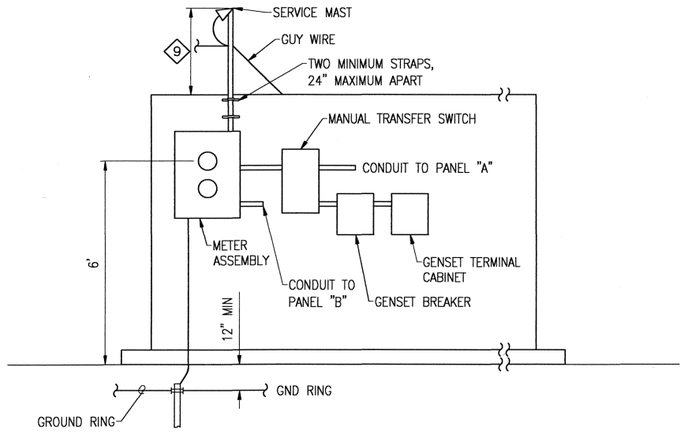
AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-_____/61303
EEB ELECTRICAL DETAILS (1 OF 3)

SHEET E12 OF 81



ELECTRICAL EQUIPMENT BUILDING PLAN

NO SCALE



ELECTRICAL EQUIPMENT BUILDING SERVICE EQUIPMENT ELEVATION

NO SCALE

EQUIPMENT LIST (OVAL NUMBERS)

ITEM	DESCRIPTION
1	LIGHTING CONTROL PANEL, L-821, MOUNT TOP AT 5'-6" ABOVE FINISHED FLOOR. SEE SPECIFICATIONS L-109.
2	CONSTANT CURRENT REGULATOR, L-828, 15 KW, 6.6A, 3-STEP. SECURE TO FLOOR WITH THROUGH BOLTS. SEE SPECIFICATIONS L-100.
3	RADIO CONTROLLER, L-854, CONTROL INDUSTRIES MODEL RC-1T5A OR APPROVED EQUAL. SEE SPECIFICATIONS L-109. MOUNT TOP AT 5'-6" ABOVE FINISHED FLOOR.
4	CIRCUIT BREAKER PANELBOARD, 225A, 120/240V, 30 SPACE, M.L.O., SURFACE MOUNT WITH COVER, DOOR, GROUND BAR KIT AND BREAKERS, 14" WIDE, SQUARE-D CAT. No. NQD30L225CU or APPROVED EQUAL. SEE SPECIFICATIONS L-109. MOUNT TOP AT 5'-6" ABOVE FINISHED FLOOR.
5	ELECTRIC HEATER, 240V, 2000W, WALL MOUNTED, MARKEL NO. H3422 OR EQUAL.
6	HEATER THERMOSTAT, LINE VOLTAGE, 40 DEGREES F TO 90 DEGREES F WITH OFF POSITION, WALL SURFACE MOUNTED ON J-BOX.
7	2-LAMP FLUORESCENT LAMP FIXTURE, LENS GASKETED FOR DAMP LOCATION RATING, LITHONIA DMS 232, OR EQUAL.
8	5-kV PLUG CUT-OUT, SEPCO No. 30196 WITH NEMA 1 HINGED DOOR ENCLOSURE, SIZED 14" x 12" x 8" (H,W,D), OR APPROVED EQUAL.
9	RADIO CONTROL ANTENNA, ANTENNA SPECIALIST MODEL AV-1, OR APPROVED EQUAL. REFER TO PREVIOUS SHEET. NOT SHOWN THIS SHEET.
10	PHOTOELECTRIC CONTROL, TORK NO. 2101 OR APPROVED EQUAL, MOUNTED ON 1" RSC @2'-6" ABOVE EEB ROOF.
11	NOT USED
12	NOT USED
13	EMERGENCY LIGHT, 90 MIN. RATING, DUAL-LITE LM30N OR APPROVED EQUAL
14	PUSH BUTTON STATION-GENERAL ELECTRIC NO. CR2943AJ202B OR APPROVED EQUAL.
15	SIGN TO READ: PUSH TO TURN RUNWAY LIGHTS ON. AUTO OFF IN 15 MIN.
16	DUPLEX RECEPTACLE, 20A, 125V, NEMA 5-20R, BRYANT 5262-I OR EQUAL.
17	METAL WALL DESK, 34.25"X28"X13", SLOPE TOP WITH PIGEON HOLE SHELVES AND LOCKING DRAWER, MCMASTER-CARR CATALOG NO. 4808T18. MOUNT DESK TOP AT 43" ABOVE FINISHED FLOOR.
18	METAL CHAIR (ADJUSTABLE LEGS) WITH BACK SUPPORT FOR DESK: MCMASTER-CARR MODEL 4813T1. (NOT SHOWN)
19	METAL WALL CABINET (LOCKABLE) MCMASTER-CARR 30"X12"X30" WITH TWO SHELVES. MOUNT ON WALL ABOVE DESK.
20	LED EXTERIOR WALLBRACKET LIGHTING FIXTURE, LITHONIA, CAT. NO. WST-LED-2-SR3-120-DWHXD, OR EQUAL. MOUNT ADJACENT TO BOTTOM OF FACIA.
21	SINGLE RECEPTACLE, 20A, 240V, NEMA 6-20R, BRYANT 5462-I OR EQUAL.
22	SWITCH, SINGLE POLE, 20A, 120V, BRYANT 4901-I OR EQUAL.
23	EXHAUST FAN, GRAINGER NO. 1HLA2
24	SHUTTER, GRAINGER NO. 1C742 WITH MOTOR OPERATOR GRAINGER NO. 2C831
25	THERMOSTAT, COOLING, LINE VOLTAGE
26	METER ASSEMBLY. SOCKET IS RING TYPE, 4 JAW, NEMA 3R, TWO-POSITION METER CENTER, SQUARE D MP42200 OR EQUAL, WITH 200A AND 100A BREAKER, SQUARE D QOM2200MVH AND QOM2100MVH, RESPECTIVELY. METERS PROVIDED BY AVEC.
27	MANUAL TRANSFER SWITCH, NEMA 3R 240V, 200A, 3 POLE, SN
28	GENSET BREAKER, SEE ONE-LINE
29	GENSET TERMINAL CABINET, SEE ONE-LINE.
30	CIRCUIT BREAKER PANELBOARD, 100A, 120/240V, 30 SPACE, M.L.O., SIMILAR TO PANEL "A" EXCEPT 100A (ITEM 4).

SYMBOLS

	FLUORESCENT FIXTURE WITH JUNCTION BOX
	WALL MOUNTED, BATTERY OPERATED EMERGENCY FIXTURE
S	SINGLE POLE SWITCH
	DUPLEX RECEPTACLE
	GROUND-FAULT CIRCUIT INTERRUPTER (GFCI) DUPLEX RECEPTACLE
	SPECIAL PURPOSE RECEPTACLE; Nema Type As Shown
J	JUNCTION BOX
	DISCONNECT SWITCH NON-FUSED
	MISC PANEL
	BRANCH CIRCUIT HOME RUN TO PANELBOARD – No. of Arrows Indicates Number of Circuits, Panel and Circuit Numbers As Shown
	NUMBER OF CONDUCTORS IN RACEWAY – Absence of marks indicates one line and one neutral conductor and equipment grounding conductor, EGC in all raceways. Equipment grounding conductor indicated.
T	THERMOSTAT

NOT ALL SYMBOLS ARE USED

MOUNTING HEIGHT SCHEDULE

* SWITCHES	4'-0"
* OUTLETS	2'-0"
BRANCH PANELS (TOP)	5'-6"
DISCONNECT SWITCHES (TOP)	5'-6"

MOUNTING HEIGHTS SHALL PREVAIL ON ALL NEW CONSTRUCTION UNLESS OTHERWISE NOTED.

MOUNTING HEIGHTS ARE TO CENTER AND ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.

* MOUNTING HEIGHTS COMPLY WITH ICC/ANSI A117.1-03

NOTES:

1. ALL FIXTURES AND DEVICES TO BE SURFACE MOUNTED. ALL INTERIOR 120/240V WIRING SHALL BE IN 3/4" EMT (UNLESS INDICATED OTHERWISE), SURFACE MOUNTED, AND ITS LOCATION SHALL BE COMPLETELY SHOWN ON CONTRACTOR'S REDLINE DRAWINGS.
2. PROVIDE AND INSTALL AN INSULATED GREEN-COLOR-CODED EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT TO GROUND ALL ELECTRICAL FIXTURES AND DEVICES, INCLUDING J-BOXES.
3. ALL CIRCUIT BREAKERS SHALL BE QUICK-MAKE, QUICK-BREAK, THERMAL MAGNETIC TYPE, BOLT,-ON, WITH TRIP INDICATION. SQUARE D QOB OR EQUAL.
4. ALL ELECTRICAL METHODS, TECHNIQUES, AND MATERIAL SHALL CONFORM TO THE 2011 EDITION OF THE N.E.C.
5. ALL WALL PENETRATIONS SHALL BE SEALED WITH SILICONE SEALANT.
6. COOLING THERMOSTAT TO BE CONNECTED TO ENERGIZE BOTH FAN MOTOR AND SHUTTER MOTOR WHEN CALLING FOR COOLING.

7 SEE SHEETS E5 AND E6 FOR RACEWAYS.

8 PROVIDE 6"x6" SQUARE DUCT UNDER LIGHTING CONTROL PANEL AND RADIO CONTROLLER.

9 HEIGHT OF SERVICE MAST SHALL BE SUFFICIENT TO KEEP THE SERVICE LATERAL 13 FEET MINIMUM ABOVE FINISH GRADE.

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49TH Michael S. Goulding Feb 03, 2014 EE-9705 REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
EEB ELECTRICAL DETAILS (2 OF 3)

SHEET E13 OF 81

PANEL "A"

VOLTAGE: 120/240V, 1PH, 3W
BUS: 225A
MAIN: MAIN LUGS ONLY

CIRCUIT BREAKER PANELBOARD
MIN. A.I.C. RATING: 10,000
CIRCUITS: 30

ENCLOSURE: NEMA 1
MOUNTING: SURFACE
LOCATION: ADOT SPACE

LOAD	LOAD DESCRIPTION	NOTE	VA	AMP	P	CKT	PHASE	CKT	P	AMP	VA	NOTE	LOAD DESCRIPTION	LOAD
1	ENCLOSURE LIGHTING		200	20	1	1	A	2	2	20	1000		ELECTRIC HEATER	6
2	RECEPTACLE – EXTERIOR	1	180	20	1	3	B	4	–	–	1000		" "	6
2	RECEPTACLE – INTERIOR		540	20	1	5	A	6	1	20	100		LIGHTING CONTROL PANEL	6
5	LIGHTING REGULATOR	2, 3	7500	80	2	7	B	8	2	20	510		ROTATING BEACON & MOTOR	6
5	" "	2, 3	7500	–	–	9	A	10	–	–	400		BEACON STRIP HEATER	6
4	EXHAUST FAN AND SHUTTER MOTOR		240	20	1	11	B	12	1	15	50		BEACON OBSTRUCTION LIGHTS	1
6	PRIMARY WIND CONE – LED		1200	20	1	13	A	14	2	20	360		RECEPTACLE, NEMA 6-20R	5
8	SPARE		1000	20	1	15	B	16	–	–	360		" "	5
						17	A	18	1	20	1000		SPARE	8
						19	B	20						
						21	A	22						
						23	B	24						
						25	A	26						
						27	B	28						
						29	A	30						

LOAD SUMMARY AND CODE	DEFINITIONS	CONNECTED KVA PH A	PH B	TOTAL	% DIV	NEC TOTAL
1	LIGHTING =	0.2	0.1	0.3	125%	0.3
2	RECEPTACLES =	0.5	0.2	0.7	10K+50%	0.7
3	MOTORS =				100%	
4	LARGEST MOTOR =		0.2	0.2	125%	0.3
5	MISC. NON-CONTINUOUS =	7.9	7.9	15.7	100%	15.7
6	MISC. CONTINUOUS =	2.7	1.5	4.2	125%	5.3
7	NON-COINCIDENTAL =				0%	
8	SPARE =	1.0	1.0	2.0	100%	2.0
9	OTHER =				100%	
TOTAL KVA (PHASE)		12.3	10.8	23.1		24.3
TOTAL AMPERES		102.5	90.3	96.4		101.3

NOTES:
1. GFCI BREAKER (5mA).
2. ACTUAL APPROXIMATE LOAD 11000 VA TOTAL.
3. ADJUST BREAKER SIZE TO MANUFACTURERS RECOMMENDATION.

PANEL "B"

VOLTAGE: 120/240V, 1PH, 3W
BUS: 100A
MAIN: MAIN LUGS ONLY

CIRCUIT BREAKER PANELBOARD
MIN. A.I.C. RATING: 10,000
CIRCUITS: 30

ENCLOSURE: NEMA 1
MOUNTING: SURFACE
LOCATION: FAA SPACE

LOAD	LOAD DESCRIPTION	NOTE	VA	AMP	P	CKT	PHASE	CKT	P	AMP	VA	NOTE	LOAD DESCRIPTION	LOAD
1	ENCLOSURE LIGHTING		125	20	1	1	A	2						
2	RECEPTACLE – EXTERIOR	1	180	20	1	3	B	4						
2	RECEPTACLE – INTERIOR		180	20	1	5	A	6						
						7	B	8						
						9	A	10						
						11	B	12						
						13	A	14						
						15	B	16						
						17	A	18						
						19	B	20						
						21	A	22						
						23	B	24						
						25	A	26						
						27	B	28						
						29	A	30						

LOAD SUMMARY AND CODE	DEFINITIONS	CONNECTED KVA PH A	PH B	TOTAL	% DIV	NEC TOTAL
1	LIGHTING =	0.1		0.1	125%	0.2
2	RECEPTACLES =	0.2	0.2	0.4	10K+50%	0.4
3	MOTORS =				100%	
4	LARGEST MOTOR =				125%	
5	MISC. NON-CONTINUOUS =				100%	
6	MISC. CONTINUOUS =				125%	
7	NON-COINCIDENTAL =				0%	
8	SPARE =				100%	
9	OTHER =				100%	
TOTAL KVA (PHASE)		0.3	0.2	0.5		0.5
TOTAL AMPERES		2.5	1.5	2.0		2.2

NOTES:
1. GFCI BREAKER (5mA).

SHEET NOTES

1. TOTAL LOAD IS SUM OF THE PANEL LOADS.

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

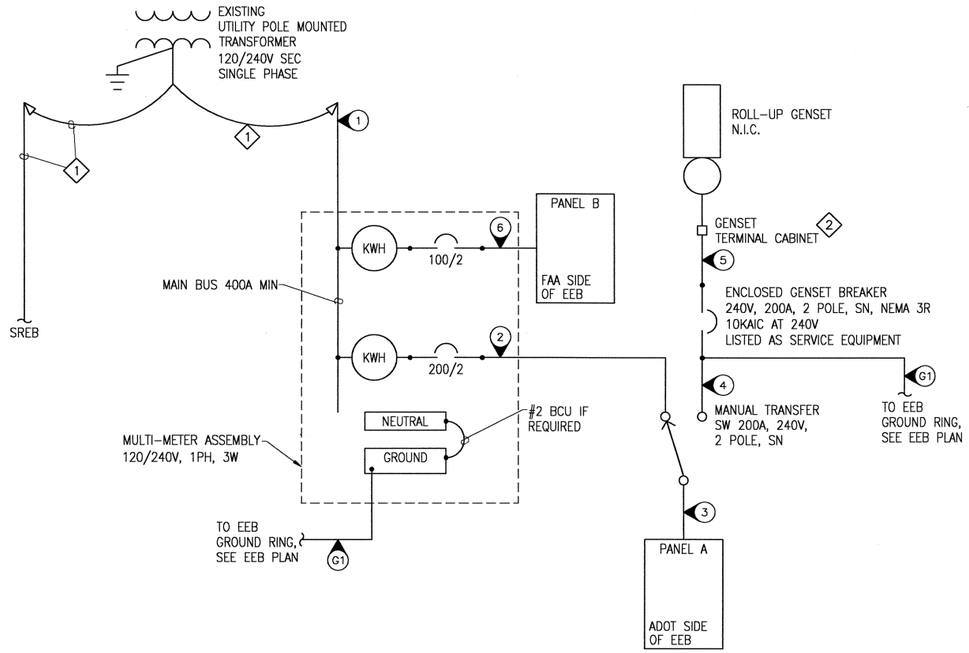
APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49 TH
Michael S. Goulding
Feb 03, 2014
EE-9705
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-_____/61303
EEB ELECTRICAL DETAILS (3 OF 3)

SHEET E14 OF 81



POWER ONE-LINE DIAGRAMS
NO SCALE

SHEET NOTES

1. SEE SHEET E6 FOR OVERHEAD SERVICE WORK.
2. GENSET TERMINAL CABINET SHALL BE NEMA 3R TOP-HINGED COVER ENCLOSURE, 18"H X 12"W X 6"D, WITH FOUR 2-HOLE BOXED LUG MODULAR TERMINAL BLOCKS (L1, L2, N, G), WIRE RANGE #4 TO 250 KCMIL MIMIMUM, ILSCO LDA/LDB SERIES OR EQUAL.

LEGEND

(X) FEEDER NUMBER, SEE FEEDER SCHEDULE THIS SHEET.

FEEDER SCHEDULE

NO.	CONDUCTORS	RACEWAY TYPE & SIZE	REMARKS
1	3 NO. 350 KCMIL XHHW	2-1/2" RSC	SUPPORTS 300A CODE LOAD
2	3 NO. 3/0 XHHW 1 NO. 4 XHHW GND	2" RSC	
3	3 NO. 3/0 XHHW 1 NO. 6 XHHW GND	2" RSC	
4	3 NO. 3/0 XHHW 1 NO. 4 XHHW GND	2" RSC	
5	3 NO. 3/0 XHHW 1 NO. 4 XHHW GND	2" RSC	
6	3 NO. 2 XHHW 1 NO. 8 XHHW GND	1-1/4" RSC	
G1	1 NO. 2 BCU	NONE	GROUNDING ELECTRODE CONDUCTOR TO GROUND ROD AND GROUND RING AT EEB.

DESIGN MNW
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PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-_____/61303
POWER ONE-LINE DIAGRAM

SHEET E15 OF 81

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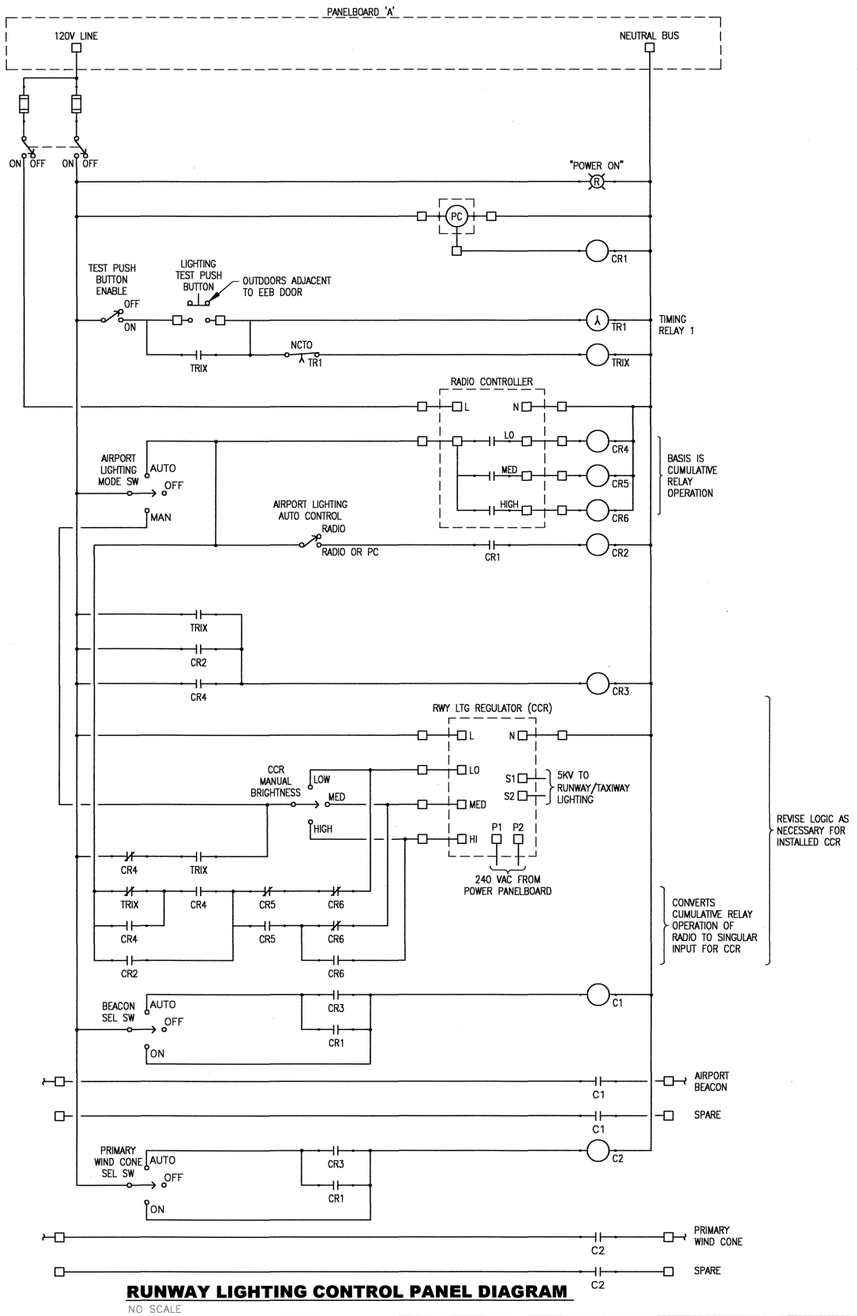
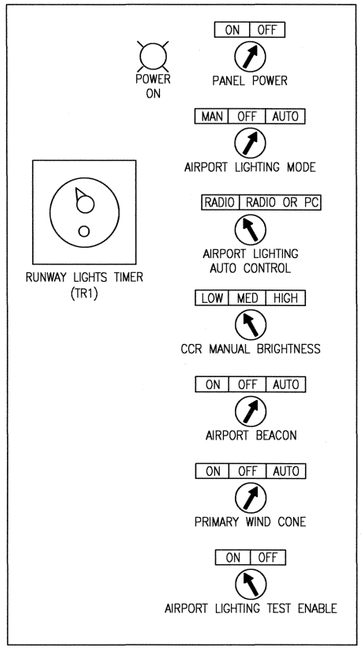


RUNWAY LIGHTING CONTROL PANEL DIAGRAM

NO SCALE



CONTROL PANEL FRONT LAYOUT

NO SCALE

NOTES:

1. RELAYS CR4, CR4X, AND TR1X SHALL BE 4PDT MINIMUM FOR SCHEMATIC SHOWN. ALL OTHER CONTROL RELAYS CRx SHALL BE SIZED BY THE SUPPLIER AND/OR CONTRACTOR TO MEET REQUIREMENTS.
2. POWER RELAYS C1 AND C2 SHALL BE DPDT 30A CONTACTS RATED FOR 1-1/2 HP AT 120 OR 240 VAC.
3. TIMING RELAY TR1 SHALL BE ADJUSTABLE 0-30 MIN. BASIS OF DESIGN IS EAGLE SIGNAL 120VAC SYNCHRONOUS MOTOR DRIVEN RESET TIMER NO. HP5-6-A6 OR EQUAL.

AIRPORT LIGHTING CONTROL PANEL:

THE AIRPORT LIGHTING CONTROL PANEL COORDINATES AUTOMATIC CONTROL OF AIRPORT LIGHTING BASED ON DAY/NIGHT LIGHT SENSING, AND REMOTE RADIO SIGNALS FROM AIRCRAFT. THE PANEL ALSO ALLOWS MANUALLY INITIATED TESTING, AND COMPLETE MANUAL OPERATION OF LIGHTING FROM THE ELECTRICAL EQUIPMENT BUILDING (EEB). AIRPORT LIGHTING CONTROLLED MINIMALLY INCLUDES RUNWAY/TAXIWAY LIGHTING, AIRPORT BEACON, AND PRIMARY WIND CONE.

SUPPLEMENTARY WIND CONES ARE NORMALLY POWERED DIRECTLY FROM THE RUNWAY LIGHTING CIRCUIT, SEE PLANS FOR INFORMATION.

SEE SPECIFICATION L-109 FOR ADDITIONAL REQUIREMENTS.

