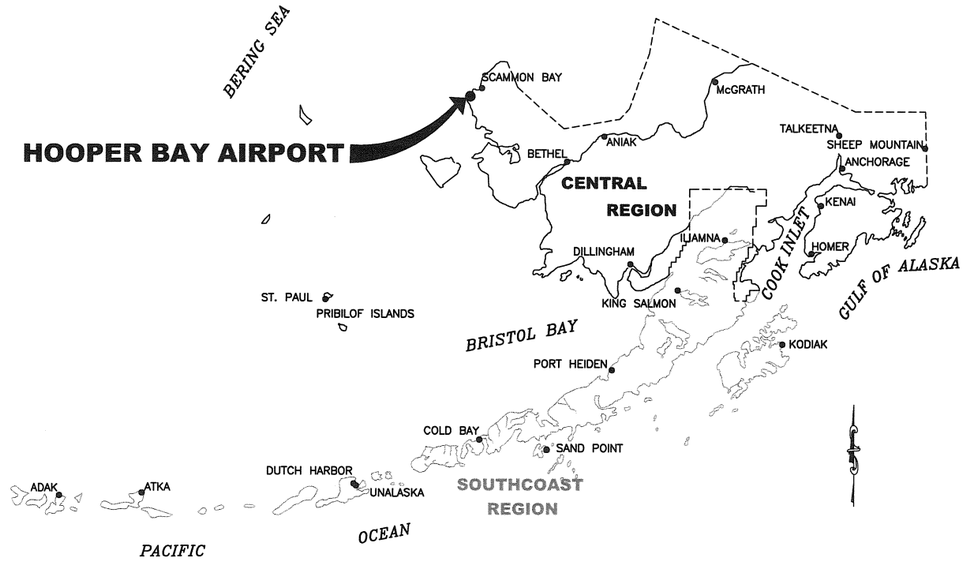
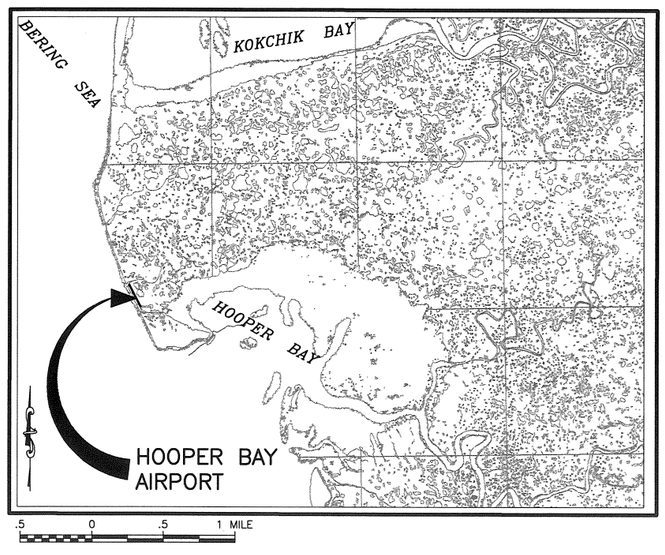


ALASKA CENTRAL REGION LOCATION MAP

NOT TO SCALE



VICINITY MAP

SCALE 1"= 1/2 MILE
T 17 N, R 93 W
SEWARD MERIDIAN
U.S.G.S. HOOPER BAY C-4

CONSTRUCTION PLANS

HOOPER BAY AIRPORT

HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIRPORT IMPROVEMENT PROGRAM
No. 3-02-0126-006-2014

CENTRAL REGION AS-ADVERTISED JULY, 2015

CONCUR	JOEL ST. AUBIN, P.E.	DATE 7/6/2015 DIRECTOR OF DESIGN AND CONSTRUCTION
APPROVED	KENNETH M. MORTON, P.E.	DATE 7/2/2015 REGIONAL PRECONSTRUCTION ENGINEER
APPROVED	WOLFGANG E. JUNGE, P.E.	DATE 7/2/15 AVIATION DESIGN SECTION CHIEF
APPROVED	LUKE BOWLAND, P.E.	DATE 7/2/15 PROJECT MANAGER

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH

Date Revised:	7/02/2015, 9:14 AM
Layout Name:	TITLE SIGNATURES LOCATION MAP & VICINITY MAP
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
TITLE, SIGNATURES, LOCATION MAP, & VICINITY MAP

DATE: 7/1/2015
SHEET: 1 OF 31
AS-BUILT SHEET:

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LEGEND

DESCRIPTION	EXISTING	PROPOSED
AIRCRAFT TIE–DOWNS		
BUILDINGS		
AIRPORT PROPERTY BOUNDARY LINE		
CULVERT W/ END SECTIONS		
DETAIL CALLOUT		DETAIL NUMBER / SHEET LOCATION (X / XX)
EDGE OF PAVEMENT / SHOULDER		
EDGE WATERWAY		
ELECTRICAL TRANSFORMER		
FENCE LINE		x — x
GEOTEXTILE STABILIZATION		
GRADE BREAK		GB
JUNCTION BOX		
MIRL/MITL		
RUNWAY / TAXIWAY CENTERLINE		
RUNWAY SAFETY AREA		
REIL		
ROTATING BEACON		
SHOULDER EDGE		
SIGN		
SLOPE / FLOW ARROW		
STRUCTURAL EDGE		
SWALE		
TOE OF SLOPE		
CUT		
FILL		
TRANSITION EDGE		
TAXIWAY SAFETY AREA		
WIND CONE		
SEGMENTED CONE & WIND CONE		

ABBREVIATIONS

ANICS	ALASKAN NAS INTERFACILITY COMMUNICATIONS	LS	LUMP SUM
		LT	LEFT
ATCT	AIR TRAFFIC CONTROL TOWER	MAINT	MAINTENCE
AWOS	AUTOMATED WEATHER OBSERVING SYSTEM	MIRL	MEDIUM INTENSITY RUNWAY LIGHTING
BOP	BEGINNING OF PROJECT	MITL	MEDIUM INTENSITY TAXIWAY LIGHTING
BVCS	BEGIN VERTICAL CURVE STATION	NTS	NOT TO SCALE
BVCE	BEGIN VERTICAL CURVE ELEVATION	NIC	NOT IN CONTRACT
		ODALS	OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM
CASC	CRUSHED AGGREGATE SURFACE COURSE	OFA	OBJECT FREE AREA
℄	CENTERLINE	OG	ORIGINAL GROUND
CS	CONTINGENT SUM	PAPI	PRECISION APPROACH PATH INDICATOR
CY	CUBIC YARD		
DIA	DIAMETER	PVI	POINT OF VERTICAL INTERSECTION
DOT	DEPARTMENT OF TRANSPORTATION	RAP	RECYCLED ASPHALT PAVEMENT
		RD	ROAD
EEB	ELECTRICAL ENCLOSURE BUILDING	RSA	RUNWAY SAFETY AREA
ELEV	ELEVATION	RT	RIGHT
EOP	END OF PROJECT	RW	RUNWAY
ESCP	EROSION AND SEDIMENT CONTROL PLAN	SF	SQUARE FEET
		SREB	SNOW REMOVAL EQUIPMENT BUILDING
EVCS	END VERTICAL CURVE STATION		
EVCE	END VERTICAL CURVE ELEVATION	STA	STATION
GB	GRADE BREAK	TW	TAXIWAY
HMA	HOT MIX ASPHALT	TYP	TYPICAL
LF	LINEAR FOOT		

STANDARD DRAWINGS

SHEET TITLE	SHEET No.
CHAIN LINK FENCE	F–1.02
CHAIN LINK FENCE GATE	F–3.01
SIGN FRAMING AND POST SPACING	S–0.11
BRACING FOR SIGNS MOUNTED ON SINGLE POST	S–1.00
POST MOUNTED SIGN OFFSET AND HEIGHT	S–5.01
LIGHT SIGN STRUCTURE POST EMBEDMENT	S–30.03
SIGN POST BASE AND FOUNDATION	S–31.01

APPENDIX DRAWINGS

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STATE OF ALASKA 49TH Matthew H. Hansen CE - 13879 REGISTERED PROFESSIONAL ENGINEER 7/16/2015

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
INDEX

DATE: 7/16/2015
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Designed By: BT
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ESTIMATED QUANTITIES

No.	ITEM	UNIT	QUANTITY NTP-1	QUANTITY NTP-2
D–705c	POROUS BACKFILL NO. 2	TON	7,300	0
F–162a	8–FOOT CHAIN–LINK FENCE	LF	0	76
F–162b	4–FOOT SINGLE SWING GATE	EA	0	3
F–170a	STEEL BOLLARD	EA	0	40
G–100a	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQUIRED	ALL REQUIRED
G–115a	WORKER MEALS AND LODGING, OR PER DIEM	LS	ALL REQUIRED	ALL REQUIRED
G–130a	FIELD OFFICE	LS	ALL REQUIRED	ALL REQUIRED
G–130b	FIELD LABORATORY	LS	ALL REQUIRED	ALL REQUIRED
G–130g	NUCLEAR TESTING EQUIPMENT STORAGE SHED	EA	1	1
G–130j	ENGINEERING COMMUNICATIONS	CS	ALL REQUIRED	ALL REQUIRED
G–131a	ENGINEERING TRANSPORTATION (TRUCK)	EA	3	3
G–131b	ENGINEERING TRANSPORTATION (ATV)	EA	1	1
G–135a	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LS	ALL REQUIRED	ALL REQUIRED
G–135b	EXTRA THREE PERSON SURVEY PARTY	HR	36	24
G–150a	EQUIPMENT RENTAL, 75 HP DOZER	HR	60	40
G–300a	CPM SCHEDULING	LS	ALL REQUIRED	ALL REQUIRED
G–700a	AIRPORT FLAGGER	CS	ALL REQUIRED	N/A
G–705a	WATERING FOR DUST CONTROL	M–GAL	700	0
G–710a	HIGHWAY TRAFFIC MAINTENANCE	LS	N/A	ALL REQUIRED
G–710b	HIGHWAY FLAGGER	CS	N/A	ALL REQUIRED
G–710d	HIGHWAY TRAFFIC CONTROL	CS	N/A	ALL REQUIRED
L–100b	REGULATOR, L–828	EA	1	0
L–100d	MEDIUM INTENSITY RUNWAY EDGE AND THRESHOLD LIGHT, L–861 AND L–861E	EA	48	0
L–100e	TAXIWAY EDGE LIGHT, L–861T	EA	29	0
L–100h	REMOVE RUNWAY AND TAXIWAY LIGHT	EA	59	0
L–100p	HANDHOLE, L–867, SIZE B	EA	6	0
L–100r	TEMPORARY RUNWAY LIGHTING SYSTEM	LS	ALL REQUIRED	N/A
L–100ap	SPARE PARTS	LS	ALL REQUIRED	N/A
L–101b	ROTATING BEACON, MEDIUM INTENSITY, L–801A	EA	1	0
L–103a	40–FOOT HINGED POLE BEACON TOWER	EA	1	0
L–107a	8–FOOT LIGHTED WIND CONE, IN PLACE	EA	1	0
L–107c	8–FOOT UNLIGHTED WIND CONE, IN PLACE	EA	1	0
L–108b	UNDERGROUND CABLE #8 AWG, COPPER, 5KV FAA TYPE "C", L–824	LS	ALL REQUIRED	N/A
L–108d	#6 BARE COPPER GROUND CONDUCTOR	LS	ALL REQUIRED	N/A
L–108f	UNDERGROUND CABLE, #8 AWG COPPER, 600 V, TYPE "C", L–824	LS	ALL REQUIRED	N/A
L–108g	GROUND ROD	EA	13	0
L–109c	ELECTRICAL ENCLOSURE AND FOUNDATION IN PLACE	EA	1	0
L–109d	INSTALLATION OF ELECTRICAL EQUIPMENT IN NEW OR EXISTING STRUCTURE	EA	1	0
L–110h	2–INCH PE CONDUIT	LS	ALL REQUIRED	N/A
L–110z	4–INCH RIGID STEEL CONDUIT	LS	ALL REQUIRED	N/A
L–132d	APPROACH LIGHTING AIDS MODIFICATIONS	LS	ALL REQUIRED	N/A
P–151c	CLEARING & GRUBBING	ACRE	8	0
P–152a	UNCLASSIFIED EXCAVATION	CY	8,200	0
P–152a(1)	COMMON EXCAVATION	CY	8,450	0
P–152c	MUCK EXCAVATION	CY	22,500	0
P–152i	BORROW	TON	147,000	13,600
P–157a	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQUIRED	ALL REQUIRED
P–157b	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	CS	ALL REQUIRED	ALL REQUIRED
P–157f	WITHHOLDING	CS	ALL REQUIRED	ALL REQUIRED
P–157g	SWPPP MANAGER	LS	ALL REQUIRED	ALL REQUIRED
P–161a	RECYCLED ASPHALT PAVEMENT	SY	48,200	0
P–165a(1)	REMOVAL OF STRUCTURES (PERMITTED FACILITY)	LS	ALL REQUIRED	N/A
P–165a(2)	REMOVAL OF STRUCTURES (SEGMENTED CIRCLE AND WIND CONE)	LS	ALL REQUIRED	N/A
P–167a	DUST PALLIATIVE	LS	ALL REQUIRED	ALL REQUIRED
P–180b	RIPRAP, CLASS II	TON	3,850	16,600
P–185a	PRIMARY ARMOR STONE, CLASS PA–1200 LB	TON	2,650	0
P–208c	CRUSHED AGGREGATE SURFACE COURSE	TON	54,000	6,650
P–208g	CRUSHED AGGREGATE SURFACE COURSE STOCKPILE	TON	364	0
P–301a	SOIL–CEMENT BASE COURSE	SY	6,900	0
P–301b	PORTLAND CEMENT	TON	133	0
P–620g	TEMPORARY RUNWAY AND TAXIWAY PAINTING	LS	ALL REQUIRED	N/A
P–640b	SEGMENTED CIRCLE (PANEL–TYPE)	LS	ALL REQUIRED	N/A
P–650a	AIRCRAFT TIE–DOWN	EA	40	0
P–660b	REFLECTIVE MARKER, TYPE II	EA	25	0
P–660c	CONE, 18 INCH	EA	181	0
P–661a	STANDARD SIGN	SF	21	26
P–670a	HAZARD MARKER BARRIER, PLASTIC	EA	41	0
P–671a	RUNWAY CLOSURE MARKER, VINYL MESH PANEL	EA	8	0
P–682a	GEOTEXTILE, DRAINAGE, CLASS I	SY	37,500	56,000
S–142p	EQUIPMENT STORAGE BUILDINGS	LS	N/A	ALL REQUIRED
S–143a	HEATING FUEL TANK (1000 GALLONS)	EA	0	1
S–143b	FUEL (1800 GALLONS)	LS	N/A	ALL REQUIRED
S–143d	ELECTRIC DISPENSING SYSTEM	EA	0	1
S–143e	MOTOR VEHICLE FUEL–DISPENSING TANK (1000 GALLONS)	EA	0	1
S–143f	SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN	LS	N/A	ALL REQUIRED
T–901b	SEEDING	LB	346	48
T–905b	ORGANIC MATERIAL	TON	2,850	3,700
T–908d	MULCH – GRAVEL	TON	1,850	0
U–500b	ELECTRICAL LINE EXTENSION	LS	ALL REQUIRED	N/A
U–500c	ELECTRICAL LINE RELOCATION	LS	ALL REQUIRED	N/A

ANCILLARY DRAWINGS

SHEET TITLE	SHEET No.

ESTIMATING FACTORS

No.	ITEM	FACTOR
D–705c	POROUS BACKFILL NO. 2	1.45 T/CY
P–152i	BORROW	1.80 T/CY
P–180b	RIPRAP, CLASS II	1.45 T/CY
P–185a	PRIMARY ARMOR STONE, CLASS PA–1200 LB	1.45 T/CY
P–208c	CRUSHED AGGREGATE SURFACE COURSE	1.99 T/CY
T–905b	ORGANIC MATERIAL	1.30 T/CY
T–908d	MULCH – GRAVEL	1.45 T/CY

STATE OF ALASKA 49TH Matthew H. Hansen CE - 13879 REGISTERED PROFESSIONAL ENGINEER
7/16/2015

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
ESTIMATED QUANTITIES

DATE: 7/16/2015
SHEET: 3 OF 31
AS–BUILT SHEET:

Designed By: BT
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: ESTIMATED QUANTITIES
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements - 57419\Final Drawings\7/16/2015, 1:04 PM

UNDERGROUND FAA POWER AND COMMUNICATION LINES

STAGING AREA (SEE SHEET 5 FOR STAGING AREA LIMITS)

VOR/DME

ODALS

EXISTING HANGAR (TO BE REMOVED)

AWOS

FAA LIGHTING BUILDING

FAA MAINTENANCE LOT

ANICS

EXISTING SREB

MUCK DISPOSAL AREA ACCESS POINTS

MUCK DISPOSAL AREA (SEE DETAIL 5, SHEET 20)

SHEET PILE WALL

SHEET PILE WALL

MATCH LINE STA 25+00

STA 6+00=BOP

MATCH LINE STA 25+00

AIRPORT PROPERTY BOUNDARY

LEGEND

- STAGING AREA
- SHEET PILE WALL ARMORING
- EXISTING GRAVEL RUNWAY SURFACE
- RESTRICTED AREA NO WORK MAY OCCUR WITHOUT PRIOR AUTHORIZATION OF ENGINEER. SEE NOTE 2
- OBSTRUCTION REMOVAL AREAS
- MUCK DISPOSAL AREA

NOTES:

1. ALL CONSTRUCTION ACTIVITY SHALL REMAIN WITHIN THE AIRPORT PROPERTY BOUNDARY AND ACCESS ROAD ROW.
2. THE RESTRICTED AREA SHOWN ON THIS SHEET SHALL BE STAKED/FLAGGED TO NOTIFY PERSONNEL AND EQUIPMENT TO REMAIN CLEAR.

SCOPE OF THE PROJECT INCLUDES, BUT IS NOT LIMITED TO CONSTRUCTION OF THE FOLLOWING:

NOTICE TO PROCEED #1

1. REMOVE EXISTING PAVEMENT
2. REHABILITATE RUNWAY
3. RECONSTRUCT RUNWAY
4. RELOCATE APRON
5. RECONSTRUCT & EXTEND TAXIWAY
6. EXTEND AIRPORT ACCESS ROAD
7. REPLACE AND RELOCATE SEGMENTED CIRCLE AND LIGHTED WIND CONE
8. CONSTRUCT UNLIGHTED WIND CONE
9. REMOVE OFA & AIRSPACE OBSTRUCTIONS
10. EXTEND UTILITY TO NEW ELECTRICAL ENCLOSURE BUILDING
11. REPLACE RUNWAY LIGHTING
12. REPLACE TAXIWAY LIGHTING
13. CONSTRUCT NEW ROTATING BEACON
14. ARMOR SHEET PILE WALL
15. RELOCATE UTILITIES ALONG ACCESS ROAD(STA 9+50 TO 51+00)

NOTICE TO PROCEED #2

16. CONSTRUCT NEW SNOW REMOVAL EQUIPMENT BUILDINGS
17. RECONSTRUCT AIRPORT ACCESS ROAD

200' 100' 0 200' 400'

STATE OF ALASKA 49TH Matthew H. Hansen CE - 13879 REGISTERED PROFESSIONAL ENGINEER

7/16/2015

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH

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File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
PROJECT LAYOUT PLAN

DATE: 7/16/2015
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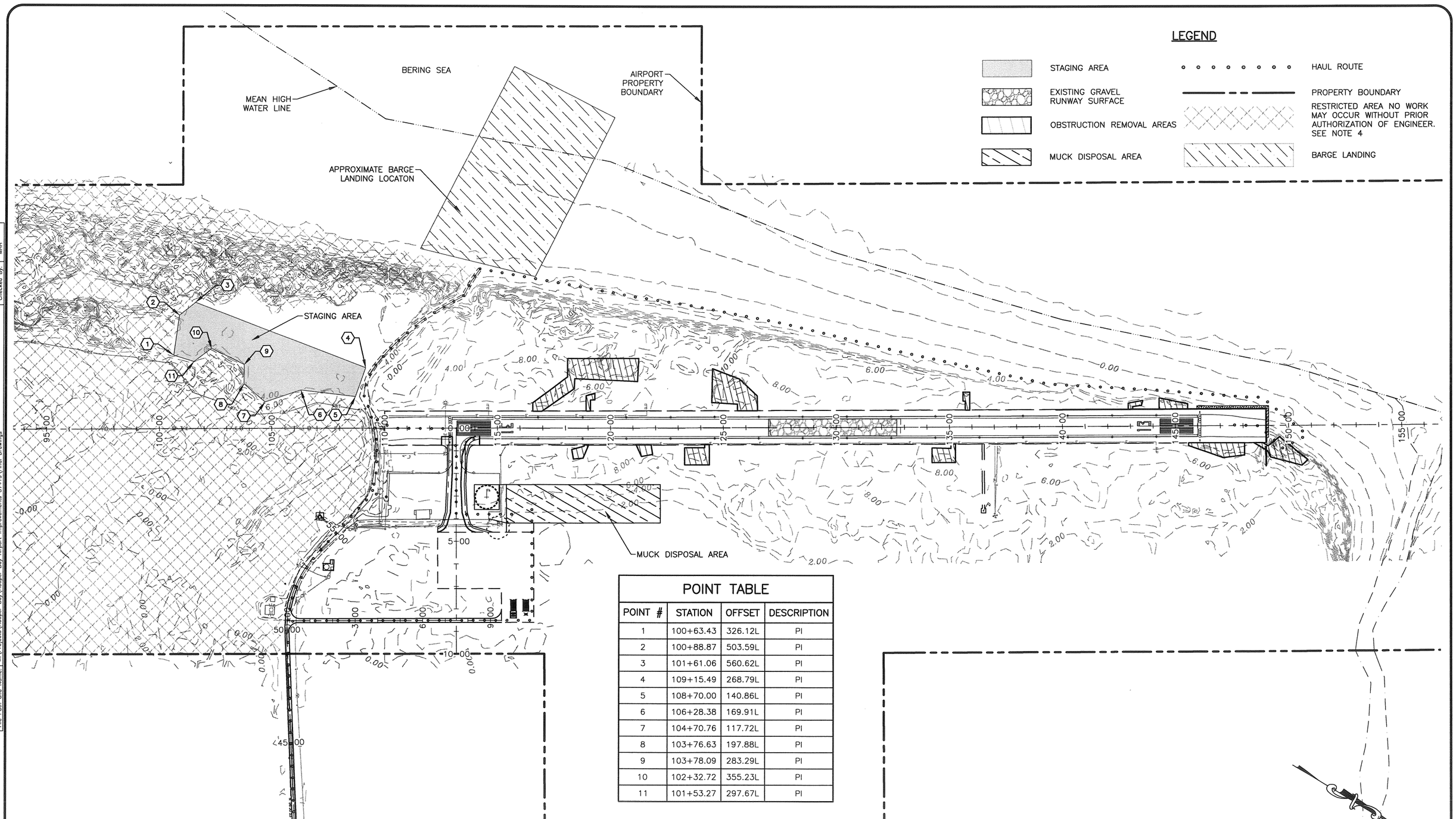
AS-BUILT SHEET:



POINT TABLE			
POINT #	STATION	OFFSET	DESCRIPTION
1	100+63.43	326.12L	PI
2	100+88.87	503.59L	PI
3	101+61.06	560.62L	PI
4	109+15.49	268.79L	PI
5	108+70.00	140.86L	PI
6	106+28.38	169.91L	PI
7	104+70.76	117.72L	PI
8	103+76.63	197.88L	PI
9	103+78.09	283.29L	PI
10	102+32.72	355.23L	PI
11	101+53.27	297.67L	PI

NOTES:

1. KEEP EQUIPMENT & HAUL ROUTES AT LEAST 100 FT LANDWARD OF THE MEAN HIGH WATER(MHW) LINE OF THE BERING SEA.
2. MARK HAUL ROUTES WITH SURVEYOR'S STAKES AND LATH EVERY 500 FT.
3. SEE CONSTRUCTION SAFETY & PHASING PLAN (CSPP) FOR PROJECT PHASING DETAILS.
4. THE RESTRICTED AREA SHOWN ON THIS SHEET SHALL BE STAKED/FLAGGED TO NOTIFY PERSONNEL AND EQUIPMENT TO REMAIN CLEAR.

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER
Matthew H. Hansen
CE - 13879
7/16/2015

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
BARGE LANDING & HAUL ROUTE

DATE: 7/16/2015
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AS-BUILT SHEET:

Designed By: BT
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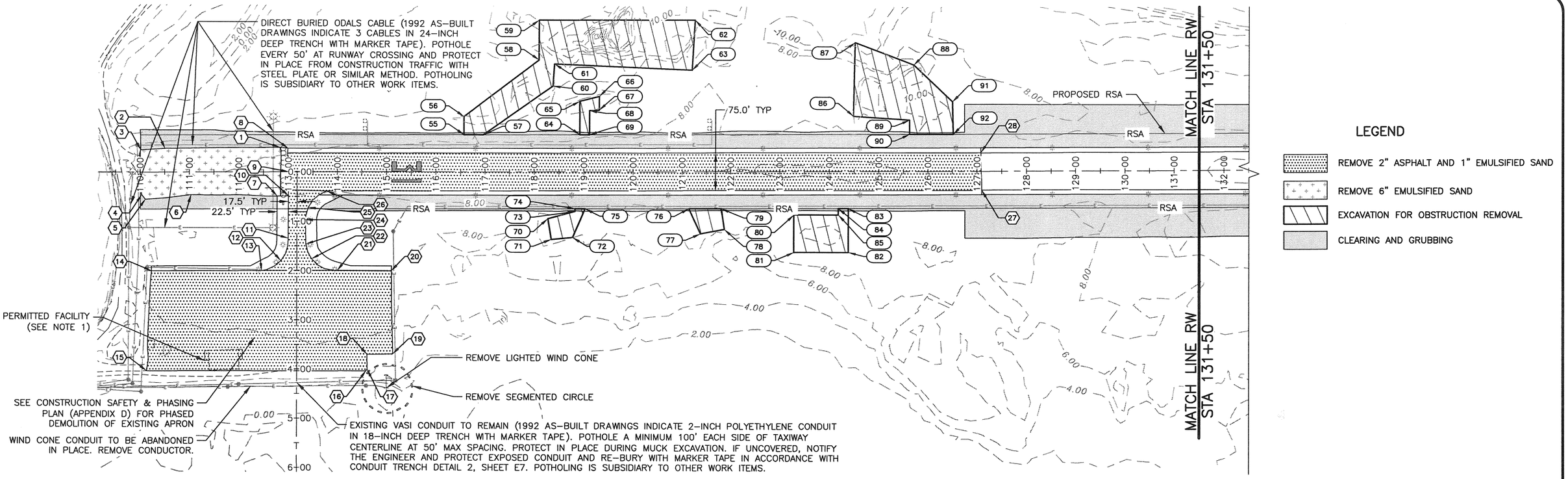


DEMO PLAN SCHEDULE			
POINT	STATION	OFFSET	REMARKS
1	112+82.46	49.71L	PI
2	110+50.62	48.00L	PI
3	110+01.06	45.25L	PI
4	110+03.10	45.53R	PI
5	110+10.41	54.88R	PI
6	111+03.48	45.92R	PI
7	112+77.77	48.84R	PI
8	112+99.14	47.81L	PI

DEMO PLAN SCHEDULE			
POINT	STATION	OFFSET	REMARKS
9	113+00.50	0.00R	PI
10	113+00.35	48.72R	PI
11	113+00.03	134.45R	PI
12	112+85.09	179.84R	PI
13	112+46.60	199.87R	PI
14	110+23.04	199.74R	PI
15	110+12.96	402.66R	PI
16	114+59.19	403.81R	PI

DEMO PLAN SCHEDULE			
POINT	STATION	OFFSET	REMARKS
17	114+61.61	400.51R	PI
18	114+61.04	370.06R	PI
19	115+13.18	369.47R	PI
20	115+10.29	200.60R	PI
21	114+00.19	199.97R	PI
22	113+47.29	176.17R	PI
23	113+35.80	146.25R	PI
24	113+34.98	97.06R	PI

DEMO PLAN SCHEDULE			
POINT	STATION	OFFSET	REMARKS
25	113+40.42	72.24R	PI
26	113+78.22	38.89R	PI
27	127+09.32	38.37R	PI
28	127+07.75	37.66L	PI

OBSTRUCTION REMOVAL				
POINT	STATION	OFFSET	ELEVATION	REMARKS
55	116+56.54	75.27L	7.78	OBSTRUCTION
56	116+56.49	112.27L	8.04	OBSTRUCTION
57	116+96.48	75.27L	7.86	OBSTRUCTION
58	118+09.50	227.25L	9.59	OBSTRUCTION
59	118+09.51	308.25L	10.40	OBSTRUCTION
60	118+37.49	174.25L	9.06	OBSTRUCTION
61	118+40.50	219.25L	9.56	OBSTRUCTION
62	121+26.51	308.22L	10.96	OBSTRUCTION
63	121+20.50	206.22L	9.93	OBSTRUCTION
64	118+91.48	75.25L	8.69	OBSTRUCTION

OBSTRUCTION REMOVAL				
POINT	STATION	OFFSET	ELEVATION	REMARKS
65	118+91.49	143.25L	8.82	OBSTRUCTION
66	119+31.49	153.24L	9.00	OBSTRUCTION
67	119+31.49	125.24L	8.70	OBSTRUCTION
68	119+11.49	124.24L	8.65	OBSTRUCTION
69	119+11.48	75.24L	8.73	OBSTRUCTION
70	118+27.46	94.75R	8.17	OBSTRUCTION
71	118+34.46	136.75R	8.65	OBSTRUCTION
72	118+77.46	132.75R	8.68	OBSTRUCTION
73	118+82.47	80.09R	8.22	OBSTRUCTION
74	118+82.47	74.75R	8.15	OBSTRUCTION

OBSTRUCTION REMOVAL				
POINT	STATION	OFFSET	ELEVATION	REMARKS
75	119+02.47	74.75R	8.24	OBSTRUCTION
76	121+13.75	74.78R	8.63	OBSTRUCTION
77	121+37.46	125.78R	9.09	OBSTRUCTION
78	121+86.46	116.78R	9.08	OBSTRUCTION
79	121+80.25	74.78R	8.25	OBSTRUCTION
80	123+28.47	87.80R	8.97	OBSTRUCTION
81	123+28.46	163.80R	9.81	OBSTRUCTION
82	124+37.46	163.81R	9.81	OBSTRUCTION
83	124+37.47	74.81R	8.97	OBSTRUCTION
84	124+17.46	74.81R	8.97	OBSTRUCTION

OBSTRUCTION REMOVAL				
POINT	STATION	OFFSET	ELEVATION	REMARKS
85	124+17.47	87.81R	8.97	OBSTRUCTION
86	124+48.49	112.19L	9.24	OBSTRUCTION
87	124+52.50	262.19L	10.74	OBSTRUCTION
88	125+71.50	216.18L	10.38	OBSTRUCTION
89	125+62.48	104.18L	9.15	OBSTRUCTION
90	125+62.77	75.18L	8.98	OBSTRUCTION
91	126+50.49	141.17L	9.56	OBSTRUCTION
92	126+52.00	75.17L	8.98	OBSTRUCTION

DEMOLITION NOTES:

1. HANGAR AND CONNEX REMOVAL PER ITEM P-165, TO BE DISPOSED OF IN A LICENSED LANDFILL.
2. REFER TO THE ELECTRICAL PLANS FOR ELECTRICAL DEMOLITION INFORMATION.
3. REMOVE ALL ASPHALT PAVEMENTS WITHIN LIMITS OF EXCAVATIONS BEFORE EXCAVATING SUBSTRUCTURE TO AVOID MIXING OR CONTAMINATION.

100' 50' 0 100' 200'

STATE OF ALASKA 49TH Matthew H. Hansen CE - 13879 REGISTERED PROFESSIONAL ENGINEER
7/16/2015

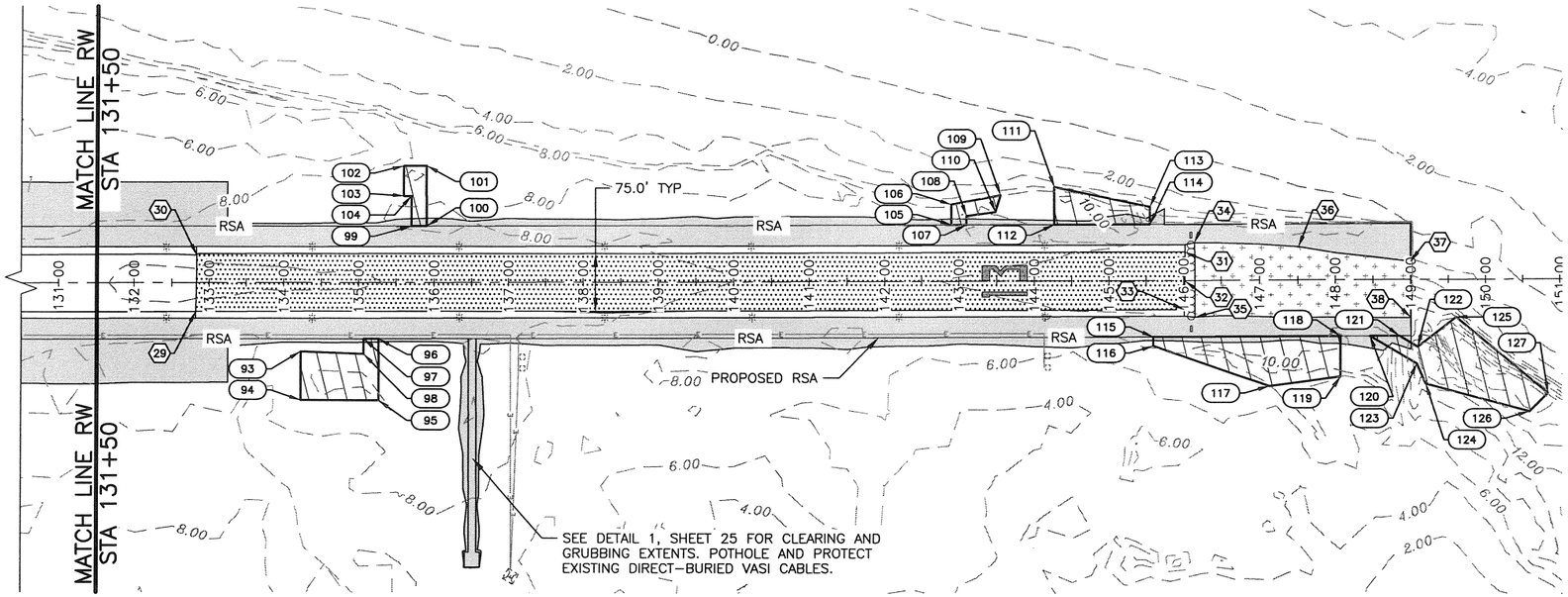
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
DEMOLITION PLAN

DATE: 7/16/2015
SHEET: 6 OF 31
AS-BUILT SHEET:

Designed By: BT
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: DEMOLITION PLAN 1
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings



DEMO PLAN SCHEDULE

POINT	STATION	OFFSET	REMARKS
29	132+82.19	38.48R	PI
30	132+83.51	36.45L	PI
31	146+02.19	37.83L	PI
32	146+01.83	0.03R	PI
33	146+00.94	38.71R	PI
34	146+14.72	50.11L	PI
35	146+15.11	48.94R	PI
36	147+50.89	44.22L	PI
37	148+99.89	24.11L	PI
38	148+99.76	50.50R	PI

OBSTRUCTION REMOVAL

POINT	STATION	OFFSET	ELEVATION	REMARKS
93	134+22.46	91.91R	9.03	OBSTRUCTION
94	134+22.46	156.91R	9.74	OBSTRUCTION
95	135+26.46	156.92R	9.74	OBSTRUCTION
96	135+26.47	74.92R	9.07	OBSTRUCTION
97	135+06.47	74.92R	9.06	OBSTRUCTION
98	135+06.46	95.15R	9.06	OBSTRUCTION
99	135+70.48	75.07L	9.28	OBSTRUCTION
100	135+90.48	75.07L	9.28	OBSTRUCTION
101	135+90.49	155.07L	9.72	OBSTRUCTION
102	135+60.49	155.07L	9.72	OBSTRUCTION
103	135+60.49	115.07L	9.28	OBSTRUCTION
104	135+70.49	115.07L	9.28	OBSTRUCTION

OBSTRUCTION REMOVAL

POINT	STATION	OFFSET	ELEVATION	REMARKS
105	142+90.48	75.00L	8.95	OBSTRUCTION
106	142+90.48	102.00L	9.14	OBSTRUCTION
107	143+10.48	75.00L	8.98	OBSTRUCTION
108	143+10.48	86.76L	8.98	OBSTRUCTION
109	143+55.49	113.99L	9.28	OBSTRUCTION
110	143+48.48	91.99L	9.03	OBSTRUCTION
111	144+27.49	124.99L	9.40	OBSTRUCTION
112	144+27.48	74.99L	8.90	OBSTRUCTION
113	145+55.48	97.97L	9.10	OBSTRUCTION
114	145+55.48	74.97L	8.90	OBSTRUCTION
115	145+59.47	75.03R	8.99	OBSTRUCTION
116	145+59.47	87.03R	8.98	OBSTRUCTION

OBSTRUCTION REMOVAL

POINT	STATION	OFFSET	ELEVATION	REMARKS
117	147+12.46	141.04R	9.57	OBSTRUCTION
118	148+06.47	75.05R	8.80	OBSTRUCTION
119	148+06.46	129.05R	9.00	OBSTRUCTION
120	148+45.64	75.06R	8.50	OBSTRUCTION
121	148+84.74	75.06R	8.50	OBSTRUCTION
122	149+09.01	89.51R	13.96	OBSTRUCTION
123	149+07.44	111.86R	13.92	OBSTRUCTION
124	149+19.46	139.06R	14.27	OBSTRUCTION
125	149+60.47	50.07R	15.47	OBSTRUCTION
126	150+58.46	176.08R	18.36	OBSTRUCTION
127	150+83.46	152.08R	19.09	OBSTRUCTION

LEGEND

- REMOVE 2" ASPHALT AND 1" EMULSIFIED SAND
- REMOVE 6" EMULSIFIED SAND
- EXCAVATION FOR OBSTRUCTION REMOVAL
- CLEARING AND GRUBBING

100' 50' 0 100' 200'

STATE OF ALASKA 49TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

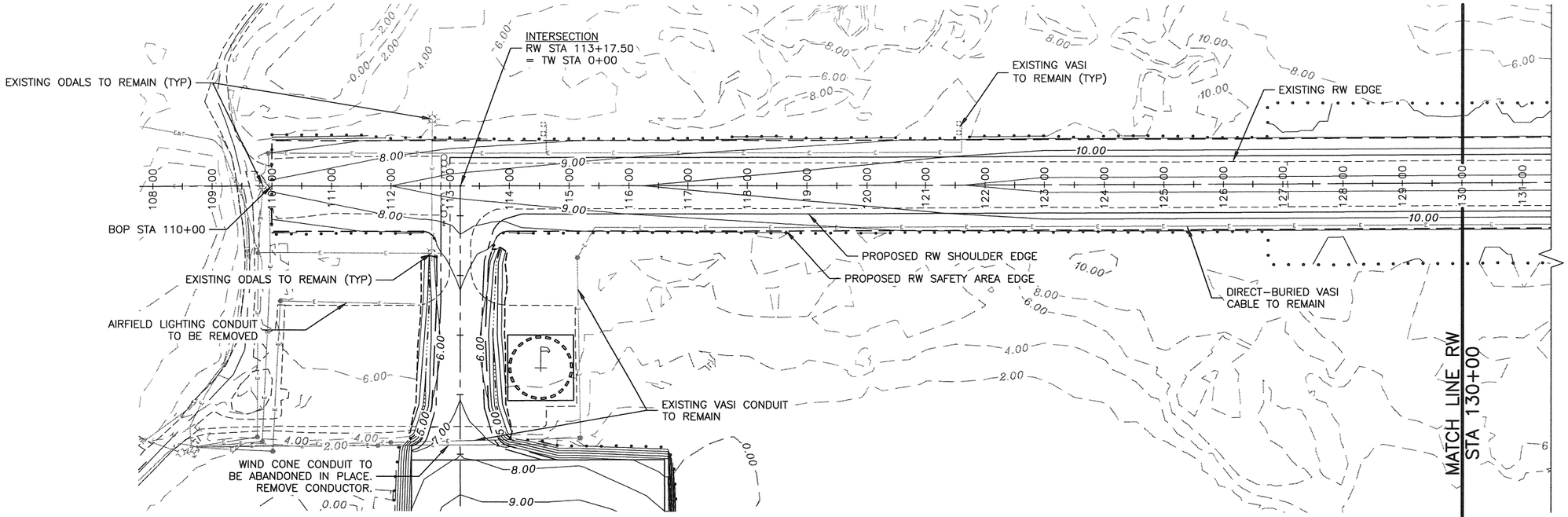
BY	DATE	REVISION

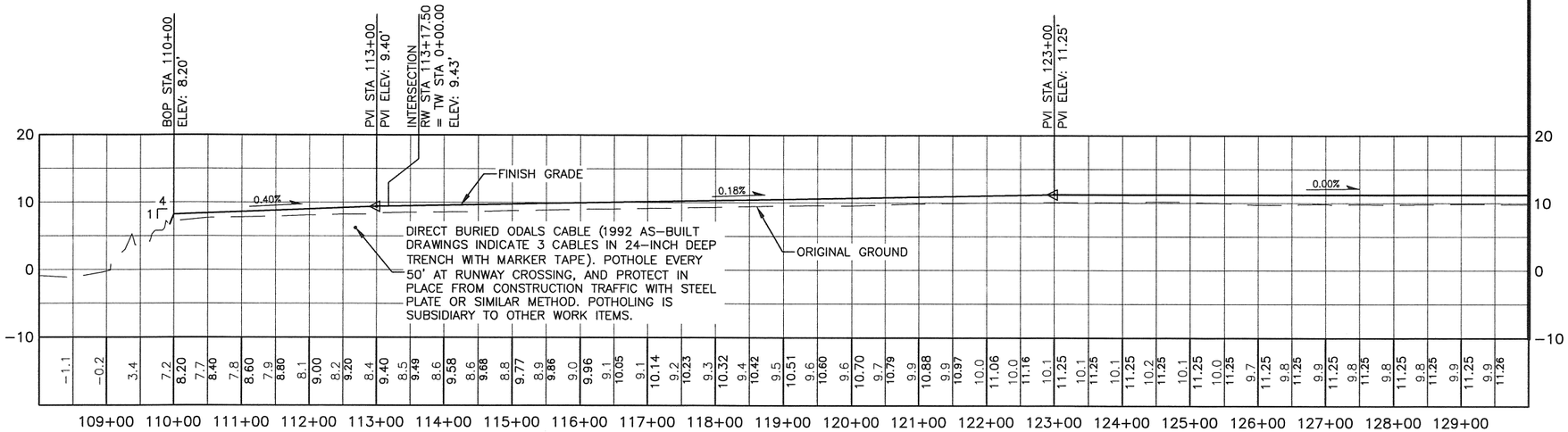
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
DEMOLITION PLAN

DATE: 7/16/2015
SHEET: 7 OF 31
AS-BUILT SHEET:

Designed By: BT
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: DEMOLITION PLAN 2
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings 7/15/2015, 3:25 PM





100' 50' 0 100' 200'

HORIZONTAL TO VERTICAL SCALE 1:10

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH

Date Revised:	7/15/2015, 3:25 PM
Layout Name:	RUNWAY PLAN & PROFILE SOUTHEAST END
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

STATE OF ALASKA 49TH
Matthew H. Hansen
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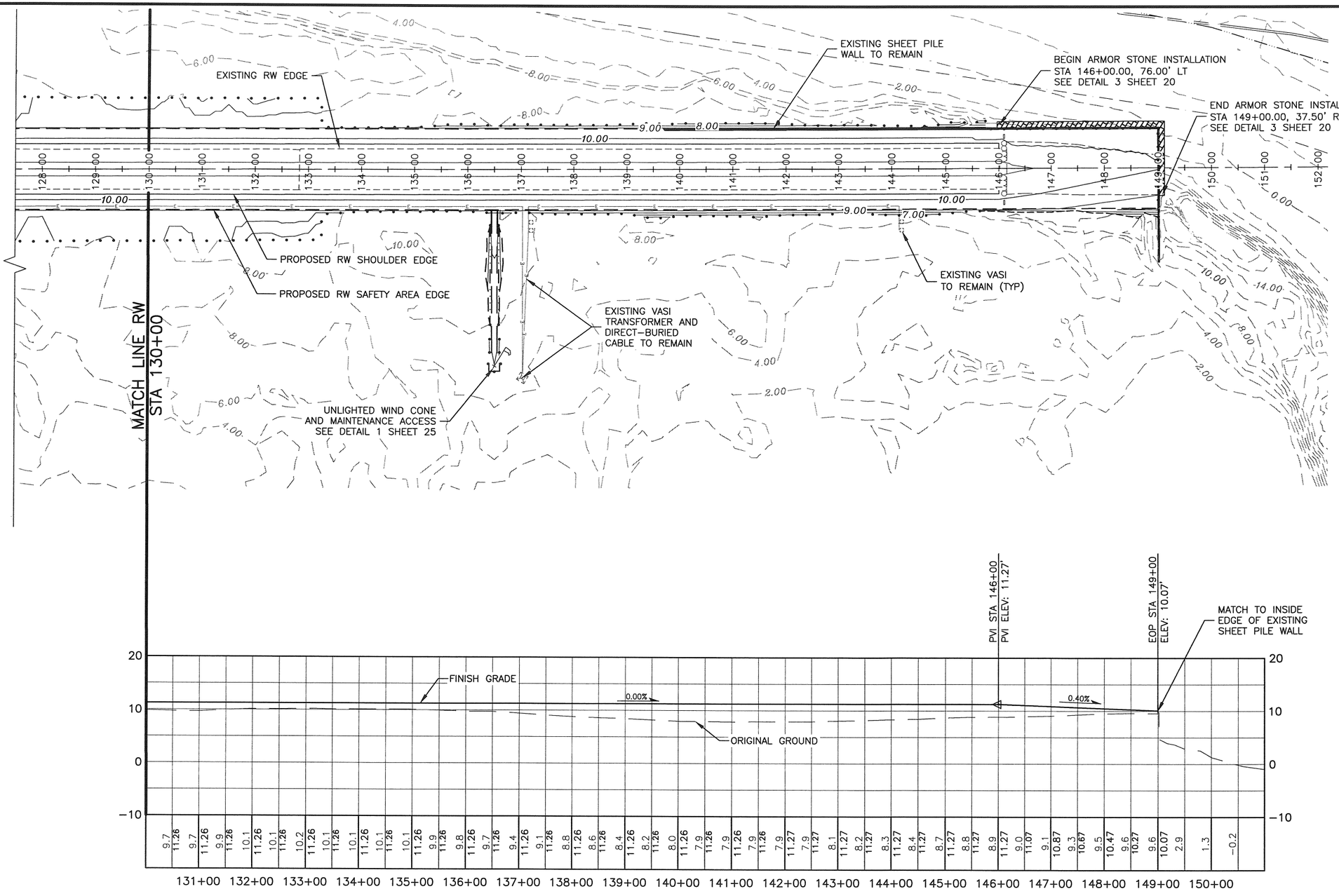
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
RUNWAY PLAN & PROFILE SOUTHEAST END

DATE: 7/16/2015
SHEET: 8 OF 31
AS–BUILT SHEET:



100' 50' 0 100' 200'

HORIZONTAL TO VERTICAL SCALE 1:10

Designed By: BT
Drawn By: RJB
Checked By: MHH

Date Revised:
Layout Name: 7/15/2015, 3:25 PM
File Path and Name: RUNWAY PLAN & PROFILE NORTHWEST END
W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

STATE OF ALASKA 49TH
Matthew H. Hansen
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STATE OF ALASKA
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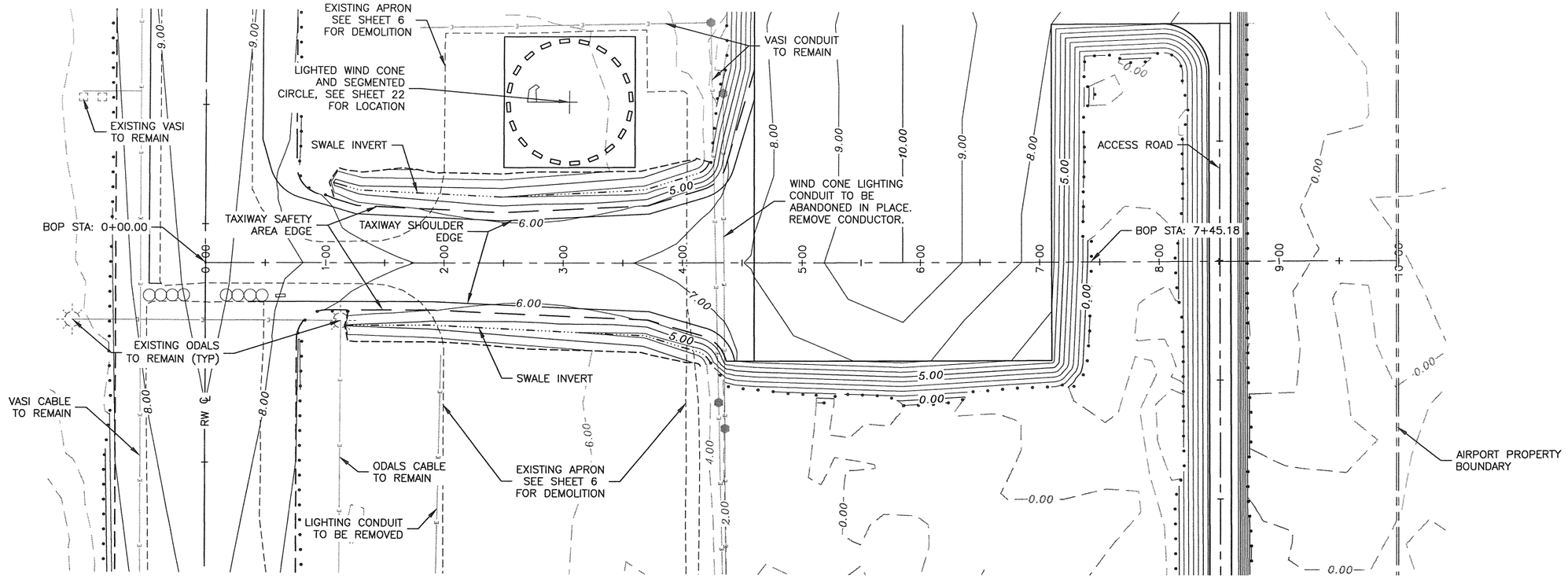
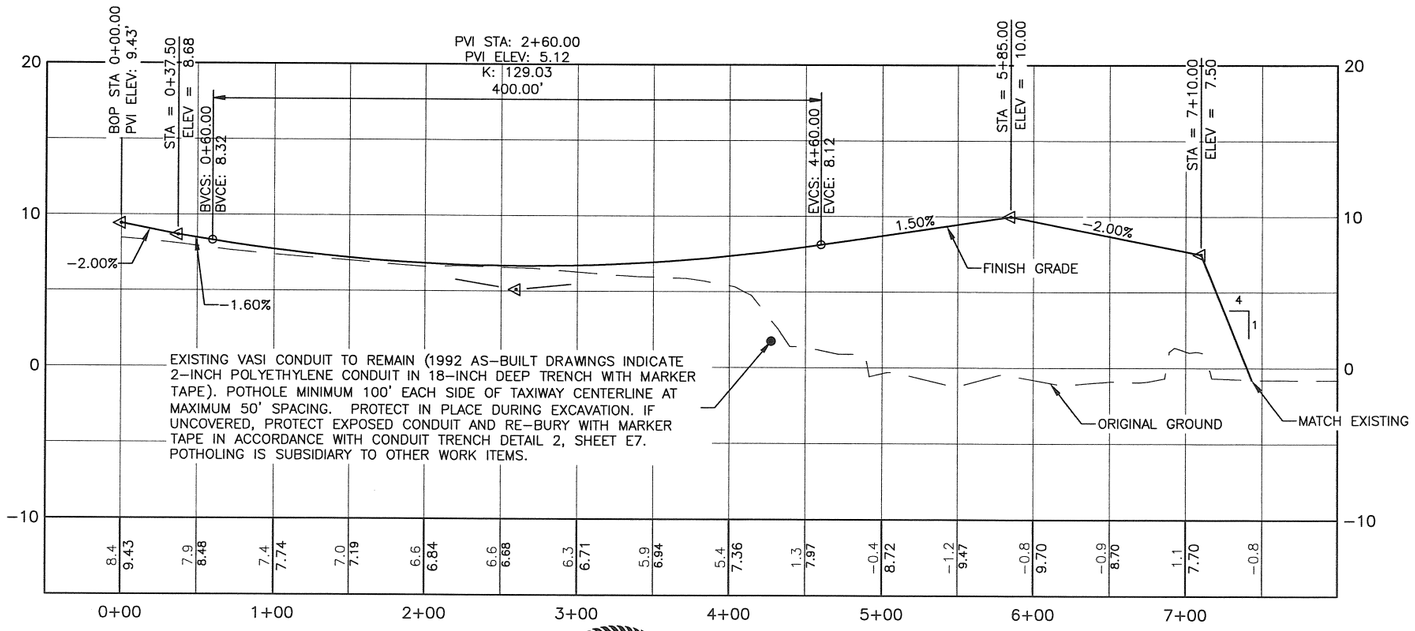
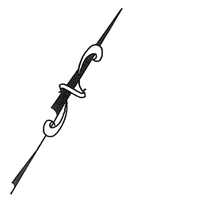
CENTRAL REGION