CONTROL PANEL FEATURES:

PANEL ON/OFF SWITCH AND PILOT LIGHT:
THIS IS THE MAIN POWER SWITCH FOR THE CONTROL PANEL AND ASSOCIATED RADIO CONTROLLER. THE PILOT LIGHT INDICATES THE CONTROL PANEL IS ENERGIZED.

AIRPORT LIGHTING MODE – THREE POSITION SWITCH
SELECTS THE AIRPORT LIGHTING MODE.
"MAN": AIRPORT LIGHTING ON; RUNWAY/TAXIWAY LIGHTING AT MANUALLY SELECTED BRIGHTNESS. NO "RADIO CONTROL OVERRIDE" FUNCTIONALITY.
"OFF": AIRPORT LIGHTING OFF.
"AUTO": AIRPORT LIGHTING CONTROLLED BY RADIO CONTROLLER AND PHOTOCELL, WITH "RADIO CONTROL OVERRIDE" FUNCTIONALITY.

AIRPORT LIGHTING AUTO CONTROL – TWO POSITION SWITCH
SELECTS THE AIRPORT LIGHTING AUTOMATIC CONTROL MODE.
"RADIO": AIRPORT LIGHTING CONTROLLED BY RADIO CONTROLLER ONLY.
"RADIO OR PC": AIRPORT LIGHTING CONTROLLED BY RADIO CONTROLLER OR PHOTOCELL. CCR OUTPUT IS "LOW" WHEN TURNED ON BY PHOTOCELL ALONE.

CCR MANUAL BRIGHTNESS – THREE POSITION SWITCH
ALLOWS MANUAL SELECTION OF THE THREE RUNWAY/TAXIWAY LIGHTING INTENSITY LEVELS (LOW, MEDIUM, HIGH) WHEN THE AIRPORT LIGHTING MODE SELECTOR SWITCH IS IN THE "MAN" POSITION, AND DURING AIRPORT LIGHTING TEST WHEN THE AIRPORT LIGHTING MODE SELECTOR SWITCH IS IN THE "AUTO" POSITION.

AIRPORT BEACON MODE – THREE POSITION SWITCH
SELECTS THE AIRPORT BEACON OPERATING MODE.
"ON": AIRPORT BEACON ON CONTINUOUSLY.
"OFF": AIRPORT BEACON OFF.
"AUTO": AIRPORT BEACON CONTROLLED BY RADIO CONTROLLER OR PHOTOCELL.

PRIMARY WIND CONE MODE – THREE POSITION SWITCH
FUNCTION SIMILAR TO "AIRPORT BEACON MODE" SWITCH.

AIRPORT LIGHTING TEST ENABLE – TWO POSITION SWITCH
ENABLES AIRPORT LIGHTING TEST TO BE INITIATED FROM THE EXTERIOR "AIRPORT LIGHTING TEST" PUSHBUTTON.

RADIO CONTROL OVERRIDE:
WHEN "AIRPORT LIGHTING TEST" IS ACTIVE THE CCR BRIGHTNESS IS NORMALLY SELECTED WITH THE "CCR MANUAL BRIGHTNESS" SWITCH. IF A PILOT ASSERTS CONTROL OF RUNWAY/TAXIWAY LIGHTING THROUGH THE RADIO CONTROLLER, THE CCR BRIGHTNESS SETTING COMMANDED BY THE PILOT OVERRIDES THE SETTING OF THE "CCR MANUAL BRIGHTNESS" SWITCH.

EXTERNAL DEVICES AND EQUIPMENT:

RUNWAY LIGHTING REGULATOR (CCR):
THE CCR PROVIDES CONSTANT CURRENT POWER TO THE RUNWAY/TAXIWAY LIGHTING SERIES CIRCUIT. THE CCR HAS THREE OUTPUT CURRENT OR INTENSITY LEVELS (LOW, MEDIUM, HIGH), ASSERTED BY SIGNALS FROM THE AIRPORT LIGHTING CONTROL PANEL.

RADIO CONTROLLER:
THE RADIO CONTROLLER UNIT HAS THREE OUTPUT RELAYS (LOW, MEDIUM, HIGH) THAT ARE OPERATED BASED UPON 3, 5, OR 7 PULSES BEING RECEIVED FROM THE AIRCRAFT PILOT ON THE LOCAL COMMON TRAFFIC ADVISORY FREQUENCY (CTAF). AIRPORT LIGHTING EQUIPMENT MODE MUST BE IN "AUTO" FOR RADIO CONTROL TO BE FUNCTIONAL; THE RECEPTION OF 3, 5, OR 7 RADIO PULSES WILL SET THE LIGHTING REGULATOR TO THE CORRESPONDING INTENSITY LEVEL. AFTER ACTIVATION BY RADIO PULSES, THE RADIO CONTROL UNIT AUTOMATICALLY TURNS OFF ALL RUNWAY LIGHTS AND OTHER CONTROLLED LIGHTING AFTER 15 MINUTES ELAPSED TIME, UNLESS, THE PILOT AGAIN INITIATED RADIO COMMAND.

PHOTOCELL:
THE EXTERIOR-MOUNTED PHOTOCELL TRANSMITS DAY/NIGHT LIGHTING LEVEL STATUS TO THE AIRPORT LIGHTING CONTROL PANEL. THE PHOTOCELL SIGNAL IS UTILIZED FOR FUNCTIONALITY DESCRIBED UNDER SECTION "CONTROL PANEL FEATURES".

AIRPORT LIGHTING TEST PUSHBUTTON:
MOMENTARY PUSHBUTTON LOCATED ON THE ELECTRICAL EQUIPMENT BUILDING EXTERIOR. IF ENABLED FOR OPERATION BY THE "AIRPORT LIGHTING TEST ENABLE" SWITCH, TURNS ON RUNWAY/TAXIWAY LIGHTS WITH SUPPLEMENTAL WIND CONES, AND TURNS ON THE AIRPORT BEACON AND PRIMARY WIND CONE IF THEIR RESPECTIVE OPERATING MODE IS "AUTO".

RUNWAY LIGHTING REGULATOR:
THE RUNWAY LIGHTING REGULATOR PROVIDES POWER TO RUNWAY LIGHTS. IT HAS THREE INTENSITY LEVELS (LOW, MEDIUM, AND HIGH) SET EITHER BY MANUAL SELECTOR SWITCH OR BY RADIO ON THE LOCAL CTAF.

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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APPROVED
ALBERT M.L. BECK — DESIGN GROUP CHIEF
DATE 2.12.14

STATE OF ALASKA 49TH
Michael S. Goulding
Feb 03, 2014
EE-9705
REGISTERED PROFESSIONAL ENGINEER

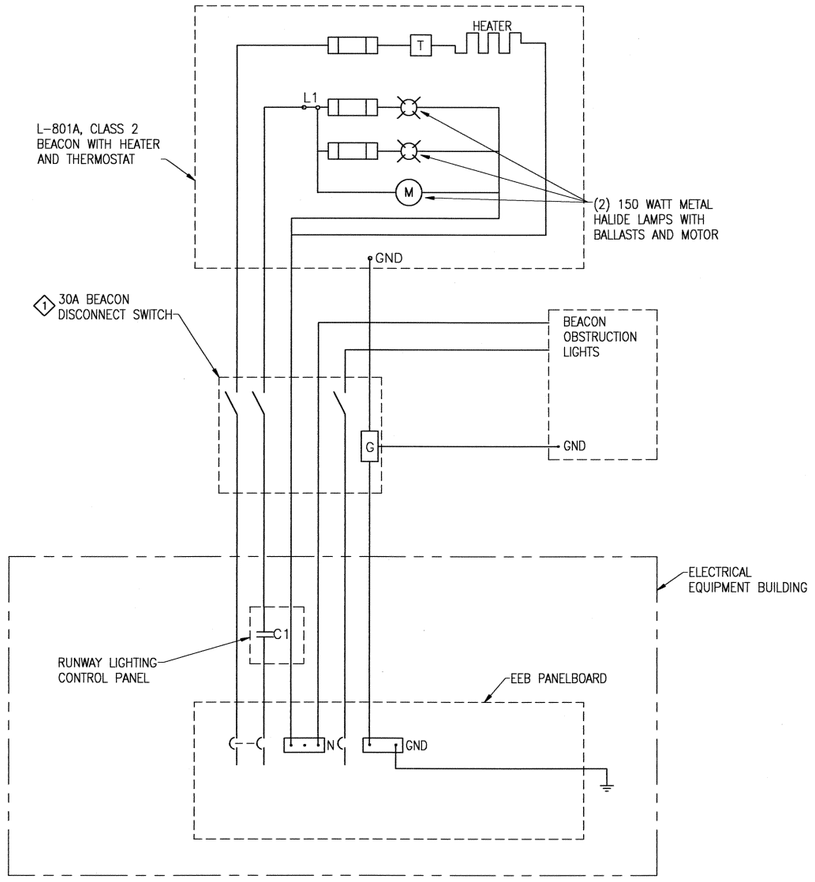
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
AIRPORT LIGHTING CONTROL (1 OF 2)

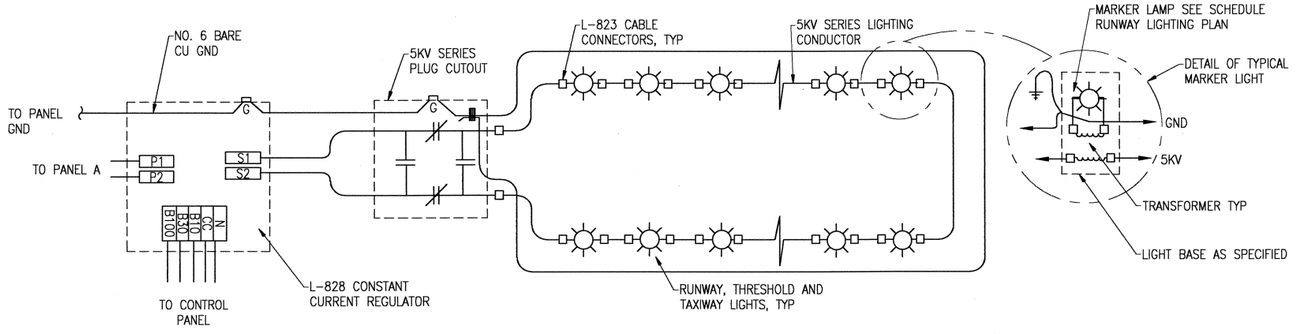
SHEET E16 OF 81

ROTATING BEACON NOTES:

① DISCONNECT SHALL BE HEAVY DUTY NEMA 3R, 240V, 30 AMP BLADE TYPE, LOCKABLE, UNFUSED, WITH GROUND BAR.



ROTATING BEACON WIRING SCHEMATIC



RUNWAY LIGHTING ONE LINE DIAGRAM
NO SCALE

DESIGN MNW
DRAWN JLC
CHECKED MSG

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NORTHERN REGION
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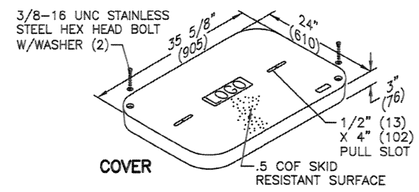
ALBERT M.L. BECK — DESIGN GROUP CHIEF

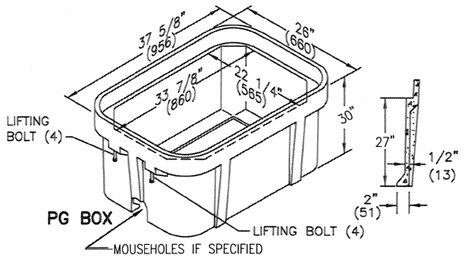
STATE OF ALASKA 49 TH Michael S. Goulding Feb 03, 2014 EE-9705 REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-_____/61303
AIRPORT LIGHTING CONTROL (2 OF 2)

SHEET E17 OF 81

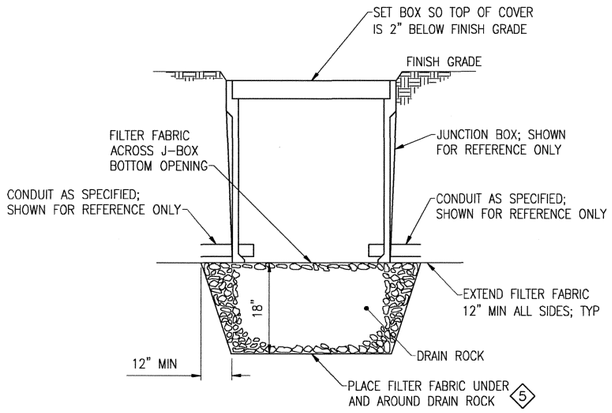




PAPI/REIL JUNCTION BOX DETAIL

NO SCALE

PRODUCT SHALL BE HUBBELL QUAZITE NO. PG2436BA30 BOX AND PG2436HA00 COVER OR APPROVED EQUAL. (BOTTOM EXTENSION NOT NEEDED: OPEN BOTTOM.)
REFER TO DRAIN ROCK AND FILTER FABRIC DETAIL THIS SHEET.



DRAIN ROCK AND FILTER FABRIC DETAIL

NO SCALE

SHEET NOTES

1. EACH UNDERGROUND PAPI/REIL HANDHOLE SHALL BE CONSTRUCTED OF POLYMER CONCRETE, REINFORCED WITH HEAVY–WEAVE FIBERGLASS, AND A MINIMUM SIZE OF 24 X 36 X 30 INCHES DEEP. THE ENCLOSURE AND COVER SHALL BE GREEN IN COLOR. COVERS SHALL BE HEAVY DUTY TRAFFIC RATED WITH A MINIMUM RATING OF 15,000 POUNDS OVER A 10" X 10" AREA. THE ENCLOSURE SHALL BE DESIGNED AND TESTED TO TEMPERATURES OF MINUS 50F. THE COVER SHALL BE NON–SLIP AND EMBOSSED WITH THE WORDS "FAA–LIGHTING".

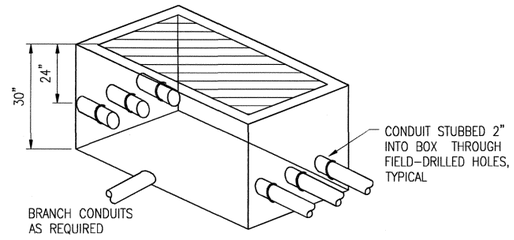
2. KEEP SEPARATE FROM OTHER CABLES.

3. CONNECT TO ALL METAL HARDWARE WITHIN STRUCTURE USING #2 COPPER PIGTAILS. CONNECTIONS SHALL BE EXOTHERMIC; HARDWARE CONNECTIONS MAY BE MECHANICAL USING LUGS DESIGNED FOR THAT PURPOSE.

4. LOCATE WITHIN 1' OF CORNER. TOP EXTENDS 6" ABOVE JUNCTION BOX BOTTOM. EXOTHERMIC WELD TO GROUNDING BUS.

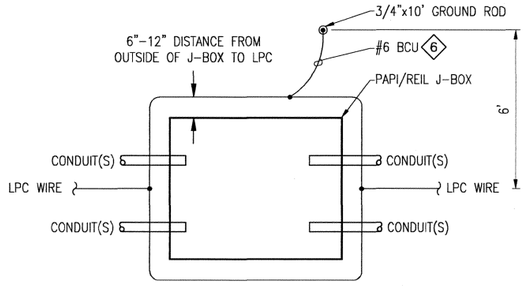
5. USE GEOTEXTILES THAT CONFORM TO SPEC L–132.

6. USE EXOTHERMIC CONNECTIONS.



PAPI/REIL J-BOX CONDUIT ENTRY

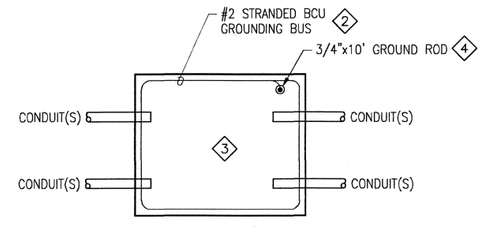
NO SCALE



PLAN VIEW

PAPI/REIL LPC ROUTING - TYP

NO SCALE



PLAN VIEW

J-BOX GROUNDING

NO SCALE

DESIGN MNW
DRAWN JLC
CHECKED MSG

BY	DATE	REVISIONS

STATE OF ALASKA
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NORTHERN REGION

APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49 TH
Michael S. Goulding
Feb 03, 2014
EE-9705
REGISTERED PROFESSIONAL ENGINEER

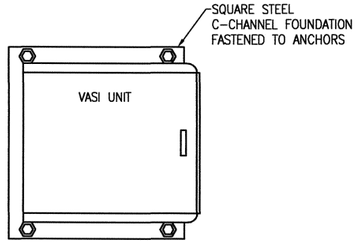
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3–02–0354–____/61303
J–BOX DETAILS

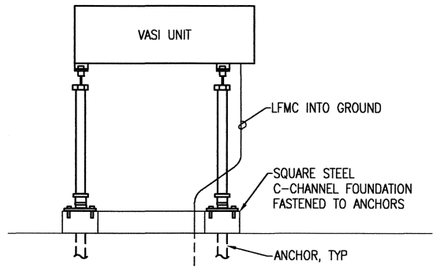
SHEET E18 OF 81

SHEET NOTES

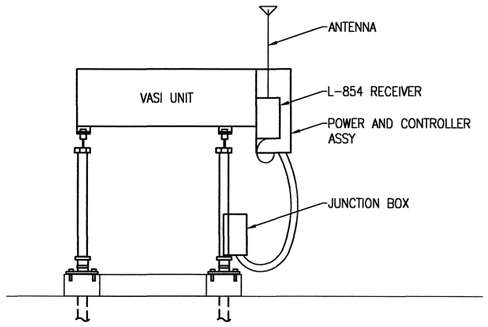
1. COORDINATE VASI DEMO WITH FAA/DOT.
2. REMOVE FOUR VASI LIGHT UNITS, FOUNDATIONS, AND ANCHORS. REMOVE VASI CONDUITS AND WIRING WHERE ENCOUNTERED DURING EXCAVATION. ABANDON REMAINING UNDERGROUND WIRING AND RACEWAYS IN PLACE.



VASI UNIT PLAN, TYP
NO SCALE



VASI UNIT ELEVATION, TYP OF 3
NO SCALE



VASI MASTER UNIT WITH POWER & RADIO
NO SCALE

DESIGN MNW
DRAWN JLC
CHECKED MSG

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NORTHERN REGION
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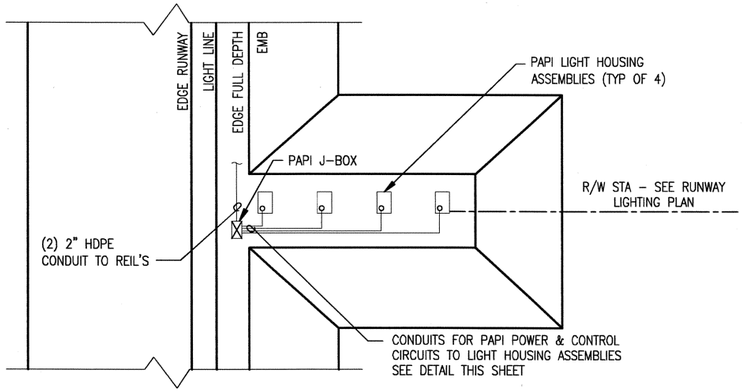
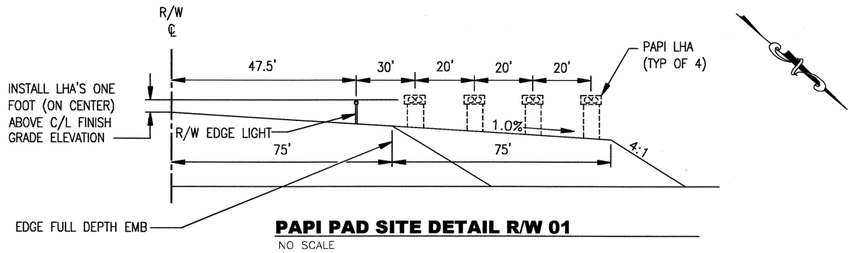
PLANS DEVELOPED BY:
PDC, INC.

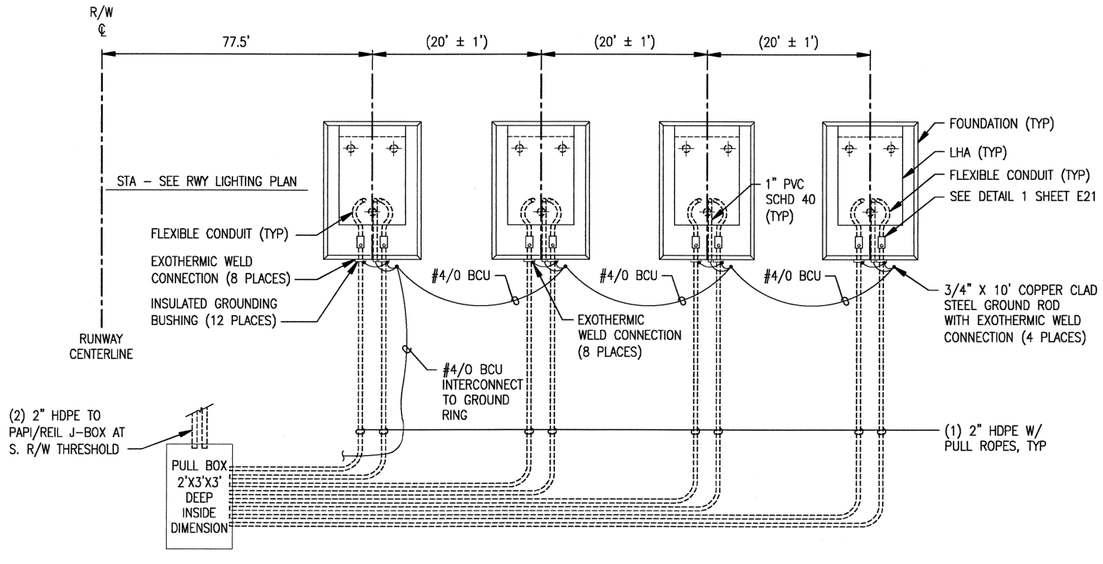
AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
VASI DEMOLITION

SHEET E19 OF 81





PAPI PAD SITE DETAIL R/W 01
NO SCALE



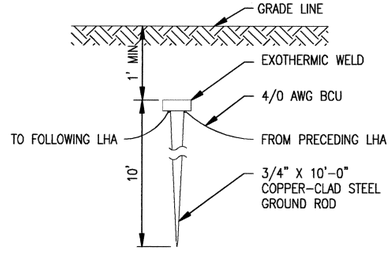
FOUNDATION LAYOUT R/W 01
NO SCALE

NOTES:

1. PROVIDE PRECAST FOUNDATIONS, CONDUITS, AND STUB OUTS. PROVIDE GROUND RODS AND GROUND CONDUCTORS AS SHOWN.
2. INSTALLATION OF PAPI CABLE AND PAPI UNITS (LIGHT HOUSING ASSEMBLIES) TO BE PERFORMED BY OTHERS. PAPI CABLES AND PAPI UNITS ARE SHOWN HERE FOR REFERENCE ONLY.
3. USE 2" RSC ELBOWS FOR CONDUIT TURNS.

ABBREVIATIONS

EMB	EMBANKMENT
LHA	LIGHT HOUSING ASSEMBLY



TYPICAL PAPI GROUND ROD INSTALLATION DETAIL
NO SCALE

DESIGN MNW
DRAWN JLC
CHECKED MSG

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DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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STATE OF ALASKA 49 TH
Michael S. Goulding Feb 03, 2014 EE-9735
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PLANS DEVELOPED BY:
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AMBLER AIRPORT
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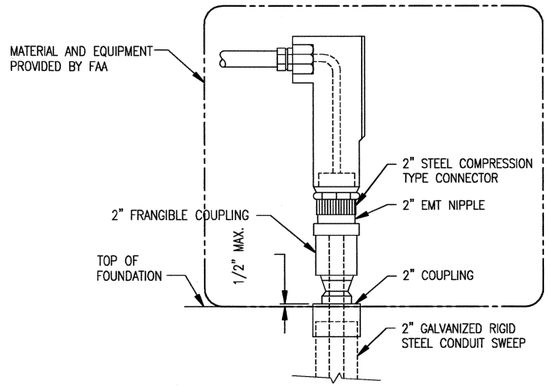
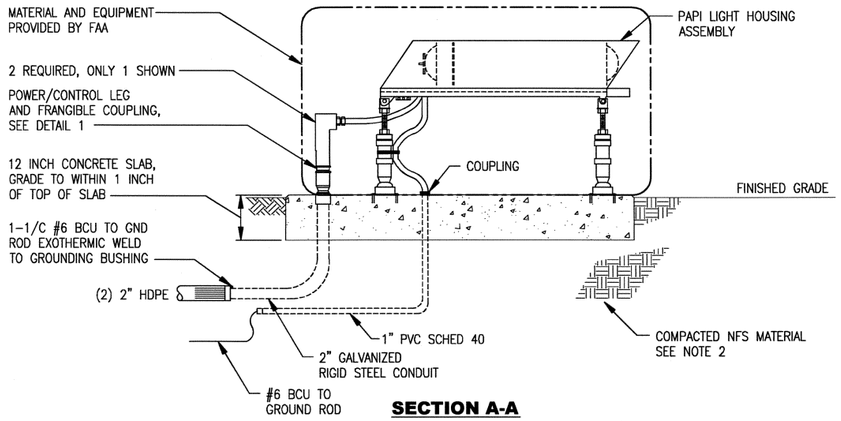
AIP NO. 3-02-0354-_____/61303
PAPI PLANS AND DETAILS

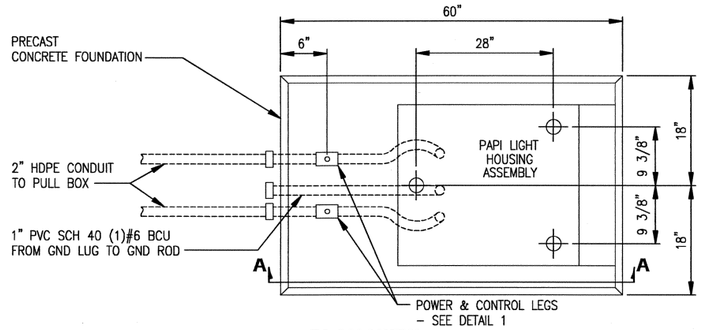
SHEET E20 OF 81



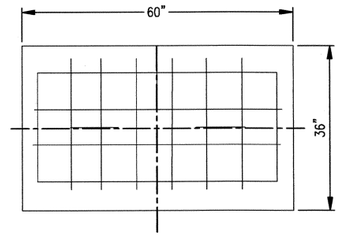
DETAIL 1
POWER AND CONTROL WIRE LEGS (2 PER LHA)
NO SCALE



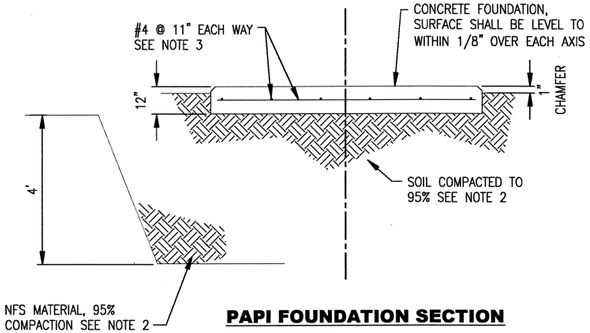
SECTION A-A



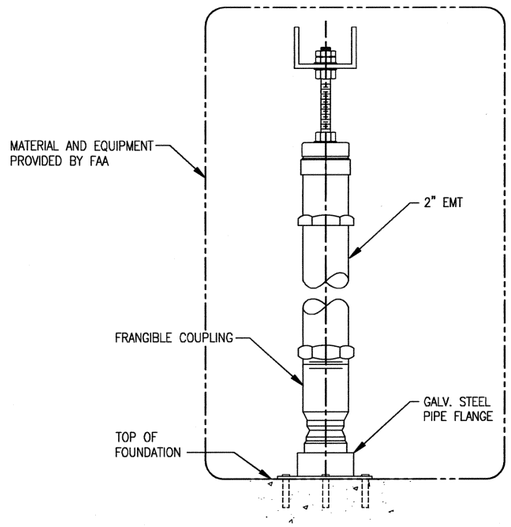
PLAN VIEW
LIGHT HOUSING ASSEMBLY
NO SCALE



PLAN PAPI FOUNDATION



PAPI FOUNDATION SECTION



DETAIL 2
STRUCTURAL LEG DETAIL
NO SCALE

NOTES:

1. PROVIDE PRECAST FOUNDATIONS. CONCRETE SHALL HAVE A MINIMUM DESIGN STRENGTH OF 3600 PSI COMPLYING WITH SPECIFICATION P-610.
2. ENSURE ONLY NFS MATERIAL COMPACTED TO 95% IS BELOW ALL FOUNDATIONS. IF NFS MATERIAL IS NOT PRESENT, EXCAVATE AS REQUIRED TO PROVIDE A MINIMUM OF 4 FEET OF NFS MATERIAL BENEATH PAPI FOUNDATIONS. PLACE FILL IN 8" LIFTS AND COMPACT TO 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 OR ATM T-12.
3. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, DEFORMED STEEL BARS.
4. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR PLACEMENT OF CONDUIT STUB-OUTS.
5. INSTALLATION OF PAPI CABLE AND PAPI UNITS (LIGHT HOUSING ASSEMBLIES) TO BE PERFORMED BY OTHERS. PAPI CABLES, UNITS, AND COMPONENTS ARE SHOWN HERE FOR REFERENCE ONLY.

DESIGN MNW
DRAWN JLC
CHECKED MSG

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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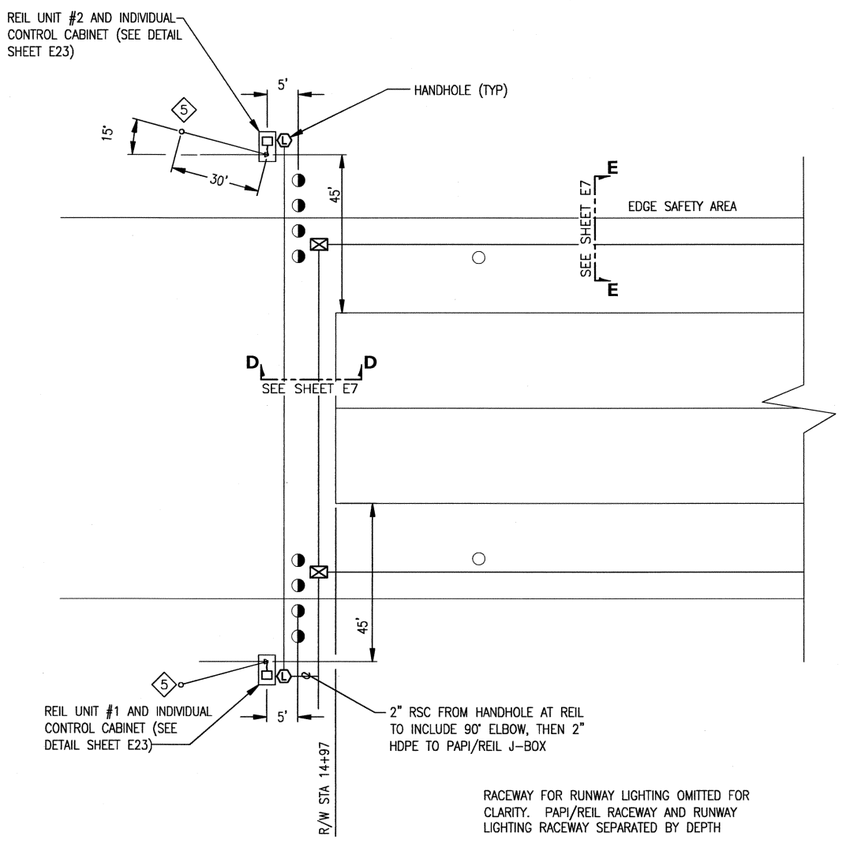
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49TH Michael S. Goulding Feb 03, 2014 EE-19705 REGISTERED PROFESSIONAL ENGINEER

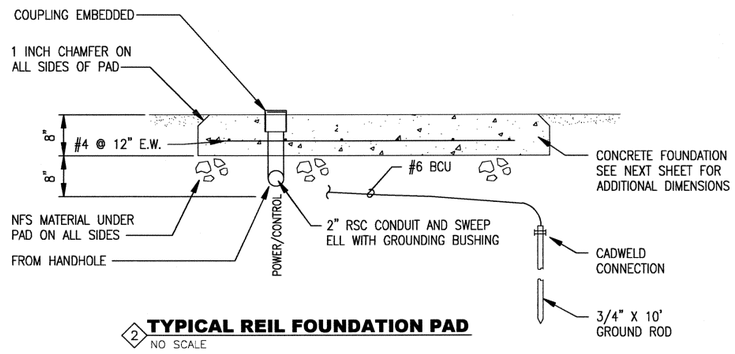
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-_____/61303
PAPI PAD DETAILS

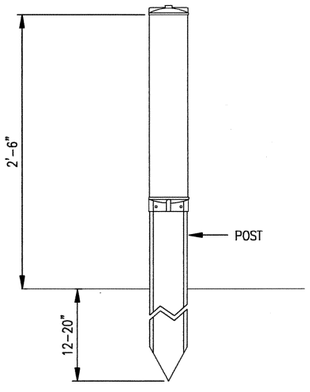
SHEET E21 OF 81



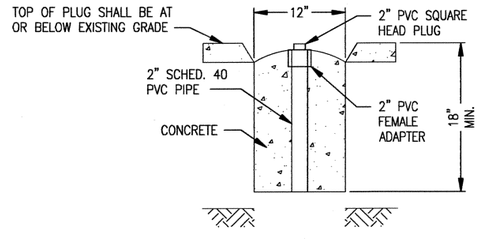
PLAN - REIL FOUNDATION AND RACEWAYS
NO SCALE



2 TYPICAL REIL FOUNDATION PAD
NO SCALE



REIL AIMING PAD
FLEX STAKE MARKER
NO SCALE



5 AIMING PAD

NOTES:

1. PROVIDE PRECAST FOUNDATIONS. CONCRETE SHALL HAVE A MINIMUM DESIGN STRENGTH OF 3600 PSI COMPLYING WITH SPECIFICATION P-610.
2. PROVIDE REIL FOUNDATIONS, AIMING PAD, MARKER, AND RACEWAY. PROVIDE GROUND RODS AND GROUND CONDUCTORS AS SHOWN. SEE "REIL PLAN VIEW" DETAIL NEXT SHEET FOR ADDITIONAL INFORMATION.
3. INSTALLATION OF REIL UNITS AND REIL CABLES TO BE PERFORMED BY OTHERS. REIL COMPONENTS ARE SHOWN HERE FOR REFERENCE ONLY.
4. THE IDENTIFIERS SHALL BE AIMED 15 DEGREES OUTWARD FROM THE RUNWAY CENTERLINE AND 10 DEGREES ABOVE THE HORIZONTAL.
5. AIMING PAD WITH FLEX STAKE MARKER 30' DISTANCE TO REIL AIMING PAD CAN BE ADJUSTED TO AVOID PLACING PAD IN DITCHES OR OTHER LOW AREAS. 15° ANGLE MUST BE MAINTAINED. SEE FLEX STAKE MARKER AND AIMING PAD DETAILS THIS SHEET.

DESIGN MNW
DRAWN JLC
CHECKED MSG

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DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
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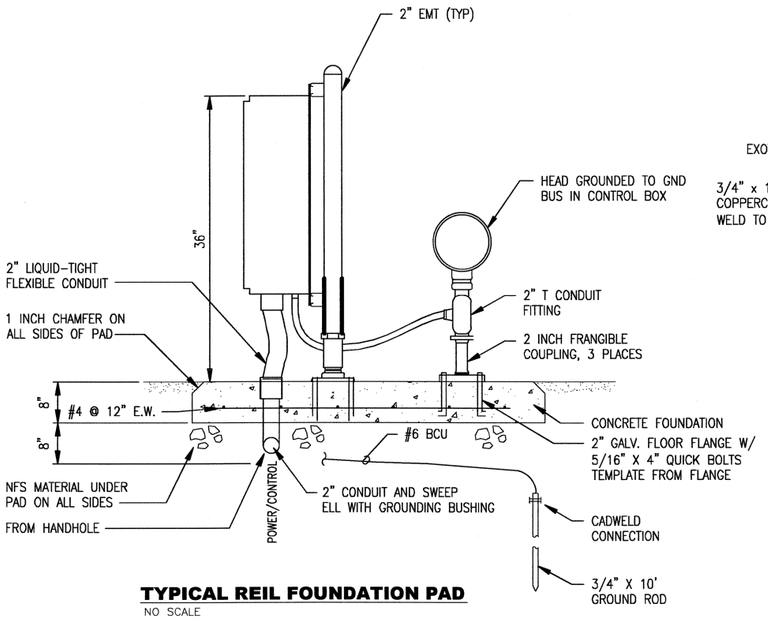
ALBERT M.L. BECK DESIGN GROUP CHIEF

STATE OF ALASKA 49 TH Michael S. Goulding Feb 03, 2014 EE-9726 REGISTERED PROFESSIONAL ENGINEER

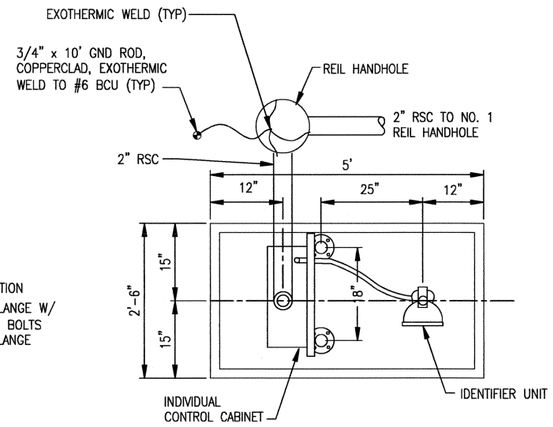
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-____/61303
REIL PLANS

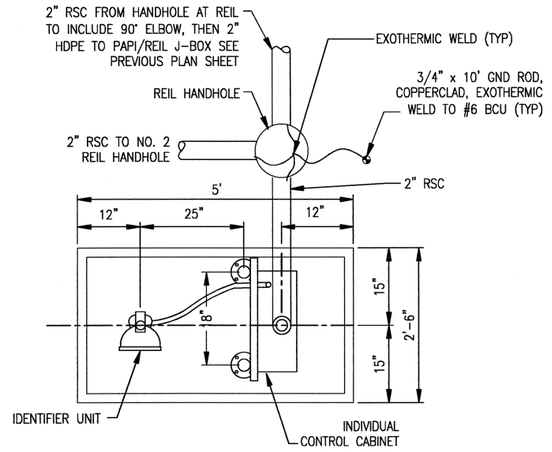
SHEET E22 OF 81



TYPICAL REIL FOUNDATION PAD
NO SCALE



REIL UNIT #2 PLAN VIEW
NO SCALE



REIL UNIT #1 PLAN VIEW
NO SCALE

NOTES:

1. INSTALLATION OF REIL UNITS AND CABLES TO BE PERFORMED BY OTHERS. REILS AND CABLES ARE SHOWN HERE FOR REFERENCE ONLY.
2. CONDUIT LOCATIONS SHALL BE DETERMINED IN THE FIELD FOLLOWING MANUFACTURER'S INSTRUCTIONS. THE LOCATIONS SHALL ALLOW EASY ACCESS TO THE COMPONENTS IN THE CABINETS. WHEN POSSIBLE, CONDUITS SHOULD ENTER THROUGH THE BOTTOM OF THE CABINETS.

DESIGN MNW
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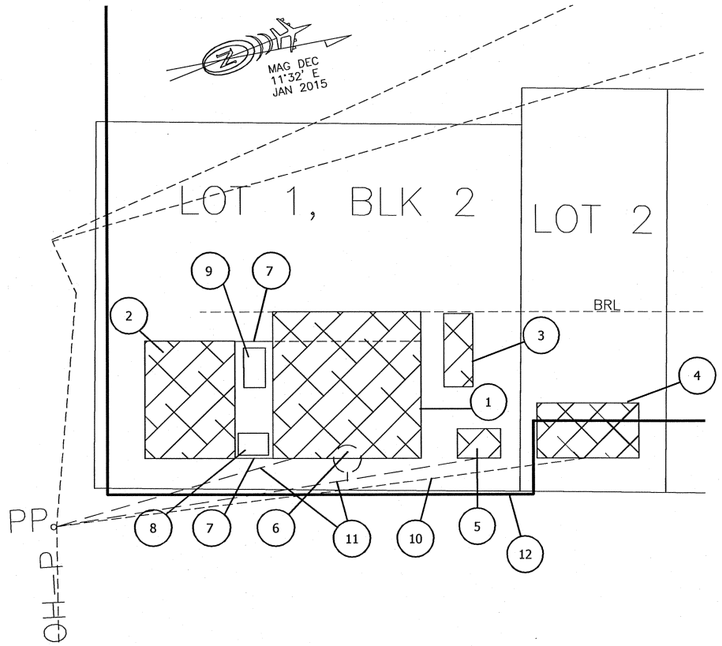
PLANS DEVELOPED BY:
PDC, INC.

AMBLER AIRPORT
AIRPORT IMPROVEMENTS
AIP NO. 3-02-0354-_____/61303
REIL DETAILS

SHEET E23 OF 81



SREB SITE DEMO PLAN

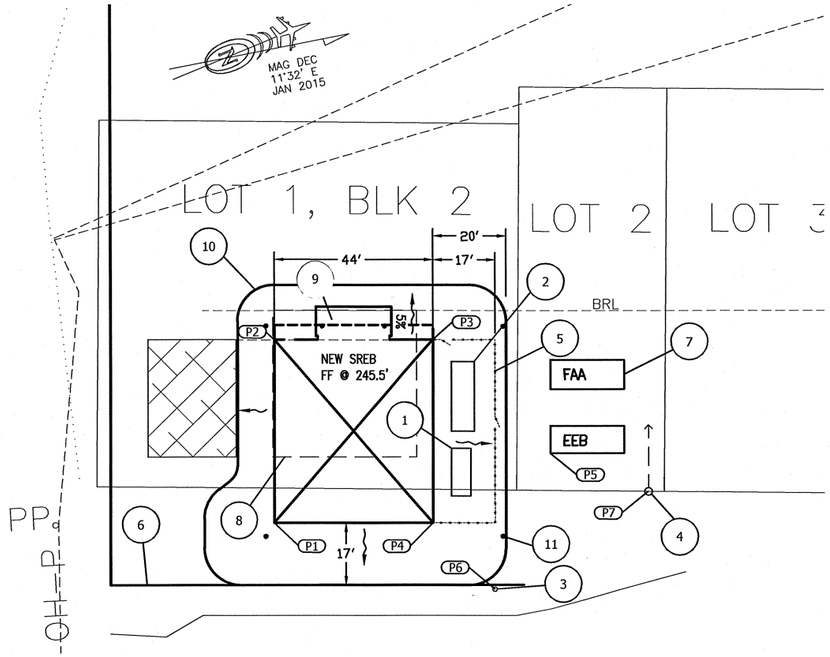
FEET
20 0 10 20 40

DEMO PLAN KEY NOTES:

1. EXISTING 40'x40' SRE BUILDING (ALL COMPONENTS, APPURTENANCES & EQUIPMENT) SHALL BE DEMOLISHED AND REMOVED FROM THE SITE AND AMBLER. BUILDING IS METAL FRAMED STRUCTURE WITH GRAVEL FLOOR. FOUNDATION IS UNKNOWN, BUT IT IS ESTIMATED TO BE AN 8x8 TRTD SILL PLATE ON GRADE WITH ⅝" DIA GROUND ANCHORS @ EA COL. REMOVE BUILDING, SILL PLATE & ANCHOR RODS.
2. EXISTING 32'x24' COLD STORAGE BUILDING TO REMAIN.
3. FAA CONEX (8'x20') TO BE RELOCATED.
4. EXISTING 12'x28' TERMINAL BLDG SHALL BE DEMOLISHED AND REMOVED FROM THE SITE AND AMBLER.
5. EXISTING ELEC ENCLOSURE BLDG TO BE REMOVED IN AMBLER AIRPORT REHABILITATION SCOPE.
6. REMOVE & DISPOSE OF EXISTING ROTATING BEACON.
7. REMOVE & DISPOSE OF EXISTING CHAIN LINK FENCE.
8. REMOVE AND DISPOSE OF EXISTING 1000 GAL HEATING OIL TANK. SALVAGE FUEL AND REPLACE INTO NEW HEATING OIL TANK.
9. SALVAGE EXISTING 2000 GALLON VEHICLE FUEL DISPENSING TANK FOR REUSE AS HEATING OIL STORAGE TANK. TRANSFER EXISTING FUEL INTO NEW VEHICLE FUEL DISPENSING TANK. REMOVE AND DISPOSE OF FUEL DISPENSING EQUIPMENT.
10. EXISTING UG ELECTRIC TO OLD TERMINAL BLDG – ROUTING UNKNOWN. RELOCATE AS REQUIRED AND MOUNT RECEPTICAL BOX ON 6X6 PRESSURE TREATED POST W/ 4' BURY.
11. EXISTING OVERHEAD ELECTRIC SERVICE.
12. EXISTING EDGE OF APRON

GRADING PLAN KEY NOTES:

1. SALVAGED 2,000 GALLON VEHICLE FUEL TANK CONVERTED TO HEATING OIL STORAGE FOUNDED ON PRESSURE TREATED 12x12x7' TIMBERS SPACED AT 2' MAXIMUM.
2. NEW 3,000 GALLON VEHICLE FUEL TANK FOUNDED ON PRESSURE TREATED 12x12x7' TIMBERS SPACED AT 2' MAXIMUM.
3. NEW UTILITY POLE AS REQUIRED FOR ELECTRICAL SERVICE. PROVISION OF ELECTRICAL SERVICE WILL NOT BE MEASURED FOR PAYMENT AND SHALL BE SUBSIDIARY TO BID ITEM S-142.
4. NEW 30' TIP DOWN ROTATING BEACON POLE.
5. CONSTRUCT 8' HIGH CHAIN LINK FENCE PER ALASKA DEPARTMENT OF PUBLIC FACILITIES STANDARD DRAWINGS F-01.01 & F-03.01 & STD SPECIFICATION SECTION 607 FENCES. COORDINATE LOCATION OF NORTH END GATE w/ CONFIGURATION OF FUEL DISPENSER HOSE REEL.
6. NEW EDGE OF APRON TO BE EXPANDED BY AMBLER AIRPORT REHABILITATION SCOPE.
7. RELOCATE FAA CONEX. SET ON SIX 12x12x9' TIMBERS SPACED AT 4' MAX. TOP OF TIMBERS SHALL BE 6" ABOVE GRADE. PROVIDE 10' SEPARATION @ EEB. ORIENT DOOR OPENING TO SOUTH.
8. OUTLINE PERIMETER OF EXISTING SREB.
9. CONCRETE APPRON. SEE STRUCTURAL.
10. CATCH POINT FOR CASC.
11. EXTERIOR BOLLARDS, TYPICAL OF 6, SEE DET 7/BS2.



SREB GRADING PLAN

FEET
20 0 10 20 40

GRADING PLAN NOTES:

1. SEE BUILDING/SITE SECTIONS ON SHEET C2.
2. FINISH FLOOR ELEVATION (FF) IS TO BE MEASURED AT THE OVERHEAD DOOR THRESHOLD. SEE STRUCTURAL DRAWINGS FOR FLOOR GRADES WITHIN THE BUILDINGS.
3. GRADE CRUSHED AGGREGATE SURFACE COURSE TO MATCH DOORWAYS, TYP.