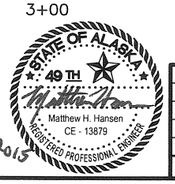
HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
RUNWAY PLAN & PROFILE NORTHWEST END

DATE: 7/16/2015
SHEET: 9 OF 31
AS-BUILT SHEET:









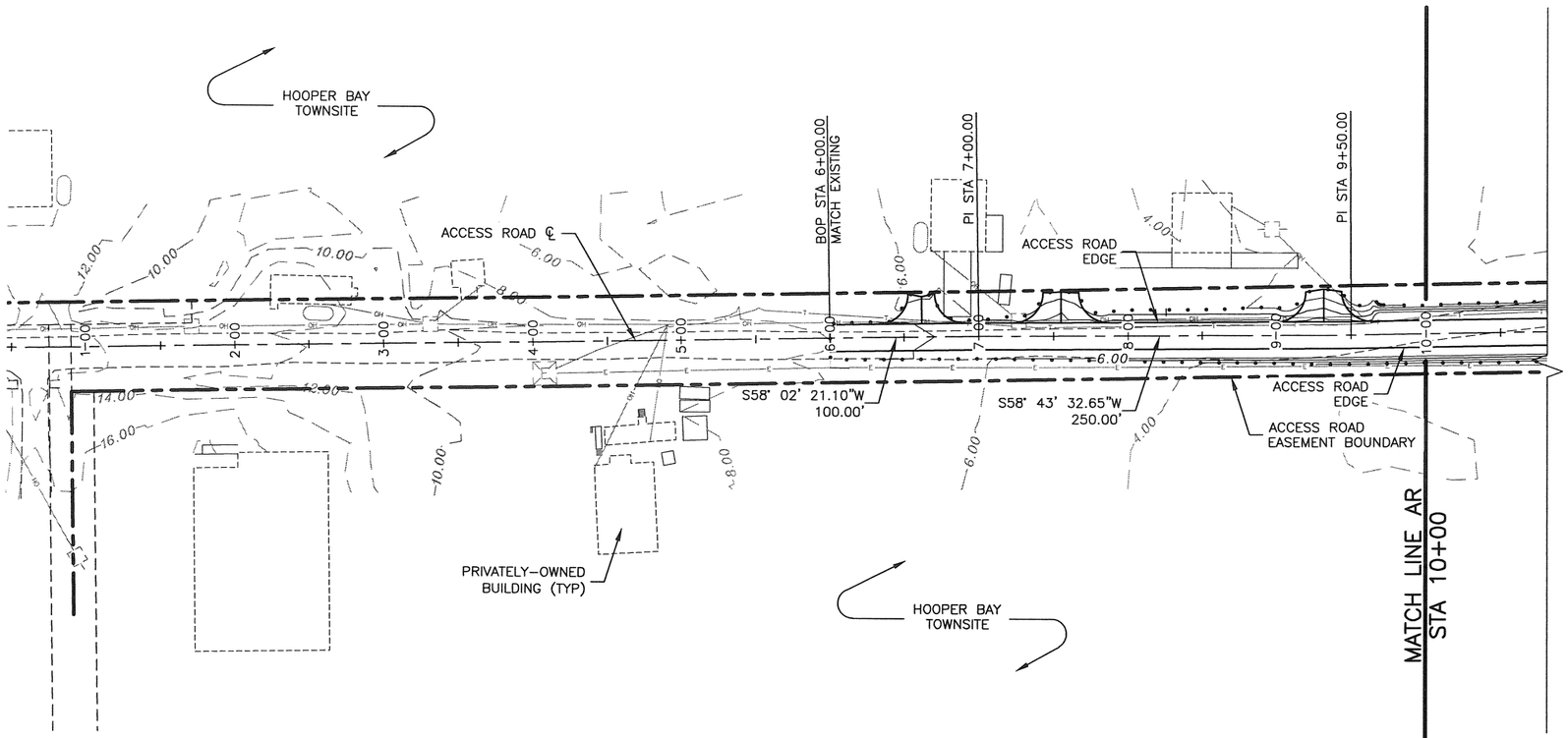
BY	DATE	REVISION

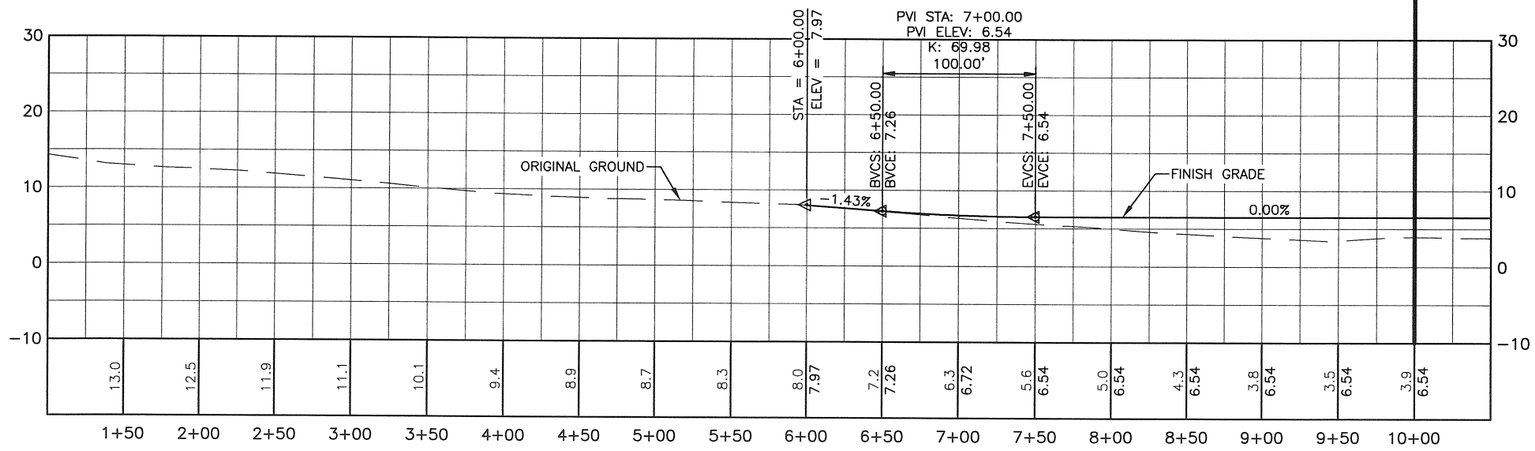
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
TAXIWAY PLAN & PROFILE

DATE: 7/16/2015
SHEET: 10 OF 31
AS-BUILT SHEET:

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH
Date Revised:	
Layout Name:	7/15/2015, 3:25 PM
File Path and Name:	TAXIWAY PLAN & PROFILE
	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings





50' 25' 0 50' 100'

HORIZONTAL TO VERTICAL SCALE 1:10

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH
Date Revised:	7/15/2015, 3:25 PM
Layout Name:	ACCESS ROAD PLAN & PROFILE STA 0+00.00 TO 10+00.00
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements - 57419\Final Drawings

STATE OF ALASKA
49 TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER

7/16/2015

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
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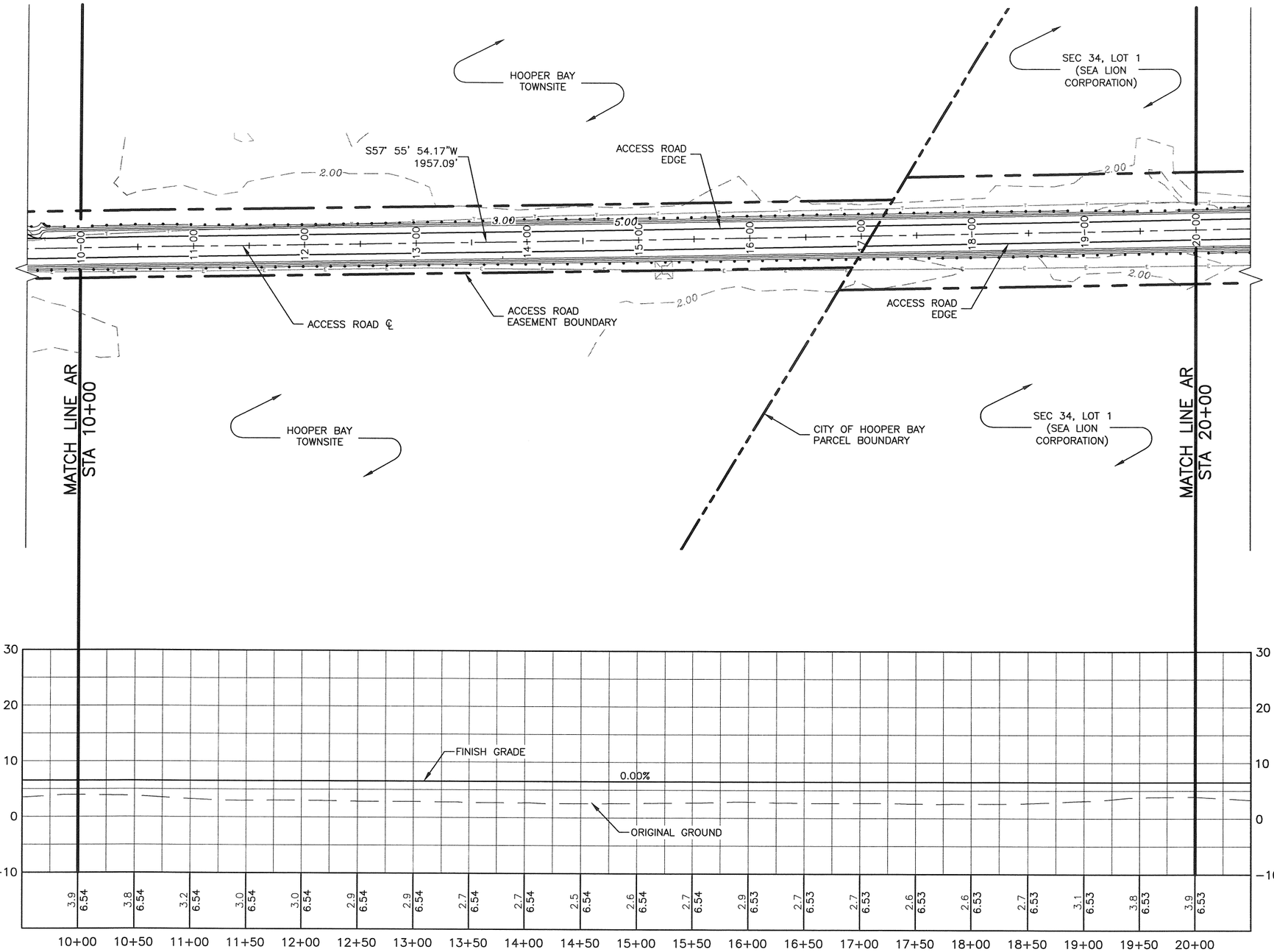
AIP No. 3-02-0126-006-2014
ACCESS ROAD PLAN & PROFILE
STA 0+00.00 TO 10+00.00

DATE: 7/16/2015
SHEET: 11 OF 31
AS-BUILT SHEET:



50' 25' 0 50' 100'

HORIZONTAL TO VERTICAL SCALE 1:10

Designed By: BT
Drawn By: RJB
Checked By: MHH

Date Revised:
Layout Name: 7/15/2015, 3:26 PM
File Path and Name: ACCESS ROAD PLAN & PROFILE STA 10+00.00 TO 20+00.00
W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

STATE OF ALASKA 49TH
Matthew H. Hansen
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7/16/2015

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
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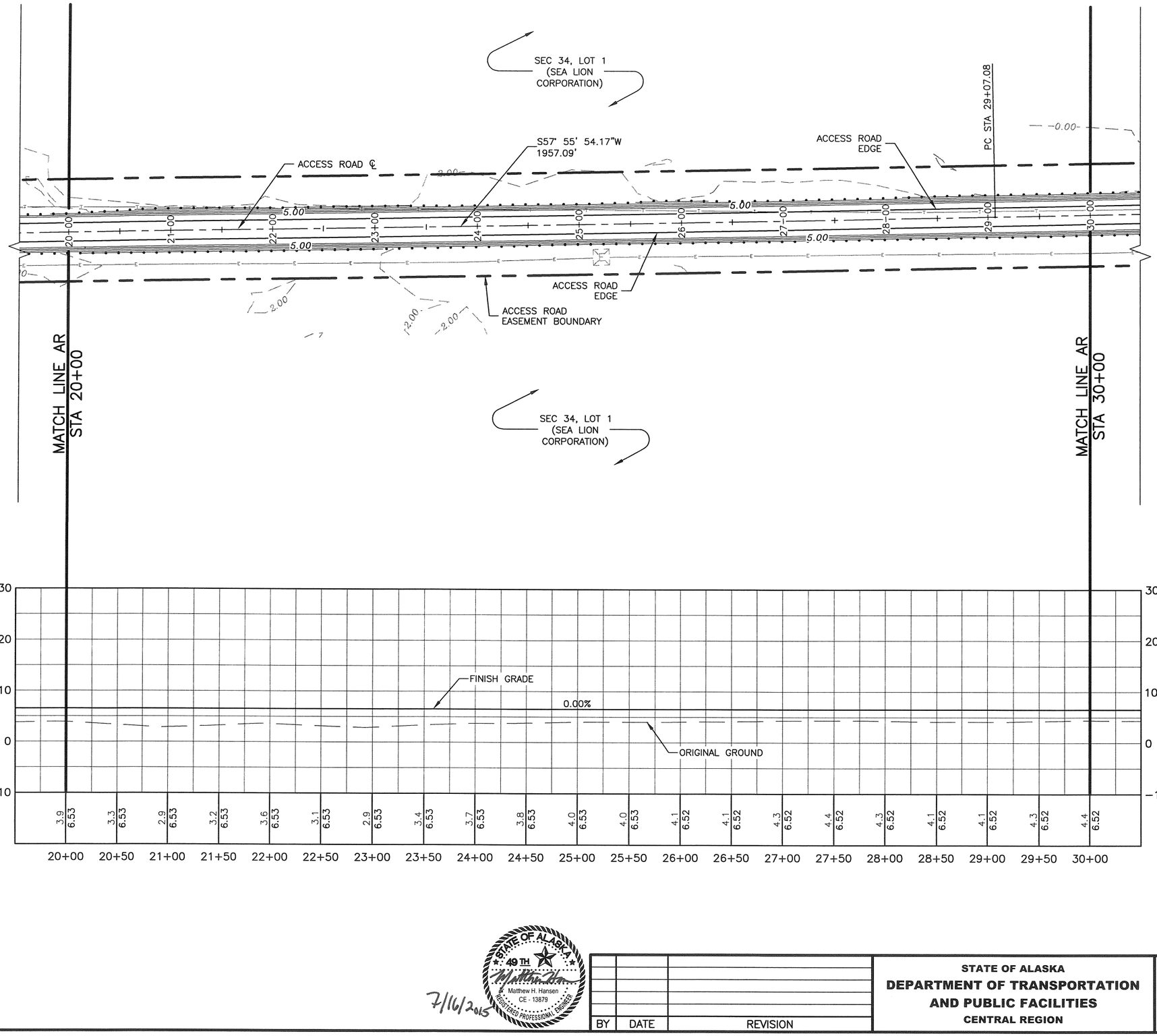
AIP No. 3-02-0126-006-2014
ACCESS ROAD PLAN & PROFILE
STA 10+00.00 TO 20+00.00

DATE: 7/16/2015
SHEET: 12 OF 31
AS-BUILT SHEET:



50' 25' 0 50' 100'

HORIZONTAL TO VERTICAL SCALE 1:10

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH
Date Revised:	
Layout Name:	7/15/2015, 3:26 PM
File Path and Name:	ACCESS ROAD PLAN & PROFILE STA 20+00.00 TO 30+00.00 W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings\ACCESS ROAD PLAN & PROFILE STA 20+00.00 TO 30+00.00.dgn

STATE OF ALASKA 49TH
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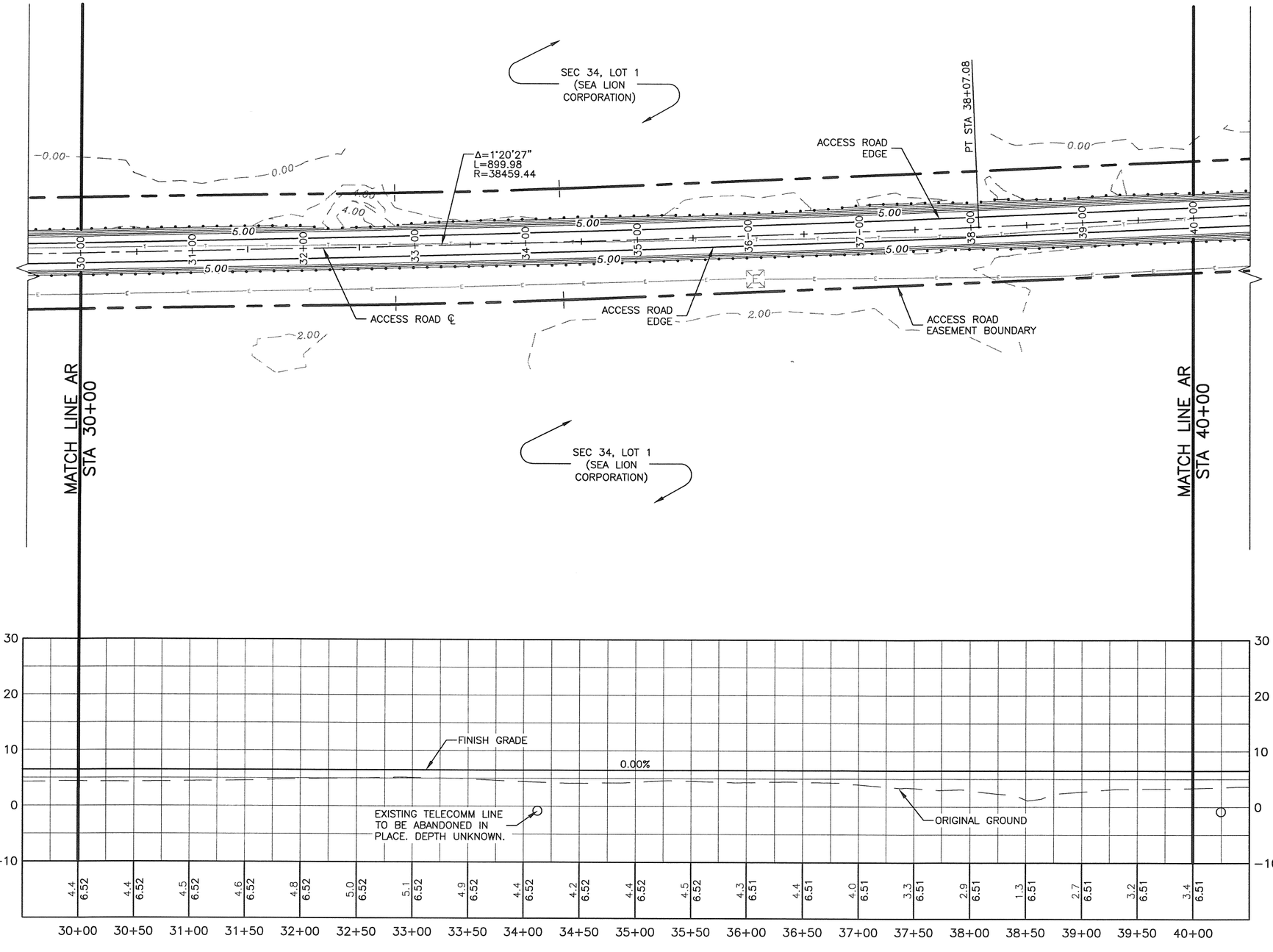
7/16/2015

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
ACCESS ROAD PLAN & PROFILE
STA 20+00.00 TO 30+00.00

DATE: 7/16/2015
SHEET: 13 OF 31
AS-BUILT SHEET:



50' 25' 0 50' 100'
HORIZONTAL TO VERTICAL SCALE 1:10

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH
Date Revised:	7/15/2015, 3:26 PM
Layout Name:	ACCESS ROAD PLAN & PROFILE STA 30+00.00 TO 40+00.00
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

STATE OF ALASKA 49TH
Matthew H. Hansen
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7/16/2015

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
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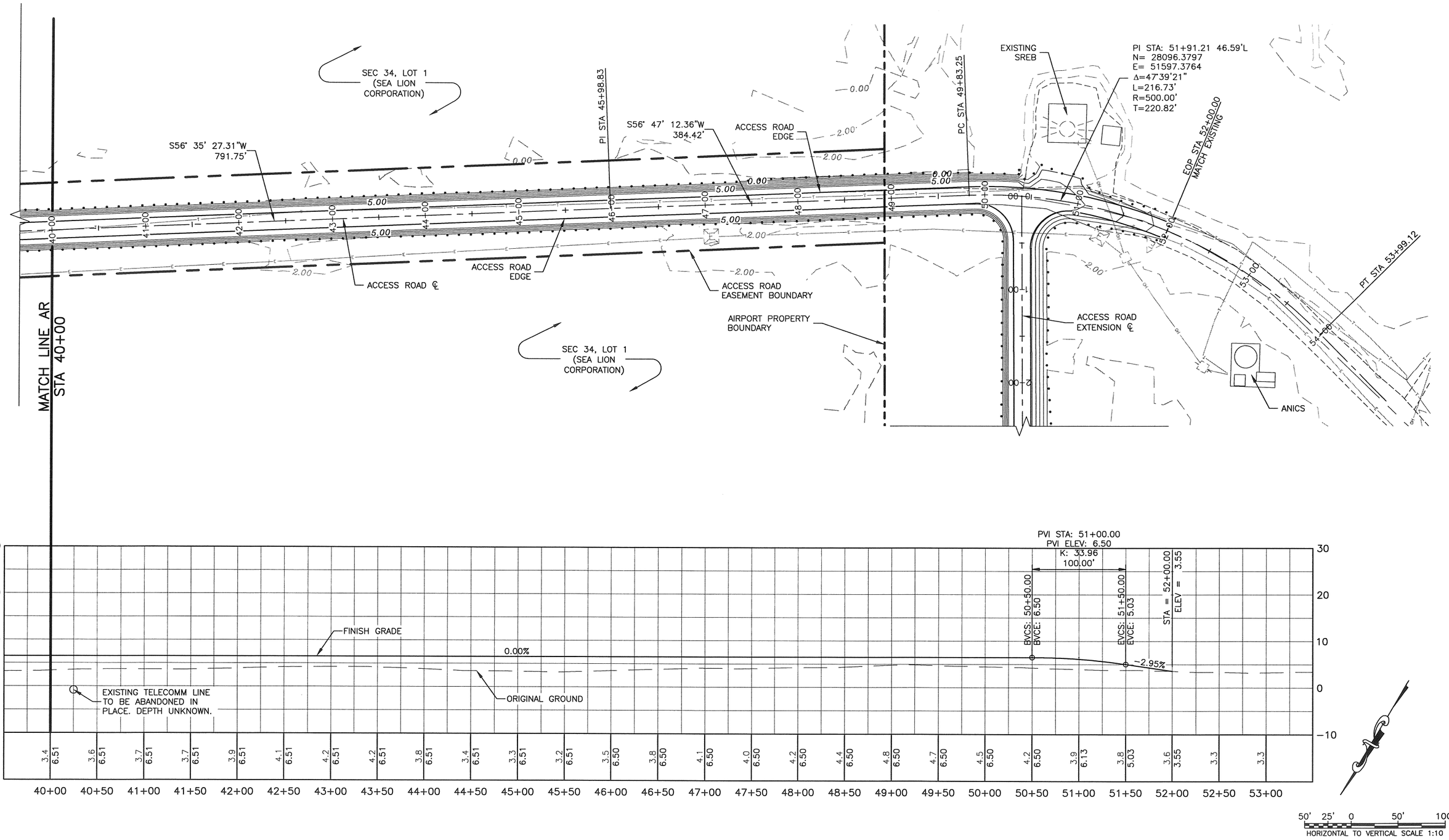
AIP No. 3-02-0126-006-2014
ACCESS ROAD PLAN & PROFILE
STA 30+00.00 TO 40+00.00

DATE: 7/16/2015
SHEET: 14 OF 31
AS-BUILT SHEET:



50' 25' 0 50' 100'
HORIZONTAL TO VERTICAL SCALE 1:10

STATE OF ALASKA
49 TH
Matthew H. Hansen
CE - 13879
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7/16/2015

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
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PROJECT No. 57419
AIP No. 3-02-0126-006-2014
ACCESS ROAD PLAN & PROFILE
STA 40+00.00 TO 53+99.15

DATE: 7/16/2015
SHEET: 15 OF 31
AS-BUILT SHEET:

Designed By: BT
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: 7/15/2015, 3:26 PM
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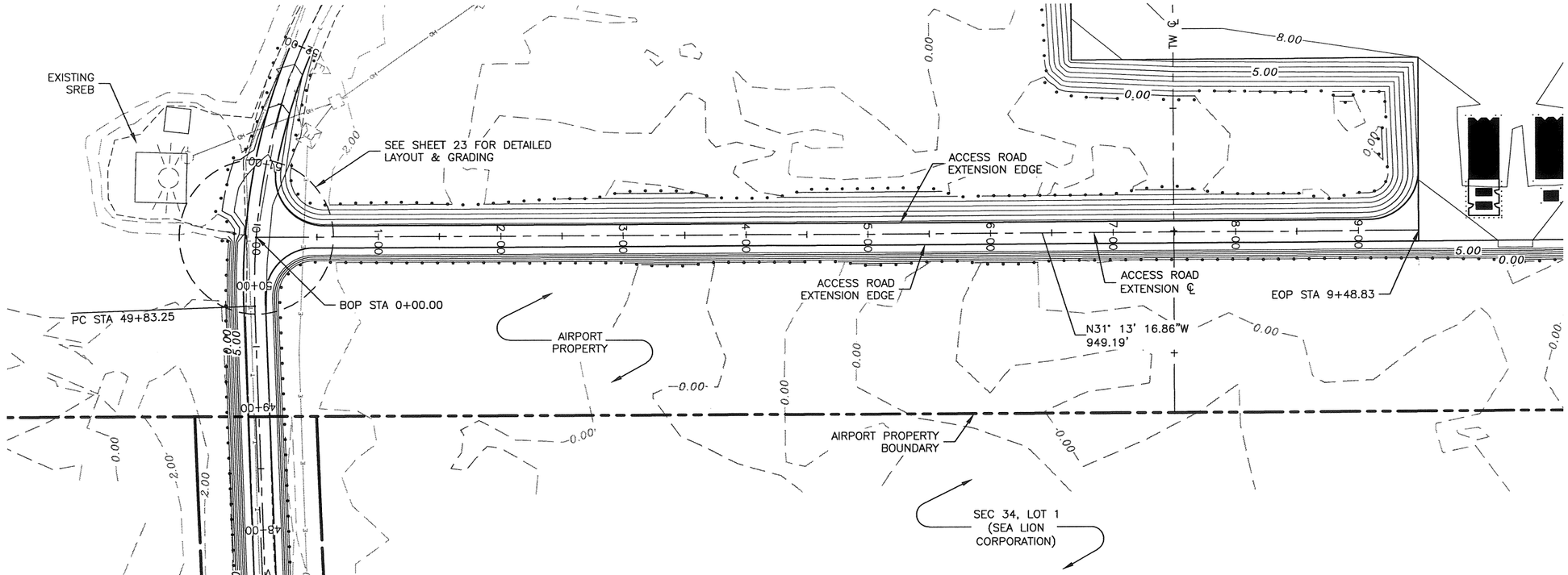
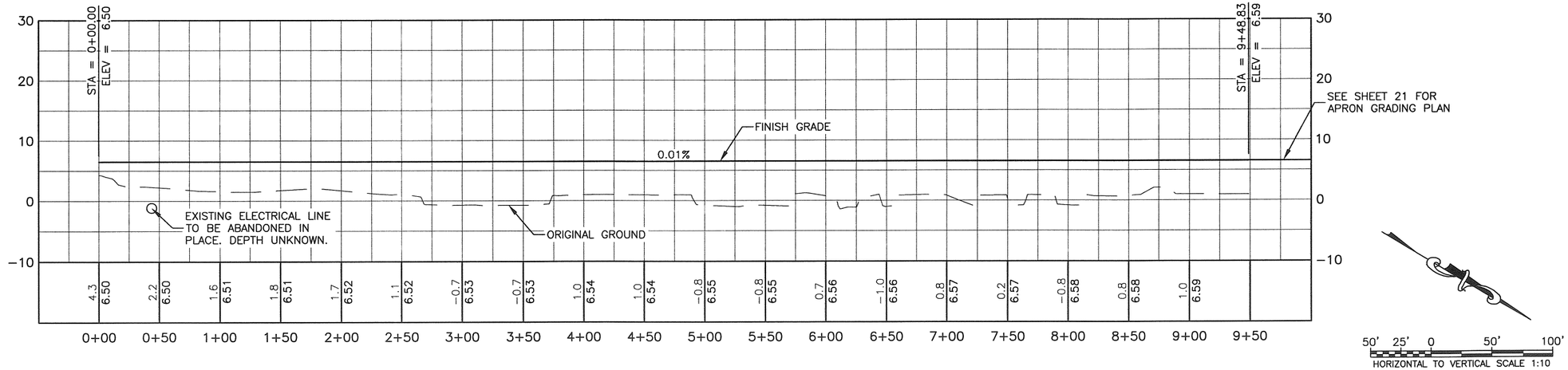




50' 25' 0 50' 100'
HORIZONTAL TO VERTICAL SCALE 1:10

Date Revised:	7/15/2015, 3:26 PM
Layout Name:	ACCESS_ROAD_EXTENSION_PLAN & PROFILE
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH

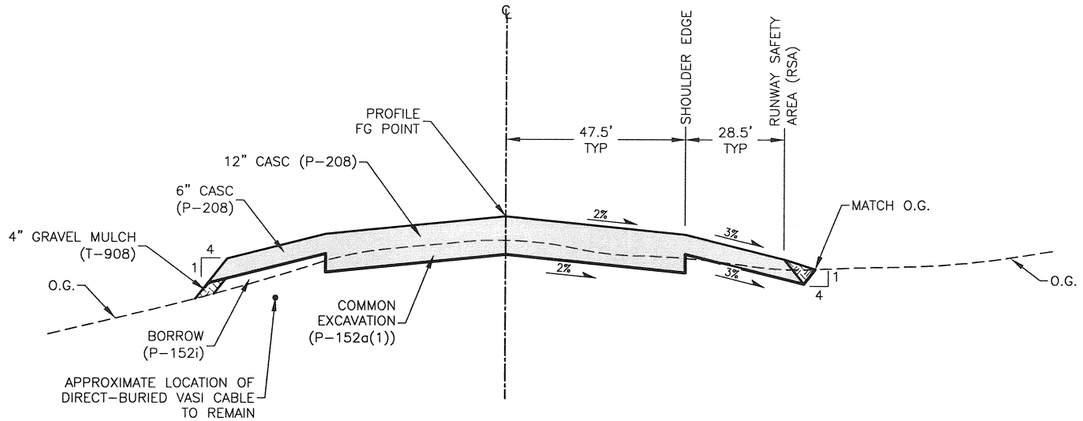
STATE OF ALASKA
49TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

BY	DATE	REVISION

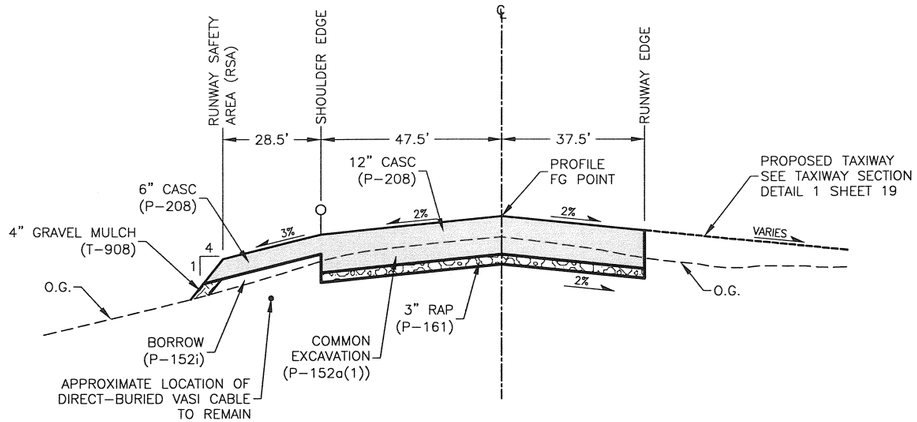
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
ACCESS ROAD EXTENSION PLAN & PROFILE

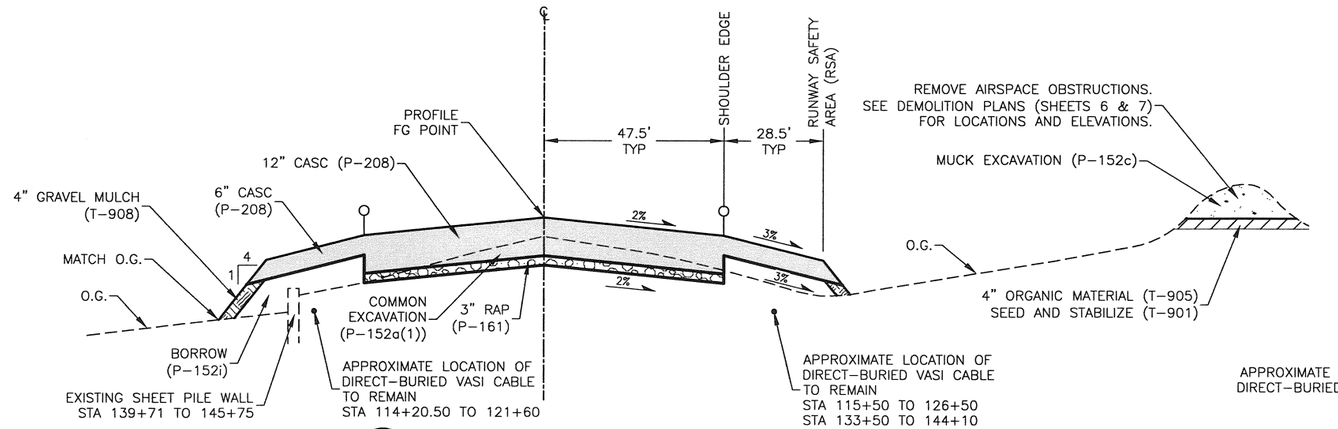
DATE: 7/16/2015
SHEET: 16 OF 31
AS-BUILT SHEET:



1/17 RUNWAY TYPICAL SECTION
NOT TO SCALE
STA 110+00 TO 112+53

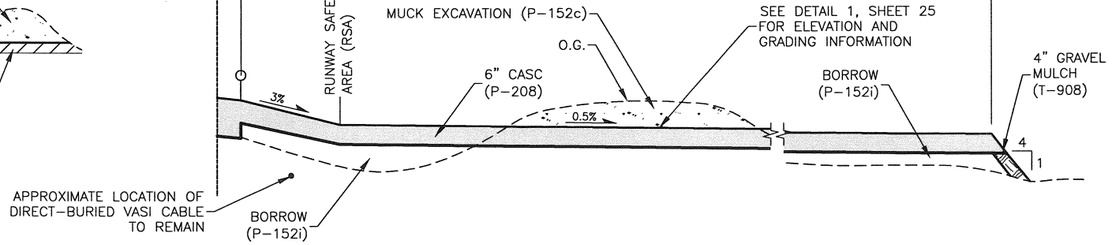


2/17 RUNWAY TYPICAL SECTION
NOT TO SCALE
STA 112+53 TO 114+20.50

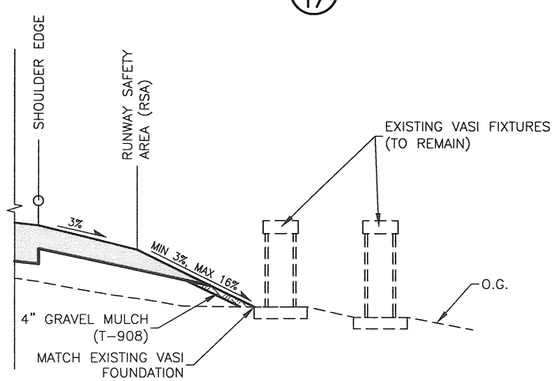


3/17 RUNWAY TYPICAL SECTION
NOT TO SCALE
STA 114+20.50 TO 126+75
STA 133+25 TO 145+75*

*(APPLY TYPICAL SECTION 4/17 ON THE RIGHT SIDE FROM STA 136+45 TO 136+55.)



4/17 SUPPLEMENTAL WIND CONE TYPICAL SECTION
NOT TO SCALE
STA 136+45.00 TO 136+55.00



5/17 VASI ACCESS SLOPE SECTION
NOT TO SCALE

LEFT SIDE: STA 114+44 TO 114+68, STA 121+44 TO 121+68
RIGHT SIDE: STA 137+07 TO 137+31, STA 144+06 TO 144+30

LEGEND

- CRUSHED AGGREGATE SURFACE COURSE (P-208)
- CUT MATERIAL PAID AS COMMON EXCAVATION (P-152a(1))
- ORGANIC MATERIAL (T-905)
- MUCK EXCAVATION (P-152c)
- RECYCLED ASPHALT PAVEMENT (P-161)
- GRAVEL MULCH (T-908)

NOTES:

1. INSTALL DUST PALLIATIVE ON ALL CASC SURFACES.

STATE OF ALASKA 49TH
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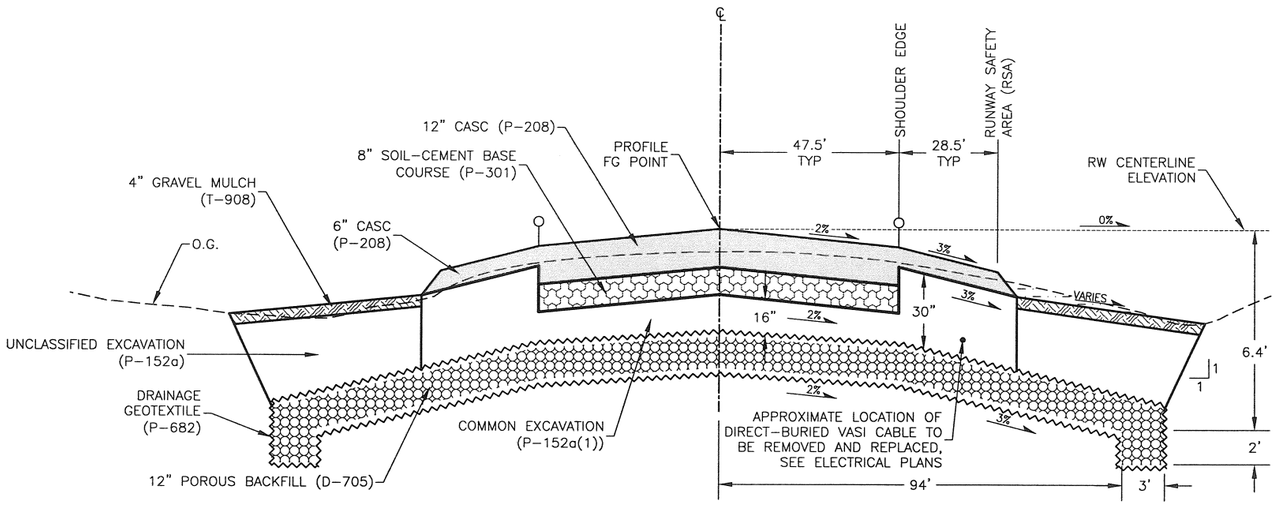
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
TYPICAL SECTIONS

DATE: 7/16/2015
SHEET: 17 OF 31
AS-BUILT SHEET:

Designed By: EF
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: TYPICAL SECTIONS 1
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings
7/15/2015, 3:26 PM



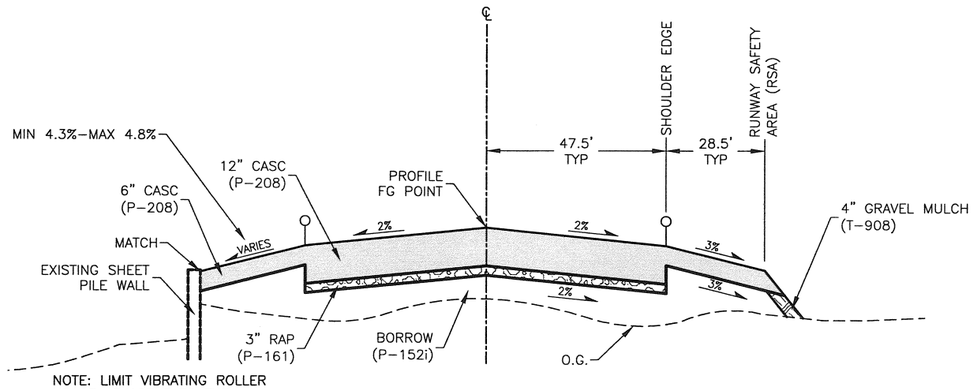
1/18 RUNWAY TYPICAL SECTION
NOT TO SCALE
STA 126+75 TO 133+25

LEGEND

- CRUSHED AGGREGATE SURFACE COURSE (P-208)
- CUT MATERIAL PAID AS COMMON EXCAVATION (P-152a(1))
- ORGANIC MATERIAL (T-905)
- MUCK EXCAVATION (P-152c)
- RECYCLED ASPHALT PAVEMENT (P-161)
- GRAVEL MULCH (T-908)
- POROUS BACKFILL (D-705)
- SOIL-CEMENT BASE COURSE (P-301)

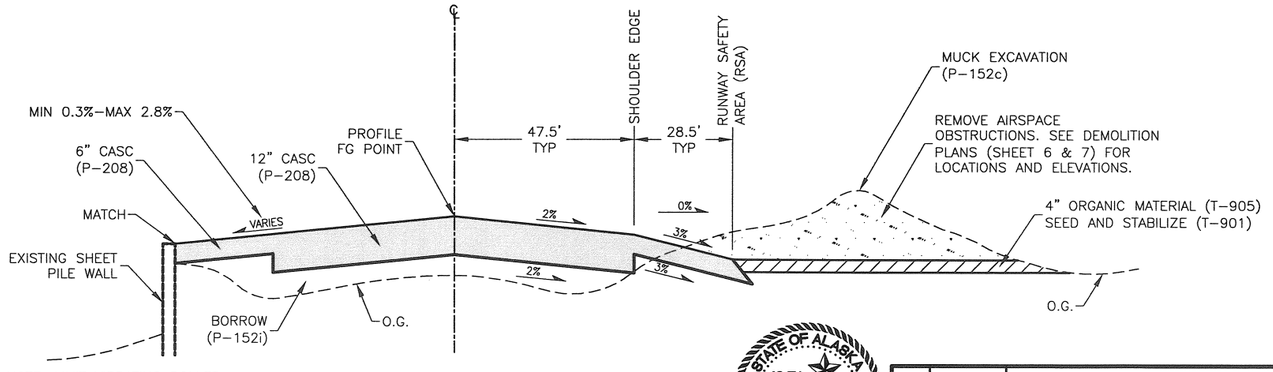
NOTES:

1. INSTALL DUST PALLIATIVE ON ALL CASC SURFACES.



NOTE: LIMIT VIBRATING ROLLER USAGE ADJACENT TO THE SHEET PILE WALL TO PROTECT THE WALL FROM DAMAGE.

2/18 RUNWAY TYPICAL SECTION
NOT TO SCALE
STA 145+75 TO 146+00



NOTE: LIMIT VIBRATING ROLLER USAGE ADJACENT TO THE SHEET PILE WALL TO PROTECT THE WALL FROM DAMAGE.

3/18 RUNWAY TYPICAL SECTION
NOT TO SCALE
STA 146+00 TO 149+00

STATE OF ALASKA 49TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

BY	DATE	REVISION

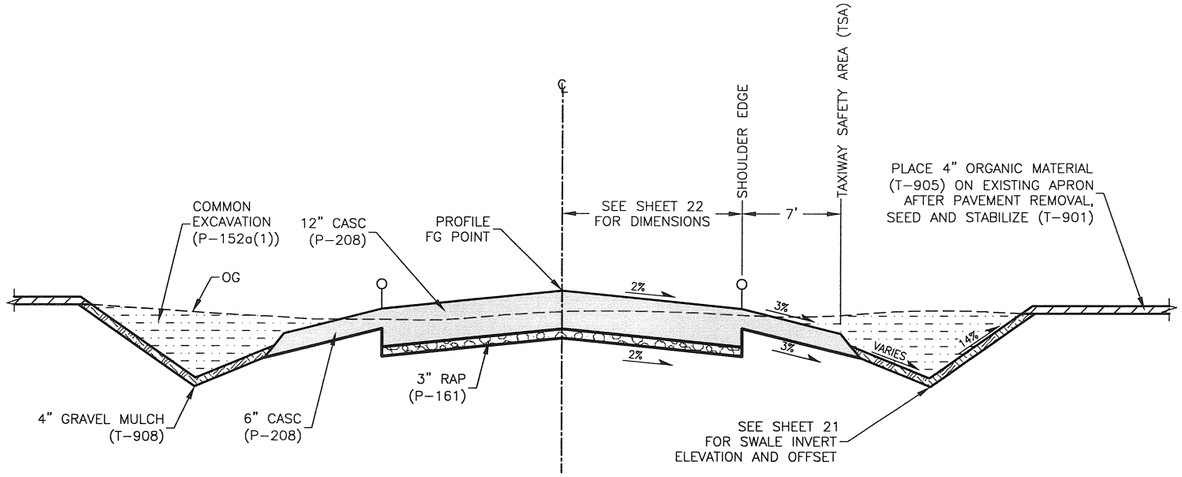
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
TYPICAL SECTIONS

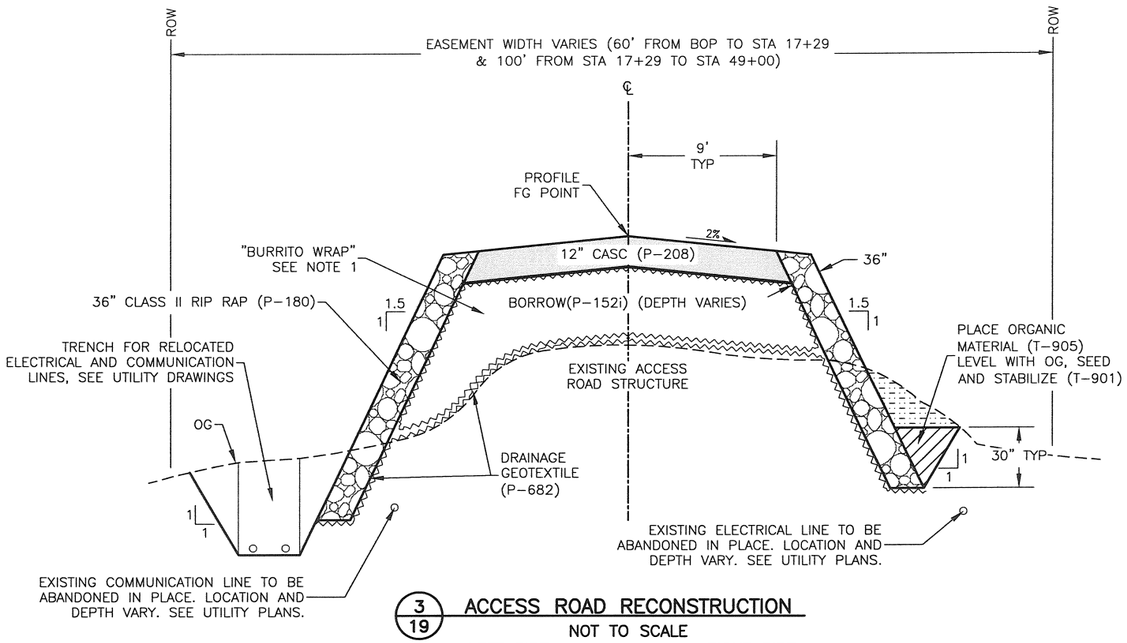
DATE: 7/16/2015
SHEET: 18 OF 31
AS-BUILT SHEET:

Designed By: BT
Drawn By: RJB
Checked By: MHH

Date Revised:
Layout Name: TYPICAL SECTIONS 2
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings
7/15/2015, 3:26 PM

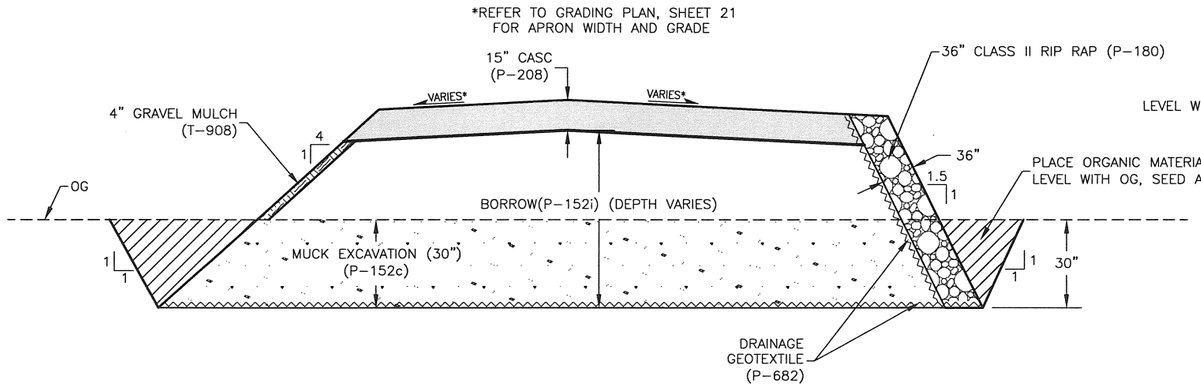


1/19 TAXIWAY TYPICAL SECTION
NOT TO SCALE

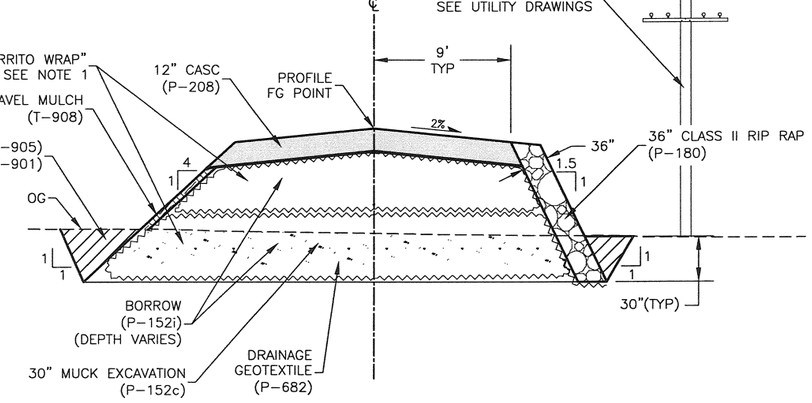


3/19 ACCESS ROAD RECONSTRUCTION
NOT TO SCALE

LEFT SIDE	RIGHT SIDE
STA 9+65 TO 50+35	STA 6+00 TO 49+83.25



2/19 APRON SECTION
NOT TO SCALE



4/19 ACCESS ROAD EXTENSION
NOT TO SCALE
STA 0+09.00 TO 9+48.83

LEGEND

- CRUSHED AGGREGATE SURFACE COURSE (P-208)
- CUT MATERIAL PAID AS COMMON EXCAVATION (P-152a(1))
- ORGANIC MATERIAL (T-905)
- MUCK EXCAVATION (P-152c)
- RIP RAP (P-180)
- RECYCLED ASPHALT PAVEMENT (P-161)
- GRAVEL MULCH (T-908)

NOTES:

1. USE SEPARATION GEOTEXTILE TO "BURRITO WRAP" BORROW IN LAYERS OF 12-30 INCHES TO ACHIEVE NECESSARY FILL THICKNESS.
2. INSTALL DUST PALLIATIVE ON ALL CASC SURFACES.