GRADING PLAN POINT TABLE

POINT #	NORTHING	EASTING	ELEV.	DESCRIPTION
P1	1660837.67	4788244.25	244.4	BUILDING CORNER FG
P2	1660791.48	4788263.41	244.7	BUILDING CORNER FG
P3	1660808.35	4788304.05	244.7	BUILDING CORNER FG
P4	1660854.53	4788284.89	244.4	BUILDING CORNER FG
P5	1660849.22	4788321.70		CORNER EEB
P6	1660877.67	4788293.64		UTILITY POLE
P7	1660868.99	4788342.29		BEACON POLE

Z:\project\2058.01 DOT_N Ambler Airport SREB\Civil\ACAD\2058.01-DB-CONC-C1-C1

DESIGN DA
DRAWN CLS
CHECKED JC

BY	DATE	REVISIONS

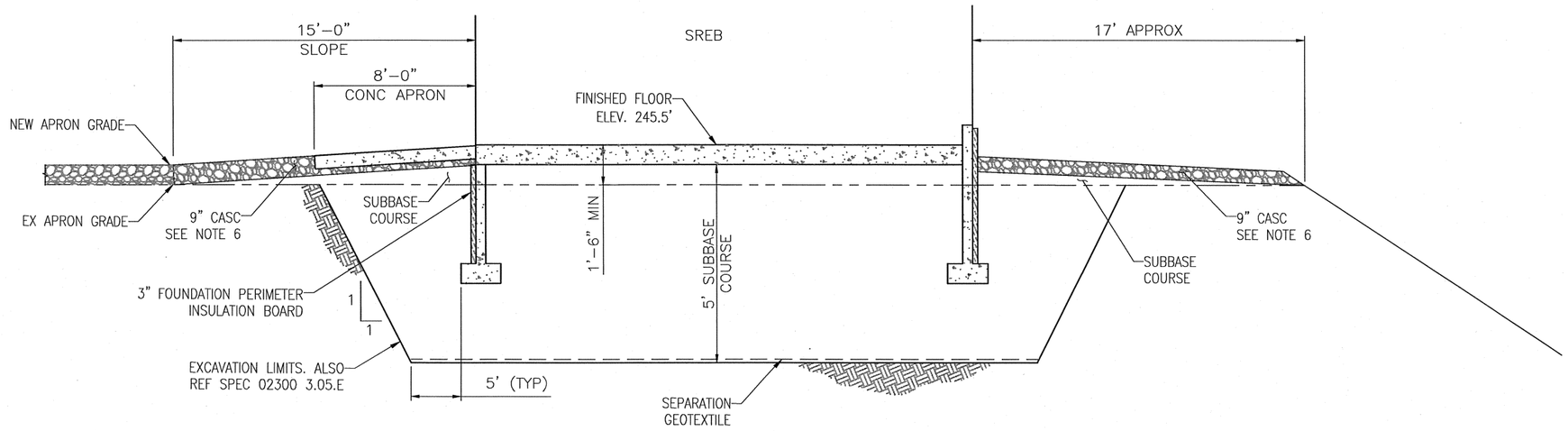
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION–DESIGN AND CONSTRUCTION–AVIATION
APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA 49TH
Duane H. Anderson
CE 4774
1-31-14
Registered Professional Engineer

PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.

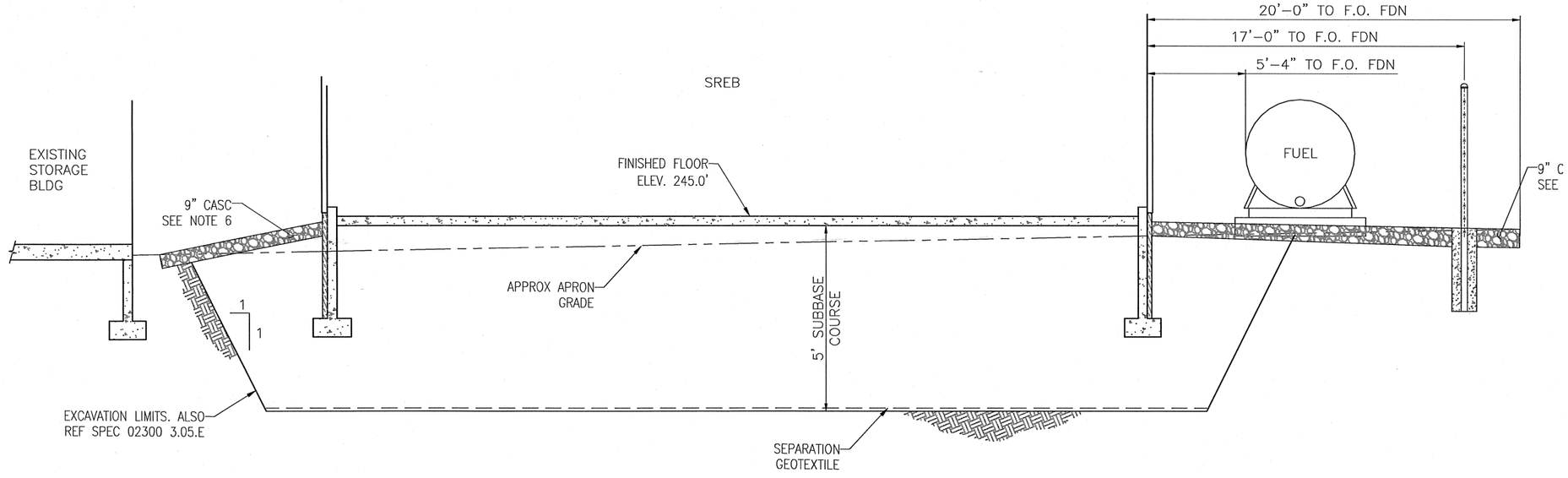
AMBLER AIRPORT
AMBLER AIRPORT REHABILITATION
AIP 3-02-0354-2014/61303
SNOW REMOVAL EQUIPMENT BUILDING
SREB SITE PLAN

SHEET BC1 OF 81



A FOUNDATION SECTION

SCALE NTS



B FOUNDATION SECTION

SCALE NTS

DRAWING NOTES:

1. REFERENCE SPECIFICATION 02100 CONTAMINATED SOIL EXCAVATION, HANDLING AND DISPOSAL FOR EXCAVATION OF SOILS UNDER THE EXISTING SREB.
2. EXCAVATE THE EXISTING FILL TO A DEPTH OF FIVE FEET BELOW FINISH FLOOR, UNDER THE ENTIRE BUILDING FOOTPRINT. THE EXCAVATION SHOULD EXTEND AT LEAST FIVE FEET BEYOND THE PERIMETER OF THE BUILDING, AND THE SIDE–SLOPES SHOULD BE CUT NO STEEPER THAN 1:1. DEWATER THE EXCAVATION, IF WATER ACCUMULATES, TO ASSURE THAT THE BOTTOM OF EXCAVATION CAN BE INSPECTED AND THE BACKFILL IS PLACED UNDER DRY CONDITIONS.
3. EXCAVATE A TEST PIT TO A DEPTH OF AT LEAST 10 FEET BELOW THE SREB FLOOR. INSPECT THE TEST PIT FOR FROZEN SOIL THAT CONTAINS EXCESS ICE OR VISIBLE ICE FEATURES AS DEFINED IN ASTM D 4083, DESCRIPTION OF FROZEN SOILS (VISUAL–MANUAL PROCEDURE). IF SUCH FROZEN SOIL IS OBSERVED IN THE TEST PIT, CONTINUE THE EXCAVATION UNDER THE FULL BUILDING AREA TO A DEPTH SUFFICIENT TO REMOVE SAID FROZEN MATERIAL, AND BACKFILL TO THE BOTTOM TO FIVE FEET BELOW THE BUILDING WITH BORROW A MATERIAL.
4. AFTER COMPLETING THE TEST PIT, DESCRIBED ABOVE, COMPACT THE BOTTOM OF THE EXCAVATION TO THE EXTENT NECESSARY TO ENSURE THE FIRST LIFT OF BACKFILL (SEE BELOW) CAN BE COMPACTED AS SPECIFIED. REPLACE ANY SUBGRADE MATERIALS THAT ARE SOFT OR RUT WITH CLASSIFIED FILL.
5. AFTER COMPLETING THE BUILDING EXCAVATION AS DESCRIBED ABOVE, LINE THE BASE OF THE EXCAVATION WITH SEPARATION GEOTEXTILE, PLACED FOLLOWING DOT&PF ITEM P–681; AND BACKFILL WITH SUBBASE THAT IS PLACED IN MAXIMUM EIGHT INCH LIFTS (LOOSE) AND COMPACTED TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT, AS DETERMINED BY TEST METHOD AASHTO T180.
6. CASC SHALL BE MEASURED FOR PAYMENT UNDER BID ITEM 208.a.n1 UNDER THE AMBLER AIRPORT REHABILITATION SCOPE.

Z:\project\2058.01 DOT_N Ambler Airport SREB\Civil\ACAD\2058.01–DB–CONC–C2–C2

DESIGN DA
DRAWN CLS
CHECKED JC

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DATE 2.12.14

STATE OF ALASKA 49TH Duane H. Anderson CE 4774 1-31-14 Registered Professional Engineer

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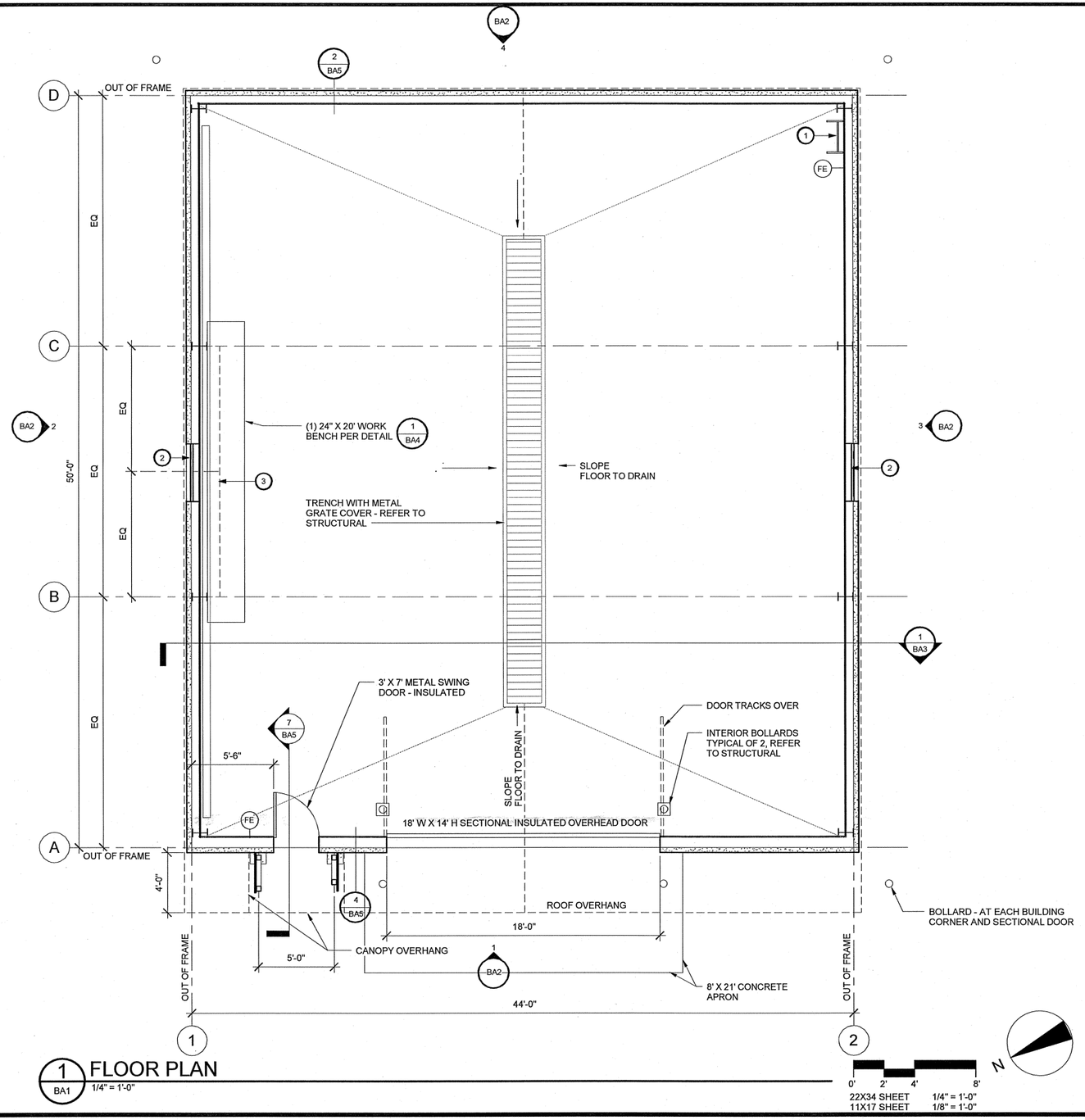
R&M CONSULTANTS, INC.

AMBLER AIRPORT
AMBLER AIRPORT REHABILITATION
AIP 3–02–0354–2014/61303
SNOW REMOVAL EQUIPMENT BUILDING
SITE SECTION

SHEET BC2 OF 81



1 BA1 **FLOOR PLAN**
1/4" = 1'-0"

CODE SYNOPSIS

2009 IBC AS AMENDED BY ALASKA DEPT. OF PUBLIC SAFETY

OCCUPANCY S-2 PARKING GARAGE (IBC 311.3)

CONSTRUCTION TYPE V-B COMBUSTIBLE WITH NO FIRE RESISTANCE
SITE FIRE SEPARATION DISTANCE FOR NON FIRE-RATED EXTERIOR WALLS= 10' CLEAR OR GREATER (IBC 602)

ACTUAL AREA: 44' x 50' = 2,200 S.F.
S-2 OF V-B ALLOWABLE AREA = 13,500SF (IBC 503) = OK

FIRE SEPARATION NOT REQUIRED FOR FUEL - HEATING EQUIPMENT UNDER 400,000 BTU INPUT (IBC 508.2)

OCCUPANT EXIT LOAD (IBC 1004.1): 2,200SF/200 = 11 = SINGLE 36" HINGED EXIT DOOR ok (1015)

FOAM PLASTIC INSULATED WALL & ROOF PANELS SHALL COMPLY WITH IBC 2603 FOR NON-SPRINKLERED BUILDINGS

(FE) PROVIDE TWO EXTINGUISHERS: DRY CHEMICAL 2-A: 10-B;C MINIMUM WITH ALASKA FIRE MARSHAL - APPROVED SIGNS

SHEET NOTES

PROVIDE EQUIPMENT UNPACKED, ASSEMBLED AND READY TO USE; LOCATE WHERE DIRECTED BY OWNER

(1) PORTABLE LADDER FURNISH ONE PORTABLE ALUMINUM ADJUSTABLE FREE STANDING A-FRAME LADDER 6 TO 11 FOOT A-FRAME HEIGHT RECOMMENDED BY MANUFACTURER FOR INDUSTRIAL HEAVY DUTY 300 POUND RATING. CERTIFIED ANSI A14 COMPLIANCE little giant.com - MODEL 26 OR EQUAL
INSTALL WITH STORAGE 1/8" X 3/4" GALVANIZED CHAIN AGAINST ON INSIDE WALL OF BUILDING WHERE DIRECTED BY OWNER.

(2) 4' WIDE X 2' HIGH FIXED VINYL WINDOWS WITH 3/8" LEXAN CLEAR PLASTIC EXTERIOR COVERS - SUMMIT WINDOWS 907 - 522 7757 OR EQUAL

PROVIDE SURROUNDING GIRT FRAMING TO STRUCTURE

(3) TW0 16" WIDE X 3/4" PLYWOOD SHELVES - BETWEEN FRAMING - 12" X 12" STEEL SHELF BRACKETS EVENLY SPACED AT 24" O.C. - 55" AND 68" FROM TOP TO FLOOR - PAINT SAME AS PLYWOOD WAINSCOT

(4) SPILL CONTAINMENT CABINET
14 GAGE STEEL 48" WIDE X 24" DEEP X 78" HIGH WITH 2 PAD LOCKABLE DOORS.
CENTER PARTITION, COAT ROD, FIXED TOP SHELF, 4 ADJUSTABLE SHELVES.
YELLOW ENAMEL PAINT FINISH WITH "SPILL CONTAINMENT CABINET" IN 2' HIGH LETTERS.
WWW.LKGOODWIN.COM MODEL ML248 OR EQUAL
INSTALL WHERE DIRECTED

(5) 5000 LB CAPACITY FLOOR MOUNT SINGLE SIDE CANTILEVER RACK:
(2) 8' HIGH UPRIGHTS
(1) BRACE SET BETWEEN UPRIGHTS
(10) 24" STRAIGHT ARMS WITH LIPS
ENAMEL PAINT FINISH
WWW.LKGOODWIN.COM SERIES 1000 OR EQUAL
INSTALL WHERE DIRECTED

(6) 10,000 LB CAPACITY FLOOR MOUNT DOUBLE SIDE CANTILEVER RACK:
(2) 8' HIGH UPRIGHTS
(1) BRACE SET
(10) 24" STRAIGHT ARMS WITH LIPS
ENAMEL PAINT FINISH
WWW.LKGOODWIN.COM SERIES 100O OR EQUAL
INSTALL WHERE DIRECTED

(7) (2 EACH) CLOSED SHELF UNITS: 18 GAGE STEEL 48" WIDE X 24" DEEP 39" HIGH WITH CLOSED SIDES & BACK.
(3) INTERMEDIATE ADJUSTABLE SHELVES
GRAY ENAMEL PAINT FINISH
WWW.LKGOODWIN.COM IRONMAN OR EQUAL
INSTALL WHERE DIRECTED

DESIGN JEM
DRAWN WVZ
CHECKED DDG

BY	DATE	REVISIONS

STATE OF ALASKA
DEPAERTMENT TRANSFORTATION AND PUBLIC FACILITIES
NORTHERN REGION–DESIGN AND CONSTRUCTION–AVAITION
APPROVED
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF DATE 2.12.14

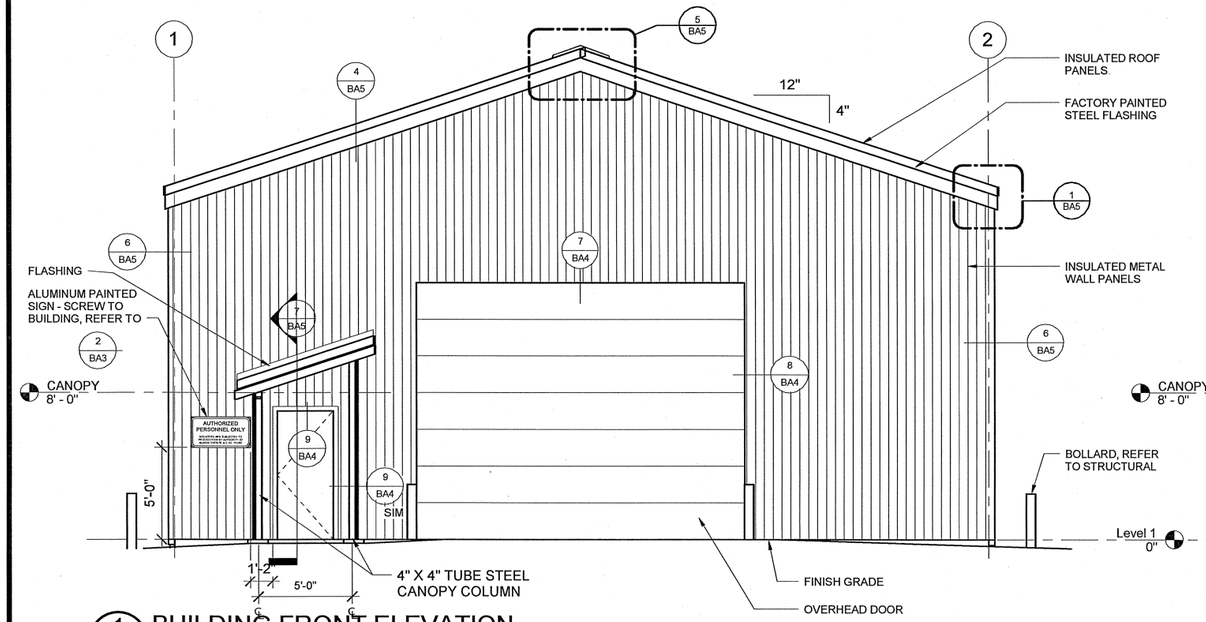
STATE OF ALASKA
John E. McCool
No. 3534-A
REGISTERED PROFESSIONAL ENGINEER
1-31-2014

PLANS DEVELOPED BY:
MCCOOL CARLSON GREEN ARCHITECTS

AMBLER AIRPORT
AMBLER AIRPORT REHABILITATION
AIP 3-02-0354-2014/61303
ARCHITECTURAL
FLOOR PLAN

SHEET BA1 OF 81

MCG PROJECT NUMBER: 2010039.08

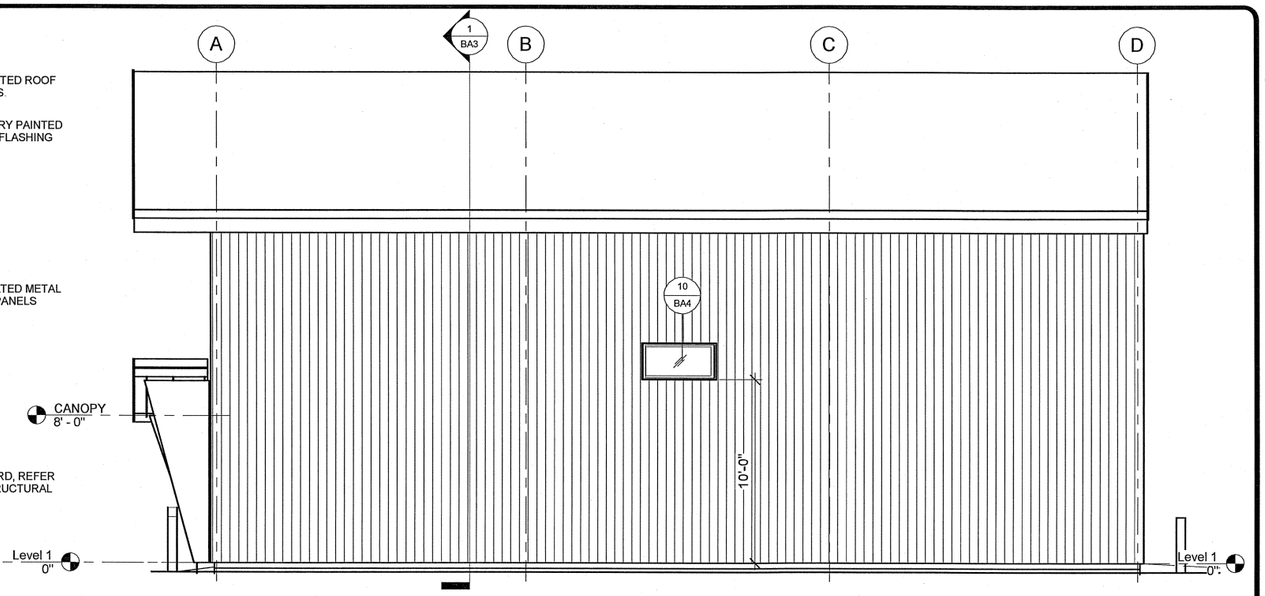


1 BA2 BUILDING FRONT ELEVATION

1/4" = 1'-0"

0' 2' 4' 8'

22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"



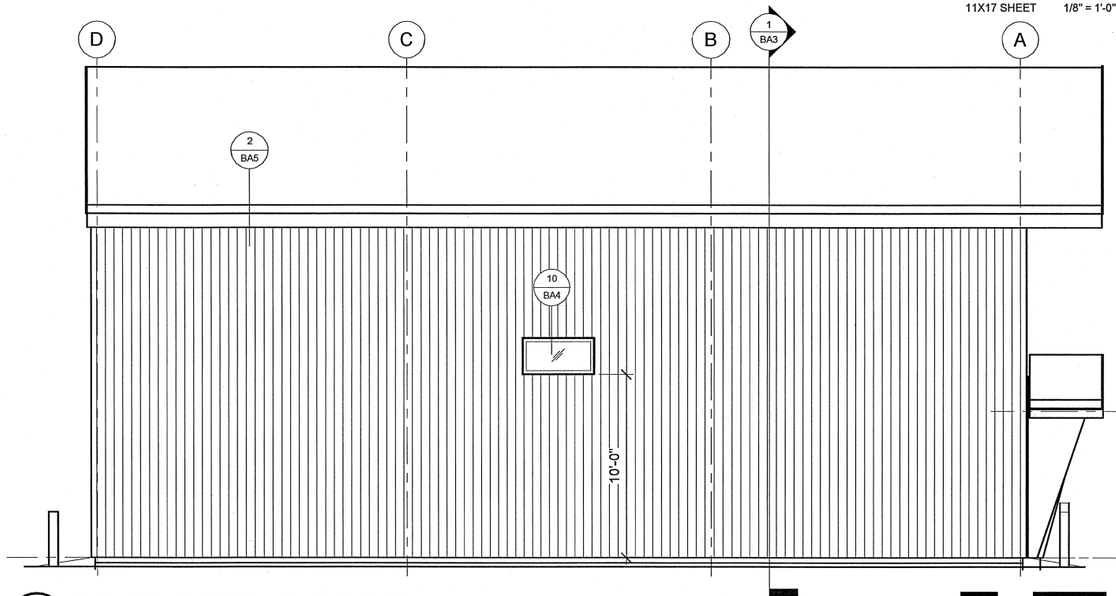
3 BA2 BUILDING SIDE ELEVATION

1/4" = 1'-0"

REFER TO 1/A2 FOR NOTES

0' 2' 4' 8'

22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"



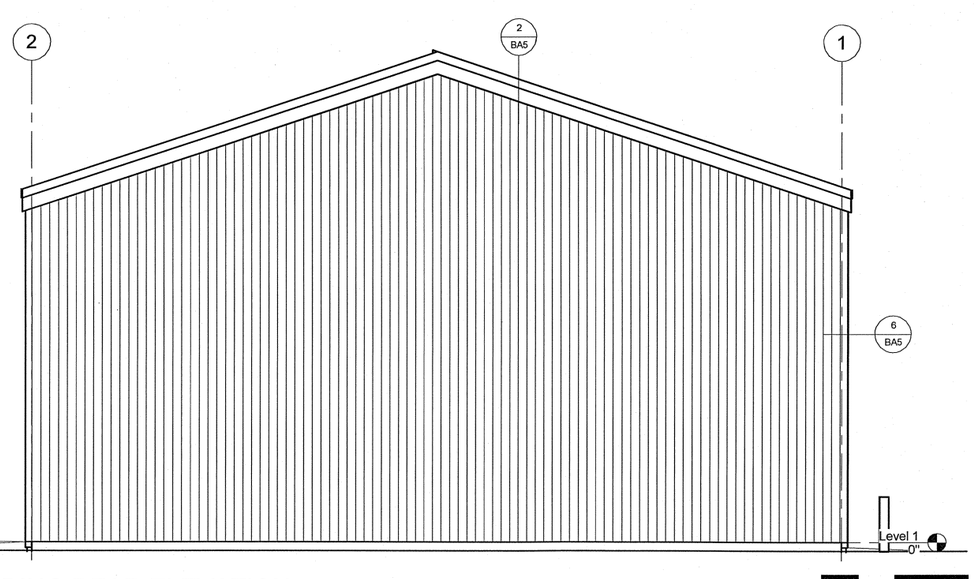
2 BA2 BUILDING SIDE - ELEVATION

1/4" = 1'-0"

REFER TO 1/A2 FOR NOTES

0' 2' 4' 8'

22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"



4 BA2 BUILDING REAR ELEVATION

1/4" = 1'-0"

REFER TO 1/A2 FOR NOTES

0' 2' 4' 8'

22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"

DESIGN JEM
DRAWN WVZ
CHECKED DDG

BY	DATE	REVISIONS

STATE OF ALASKA
DEPAERTMENT TRANSFORTATION AND PUBLIC FACILITIES
NORTHERN REGION–DESIGN AND CONSTRUCTION–AVAITION

APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA
John E. McCool
No. 3534-A
REGISTERED PROFESSIONAL ARCHITECT
1-31-2014

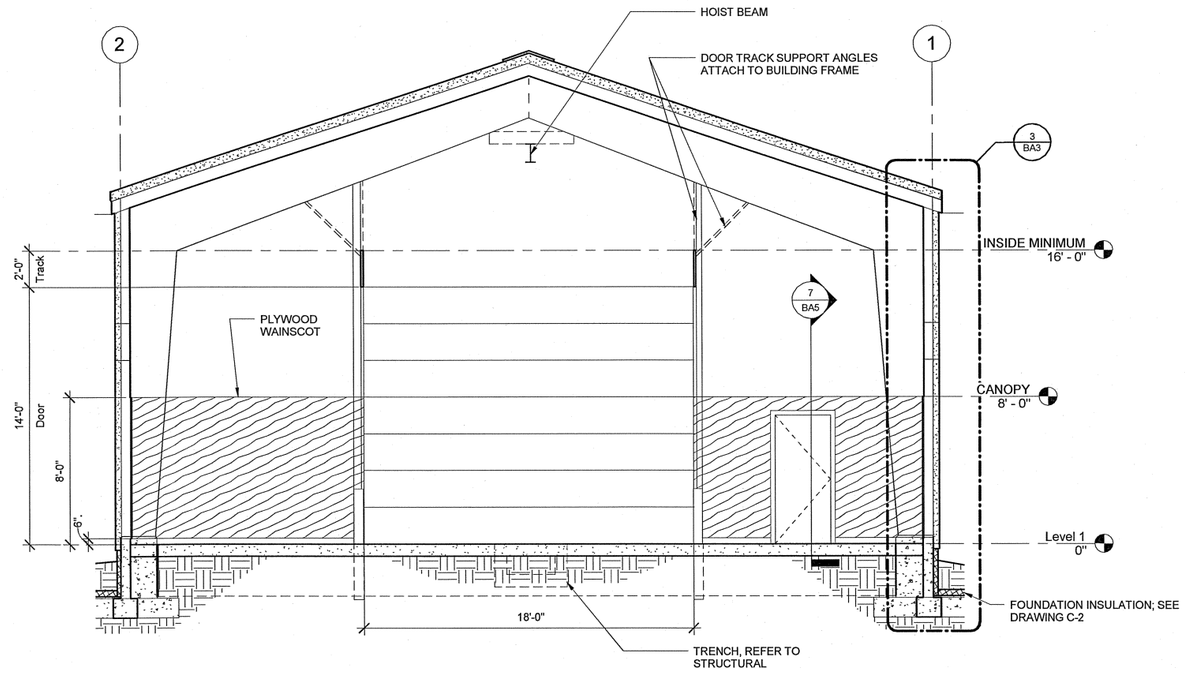
PLANS DEVELOPED BY:
MCCOOL CARLSON GREEN ARCHITECTS

AMBLER AIRPORT

AMBLER AIRPORT REHABILITATION
AIP 3–02–0354–2014/61303
ARCHITECTURAL
EXTERIOR ELEVATIONS

SHEET BA2 OF 81

MCG PROJECT NUMBER: 2010039.08

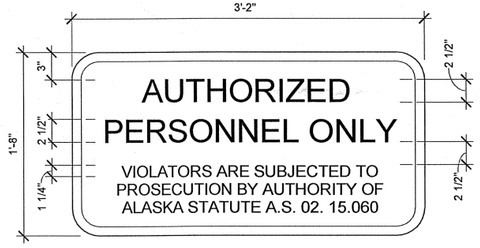


1 BA3 CROSS SECTION

1/4" = 1'-0"

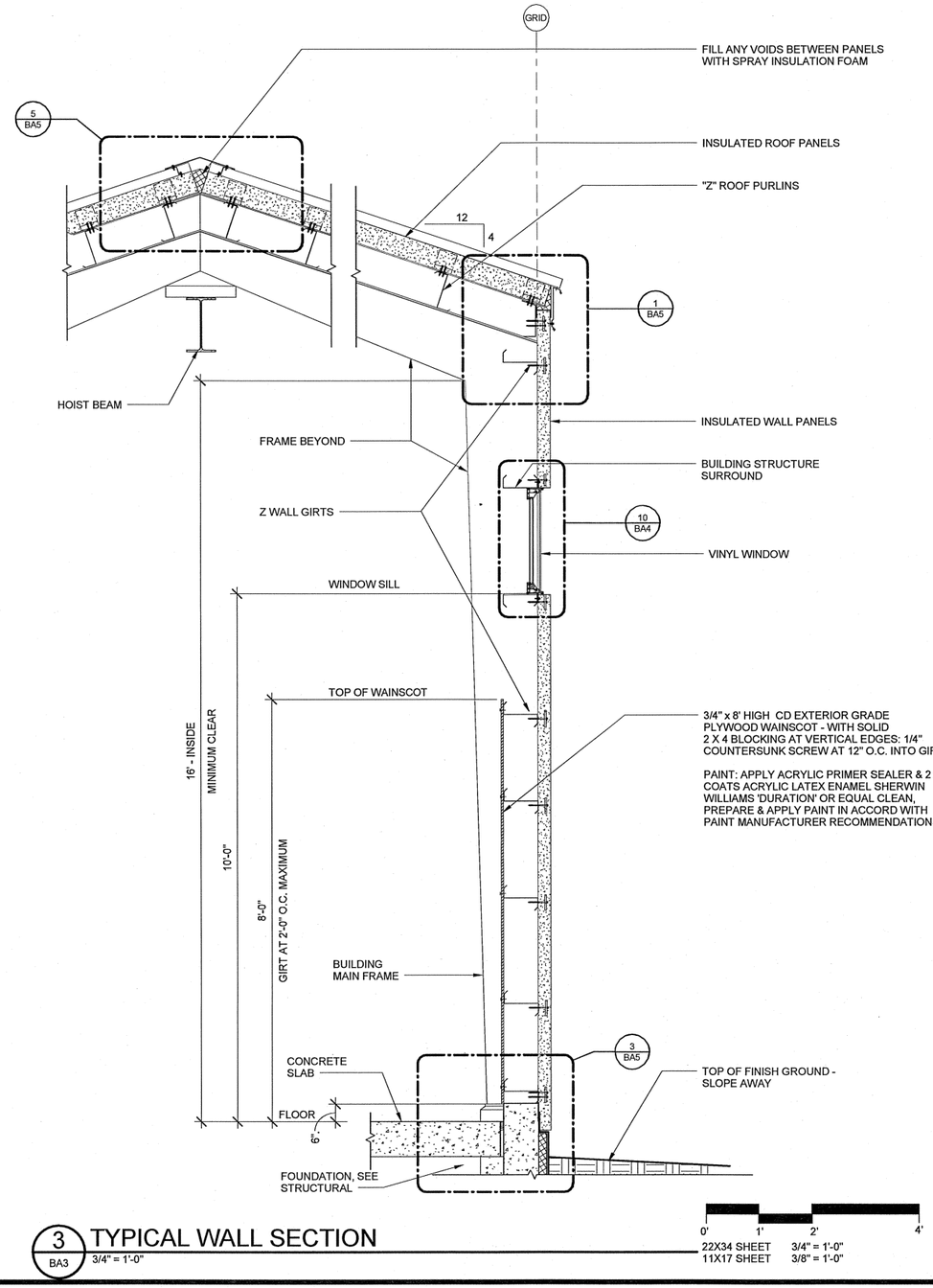
0' 2' 4' 8'

22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"



2 BA3 SIGN MESSAGE

1 1/2" = 1'-0"



3 BA3 TYPICAL WALL SECTION

3/4" = 1'-0"

0' 1' 2' 4'

22X34 SHEET 3/4" = 1'-0"
11X17 SHEET 3/8" = 1'-0"

DESIGN JEM
DRAWN WVZ
CHECKED DDG

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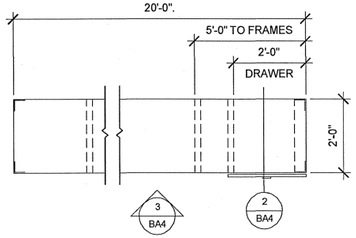
AMBLER AIRPORT

AMBLER AIRPORT REHABILITATION
AIP 3–02–0354–2014/61303
ARCHITECTURAL
BUILDING SECTIONS

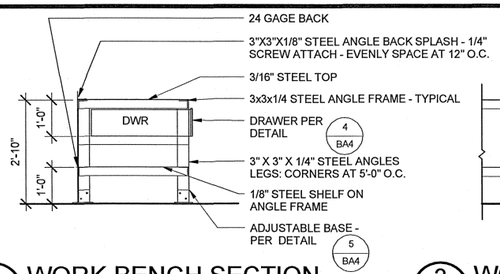
SHEET BA3 OF 81

MCG PROJECT NUMBER: 20100039.08



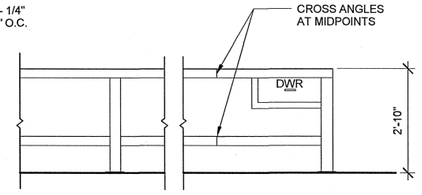
1 BA4 WORK BENCH PLAN

1/2" = 1'-0"



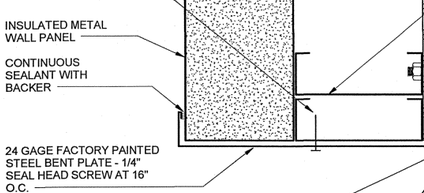
2 BA4 WORK BENCH SECTION

1/2" = 1'-0"



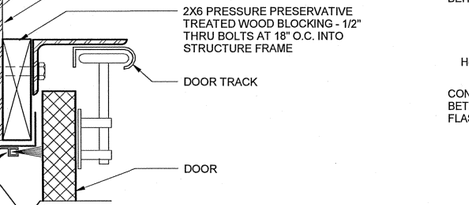
3 BA4 WORK BENCH FRONT

1/2" = 1'-0"



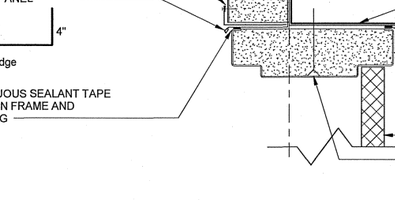
4 BA4 WORK BENCH DRAWER

1 1/2" = 1'-0"



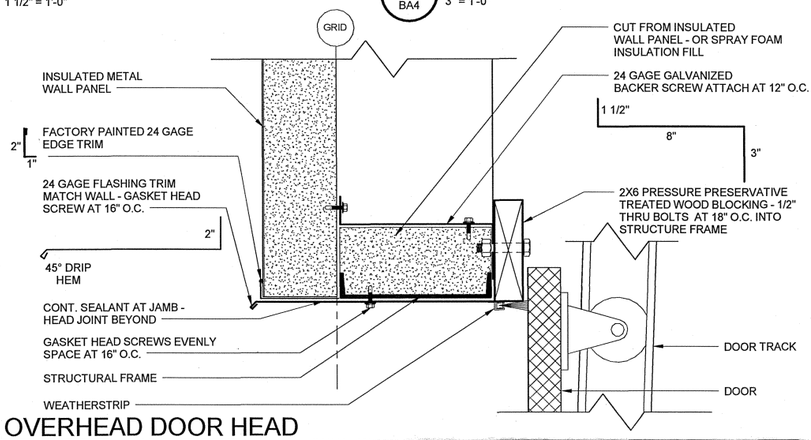
5 BA4 WORK BENCH LEG

3" = 1'-0"



6 BA4 WORK BENCH LEGS BASE PLATE

3" = 1'-0"



7 BA4 OVERHEAD DOOR HEAD

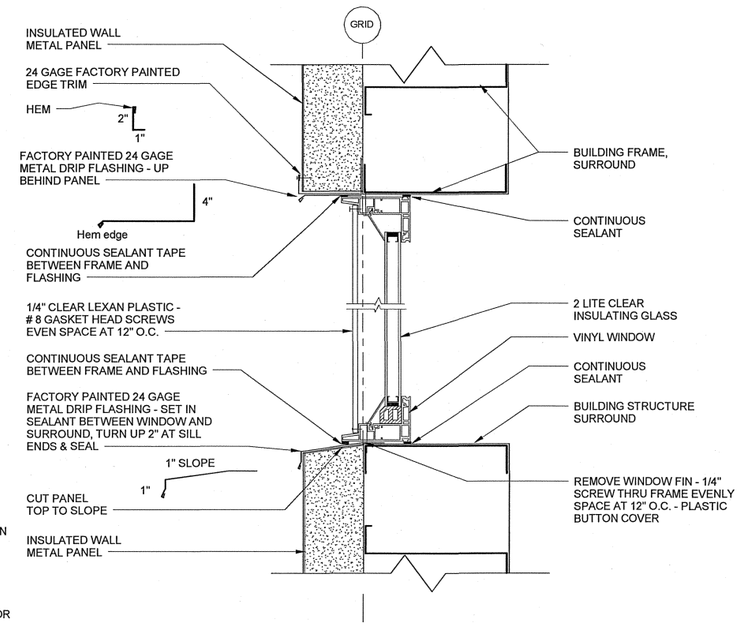
3" = 1'-0"

8 BA4 OVERHEAD DOOR JAMB

3" = 1'-0"

9 BA4 HINGED DOOR HEAD - JAMB SIMILAR

3" = 1'-0"



10 BA4 WINDOW SILL AND HEAD - JAMB SIMILAR

3" = 1'-0"

WORK BENCH SPECIFICATIONS

INSTALL WHERE INDICATED ON FLOOR PLAN

FRAME: 3 x 3 x1/4" STEEL ANGLES - WELD 3/16" FILLET AT CONNECTIONS

TOP: 3/16" STEEL PLATE

SHELF: 1/8" STEEL PLATE

BACK: 24 GAGE STEEL SHEET

1/4" ROUND HEAD THRU BOLT ATTACH - EVENLY SPACE AT 12" MAXIMUM

DRAWER: BOTTOM AND SIDES: 16 GAGE GALVANIZE SHEET STEEL BEND OR WELDED - HEM TOP EDGES
PULL: 6x5/16" WIRE: STANLEY 4486 OR EQUAL

EDGES: SMOOTH EDGES BY GRINDING - FREE FROM SHARP SURFACES

FINISH: SHOP APPLY: SOLVENT CLEAN POWER GRIND OR GRIT BLAST CLEAN, PRIME AND EPOXY ENAMEL PAINT

DESIGN JEM
DRAWN WVZ
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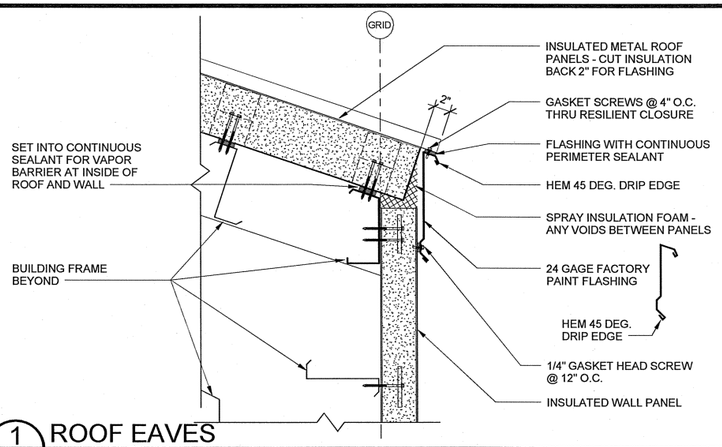
AMBLER AIRPORT

AMBLER AIRPORT REHABILITATION
AIP 3–02–0354–2014/61303
ARCHITECTURAL
DETAILS

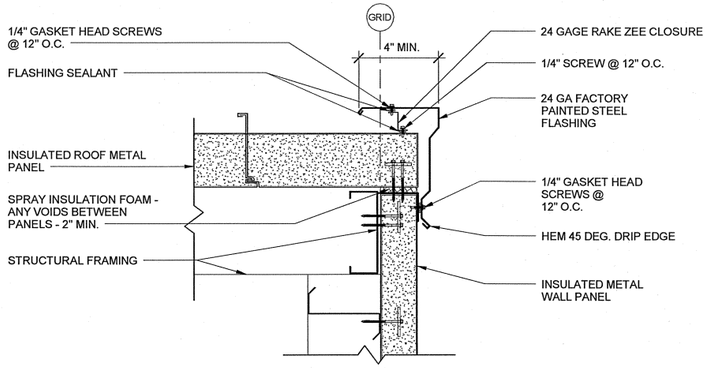
SHEET BA4 OF 81

MCG PROJECT NUMBER: 20100439.08



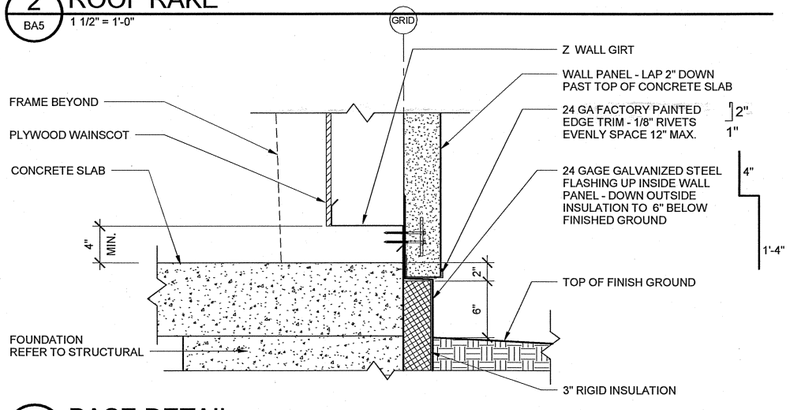
1 BA5 ROOF EAVES

1 1/2" = 1'-0"



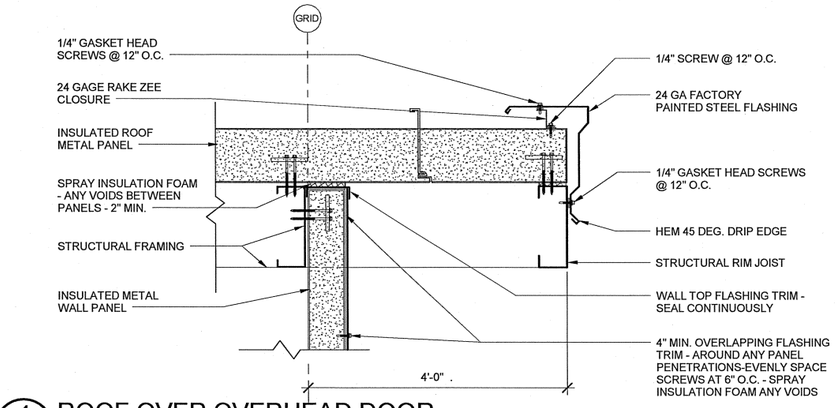
2 BA5 ROOF RAKE

1 1/2" = 1'-0"



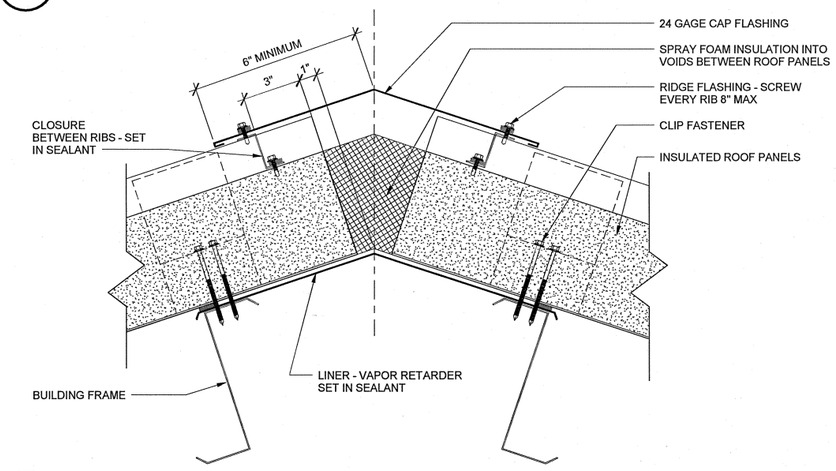
3 BA5 BASE DETAIL

1 1/2" = 1'-0"



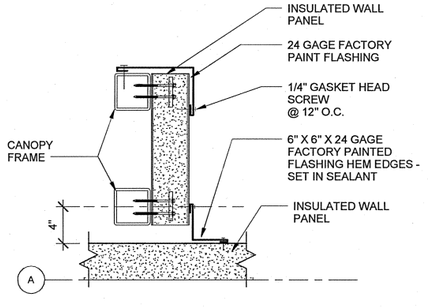
4 BA5 ROOF OVER OVERHEAD DOOR

1 1/2" = 1'-0"



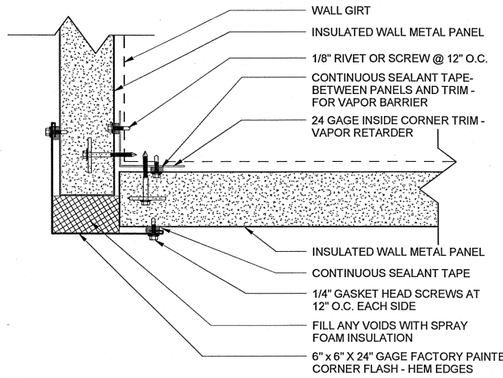
5 BA5 RIDGE

3" = 1'-0"