STATE OF ALASKA
49TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

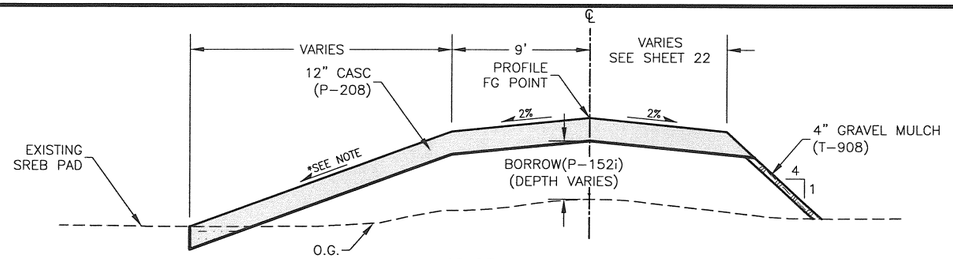
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
TYPICAL SECTIONS

DATE: 7/16/2015
SHEET: 19 OF 31
AS-BUILT SHEET:

Designed By: BF
Drawn By: RJB
Checked By: MHH
Date Revised: 7/15/2015, 3:26 PM
Layout Name: TYPICAL SECTIONS 3
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

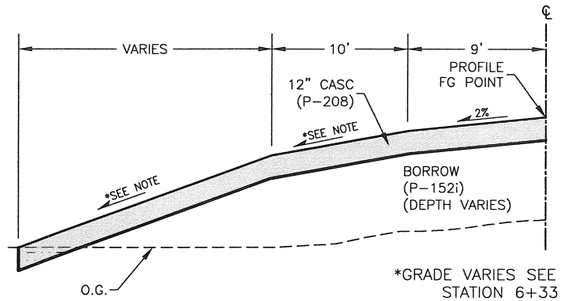


*GRADE VARIES SEE SHEET 24 FOR
STATION 9+00 TO 9+65
AND SHEET 23 FOR
STATION 50+48 TO 51+08

1/20 ACCESS ROAD AT DRIVEWAY INTERSECTION

NOT TO SCALE

LEFT SIDE	RIGHT SIDE
STA 9+00 TO 9+65 STA 50+48 TO 51+08	NOT USED

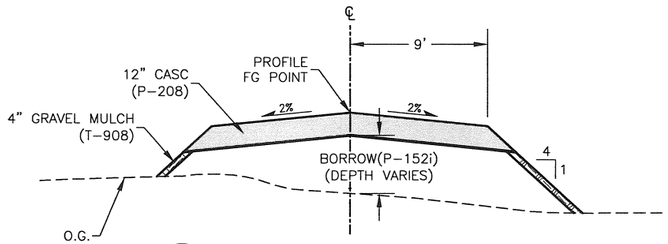


*GRADE VARIES SEE SHEET 24 FOR
STATION 6+33 TO 6+91
AND STATION 7+23 TO 7+87

2/20 ACCESS ROAD AT DRIVEWAY INTERSECTION

NOT TO SCALE

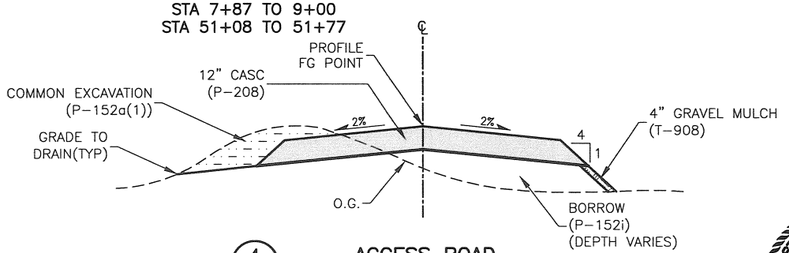
STA 6+33 TO 6+91
STA 7+23 TO 7+87



3/20 ACCESS ROAD

NOT TO SCALE

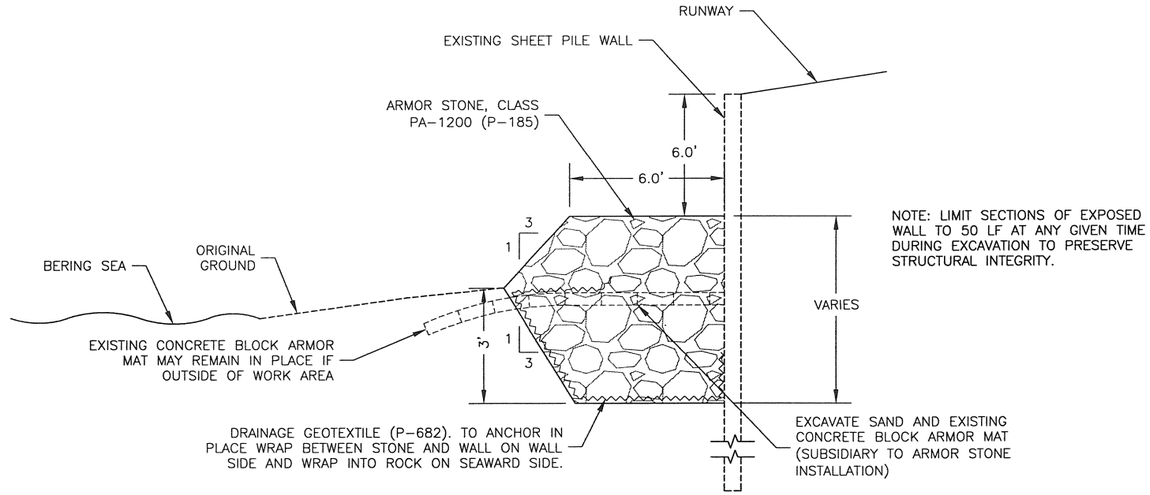
LEFT SIDE	RIGHT SIDE
STA 6+00 TO 6+33 STA 6+91 TO 7+23 STA 7+87 TO 9+00 STA 51+08 TO 51+77	STA 51+00 TO 52+00



4/20 ACCESS ROAD

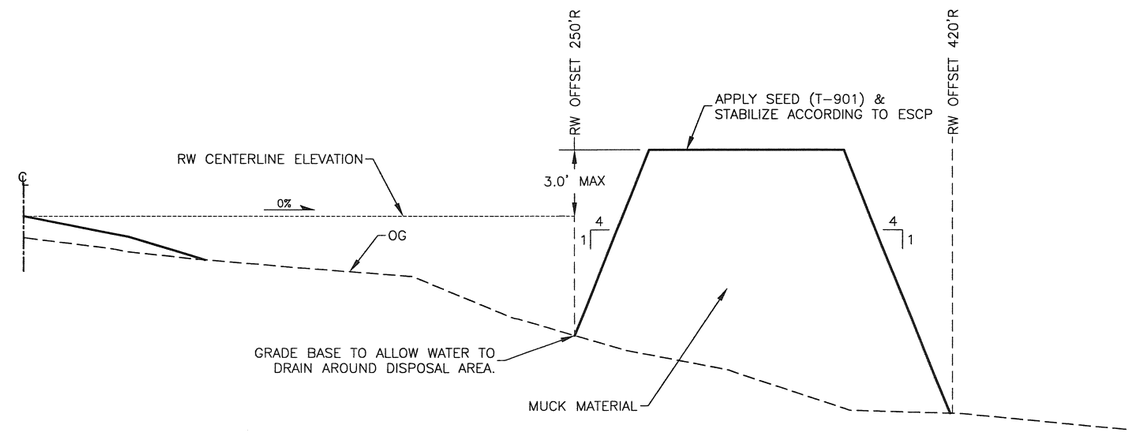
NOT TO SCALE

LEFT SIDE
STA 51+77 TO 52+00



5/20 ARMORING FOR SHEET PILE WALL

NOT TO SCALE



6/20 MUCK DISPOSAL AREA

NOT TO SCALE
STA 115+40 TO 122+20

LEGEND

- CRUSHED AGGREGATE SURFACE COURSE (P-208)
- CUT MATERIAL PAID AS COMMON EXCAVATION (P-152a(1))
- RECYCLED ASPHALT PAVEMENT (P-161)
- GRAVEL MULCH (T-908)
- ARMOR STONE (P-185)

NOTES:

1. USE SEPARATION GEOTEXTILE TO "BURRITO WRAP" BORROW IN LAYERS OF 12-30 INCHES TO ACHIEVE DEPTH NEEDED
2. INSTALL DUST PALLIATIVE ON ALL CASC SURFACES.

STATE OF ALASKA 49TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
TYPICAL SECTIONS

DATE: 7/16/2015
SHEET: 20 OF 31
AS-BUILT SHEET:

Designed By: BT
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: TYPICAL SECTIONS_4
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings\7/15/2015, 3:26 PM

WIND CONE CONDUIT TO BE ABANDONED IN PLACE. REMOVE CONDUCTOR.

VASI CONDUIT TO REMAIN

FLAT AREA OUTSIDE OF APRON REPRESENTS TOP OF RIP RAP

RIPRAP WALL

EXTENSION ACCESS ROAD ℄

SEE SHEET 31 FOR BOLLARD, FENCE, AND FUEL TANK LAYOUT

SREB PAD ELEV = 8.6'

FINISHED FLOOR ELEV: 9.10'

FINISHED FLOOR ELEV: 9.10'

1/21 APRON GRADING

30' 15' 0 30' 60'

2/21 SREB PAD GRADING

10' 5' 0 10' 20'

GRADING PLAN SCHEDULE

POINT	STATION	OFFSET	ELEVATION	REMARKS
1	4+60.00	82.50R	7.29	PI APRON EDGE
2	4+60.00	84.56L	7.70	APRON
3	4+60.00	199.50L	7.82	GRADE BREAK
4	4+60.00	342.50L	6.50	PI APRON EDGE
5	5+85.00	82.50R	8.35	GRADE BREAK
6	5+85.00	199.50L	10.00	GRADE BREAK
7	5+85.00	280.01L	9.60	GRADE BREAK
8	5+85.00	342.50L	8.66	GRADE BREAK
9	7+10.00	82.50R	6.50	PI APRON EDGE
10	7+10.00	199.50L	8.00	PI APRON EDGE
11	7+09.72	280.16L	8.62	GRADE BREAK
12	7+10.00	342.50L	7.69	APRON EDGE
13	8+42.00	159.50L	6.45	PC
14	8+60.00	150.67L	6.41	BEGIN TRANSITION

GRADING PLAN SCHEDULE

POINT	STATION	OFFSET	ELEVATION	REMARKS
15	8+02.00	199.50L	7.08	END TRANSITION
16	8+60.00	199.50L	6.50	END TRANSITION
17	8+60.00	280.35L	7.12	GRADE BREAK
18	8+60.00	342.50L	6.50	PI APRON EDGE
19	7+49.00	229.00L	7.84	GRADE BREAK
20	7+49.00	276.00L	8.20	GRADE BREAK
21	7+49.00	284.00L	8.17	GRADE BREAK
22	7+49.00	331.00L	7.49	GRADE BREAK
23	8+21.00	229.00L	7.12	GRADE BREAK
24	8+21.00	276.00L	7.48	GRADE BREAK
25	8+21.00	284.00L	7.45	GRADE BREAK
26	8+21.00	331.00L	6.92	GRADE BREAK
27	8+42.00	150.67L	6.41	BEGIN TRANSITION

ALL GRADING PLAN SCHEDULE STATIONS ARE BASED ON THE TAXIWAY ALIGNMENT FOR THIS SHEET.

STATE OF ALASKA 49TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

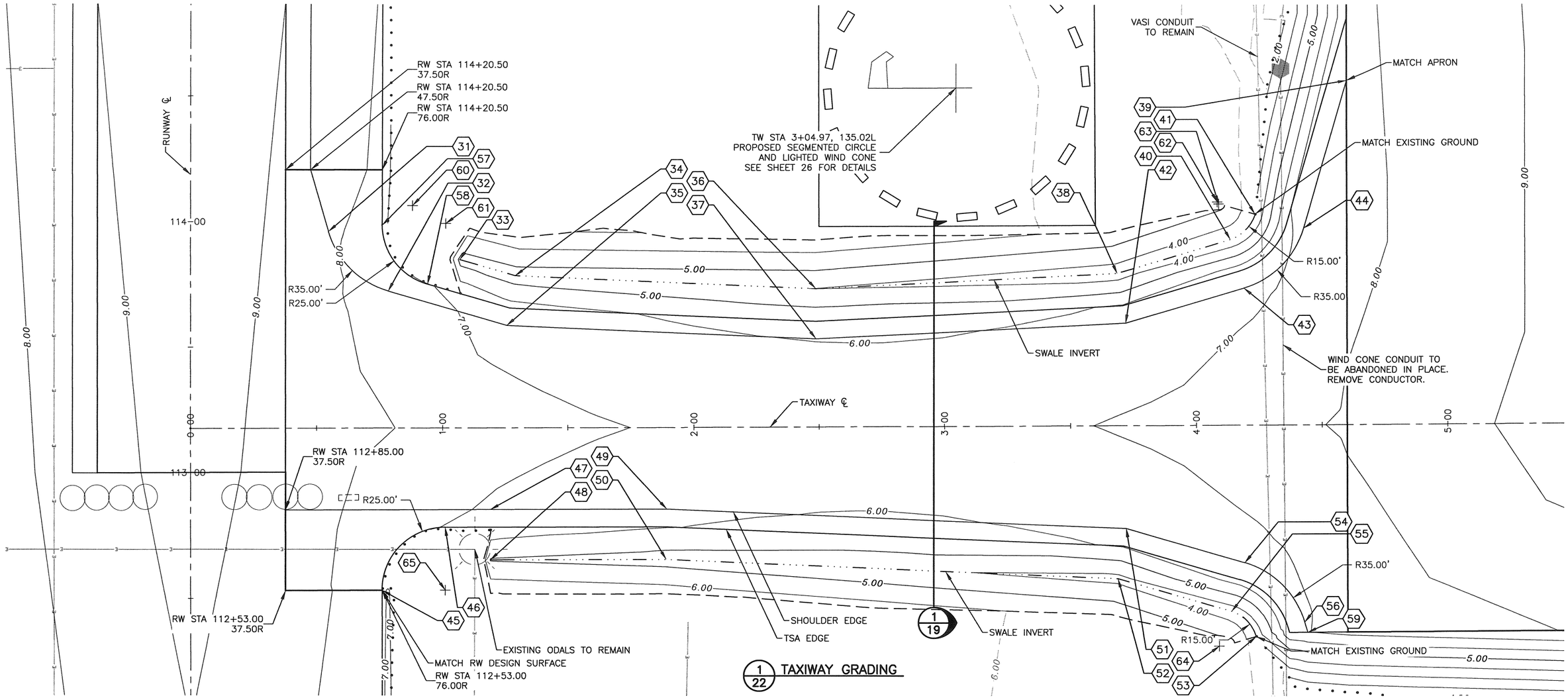
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
APRON LAYOUT & GRADING PLAN

DATE: 7/16/2015
SHEET: 21 OF 31
AS-BUILT SHEET:

Designed By: BT
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: APRON LAYOUT & GRADING PLAN
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings
7/15/2015, 3:27 PM



Designed By:	BT
Drawn By:	RJB
Checked By:	MHH

Date Revised: 7/15/2015, 3:27 PM
Layout Name: TAXIWAY & DITCH LAYOUT & GRADING PLAN
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

GRADING PLAN SCHEDULE

POINT	STATION	OFFSET	ELEVATION	REMARKS
31	0+54.70	78.44L	8.19	PC SHOULDER EDGE
32	0+78.44	54.70L	7.54	PT SHOULDER EDGE
33	1+06.81	67.17L	4.70	BEGIN SWALE
34	1+28.80	60.79L	4.51	PI SWALE
35	1+25.49	40.90L	6.62	PI SHOULDER EDGE
36	2+48.75	55.26L	3.99	PI SWALE
37	2+48.75	35.24L	5.98	PI SHOULDER EDGE
38	3+68.69	60.77L	3.47	PI SWALE
39	4+60.00	137.09L	7.91	PI SHOULDER EDGE

GRADING PLAN SCHEDULE

POINT	STATION	OFFSET	ELEVATION	REMARKS
40	4+13.71	74.04L	3.27	PC SWALE
41	4+23.44	84.11L	3.23	END SWALE
42	3+72.01	40.90L	6.28	PI SHOULDER EDGE
43	4+19.06	54.70L	6.78	PC SHOULDER EDGE
44	4+42.80	78.44L	7.14	PT SHOULDER EDGE
45	0+76.00	64.50R	7.41	PC EDGE TSA
46	1+01.00	39.50R	6.97	PT EDGE TSA
47	1+18.86	32.50R	6.89	SHOULDER EDGE
48	1+18.86	52.50R	5.00	BEGIN SWALE

GRADING PLAN SCHEDULE

POINT	STATION	OFFSET	ELEVATION	REMARKS
49	1+89.16	32.50R	6.25	PI SHOULDER EDGE
50	1+88.92	52.50R	4.59	PI SWALE
51	3+72.01	40.90R	6.28	PI SHOULDER EDGE
52	3+68.67	60.83R	3.73	PI SWALE
53	4+23.45	84.11R	3.44	END SWALE
54	4+19.06	54.70R	6.67	PC SHOULDER EDGE
55	4+13.77	74.03R	3.49	PC SWALE
56	4+42.80	78.44R	6.94	PT SHOULDER EDGE
57	0+76.01	80.93L	7.54	PC EDGE RSA

GRADING PLAN SCHEDULE

POINT	STATION	OFFSET	ELEVATION	REMARKS
58	0+93.96	57.44L	7.05	PC EDGE TSA
59	4+43.99	82.50R	6.97	PI SHOULDER EDGE
60	0+87.99	88.75L	0.00	RADIUS POINT
61	1+01.20	81.59L	0.00	RADIUS POINT
62	4+08.53	89.04L	0.00	RADIUS POINT
63	4+09.09	88.24L	0.00	RADIUS POINT
64	4+08.90	87.86R	0.00	RADIUS POINT
65	1+01.00	64.50R	0.00	RADIUS POINT

ALL GRADING PLAN SCHEDULE STATIONS ARE BASED ON THE TAXIWAY ALIGNMENT FOR THIS SHEET.

20' 10' 0 20' 40'

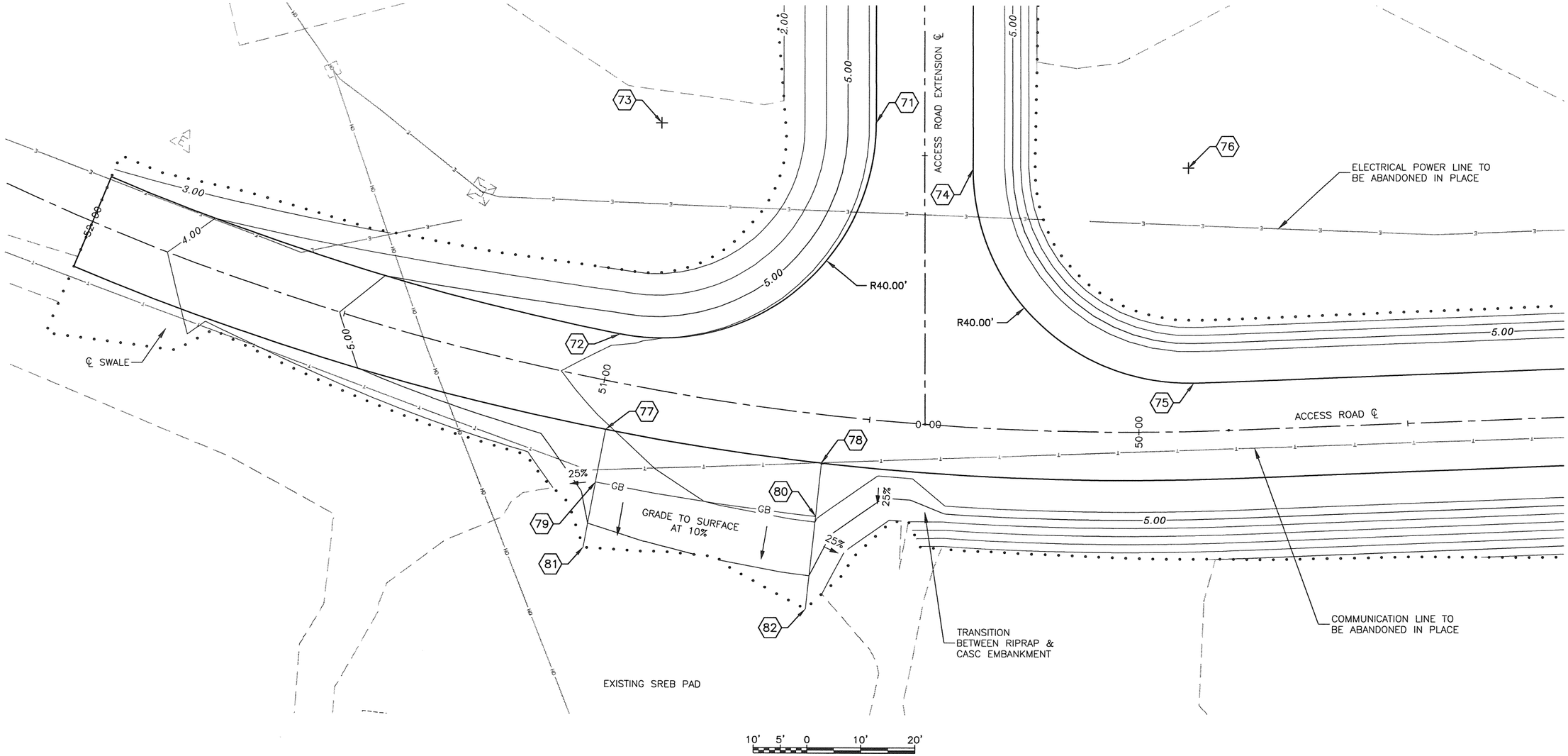
STATE OF ALASKA
49TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
TAXIWAY & DITCH
LAYOUT & GRADING PLAN

DATE: 7/16/2015
SHEET: 22 OF 31
AS-BUILT SHEET:



1/23 INTERSECTION LAYOUT & GRADING

GRADING PLAN SCHEDULE				
POINT	STATION	OFFSET	ELEVATION	REMARKS
71	50+54.73	55.08R	6.33	PC ROAD EDGE
72	50+98.87	9.00R	5.96	PT ROAD EDGE
73	50+98.87	49.00R		RADIUS
74	50+33.90	48.11R	6.32	PC ROAD EDGE
75	49+89.59	9.00R	6.32	PT ROAD EDGE
76	49+89.59	49.00R		RADIUS
77	50+98.00	8.98L	5.98	EDGE APPROACH
78	50+58.00	8.96L	6.31	EDGE APPROACH
79	50+97.92	18.98L	5.78	GRADE BREAK

GRADING PLAN SCHEDULE				
POINT	STATION	OFFSET	ELEVATION	REMARKS
80	50+57.97	18.96L	6.11	GRADE BREAK
81	50+97.82	31.28L	ME	EDGE APPROACH
82	50+57.91	36.22L	ME	EDGE APPROACH

ALL GRADING PLAN SCHEDULE STATIONS ARE ALONG ACCESS ROAD FOR THIS SHEET

STATE OF ALASKA 49 TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

BY	DATE	REVISION

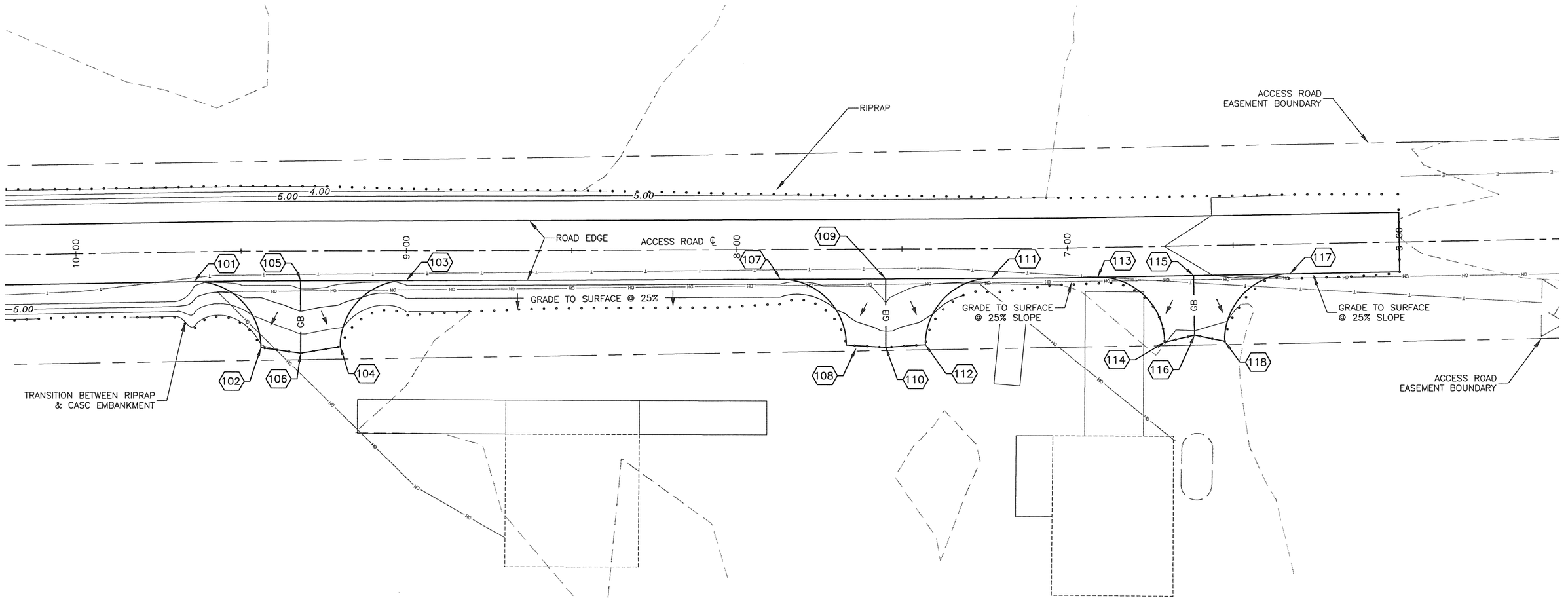
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
INTERSECTION AREA
LAYOUT & GRADING PLAN

DATE: 7/16/2015
SHEET: 23 OF 31
AS-BUILT SHEET:

Designed By: BT
Drawn By: RJB
Checked By: MHH

Date Revised:
Layout Name: INTERSECTION AREA LAYOUT & GRADING PLAN
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings
7/15/2015, 3:27 PM



1/24 APPROACHES LAYOUT & GRADING

GRADING PLAN SCHEDULE				
POINT	STATION	OFFSET	ELEVATION	REMARKS
101	9+64.40	9.00L	6.36	APPROACH EDGE
102	9+44.00	29.20L	2.90	APPROACH EDGE
103	9+00.00	9.00L	6.36	APPROACH EDGE
104	9+20.00	29.00L	3.43	APPROACH EDGE
105	9+32.00	9.00L	6.36	GRADE BREAK
106	9+32.00	30.96L	3.14	GRADE BREAK
107	7+87.00	9.00L	6.36	APPROACH EDGE
108	7+67.00	29.00L	4.22	APPROACH EDGE
109	7+55.00	9.00L	6.36	GRADE BREAK

GRADING PLAN SCHEDULE				
POINT	STATION	OFFSET	ELEVATION	REMARKS
110	7+55.00	29.73L	4.28	GRADE BREAK
111	7+23.00	9.00L	6.42	APPROACH EDGE
112	7+43.00	29.00L	4.38	APPROACH EDGE
113	6+91.00	9.00L	6.62	APPROACH EDGE
114	6+71.00	29.00L	6.01	APPROACH EDGE
115	6+62.00	9.00L	6.93	GRADE BREAK
116	6+62.00	27.03L	5.85	GRADE BREAK
117	6+33.00	9.00L	7.32	APPROACH EDGE
118	6+53.00	29.00L	5.67	APPROACH EDGE

ALL GRADING PLAN SCHEDULE STATIONS ARE ALONG ACCESS ROAD FOR THIS SHEET

NOTE:
1. LOCATION OF THE DRIVEWAYS ARE APPROXIMATE. FINAL LOCATION OF DRIVEWAYS SHALL BE APPROVED BY THE PROJECT ENGINEER.

STATE OF ALASKA 49TH
Matthew H. Hansen
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7/16/2015

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STATE OF ALASKA
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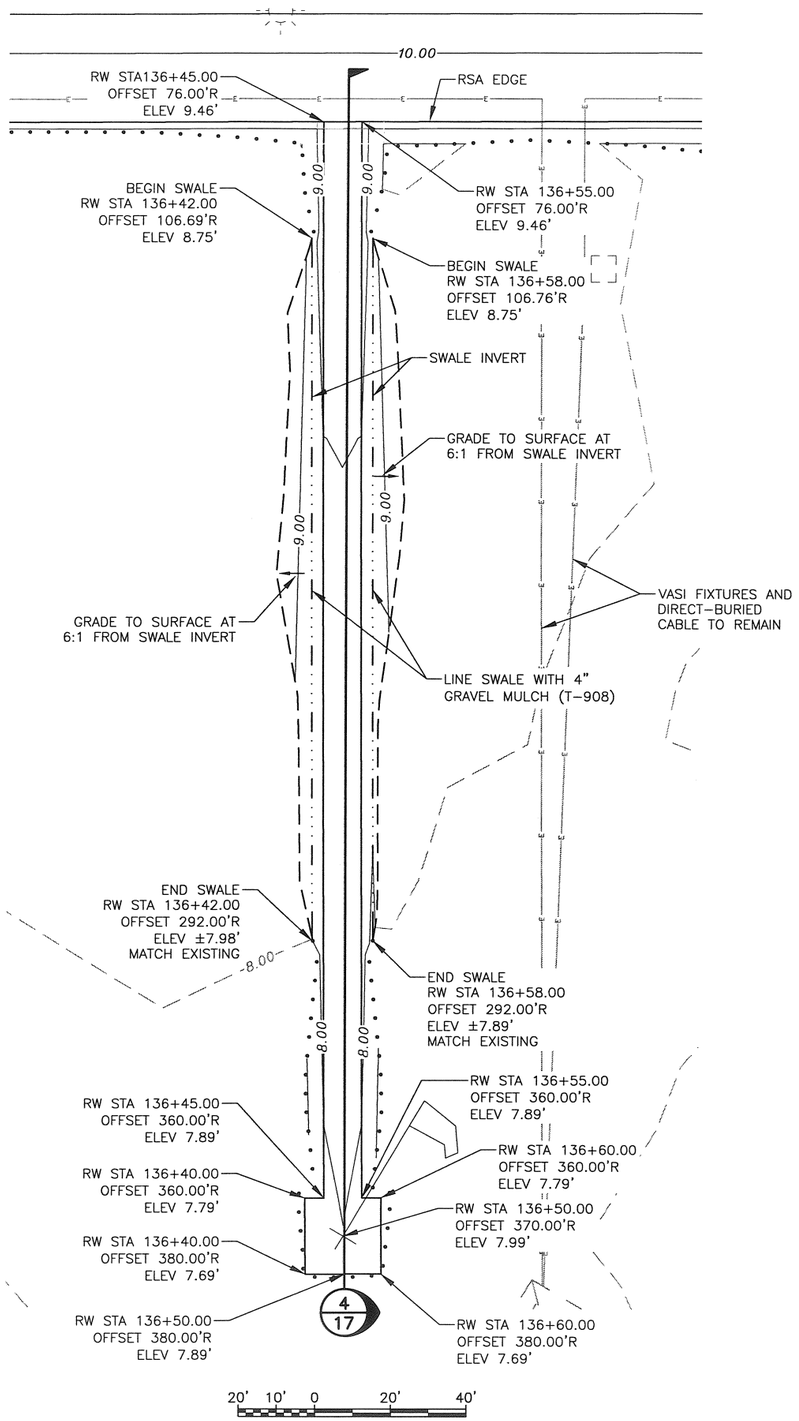
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
APPROACHES LAYOUT & GRADING PLAN

DATE: 7/16/2015
SHEET: 24 OF 31
AS-BUILT SHEET:

Designed By: BT
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: APPROACHES LAYOUT & GRADING PLAN
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings
7/15/2015 3:27 PM



1/25 UNLIGHTED WIND CONE

NOTES:

1. SEE ELECTRICAL DRAWINGS FOR LIGHTED AND UNLIGHTED WIND CONE DETAILS.

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH
Date Revised:	7/15/2015, 3:27 PM
Layout Name:	WIND CONE GRADING PLAN
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

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STATE OF ALASKA
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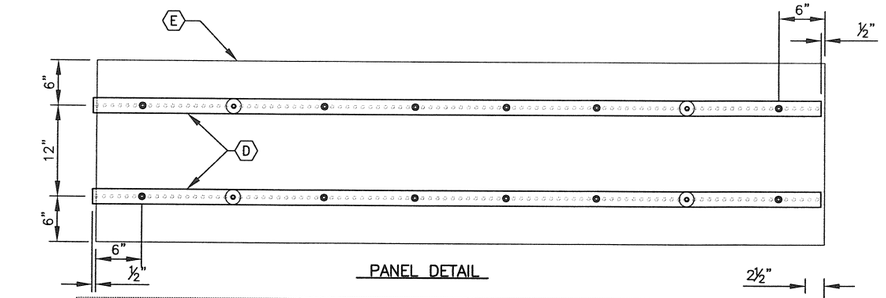
CENTRAL REGION

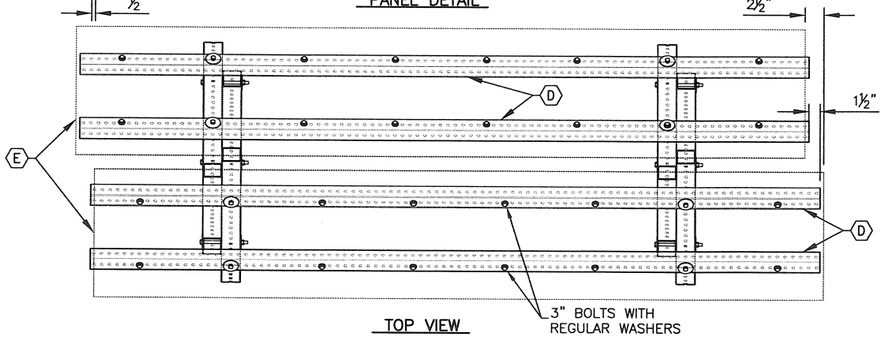
HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
WIND CONE GRADING PLAN

DATE: 7/16/2015
SHEET: 25 OF 31
AS-BUILT SHEET:

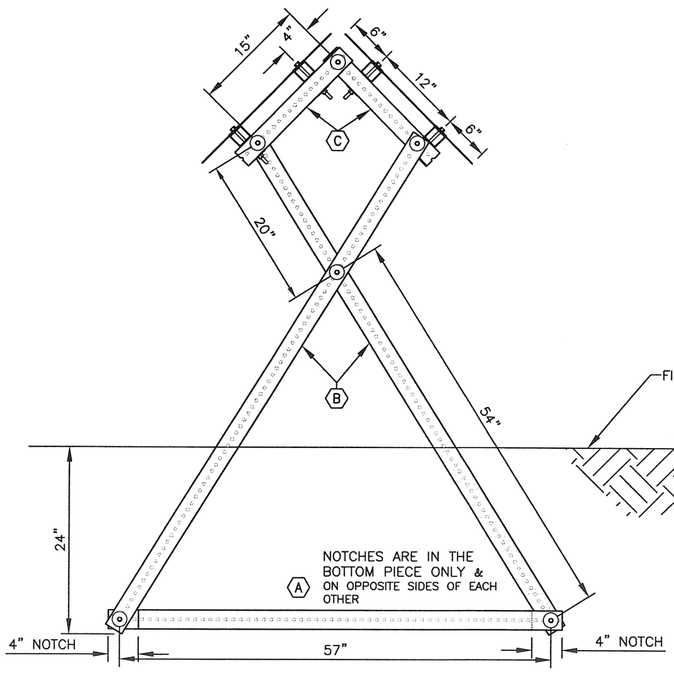
PIECE	DESCRIPTION	QUANTITY
A	2-1/2" SQ GALV STEEL PERF TUBE, 60", NOTCHED	2
B	2-1/2" SQ GALV STEEL PERF TUBE, 76-1/2"	4
C	2-1/2" SQ GALV STEEL PERF TUBE, 19-1/2"	4
D	2" SQ GALV STEEL PERF TUBE, 96"	4
E	24" X 96" X 0.08" - 0.09" THICK ALUMINUM 6061-T6 OR 5052-H36/38	2
	3/8" X 3" GALV. BOLT, NUT	24
	3/8" X 5" GALV. BOLT, NUT	4
	3/8" X 6" GALV. BOLT, NUT	16
	3/8" GALV. REGULAR WASHER	48
	3/8" X 2" DIA. S.S. FENDER WASHER	40
	24" X 96" REFLECTIVE SHEETING	2



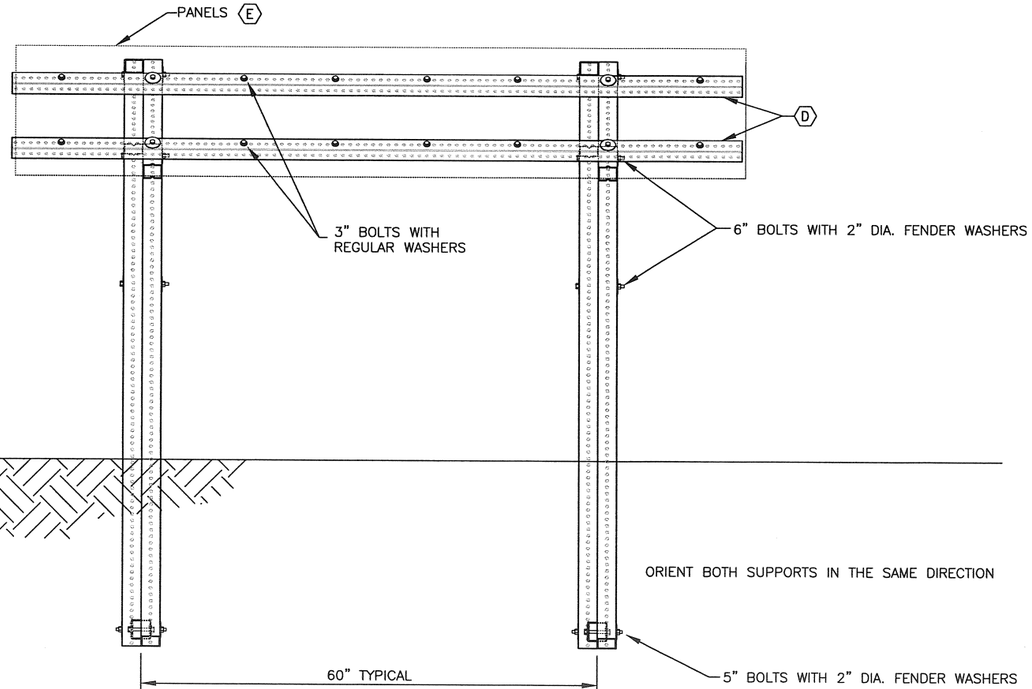
PANEL DETAIL



TOP VIEW



SIDE VIEW



FRONT VIEW

SEGMENTED CIRCLE PANEL ASSEMBLY

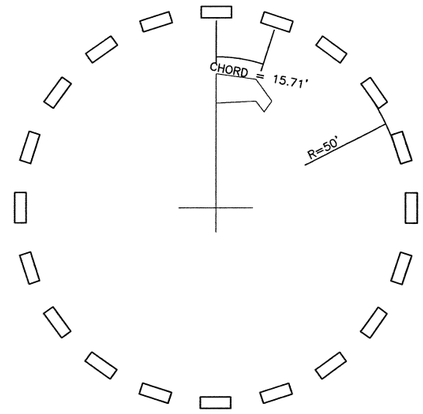
NO SCALE

NOTES:

1. CRITICAL ASSEMBLY DIMENSIONS ARE BETWEEN HOLES.
2. PAINT ALL CUT EDGES WITH COLD GALVANIZING.
3. APPLY REFLECTIVE FILM TO PANELS BEFORE ASSEMBLY.
4. LEVEL ASSEMBLY BEFORE BACKFILLING.
5. STEEL PERF TUBE SHALL BE 12-GAGE STEEL, GALVANIZED, WITH 7/16-INCH HOLES PUNCHED OR DRILLED ON ALL SIDES ON 1-INCH CENTERS.

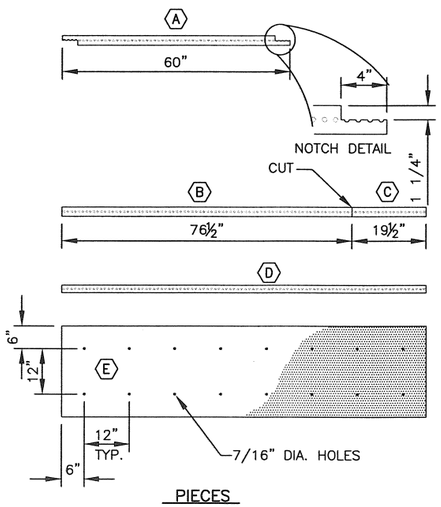
DESIGN NOTES:

Segmented Circle Panels:
Design Reference: FAA AC 150/5345-27E; AC 150/5340-5D; Alaska DOT item: P-640b



SEGMENTED CIRCLE LAYOUT

NO SCALE



PIECES

STATE OF ALASKA
49 TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

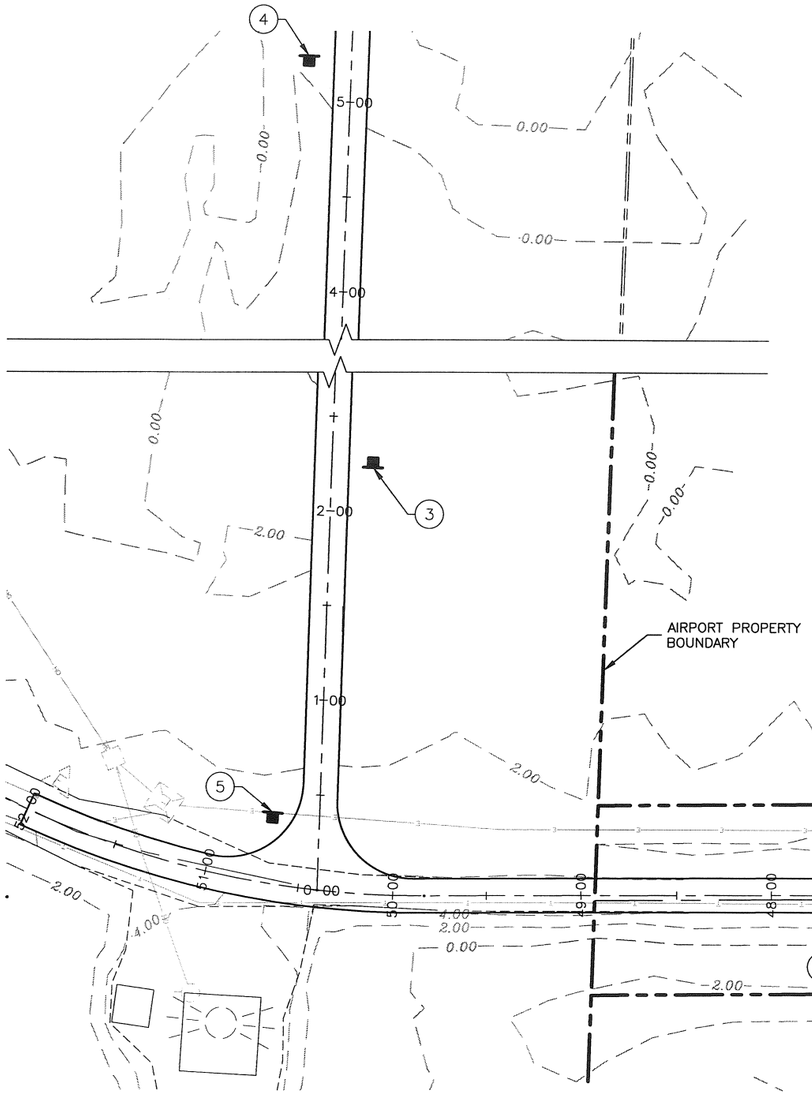
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
SEGMENTED CIRCLE DETAILS

DATE: 7/16/2015
SHEET: 26 OF 31
AS-BUILT SHEET:

Designed By: BT
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: 7/15/2015, 3:27 PM
File Path and Name: SEGMENTED CIRCLE DETAILS
W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings



ACCESS ROAD SIGN SUMMARY

POST NUMBER	STATION & OFFSET	TYPE	SIGN	SIZE (IN)	AREA (SF)	SIGN FACES	POSTS: NO. SIZE, TYPE	FRAMED YES	FRAMED NO	REMARKS
1	10+00 22.0 RT	R2-1	SPEED LIMIT 25	24X30	5.00	NE	1-2.5"-P		X	
2	47+40 22.0 LT	R2-1	SPEED LIMIT 25	24X30	5.00	SW	1-2.5"-P		X	
3	2+24 22.0 RT	R2-1	SPEED LIMIT 25	24X30	5.00	SE	1-2.5"-P		X	
4	5+24 22.0 LT	R2-1	SPEED LIMIT 25	24X30	5.00	NW	1-2.5"-P		X	
5	0+40 24.0 LT	R1-2	YIELD	30X30X30	5.41	N	1-2.5"-P		X	

NOTES:

1. ALL PROPOSED SIGN POST LOCATIONS SHALL BE IN ACCORDANCE WITH STATE OF ALASKA STANDARD DRAWINGS S-05.00, OR AS DIRECTED BY THE ENGINEER.
2. SIGN LOCATIONS ARE APPROXIMATE AND SUBJECT TO FIELD ADJUSTMENT BY THE ENGINEER.
3. SEE STANDARD DRAWING S-31.01 FOR SIGN POST AND BASE FOUNDATION.
4. SEE STANDARD DRAWING S-01.00 FOR BRACING REQUIREMENTS AND DETAILS

40' 20' 0 40' 80'

STATE OF ALASKA 49TH
Matthew H. Hansen
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
ACCESS ROAD SIGNING PLAN

DATE: 7/16/2015
SHEET: 27 OF 31
AS-BUILT SHEET:

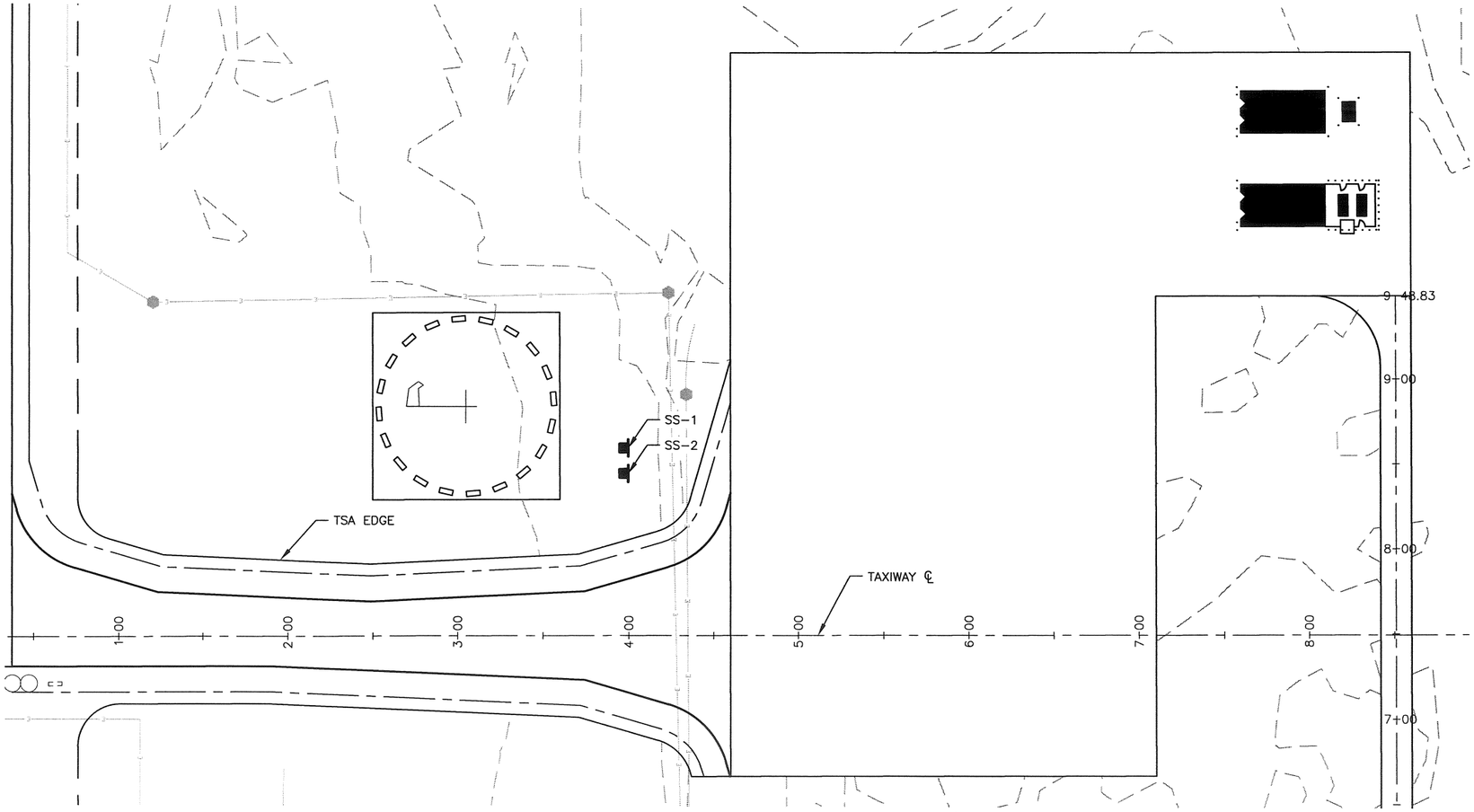
Designed By: BT
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: 7/15/2015, 3:28 PM
File Path and Name: ACCESS ROAD SIGNING PLAN
W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57418\Final Drawings

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH

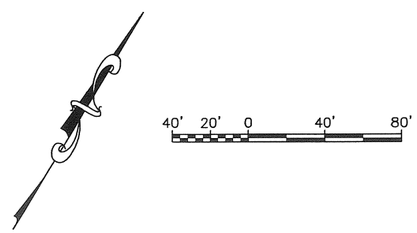
Date Revised:	7/15/2015, 3:28 PM
Layout Name:	APRON SIGNING PLAN
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

AIRPORT SIGN SUMMARY

POST NUMBER	STATION & OFFSET	TYPE	LEGEND	SIZE (IN)	COLOR		AREA (SF)	SIGN FACES	POSTS: NO. SIZE, TYPE	FRAMED		REMARKS
					LEGEND	BACKGROUND				YES	NO	
SS-1	4+00 105.00 LT	SPECIAL	SELECTIVE EXCLUSION	36X48	BLACK/RED	WHITE	12.00	NE	3.5" STEEL SQUARE TUBE		X	
SS-2	4+00 90.00 LT	SPECIAL	AUTHORIZED PERSONNEL ONLY	42X30	WHITE	RED	8.75	NE	3.5" STEEL SQUARE TUBE		X	



NOTES:
1. SIGN LOCATIONS ARE APPROXIMATE AND SUBJECT TO FIELD ADJUSTMENT BY THE ENGINEER.
2. OFFSET DISTANCE ON THE SIGN SUMMARY ARE FROM CENTERLINE TO EDGE OF SIGN NEAREST THE TRAVELED WAY. SEE STANDARD DRAWING S-05.01.
3. SEE SHEET 29 FOR SIGN DETAILS.



STATE OF ALASKA
49TH
Matthew H. Hansen
CE - 13879
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7/16/2015

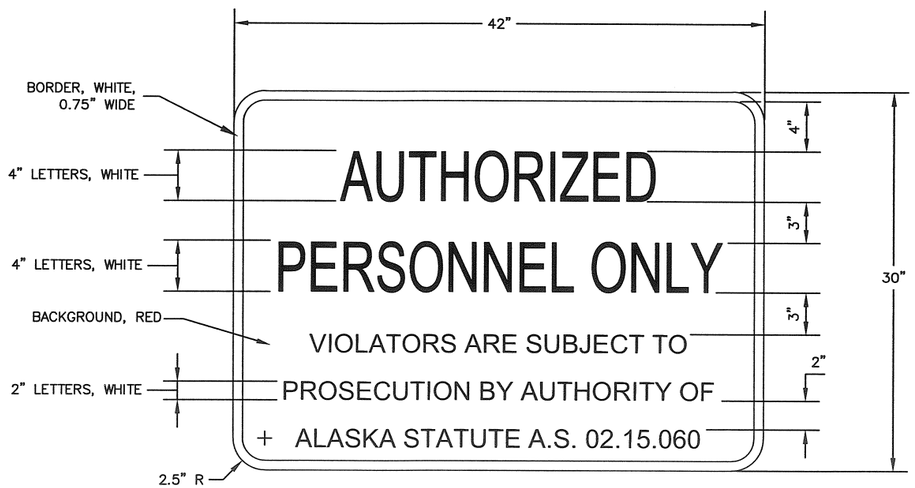
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
APRON SIGNING PLAN

DATE: 7/16/2015
SHEET: 28 OF 31
AS-BUILT SHEET:

SELECTIVE EXCLUSIONS
SS–1



AUTHORIZED PERSONNEL SIGN DETAILS
SS–2

NOTES:
1. POST LENGTHS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR USING THE CRITERIA FOR RURAL ROADS, UNLESS DETERMINED OTHERWISE BY THE ENGINEER. SEE STANDARD DRAWING S–05.01.
2. SEE STANDARD DRAWING S–31.01 FOR SIGN POST AND BASE FOUNDATION.
3. SEE STANDARD DRAWING S–01.00 FOR BRACING REQUIREMENTS AND DETAILS.