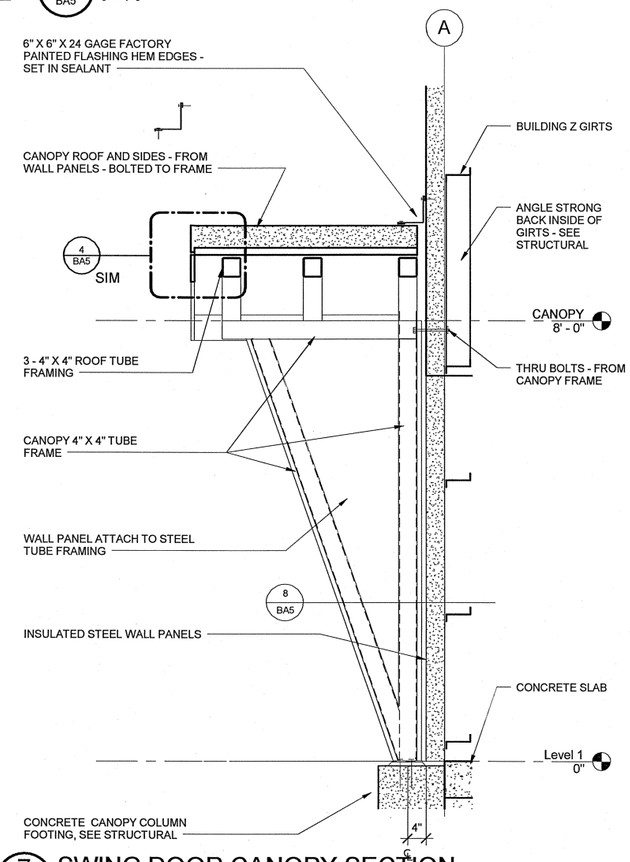
8 BA5 WALL PANEL AT FRAME

1 1/2" = 1'-0"



6 BA5 CORNER AT WALL PANELS

3" = 1'-0"



7 BA5 SWING DOOR CANOPY SECTION

3/4" = 1'-0"

MCG PROJECT NUMBER: 20100039.08

DESIGN JEM

DRAWN WVZ

CHECKED DDG

BY	DATE	REVISIONS

STATE OF ALASKA

DEPAERTMENT TRANSFORTATION AND PUBLIC FACILITIES

NORTHERN REGION–DESIGN AND CONSTRUCTION–AVAITION

APPROVED _____ DATE 2.12.14

ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA — John E. McCool — No. 3534-A — REGISTERED PROFESSIONAL ARCHITECT — 1-31-2014

PLANS DEVELOPED BY:
MCCOOL CARLSON GREEN ARCHITECTS

AMBLER AIRPORT

AMBLER AIRPORT REHABILITATION

AIP 3–02–0354–2014/61303

ARCHITECTURAL

DETAILS

SHEET BA5 OF 81

DESIGN LOADS:

CODE: 2009 INTERNATIONAL BUILDING CODE (IBC)

FLOOR: 200 PSF
ROOF LIVE LOAD: 20 PSF
ROOF SNOW LOAD: Pg = 60 PSF
Pf = 38 PSF
Ce = 0.9
I = 1.0
Ct = 1.0
SNOW DRIFT PER ASCE 7

WIND LOADS: WIND SPEED: 105 MPH (3-SECOND GUST)
I = 1.0
EXPOSURE C
Cpi = +0.18 / -0.18
a = 4.4'

C&C: ZONE PER IBC (WIND PRESSURE IN PSF BASED ON 10 SF AREA)

ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5
15 / -24	15 / -41	15 / -61	26 / -28	26 / -35

EARTHQUAKE DESIGN:
I = 1.0
OCCUPANCY CATEGORY: II
SITE CLASS: D
SS = 0.824g S1 = 0.216g
SDS = 0.643g SD1 = 0.283g
SEISMIC DESIGN CATEGORY = D
OMEGA = 3.0
SEISMIC FORCE RESISTING SYSTEM: STEEL SYSTEM NOT SPECIFICALLY DESIGNED FOR SEISMIC RESISTANCE
V = 10 KIPS
CS = 0.21 (STRENGTH DESIGN)
R = 3.0
ANALYSIS PROCEDURE: EQUIV LATERAL FORCE

FLOOD DESIGN: N/A (ON AIRPORT APRON - HIGHEST GROUND AVAILABLE)

SPECIAL LOADS: MINIMUM COLATERAL LOAD = 5 PSF
AT MONORAIL HOIST: 2 TONS

FOUNDATIONS:

FOUNDATION DESIGN BASED ON A MINIMUM BEARING CAPACITY OF 2000 PSF. PROOF ROLL BOTTOM OF EXCAVATION AS REQUIRED TO ENSURE PROPER COMPACTION OF FILL LAYERS. COMPACT FILL BELOW FOOTINGS AND SLABS TO 95% MAXIMUM DENSITY PER SPECIFICATIONS.

REINFORCED CONCRETE:

ALL CONCRETE SHALL BE CLASS A, F'C=4,000 PSI, MAXIMUM W/C = 0.50. SUBMIT MIX DESIGN.

UNLESS OTHERWISE NOTED, REINFORCING STEEL SHALL CONFORM TO AASHTO M31, GRADE 60. SUBMIT REINFORCING STEEL SHOP DRAWINGSWITH DETAILS PER ACI 315 MANUAL OF STANDARD PRACTICE. LAP BARS 36 BAR DIAMETERS.

ASTM A706, GRADE 60, REINFORCING STEEL SHALL BE USED FOR WELDED OR FIELD-BENT BARS.

CONCRETE COVER:
WALLS 1", EXCEPT 1 1/2" WHERE EXPOSED TO WEATHER AND 2" AGAINST EARTH. PROVIDE 3" CLEAR WEHRE CAST ON EARTH

ANCHOR BOLTS:
ANCHOR BOLTS, ASTM A307, OR F1554 GRADE 36, HOT DIP GALVANIZED. SET ALL ANCHOR BOLTS BY TEMPLATE.

MISCELLANEOUS:

REFER TO ARCHITECTURAL DRAWINGS FOR WALL OPENINGS, ARCHITECTURAL TREATMENT AND DIMENSIONS NOT SHOWN.

REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF CUT OPENINGS, PIPING, CONDUITS, ETC. NOT SHOWN.

VERIFY ALL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE PRIOR TO STARTING WORK AND NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES.

PROVIDE TEMPORARY ERECTION BRACING AND SHORING AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

SPECIAL INSPECTION:

THE FOLLOWING SPECIAL INSPECTIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL EMPLOYED BY THE STATE OR ITS AGENT. THE CONTRACTOR SHALL COORDINATE WORK WITH THE SPECIAL INSPECTORS.

SPECIAL INSPECTORS SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER AND THE ENGINEER OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTROR FOR CORRECTION, AND TO THE ATTENTION OF THE ENGINEER OF RECORD.

THE SPECIAL INSPECTORS SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISION OF THE APPLICABLE CODES.

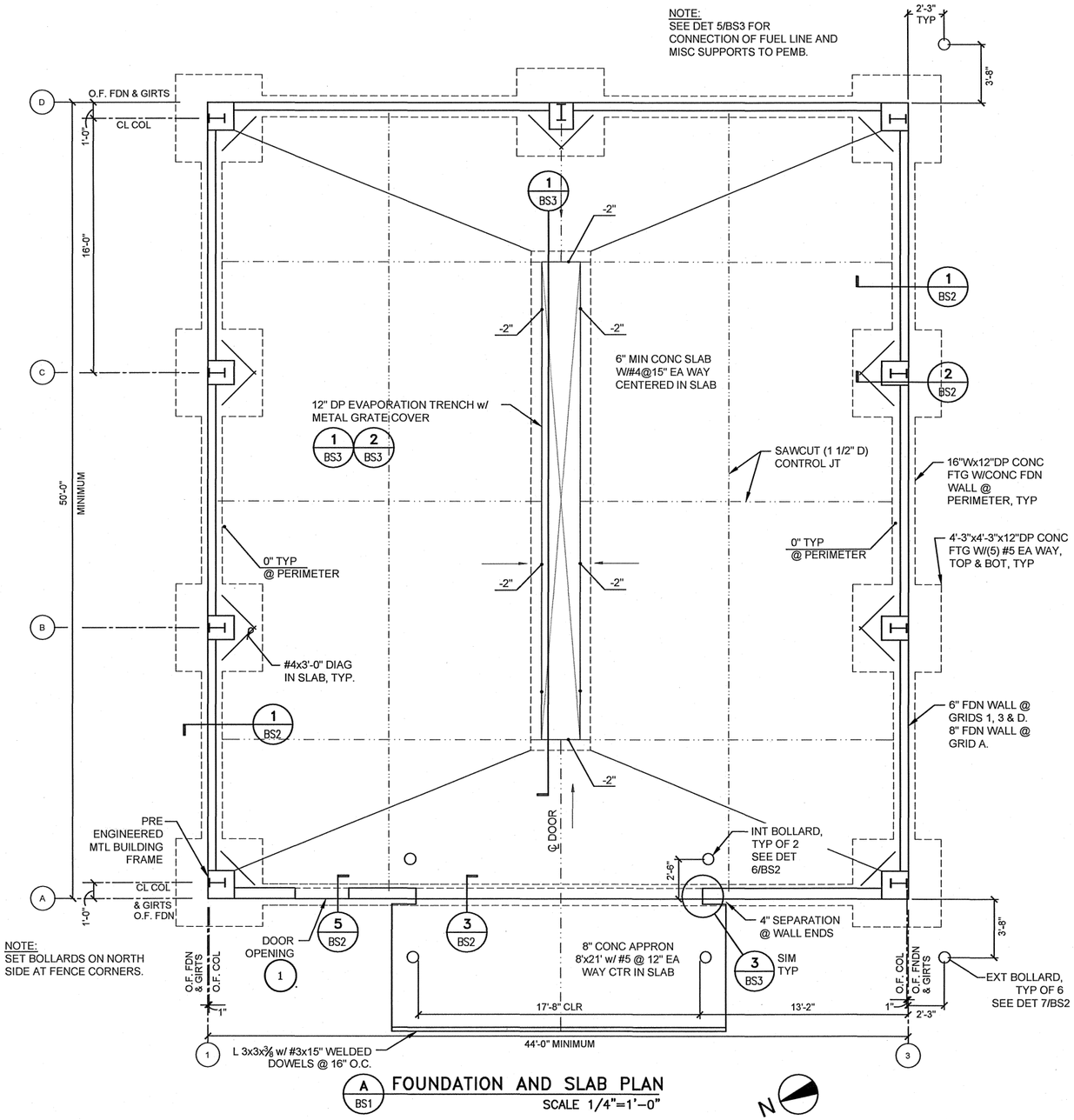
PROVIDE THE FOLLOWING SPECIAL INSPECTIONS PER SECTION 1704 OF THE INTERNATIONAL BUILDING CODE. ITEMS MARKED BY AN ASTERIC (*) MAY BE INSPECTED BY THE RESIDENT PROJECT ENGINEER IF SPECIAL INSPECTOR IS NOT AVAILABLE.

CONCRETE:
- VERIFY USE OF REQUIRED DESIGN MIX (PERIODIC)*.
- ANCHOR BOLTS: INSPECT PRIMARY COLUMN ANCHOR BOLTS PRIOR TO AND DURING PLACEMENT OF CONCRETE (CONTINUOUS).
- OBSERVE SAMPLING OF FRESH CONCRETE TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND TEMPERATURE MEASUREMENTS (PERIODIC)*.
- INSPECTION FOR MAINTENANCE OF REQUIRED CURING TEMPERATURE (PERIODIC)*.
- INSPECTION OF REINFORCING STEEL (PERIODIC)*.

BUILDING FRAME:
- ANCHOR BOLTS: VERIFY SNUG TIGHT OR AS OTHERWISE SPECIFIED BY THE BUILDING DESIGNER (PERIODIC)*.
- HIGH STRENGTH BOLTS: VERIFY MARKINGS INDICATING TYPE OF BOLT MEETS THOSE REQUIRED BY CONSTRUCTION DOCUMENTS. FOR BOLTS TIGHTENED BY TURN-OF-THE-NUT METHOD, VERIFY CONNECTION PLYS HAVE BEEN DRAWN TOGETHER AND PROPERLY SNUGGED AND MONITOR INSTALLATION OF BOLTS TO VERIFY PROPER PROCEDURES (CONTINUOUS). FOR LOAD INDICATING WASHERS OR TWIST-OFF BOLTS, VERIFY UPON COMPLETION (PERIODIC)*.
- INSPECT STEEL FRAME JOINT DETAILS INCLUDING MOMENT FRAME CONNS, FRAME BRACING AND FLANGE BRACING OF PRIMARY BUILDING FRAMES (PERIODIC)*.
- BUILDING IS PRE-ENGINEERED METAL BUILDING: PROVIDE ANY SPECIAL INSPECTIONS REQUIRED BY THE BUILDING DESIGNER.

DRAWING KEY NOTES:

1. DOOR OPENING CANOPY NOT SHOWN. SEE ARCHITECTURAL. PROVIDE TUBULAR FRAMING WITH WEEP HOLES @ BOTTOM, SIZE AS REQUIRED FOR HOT DIP GALVANIZING.



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DESIGN
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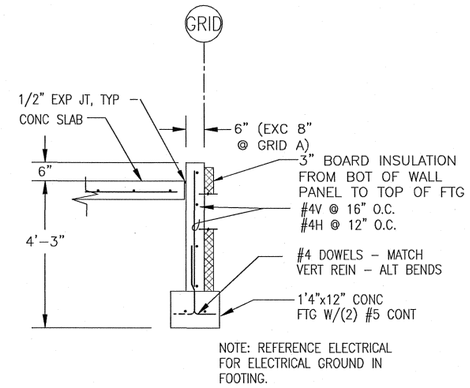
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF
DATE 2.12.14

STATE OF ALASKA 49TH Duane H. Anderson CE 4774 1-31-14 Registered Professional Engineer

PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.

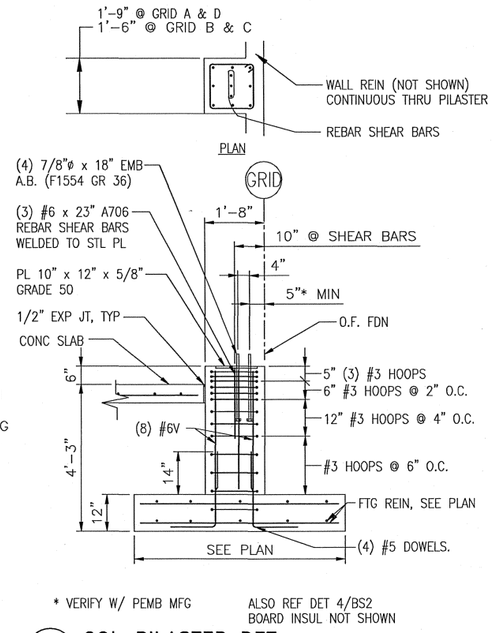
AMBLER AIRPORT
AMBLER AIRPORT REHABILITATION
AIP 3-02-0354-2014/61303
STRUCTURAL
FOUNDATION PLAN & NOTES

SHEET BS1 OF 81



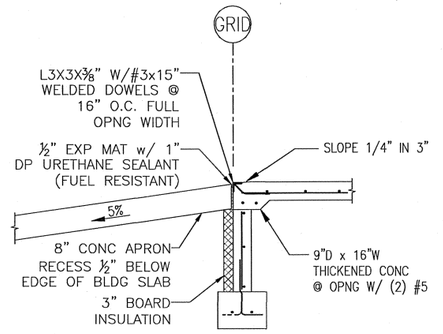
1 BS2 PERIMETER FOUNDATON DET

SCALE 1/2"=1'-0"



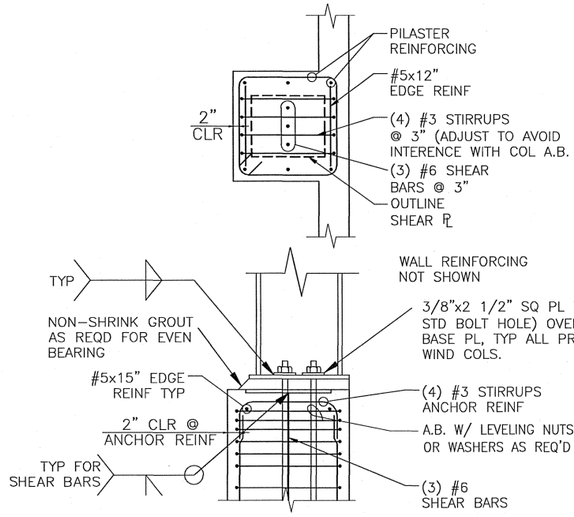
2 BS2 COL PILASTER DET

SCALE 1/2"=1'-0"



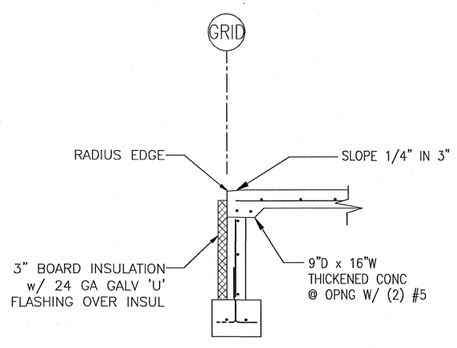
3 BS2 SECTION @ OVERHEAD DOOR OPNG

SCALE 1/2"=1'-0"



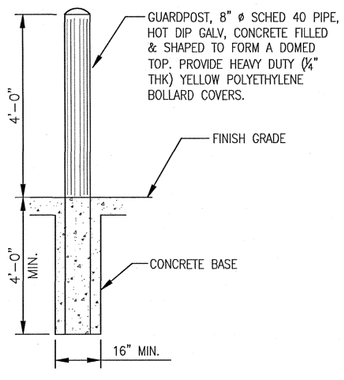
4 BS2 COLUMN BASE DETAIL

SCALE 1/2"=1'-0"



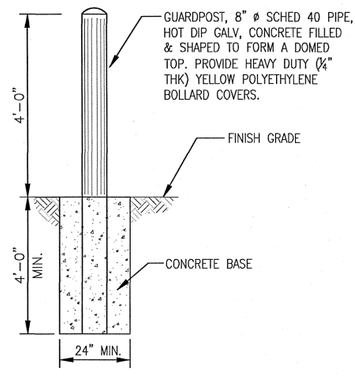
5 BS2 SECTION @ PERSONNEL DOOR

SCALE 1/2"=1'-0"



6 BS2 INTERIOR BOLLARD ON CONC FLOOR DET

SCALE: NTS



7 BS2 EXTERIOR BOLLARD AT GRADE DET

SCALE: NTS

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DESIGN

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STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION

APPROVED

ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

DATE 2.12.14

STATE OF ALASKA 49TH Duane Anderson Duane H. Anderson CE 4774 1-31-14 Registered Professional Engineer

PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.

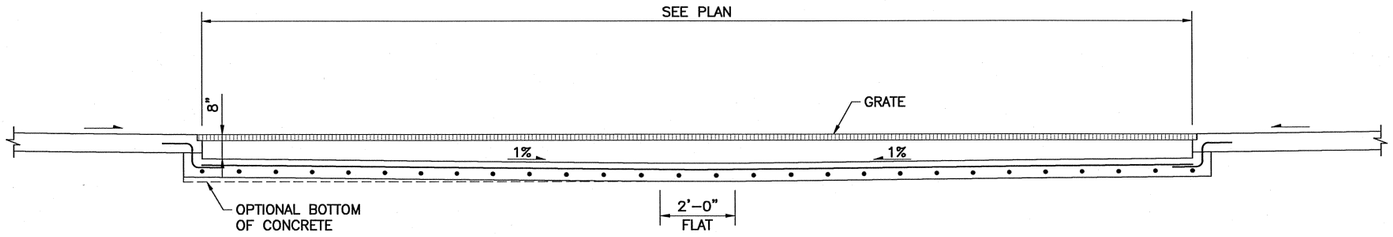
AMBLER AIRPORT

AMBLER AIRPORT REHABILITATION

AIP 3-02-0354-2014/61303

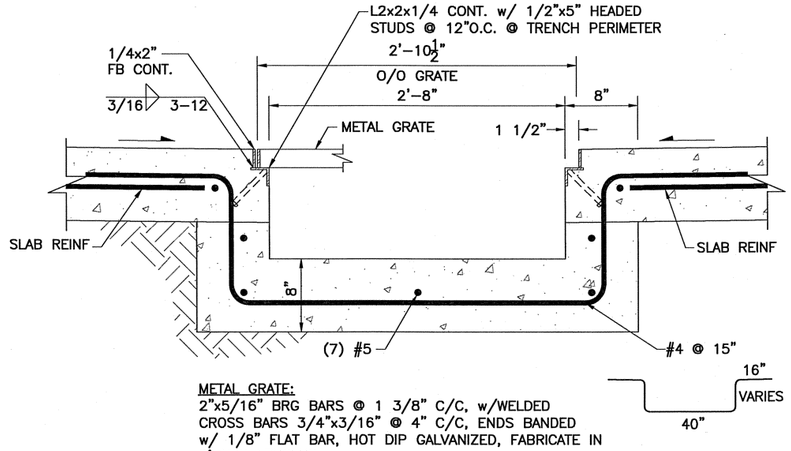
STRUCTURAL
GRADE BEAM & BOLLARD DETAILS

SHEET BS2 OF 81



1 BS3 LONGITUDINAL SECTION @ EVAP TRENCH

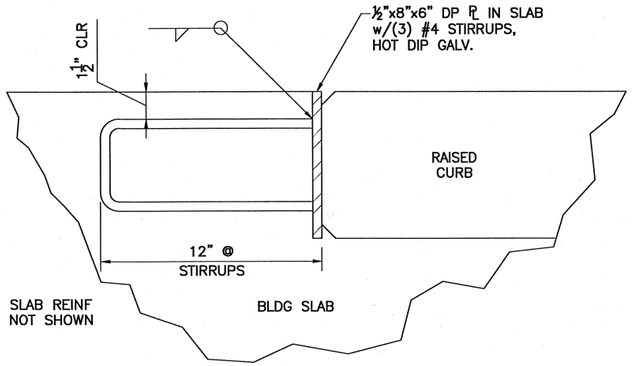
NOT TO SCALE



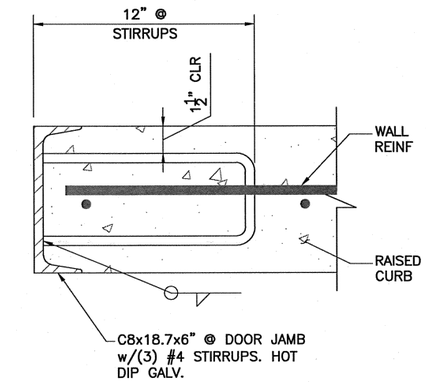
METAL GRATE:
2"x5/16" BRG BARS @ 1 3/8" C/C, w/WELDED CROSS BARS 3/4"x3/16" @ 4" C/C, ENDS BANDED w/ 1/8" FLAT BAR, HOT DIP GALVANIZED, FABRICATE IN 2' MAX LENGTHS.

2 BS3 EVAPORATION TRENCH

NOT TO SCALE



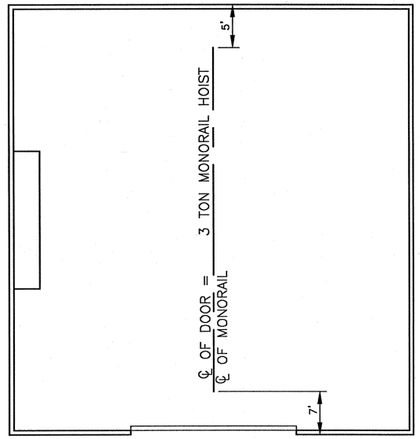
SLAB EDGE REINFORCING @ OVERHEAD DOOR OPENING WHERE PEMB DOOR JAMB BEARS ON SLAB



CURB END REINFORCING @ OVERHEAD DOOR OPENING WHERE PEMB JAMB BEARS ON RAISED CURB

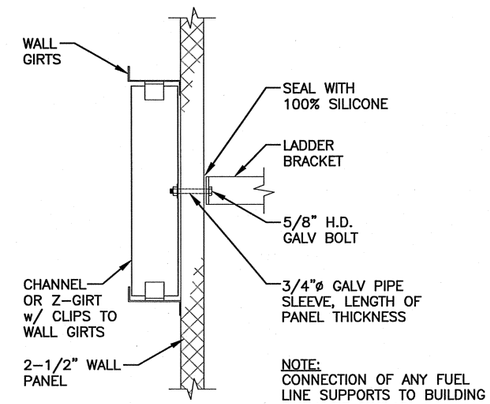
3 BS3 OVERHEAD DOOR JAMB REINFORCING

NOT TO SCALE



4 BS3 OVERHEAD CRANE (MONORAIL)

NOT TO SCALE



NOTE:
CONNECTION OF ANY FUEL LINE SUPPORTS TO BUILDING SHALL BE SIMILAR

5 BS3 FUEL LINE SUPT CONNECTION

NOT TO SCALE

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DESIGN

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

APPROVED _____ DATE 7-12-14

ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA 49TH Duane H. Anderson CE 4774 1-31-14 Registered Professional Engineer

PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.