Designed By: BT
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: SIGNING PLAN DETAILS
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings
7/15/2015, 3:28 PM

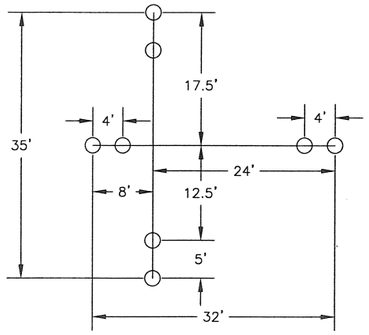
STATE OF ALASKA 49TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

BY	DATE	REVISION

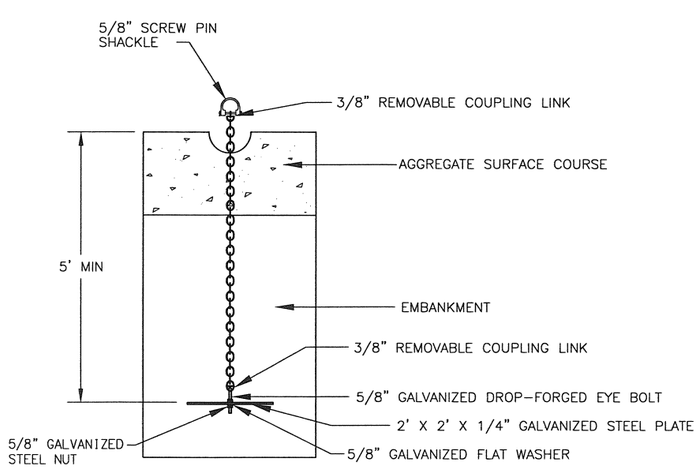
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
SIGNING PLAN DETAILS

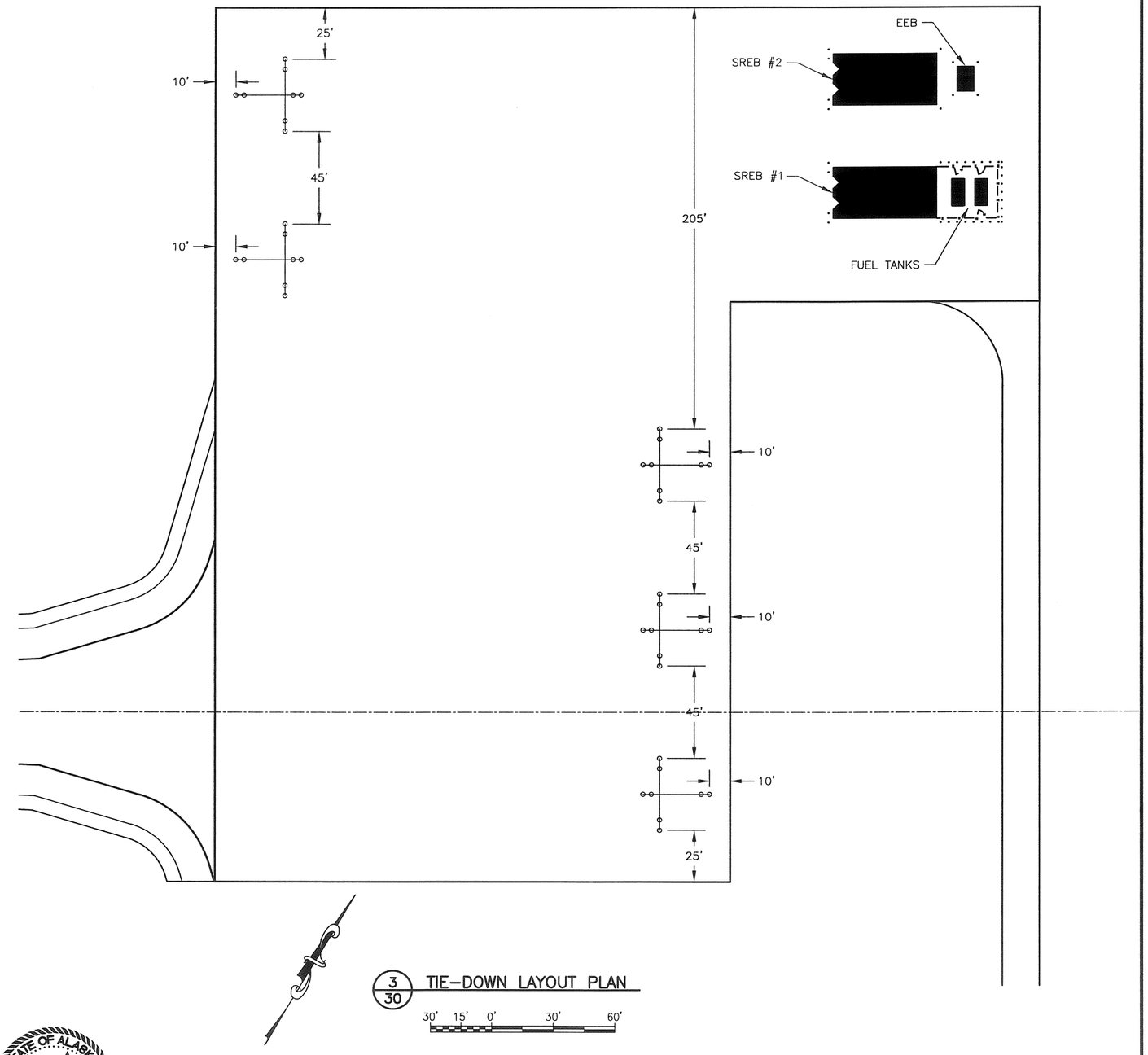
DATE: 7/16/2015
SHEET: 29 OF 31
AS–BUILT SHEET:



1/30 TIE–DOWN DETAILS
SCALE: NTS



2/30 TYPICAL TIE–DOWN ANCHOR DETAILS
SCALE: NTS



3/30 TIE–DOWN LAYOUT PLAN
30' 15' 0' 30' 60'

Designed By: BF
Drawn By: RJB
Checked By: MHH
Date Revised:
Layout Name: 7/15/2015, 3:28 PM
File Path and Name: TIE–DOWN LAYOUT & DETAILS
W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

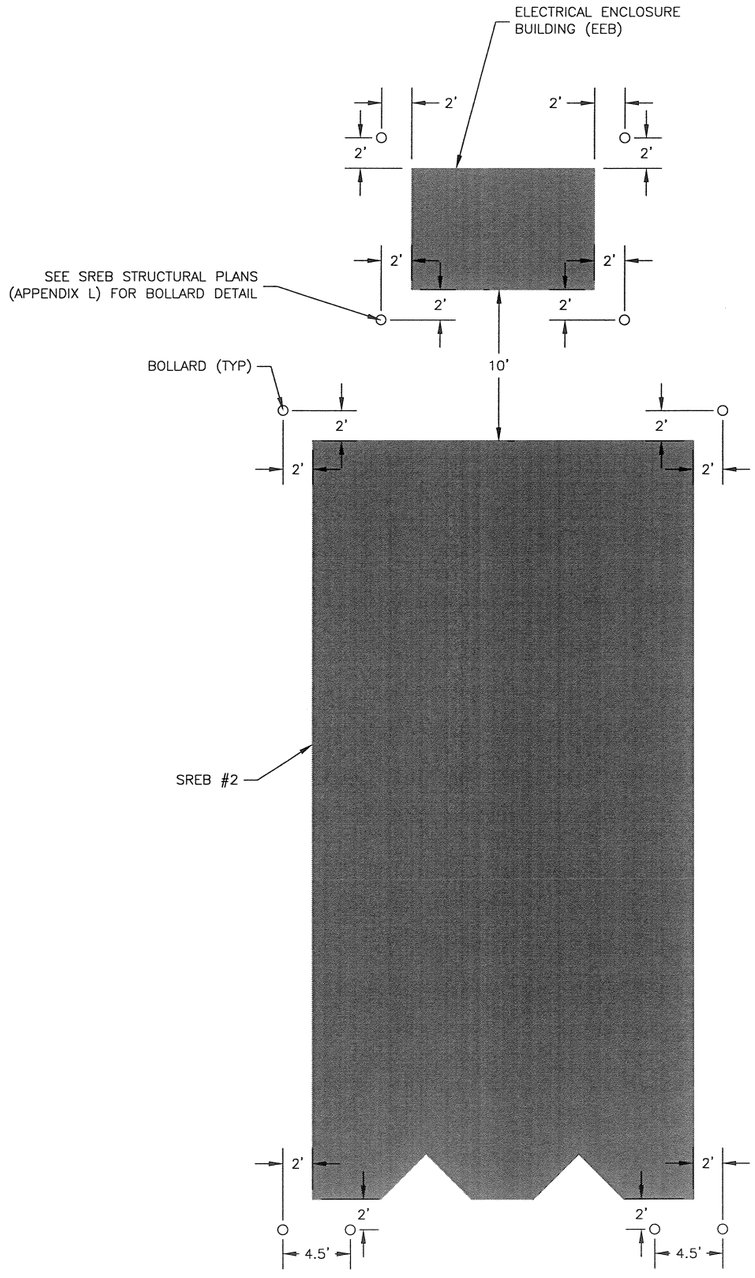
STATE OF ALASKA 49TH
Matthew H. Hansen
CE - 13879
REGISTERED PROFESSIONAL ENGINEER
7/16/2015

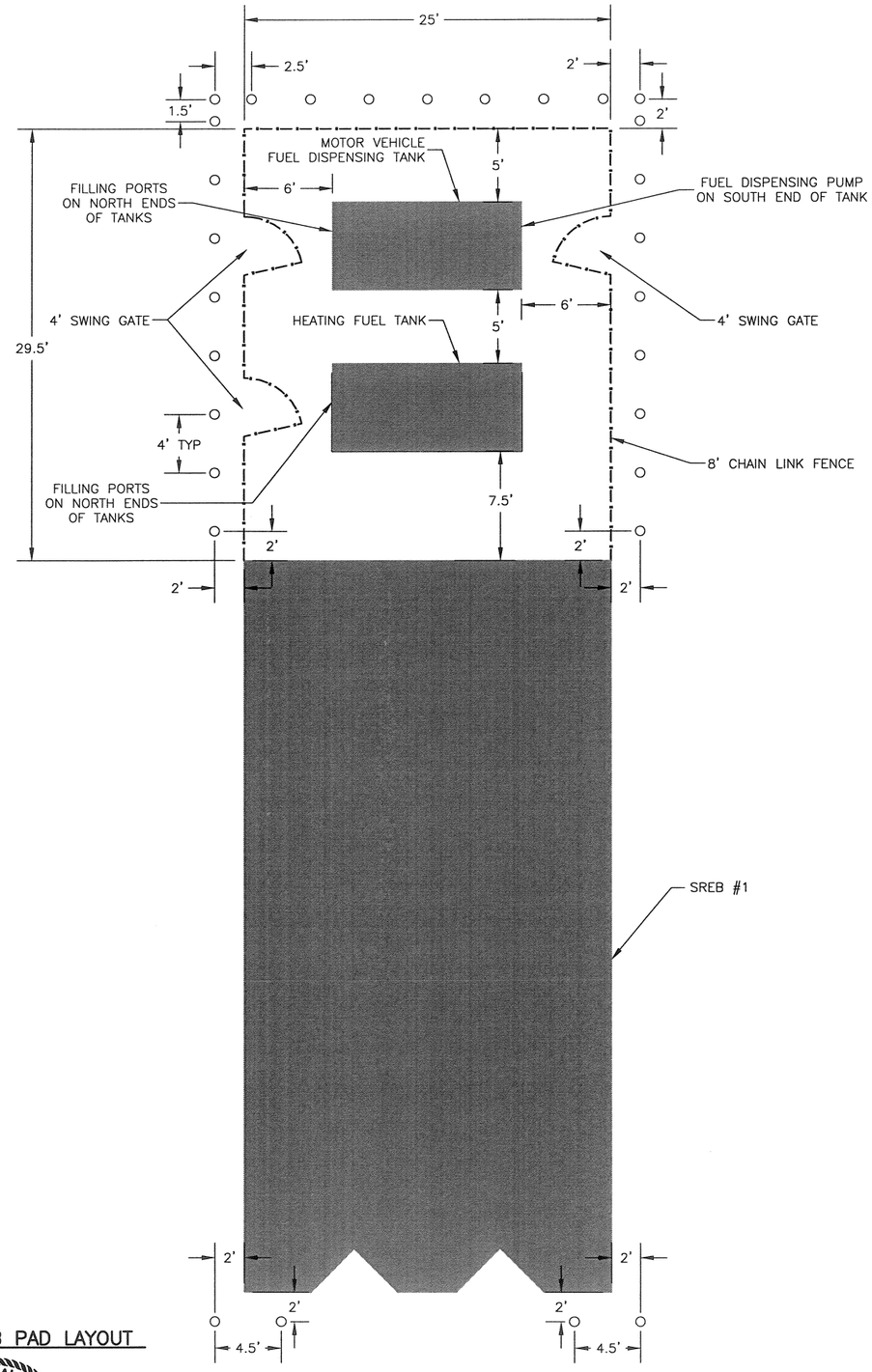
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

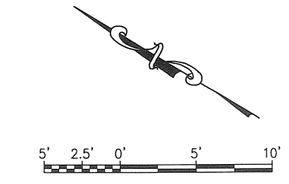
HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
TIE–DOWN LAYOUT & DETAILS

DATE: 7/16/2015
SHEET: 30 OF 31
AS–BUILT SHEET:





1/31 SREB PAD LAYOUT



Date Revised:	7/15/2015, 3:28 PM
Layout Name:	BOLLARD LAYOUT & DETAILS
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH

STATE OF ALASKA 49TH Matthew H. Hansen CE - 13879 REGISTERED PROFESSIONAL ENGINEER

7/16/2015

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
BOLLARD LAYOUT & DETAILS

DATE: 7/16/2015
SHEET: 31 OF 31
AS-BUILT SHEET:

NAVAID CONSTRUCTION RESPONSIBILITIES

SYSTEM PAY ITEM	FAA	CONTRACTOR	PLAN SHEETS	DETAIL SHEETS
VASI RW 14 L-132d	– Issue NOTAMs for outages after notice from the Contractor – Remove system from service and lock out power supply	– Locate and protect existing equipment and underground cables during construction – Test existing underground cables before and after construction as required – Install new junction boxes, cable, and conduit to splice VASI power feeder disturbed by excavation	E2, E3	
VASI RW 32	– Issue NOTAMs for outages after notice from the Contractor – Remove system from service and lock out power supply	– Locate and protect existing equipment and underground cables during construction – Test existing underground cables before and after construction as required	E2, E3	
ODALS RW 32	– Issue NOTAMs for outages after notice from the Contractor – Remove system from service and lock out power supply	– Locate and protect existing equipment and underground cables during construction – Test existing underground cables before and after construction as required	E2, E3	

NOTES:
This list is intended to portray a general summary of the responsibilities of the parties involved and may not include all specific aspects of the work required.

FAA NOTIFICATIONS AND COORDINATION:
FAA shall be notified a minimum of 45 days prior to their required on-site involvement.
Notifications of outages/NOTAMs, on-site involvement requirements, and flight checks shall be provided to:
NAS Planning and Integration POC: Tom Clark, Alaska Lead Planner, 425-203-4735
Technical Operations Project Engineer: Dave Yee, Naviads Systems Engineer, 425-227-2985
Technical Operations Manager: Richard Neff, FAA Bethel Systems Support Center, 907-543-3533

GENERAL ELECTRICAL NOTES:

1. LOCATIONS OF EXISTING EQUIPMENT, CONDUIT, ETC ARE TAKEN FROM ASBUILT DRAWINGS AND LIMITED SURVEY DATA AND SHALL BE FIELD VERIFIED. OBTAIN LOCATES OF EXISTING SYSTEMS AND EXCAVATE WITH CAUTION.
2. REMOVE LIGHTS AND OTHER EQUIPMENT AS INDICATED ON DEMOLITION PLANS. REMOVAL INCLUDES ALL ASSOCIATED CONDUIT, CONDUCTORS, LIGHT BASES, TRANSFORMERS, CONTROLLERS, DRAIN CONDUITS, FOUNDATIONS, AND CONCRETE, UNLESS OTHERWISE INDICATED. ALL REMOVED LIGHTS, TRANSFORMERS, AND WIND CONES SHALL BE OFFERED TO AIRPORT MAINTENANCE. DISPOSAL OF LIGHTING EQUIPMENT DEEMED NON-SALVAGABLE BY AIRPORT MAINTENANCE AND REMOVED CONDUIT, CONDUCTORS, LIGHT BASES, CONCRETE, AND OTHER MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT AN APPROVED SITE OFF OF AIRPORT PROPERTY IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS. DISPOSAL COSTS SHALL BE SUBSIDIARY TO THE CONTRACT.
3. COORDINATE ALL LIGHTING OUTAGES CAUSED BY DISCONNECTIONS, CIRCUIT CHANGES, OR OTHER WORK WITH THE PROJECT ENGINEER. SCHEDULE INSTALLATION OF CONDUCTORS AND OTHER EQUIPMENT TO MINIMIZE QUANTITY AND DURATION OF OUTAGES.
4. ALL AIRFIELD LIGHTING CONDUCTORS SHALL BE FAA TYPE C.
5. INSTALL A #6 BARE COPPER GROUNDING CONDUCTOR WITH ALL LIGHTING CIRCUIT CONDUCTORS.
6. INSTALL PULL ROPE IN ALL EMPTY CONDUITS.
7. COORDINATE NEW ELECTRIC SERVICE CONNECTIONS AND INSTALLATION WITH UTILITY (AVEC).
8. TEST EXISTING VASI AND ODALS CABLES IN AREAS OF CONSTRUCTION AND CONSTRUCTION TRAFFIC BEFORE AND AFTER CONSTRUCTION IN ACCORDANCE WITH SECTION L-132. TESTING SHALL BE SUBSIDIARY TO L-132 PAY ITEMS.
9. INSTALL TEMPORARY RUNWAY LIGHTING SYSTEM FOR HALF-WIDTH RUNWAY OPERATIONS. SERVE FROM EXISTING RUNWAY LIGHTING CIRCUIT HOMERUN, REGULATOR, AND CONTROLS. SEE SHEET AD1-AD6 FOR ADDITIONAL INFORMATION ON CONSTRUCTION PHASING AND SEQUENCE OF WORK.

SHEET NOTES: (X)

1. ROUTE CONDUITS WITHIN EMBANKMENT. CONDUITS SHOWN OFFSET FOR CLARITY.
2. PROTECT ODALS EQUIPMENT AND UNDERGROUND CABLES AND CONDUITS DURING ADJACENT CONSTRUCTION.
3. PROTECT ODALS AND VASI UNDERGROUND CABLES AND CONDUITS SUBJECT TO HEAVY CONSTRUCTION TRAFFIC USING STEEL PLATES OR OTHER APPROVED METHODS TO DISTRIBUTE VEHICLE LOADS.
4. REMOVE EXISTING LIGHTING CONTROLS, REGULATOR, AND ROTATING BEACON, INCLUDING ALL ASSOCIATED CONDUIT AND CONDUCTORS BACK TO SERVING PANEL. SEAL ALL BUILDING PENETRATIONS WEATHERTIGHT. EXISTING ROTATING BEACON, REGULATOR, AND ASSOCIATED CONTROLS SHALL REMAIN IN PLACE AND OPERATIONAL UNTIL NEW EQUIPMENT IS INSTALLED AND OPERATIONAL.
5. INSTALL NEW JUNCTION BOX TO CAPTURE EXISTING DIRECT BURIED VASI POWER FEEDER. INSTALL NEW CONDUCTORS AND CONDUIT AS INDICATED. SPLICE NEW CONDUCTORS TO EXISTING TO COMPLETE CIRCUIT. EXISTING CONDUCTORS ARE #8 5kV DIRECT BURIED.
6. INSTALL EDGE LIGHT BASES 6" BELOW GRADE WITH BLANK COVERS AND BURY DURING TEMPORARY RUNWAY OPERATIONS. SEE SHEET E5 FOR ADDITIONAL INFORMATION.

ELECTRICAL PLAN LEGEND

- EXISTING LIGHT TO BE REMOVED
- RUNWAY EDGE LIGHT, OMNI-DIRECTIONAL
- RUNWAY EDGE LIGHT, BI-DIRECTIONAL
- RUNWAY THRESHOLD LIGHT, BI-DIRECTIONAL
- TAXIWAY EDGE LIGHT, OMNI-DIRECTIONAL
- GROUND ROD, 3/4"x10' TYPICAL
- HANDHOLE (HH), TYPE I (LIGHT BASE WITH BLANK COVER)
- [E] NEW ELECTRICAL JUNCTION BOX
- [C] NEW COMMUNICATIONS JUNCTION BOX
- EXISTING TRANSFORMER TO REMAIN
- EXISTING TRANSFORMER TO BE REMOVED
- NEW OR RELOCATED TRANSFORMER
- (M) METERBASE
- WIND CONE
- ROTATING BEACON
- EXISTING ODALS FLASHER
- (X) REFERENCE TO SHEET NOTE
- (A) REFERENCE TO REVISION

EQUIPMENT NUMBER, SEE SCHEDULES ON SHEETS E5 AND E7

RX	RUNWAY EDGE LIGHT
TX	TAXIWAY EDGE LIGHT
HHX	HANDHOLE
JBX	JUNCTION BOX

LIGHT COLORS AND DISTRIBUTIONS

B	BLUE
Y	YELLOW/AMBER
G	GREEN
R	RED
W	WHITE
O	OBSCURED/BLANK
BI	BI-DIRECTIONAL
UNI	UNI-DIRECTIONAL
OMNI	OMNI-DIRECTIONAL

- –XXX– EXISTING UTILITY LINE TO REMAIN, XXX DESIGNATES TYPE
- —XXX— EXISTING UTILITY LINE TO BE REMOVED, XXX DESIGNATES TYPE
- —XXX— NEW UTILITY LINE, XXX DESIGNATES TYPE
  UG = UNDERGROUND E = ELECTRIC
  OH = OVERHEAD T = TLEPHONE
  C = COMMUNICATIONS
- EXISTING CONDUIT TO REMAIN
- HDPE CONDUIT WITH CONDUCTORS AS INDICATED, 2" UNLESS OTHERWISE INDICATED
- HDPE CONDUIT INSIDE STEEL CONDUIT SLEEVE WITH CONDUCTORS AS INDICATED, 2" HDPE IN 4" STEEL UNLESS OTHERWISE INDICATED
- TEMPORARY JUMPER OR CIRCUIT, SURFACE LAID IN HDPE CONDUIT
- SERIES LIGHTING CIRCUIT, TICK MARKS INDICATE NUMBER OF 5KV SERIES CONDUCTORS IN CONDUIT (2 SHOWN), INCLUDE GROUND CONDUCTOR (NOT SHOWN), TICK MARKS NOT SHOWN ON SHORT SEGMENTS OR IN CONGESTED AREAS FOR CLARITY

ELECTRICAL ABBREVIATIONS

AVEC	ALASKA VILLAGE ELECTRIC COOPERATIVE
AWOS	AUTOMATED WEATHER OBSERVING SYSTEM
BC	BARE COPPER
C	CONDUIT
CB	CIRCUIT BREAKER
CF	CUBIC FOOT
DME	DISTANCE MEASURING EQUIPMENT
DOT	DEPARTMENT OF TRANSPORTATION
EMT	ELECTRICAL METALLIC TUBING
EXST	EXISTING
FAA	FEDERAL AVIATION ADMINISTRATION
GRD	GROUND
HDPE	HIGH DENSITY POLYETHYLENE
LFMC	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT
LFNC	LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT
LHA	LIGHT HOUSING ASSEMBLY
NF	NON-FUSED
ODALS	OMNI-DIRECTIONAL APPROACH LIGHTING SYSTEM
PAPI	PRECISION APPROACH PATH INDICATOR
PE	PHOTOELECTRIC
PVC	POLYVINYL CHLORIDE
RCO	RADIO COMMUNICATIONS OUTLET
REIL	RUNWAY END IDENTIFIER LIGHTS
RMC	RIGID METALLIC CONDUIT (GALVANIZED STEEL)
RVR	RUNWAY VISUAL RANGE
SS	STAINLESS STEEL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VASI	VISUAL APPROACH SLOPE INDICATOR

Designed By:
Drawn By:
Checked By:

Date Revised: 7/15/2015, 4:18 PM
Layout Name: E1
File Path and Name: U:\2014\60012\51\Dwgs\E\Sheets\12571102_E1.dwg

STATE OF ALASKA
49 TH
LUCAS SCHNELLER
EE-11399
7/15/15
REGISTERED PROFESSIONAL ENGINEER

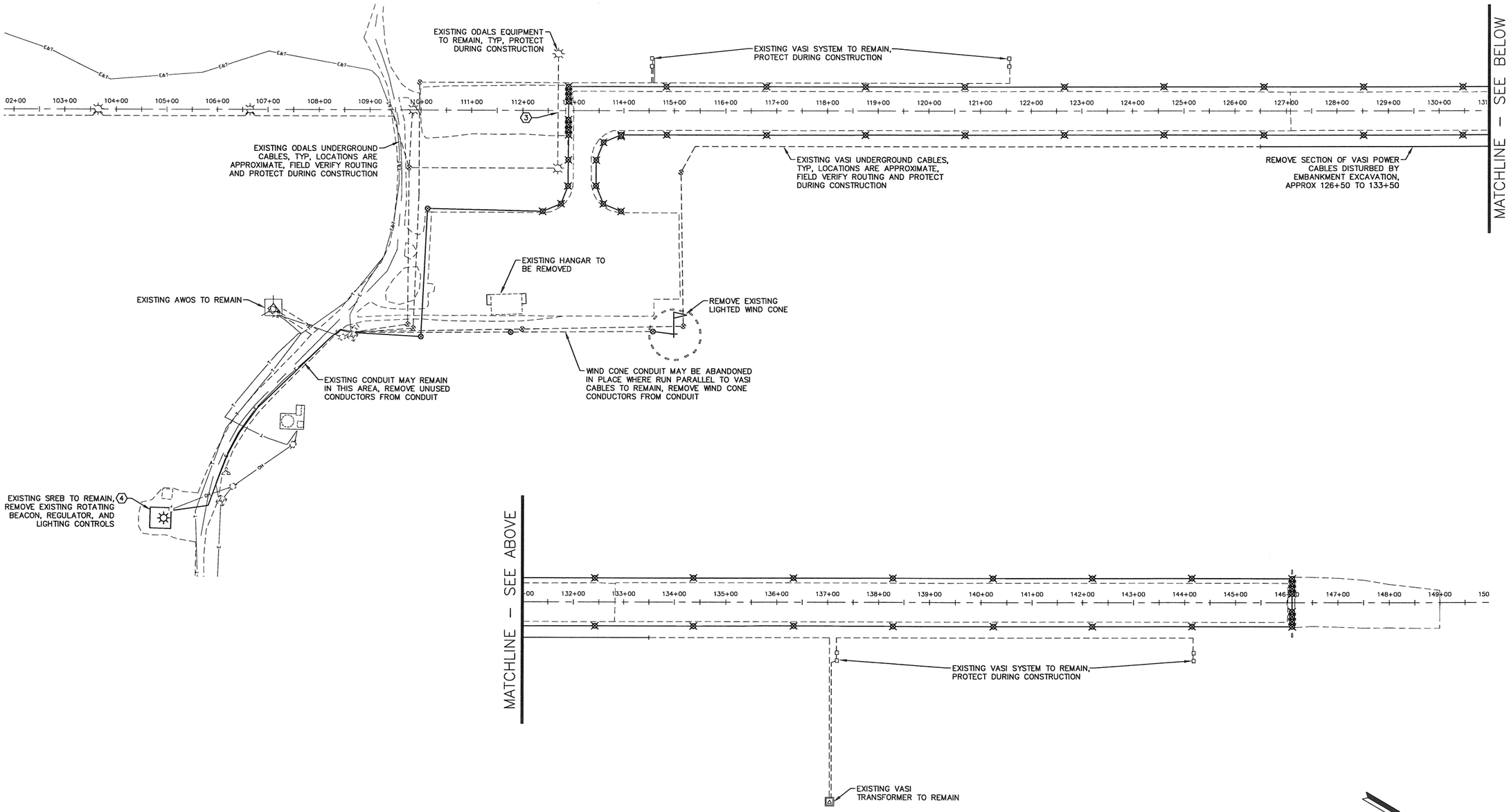
PLANS DEVELOPED BY:
STANTEC

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
ELECTRICAL LEGEND AND NOTES

DATE: 7/15/2015
SHEET: E1 OF E11
AS-BUILT SHEET:



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Checked By:

Date Revised: 7/15/2015, 4:18 PM
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STATE OF ALASKA
49 TH
LUCAS SCHNELLER
EE-11399
7/15/15
REGISTERED PROFESSIONAL ENGINEER

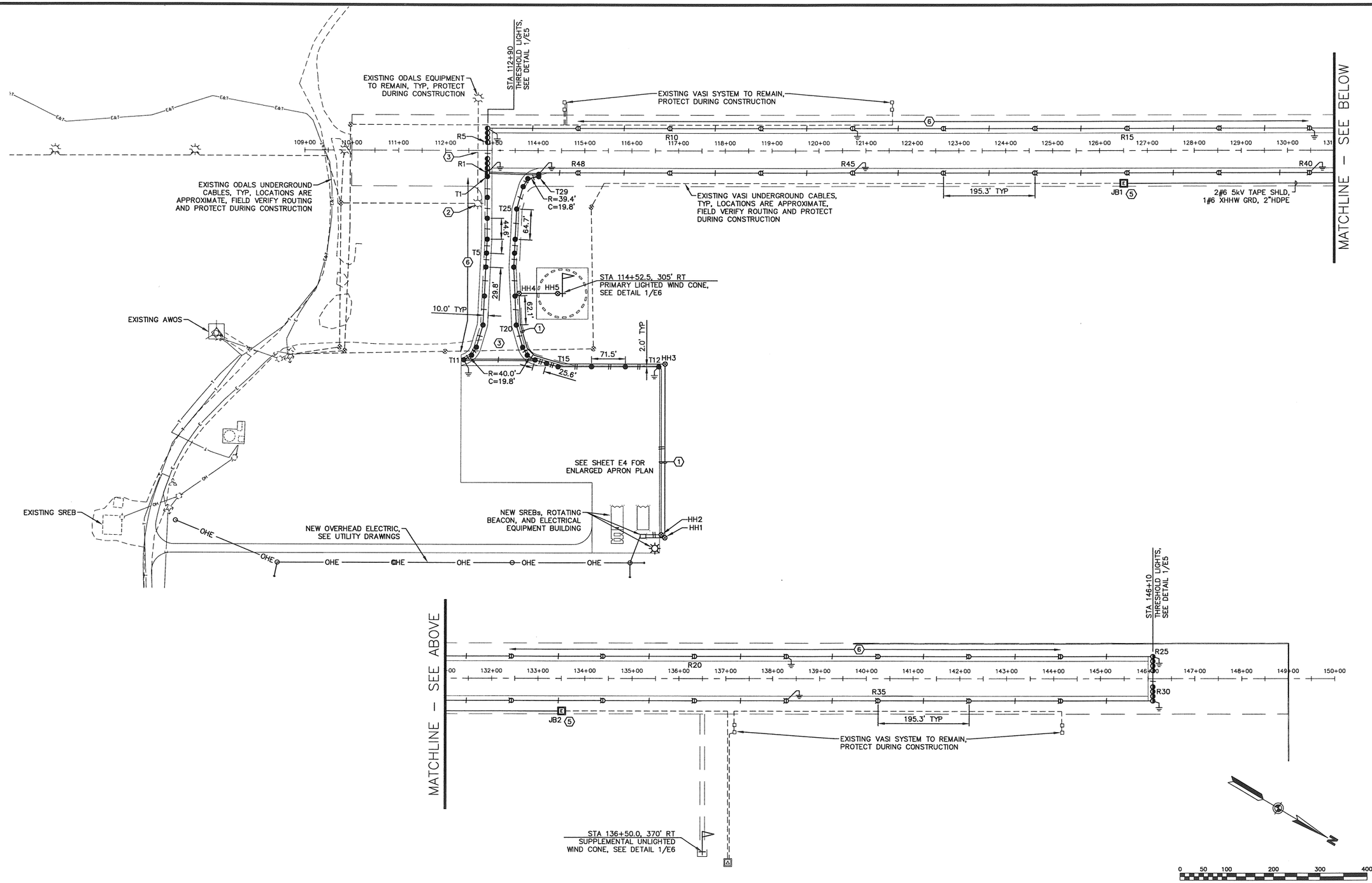
PLANS DEVELOPED BY:
STANTEC

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
ELECTRICAL DEMOLITION PLAN

DATE: 7/15/2015
SHEET: E2 OF E11
AS-BUILT SHEET:



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Date Revised: 7/15/2015, 4:18 PM
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STATE OF ALASKA 49TH LUCAS SCHNELLER EE-11399 7/15/15 REGISTERED PROFESSIONAL ENGINEER

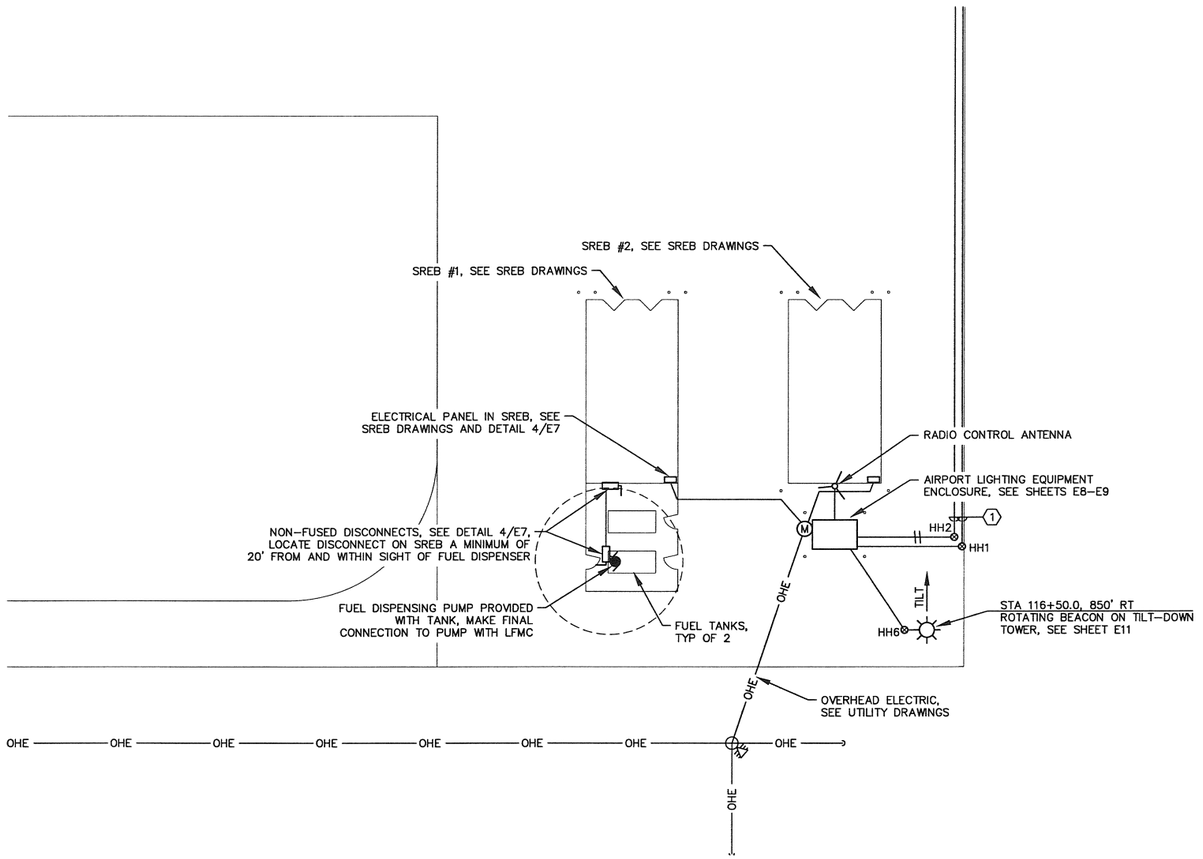
PLANS DEVELOPED BY:
STANTEC

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
ELECTRICAL PLAN

DATE: 7/15/2015
SHEET: E3 OF E11
AS-BUILT SHEET:



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Date Revised: 7/15/2015, 4:18 PM
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STATE OF ALASKA
49 TH
LUCAS SCHNELLER
EE-11399
7/15/15
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
STANTEC

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
ENLARGED APRON PLAN

DATE: 7/15/2015
SHEET: E4 OF E11
AS–BUILT SHEET:

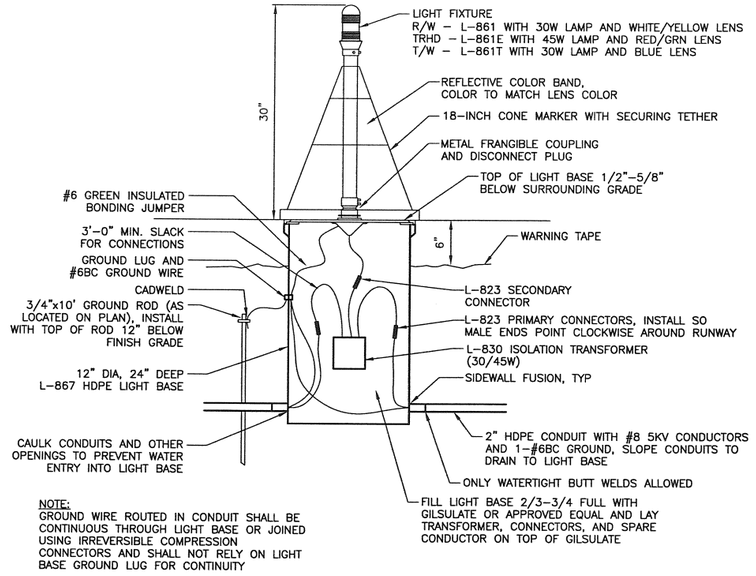
RUNWAY EDGE LIGHT SCHEDULE

NUM	LENS COLOR	TYPE	WATTAGE LAMP	WATTAGE XFMR	STATION	OFFSET	DTL	REMARKS
R1	G/R	L-861E	45	30/45	112+90.0	47.5 RT	2/E5	
R2	G/R	L-861E	45	30/45	112+90.0	37.5 RT	2/E5	
R3	G/R	L-861E	45	30/45	112+90.0	27.5 RT	2/E5	
R4	G/R	L-861E	45	30/45	112+90.0	17.5 RT	2/E5	
R5	G/R	L-861E	45	30/45	112+90.0	17.5 LT	2/E5	
R6	G/R	L-861E	45	30/45	112+90.0	27.5 LT	2/E5	
R7	G/R	L-861E	45	30/45	112+90.0	37.5 LT	2/E5	
R8	G/R	L-861E	45	30/45	112+90.0	47.5 LT	2/E5	
R9	W/Y	L-861	30	30/45	114+85.3	47.5 LT	3/E5	
R10	W/Y	L-861	30	30/45	116+80.6	47.5 LT	3/E5	
R11	W/Y	L-861	30	30/45	118+75.9	47.5 LT	3/E5	
R12	W/Y	L-861	30	30/45	120+71.2	47.5 LT	3/E5	
R13	W/Y	L-861	30	30/45	122+66.5	47.5 LT	3/E5	
R14	W/Y	L-861	30	30/45	124+61.8	47.5 LT	3/E5	
R15	W/Y	L-861	30	30/45	126+57.1	47.5 LT	3/E5	
R16	W/Y	L-861	30	30/45	128+52.4	47.5 LT	3/E5	
R17	Y/W	L-861	30	30/45	130+47.7	47.5 LT	3/E5	
R18	Y/W	L-861	30	30/45	132+42.9	47.5 LT	3/E5	
R19	Y/W	L-861	30	30/45	134+38.2	47.5 LT	3/E5	
R20	Y/W	L-861	30	30/45	136+33.5	47.5 LT	3/E5	
R21	Y/W	L-861	30	30/45	138+28.8	47.5 LT	3/E5	
R22	Y/W	L-861	30	30/45	140+24.1	47.5 LT	3/E5	
R23	Y/W	L-861	30	30/45	142+19.4	47.5 LT	3/E5	
R24	Y/W	L-861	30	30/45	144+14.7	47.5 LT	3/E5	
R25	R/G	L-861E	45	30/45	146+10.0	47.5 LT	2/E5	
R26	R/G	L-861E	45	30/45	146+10.0	37.5 LT	2/E5	
R27	R/G	L-861E	45	30/45	146+10.0	27.5 LT	2/E5	
R28	R/G	L-861E	45	30/45	146+10.0	17.5 LT	2/E5	
R29	R/G	L-861E	45	30/45	146+10.0	17.5 RT	2/E5	
R30	R/G	L-861E	45	30/45	146+10.0	27.5 RT	2/E5	
R31	R/G	L-861E	45	30/45	146+10.0	37.5 RT	2/E5	
R32	R/G	L-861E	45	30/45	146+10.0	47.5 RT	2/E5	
R33	Y/W	L-861	30	30/45	144+14.7	47.5 RT	2/E5	
R34	Y/W	L-861	30	30/45	142+19.4	47.5 RT	2/E5	
R35	Y/W	L-861	30	30/45	140+24.1	47.5 RT	2/E5	
R36	Y/W	L-861	30	30/45	138+28.8	47.5 RT	2/E5	
R37	Y/W	L-861	30	30/45	136+33.5	47.5 RT	2/E5	
R38	Y/W	L-861	30	30/45	134+38.2	47.5 RT	2/E5	
R39	Y/W	L-861	30	30/45	132+42.9	47.5 RT	2/E5	
R40	Y/W	L-861	30	30/45	130+47.7	47.5 RT	2/E5	
R41	W/Y	L-861	30	30/45	128+52.4	47.5 RT	2/E5	
R42	W/Y	L-861	30	30/45	126+57.1	47.5 RT	2/E5	
R43	W/Y	L-861	30	30/45	124+61.8	47.5 RT	2/E5	
R44	W/Y	L-861	30	30/45	122+66.5	47.5 RT	2/E5	
R45	W/Y	L-861	30	30/45	120+71.2	47.5 RT	2/E5	
R46	W/Y	L-861	30	30/45	118+75.9	47.5 RT	2/E5	
R47	W/Y	L-861	30	30/45	116+80.6	47.5 RT	2/E5	
R48	W/Y	L-861	30	30/45	114+85.3	47.5 RT	2/E5	

HANDHOLE SCHEDULE

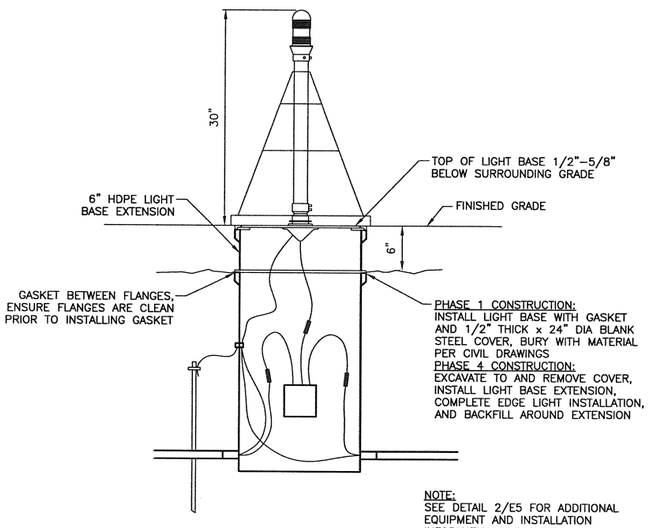
NUM	TYPE	SIZE	STATION	OFFSET	REMARKS
HH1	I	B	116+71.4	827.3 RT	
HH2	I	B	116+63.6	820.7 RT	
HH3	I	B	116+71.4	456.0 RT	
HH4	I	B	113+59.3	305.0 RT	
HH5	I	B	114+42.5	305.0 RT	
HH6	I	B	116+44.0	850.0 RT	

NOTE: LOCATIONS ARE APPROXIMATE, FIELD LOCATE HANDHOLES



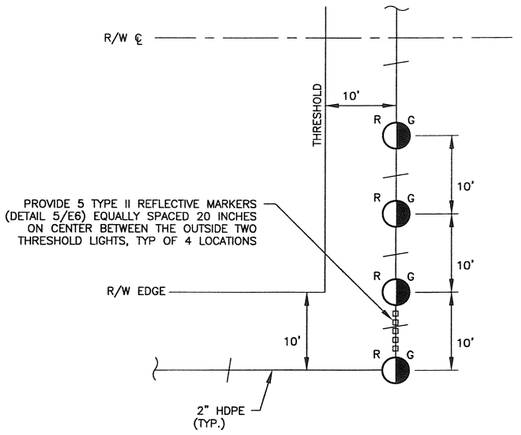
NOTE:
GROUND WIRE ROUTED IN CONDUIT SHALL BE CONTINUOUS THROUGH LIGHT BASE OR JOINED USING IRREVERSIBLE COMPRESSION CONNECTORS AND SHALL NOT RELY ON LIGHT BASE GROUND LUG FOR CONTINUITY

2/E5 **BASE MOUNTED LIGHT DETAIL**
SCALE: N.T.S.



NOTE:
SEE DETAIL 2/E5 FOR ADDITIONAL EQUIPMENT AND INSTALLATION INFORMATION AND NOTES

3/E5 **BASE MOUNTED LIGHT DETAIL LOW BASE INSTALLATION**
SCALE: N.T.S.



1/E5 **THRESHOLD LIGHTING DETAIL**
SCALE: N.T.S.

TAXIWAY EDGE LIGHT SCHEDULE

NUM	LENS COLOR	TYPE	WATTAGE LAMP	WATTAGE XFMR	STATION	OFFSET	DTL	REMARKS
T1	B	L-861T	30	30/45	112+90.0	55.5 RT	3/E5	
T2	B	L-861T	30	30/45	112+90.0	100.1 RT	3/E5	
T3	B	L-861T	30	30/45	112+90.0	144.7 RT	3/E5	
T4	B	L-861T	30	30/45	112+90.0	189.3 RT	3/E5	
T5	B	L-861T	30	30/45	112+88.6	219.0 RT	3/E5	
T6	B	L-861T	30	30/45	112+87.3	248.8 RT	3/E5	
T7	B	L-861T	30	30/45	112+84.4	310.8 RT	3/E5	
T8	B	L-861T	30	30/45	112+81.6	372.8 RT	3/E5	
T9	B	L-861T	30	30/45	112+67.6	420.5 RT	3/E5	
T10	B	L-861T	30	30/45	112+57.5	437.5 RT	3/E5	
T11	B	L-861T	30	30/45	112+40.5	447.6 RT	3/E5	
T12	B	L-861T	30	30/45	116+58.0	462.0 RT	2/E5	
T13	B	L-861T	30	30/45	115+86.6	462.0 RT	2/E5	
T14	B	L-861T	30	30/45	115+15.1	462.0 RT	2/E5	
T15	B	L-861T	30	30/45	114+43.6	462.0 RT	2/E5	
T16	B	L-861T	30	30/45	114+19.1	454.8 RT	2/E5	
T17	B	L-861T	30	30/45	113+94.5	447.6 RT	2/E5	
T18	B	L-861T	30	30/45	113+77.5	437.5 RT	2/E5	
T19	B	L-861T	30	30/45	113+67.4	420.5 RT	2/E5	
T20	B	L-861T	30	30/45	113+53.4	372.8 RT	2/E5	
T21	B	L-861T	30	30/45	113+50.6	310.8 RT	2/E5	
T22	B	L-861T	30	30/45	113+47.7	248.8 RT	2/E5	
T23	B	L-861T	30	30/45	113+49.1	219.0 RT	2/E5	
T24	B	L-861T	30	30/45	113+50.5	189.3 RT	2/E5	
T25	B	L-861T	30	30/45	113+53.4	124.7 RT	2/E5	
T26	B	L-861T	30	30/45	113+67.4	77.0 RT	2/E5	
T27	B	L-861T	30	30/45	113+77.5	60.0 RT	2/E5	
T28	B	L-861T	30	30/45	114+01.3	50.5 RT	2/E5	
T29	B	L-861T	30	30/45	114+01.3	55.5 RT	2/E5	

STATE OF ALASKA 49TH
LUCAS SCHNELLER EE-11389
7/15/15
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
STANTEC

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
DETAILS

DATE: 7/15/2015
SHEET: E5 OF E11
AS-BUILT SHEET:

Designed By:
Drawn By:
Checked By:

Date Revised: 7/15/2015, 4:29 PM
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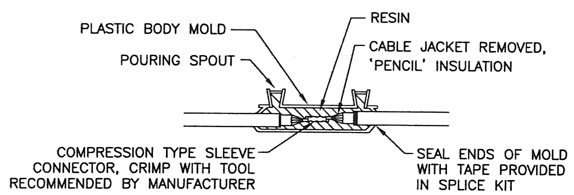
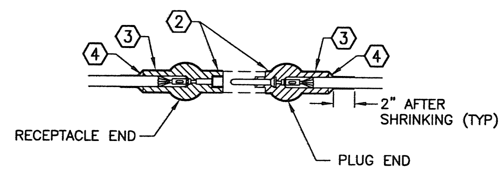


TYPE A

FOR SPLICES IN HOMERUNS AND FOR EXTENSIONS TO EXISTING CABLES ONLY

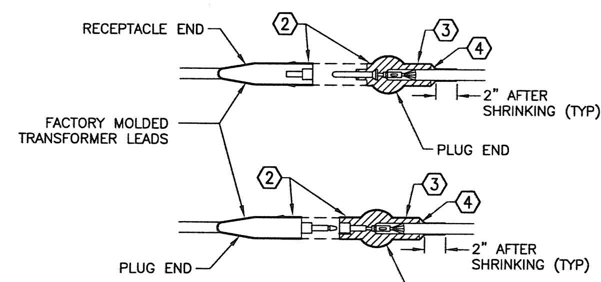


TYPE B

FOR SPLICES FOR USE AT JUNCTION OF HOMERUN WITH LOOP CIRCUIT

NOTES:

1. CABLE SHALL MEET SPECIFICATION L-824. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE. CONNECTOR SHALL BE SUPPLIED TO MATCH CABLE PER MANUFACTURER'S INSTRUCTIONS.
2. WRAP WITH A MINIMUM OF ONE LAYER PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1.5" ON EACH SIDE OF JOINT. COVER WITH HEAT SHRINK, SEE NOTE 3.
3. HEAT SHRINKABLE TUBING WITH INTERNAL ADHESIVE FULL LENGTH.
4. INSTALL ADDITIONAL ADHESIVE COMPOUND FILLER

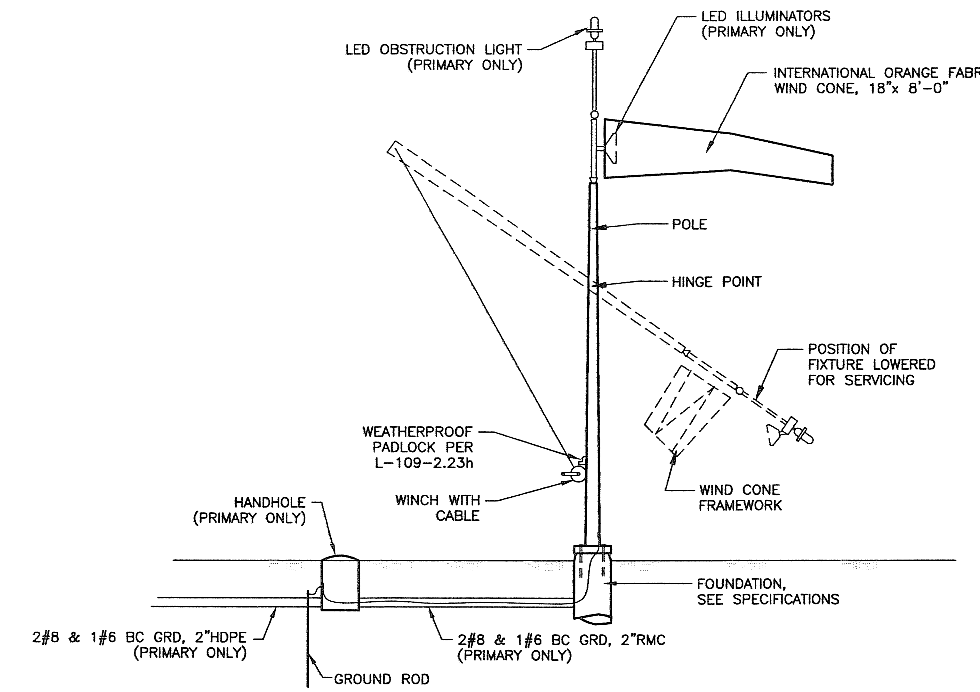


TYPE C

FOR SPLICES AT RUNWAY LIGHTS

2/E6 TYPICAL SPLICE DETAILS

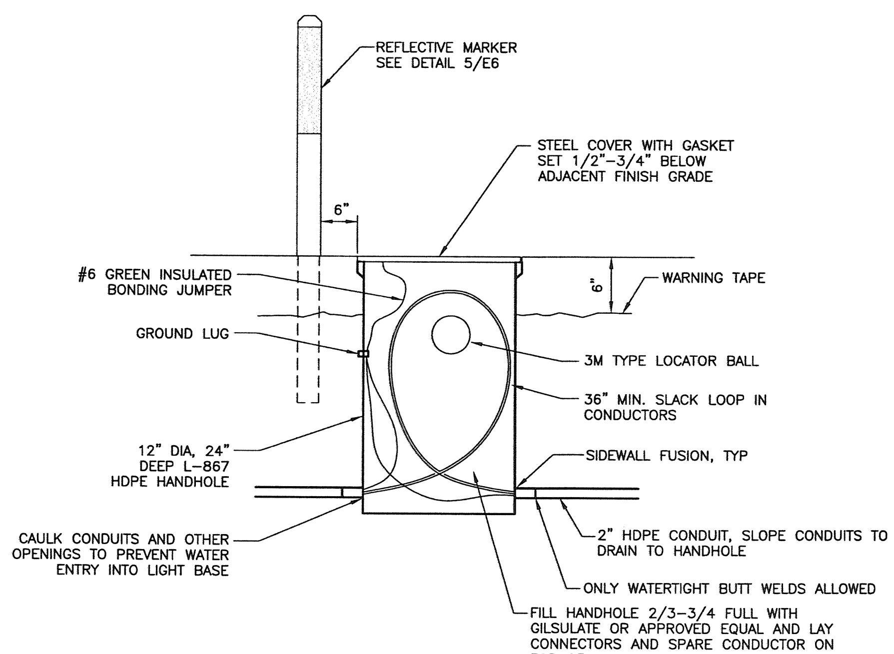
SCALE: N.T.S.