AMBLER AIRPORT

AMBLER AIRPORT REHABILITATION

AIP 3-02-0354-2014/61303

SNOW REMOVAL EQUIPMENT BUILDING DETAILS

SHEET BS3 OF 81

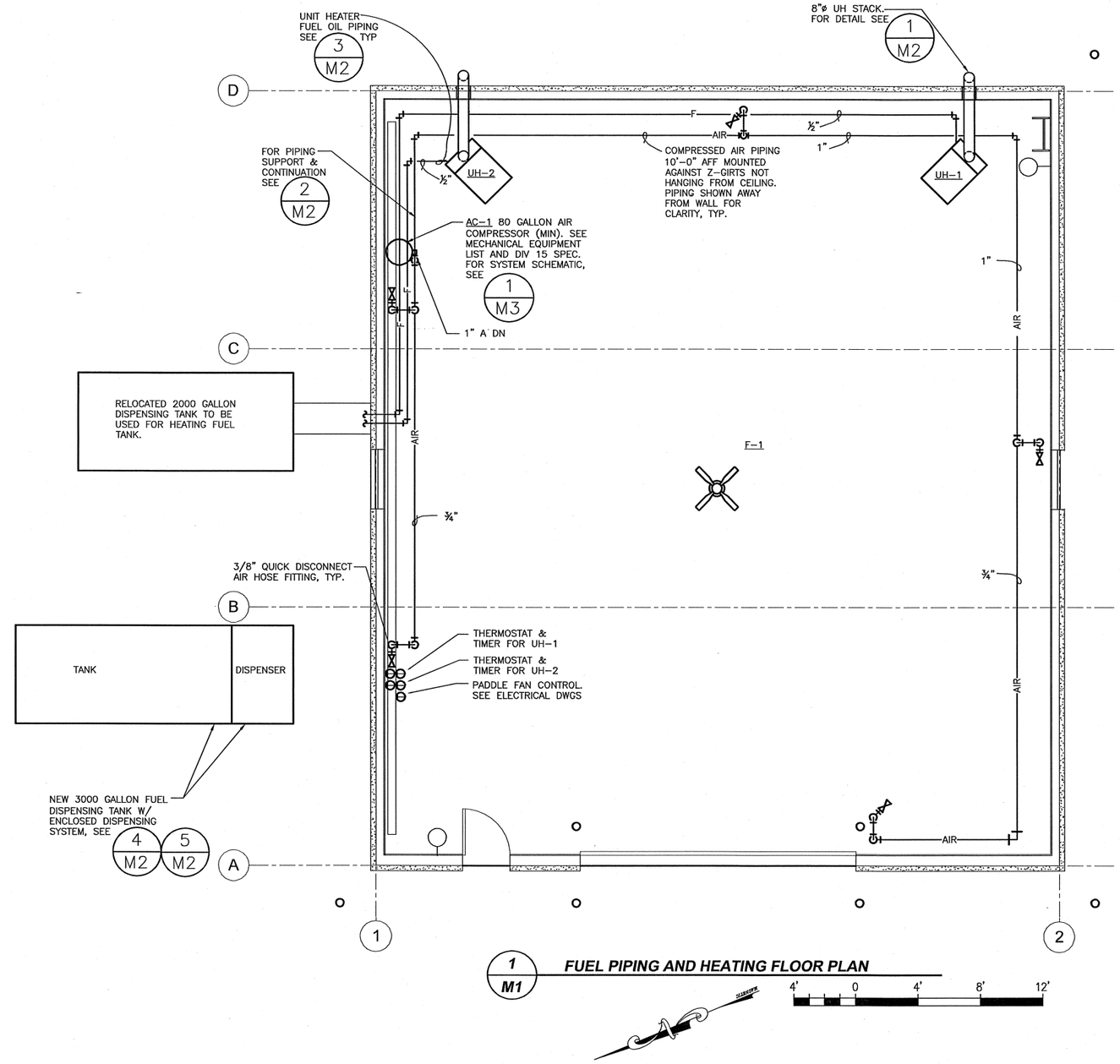
MECHANICAL EQUIPMENT LIST

TAG	DESIGN BASIS PRODUCT
AC–1	AIR COMPRESSOR: INGERSOLL RAND T30–2340–N3–1, 80 GALLON MINIMUM, 9.0 ACFM @ 175 PSI, 3 HP, 1.15 SF, 230/1PH/60 HZ, CRANKCASE HEATER, LOW OIL LEVEL CUTOUT, AIR FILTER AND PRESSURE REGULATOR, AUTOMATIC CONDENSATE DRAIN W/ HIGH MOUNT ELECTRIC CONDENSATE DRAIN EDV–2000. HOSE REEL: AUTO RETRACTABLE REELCRAFT MODEL NO. 2Z862 LOW PRESSURE, 50 FOOT, 3/8"
UH–1 UH–2	UNIT HEATER: MODINE POR185, #1 DIESEL/FUEL OIL, 1.65 GPH, 231 MBTUH INPUT/184 MBTUH OUTPUT, 3200 CFM @ 56 FOOT THROW, 1/4 HP, 1100 RPM, 115V/1PH/60 HZ, TIMER: INTERMATIC FF34H. T–STAT: HONEYWELL T631C1103.
F–1	PADDLE FAN: GRAINGER/DAYTON MODEL #4C852, 36 INCH, 12,500 CFM @ 395 RPM, 78VA, 120V/1PH/60 HZ, GRAINGER DAYTON MODEL #1AGU6 SPEED SWTCH

NOTE: FURNISH AND INSTALL MAKES AND MODELS CITED HERE OR IN THE SPECIFICATIONS OR APPROVED EQUALS

MECHANICAL LEGEND

FIXTURE	DESCRIPTION
⋈	QUICK DISCONNECT AIR VALVE
⋈	ISOLATION VALVE
⋈	FUSIBLE VALVE
—F—	FUEL PIPING – SUPPLY & RETURN
—AIR—	AIR COMPRESSOR LINE – BLACK IRON
UH	UNIT HEATER
⋈	OIL SAFETY VALVE



1/M1 FUEL PIPING AND HEATING FLOOR PLAN

4' 0 4' 8' 12'

Z:\13027AAS – Ambler SREB\M–Working\Drawings\13027_M1–Layout1

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION–DESIGN AND CONSTRUCTION–AVIATION
APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

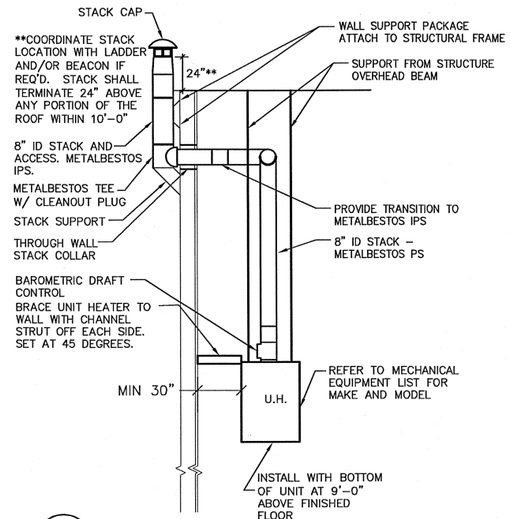
STATE OF ALASKA 49 TH BRADLEY S. SORDAHL 01–29–2014 ME–7568 REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.

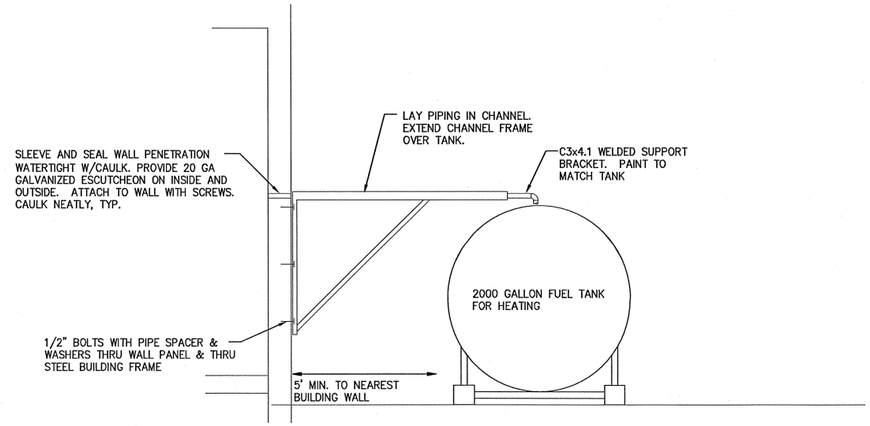
AMBLER AIRPORT
AMBLER AIRPORT REHABILITATION
AIP 3–02–0354–2014/61303

FUEL PIPING AND HEATING FLOOR PLAN

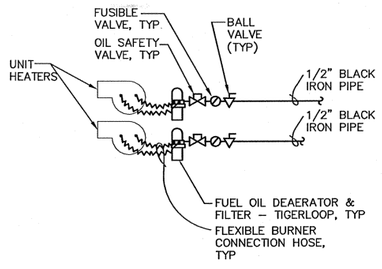
SHEET BM1 OF 81



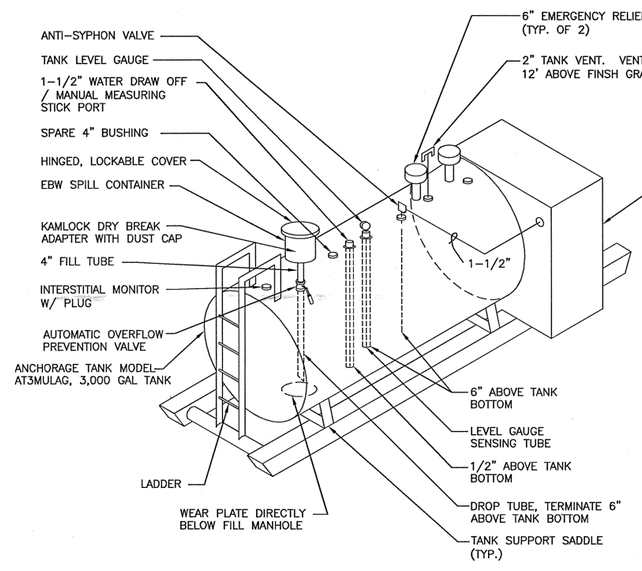
1 / M2 **UNIT HEATER STACK INSTALLATION**
NTS



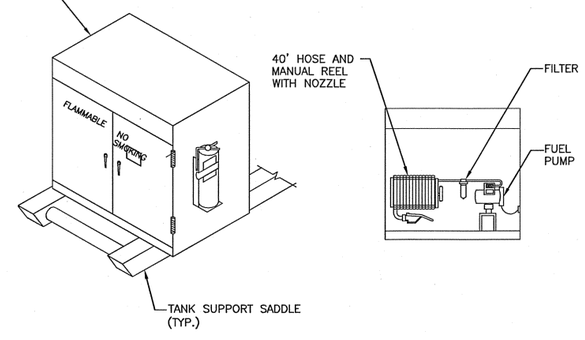
2 / M2 **FUEL PIPING SUPPORT BRACKET**
NTS



3 / M2 **UNIT HEATER FUEL OIL PIPE ONE-LINE**
NTS



4 / M2 **3000 GALLON FUEL DISPENSING TANK DETAIL**
NTS
HEATING FUEL TANK IS RELOCATED 2000 GALLON DISPENSING TANK.



5 / M2 **FUEL DISPENSING PUMP HOUSING**
NTS

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED _____ DATE 2.12.14
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA 49TH BRADLEY S. SORDAHL 01-29-2014 ME-7568 REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.

AMBLER AIRPORT
AMBLER AIRPORT REHABILITATION
AIP 3-02-0354-2014/61303

UNIT HEATER AND FUEL TANK DETAILS

SHEET BM2 OF 81

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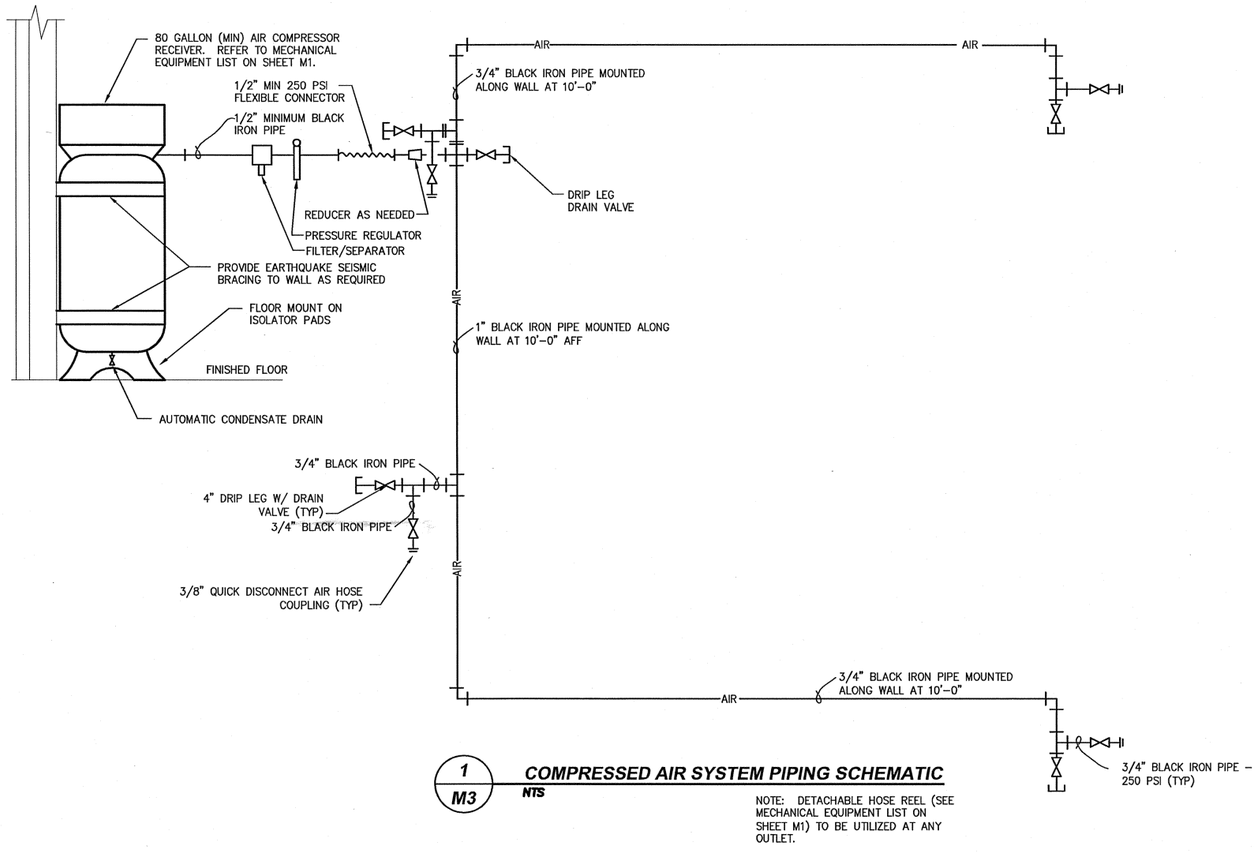

1 / M3 **COMPRESSED AIR SYSTEM PIPING SCHEMATIC**

NTS

NOTE: DETACHABLE HOSE REEL (SEE MECHANICAL EQUIPMENT LIST ON SHEET M1) TO BE UTILIZED AT ANY OUTLET.

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APPROVED _____ DATE 2.12.14

ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

STATE OF ALASKA 49TH BRADLEY S. SORDAHL 01-29-2014 ME-7568 REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.

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AIR COMPRESSOR SCHEMATIC

SHEET BM3 OF 81

PANEL: C

PROJECT: DOUBLE BAY SREB
LOCATION:

LUGS ■ CB □ | SURF ■ FLSH □ | THRUFEED LGS □ SHNT TRP □ SBFD LGS □ | SUBFEED BKR □ ISO GRND BAR □ SOLID NEUTRAL ■

120/240 VOLTS — 1 PH 3 WIRE — 200 AMP — 22,000 (1) AIC

CIRCUIT DESCRIPTION	KVA	AMP	CKT	CKT	AMP	KVA	CIRCUIT DESCRIPTION
PANEL G	6.43	50/	1	2	30/1		SPARE
		/2	3	4			SPACE
100 AMP 240 VOLT RECEPTACLE	19.2	100/	5	6			SPACE
		/2	7	8			SPACE
NEMA 5-20 RECEPTACLES	0.9	20/1	9	10			SPACE
NEMA 5-20 RECEPTACLES	0.9	20/1	11	12	20/1	0.18	NEMA 5-20 RECEPT.- COMPRESSOR
AIR COMPRESSSOR - 3 HP	4.78	50/	13	14	20/1		SPARE
		/2	15	16	20/1		SPARE
50 AMP 240 VOLT RECEPTACLE	9.6	50/	17	18	20/1		SPARE
		/2	19	20	20/1		SPARE
NEMA 5-30 RECEPTACLE	2.88	30/1	21	22	20/1		SPARE
SPARE		20/1	23	24	20/		SPARE
SPARE		20/1	25	26	/2		
SPACE			27	28	20/1		SPARE
SPACE			29	30	20/1		SPARE

CONNECTED LOAD:	44.9	KVA	187	A
DEMAND LOAD:	44.9	KVA	187	A
DEMAND + CONT.	46.5	KVA	194	A
DATE:				
REV:				

REMARKS:
(1) FAULT CURRENT BASED ON 50 KVA 1.0% Z TRANSFORMER
2. PROVIDE SEPARATE NEUTRAL AND EQUIPMENT GROUND BARS

PANEL: G

PROJECT: DOUBLE BAY SREB
LOCATION:

LUGS ■ CB □ | SURF ■ FLSH □ | THRUFEED LGS □ SHNT TRP □ SBFD LGS □ | SUBFEED BKR □ ISO GRND BAR □ SOLID NEUTRAL ■

120/240 VOLTS — 1 PH 3 WIRE — 100 AMP — 22,000 AIC

CIRCUIT DESCRIPTION	KVA	AMP	CKT	CKT	AMP	KVA	CIRCUIT DESCRIPTION
LIGHTING - FRONT	1.3	20/1	1	2	30/		SPARE
LIGHTING - REAR	1.4	20/1	3	4	/2		
LIGHTING - WORKBENCH & EXTERIOR	0.6	20/1	5	6	20/		SPARE
PADDLE FAN & UNIT HEATER #1	0.8	15/1	7	8	/2		
UNIT HEATER #2	0.7	15/1	9	10	20/1	0.8	STORAGE BUILDING LIGHTING AND POWER
1/3 HP FUEL PUMP AND DISPENSER (2)	0.83	15/1	11	12	20/1		SPARE
SPACE			13	14	20/1		SPARE
SPACE			15	16			SPACE

CONNECTED LOAD:	6.43	KVA	27	A
DEMAND LOAD:	6.43	KVA	27	A
DEMAND + CONT.	8.0	KVA	33	A
DATE:				
REV:				

REMARKS:
1. PROVIDE SEPARATE NEUTRAL AND EQUIPMENT GROUND BARS
(2) PROVIDE LOCKING PROVISION

NOTES:

(1) PROVIDE MULTIPOLE CIRCUIT BREAKERS OR CIRCUIT BREAKERS WITH HANDLE TIES, AS REQUIRED FOR COMPLIANCE WITH NEC 210.4(B), WHEREVER FIELD WIRING RESULTS IN MULTIWIRE BRANCH CIRCUITS.

LEGEND

FIXTURE	DESCRIPTION	MOUNTING HEIGHT	LAMP SIZE/ TYPE	REMARKS
A/160	INDUSTRIAL LED FIXTURE, DIE-CAST ALUMINUM HOUSING, 2-MODULE, STANDARD DRIVE CURRENT, 5000K, 120° DIFFUSED LENS. MOUNT TOP OF FIXTURE AT APPROXIMATELY 16' TO CLEAR FRAMING. USE BALL HANGER AND SUPPORT FROM ROOF PURLINS. GE ALBEO LED ABHX-0-2-T-57-D-N-N OR APPROVED EQUAL.	APPROXIMATELY 16'	LED	
B/40	LED PERIMETER WALL PACK FIXTURE, DIE-CAST ALUMINUM HOUSING, VANDAL RESISTANT, 5000K, POLYCARBONATE REFRACTOR. UL LISTED FOR WET LOCATION. HUBBELL PVL3-30LU-5K-035-BZ OR APPROVED EQUAL.	2 FEET BELOW ROOF STRUCTURE	LED	INTEGRAL PHOTOCELL
C/20	LED PERIMETER WALL PACK FIXTURE, CAST ALUMINUM HOUSING, VANDAL RESISTANT, 5000K, FULL POLYCARBONATE FRONT. UL LISTED FOR WET LOCATION. HUBBELL NRG-312LU-5K-BZ-PC OR APPROVED EQUAL.	8'-0"	LED	INTEGRAL PHOTOCELL
D/65 B	EMERGENCY EGRESS LIGHT, SEALED LEAD-CALCIUM BATTERY. 12V, -40°C RATING. INDUSTRIAL LIGHTING UNIT LITHONIA #INDX1236 W 120 H1212 ULT, OR SURVIVE-ALL SV SERIES CATALOG NO. W-12SV36M-2-MK-D-CW4, OR APPROVED EQUAL.	8'-0"	INCLUDED	
E/150	WALL MOUNT ENCLOSED AND GASKETED INCANDESCENT FIXTURE WITH 150 WATT LAMP, GLASS GLOBE AND METAL GUARD. MOUNT UP 8'-0". COOPER CROUSE-HINDS #VG2759-V63-V911-GASK213 OR APPROVED EQUAL.	8'-0"	150 INCAND	
⟨1⟩	NOTE SYMBOL - NUMBER INDICATED			
MD	MOTION DETECTOR			
$	SINGLE POLE SWITCH, LIGHTED TOGGLE (LIGHT ON WITH LOAD OFF)	48"		
$3	3-WAY SWITCH, LIGHTED TOGGLE (LIGHT ON WITH LOAD OFF)	48"		
$T	SINGLE POLE MANUAL MOTOR STARTER SWITCH W/THERMAL OVERLOAD ELEMENT	48"		
$WP	WEATHERPROOF SWITCH	48"		
$HOA & SP	DOUBLE POLE HAND-OFF-AUTO SWITCH WITH SPEED CONTROL	48"		
JWP	WEATHERPROOF JUNCTION BOX			
▬	CIRCUIT BREAKER PANEL, SEE PANEL SCHEDULE	6'-6" TO TOP		
	CIRCUIT BREAKER (CB)			
	ELECTRICAL CIRCUIT			
C-#	HOME RUN TO CIRCUIT PANEL WITH PANEL AND BREAKER NUMBER			
	GROUND ELECTRODE SYSTEM CONNECTION			
	DUPLEX OUTLET, GFCI, NEMA 5-20R	48"		
A	RECEPTACLE, 30 AMP, 120V, NEMA 5-30R	48"		PROVIDE MATCHING ANGLE PLUG
B	RECEPTACLE, 100 AMP, 240V, HUBBELL KILLARK VR1032 OR AS DIRECTED	48"		PROVIDE MATCHING ANGLE PLUG
C	RECEPTACLE, 50 AMP, 240V, NEMA 6-50R	48"		PROVIDE MATCHING ANGLE PLUG
	DISCONNECT SWITCH, 30A, 2P, S/N, 240V	5'-6"		
F	FAN JUNCTION BOX			
S	MOTOR WITH HORSEPOWER INDICATED			
G	GENERATOR INLET, IN NEMA-3R ENCLOSURE	48"		
UGE	UNDERGROUND ELECTRICAL			
	LOW VOLTAGE CKT.			
RSC	RIGID STEEL CONDUIT			
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT			
BCG	BARE COPPER GROUNDING CONDUCTOR			
AFF	ABOVE FINISHED FLOOR			
ESD	EMERGENCY SHUT DOWN SWITCH			