PRIMARY: FAA TYPE L-807, STYLE-IB, SIZE 1, 120V WITH LED LAMPS
SUPPLEMENTAL: FAA TYPE L-807, STYLE-II, SIZE 1, UNLIGHTED

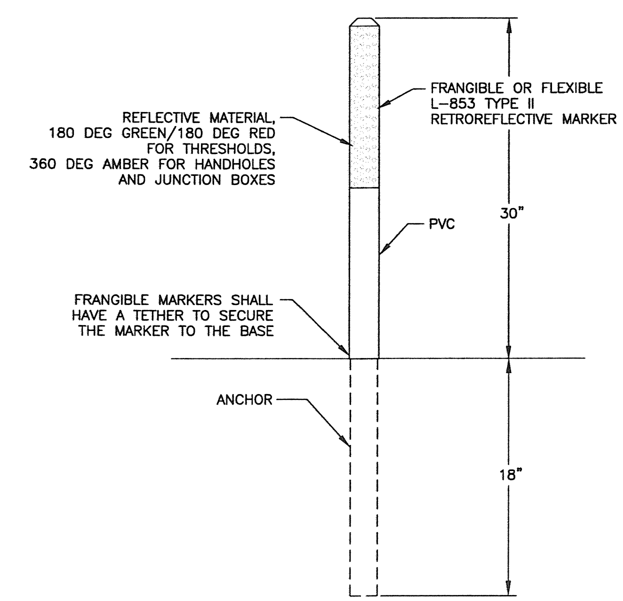
1/E6 WIND CONE DETAIL

SCALE: N.T.S.



4/E6 HANDHOLE DETAIL

SCALE: N.T.S.



5/E6 RETROREFLECTIVE MARKER DETAIL

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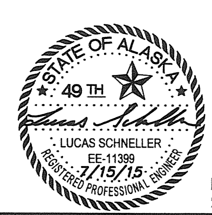

PLANS DEVELOPED BY: STANTEC

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
DETAILS

DATE: 7/15/2015
SHEET: E6 OF E11
AS-BUILT SHEET:

Date Revised: 7/15/2015, 4:19 PM
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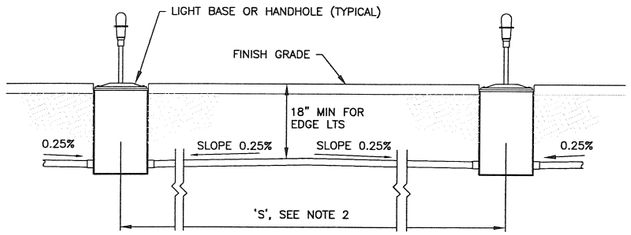
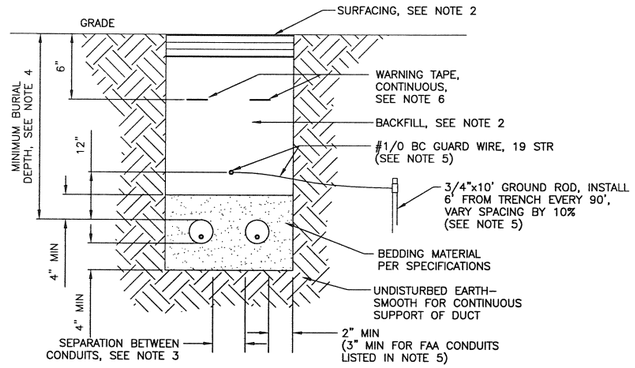


NOTES:

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

3 E7 TYPICAL INTERCONNECTION DETAIL

SCALE: N.T.S.

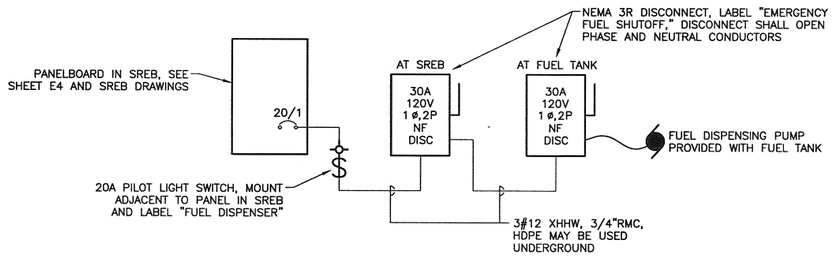


NOTES:

1. WIDTH OF TRENCH AND NUMBER OF CONDUITS PER TRENCH TO BE DETERMINED IN FIELD (2 SHOWN).
2. IN AREAS OF NEW CONSTRUCTION, SEE CIVIL FOR SURFACING AND BACKFILL. IN EXISTING AREAS, MATCH EXISTING SURFACING AND BACKFILL.
3. SEPARATION BETWEEN CONDUITS SHALL BE AS FOLLOWS:
   –CONDUITS OF SAME TYPE (POWER OR SIGNAL) UNDER SAME OWNERSHIP – 3"
   –AIRPORT LIGHTING AND FAA CONDUITS – 12" MIN
   –AIRPORT LIGHTING OR FAA NAVAID CONDUITS AND FAA POWER CONDUITS– 24" MIN
   –FAA NAVIAD CONDUITS, POWER AND CONTROL – 6" MIN (HOR OR VERT)
4. MINIMUM BURIAL DEPTH SHALL BE AS FOLLOWS:
   –AIRPORT LIGHTING CONDUITS – 18"
   –FAA POWER CONDUITS – 30"
   –FAA CONDUITS WHERE UNDER TRAFFIC AREAS (RUNWAYS, TAXIWAYS, APRON, ROADWAYS) – 48"
5. GUARD WIRE AND ASSOCIATED GROUND RODS SHALL BE INSTALLED FOR THE FOLLOWING CONDUITS:
   –FAA POWER CONDUITS (VASI)
6. UNDERGROUND WARNING TAPE SHALL BE 6" WIDE AND DETECTABLE FOR CONDUITS LISTED IN NOTE 5. WARNING TAPE MAY BE THE SAME OR PER L–110 FOR OTHER CONDUITS.

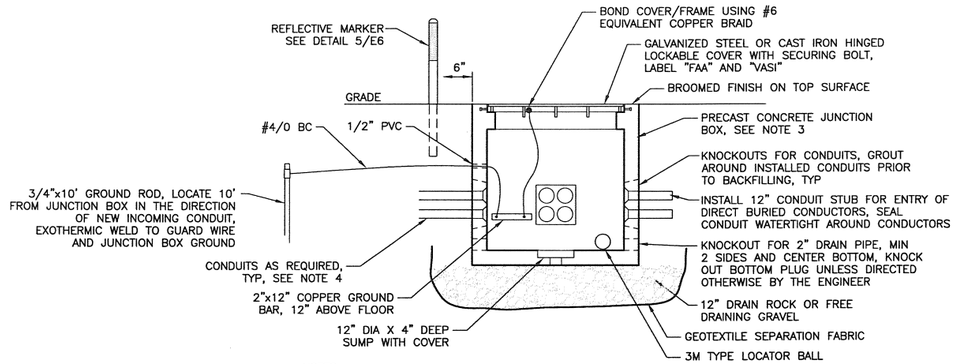
2 E7 TYPICAL CONDUIT TRENCH DETAIL

SCALE: N.T.S.



4 E7 FUEL DISPENSER WIRING DIAGRAM

SCALE: N.T.S.



NOTES:

1. JUNCTION BOX, FRAME, AND COVER SHALL BE RATED FOR WHEEL LOADING BASED ON LOCATION. CONCRETE TOP SECTION WITH COVER MAY BE OVERSIZED IF REQUIRED TO MEET LOADING REQUIREMENTS.

   AIRCRAFT AREA (WITHIN RSA) – 100,000 LB. LOAD
   NON–AIRCRAFT AREA – H–20 WHEEL LOADING
2. CAST IRON HINGED COVERS SHALL BE PROVIDED WITH SPRING ASSIST MECHANISM.
3. JUNCTION BOXES SHALL HAVE INSIDE DIMENSIONS AS INDICATED. JUNCTION BOX FLOOR SHALL BE 36" MIN BELOW GRADE OR AS REQUIRED TO ALLOW CONDUITS TO SLOPE AND DRAIN TO JUNCTION BOX.

JUNCTION BOX	COVER SIZE
4'x4'	36"x36" MIN

4. METALLIC CONDUIT SHALL EXTEND 2" INTO JUNCTION BOX AND TERMINATE WITH AN INSULATED GROUNDING BUSHING BONDED TO THE GROUND BUS WITH #6 BC. NON–METALLIC CONDUIT SHALL TERMINATE AT TERMINATION FITTING CAST INTO THE JUNCTION BOX WALL OR SHALL EXTEND 2" INTO JUNCTION BOX AND HAVE THE ENDS REAMED TO PREVENT CONDUCTOR INSULATION DAMAGE.
5. ALL CONNECTIONS TO THE JUNCTION BOX GROUND SHALL BE BY EXOTHERMIC WELDS.

1 E7 JUNCTION BOX DETAIL

SCALE: N.T.S.

JUNCTION BOX SCHEDULE

NUM	LOAD RATING	SIZE	SYSTEM	STATION	OFFSET	REMARKS
JB1	100K	4'x4'	FAA POWER	126+50.0	70.0 RT	PAID FOR UNDER L–132d
JB2	100K	4'x4'	FAA POWER	133+50.0	70.0 RT	PAID FOR UNDER L–132d

NOTE: LOCATIONS ARE APPROXIMATE, FIELD LOCATE JUNCTION BOXES BASED ON INSTALLED EQUIPMENT AND FIELD CONDITIONS

Designed By:
Drawn By:
Checked By:

Date Revised: 7/15/2015, 4:19 PM
Layout Name: E7
File Path and Names: L:\204600126\Dwgs\ES\Sheets\126710Z_E5–E11.dwg

STATE OF ALASKA 49TH LUCAS SCHNELLER EE-11399 7/15/15 REGISTERED PROFESSIONAL ENGINEER

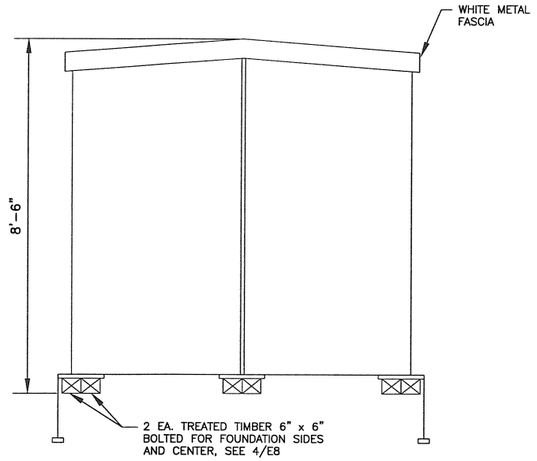
PLANS DEVELOPED BY: STANTEC

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

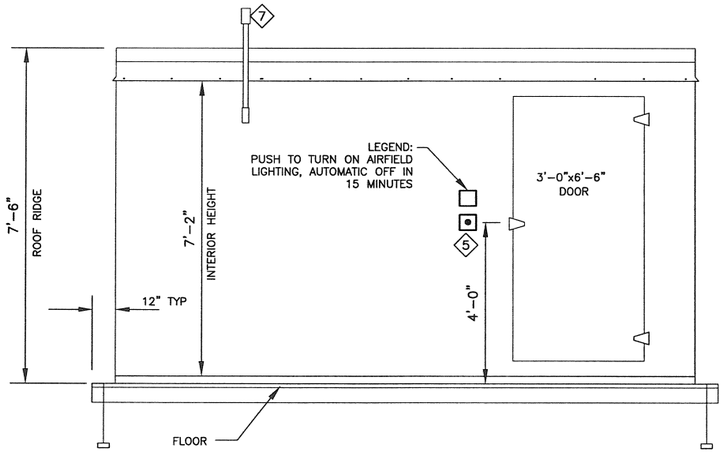
HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
DETAILS

DATE: 7/15/2015
SHEET: E7 OF E11
AS–BUILT SHEET:



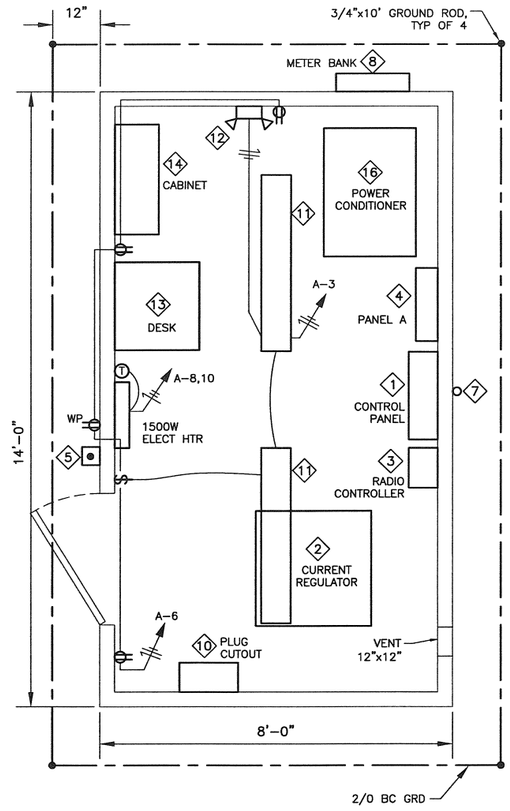
3 / E8 TYPICAL ENCLOSURE END ELEVATION

SCALE: N.T.S.



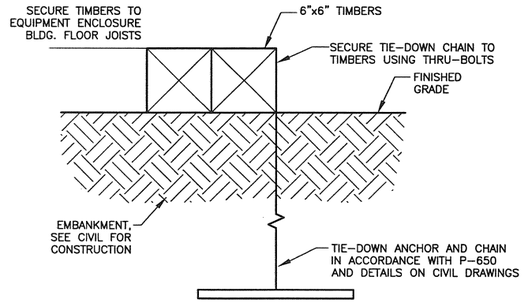
2 / E8 TYPICAL ENCLOSURE SIDE ELEVATION

SCALE: N.T.S.



1 / E8 ELECTRICAL EQUIPMENT ENCLOSURE PLAN

SCALE: N.T.S.



4 / E8 TIE-DOWN AND FOUNDATION DETAIL

SCALE: N.T.S.

ENCLOSURE PLAN LEGEND

- DUPLEX RECEPTACLE
- SINGLE POLE SWITCH
- CEILING MOUNTED LIGHT FIXTURE
- EMERGENCY LIGHT WITH BATTERY BACKUP
- (T) THERMOSTAT
- (X) SEE SHEET E9 FOR EQUIPMENT LIST

STATE OF ALASKA 49TH LUCAS SCHNELLER EE-11399 7/15/15 REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: STANTEC

BY	DATE	REVISION

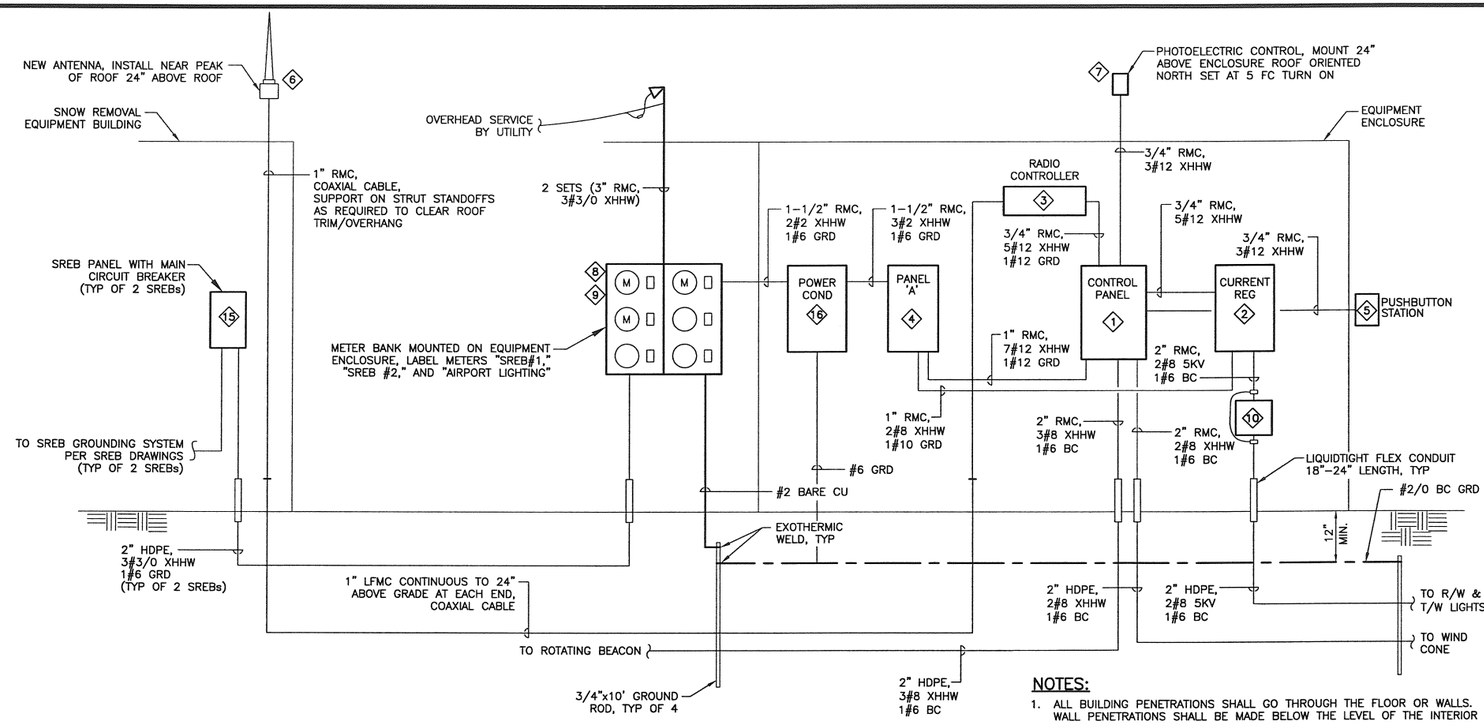
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
DETAILS

DATE: 7/15/2015
SHEET: E8 OF E11
AS-BUILT SHEET:

Designed By:
Drawn By:
Checked By:

Date Revised: 7/15/2015, 4:19 PM
Level Name: E8
File Path and Name: U:\20460012\5\Design\C\Sheets\12571102_E5-E11.dwg



PANEL 'A'

CKT	LOAD	BRANCH BKR	BRANCH VA	CONN KVA A	CONN KVA B	BRANCH VA	BRANCH BKR	LOAD	CKT
1	LIGHTING CONTROL PANEL	20/1	600	1.1		470	20/2	ROTATING BEACON	2
3	ENCLOSURE LIGHTS	20/1	139		0.5	400		BEACON STRIP HEATER	4
5	RECEPTACLES – SEE NOTE 1	20/1	720	4.2		3480	40/2	5KW REGULATOR	6
7	WIND CONE	20/1	32		3.5	3480			8
9				0.8		750	20/2	ELECTRIC HEATER	10
11					0.8	750			12
13				0.0					14
15					0.0				16
17				0.0					18
19					0.0				20
21				0.0					22
23					0.0				24
25				0.0					26
27					0.0				28
29				0.0					30
	CONNECTED LOAD	**10.8** KVA		6.0	4.8				
		45 AMPS		50	40				
	NEC DEMAND	**12.9** KVA							
		54 AMPS							

PANEL NOTES
1. GFI CIRCUIT BREAKER

PANEL SPECIFICATIONS
MAINS RATING AMPS – 100
MAIN CIRCUIT BREAKER AMPERES – 80
CAPACITY ONE-POLE CIRCUITS – 30
SYSTEM VOLTAGE – 240/120
PHASE, NO. OF WIRES – 1 PH, 3 W
AIC RATING – 10,000
MOUNTING – SURFACE

NOTES:

1. ALL BUILDING PENETRATIONS SHALL GO THROUGH THE FLOOR OR WALLS. WALL PENETRATIONS SHALL BE MADE BELOW THE LEVEL OF THE INTERIOR EQUIPMENT THEY SERVE.
2. NO PENETRATIONS SHALL BE MADE THROUGH THE ROOF.
3. ALL PENETRATIONS SHALL BE SEALED WITH SILICONE SEALANT.
4. IMC OR EMT MAY BE USED FOR CONDUIT SECTIONS LOCATED ENTIRELY INTERIOR TO THE EQUIPMENT ENCLOSURE.
5. GROUND RING AND RODS ARE SUBSIDIARY TO EQUIPMENT ENCLOSURE INSTALLATION.

1 / E9 ONE-LINE DIAGRAM

SCALE: N.T.S.

EQUIPMENT LIST – ⟨X⟩

1. LIGHTING CONTROL PANEL, SEE SPECS.
2. FERRORESONANT CONSTANT CURRENT REGULATOR, 5KW, 240V INPUT, 6.6A OUTPUT, 3-STEP.
3. ADJUSTABLE FREQUENCY RADIO CONTROLLER, ADB MODEL #RCE OR APPROVED EQUAL, SET FREQUENCY TO 123.0MHZ, RELAYS SHALL BE SET TO OPERATE CUMULATIVELY.
4. CIRCUIT BREAKER PANELBOARD WITH MAIN BREAKER, SQ.D #NQOD30M100CU OR APPROVED EQUAL.
5. PUSH BUTTON STATION, GENERAL ELECTRIC #CR2943AJ301B OR APPROVED EQUAL.
6. RADIO CONTROL ANTENNA, ANTENNA SPECIALIST MODEL AV-1 OR APPROVED EQUAL.
7. PHOTOELECTRIC CONTROL, TORK #2101 OR APPROVED EQUAL.
8. 6-METER, METER/MAIN BANK WITH 200A METER SOCKETS, PROVIDE (4) 100A MAIN BREAKERS FOR AIRPORT LIGHTING, AND FUTURE, AND (2) 200A MAIN BREAKERS FOR SREBs, LABEL METERS/MAIN BREAKERS, COORDINATE REQUIREMENTS WITH UTILITY COMPANY.
9. KILOWATT HOUR METERS PROVIDED BY THE UTILITY COMPANY FOR AIRPORT LIGHTING AND SREBs. INSTALL BLANK COVERS FOR FUTURE.
10. PLUG CUTOUT, 5KV, ADB S-1 IN 12"x16"x8" NEMA 1 BOX WITH HINGED COVER, OR APPROVED EQUAL.
11. LITHONIA #FEM4 LED, 4000LM, RIBBED FROSTED LENS, 120V OR APPROVED EQUAL.
12. EMERGENCY LIGHT, LITHONIA #ELM2 LED OR APPROVED EQUAL.
13. 24"X23"X12" METAL WALL DESK, McMASTER-CARR #4894T26 OR APPROVED EQUAL. MOUNT DESK TOP AT 36" AFF.
14. 30"X12"X26" LOCKABLE METAL WALL CABINET, McMASTER-CARR #14725T55 OR APPROVED EQUAL.
15. 200A PANEL WITH MAIN CIRCUIT BREAKER PROVIDED AND INSTALLED WITH SREB. SEE SREB DRAWINGS.
16. POWER CONDITIONER, 15KVA, 240V INPUT, 240/120V OUTPUT, CONTROLLED POWER, SERIES 700A OR APPROVED EQUAL.

STATE OF ALASKA 49TH LUCAS SCHNELLER EE-11399 7/15/15 REGISTERED PROFESSIONAL ENGINEER

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STATE OF ALASKA
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CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
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DATE: 7/15/2015
SHEET: E9 OF E11
AS-BUILT SHEET:

Designed By:
Drawn By:
Checked By:
Date Revised:
Layout Name: E9
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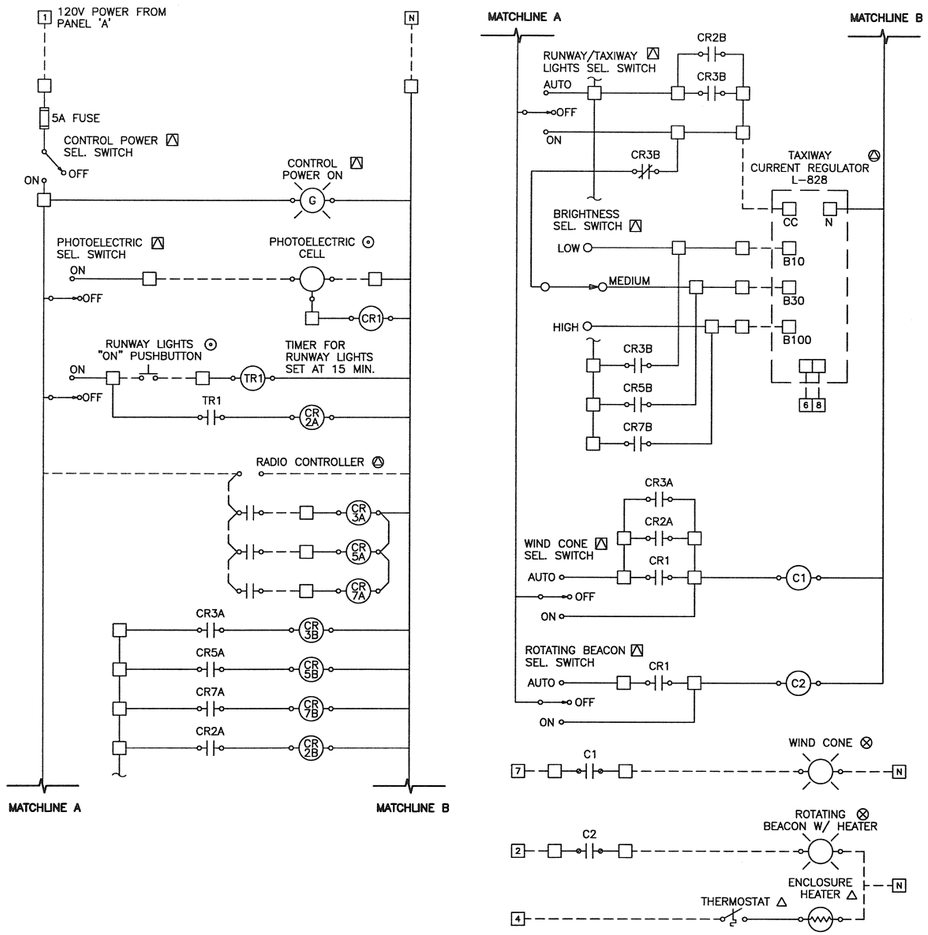
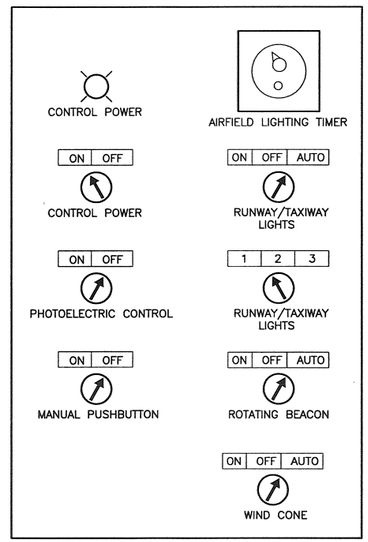


CONTROL DIAGRAM LEGEND

- DEVICE LOCATED ON FRONT OF CONTROL PANEL
- TERMINAL BLOCK LOCATED IN CONTROL PANEL
- DEVICE LOCATED ON ENCLOSURE EXTERIOR
- DEVICE LOCATED INSIDE EQUIPMENT ENCLOSURE
- FIELD WIRING
- CIRCUIT BREAKER IN PANEL 'A'
- DEVICE LOCATED ON AIRFIELD
- DEVICE LOCATED IN OR NEAR ROTATING BEACON ENCLOSURE
- X — NORMALLY OPEN CONTACT, X INDICATES ASSOCIATED COIL
- X — NORMALLY CLOSED CONTACT, X INDICATES ASSOCIATED COIL
- (X) RELAY OR CONTACTOR COIL
- (TRX) TIMER COIL



CONTROL SEQUENCE DESCRIPTION

RUNWAY & TAXIWAY LIGHTS

ON – LIGHTS ON AT BRIGHTNESS SET BY MANUAL BRIGHTNESS SWITCH

OFF – LIGHTS OFF

AUTO – RADIO CONTROLLER ENABLED
3 CLICKS OF MIC TURNS ON RW/TW LIGHTS AT STEP 1,
2 ADDITIONAL CLICKS OF MIC TURNS RW/TW LIGHTS TO STEP 2,
2 ADDITIONAL CLICKS OF MIC TURNS RW/TW LIGHTS TO STEP 3,
LIGHTS REMAIN ON FOR 15 MINUTES AFTER LAST CLICK

EXTERIOR PUSHBUTTON TURNS LIGHTS ON FOR 15 MINUTES AT BRIGHTNESS SET BY MANUAL BRIGHTNESS SWITCH

WIND CONE

ON – WIND CONE ON

OFF – WIND CONE OFF

AUTO – PHOTOELECTRIC CONTROL AND RADIO CONTROLLER ENABLED
3 CLICKS OF MIC TURNS WIND CONE ON,
WIND CONE REMAINS ON FOR 15 MINUTES AFTER LAST CLICK

EXTERIOR PUSHBUTTON TURNS WIND CONE ON FOR 15 MINUTES

ROTATING BEACON

ON – BEACON ON

OFF – BEACON OFF

AUTO – PHOTOELECTRIC CONTROL ENABLED

EXTERIOR PUSHBUTTON

ON – PUSHBUTTON ENABLED
MOMENTARY CONTACT TURNS ON AIRPORT LIGHTING EQUIPMENT FOR 15 MINUTES (ADJUSTABLE BY TIMER)

OFF – PUSHBUTTON DISABLED

BRIGHTNESS LEVELS

RUNWAY/TAXIWAY

STEP 1 – 10%
STEP 2 – 30%
STEP 3 – 100%

2 / E10 CONTROL PANEL LADDER DIAGRAM
SCALE: N.T.S.

1 / E10 CONTROL PANEL DETAIL
SCALE: N.T.S.

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Checked By:

Date Revised: 7/15/2015, 4:19 PM
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STATE OF ALASKA 49TH
LUCAS SCHNELLER
EE-11399
7/15/15
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
STANTEC

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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HOOPER BAY AIRPORT
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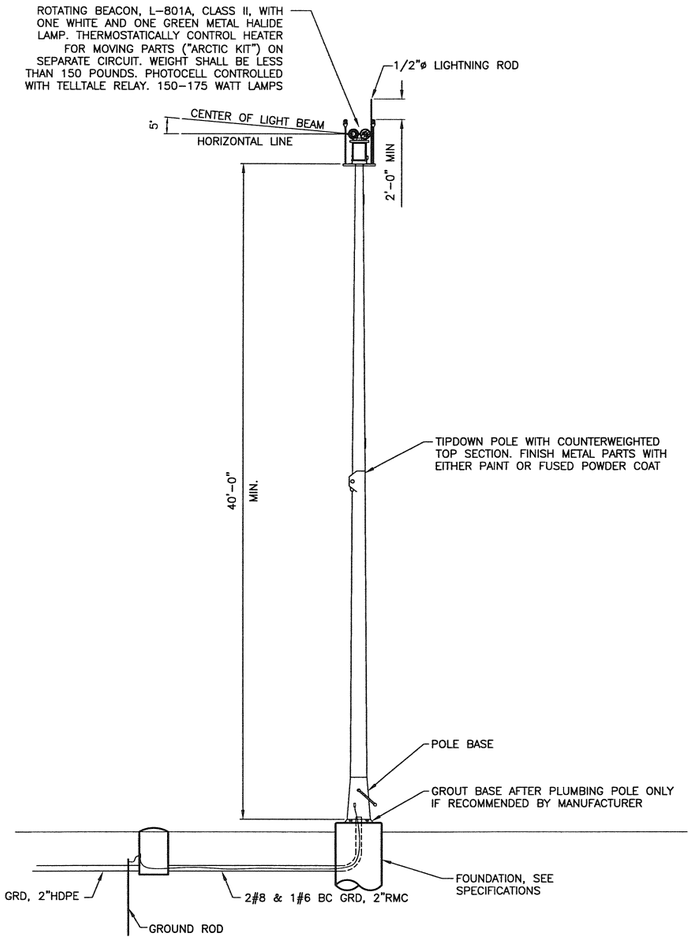
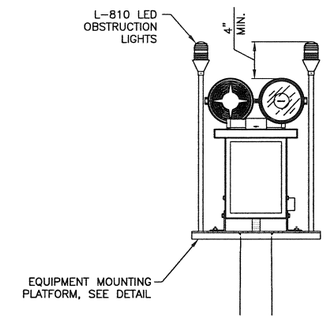


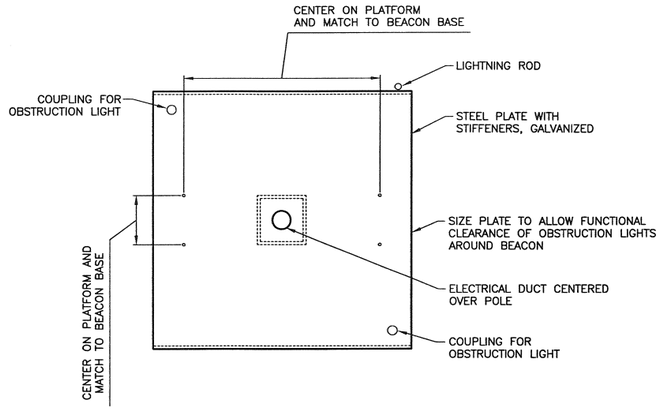
NOTES:

1. COMPONENTS AND ASSEMBLIES SHALL BE RATED FOR 120 MPH WINDS.
2. BEAM DEFLECTION AT 45 MPH MUST BE LESS THAN 2 DEGREES.

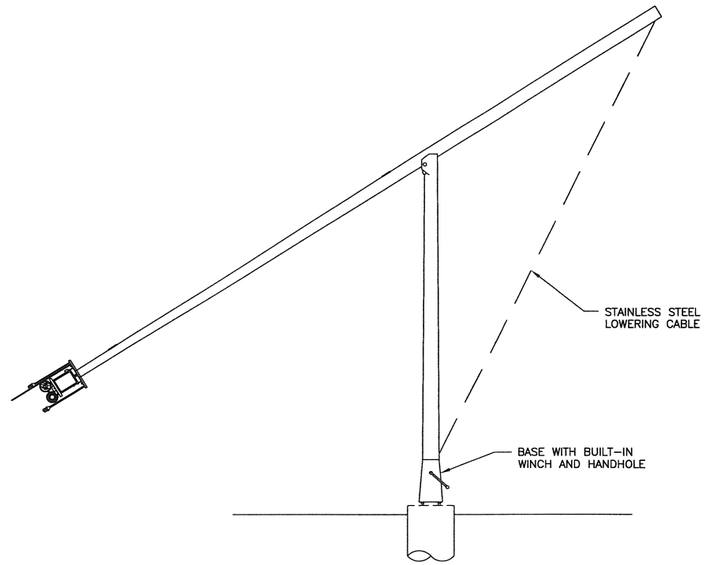
3 / E11 **BEACON POLE ASSEMBLY**
SCALE: N.T.S.



2 / E11 **BEACON ASSEMBLY DETAILS**
SCALE: N.T.S.



1 / E11 **EQUIPMENT MOUNTING PLATFORM DETAIL**
SCALE: N.T.S.



4 / E11 **BEACON POLE ASSEMBLY, SERVICE POSITION**
SCALE: N.T.S.

STATE OF ALASKA 49TH
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Checked By:

Date Revised: 7/15/2015, 4:19 PM
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CONDUCTOR AND DUCT SCHEDULE	DESIGNATION	DESCRIPTION	MANUFACTURER
OH PRIMARY CABLE	SINGLE-PHASE - 1 CONDUCTOR	#2 ACSR, SPARATE	RUS APPROVED
UG PRIMARY CABLE	SINGLE-PHASE - 1 CONDUCTOR	#2 STRANDED ALUMINUM, 133% XLPE INSULATION, FULL COPPER CONCENTRIC NEUTRAL, JACKETED	RUS APPROVED, HENDRIX OR APPROVED EQUAL
OH SERVICE	1/0 TRIPLEX	1/0 AL TRIPLEXED SECONDARY, NERITINA	RUS APPROVED
OH SERVICE	#2 TRIPLEX	#2 AL TRIPLEXED SECONDARY, CONCH	RUS APPROVED

DUCT SCHEDULE

TYPE	DESIGNATION	DESCRIPTION
HDPE2-P	PRIMARY DUCT	2" SCHEDULE 40, HDPE, RED
HDPE2-C	TELECOMMUNICATIONS	CONDUIT AND CABLE. SUPPLIED BY UUI. INSTALLED BY CONTRACTOR.
2" LIQUIDTIGHT FLEX	DUCT TO RISER	2" LIQUID-TIGHT FLEXIBLE METAL CONDUIT, SUNLIGHT RESISTANT, RATED TO -40 DEGREES, SOUTHWIRE TITAN-HC OR APPROVED EQUAL,

EQUIPMENT SCHEDULE

TYPE	DESCRIPTION	DESCRIPTION
UM3-04	4-WAY JUNCTION BOX	NORDIC FIBERGLASS, ND-362454-MG-S110-X-X (SEE DETAIL 4/U8)
UM3-06	6-WAY JUNCTION BOX	NORDIC FIBERGLASS, ND-322864-MG-X-X-X (SEE DETAIL 6/U16)
15kVA	15kV OH TRANSFORMER	15 kVA POLE MOUNT TRANSFORMER, CSP TYPE, AVEC APPROVED. STRONGLY RECOMMEND TRANSFORMER BE PURCHASED FROM AVEC.

1/U1 SCHEDULES
SCALE: NTS

GENERAL NOTES:
1. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE MOST RECENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE (NESC), RURAL UTILITY SERVICE (RUS), AND ALASKA VILLAGE ELECTRIC COOPERATIVE (AVEC). WHERE STANDARDS VARY, THE MOST STRINGENT SHALL APPLY.
2. LOCATIONS OF EXISTING FEATURES SHOWN ON DRAWINGS ARE COMPILED FROM DRAWINGS PROVIDED BY DOT&PF AND AVEC. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.
3. JUNCTION BOX, CONDUIT STUB-UPS, POLE, ANCHOR, AND EQUIPMENT LOCATIONS ALONG THE ALIGNMENT SHOWN MAY BE SLIGHTLY FIELD ADJUSTED BY ENGINEER, WHEN STAKED.
4. EXISTING DISTRIBUTION SYSTEM IS: 7,200V/12,470V WYE.
5. ALL MATERIAL PROVIDED SHALL BE ON THE RUS APPROVED MATERIALS LIST.
6. ASSEMBLY UNITS SHOWN ARE FOR EMPHASIS OF MAJOR ASSEMBLY UNITS ONLY. SEE STAKING SHEETS FOR REQUIRED ASSEMBLY UNITS. WHERE ASSEMBLY UNITS ARE NOT DETAILED IN THIS DRAWING SET, REFERENCE REA STANDARD DETAILS, REA BULLETIN 50-3, STD D 804.
7. POLES SHALL BE SET AT DEPTH OF 10% OF POLE HEIGHT PLUS 3' MINIMUM (7'-0" MINIMUM FOR 40' POLE); AND NOT GREATER THAN 10% OF POLE HEIGHT PLUS 4.5'.
8. TYPICAL NEW POLE 40/4, UNLESS OTHERWISE NOTED.
9. PROVIDE CLEARING AND GRUBBING WHERE REQUIRED.
10. INSTALL DUCTS STRAIGHT, WITH AS FEW BENDS AND OFFSETS AS PRACTICABLE.
11. INSTALL DUCTS IN CONTINUOUS SEGMENTS; SPLICING DUCTS IS PROHIBITED.
12. INSTALL DUCTS WITH LONG SMOOTH TRANSITIONS 48" RADIUS MINIMUM FOR VERTICAL TRANSITIONS; AND 10' RADII FOR HORIZONTAL TRANSITIONS.
13. PULL CABLES INTO PRE-INSTALLED DUCTS; CABLE-IN-CONDUIT IS PROHIBITED.
14. SEAL DUCTS PER DETAILS PROVIDED.
15. TAG ALL CABLES PER TAGGING CHART PROVIDED.
16. PROVIDE ARMOR ROD ON PRIMARY AND NEUTRAL CONDUCTORS AT EVERY ATTACHMENT EXCEPT AT DEADENDS.
17. PROVIDE VIBRATION DAMPENERS ON PRIMARY AND NEUTRAL CONDUCTORS ON BOTH SIDES OF ITS SUPPORT.
18. PROVIDE BIRD FLIGHT DIVERTERS (SWAN TYPE): ONE ON PRIMARY AND ONE ON NEUTRAL CONDUCTORS AT THIRDS OF SPANS, IN ALL SPANS ALONG NEW LINE EXTENSION TO SREB.
19. PRIMARY SHALL NOT CROSS NEUTRAL IN ANY SPAN; INSTALL NEUTRAL ON ROAD SIDE OF POLES.
20. JUMPER PRIMARY AND NEUTRAL WITH #2 ACSR SPARATE AND COMPRESSION H-TAP CONNECTORS.
21. SAG PRIMARY AND NEUTRAL WITH SAG CHARTS PROVIDED.
22. PROVIDE 3" SQUARE CURVED WASHER ON BOTH SIDES OF ALL EYEBOLTS.
23. COORDINATE SCHEDULED CONSTRUCTION WITH ADOT ROAD CONSTRUCTION WORK.
24. PROVIDE POLE NUMBERS FOR ALL POLES.
25. REQUEST LOCATES PRIOR TO DIGGING.

ISSUED FOR CONSTRUCTION

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BY	DATE	REVISIONS
GE	6-13-15	ISSUED FOR CONSTRUCTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED: _____ DATE _____

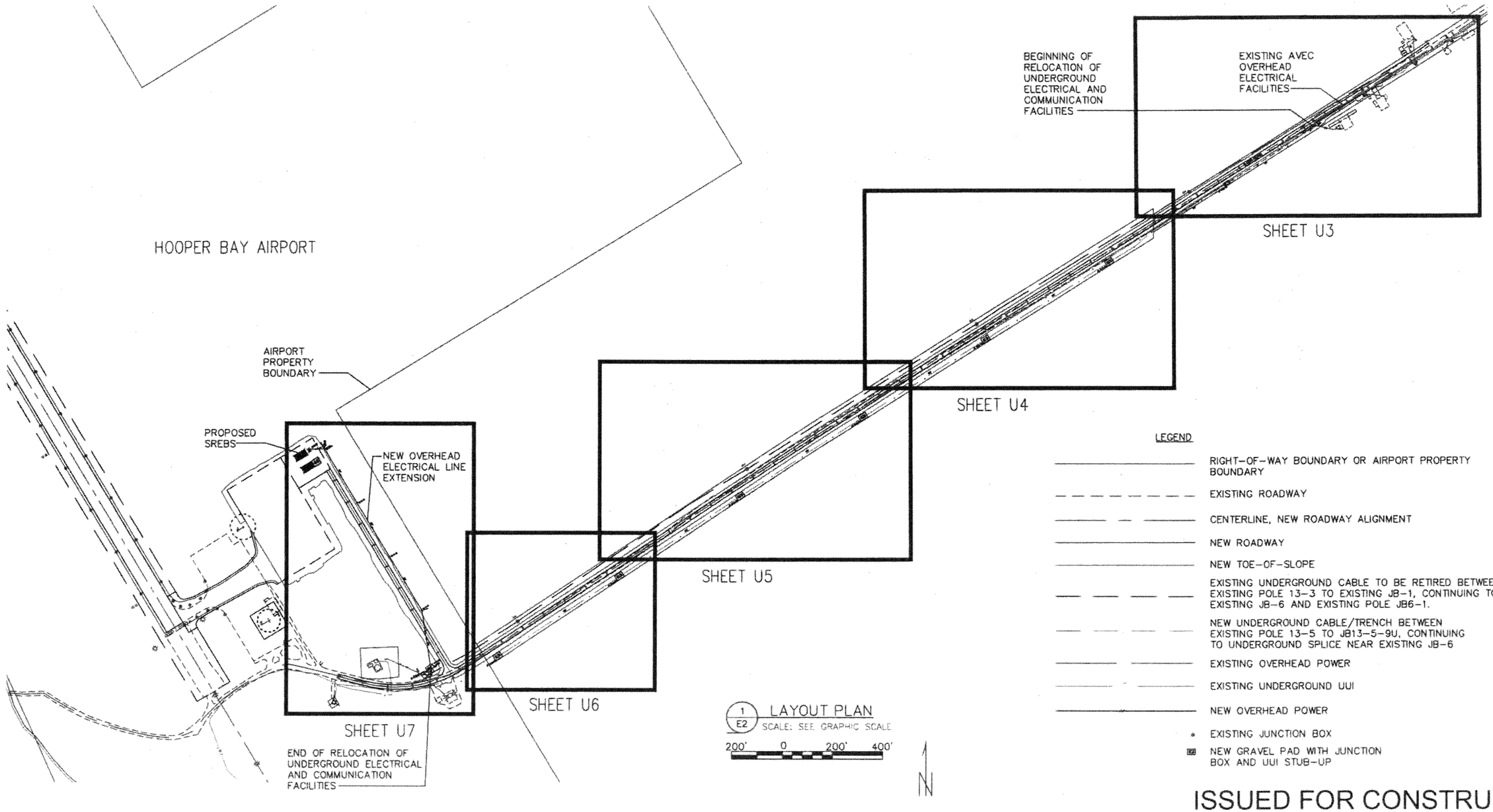
STATE OF ALASKA 49TH
6/13/15
Gregory M. Errico
No. EE-10279
REGISTERED PROFESSIONAL ENGINEER

EEE, LLC
PO Box 220471
Anchorage, AK 99522
(907) 345-6168
errico@gci.net

HOOPER BAY AIRPORT
AIRPORT IMPROVEMENTS, PROJ. NO. 57419
AIP 3-02-0126-006-2014
ELEC. SCHEDULES AND GENERAL NOTES

SHEET U1 OF 16

SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES



LEGEND

- RIGHT-OF-WAY BOUNDARY OR AIRPORT PROPERTY BOUNDARY
- EXISTING ROADWAY
- CENTERLINE, NEW ROADWAY ALIGNMENT
- NEW ROADWAY
- NEW TOE-OF-SLOPE
- EXISTING UNDERGROUND CABLE TO BE RETIRED BETWEEN EXISTING POLE 13-3 TO EXISTING JB-1, CONTINUING TO EXISTING JB-6 AND EXISTING POLE JB6-1.
- NEW UNDERGROUND CABLE/TRENCH BETWEEN EXISTING POLE 13-5 TO JB13-5-9U, CONTINUING TO UNDERGROUND SPLICE NEAR EXISTING JB-6
- EXISTING OVERHEAD POWER
- EXISTING UNDERGROUND UUI
- NEW OVERHEAD POWER
- EXISTING JUNCTION BOX
- NEW GRAVEL PAD WITH JUNCTION BOX AND UUI STUB-UP

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STATE OF ALASKA
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STATE OF ALASKA 49TH — 6/13/15 — Gregory M. Errico No. EE-10279 — REGISTERED PROFESSIONAL ENGINEER

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errico@gci.net

HOOPER BAY AIRPORT
AIRPORT IMPROVEMENTS, PROJ. NO. 57419
AIP 3-02-0126-006-2014
ELECTRICAL DISTRIBUTION-LAYOUT PLAN

SHEET U2 OF 16

LEGEND

- RIGHT-OF-WAY BOUNDARY OR AIRPORT PROPERTY BOUNDARY
- EXISTING ROADWAY
- CENTERLINE, NEW ROADWAY ALIGNMENT
- NEW ROADWAY
- NEW TOE-OF-SLOPE
- EXISTING UNDERGROUND CABLE TO BE RETIRED BETWEEN EXISTING POLE 13-3 TO EXISTING JB-1, CONTINUING TO EXISTING JB-6 AND EXISTING POLE JB6-1.
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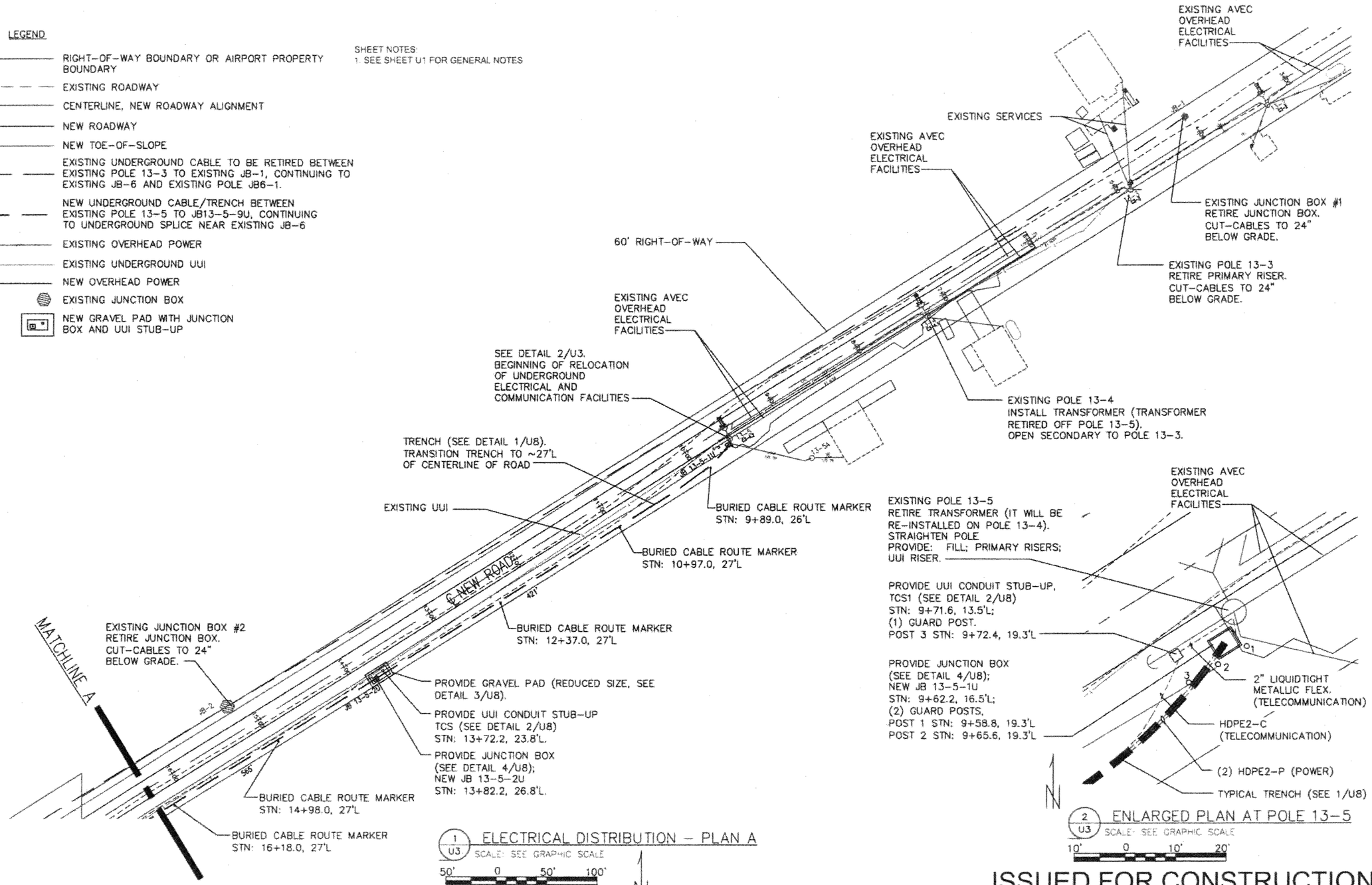
- EXISTING OVERHEAD POWER
- EXISTING UNDERGROUND UUI
- NEW OVERHEAD POWER
- EXISTING JUNCTION BOX
- NEW GRAVEL PAD WITH JUNCTION BOX AND UUI STUB-UP

SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES



1 / U3 ELECTRICAL DISTRIBUTION – PLAN A
SCALE: SEE GRAPHIC SCALE
50' 0 50' 100'

2 / U3 ENLARGED PLAN AT POLE 13-5
SCALE: SEE GRAPHIC SCALE
10' 0 10' 20'

ISSUED FOR CONSTRUCTION

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CHECKED	GE		

BY	DATE	REVISIONS
GE	6-13-15	ISSUED FOR CONSTRUCTION

STATE OF ALASKA
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CENTRAL REGION-DESIGN AND CONSTRUCTION-AVIATION
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STATE OF ALASKA 49TH · Gregory M. Errico No. EE-10279 · REGISTERED PROFESSIONAL ENGINEER · 6/13/15

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HOOPER BAY AIRPORT
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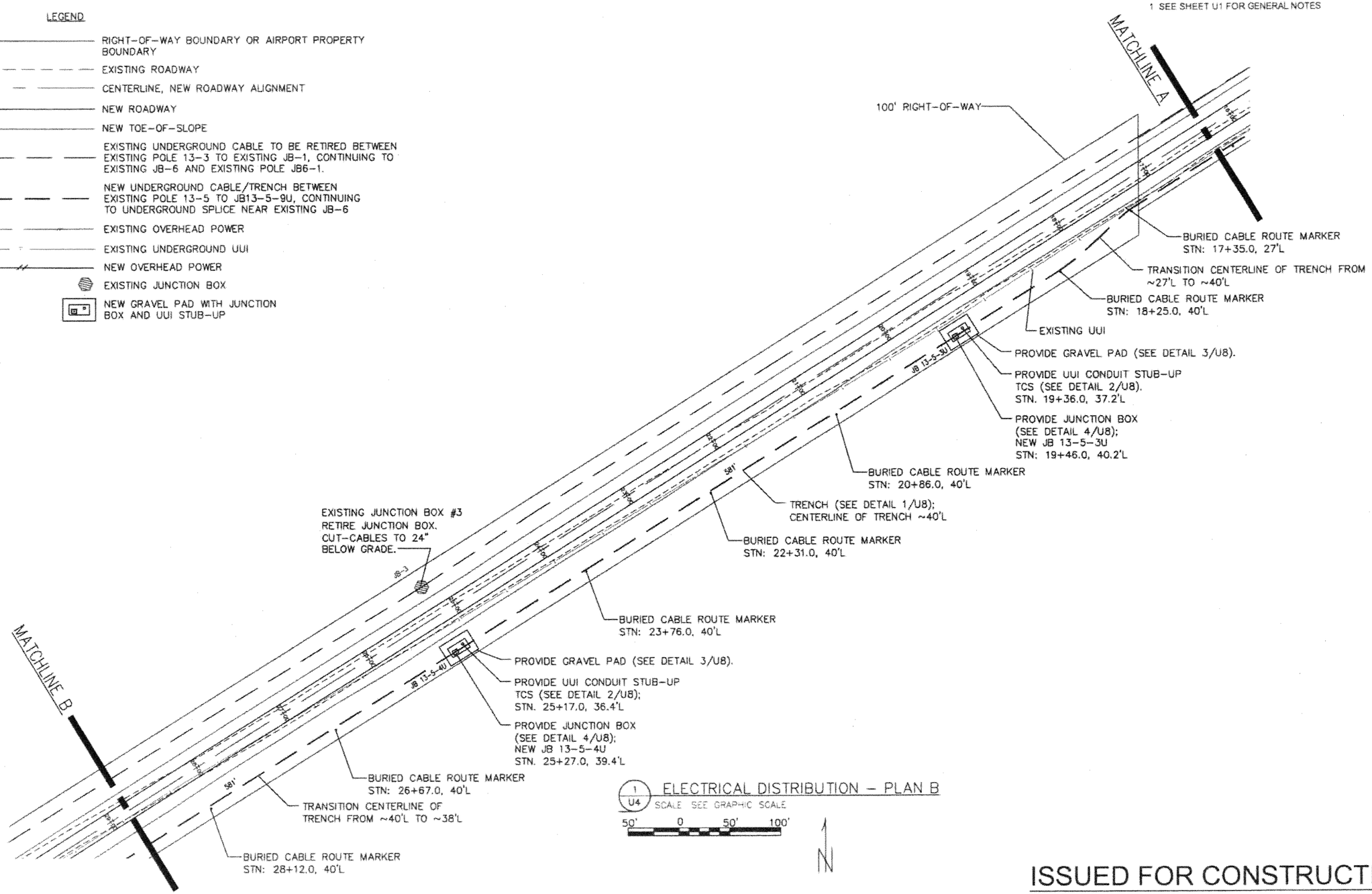
ELECTRICAL DISTRIBUTION-PLAN A

SHEET U3 OF 16

LEGEND

- RIGHT-OF-WAY BOUNDARY OR AIRPORT PROPERTY BOUNDARY
- EXISTING ROADWAY
- CENTERLINE, NEW ROADWAY ALIGNMENT
- NEW ROADWAY
- NEW TOE-OF-SLOPE
- EXISTING UNDERGROUND CABLE TO BE RETIRED BETWEEN EXISTING POLE 13-3 TO EXISTING JB-1, CONTINUING TO EXISTING JB-6 AND EXISTING POLE JB6-1.
- NEW UNDERGROUND CABLE/TRENCH BETWEEN EXISTING POLE 13-5 TO JB13-5-9U, CONTINUING TO UNDERGROUND SPLICE NEAR EXISTING JB-6
- EXISTING OVERHEAD POWER
- EXISTING UNDERGROUND UUI
- NEW OVERHEAD POWER
- EXISTING JUNCTION BOX
- NEW GRAVEL PAD WITH JUNCTION BOX AND UUI STUB-UP

SHEET NOTES
1 SEE SHEET U1 FOR GENERAL NOTES



1 / U4 ELECTRICAL DISTRIBUTION – PLAN B
SCALE SEE GRAPHIC SCALE
50' 0 50' 100'

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GE	6-13-15	ISSUED FOR CONSTRUCTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED:
DATE

STATE OF ALASKA 49TH Gregory M. Errico No. EE-10279 6/14/15 REGISTERED PROFESSIONAL ENGINEER

EEE, LLC
PO Box 220471
Anchorage, AK 99522
(907) 345-6168
errico@gci.net

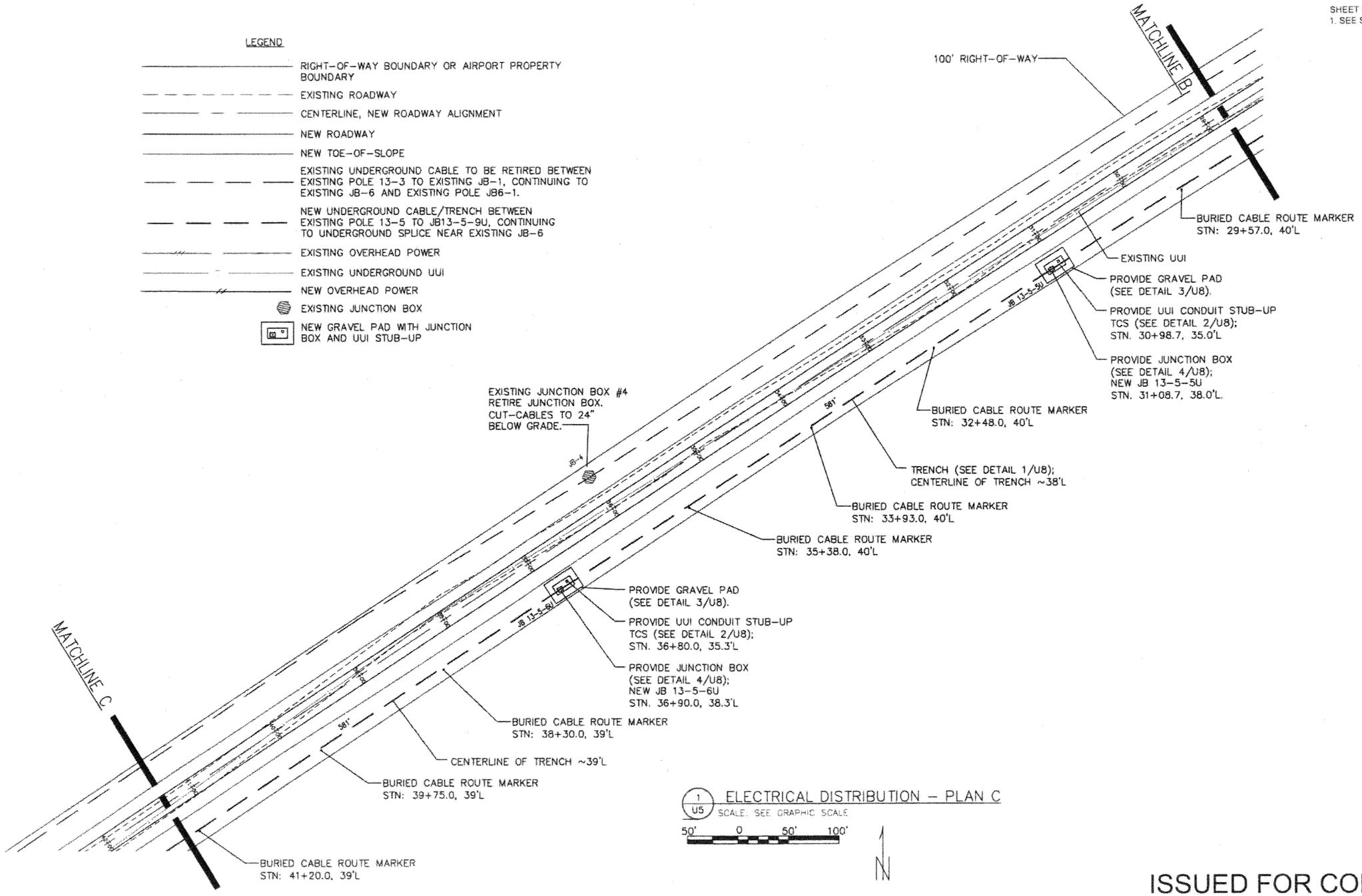
HOOPER BAY AIRPORT
AIRPORT IMPROVEMENTS, PROJ. NO. 57419
AIP 3-02-0126-006-2014
ELECTRICAL DISTRIBUTION-PLAN B

SHEET U4 OF 16

SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES

LEGEND

- RIGHT-OF-WAY BOUNDARY OR AIRPORT PROPERTY BOUNDARY
- EXISTING ROADWAY
- CENTERLINE, NEW ROADWAY ALIGNMENT
- NEW ROADWAY
- NEW TOE-OF-SLOPE
- EXISTING UNDERGROUND CABLE TO BE RETIRED BETWEEN EXISTING POLE 13-3 TO EXISTING JB-1, CONTINUING TO EXISTING JB-6 AND EXISTING POLE JB6-1.
- NEW UNDERGROUND CABLE/TRENCH BETWEEN EXISTING POLE 13-5 TO JB13-5-9U, CONTINUING TO UNDERGROUND SPLICE NEAR EXISTING JB-6
- EXISTING OVERHEAD POWER
- EXISTING UNDERGROUND UUI
- NEW OVERHEAD POWER
- EXISTING JUNCTION BOX
- NEW GRAVEL PAD WITH JUNCTION BOX AND UUI STUB-UP



1 / U5 ELECTRICAL DISTRIBUTION – PLAN C
SCALE: SEE GRAPHIC SCALE
50' 0 50' 100'

ISSUED FOR CONSTRUCTION

DESIGN GE
DRAWN MC
CHECKED GE

BY	DATE	REVISIONS
GE	6-13-15	ISSUED FOR CONSTRUCTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED: _____ DATE _____

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AIP 3-02-0126-006-2014
ELECTRICAL DISTRIBUTION-PLAN C

SHEET U5 OF 16

SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES

LEGEND

- RIGHT-OF-WAY BOUNDARY OR AIRPORT PROPERTY BOUNDARY
- EXISTING ROADWAY
- CENTERLINE, NEW ROADWAY ALIGNMENT
- NEW ROADWAY
- NEW TOE-OF-SLOPE
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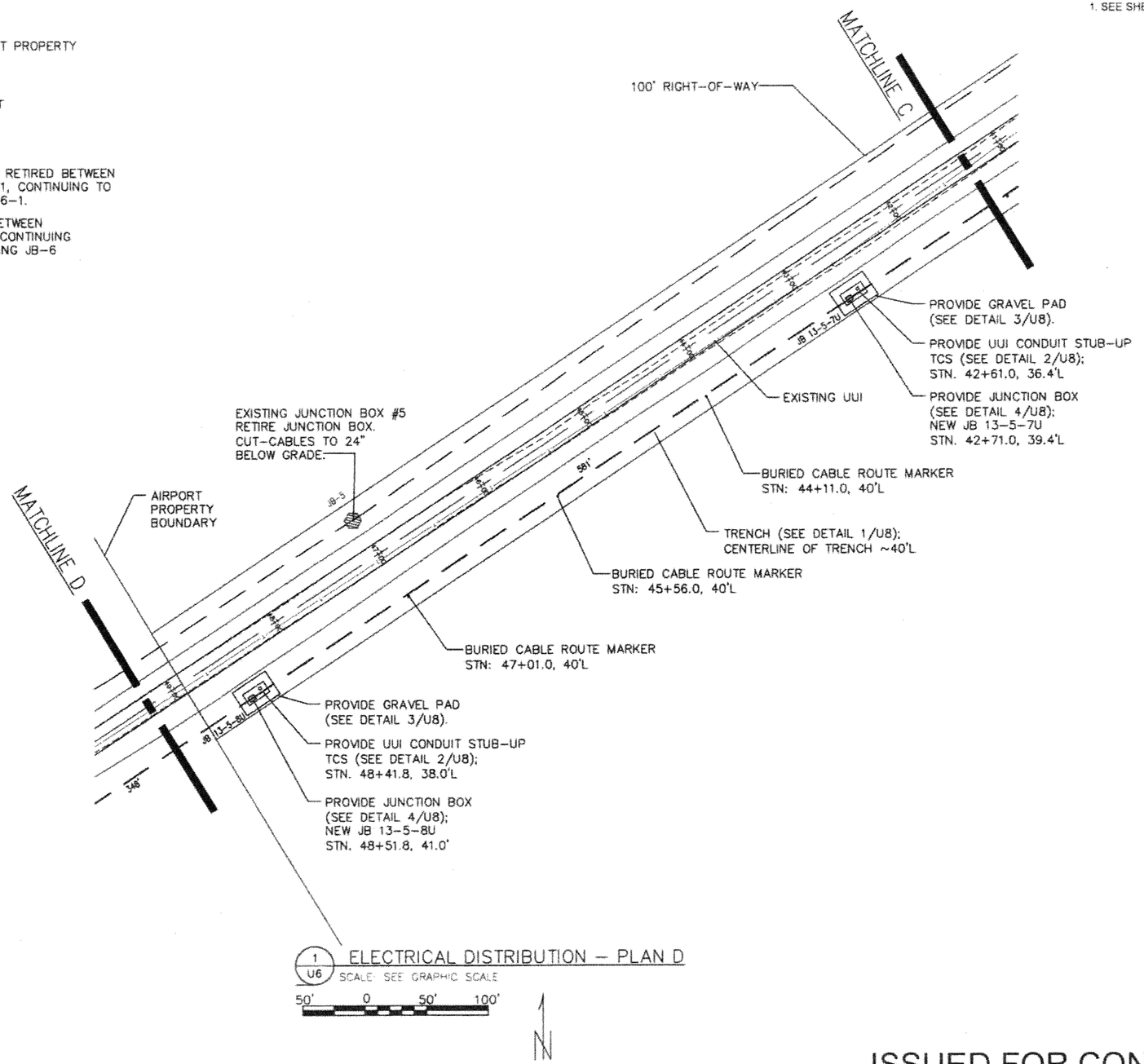
- EXISTING OVERHEAD POWER
- EXISTING UNDERGROUND UUI
- NEW OVERHEAD POWER
- EXISTING JUNCTION BOX
- NEW GRAVEL PAD WITH JUNCTION BOX AND UUI STUB-UP



1/U6 ELECTRICAL DISTRIBUTION – PLAN D

SCALE: SEE GRAPHIC SCALE

50' 0 50' 100'

ISSUED FOR CONSTRUCTION

DESIGN GE
DRAWN MS
CHECKED GE

BY	DATE	REVISIONS
GE	6-13-15	ISSUED FOR CONSTRUCTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION-DESIGN AND CONSTRUCTION-AVIATION
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AIP 3-02-0126-006-2014
ELECTRICAL DISTRIBUTION-PLAN D

SHEET U6 OF 16

LEGEND

- RIGHT-OF-WAY BOUNDARY OR AIRPORT PROPERTY BOUNDARY
- EXISTING ROADWAY
- CENTERLINE, NEW ROADWAY ALIGNMENT
- NEW ROADWAY
- NEW TOE-OF-SLOPE
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- EXISTING OVERHEAD POWER
- EXISTING UNDERGROUND UUI
- NEW OVERHEAD POWER
- EXISTING JUNCTION BOX
- NEW GRAVEL PAD WITH JUNCTION BOX AND UUI STUB-UP

RELOCATION WORK ENDS AT EXISTING JB #6 AND INCLUDES PROVISION OF NEW JB 13-5-9U.
AVEC WO# 0810207-RELOCATE SVC TO UPGRADED AIRPORT

NEW SERVICE TO NEW SREB BEGINS AT JB 13-5-9U AND INCLUDES ALL OVERHEAD WORK ON THIS SHEET.
AVEC WO# 0810227-SVC TO STATE OF AK-SREB

SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES

POLE 13-5-14:
PROVIDE 40/4; M31B, VA5, (2) E1-3, 25' AND 30' LEADS; (2) F1-4P, G106-15, K-11, M2-11.
POLE STN. 10+29.0, 30.0'R
ANCHOR 1 STN. 10+29.0, 55.0'R
ANCHOR 2 STN. 10+59.0, 30.0'R

POLE 13-5-13:
PROVIDE 40/4; M31B, VA1A;
STN. 7+78.0, 30.0'R

POLE 13-5-12:
PROVIDE 40/4; M31B, VA1A;
STN. 5+27.0, 30.0'R

MATCHLINE E

PROVIDE GRAVEL PAD (SEE DETAIL 1/U9).

PROVIDE JUNCTION BOX 13-5-9U (SEE DETAIL 6/U16);
STN. 0+61.1, 64.8'L

OH CIRCUIT TO POLE 13-5-10-1 (OLD # JB6-1)

RETIRE EXISTING JUNCTION BOX #6 AND CIRCUIT TO POLE 13-5-10-1 (OLD # JB6-1). CUT CABLE 24" BELOW GRADE.

BURIED CABLE ROUTE MARKER AT SPLICE
STN: ~51+44.0, 24'R

PROVIDE UG CIRCUIT (35') FROM JB 13-5-9U AND SPLICE TO EXISTING UG CIRCUIT TO SOUTHWEST (SEE DETAIL 2/U15); RE-TAG CABLE IN JB-7.

POLE 13-5-10:
PROVIDE 40/4; M31B, VA5, VA5-1, (2) E1-3, 25' LEADS; RISERS; (2) F1-4P;
POLE STN. 0+58.3, 59.3'L
ANCHOR 1 STN. 0+35.5, 68.9'L
ANCHOR 2 STN. 0+55.0, 34.6'L

RETIRE EXISTING CABLE TO EAST. CUT CABLE 24" BELOW GRADE.

TRENCH PER DETAIL 1/U8.

SEE DETAIL 1A/U7.

PROVIDE OH CIRCUIT (45').

EXISTING POLE 13-5-10-1 (OLD # JB6-1): RENUMBER POLE; RETIRE CROSSARMS AND RISER; ROTATE TRANSFORMER.
PROVIDE A7; E1-3, 25' LEAD; F1-4P.
ANCHOR STN. 51+93.6, 37.0'R

PROVIDE UUI CONDUIT STUB-UP TCS (SEE DETAIL 2/U8);
STN. 0+51.1, 61.8'L.

MATCHLINE E

AIRPORT PROPERTY BOUNDARY

POLE 13-5-11:
PROVIDE 40/4; M31B; VA3-1;
E1-3, 25' LEAD; F1-4P; M2-11.
POLE STN. 2+76.0, 30.0'R
ANCHOR STN. 2+71.1, 54.5'R

MATCHLINE D

100' RIGHT-OF-WAY

EXISTING UUI

EXISTING UG POWER TO BE RETIRED

BURIED CABLE ROUTE MARKER
STN: 50+20.0, 42'L

BURIED CABLE ROUTE MARKER
STN: 50+98.0, 32'L

2 / U7 ELECTRICAL DISTRIBUTION - PLAN F
SCALE: SEE GRAPHIC SCALE
50' 0 50' 100'

1A / U7 ENLARGED PAD AT POLE 13-5-10
SCALE: SEE GRAPHIC SCALE
10' 0 10' 20'

1 / U7 ELECTRICAL DISTRIBUTION - PLAN E
SCALE: SEE GRAPHIC SCALE
50' 0 50' 100'

ISSUED FOR CONSTRUCTION

DESIGN GE
DRAWN ME
CHECKED GE

BY	DATE	REVISIONS
GE	6-13-15	ISSUED FOR CONSTRUCTION

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DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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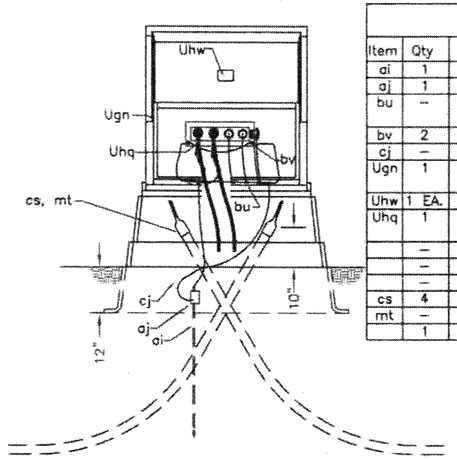
ELECTRICAL DISTRIBUTION-PLANS E&F

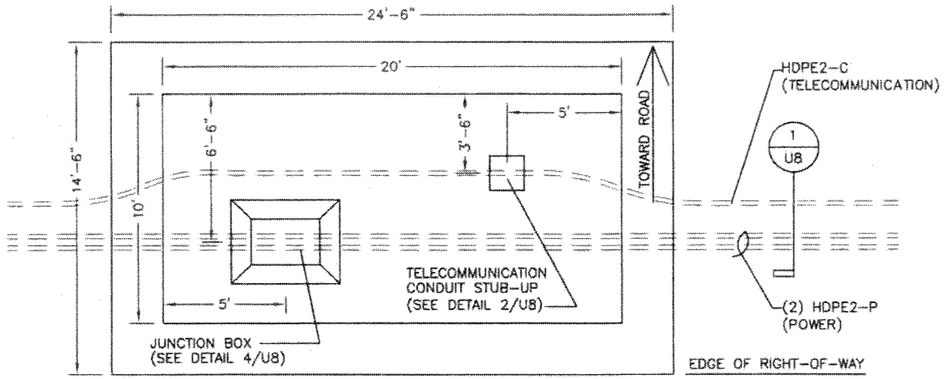
SHEET U7 OF 16

SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES.

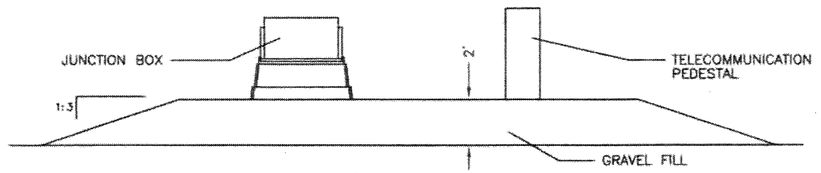


MATERIAL LIST		
Item	Qty	DESCRIPTION
ai	1	ROD, GROUND, 5/8" X 8'-0", COPPER CLAD
aj	1	CONNECTION, GROUND ROD CLAMP
bu	–	COMPRESSION CONNECTOR, COPPER, BURNDY YGHC2C2, OR APPROVED EQUAL, AS REQ'D
bv	2	LUG, INSERT PLATE GROUNDING, BURNDY K2C25 OR APPROVED EQUAL
cj	–	GROUND WIRE, #2 BaCuStr, AS REQ'D
Ugn	1	DEADFRONT CABLE JUNCTION PEDESTAL, WITH STAINLESS STEEL JUNCTION MOUNTING PLATE NORDIC FIBERGLASS ND-362454-MG-S110-X-X
Uhw	1 EA.	SIGNS, "DANGER" AND "WARNING" AND "ARC FLASH"
Uhq	1	MODULE, FEED-THRU, MULTIPOINT, 4-POSITION W/ STAINLESS STEEL "U" STRAPS, ELASTIMOLD 164J4-5 OR APPROVED EQUAL
	–	STAINLESS STEEL MOUNTING HARDWARE, AS REQ'D
	–	CABLE TAGS, AS REQ'D
	–	DECALS/NUMBERS, 3" HIGH, REFLECTIVE, AS REQ'D
cs	4	COLD SHRINK, 3M CPT-1 1/4, OR APPROVED EQUAL
mt	–	MASTIC TAPE (3 WRAPS), 3M COMPOUND 2229, OR APPROVED EQUAL
	1	EQUIPMENT LOCK, TAMPERPROOF

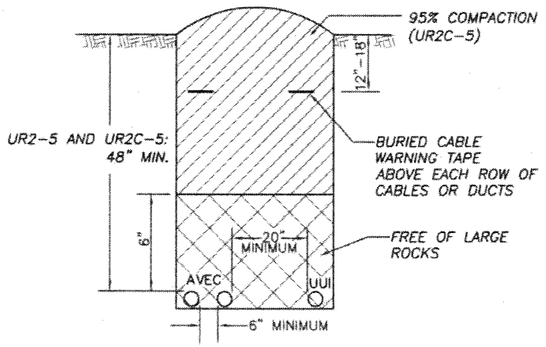
4/U8 UM3-04: 1-PH JUNCTION BOX
SCALE: NTS



REDUCED SIZE GRAVEL PAD PLAN



ELEVATION

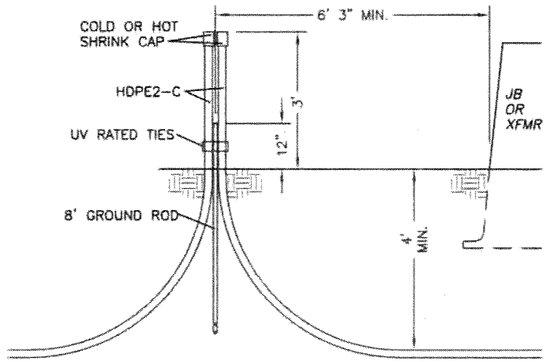


PRIMARY
AND
TELECOMMUNICATION

NOTES:
1. DEPTHS SPECIFIED ARE TO FINISHED GRADE.
2. BACKFILLING IS PART OF ALL TRENCHING UNITS. ALL BACKFILL WITHIN 12" OF CABLE OR CONDUIT SHALL BE FREE OF LARGE ROCKS AND FROZEN MATERIAL WHICH MAY CAUSE DAMAGE TO THE INSTALLED CONDUIT.
UR2C-5: COMPACT BACKFILL IN 6"-8" LIFTS, TO 95% COMPACTION.

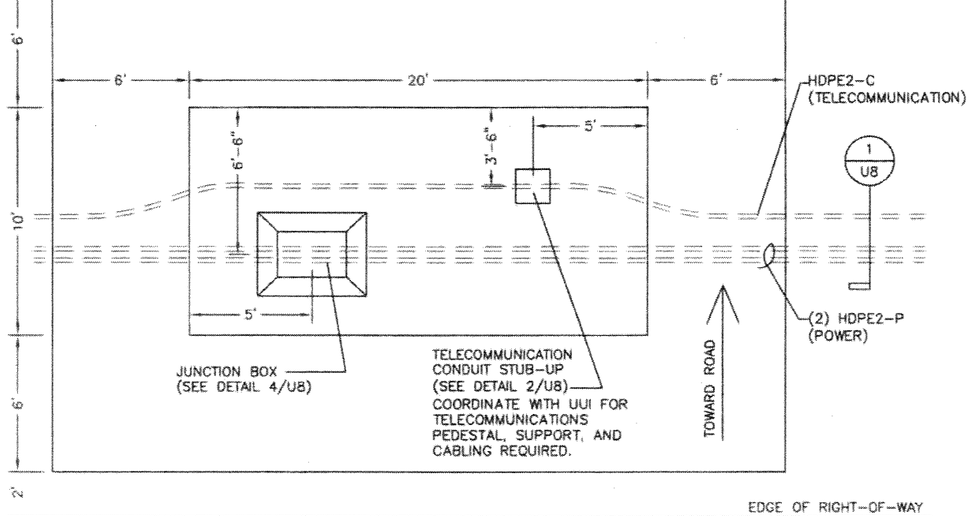
LEGEND
- FREE OF LARGE ROCKS
- BACKFILL, COMPACTED AT UR2C-5
- UNDISTURBED EARTH

1/U8 UR2-5/UR2C-5
SCALE: NTS



MATERIAL LIST		
QTY		DESCRIPTION
TCS	TCS1	
1	1	ROD, GROUND, 3/4" X 8'-0", COPPER CLAD STEEL
2	2	WIRE TIE, 1/4" UV STABILIZED
2	2	2" COLD- OR HOT-SHRINK CONDUIT CAP
	1	LIQUIDTIGHT FLEX CONNECTOR, 2", RACO 3518 OR EQUAL

2/U8 TCS, TCS1: TELECOMMUNICATION CONDUIT STUB-UP DETAIL
SCALE: NTS



GRAVEL PAD PLAN

3/U8 EQP PAD: JUNCTION BOX AND TELECOMMUNICATION STUB-UP PAD
SCALE: NTS

ISSUED FOR CONSTRUCTION

DESIGN GE
DRAWN ME
CHECKED GE

BY	DATE	REVISIONS
GE	6-13-15	ISSUED FOR CONSTRUCTION

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CENTRAL REGION-DESIGN AND CONSTRUCTION-AVIATION
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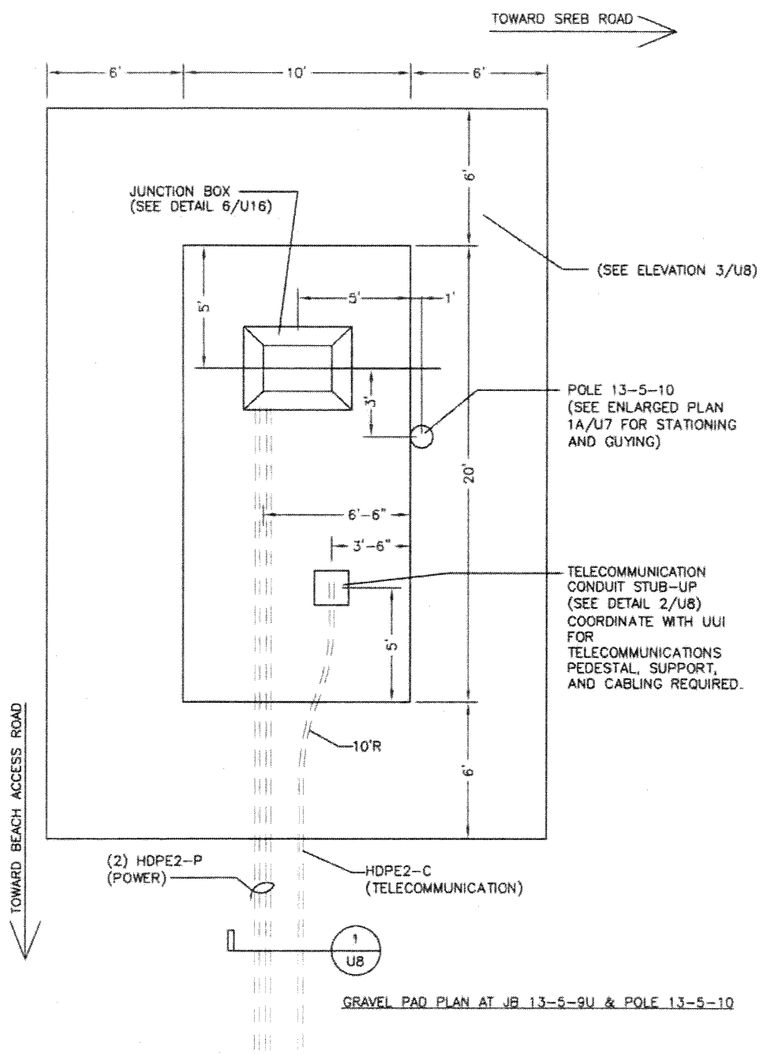
LINE EXTENSION+RELOCATION-DETAILS

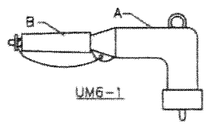
SHEET U8 OF 16

SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES.



GRAVEL PAD PLAN AT JB 13-5-9U & POLE 13-5-10

1 / U9 EQP PAD: JUNCTION BOX AND TELE. STUB-UP PAD
SCALE: NTS

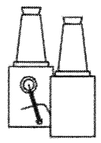


UM6-1

NOTES:
1. INSTALL TERMINATION ON CABLE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. INSTALL ONE WRAP OF MASTIC TAPE OVER CABLE JACKET NEAR ITS CUT-BACK EDGE.
3. CAREFULLY LAY BACK CONCENTRIC NEUTRALS, OVER MASTIC TAPE, PARALLEL WITH CABLE.
4. INSTALL MASTIC TAPE OVER LAID BACK NEUTRAL AND ABOVE FIRST MASTIC WRAP.
5. INSTALL COLD SHRINK OVER BASE OF ELBOW EXTENDING OVER LAID BACK CONCENTRIC NEUTRALS.
6. USE ONE STRAND OF CONCENTRIC NEUTRAL TO GROUND TERMINATION BODY.
7. TWIST REMAINING NEUTRALS TOGETHER AND CONNECT TO GROUND IN LOOP WITH A COMPRESSION CONNECTOR.

MATERIAL LIST		
NO.	Qty.	DESCRIPTION
A	1	TERMINATION, ELBOW TYPE, LOADBREAK, 200A, COOPER LE225DD04, OR APPROVED EQUAL
B	1	COLD SHRINK SEAL KIT, 3M 8452, OR APPROVED EQUAL
	–	COMPRESSION CONNECTOR, COPPER, BURNDY YGHC2C2, OR APPROVED EQUAL, AS REQ'D

2 / U9 UM6-1
SCALE: NTS

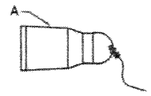


UM6-19

NOTES:
1. PROVIDE #8 COPPER, BARE OR GREEN INSULATED, BONDING JUMPER. CONNECT TO FEED-THROUGH BUSHING WITH THE MANUFACTURERS BONDING PROVISION; AND CONNECT TO GROUND LOOP WITH A WITH A COMPRESSION CONNECTOR.

MATERIAL LIST		
NO.	Qty.	DESCRIPTION
Uhq	1	STAND-OFF INSULATOR FEED THROUGH, 200A, WITH STAINLESS STEEL BRACKET, COOPER LPF215U, OR APPROVED EQUAL
	–	#8 COPPER, BARE OR GREEN INSULATED, WIRE
	–	COMPRESSION CONNECTOR, COPPER, BURNDY YGHC2C2, OR APPROVED EQUAL, AS REQ'D

3 / U9 UM6-19
SCALE: NTS



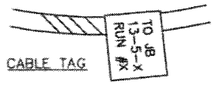
UM6-10

NOTES:
1. ROUTE MANUFACTURER'S BRAIDED BONDING JUMPER UNDER EQUIPMENT GROUNDING LUG; OR CONNECT TO GROUND LOOP WITH A COMPRESSION CONNECTOR.

MATERIAL LIST		
NO.	Qty.	DESCRIPTION
A	1	INSULATED PROTECTIVE CAP, COOPER LPC215, OR APPROVED EQUAL
	–	COMPRESSION CONNECTOR, COPPER, BURNDY YGHC2C2, OR APPROVED EQUAL, AS REQ'D

4 / U9 UM6-10
SCALE: NTS

CABLE TAGGING NOTES:
1. TAG ALL CABLES AT RISERS AND IN JUNCTION BOXES.
2. TAG EVERY CABLE WITH A YELLOW PLASTIC COATED CLOTH TAGS.
3. ATTACH TAGS AT RISERS 12" ABOVE TOP OF CONDUIT. ATTACH TAGS IN JUNCTION BOXES AT 4" BELOW COLD SHRINK SEAL.
4. ALL TAGS SHALL BE SECURELY TAPED TO THE CONDUCTOR WITH 3M #37 OR #88 VINYL ELECTRICAL TAPE.
5. THE DESTINATION (LOCATION OF OTHER END) OF THE CIRCUIT SHALL BE PRINTED LEGIBLY ON EACH TAG WITH A PERMANENT BLACK MARKER.



CABLE TAG

CABLE TAGS ON POLE 13-5

TO JB 13-5-1U RUN #1	TO JB 13-5-1U RUN #2

CABLE TAGS IN JB 13-5-1U

TO POLE 13-5 RUN #1	TO POLE 13-5 RUN #2
TO JB 13-5-2U RUN #1	TO JB 13-5-2U RUN #2

CABLE TAGS IN JB 13-5-2U

TO JB 13-5-1U RUN #1	TO JB 13-5-1U RUN #2
TO JB 13-5-3U RUN #1	TO JB 13-5-3U RUN #2

CABLE TAGS IN JB 13-5-3U

TO JB 13-5-2U RUN #1	TO JB 13-5-2U RUN #2
TO JB 13-5-4U RUN #1	TO JB 13-5-4U RUN #2

CABLE TAGS IN JB 13-5-4U

TO JB 13-5-3U RUN #1	TO JB 13-5-3U RUN #2
TO JB 13-5-5U RUN #1	TO JB 13-5-5U RUN #2

CABLE TAGS IN JB 13-5-5U

TO JB 13-5-4U RUN #1	TO JB 13-5-4U RUN #2
TO JB 13-5-6U RUN #1	TO JB 13-5-6U RUN #2

CABLE TAGS IN JB 13-5-6U

TO JB 13-5-5U RUN #1	TO JB 13-5-5U RUN #2
TO JB 13-5-7U RUN #1	TO JB 13-5-7U RUN #2

CABLE TAGS IN JB 13-5-7U

TO JB 13-5-6U RUN #1	TO JB 13-5-6U RUN #2
TO JB 13-5-8U RUN #1	TO JB 13-5-8U RUN #2

CABLE TAGS IN JB 13-5-8U

TO JB 13-5-7U RUN #1	TO JB 13-5-7U RUN #2
TO JB 13-5-9U RUN #1	TO JB 13-5-9U RUN #2

CABLE TAGS IN JB 13-5-9U

TO JB 13-5-8U RUN #1	TO JB 13-5-8U RUN #2
TO POLE 13-5-10 RUN #1	TO POLE 13-5-10 RUN #2
TO JB-7	

CABLE TAG ON POLE 13-5-10

TO JB 13-5-9U RUN #1	TO JB 13-5-9U RUN #2

NEW CABLE TAG IN JB-7

TO JB 13-5-9U

5 / U9 TAGGING
SCALE: NTS

ISSUED FOR CONSTRUCTION

DESIGN GE
DRAWN ME
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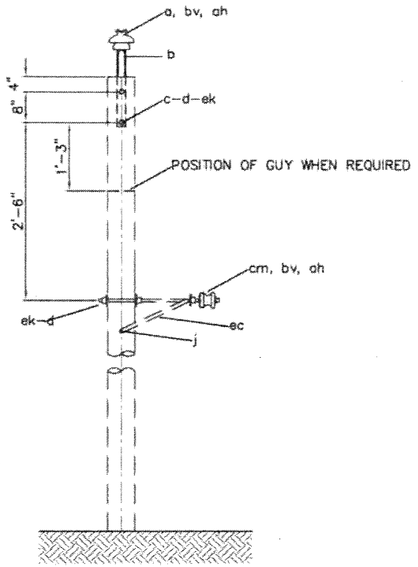
SHEET U9 OF 16

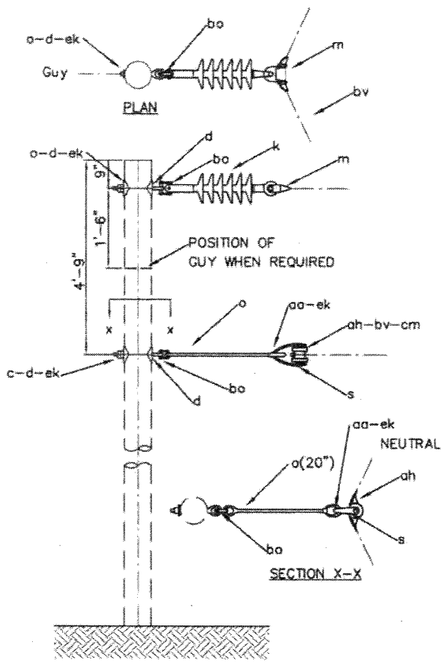
SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES.



NOTE:
1. THIS ASSEMBLY: USES 3" SQUARE CURVED WASHERS (4 REQUIRED).

MATERIAL LIST		
NO.	Qty.	DESCRIPTION
a	1	INSULATOR, PIN TYPE, J–NECK, ANSI 55–4
b	1	PIN, POLE TOP, 1–3/8" THREAD,20", STRAGIHT
ah	1	TIE, WRAPLOCK, SINGLE SUPPORT
ah	1	TIE, SPOOL, SINGLE SUPPORT
bv	2	ARMOR ROD, SINGLE SUPPORT, SET, PREFORMED #AR–0114
c	2	BOLT, MACHINE, 5/8"XREQ'D LENGTH
cm	1	INSULATOR, SPOOL, 3"
d	3	WASHER, 2–1/4" SQUARE WITH 11/16" HOLE
ec	1	BRACKET, OFFSET NEUTRAL
j	2	SCREW, LAG, 1/2" X 4"

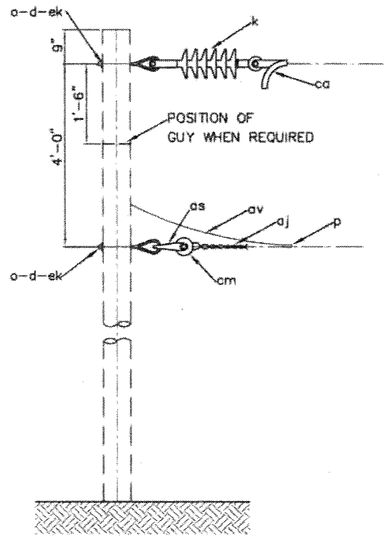
1 U10 VA1A SCALE: NTS



NOTE:
1. THIS ASSEMBLY: USES 3" SQUARE CURVED WASHERS (4 REQUIRED).

MATERIAL LIST		
NO.	Qty.	DESCRIPTION
aa	1	NUT, EYE, 5/8"
ah	1	TIE, WRAPLOCK, SPOOL, PREFORMED #SPL–1359
bo	2	SHACKLE, ANCHOR
bv	2	ARMOR ROD, SINGLE SUPPORT, SET, PREFORMED #AR–0114
cm	1	INSULATOR, SPOOL, 3"
d	4	WASHER, SQUARE, CURVED, 3", 11/16" HOLE
ek	–	LOCKNUT, 5/8", AS REQUIRED
k	1	INSULATOR, SUSP. 25kV EPOXILATOR, 15,000 LBS.
m	1	CLAMP, SUSP. ANGLE
o	1	BOLT, EYE, 5/8" x 20"
o	2	BOLT, EYE, 5/8" x REQ'D LENGTH
s	1	CLEVIS, NEUTRAL SWINGING

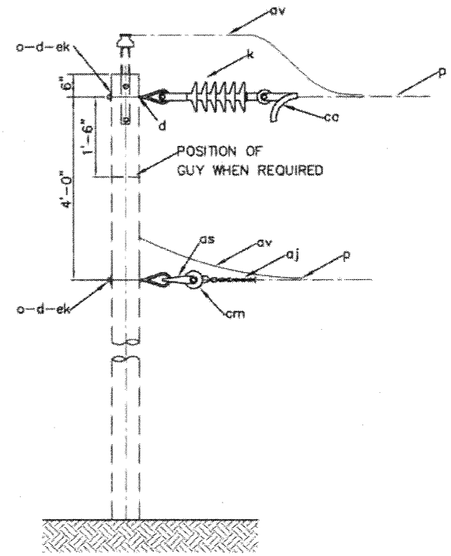
2 U10 VA3–1 SCALE: NTS



NOTE:
1. THIS ASSEMBLY: USES 3" SQUARE CURVED WASHERS (4 REQUIRED).

MATERIAL LIST		
NO.	Qty.	DESCRIPTION
o	2	BOLT, EYE, 5/8" x REQ'D LENGTH
d	4	WASHER, SQUARE, CURVED, 3"
k	1	INSULATOR, SUSPENSION, EPOXILATOR 25kV
ca	1	DEADEND SHOE, CURVED, BOLTED, PG57N, OR APPROVED EQUAL
as	1	CLEVIS, NEUTRAL, SWINGING
cm	1	INSULATOR, SPOOL, 3"
aj	1	DEADEND, NEUTRAL, PREFORMED DG–4542
av	–	JUMPERS, #2 ACSR, AS REQUIRED
p	–	CONNECTORS, COMPRESSION, AS REQUIRED
ek	–	LOCKNUTS, AS REQUIRED

3 U10 VA5 SCALE: NTS



NOTE:
1. THIS ASSEMBLY: USES 3" SQUARE CURVED WASHERS (4 REQUIRED).

MATERIAL LIST		
NO.	Qty.	DESCRIPTION
o	2	BOLT, EYE, 5/8" x REQ'D LENGTH
d	4	WASHER, SQUARE, CURVED, 3"
k	1	INSULATOR, SUSPENSION, EPOXILATOR 25kV
ca	1	DEADEND SHOE, CURVED, BOLTED, PG57N, OR APPROVED EQUAL
as	1	CLEVIS, NEUTRAL, SWINGING
cm	1	INSULATOR, SPOOL, 3"
aj	1	DEADEND, NEUTRAL, PREFORMED DG–4542
av	–	JUMPERS, #2 ACSR, AS REQUIRED
p	4	CONNECTORS, COMPRESSION
ek	–	LOCKNUTS, AS REQUIRED

4 U10 VA5–1 SCALE: NTS

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BY	DATE	REVISIONS
GE	6–13–15	ISSUED FOR CONSTRUCTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION–DESIGN AND CONSTRUCTION–AVIATION
APPROVED: _____ DATE _____

STATE OF ALASKA 49TH Gregory M. Errico No. EE–10279 REGISTERED PROFESSIONAL ENGINEER

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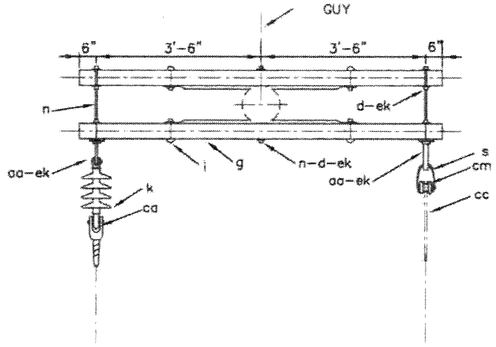
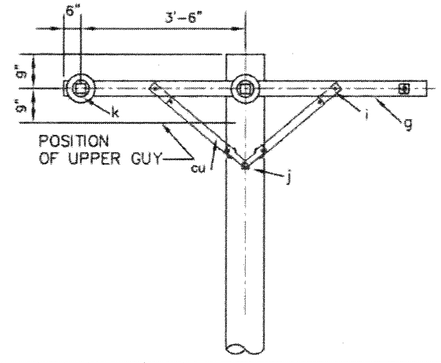
HOOPER BAY AIRPORT
AIRPORT IMPROVEMENTS, PROJ. NO. 57419
AIP 3–02–0126–006–2014
LINE EXTENSION+RELOCATION–DETAILS

SHEET U10 OF 16

SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES.

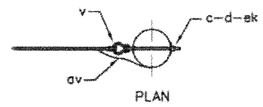


PLAN

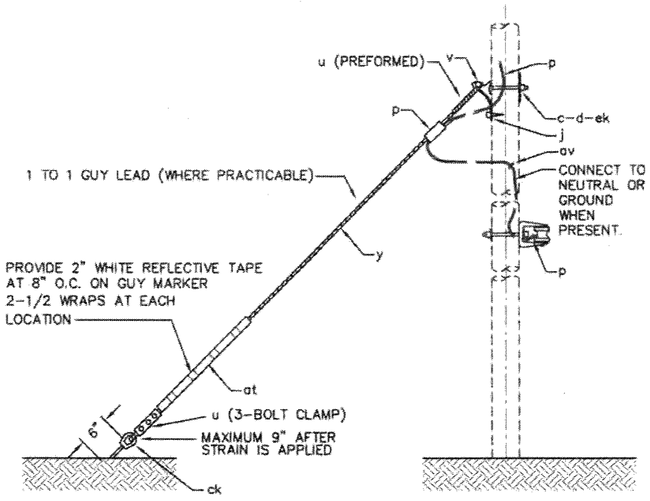


MATERIAL LIST		
NO.	Qty.	DESCRIPTION
g	2	CROSSARM, 3-5/8" X 4-5/8"
cu	2	BRACE, WOOD, 28" SPAN
j	2	SCREW, LAG, 1/2" x 4"
i	4	BOLT, CARRIAGE, 3/8" x 4-1/2"
n	3	BOLT, DOUBLE ARMING, 5/8" x REQ'D LENGTH
d	10	WASHER, 2-1/4" SQUARE, (11/16" HOLE)
aa	2	NUT, EYE, 5/8"
s	1	CLEVIS, NEUTRAL SWINGING
cm	1	INSULATOR, SPOOL, 3", ANSI 53-2
cc	1	DEADEND, NEUTRAL, PREFORMED DG-4542
k	1	INSULATOR, SUSP. 25kV EPOXILATOR, 15,000 LBS.
ca	1	DEADEND SHOE, CURVED, BOLTED, HUBBELL PG57N, OR APPROVED EQUAL
ek	–	LOCKNUT, AS REQUIRED

1 U11 VA7
SCALE: NTS



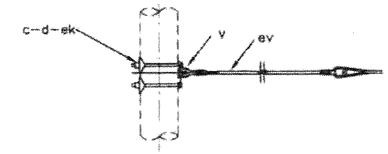
PLAN



NOTES:
1. FORMED TYPE GRIPS MAY BE USED ONLY WITH SUITABLE ATTACHMENTS, AT POLE.
2. WHERE SEPARATE ANCHORS ARE INSTALLED THE MINIMUM SEPARATION SHALL BE FIVE FEET.
3. SPACING BETWEEN ANCHORS SHALL BE SUFFICIENT TO PROVIDE MAXIMUM HOLDING POWER OF EACH ANCHOR.

MATERIAL LIST		
Item	QTY	DESCRIPTION
c	1	BOLT, MACHINE, 3/4" X REQ'D LENGTH
d	1	WASHER, STEEL, 4" SQUARE, STEEL, 3/8 THICK, CURVED, 13/16" HOLE
ek	1	LOCKNUTS, 3/4"
j	1	SCREW, LAG 1/2" x 4"
p	–	CONNECTORS, COMPRESSION, AS REQUIRED
u	1	DEADEND, PREFORMED, GUY, PREFORMED #GDE-1108 (AT POLE)
v	1	GUY CLAMP, HEAVY TYPE, HUBBELL #6461, OR APPROVED EQUAL
y	–	GUY STRAND, 7/16", GALVANIZED STEEL STRAND, EHS, AS REQ'D
al	–	COPPER CLAD STAPLES, AS REQUIRED
av	–	JUMPERS, GOUNDING, AS REQUIRED, #6 BARE SOLID COPPER
at	1	GUY MARKER, 96", 2" DIA. (YELLOW, ORANGE, OR YELLOW & ORANGE)
ck	1	CLAMP, ANCHOR ROD, BONDING
–	–	2" REFLECTIVE WHITE TAPE, EAGLE ENTERPRISES #HI RF2WH, AS REQUIRED

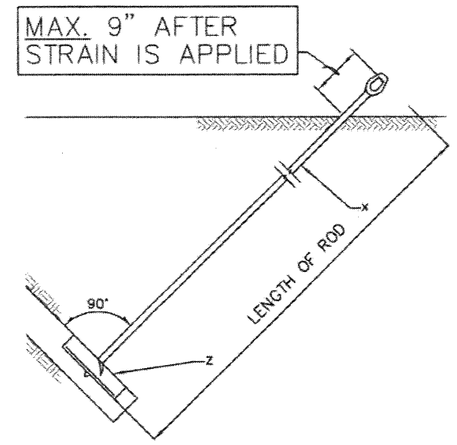
2 U11 E1-3
SCALE: NTS



MATERIAL LIST		
NO.	Qty.	DESCRIPTION
ev	1	INSULATOR, GUY STRAIN, CLEVIS/THIMBLE-EYE, 96", 21,000 LBS.
v	1	POLE EYE PLATE, 20,000 LBS.
c	2	BOLT, MACHINE, 3/4" x REQUIRED LENGTH
d	2	WASHER, STEEL, 4" SQUARE, STEEL, 3/8 THICK, CURVED, 13/16" HOLE
ek	2	LOCKNUT, 3/4"

WASHER, STEEL, 4" SQUARE, CURVED, 13/16" HOLE

4 U11 M5-23P: GUY STRAIN INSULATOR WITH POLE PLATE
SCALE: NTS



NOTES:
1. PROJECTION AFTER PRELOADING IS 2" – 4" INCHES.
2. THE ANCHOR ROD, NUTS, AND PLATE SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.
3. CONTRACTOR SHALL INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

MATERIAL LIST	
NO.	DESCRIPTION
x	ROD, ANCHOR, TRIPLE EYE, 3/4" x 8'-0"
z	ANCHOR, PLATE, 24" SQUARE (400 SQ. IN)

3 U11 F1-4P
SCALE: NTS

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GE	6-13-15	ISSUED FOR CONSTRUCTION

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CENTRAL REGION-DESIGN AND CONSTRUCTION-AVIATION
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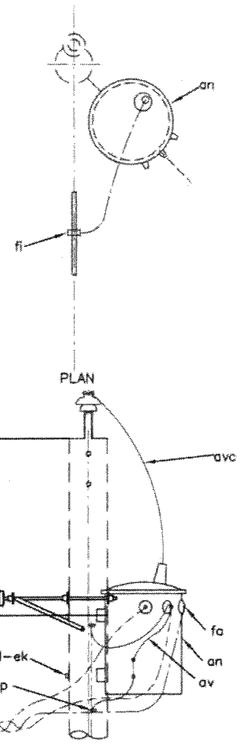
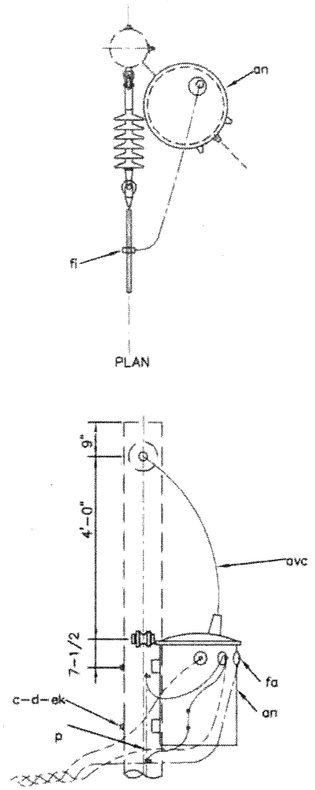
SHEET U11 OF 16

SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES.