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STATE OF ALASKA 49TH MICHAEL J. LOVE 1/29/2014 EE-5818 REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
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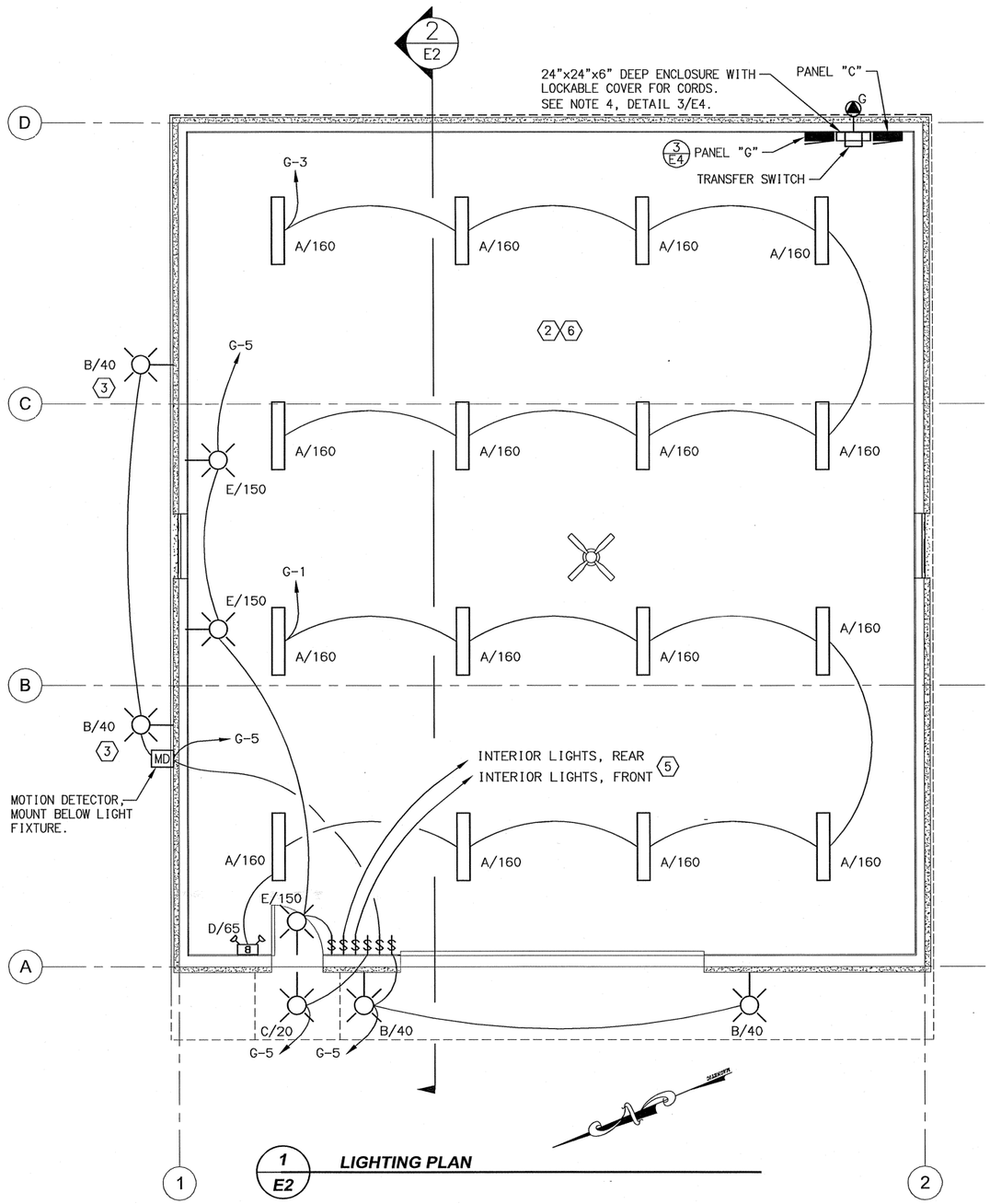
ELECTRICAL SCHEDULES

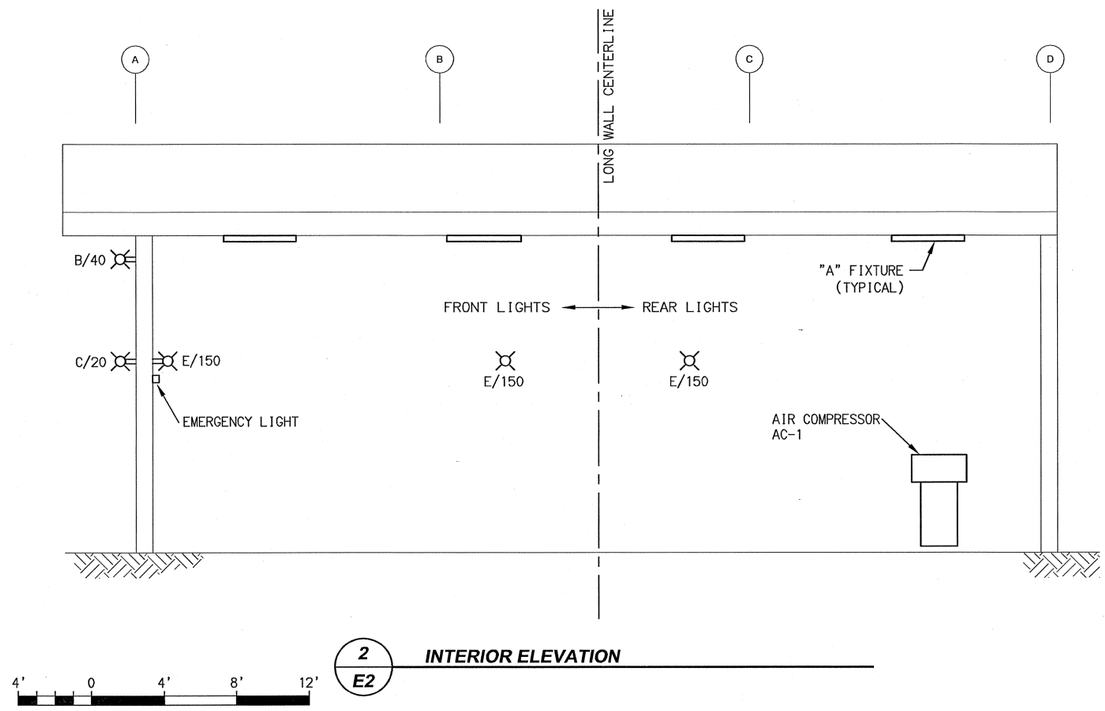
SHEET BE1 OF 81



1 E2 **LIGHTING PLAN**

ELECTRICAL NOTES - SHEETS E2 & E3

1. 120-VOLT POWER FOR COMPRESSOR CRANKCASE HEATER AND AUTOMATIC CONDENSATE DRAIN CONTROL TO BE CONNECTED TO NEMA-5-20 RECEPTACLE NEXT TO COMPRESSOR.
2. ALL CONDUITS IN THE BUILDING, PASSING THROUGH THE ZONE FROM THE FLOOR TO 1.5' ABOVE THE FLOOR, SHALL BE RMC AND SHALL HAVE A SEAL FITTING LOCATED 18" MINIMUM ABOVE THE FLOOR. THE BUILDING ELECTRICAL INSTALLATION SHALL COMPLY WITH NEC ARTICLE 511 "COMMERCIAL GARAGES, REPAIR AND STORAGE".
3. MOUNT 2 FEET BELOW ROOF STRUCTURE. AIM FIXTURE TO ILLUMINATE THE FUEL DISPENSING AREA. PROVIDE WITH MOTION DETECTOR (WATTSTOPPER EW-200-120-G OR APPROVED EQUAL) AND INTEGRAL PHOTOCELL. SEE DETAIL 5/E4 FOR CONTROL DIAGRAM.
4. INSTALL #3/0 AWG BCG IN FOUNDATION FOOTING. GROUNDING ELECTRODE SYSTEM IS TO BE BONDED TO 3/4" GROUND RODS, THE BUILDING STEEL FRAME AND TO THE FOOTING GROUND WITH A #2 AWG CONDUCTOR AT THE SERVICE ENTRANCE.
5. SWITCHES FOR LIGHT FIXTURES TO HAVE LOCATOR LIGHTS IN TOGGLE.
6. FOR ALL EXTERIOR WIRING AND INTERIOR WIRING BELOW 10 FT ABOVE FINISH FLOOR, USE RIGID STEEL CONDUIT EVEN WHEN CONCEALED BEHIND WAINSCOAT. IMC AND EMT CONDUIT MAY BE USED 10 FT A.F.F. WITHIN THE BUIDING ENVELOPE.
10. PROVIDE SLACK LOOP ADEQUATE TO ACCOMMODATE MOVEMENT OF 12 INCHES IN ANY DIRECTION WHEN TRANSITIONING TO UNDERGROUND CONDUIT.
11. PENETRATIONS THROUGH EXTERIOR WALL SHALL BE BELOW SERVED EQUIPMENT.



2 E2 **INTERIOR ELEVATION**

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STATE OF ALASKA 49TH MICHAEL J. LOVE 1/29/2014 EE-5818 REGISTERED PROFESSIONAL ENGINEER

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ELECTRICAL LIGHTING PLAN

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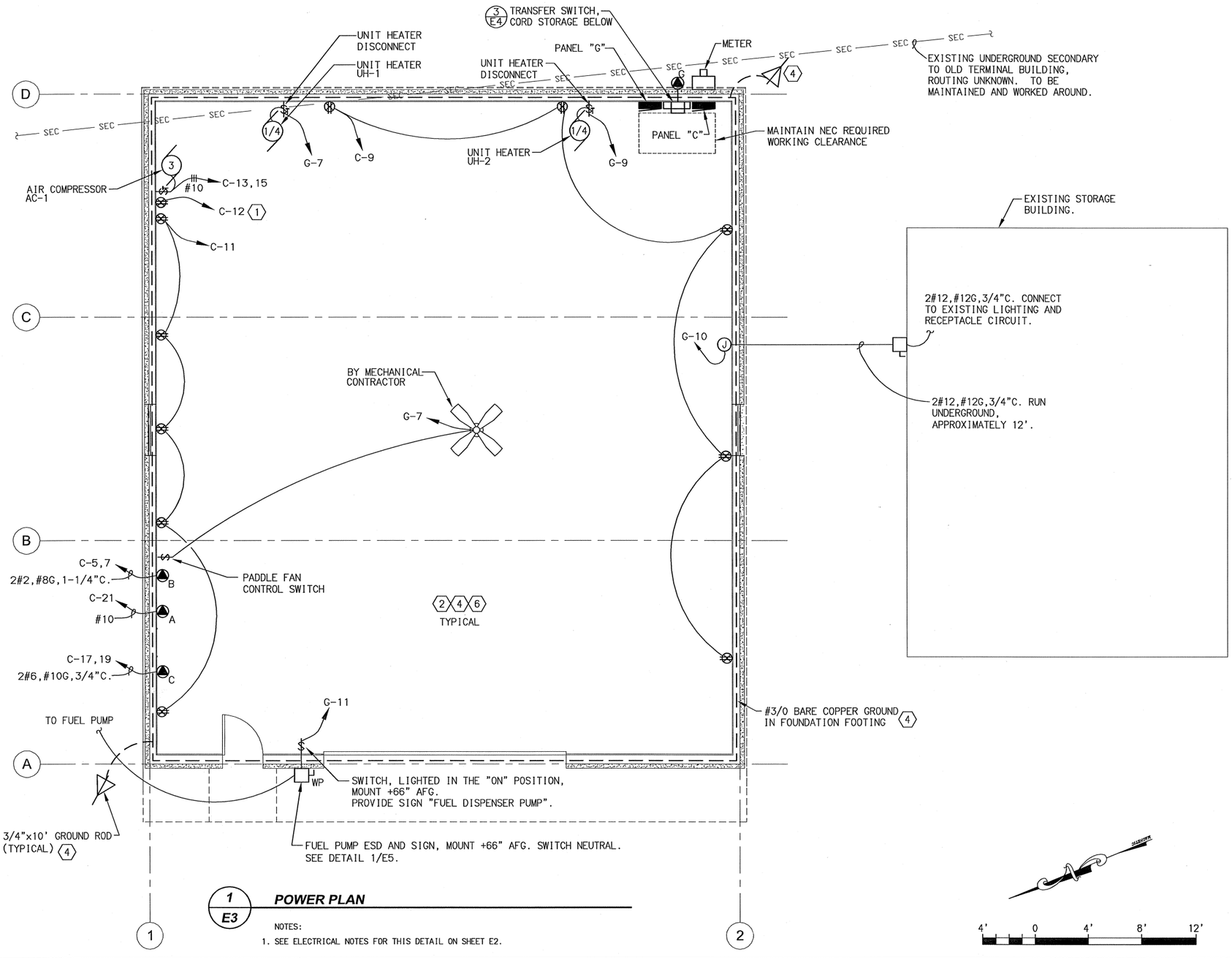

1/E3 **POWER PLAN**

NOTES:

1. SEE ELECTRICAL NOTES FOR THIS DETAIL ON SHEET E2.

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ELECTRICAL POWER PLANS

SHEET BE3 OF 81

DETAIL NOTES:

(1) NOT USED.

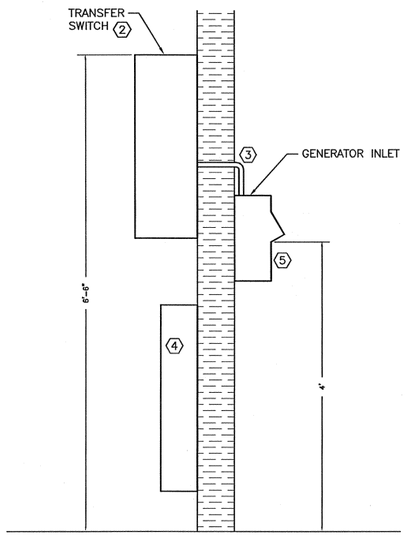
(2) 60–AMP 250–VOLT NON–FUSED 2–POLE DOUBLE–THROW TRANSFER SWITCH, SQUARE–D CATALOG NO. DTU222 OR APPROVED EQUAL.

(3) SEAL CONDUIT PENETRATION ON INSIDE AND OUTSIDE BETWEEN THE INTERIOR AND EXTERIOR OF THE BUILDING WITH DUX SEAL.

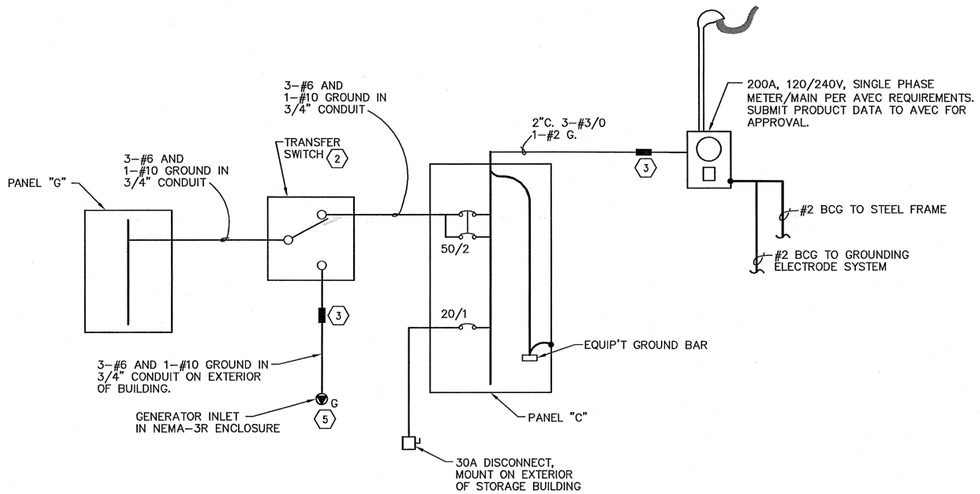
(4) PROVIDE A 20–FOOT "ARCTIC" POWER CORD CONTAINING THREE #8 AWG POWER CONDUCTORS AND ONE #10 AWG GROUND CONDUCTOR WITH A CS63–64C* CONNECTOR ON ONE END AND A CS63–65C* PLUG ON THE OTHER. PROVIDE THE FOLLOWING 36–INCH LONG ADAPTER CORDS.
- (A) 1–4C #10 POWER CORD WITH A CS63–64C* CONNECTOR ON ONE END AND A NEMA–L14–30 PLUG ON THE OTHER.
- (B) 1–4C #12 POWER CORD WITH A CS63–64C* CONNECTOR ON ONE END AND A NEMA–L14–20 PLUG ON THE OTHER. PROVIDE WALL CABINET NEXT TO PANEL–G TO STORE THE CORDS.

(5) MOUNT A CS63–75C* (MALE) GENERATOR FLANGED INLET IN A NEMA–3R GALVANIZED/PAINTED ENCLOSURE WITH THE INLET 48 INCHES ABOVE GRADE – MIDWEST ELECTRIC PRODUCTS CAT. NO. U050N OR APPROVED EQUAL. (OTHER ACCEPTED MANUFACTURERS – GE, CROUSE–HINDS).

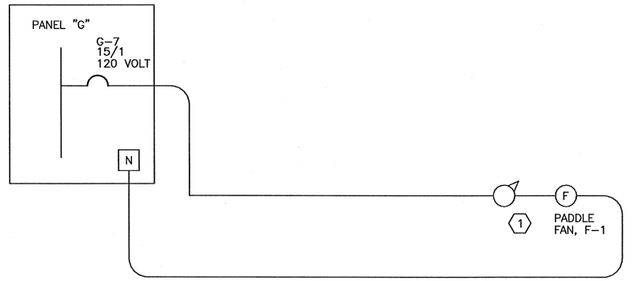
* CALIFORNIA STANDARD 125/250–VOLT, 3–POLE, 4–WIRE, NON–NEMA, 50–AMP WIRING DEVICE, LEVITON CATALOG # AS SHOWN, OR APPROVED EQUAL. (OTHER ACCEPTED MANUFACTURERS – CROUSE–HINDS, APPLETON).



3/E4 **TRANSFER SWITCH - GENERATOR INLET ELEVATION**
NTS

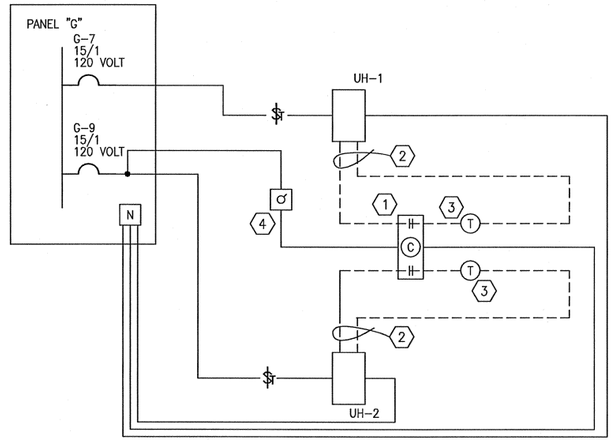


4/E4 **POWER ONE LINE DIAGRAM**
NTS



1/E4 **PADDLE FAN CONTROL DIAGRAM**
NTS

NOTES:
(1) ELECTRONIC SPEED CONTROL – SUPPLIED OR RECOMMENDED BY THE PADDLE FAN MANUFACTURER.



2/E4 **HEATING CONTROL WIRING DIAGRAM**
NTS

NOTES – DETAIL 1:

(1) PLUG–IN RELAY WITH 120V COIL, DPDT CONTACTS, SCREW TERMINAL BASE. SQUARE D CLASS 8501 KU12V20 RELAY, NR82 BASE, NH82 HOLD DOWN CLIP. WALL MOUNT IN WEATHERPROOF ENCLOSURE.

(2) THERMOSTAT WIRE – CAN RUN EXPOSED BUT MUST BE STAPLED TO WAINSCOT 24 INCHES O.C.

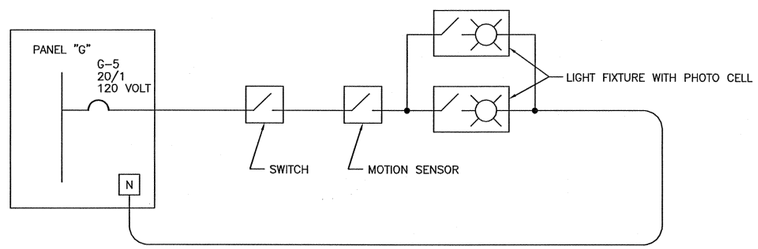
(3) THERMOSTAT FOR UNIT HEATER – NON MERCURY TYPE.

(4) SPRING–MOTOR TIME INTERVAL SWITCH, BY DIV. 15, WITHOUT HOLD WITH NORMALLY OPEN ISOLATED CONTACT RATED 10 AMPS @ 120 VOLTS – TIME INTERVAL 0–12 HOURS, MOUNT 66 INCHES A.F.F., SEE NOTE 5 BELOW. PROVIDE SIGN THAT READS "HEAT CONTROL TIMER – HEATERS WILL RUN WHEN TIME REMAINING IS GREATER THAN ZERO".

5. SEQUENCE OF OPERATION:

THE CONTACTS IN THE TIME SWITCH (4) CLOSE WHEN THE SWITCH IS SET TO ANY TIME GREATER THAN ZERO. RELAY CONTACTS (1) CLOSE WHEN TIME SWITCH CONTACTS CLOSE. CONNECT RELAY CONTACTS IN SERIES WITH THERMOSTAT.

WHEN THE TIMER SWITCH (4) TIMES OUT, ITS INTERNAL CONTACT OPENS AND BURNER CEASES OPERATION.



5/E4 **EXTERIOR LIGHTING CONTROL DIAGRAM**
NTS

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STATE OF ALASKA ★ 49 TH ★ MICHAEL J. LOVE 1/29/2014 EE-5818 REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.

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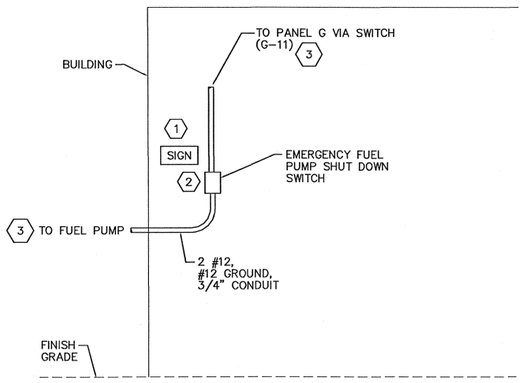
POWER AND CONTROL DIAGRAMS

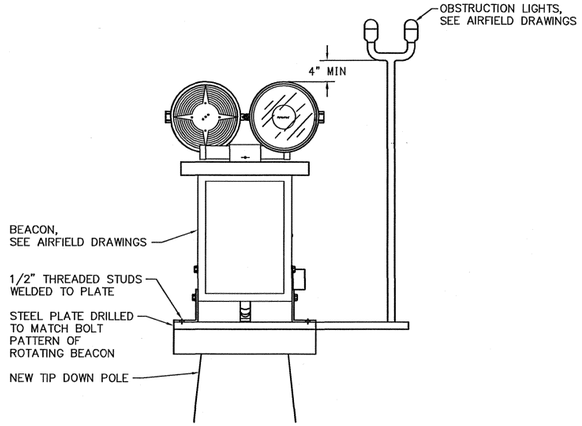
SHEET BE4 OF 81



1 / E5 **MOTOR VEHICLE FUEL PUMP ELECTRICAL DETAIL**
NTS

NOTES - FUEL DISPENSER

1. SIGN: COLORS – WHITE 3/4" LETTERS ON RED BACKGROUND. TEXT – "EMERGENCY FUEL PUMP SHUT DOWN SWITCH". MOUNT SIGN 6" ABOVE EMERGENCY FUEL TANK PUMP SHUT DOWN SWITCH.
2. EMERGENCY VEHICLE FUEL PUMP SHUTDOWN SWITCH. 30–AMP 2–POLE 250–VOLT SWITCH, CAPABLE OF BEING LOCKED IN THE OPEN POSITION IN A WET LOCATION BOX WITH A RAIN TIGHT ACTUATOR. LABEL SWITCH POSITIONS (UP = ON, DOWN = OFF). MOUNT DISCONNECT ON THE EXTERIOR OF THE BUILDING, MINIMUM 20 FEET FROM FUEL DISPENSER.
3. POWER FOR THE PUMP, FROM A SWITCH–RATED 15–AMP 1–POLE 120/240–VOLT CIRCUIT BREAKER IN PANEL G. SEAL CONDUIT THROUGH WALL TO PREVENT MOISTURE FROM ENTERING BUILDING. RUN CIRCUIT UNDERGROUND TO FUEL DISPENSER PUMP MOUNTED ON FUEL DISPENSING TANK. SEE CIVIL FOR LOCATION OF FUEL TANK. PROVIDE SEALING FITTING 18" ABOVE GRADE AT EACH END OF UNDERGROUND CONDUIT RUN.
4. MOUNT ALL ITEMS ON THE BUILDING.



1. PROVIDE NEW 30' TIP DOWN POLE, FOUNDATION AND LIGHTNING PROTECTION PER SPECIFICATIONS AND DETAILS. SEE AIRFIELD LIGHTING DRAWINGS FOR BEACON AND ANTENNA. SEE CIVIL FOR POLE LOCATION.

2 / E5 **ROTATING BEACON DETAIL**
NTS

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DETAILS

SHEET BE5 OF 81