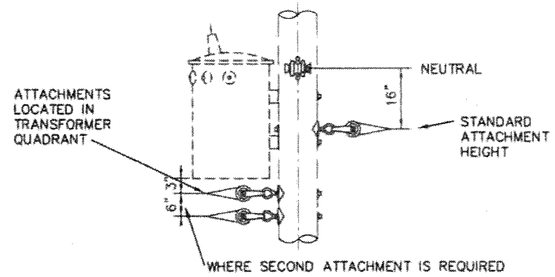
MATERIAL LIST		
NO.	Qty.	DESCRIPTION
an	1	TRANSFORMER, CSP AVEC SPECIFICATION
ap	1	CLAMP, HOT LINE
avc	–	JUMPER, PRIMARY TAP, TRANSFORMER, #2 ACSR
av	–	GROUND WIRE, #6 AWG BaCuSol, LENGTH AS REQ'D
c	2	BOLT, MACHINE, 3/4" X REQ'D LENGTH
d	2	WASHER, 2-1/4" SQUARE, 13/16" HOLE
ek	–	LOCKNUT, AS REQ'D
fa	3	CONNECTOR BLOCK, TRANSFORMER, 8-POSITION
fi	1	LINE GUARD, PREFORMED #MG-0131
p	–	CONNECTORS, COMPRESSION TYPE, COPPER "C" TYPE
p	2	LUG, TANK GROUNDING

1 U12 G105 SCALE: NTS



MATERIAL LIST		
NO.	Qty.	DESCRIPTION
an	1	TRANSFORMER, CSP AVEC SPECIFICATION
ap	1	CLAMP, HOT LINE
avc	–	JUMPER, PRIMARY TAP, TRANSFORMER, #2 ACSR
av	–	GROUND WIRE, #6 AWG BaCuSol, LENGTH AS REQ'D
c	2	BOLT, MACHINE, 3/4" X REQ'D LENGTH
d	2	WASHER, 2-1/4" SQUARE, 13/16" HOLE
ek	–	LOCKNUT, AS REQ'D
fa	3	CONNECTOR BLOCK, TRANSFORMER, 8-POSITION
fi	1	LINE GUARD, PREFORMED #MG-0131
p	–	CONNECTORS, COMPRESSION TYPE, COPPER "C" TYPE
p	2	LUG, TANK GROUNDING

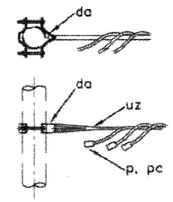
2 U12 G106 SCALE: NTS



NOTES:
1. EYEBOLTS TO BE TIGHTENED AGAINST WASHERS ON BOTH SIDES.

MATERIAL LIST		
NO.	QTY	DESCRIPTION
o	1	BOLT, OVALEYE, 5/8" x REQ'D LENGTH
cm	1	INSULATOR, SPOOL, 3", ANSI 53-2
d	2	WASHER, 3" SQUARE, CURVED, 11/16" HOLE
ek	1	LOCKNUTS, 5/8"
ok	1	NUT, OVALEYE, 5/8", AS REQ'D
f	3	CONNECTORS, PIN-TYPE, 1/0 ACSR, ("PIGTAIL")
s	1	CLEVIS, SWINGING, MACLEAN #J0322, OR EQUAL
uz	1	GRIP, SERVICE, DEAD-END, PREFORMED #SG-4506

3 U12 K11 SCALE: NTS



MATERIAL LIST		
NO.	QTY	DESCRIPTION
da	1	BRACKET, SERVICE MAST, MACLEAN #J0590 OR EQUAL
p	3	CONNECTORS, COMPRESSION, H-TAP
pc	2	COVER
uz	1	GRIP, SERVICE, DEAD-END, PREFORMED #SG-4506

4 U12 K16 SCALE: NTS

ISSUED FOR CONSTRUCTION

DESIGN GE
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BY	DATE	REVISIONS
GE	6-13-15	ISSUED FOR CONSTRUCTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED:
_____ DATE _____

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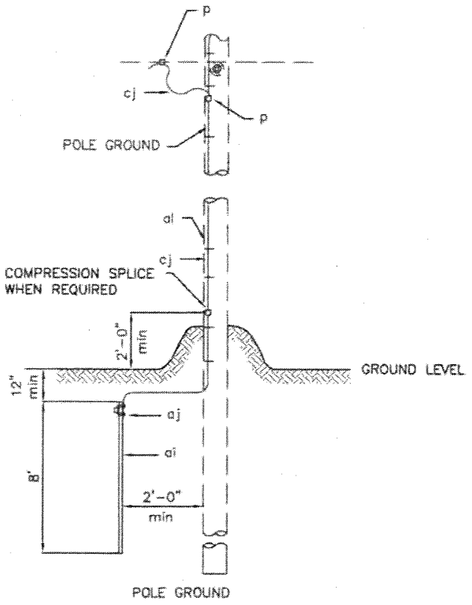
SHEET U12 OF 16

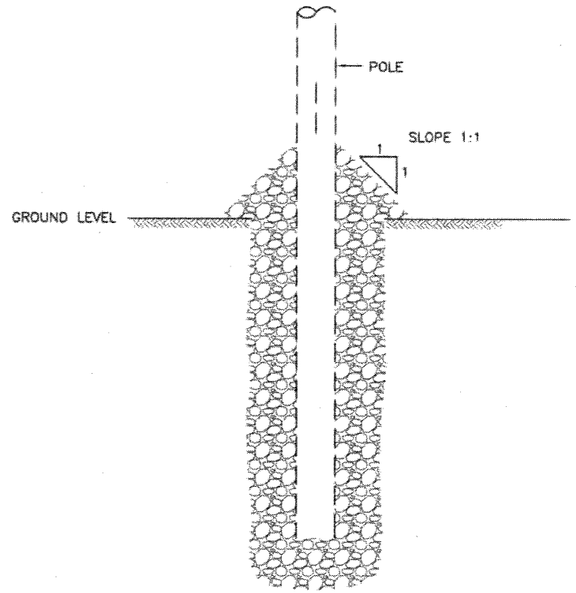
SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES.



NOTES:
1. POLE GROUND WIRE TO BE LOCATED ON SAME SIDE AS NEUTRAL CONDUCTOR AND IN QUADRANT OPPOSITE CLIMBING SPACE AND ON SIDE OF RISER.
2. STAPLES ON GROUND WIRES SHALL BE 2'-0" APART. EXCEPT FOR A DISTANCE OF 8'-0" ABOVE GROUND AND 8'-0" FROM TOP OF POLE, WHERE THEY SHALL BE 6" APART.
3. GROUND WIRE TO CLEAR ALL HARDWARE BY 2" MINIMUM, AND SHALL BE STAPLED TO MAINTAIN THIS POSITION.

MATERIAL LIST			
Item	QTY M2-11	QTY M2-11#4	DESCRIPTION
p	as req'd	as req'd	CONNECTOR, COPPER, COMPRESSION
ai	1	1	ROD, GROUND, COPPER-CLAD STEEL, 5/8" MIN. X 8'
aj	1	1	CLAMP, GROUND ROD
al	AS REQ'D	AS REQ'D	STAPLES, COPPER CLAD
cj	–	AS REQ'D	GROUND WIRE, #4 BARE STRANDED COPPER
ci	AS REQ'D	–	GROUND WIRE, #6 BARE SOLID COPPER
av	AS REQ'D	AS REQ'D	JUMPER, COPPER

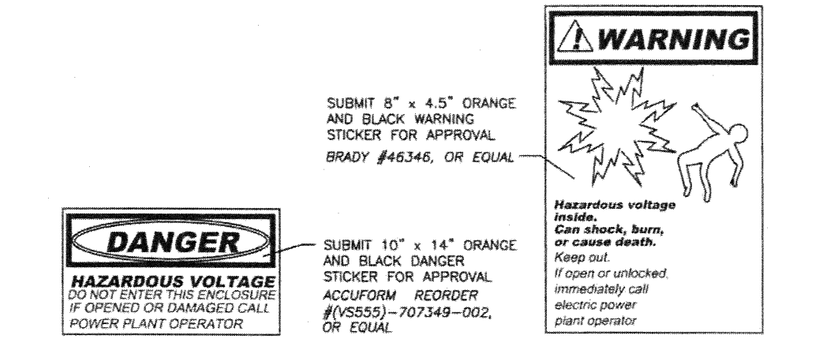
(1/U13) M2-11 AND M2-11 #4
SCALE: NTS

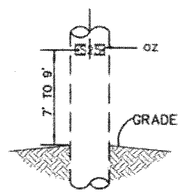


NOTES:
1. USE WELL GRADED GRAVEL WITH LITTLE FINES.
2. TAMP WELL FULL DEPTH.

MATERIAL LIST	
QUANTITY	DESCRIPTION
1.7 CUBIC YARDS	GRAVEL

(2/U13) M31B
SCALE: NTS





NOTES:
1. POLE NUMBERS TO FACE ROAD.

MATERIAL LIST		
Item	NO.	DESCRIPTION
oz	as req'd	POLE NUMBERS AND LETTERS, 1" POLY HOT STAMP ALMATEK
–	1	TAGHOLDER, 1" POLY, #9 FINISH, LENGTH AS REQUIRED
–	2	NAIL, CLOUT, ALUMINUM, 11 OR 12 GAUGE x 1-1/2" LONG

(3/U13) M52-3
SCALE: NTS

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BY	DATE	REVISIONS
GE	6-13-15	ISSUED FOR CONSTRUCTION

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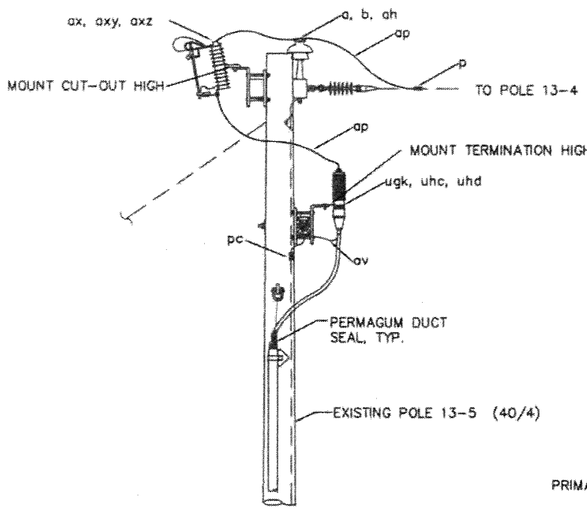
SHEET U13 OF 16

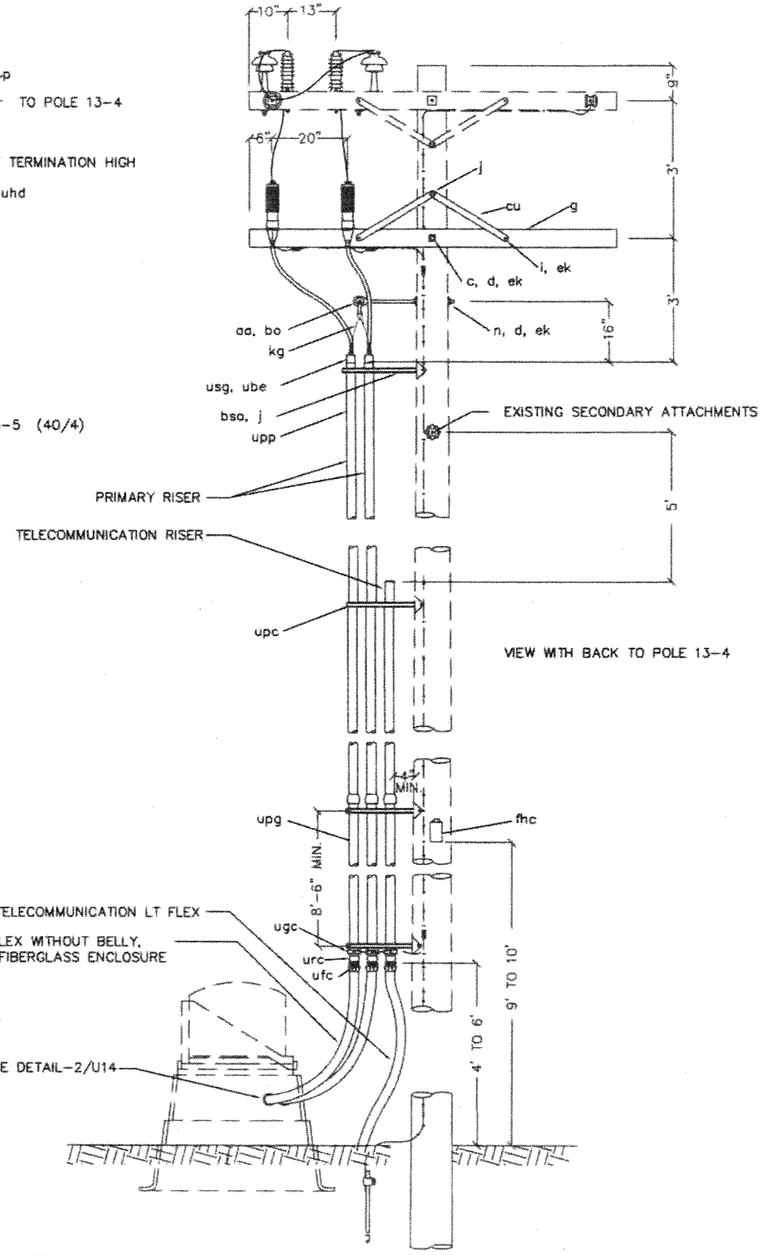
SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES.

MATERIAL LIST			
NO.	Quntity UA1-2/2	Quntity TELE RISER	DESCRIPTION
ap	–		JUMPER, PRIMARY, #2 ACSR SPARATE, AS REQUIRED
p	–		CONNECTOR, COMPRESSION, AL, H-TAP, AS REQUIRED
a	2		INSULATOR, PIN TYPE, PORCELAIN, J-NECK
b	2		PIN, 1-3/8", CROSSARM
ah	20'		TIE WIRE, #4 BARE SOLID ALUMINUM
ax	2		CUT-OUT, LOAD-BREAK, 15kV, 110 BIL, PORCELAIN
axy	2		BRACKET, CUT-OUT MOUNTING ON CROSSARM
axz	6		FUSE, 3H
fhc	1		CAN, FUSE HOLDER, WESTERN POWER PRODUCTS #27638
ugk	2		TERMINATION, 25kV
uhc	2		SUPPORT, CABLE, (ALUMAFORM CS-820)
uhd	2		BRACKET, TERMINATION MOUNTING ON CROSSARM
g	1		CROSSARM, 3-5/8" X 4-5/8" X 8'
cu	2		BRACE, WOOD, 28" SPAN
j	22		SCREW, LAG, 1/2" x 4"
i	2		BOLT, CARRIAGE, 3/8" x 4-1/2"
d	3		WASHER, 2-1/4" SQUARE WITH 11/16" HOLE
c	1		BOLT, MACHINE, 5/8" x REQ'D LENGTH
av	–	–	JUMPER, GROUNDING, #4 BARE STRANDED CU, AS REQUIRED
pc	–	–	CONNECTOR, COMPRESSION, CU, COPPER "C", AS REQUIRED
n	1		BOLT, DOUBLE ARMING, 5/8" x REQ'D LENGTH
aa	1		NUT, EYE, OVAL, 5/8"
bo	1		SHACKLE, ANCHOR
kg	2		GRIP, KELLEM, STAINLESS STEEL, HUBBELL 0240107
usg	4	2	SEAL, DUCT, PERMAGUM, LB.
ube	2	1	BELL END, PVC, 2"
bso	5		BRACKET, CONDUIT STAND-OFF, 18" LONG, WILCOR WA18DB, OR APPROVED EQUAL
upp	4	2	PVC, SCHEDULE 40, UV STABILIZED, 2" x 10" LONG
upc	10	4	CLAMP, PIPE, 2", HOT-DIP-GALV, B-LINE B2013, OR EQUAL
upg	2	1	GALVANIZED RIGID METAL CONDUIT, 2" x 10" LONG
ugc	2	1	CLAMP, PIPE, GROUNDING, 2"
urc	2	1	GALVANIZED RIGID METAL COUPLING, 2"
ufc	2	1	LIQUIDTIGHT FLEX CONNECTOR, 2", RACO 3518 OR EQUAL
ek	–	–	LOCKNUTS, AS REQUIRED

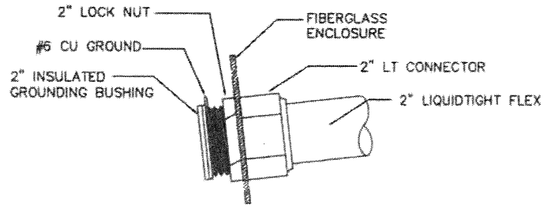
1A/U14 MATERIAL LIST FOR UA1-2/2A AND TELE RISER
SCALE: NTS



SIDE VIEW



1/U14 UA1-2/2A: RISERS AT POLE 13-5
SCALE: NTS



2/U14 FLEX CONNECTION
SCALE: NTS

ISSUED FOR CONSTRUCTION

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STATE OF ALASKA
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(907) 345-6168
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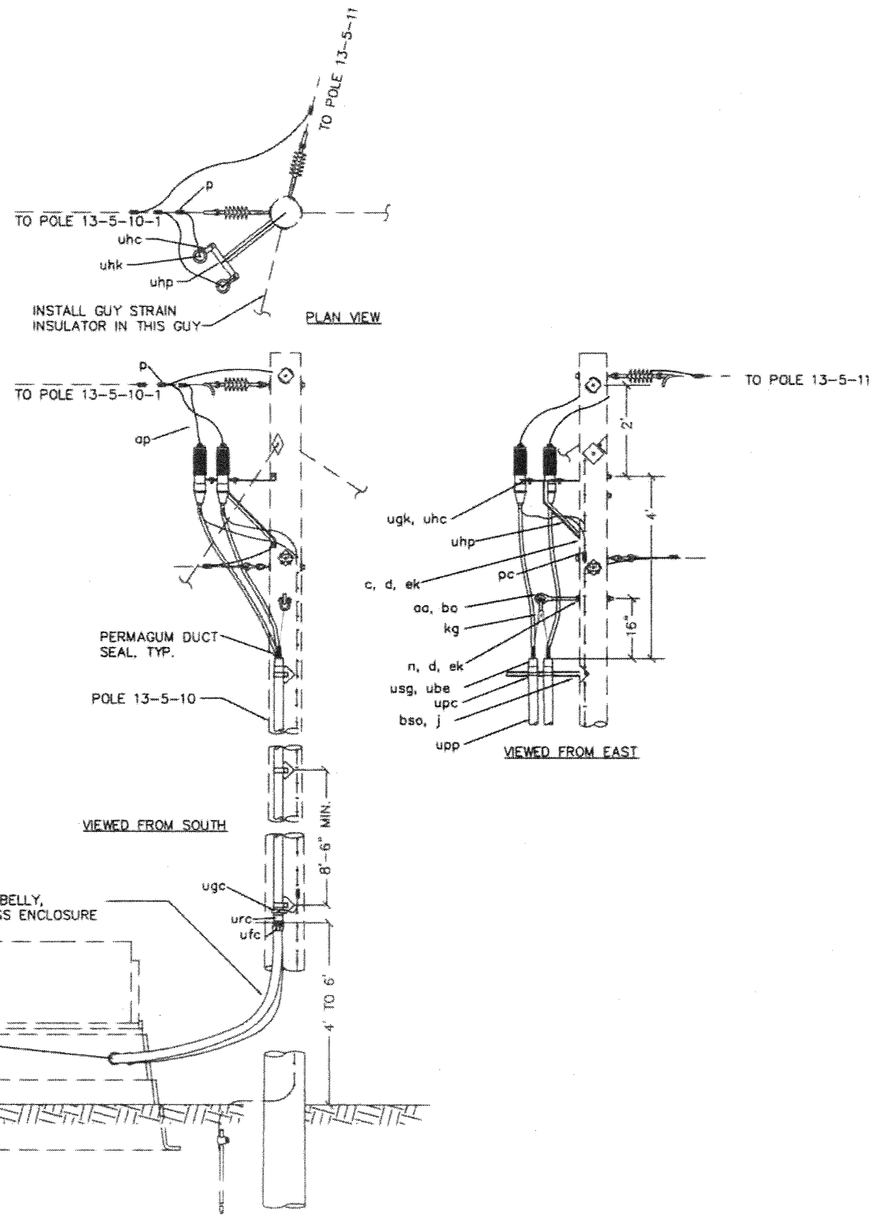
HOOPER BAY AIRPORT
AIRPORT IMPROVEMENTS, PROJ. NO. 57419
AIP 3-02-0126-006-2014
LINE EXTENSION+RELOCATION-DETAILS

SHEET U14 OF 16

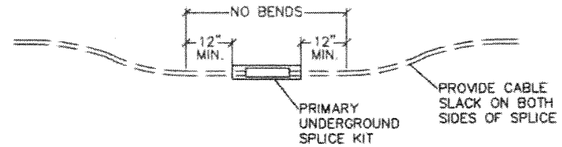
SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES.

MATERIAL LIST		
NO.	Qty.	DESCRIPTION
ap	–	JUMPER, PRIMARY, #2 ACSR SPARATE, AS REQUIRED
p	–	CONNECTOR, COMPRESSION, AL, H-TAP, AS REQUIRED
ugk	2	TERMINATION, 25kV
uhc	2	SUPPORT, CABLE, ALUMA-FORM CS-820, OR APPROVED EQ.
uhp	1	BRACKET, TERMINATION MOUNTING, ALUMA-FORM 1HCA-18, OR APPROVED EQUAL
j	20	SCREW, LAG, 1/2" x 4"
d	4	WASHER, 2-1/4" SQUARE WITH 11/16" HOLE
c	2	BOLT, MACHINE, 5/8" x REQ'D LENGTH
av	–	JUMPER, GROUNDING, #4 BARE STRANDED CU, AS REQUIRED
pc	–	CONNECTOR, COMPRESSION, CU, COPPER "C", AS REQUIRED
n	1	BOLT, DOUBLE ARMING, 5/8" x REQ'D LENGTH
aa	1	NUT, EYE, OVAL, 5/8"
bo	1	SHACKLE, ANCHOR
kg	2	GRIP, KELLEM, STAINLESS STEEL, HUBBELL 0240107, OR EQ.
usg	–	SEAL, DUCT, PERMAGUM
ube	2	BELL END, PVC, 2"
bso	5	BRACKET, CONDUIT STAND-OFF, 18" LONG, WILCOR WA18DB, OR APPROVED EQUAL
upp	4	PVC, SCHEDULE 40, UV STABILIZED, 2" x 10" LONG
upc	20	CLAMP, PIPE, 2", HOT-DIP-GALV, B-LINE B2013, OR EQUAL
upg	2	GALVANIZED RIGID METAL CONDUIT, 2" x 10" LONG
ugc	2	CLAMP, PIPE, GROUNDING, 2"
urc	2	GALVANIZED RIGID METAL COUPLING, 2"
ufc	2	LIQUIDTIGHT FLEX CONNECTOR, 2", RACO 3518 OR EQUAL
ek	–	LOCKNUTS, AS REQUIRED

1A / U15 MATERIAL LIST FOR UA1-2/2B RISER
SCALE: NTS



1 / U15 UA1-2/2B: RISER AT POLE 13-5-10
SCALE: NTS



MATERIAL LIST		
NO.	Qty.	DESCRIPTION
–	1	SPLICE KIT, PRIMARY, UNDERGROUND, 3M 5411-CI-21 KIT WITH SJ-1 SPLICE JACKET KIT, OR EQUAL

2 / U15 UM6-28: PRIMARY UNDERGROUND SPLICE
SCALE: NTS

ISSUED FOR CONSTRUCTION

DESIGN GE
DRAWN ME
CHECKED GE

BY	DATE	REVISIONS
GE	6-13-15	ISSUED FOR CONSTRUCTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION-DESIGN AND CONSTRUCTION-AVIATION
APPROVED: _____ DATE _____

STATE OF ALASKA 49TH Gregory M. Errico No. EE-10279 REGISTERED PROFESSIONAL ENGINEER

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HOOPER BAY AIRPORT
AIRPORT IMPROVEMENTS, PROJ. NO. 57419
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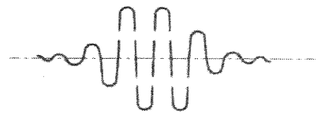
SHEET U15 OF 16



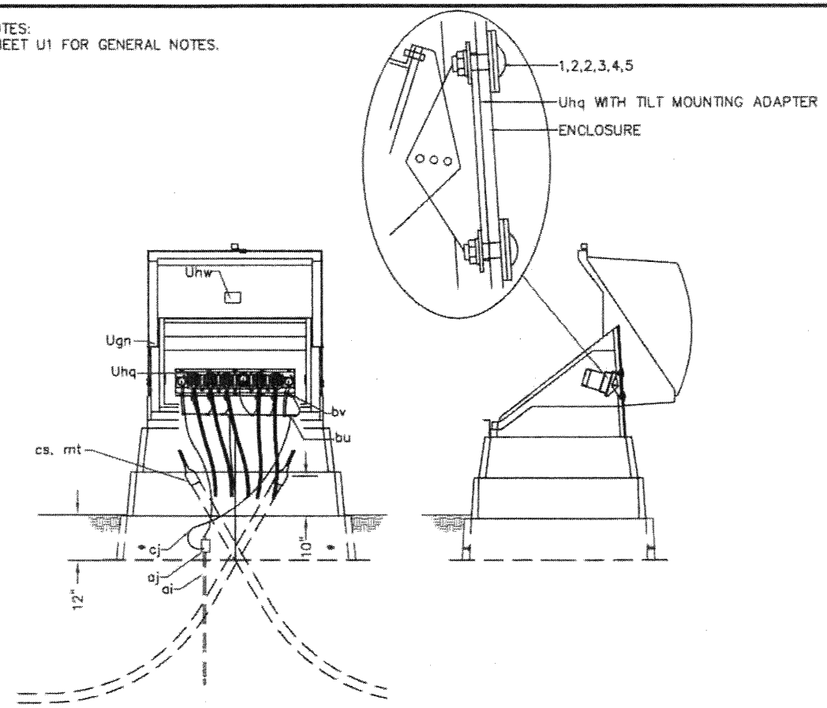
MATERIAL LIST		
NO.	Qty.	DESCRIPTION
–	1	DIVERTER, PREFORMED, SFD–0635

3 / U16 BIRD DIVERTER
SCALE: NTS

MATERIAL LIST		
NO.	Qty.	DESCRIPTION
–	1	VIBRATION DAMPER, SPIRAL, PREFORMED #5050103, OR EQ.

5 / U16 VIBRATION DAMPENER
SCALE: NTS

SHEET NOTES:
1. SEE SHEET U1 FOR GENERAL NOTES.

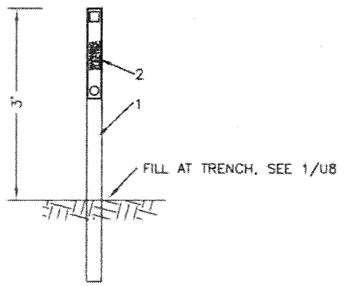


NOTES:
1. PROVIDE 6–WAY JUNCTION RECEPTACLE.
2. PROVIDE #2 BARE STRANDED COPPER GROUND LOOP.
3. ALL NEUTRALS AND METALLIC NON–CURRENT CARRYING PARTS SHALL BE INTERCONNECTED AND GROUNDED TO THE JUNCTION BOX GROUND LOOP WITH COMPRESSION CONNECTORS.
4. PROVIDE FULL LOOPS OF PRIMARY CABLES IN BASE OF PAD.
5. PROVIDE SUFFICIENT PRIMARY NEUTRAL GROUND CONNECTION TAILS TO PERMIT READY DISCONNECTION OF ELBOW AND MOUNTING ON STANDOFF BUSHING.

MATERIAL LIST		
Item	Qty	DESCRIPTION
ai	1	ROD, GROUND, 5/8" X 8'–0", COPPER CLAD
aj	1	CONNECTION, GROUND ROD CLAMP
bu	–	COMPRESSION CONNECTOR, COPPER, BURNDY YGHC2C2, OR APPROVED EQUAL, AS REQ'D
bv	2	LUG, INSERT PLATE GROUNDING, BURNDY K2C25 OR APPROVED EQUAL
cj	–	GROUND WIRE, #2 BaCuStr, AS REQ'D
Ugn	1	DEADFRONT CABLE JUNCTION PEDESTAL, NORDIC FIBERGLASS ND–322864–MG–X–X–X, OR EQ.
Uhw	1 EA.	SIGNS, "DANGER" AND "WARNING" AND "ARC FLASH"
Uhq	1	MODULE, FEED–THRU, MULTIPOINT, 6–POSITION STAINLESS STEEL, ELASTIMOLD# J6–222222–15–TMA, OR APPROVED EQ. INCLUDES (2) TILT MOUNTING ADAPTERS
	–	STAINLESS STEEL MOUNTING HARDWARE, AS REQ'D
	–	CABLE TAGS, AS REQ'D
	–	DECALS/NUMBERS, 3" HIGH, REFLECTIVE, AS REQ'D
cs	4	COLD SHRINK, 3M CPT–1 1/4, OR APPROVED EQUAL
mt	–	MASTIC TAPE (3 WRAPS), 3M COMPOUND 2229, OR APPROVED EQUAL
	1	EQUIPMENT LOCK, TAMPERPROOF
1	4	BOLT, CARRIAGE, STAINLESS STEEL, 1/2" x 1–1/2"
2	8	WASHER, STAINLESS STEEL, 2" OD, 13/16" HOLE, (3/4" NOMINAL BOLT SIZE)
3	4	WASHER, STAINLESS STEEL, 9/16" HOLE, (1/2" NOMINAL BOLT SIZE)
4	4	WASHER, STAINLESS STEEL, SPLIT LOCK, 1/2"
5	4	FULL NUT, 1/2", STAINLESS STEEL

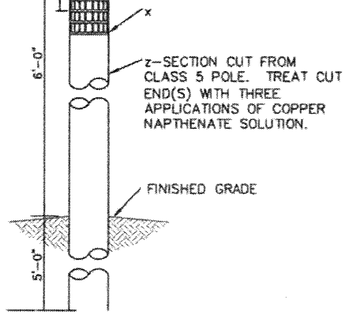
6 / U16 UM3–06: 1–PH JUNCTION BOX – 6 POSITION
SCALE: NTS

2 / U16 NOT USED
SCALE: NTS



MATERIAL LIST		
NO.	Qty.	DESCRIPTION
1	1	MARKER, FLEXI–FLAG, FF1–C
2	1	ADHESIVE SIGNAGE

1 / U16 UM12: BURIED CABLE ROUTE MARKER
SCALE: NTS



MATERIAL LIST		
Item	NO.	DESCRIPTION
w	2	RELECTOR GRID, ALMETEK, #6001123, GRID–WHITE, 8"x12"
x	16	NAIL, CLOUT, ALUMINUM, 11 OR 12 GAUGE x 1–1/2" LONG
y	1	BOLLARD, WOOD, SECTION OF CLASS 5 POLE
z	–	NAPHTHANATE SOLUTION, AS REQUIRED

4 / U16 GUARDPOST
SCALE: NTS

ISSUED FOR CONSTRUCTION

DESIGN GE
DRAWN ME
CHECKED GE

BY	DATE	REVISIONS
GE	6–13–15	ISSUED FOR CONSTRUCTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION–DESIGN AND CONSTRUCTION–AVIATION
APPROVED:
_____ DATE _____

STATE OF ALASKA 49TH 6/13/15 Gregory M. Errico No. EE–10279 REGISTERED PROFESSIONAL ENGINEER

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HOOPER BAY AIRPORT
AIRPORT IMPROVEMENTS, PROJ. NO. 57419
AIP 3–02–0126–006–2014
LINE EXTENSION+RELOCATION–DETAILS

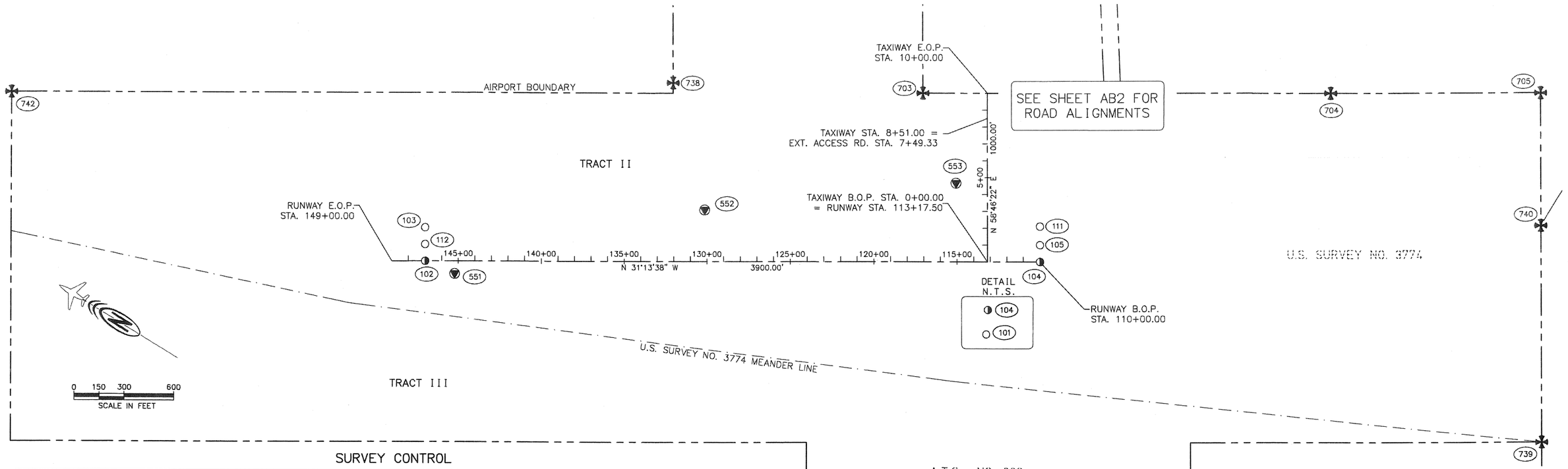
SHEET U16 OF 16

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH

Date Revised:	7/15/2015, 3:29 PM
Layout Name:	APPENDIX B
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

APPENDIX "B"
SURVEY CONTROL

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION	HOOPER BAY AIRPORT HOOPER BAY, ALASKA AIRPORT IMPROVEMENTS PROJECT No. 57419 AIP No. 3-02-0126-006-2014	DATE: 7/16/2015 SHEET: OF AS-BUILT SHEET:



SURVEY CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
551	145+22.81	74.85 LT	31090.8325	48891.3057	8.86	Fd Punch Mark in Piling[NGS]: Station HPB A 2001
552	130+15.24	307.69 RT	30000.0000	50000.0000	9.45	Fd BC[NGS]: Station HPB B 2001
553	115+06.60	466.91 RT	28792.4781	50918.2789	2.45	Fd BC/ROD[DOT/PF]: Station HOOP 1991

FOUND MONUMENTS

POINT	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
101	110+00.03	0.92 LT	28116.7654	50780.8481	Fd Rbr/AC[S5368]
102	147+00.01	0.00	31281.1606	48863.4439	Fd Rbr: RW CL
103	146+99.98	199.92 RT	31384.7809	49034.4121	Fd Rbr/AC[LS 5368]: RM 37+00/200.00 RT
104	110+00.00	0.00	28117.2145	50781.6542	Fd Rbr: RW CL
105	109+99.96	99.85 RT	28168.9476	50867.0537	Fd Rbr/AC[LS 5368]: RM 0+00/100.00 RT
111	109+99.92	210.21 RT	28226.1301	50961.4487	Fd Rbr/AC[LS 7843]: 0+00/210.19 RT
112	147+00.00	99.94 RT	31332.9609	48948.9117	Fd Rbr/AC[LS 7843]: 37+00/99.93 RT
703	117+05.54	999.46 RT	29238.6915	51270.5344	Fd BC[BLM]: C8 S3774
704	–	–	27148.1296	52534.0846	Fd AC[BLM]: WP S3774
705	–	–	26072.5874	53185.4970	Fd AC[BLM]: C1 S3774
738	132+05.48	1,061.01 RT	30553.2278	50545.5509	Fd BC[BLM]: WC C5 S3774
739	–	–	24996.1911	51409.0683	Fd Al Pipe[BLM]: C2 S3774
740	–	–	25665.8830	52513.3936	Fd AC[BLM]: CC S34 *T17N R93W/S3774
742	–	–	33932.4501	48423.9115	Fd BC[BLM]: C4 S3774

ALIGNMENT CONTROL

STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
110+00.00	0.00	28117.2145	50781.6542	Runway B.O.P. STA. 110+00.00
149+00.00	0.00	31452.1743	48759.7632	Runway E.O.P. STA. 149+00.00
113+17.50	0.00	28388.7144	50617.0515	Taxiway B.O.P. STA. 0+00.00
113+17.50	851.00 RT	28829.9014	51344.7568	Taxiway STA. 8+51.00/Ext. Access Rd. STA. 7+49.33
113+17.50	1,000.00 RT	28907.1480	51472.1694	Taxiway E.O.P. STA. 10+00.00

Stations and Offsets are to the Runway Alignment

Whether listed or not, ALL monuments or property markers, corners, or accessories, which will be disturbed or buried, shall be referenced and re-established in their original position (A.S. 19.10.260) and recorded (A.S. 34.65.040).

NOTES

1. The field survey was performed by R&M Consultants, Inc. (R&M) between October 23, and November 19, 2012. Field survey information is located in R&M field books 1886.01 Bk. 1, pages 1 through 70 and 1886.01 Bk. 2, pages 1 through 42.
2. All dimensions and coordinates shown hereon are in U. S. Survey Feet.

LEGEND

- BLM Monument
- Control Station
- Secondary Corner
- Secondary Centerline Monument
- (104) Survey Control Point Number

STATE OF ALASKA 49TH
Gene E. LeQuire
LS 6915
4/27/2015
Professional Land Surveyor

HORIZONTAL CONTROL

Coordinate System:
This project is located entirely within the Hooper Bay adjustment, a local surface grid coordinate system, expressed in U.S. Survey Feet, developed by the Alaska DOT Central Region Survey Department in 2005.

Basis of Coordinates:
The Basis of Coordinates is Secondary Airport Control Station (SACS) "HPB B", located near the midpoint of the runway, approximately 300 feet easterly of the runway centerline. Said station has local coordinates of 30,000.0000' N. and 50,000.0000' E.

Basis of Bearings:
Project bearings are NAD83 (1992) Alaska State Plane Zone 8 grid bearings.

Translation Parameters:
To convert the local Hooper Bay coordinates to NAD83 (1992) Alaska State Plane, Zone 8, coordinates, expressed in U.S. Survey Feet; translate using +2,719,432.8161' N., +1,565,211.8957' E., and scale using 0.9998997782.

VERTICAL CONTROL

The Vertical Datum is NAVD 88 (GEOID99).

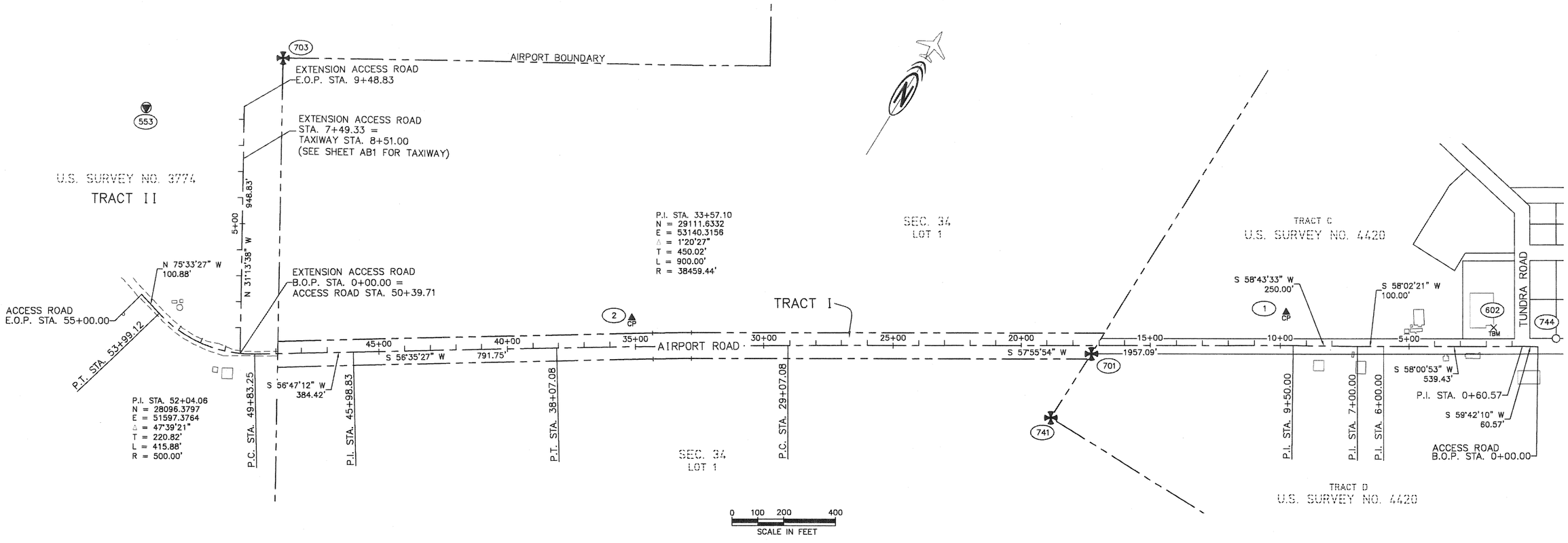
The Basis of Vertical Control is Primary Airport Control Station "HPB A", having an elevation of 8.86 feet. A closed differential level loop was run from "HPB A" through (SACS) "HPB B"and (SACS) "HOOP". The record elevation of "HPB B" is 9.45 feet and was confirmed. It was determined that "HOOP" had risen and the elevation used for this project is 2.45 feet. Other project control was established by differential level loops.

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
SURVEY CONTROL SHEET

DATE: 4/29/2015
SHEET: AB1 OF AB2
AS-BUILT SHEET:



SURVEY CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	9+76.80	128.88 RT	30484.6217	55088.9969	–	Fd BC[R&M]: CP 1
2	35+12.34	111.60 RT	29118.8148	52950.5815	–	Fd BC[R&M]: CP 2
553	–	–	28792.4781	50918.2789	2.45	Fd BC/ROD[DOT/PF]: Station HOOP 1991
602	1+71	73 RT	30861	55803	20.27	Scribed "X" in Top of Pile Cap at S.E. Corner of Clinic

FOUND MONUMENTS

POINT	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
701	17+29.17	32.01 LT	29948.8239	54536.8522	Fd Copperweld[BLM]: C3 Tr D/C11 Tr A S4420
703	48+51.80	1,134.73 RT	29238.6915	51270.5344	Fd BC[BLM]: C8 S3774
741	18+84.67	279.62 LT	29656.4356	54536.5372	Fd BC[BLM]: C2 TR D S4420
744	–	–	30951.8744	56029.5507	Fd Rb/AC: ROW L9/L10 Blk21 Tr A S4420

ALIGNMENT CONTROL

STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
0+00.00	0.00	30888.6461	55988.4808	Access Road P.O.B. STA. 0+00.00
55+00.00	0.00	28176.6139	51285.8458	Access Road E.O.P. STA. 55+00.00
50+39.71	0.00	28189.1349	51733.2353	Extension Access Road P.O.B. STA. 0+00
–	–	29000.4974	51241.3293	Extension Access Road E.O.P. STA. 9+48.83

Stations and Offsets are to the Access Road Alignment

Whether listed or not, ALL monuments or property markers, corners, or accessories, which will be disturbed or buried, shall be referenced and re-established in their original position (A.S. 19.10.260) and recorded (A.S. 34.65.040).

LEGEND

- BLM Monument
- Control Station
- CP — Survey Control Point
- Secondary Corner
- (104) — Survey Control Point Number
- TBM — Temporary Benchmark

NOTES

1. See Sheet AB1 for Notes and Survey Control information.

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

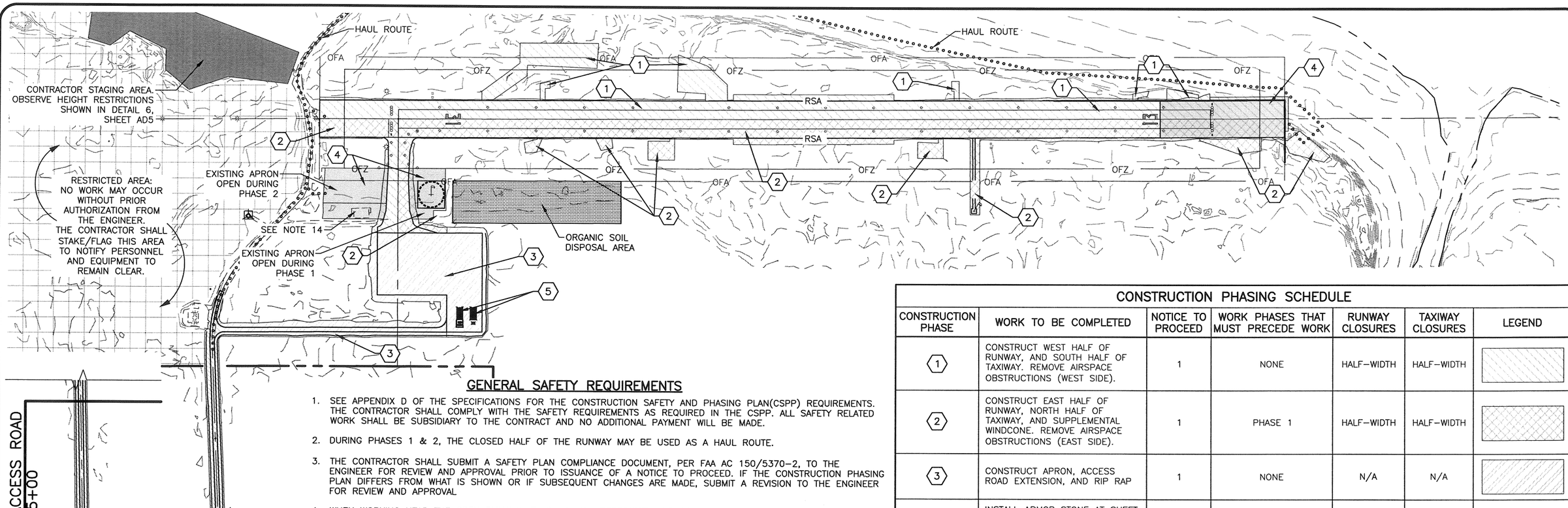
HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
SURVEY CONTROL SHEET

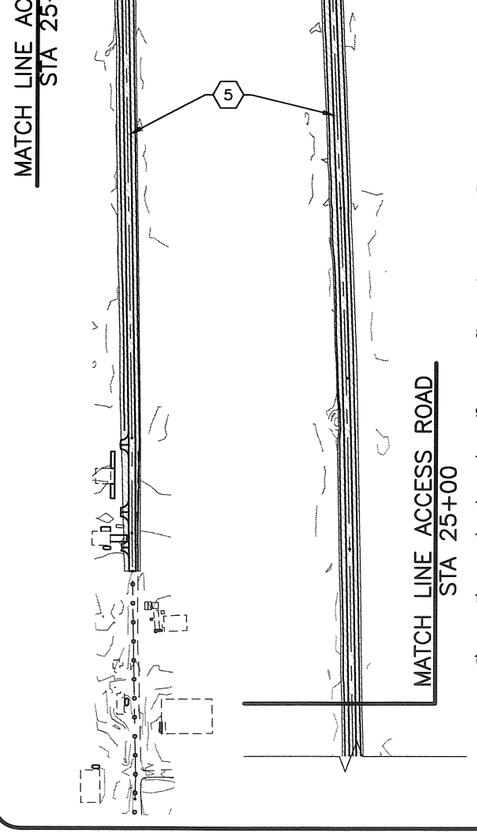
DATE: 4/29/2015
SHEET: AB2 OF AB2
AS-BUILT SHEET:

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH
Date Revised:	7/15/2015, 3:29 PM
Layout Name:	APPENDIX D
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

APPENDIX "D"
CONSTRUCTION SAFETY & PHASING PLAN

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION	HOOPER BAY AIRPORT HOOPER BAY, ALASKA AIRPORT IMPROVEMENTS PROJECT No. 57419 AIP No. 3-02-0126-006-2014	DATE: 7/16/2015 SHEET: OF AS-BUILT SHEET:





GENERAL SAFETY REQUIREMENTS

1. SEE APPENDIX D OF THE SPECIFICATIONS FOR THE CONSTRUCTION SAFETY AND PHASING PLAN(CSPP) REQUIREMENTS. THE CONTRACTOR SHALL COMPLY WITH THE SAFETY REQUIREMENTS AS REQUIRED IN THE CSPP. ALL SAFETY RELATED WORK SHALL BE SUBSIDIARY TO THE CONTRACT AND NO ADDITIONAL PAYMENT WILL BE MADE.
2. DURING PHASES 1 & 2, THE CLOSED HALF OF THE RUNWAY MAY BE USED AS A HAUL ROUTE.
3. THE CONTRACTOR SHALL SUBMIT A SAFETY PLAN COMPLIANCE DOCUMENT, PER FAA AC 150/5370-2, TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ISSUANCE OF A NOTICE TO PROCEED. IF THE CONSTRUCTION PHASING PLAN DIFFERS FROM WHAT IS SHOWN OR IF SUBSEQUENT CHANGES ARE MADE, SUBMIT A REVISION TO THE ENGINEER FOR REVIEW AND APPROVAL
4. WHEN WORKING NEAR THE OPEN RUNWAY, EVACUATE ALL PERSONNEL AND EQUIPMENT TO THE SAFE ZONES DESCRIBED IN DETAILS 5 AND 6 ON SHEET AD5, 5 MINUTES PRIOR TO AND 5 MINUTES AFTER ALL ARRIVALS AND DEPARTURES. WHEN PERSONNEL AND EQUIPMENT CANNOT BE EVACUATED TO THE SAFE ZONES, THEY MUST EVACUATE THE RSA AND/OR TSA AND MOVE AS FAR AWAY FROM THE RUNWAY CENTERLINE AS PRACTICAL DURING AIRCRAFT OPERATIONS. **IN NO CASE CAN PERSONNEL OR EQUIPMENT BE INSIDE THE RSA OR TSA DURING AIRCRAFT OPERATIONS.**
5. DETERMINE THE TIMES OF SCHEDULED FLIGHTS INTO HOOPER BAY AND ALLOW AIRCRAFT TO USE THE RUNWAY DURING THE SCHEDULED TIMES. THE CONTRACTOR SHALL MONITOR THE CTAF AND PERFORM VISUAL MONITORING FOR UNSCHEDULED FLIGHTS. THE CONTRACTOR SHALL CLEAR THE RUNWAY ACCORDING TO NOTE 4 FOR ALL ARRIVALS AND DEPARTURES.
6. ALL CONSTRUCTION VEHICLES AND EQUIPMENT SHALL OPERATE A FLASHING YELLOW BEACON AND 3' X 3' CHECKERED FLAG WITH 1' X 1' ORANGE AND WHITE CHECKS WHEN WORKING ON THE AIRPORT. THE CONTRACTOR'S SAFETY OFFICER VEHICLE SHALL HAVE BOTH A YELLOW FLASHING BEACON AND A SEPARATE VISUAL AND/OR AUDIBLE SIGNAL (E.G., COLORED FLASHING BEACON OTHER THAN YELLOW, MEGAPHONE, AIR HORN, 2-WAY RADIO CONTACT, ETC) USED TO SIGNAL WORKERS TO CLEAR THE AREAS DESCRIBED IN NOTE 4 DURING AIRCRAFT TAKEOFFS AND LANDINGS.
7. KEEP AREAS WITHIN THE ROFA AND TSA LIMITS CLEAR OF CONSTRUCTION MATERIALS. REMOVE ANY DEBRIS FROM THESE AREAS WITHIN 15 MINUTES OF VERBAL NOTICE FROM THE ENGINEER OR ENGINEER'S REPRESENTATIVE.
8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND FAA AT LEAST 45 DAYS PRIOR TO RUNWAY CLOSURES (PARTIAL OR FULL), RE-OPENING A CLOSED RUNWAY, INTERRUPTING SERVICE OR REMOVING AND DISPLACING A RUNWAY THRESHOLD BY EMAILING AN "AIRPORT SPONSOR STRATEGIC EVENT SUBMISSION FORM", FAA FORM 6000-226 TO 9-AJV-SEC-WSA@FAA.GOV.
9. DAMAGE TO FAA FACILITIES INCLUDING POWER DISRUPTION SHALL BE IMMEDIATELY REPAIRED IN A MANNER ACCEPTABLE TO THE FAA AT THE CONTRACTOR'S EXPENSE.
10. IN ADDITION TO REQUIREMENTS DURING AIRCRAFT OPERATIONS, CLEAR SAFETY AREAS AND OBJECT FREE AREAS AT ANYTIME DIRECTED BY THE ENGINEER.
11. REMOVE MATERIAL STOCKPILES AND EQUIPMENT FROM OBJECT FREE AREAS DURING NON-WORK HOURS.
12. PROVIDE AIRPORT FLAGGER WHERE CONSTRUCTION ACTIVITY IS BEING CONDUCTED WITHIN 125' OF AN OPEN RUNWAY; WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN CLOSE PROXIMITY TO OPERATING AIRCRAFT; AND WHERE THE ENGINEER OR AIRPORT PERSONNEL DETERMINES A FLAGGER IS NECESSARY.
13. CONTRACTOR HAULING OPERATIONS ARE LIMITED TO THE HAUL ROUTES SHOWN ON THE PLANS. FOLLOWING CONSTRUCTION COMPLETION, THE CONTRACTOR IS REQUIRED TO RESTORE THE HAUL ROUTE TO ITS ORIGINAL CONDITION. TEMPORARY ACCESS ROUTES MUST BE REMOVED, AND THE GROUND RESTORED TO ITS ORIGINAL CONDITION.
14. THE CONTRACTOR MUST PROVIDE THE ENGINEER 90 DAYS NOTICE PRIOR TO CONSTRUCTION ACTIVITIES THAT WILL IMPACT LEASE FACILITIES.

CONSTRUCTION PHASING SCHEDULE

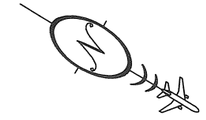
CONSTRUCTION PHASE	WORK TO BE COMPLETED	NOTICE TO PROCEED	WORK PHASES THAT MUST PRECEDE WORK	RUNWAY CLOSURES	TAXIWAY CLOSURES	LEGEND
1	CONSTRUCT WEST HALF OF RUNWAY, AND SOUTH HALF OF TAXIWAY. REMOVE AIRSPACE OBSTRUCTIONS (WEST SIDE).	1	NONE	HALF-WIDTH	HALF-WIDTH	
2	CONSTRUCT EAST HALF OF RUNWAY, NORTH HALF OF TAXIWAY, AND SUPPLEMENTAL WINDCONE. REMOVE AIRSPACE OBSTRUCTIONS (EAST SIDE).	1	PHASE 1	HALF-WIDTH	HALF-WIDTH	
3	CONSTRUCT APRON, ACCESS ROAD EXTENSION, AND RIP RAP	1	NONE	N/A	N/A	
4	INSTALL ARMOR STONE AT SHEET PILE WALL NORTH END OF RUNWAY. INSTALL RUNWAY AND TAXIWAY LIGHT FIXTURES. RECLAIM EXISTING APRON AND INSTALL SEGMENTED CIRCLE WITH PRIMARY WINDCONE.	1	PHASE 1 PHASE 2 PHASE 3*	REDUCED LENGTH	N/A	
5	CONSTRUCT SREBs. RECONSTRUCT AIRPORT ACCESS ROAD AND RIP RAP.	2	PHASE 1 PHASE 2 PHASE 3 PHASE 4	N/A	N/A	

*PROPOSED APRON MUST BE COMPLETE TO ALLOW SUFFICIENT AIRCRAFT PARKING AND PUBLIC ACCESS TO THE SATISFACTION OF THE ENGINEER BEFORE EXISTING APRON IS RECLAIMED.

RUNWAY STATUS CHANGE PROCEDURES

FOLLOW THESE PROCEDURES ANY TIME THE STATUS OF THE RUNWAY OR TAXIWAY IS TO BE ALTERED.

1. CONTRACTOR NOTIFIES ENGINEER OF UPCOMING CHANGE IN AIRPORT STATUS. PROVIDE 72 HOURS ADVANCE NOTICE.
2. AIRPORT MANAGER FILES NOTAM WITH FAA.
3. CONTRACTOR RECEIVES TENTATIVE APPROVAL TO CHANGE RUNWAY STATUS AT A SPECIFIC TIME AND DATE.
4. THE DAY OF THE CHANGE IN STATUS A MEETING IS CONDUCTED WITH ENGINEER TO REVIEW SCHEDULE AND SAFETY PROCEDURES.
5. ENGINEER CLOSES RUNWAY TEMPORARILY FOR REQUIRED GRADING AND/OR NEW TEMPORARY MARKINGS.
6. CONTRACTOR INSTALLS APPROVED TEMPORARY MARKINGS.
7. ENGINEER INSPECTS AND APPROVES MARKINGS.
8. CONTRACTOR IS PROVIDED NOTICE TO PROCEED WITH HIS WORK.
9. CONTRACTOR CHANGES RUNWAY STATUS TO A NEW CONFIGURATION, OR CHANGES TO PERMANENT STATUS.
10. AIRPORT MANAGER SHALL CANCEL OR REVISE NOTAM WITH FAA WHEN WORK IS COMPLETE.



200' 100' 0 200' 400'

BY	DATE	REVISION

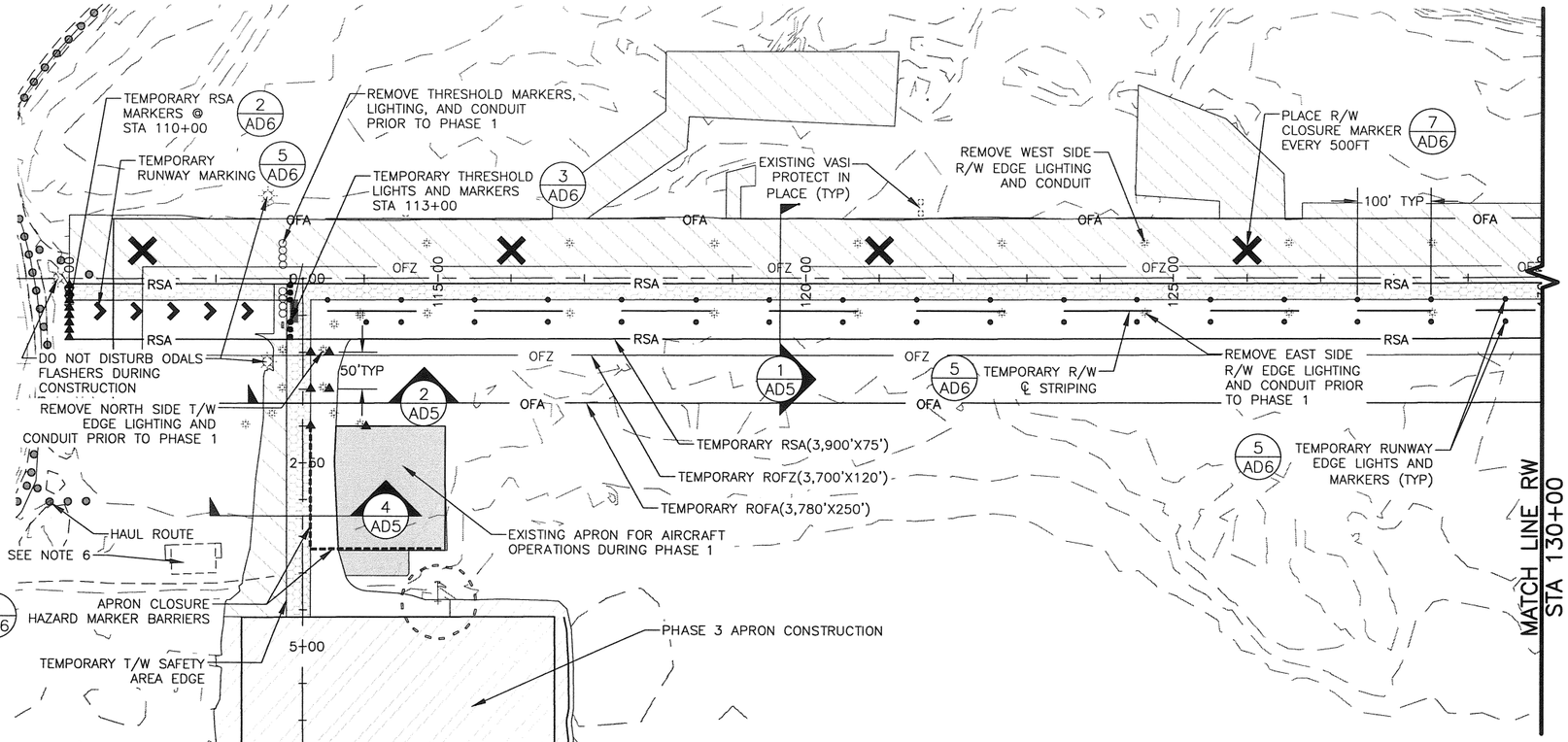
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

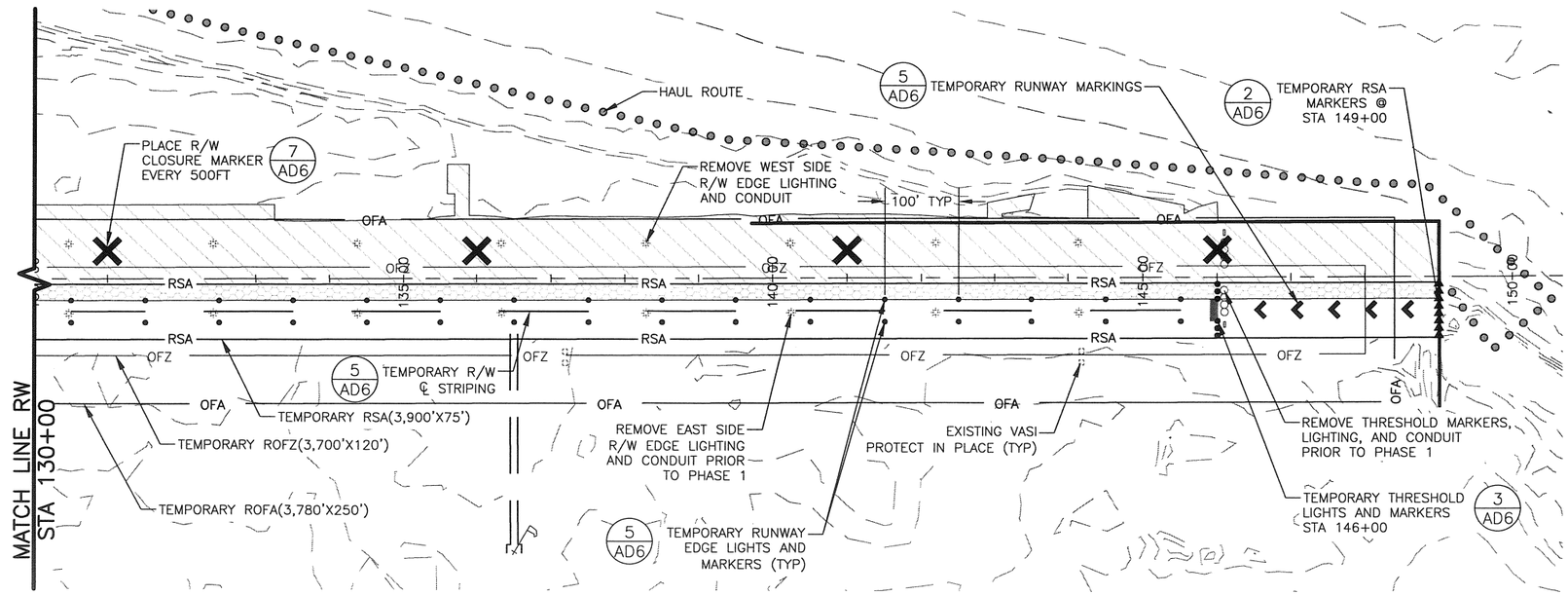
HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
HOOPER BAY AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
PHASING LAYOUT PLAN

DATE: 7/16/2015
SHEET: AD1 OF AD6
AS-BUILT SHEET:

Designed By: JLM
Drawn By: RJP
Checked By: MHH

Date Revised:
Layout Name: PHASING LAYOUT PLAN
7/15/2015, 3:22 PM
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings\HPB 57419 -Phasing Plan.dwg





NOTES:

1. **COMPLETE THE FOLLOWING PRIOR TO PHASE I CONSTRUCTION CLOSURE:**
   - A. NOTIFY FAA 45 DAYS PRIOR TO CONSTRUCTION SO THAT APPROPRIATE NOTAMS REGARDING PARTIAL OPERATIONAL SURFACE CLOSURES AND ANTICIPATED LIGHTING/NAVAID OUTAGES MAY BE ISSUED.
   - B. REMOVE LIGHTING AND CONDUIT ON THE EAST SIDE OF THE R/W, NORTH SIDE OF T/W, AND THE R/W 13 AND R/W 31 THRESHOLD LIGHTS.
   - C. GRADE THE TEMPORARY R/W ACCORDING TO DETAIL 1 SHEET AD6.
   - D. INSTALL TEMPORARY RUNWAY MARKING AND LIGHTING ACCORDING TO DETAIL 5 SHEET AD6.
2. PERMANENT LIGHT CANS ON WEST SIDE OF RUNWAY (PHASE 1 WORK AREA) MUST BE INSTALLED BELOW FINISH GRADE TO ACCOMMODATE AIRCRAFT TRAFFIC DURING PHASE 2. SEE DETAILS 1 AND 3, SHEET AD5 AND THE ELECTRICAL PLANS FOR DETAILS.
3. HAZARD MARKER BARRIERS SHOWN AT APPROXIMATE LOCATIONS. ADDITIONAL LOCATIONS, OR ADJUSTMENTS MAY BE REQUIRED. RELOCATE BARRIERS AS DIRECTED BY THE ENGINEER.
4. EVACUATE PERSONNEL AND EQUIPMENT FROM AREAS DESCRIBED IN NOTE 4 ON SHEET AD1 DURING AIRCRAFT OPERATIONS.
5. INSTALL LIGHTING CONDUIT AND LIGHT BASES WITH BLIND FLANGES IN PHASE 1 WORK AREA PRIOR TO MOVING TO PHASE 2.
6. COORDINATE AND MAINTAIN ACCESS TO THE ACTIVE APRON DURING CONSTRUCTION.
7. THE CONTRACTOR MUST PROVIDE THE ENGINEER 90 DAYS NOTICE PRIOR TO CONSTRUCTION ACTIVITIES THAT WILL IMPACT LEASE FACILITIES.

Designed By:	JLM	
Drawn By:	RJB	
Checked By:	MHH	
Date Revised:	7/15/2015, 3:22 PM	
Layout Name:	PHASING LAYOUT PLAN PHASES 1 & 3	
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HOOPER BAY, ALASKA
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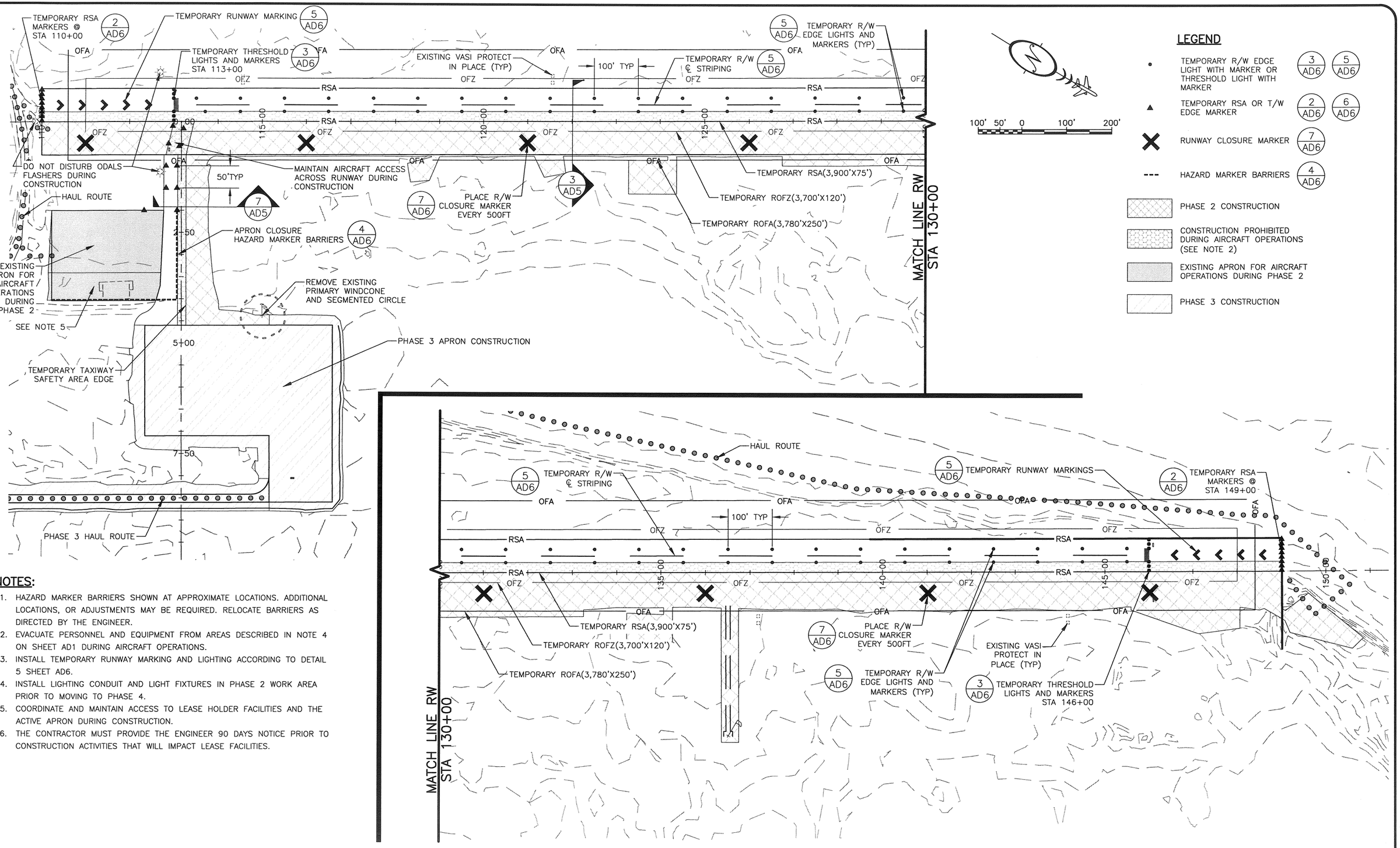
AIP No. 3-02-0126-006-2014
PHASING LAYOUT PLAN PHASES 1 & 3

DATE: 7/16/2015
SHEET: AD2 OF AD6
AS-BUILT SHEET: OF



NOTES:

1. HAZARD MARKER BARRIERS SHOWN AT APPROXIMATE LOCATIONS. ADDITIONAL LOCATIONS, OR ADJUSTMENTS MAY BE REQUIRED. RELOCATE BARRIERS AS DIRECTED BY THE ENGINEER.
2. EVACUATE PERSONNEL AND EQUIPMENT FROM AREAS DESCRIBED IN NOTE 4 ON SHEET AD1 DURING AIRCRAFT OPERATIONS.
3. INSTALL TEMPORARY RUNWAY MARKING AND LIGHTING ACCORDING TO DETAIL 5 SHEET AD6.
4. INSTALL LIGHTING CONDUIT AND LIGHT FIXTURES IN PHASE 2 WORK AREA PRIOR TO MOVING TO PHASE 4.
5. COORDINATE AND MAINTAIN ACCESS TO LEASE HOLDER FACILITIES AND THE ACTIVE APRON DURING CONSTRUCTION.
6. THE CONTRACTOR MUST PROVIDE THE ENGINEER 90 DAYS NOTICE PRIOR TO CONSTRUCTION ACTIVITIES THAT WILL IMPACT LEASE FACILITIES.

Designed By: JLM
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Checked By: MHH

Date Revised: 7/15/2015, 3:22 PM
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File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings\HPB 57419 -Phasing Plan.dwg

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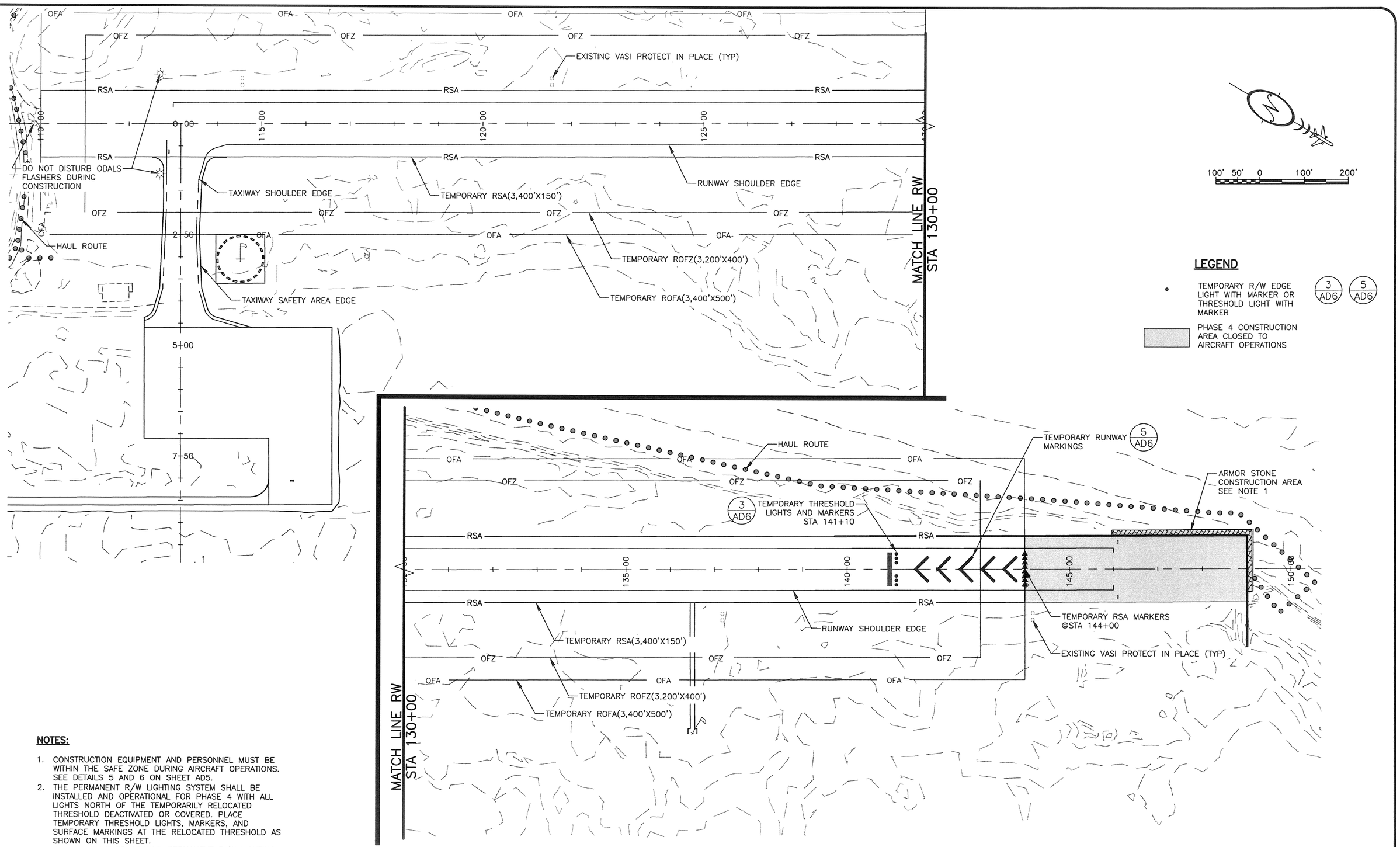
PHASING LAYOUT PLAN PHASES 2 & 3

DATE: 7/16/2015
SHEET: AD3 OF AD6
AS-BUILT SHEET: OF



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Date Revised: 7/15/2015, 3:22 PM
Layout Name: PHASING LAYOUT PLAN PHASE 4
File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57418\Final Drawings\HPB 57419 -Phasing Plan.dwg

NOTES:

1. CONSTRUCTION EQUIPMENT AND PERSONNEL MUST BE WITHIN THE SAFE ZONE DURING AIRCRAFT OPERATIONS. SEE DETAILS 5 AND 6 ON SHEET AD5.
2. THE PERMANENT R/W LIGHTING SYSTEM SHALL BE INSTALLED AND OPERATIONAL FOR PHASE 4 WITH ALL LIGHTS NORTH OF THE TEMPORARILY RELOCATED THRESHOLD DEACTIVATED OR COVERED. PLACE TEMPORARY THRESHOLD LIGHTS, MARKERS, AND SURFACE MARKINGS AT THE RELOCATED THRESHOLD AS SHOWN ON THIS SHEET.
   A. IF UNABLE TO ACHIEVE PERMANENT R/W LIGHTING SYSTEM OPERABILITY FOR PHASE 4, APPLY TEMPORARY THRESHOLD AND EDGE LIGHTING WITH MARKERS FOR THE ENTIRE RUNWAY ACCORDING TO DETAIL 5 OF SHEET AD6.

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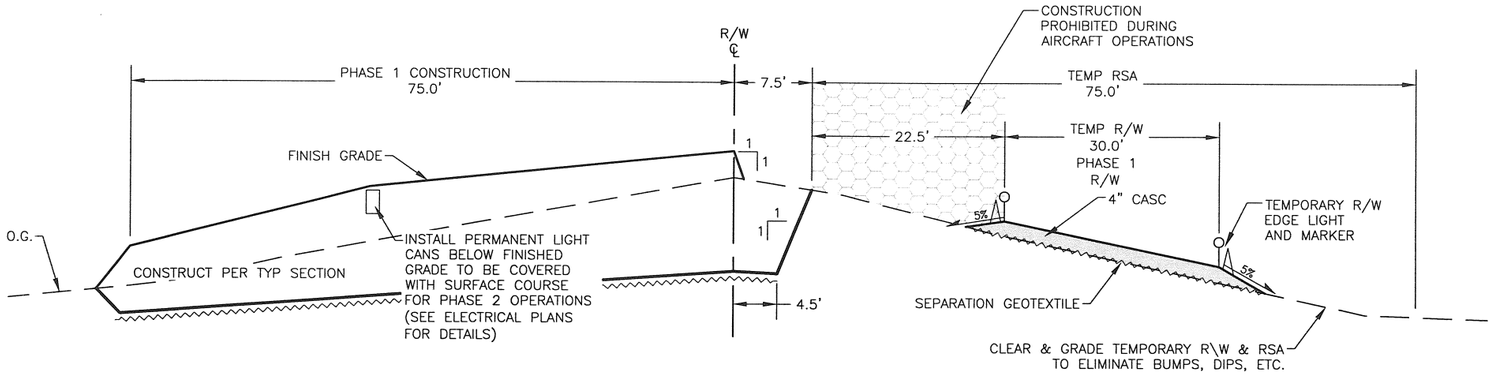
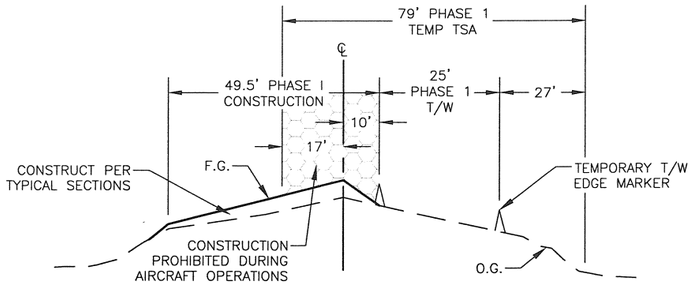
AIP No. 3-02-0126-006-2014
PHASING LAYOUT PLAN PHASE 4

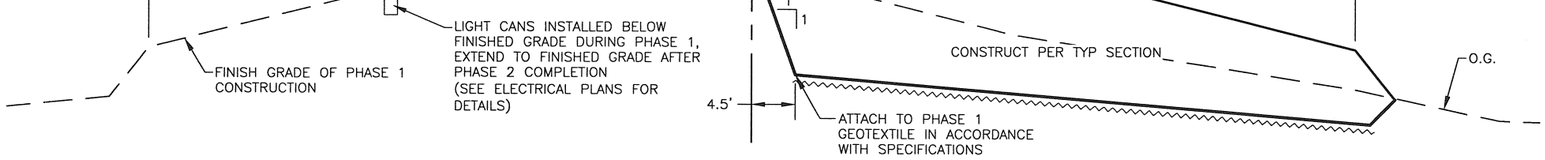
DATE: 7/16/2015
SHEET: AD4 OF AD6
AS-BUILT SHEET:



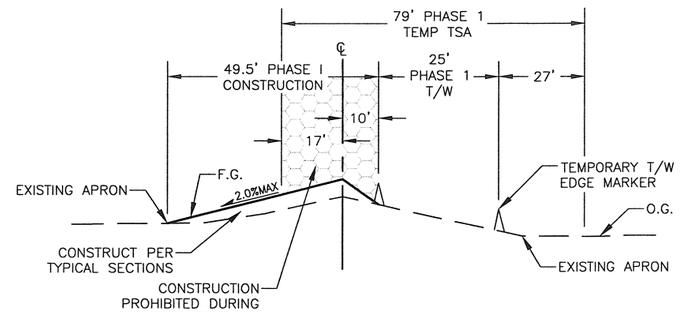
1 AD5 **PHASE 1 RUNWAY CONSTRUCTION**
NOT TO SCALE



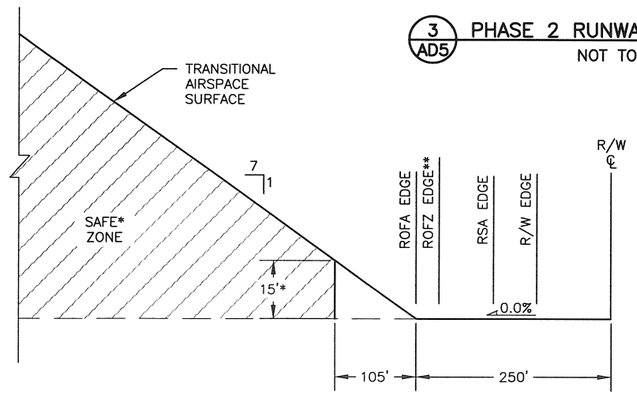
2 AD5 **PHASE 1 TAXIWAY CROSS SECTION**
NOT TO SCALE
TW STA 0+75 TO STA 2+00



3 AD5 **PHASE 2 RUNWAY CONSTRUCTION**
NOT TO SCALE

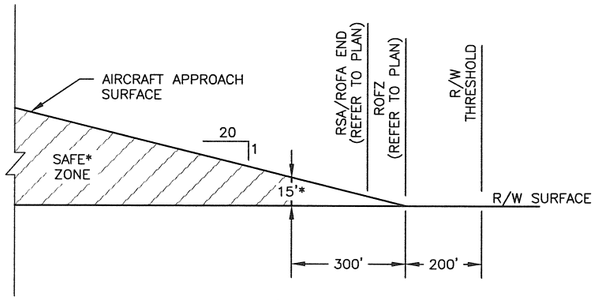


4 AD5 **PHASE 1 TAXIWAY CROSS SECTION**
NOT TO SCALE
TW STA 2+00 TO STA 4+00



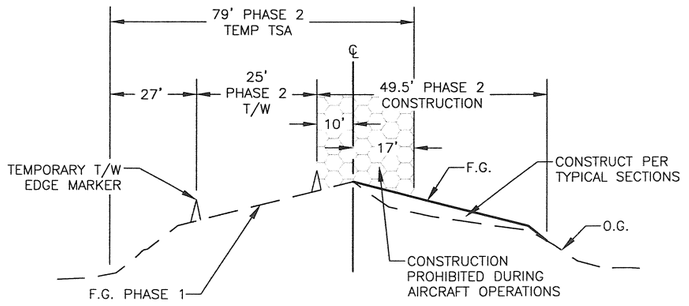
5 AD5 **SAFE ZONES ADJACENT TO RUNWAY EDGES**
NOT TO SCALE

*VEHICLES TALLER THAN 15 FEET (INCLUDING ALL PARTS OF THE EQUIPMENT, E.G. AN EXCAVATOR) MUST REMAIN FARTHER AWAY FROM THE RUNWAY CENTERLINE. WHEN THIS IS THE CASE, NOTIFY AND COORDINATE SAFE ZONE LIMITS WITH THE ENGINEER.
**ROFZ EDGE AND ROFA EDGE COINCIDE IN HALF WIDTH CONFIGURATIONS.



*VEHICLES TALLER THAN 15 FEET (INCLUDING ALL PARTS OF THE EQUIPMENT, E.G. AN EXCAVATOR) MUST REMAIN FARTHER AWAY FROM THE RUNWAY THRESHOLD. WHEN THIS IS THE CASE, NOTIFY AND COORDINATE SAFE ZONE LIMITS WITH THE ENGINEER.
THE 20:1 APPROACH SURFACE IS BASED ON THE THRESHOLD ELEVATION, THE ALLOWABLE VEHICLE HEIGHT MAY NEED TO BE REDUCED IF THE GROUND ELEVATION RISES BEYOND THE THRESHOLD.

6 AD5 **SAFE ZONES ALONG EXTENDED RUNWAY OR TEMP RUNWAY ℄**
NOT TO SCALE



7 AD5 **PHASE 2 TAXIWAY CROSS SECTION**
NOT TO SCALE

Designed By:	JLM
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Date Revised:	7/15/2015, 3:22 PM
Layout Name:	PHASING PLAN DETAILS 1
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STATE OF ALASKA
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CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
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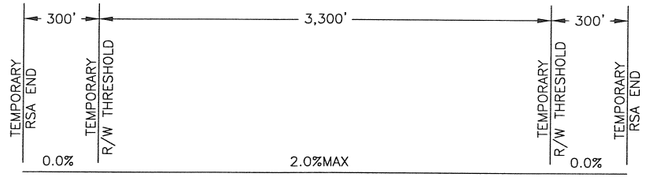
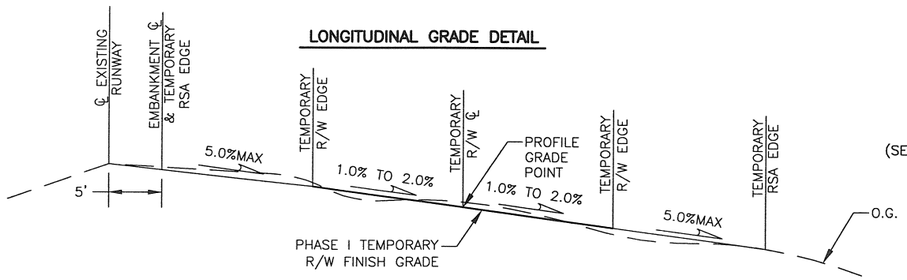
AIP No. 3-02-0126-006-2014
PHASING PLAN DETAILS

DATE: 7/16/2015
SHEET: AD5 OF AD6
AS-BUILT SHEET: OF





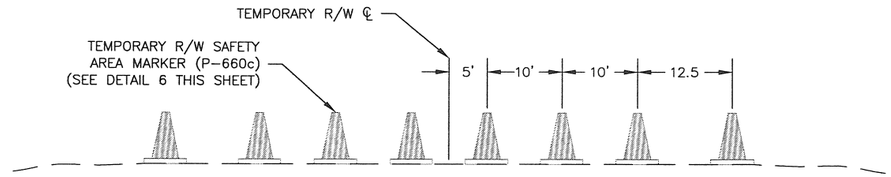
LONGITUDINAL GRADE DETAIL

TRANSVERSE GRADE DETAIL

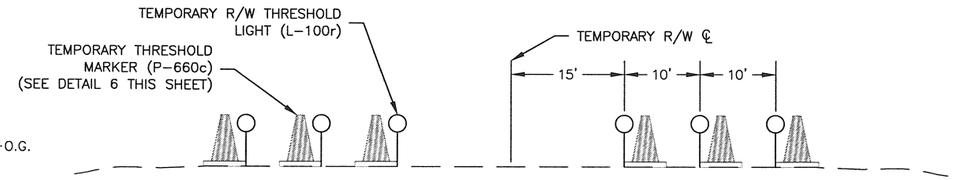
NOTES:

1. LONGITUDINAL GRADE BREAKS NO CLOSER THAN 250FT APART.
2. MAXIMUM GRADE CHANGE AT LONGITUDINAL GRADE BREAKS IS 0.40%.
3. NO LONGITUDINAL GRADE BREAKS MAY OCCUR WITHIN THE TEMPORARY RSA BEYOND THE TEMPORARY THRESHOLD.
4. AREA GRADING TO OCCUR PRIOR TO PHASE 1. GRADE SMOOTH WITHIN TEMPORARY RUNWAY AND TAXIWAY SAFETY AREAS TO ALLOW FOR AIRCRAFT OPERATIONS.

1 AD6 PHASE 1 RUNWAY AREA GRADING
NOT TO SCALE



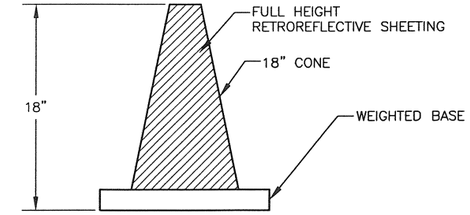
2 AD6 TEMPORARY RUNWAY SAFETY AREA MARKER DETAIL
NOT TO SCALE



NOTES:

1. TEMPORARY R/W THRESHOLD LIGHTS SHALL EMIT GREEN LIGHT OUTWARD FROM THE RUNWAY AND RED LIGHT TOWARD THE RUNWAY.
2. TEMPORARY R/W THRESHOLD AND EDGE LIGHTS PAID UNDER ITEM L-100r.

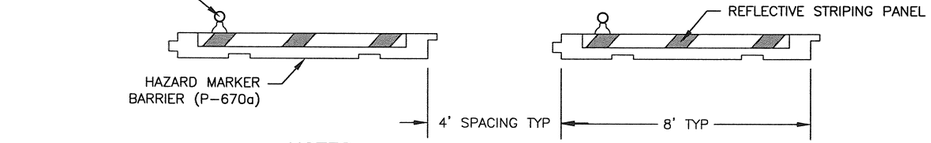
3 AD6 TEMPORARY RUNWAY THRESHOLD MARKER DETAIL
NOT TO SCALE



NOTES:

1. TEMPORARY R/W EDGE MARKERS SHALL HAVE A WHITE RETRO REFLECTIVE SHEETING.
2. TEMPORARY SAFETY AREA MARKERS SHALL HAVE A RED RETRO REFLECTIVE SHEETING.
3. TEMPORARY THRESHOLD MARKERS SHALL HAVE A RED AND GREEN RETRO REFLECTIVE SHEETING. THE GREEN SIDE OF THE SHEETING SHALL FACE THE APPROACH OF THE RUNWAY, AND THE RED SIDE OF THE SHEETING SHALL FACE THE RUNWAY.
4. TEMPORARY TAXIWAY EDGE MARKERS SHALL HAVE A BLUE RETRO REFLECTIVE SHEETING.
5. TEMPORARY MARKERS PAID UNDER ITEM P-660c.

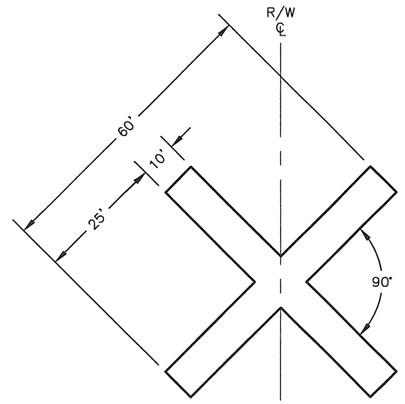
6 AD6 TEMPORARY RUNWAY EDGE, TAXIWAY EDGE, AND RSA MARKERS
NOT TO SCALE



NOTES:

1. HAZARD MARKER BARRIERS ARE NOT TO BE PLACED WITHIN 125 FEET OF THE ACTIVE R/W CENTERLINE. DISTANCE BETWEEN BARRIERS CAN BE ADJUSTED FOR CONSTRUCTION TRAFFIC.

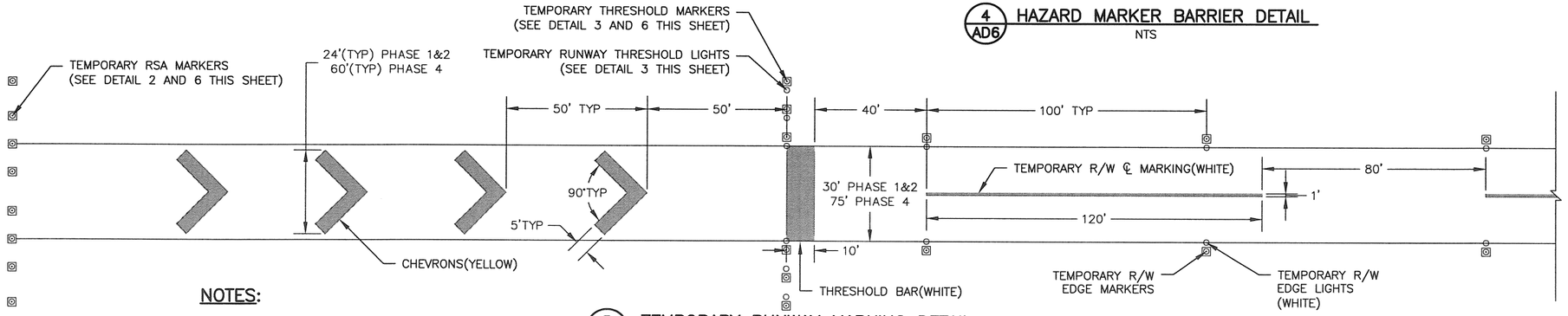
4 AD6 HAZARD MARKER BARRIER DETAIL
NTS



NOTES:

1. R/W CLOSURE MARKERS WILL BE YELLOW.
2. INSTALL R/W CLOSURE MARKERS AS SHOWN IN THE PHASING PLANS.
3. R/W CLOSURE MARKERS PAID UNDER ITEM P-671a.

7 AD6 RUNWAY CLOSURE MARKER DETAIL
NOT TO SCALE



NOTES:

1. TEMPORARY R/W SURFACE MARKINGS PAID UNDER ITEM P-620g.
2. TEMPORARY R/W LIGHTING PAID UNDER ITEM L-100r.
3. TEMPORARY R/W MARKERS (CONES) PAID UNDER ITEM P-660c.

5 AD6 TEMPORARY RUNWAY MARKING DETAIL
NOT TO SCALE

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CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
HOOPER BAY AIRPORT IMPROVEMENTS
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
PHASING PLAN DETAILS

DATE: 7/16/2015
SHEET: AD6 OF AD6
AS-BUILT SHEET:

Designed By: JLM
Drawn By: RJP
Checked By: MHH

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File Path and Name: W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings\HPB 57419 -Phasing Plan.dwg
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APPENDIX "L"
SREB PLANS & DETAILS

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH
Date Revised:	7/15/2015, 3:29 PM
Layout Name:	APPENDIX L
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport Improvements 57419\Final Drawings

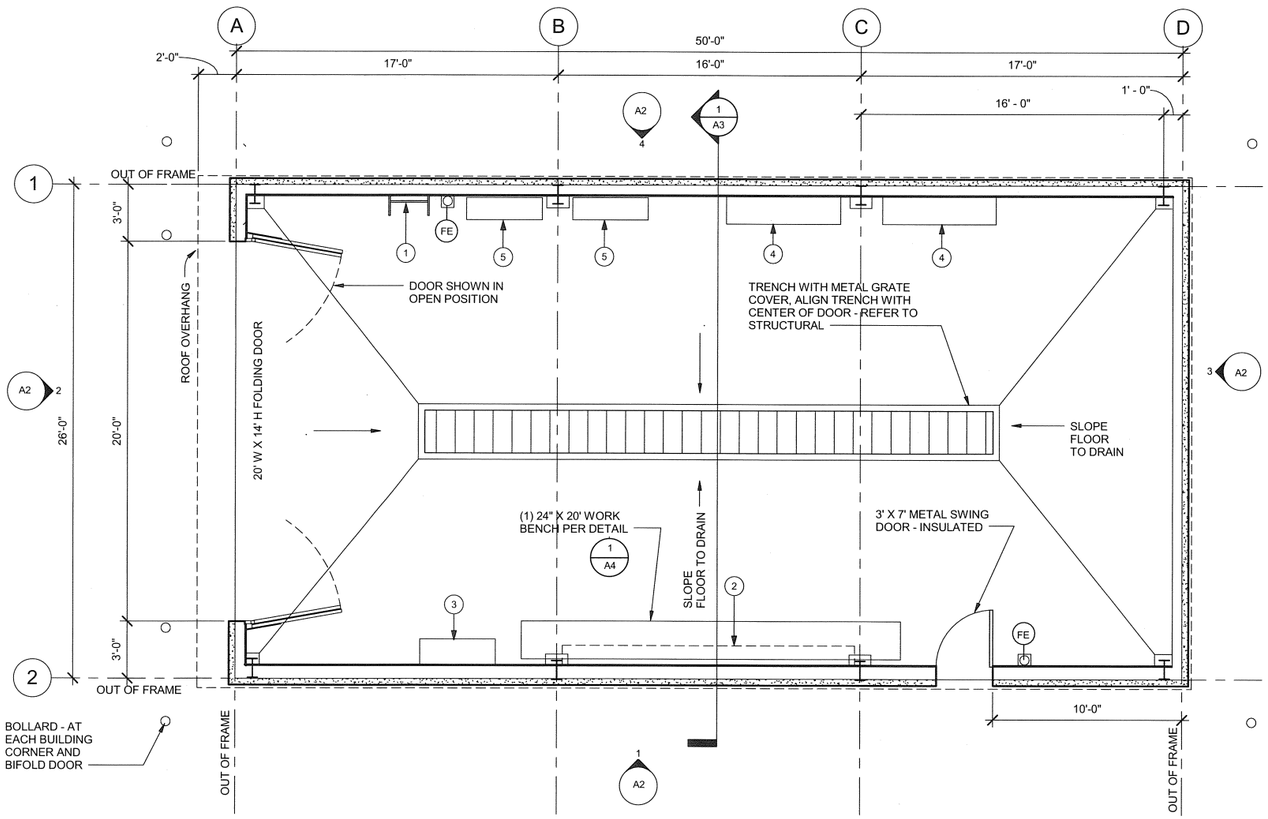
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION	HOOPER BAY AIRPORT HOOPER BAY, ALASKA AIRPORT IMPROVEMENTS PROJECT No. 57419 AIP No. 3-02-0126-006-2014	DATE: 7/16/2015 SHEET: OF AS-BUILT SHEET:

NOTE;

CONSTRUCTION SREB:

SREB # 1 SHALL BE A HEATED SREB

SREB #2 SHALL BE A HEATED SREB



1 A1 FLOOR PLAN
1/4" = 1'-0"

0' 2' 4' 8'
22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"

N

CODE SYNOPSIS

2009 IBC AS AMENDED BY ALASKA DEPT. OF PUBLIC SAFETY

OCCUPANCY S-1 PARKING GARAGE (IBC 311.3)

CONSTRUCTION TYPE V-B COMBUSTIBLE WITH NO FIRE RESISTANCE
MINIMUM FIRE SEPARATION = 10' CLEAR OR GREATER (IBC 602)

FIRE SEPARATION DISTANCE (702); 10'
BUILDING FACE TO
1) CLOSEST INTERIOR LOT LINE
2) CENTER OF PUBLIC WAY
3) IMAGINARY LINE BETWEEN 2 BUILDINGS = 20'

ACTUAL AREA: 26' x 50' = 1,300 S.F.

S-1 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): 1,300SF/200 = 6.5 = 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 WITH ENCLOSURE CABINETS: 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) 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

(3) 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

(4) 2 EACH 5000 LB CAPACITY FLOOR MOUNT SINGLE SIDE CANTILEVER RACK:
(2) 8' HIGH UPRIGHTS
(1) BRACE SET BETWEEN UPRIGHTS; 6'
(10) 24" STRAIGHT ARMS WITH LIPS
ENAMEL PAINT FINISH
WWW.LKGOODWIN.COM SERIES 1000 OR EQUAL
INSTALL WHERE DIRECTED

(5) (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

STATE OF ALASKA
49th
John E. McCool
No. 3534-S
PROFESSIONAL ENGINEER
04/04/2015

PLANS DEVELOPED BY:
MCG ARCHITECTS
PROJ. NO. 2010039.09

BY	DATE	REVISION

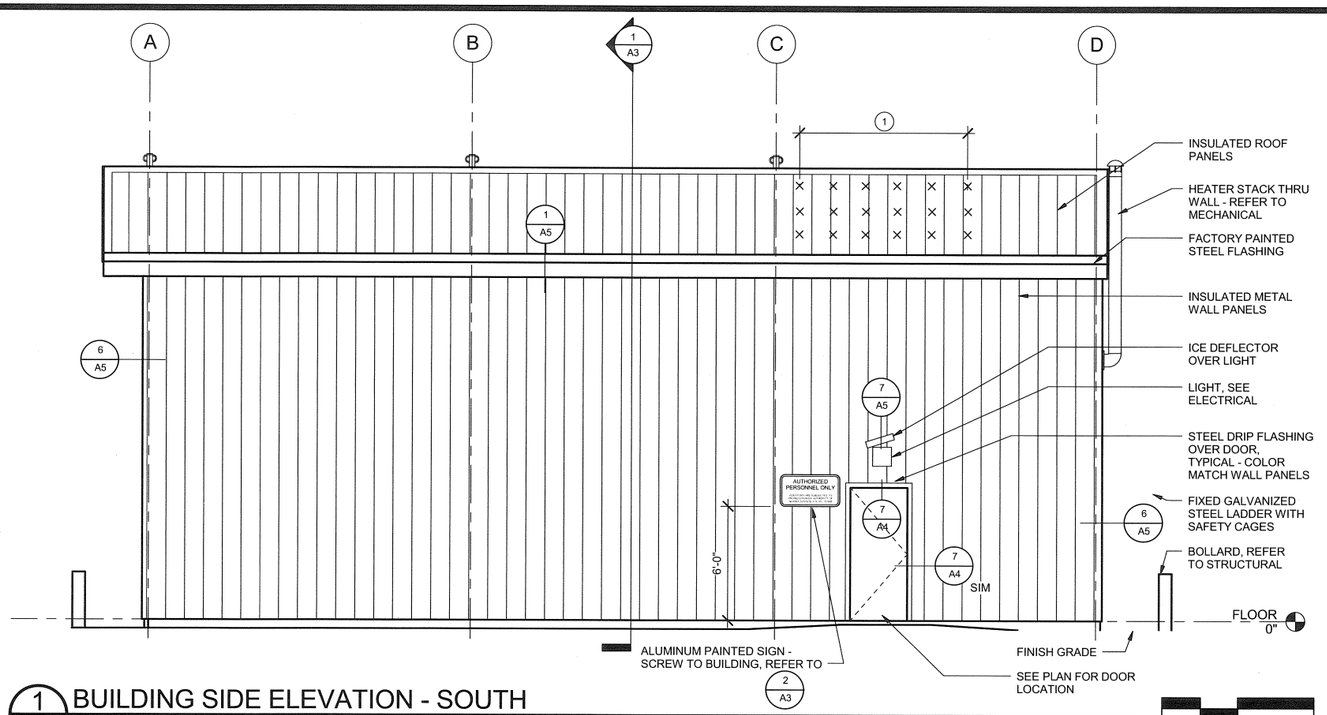
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY, AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 59276
AIP No. 3-02-0424-006-2014

FLOOR PLAN

DATE: **04/04/2015**
SHEET: A1 OF A5
AS-BUILT SHEET:

Designed By: JEM
Drawn By: WVZ
Checked By: DDC
Date Revised: 4/1/2015 12:26:51 PM
Layout Name: A1 FLOOR PLAN
File Path and Name: C:\Users\rrochon\Documents\Hooper Bay_Rfrochon.rxt

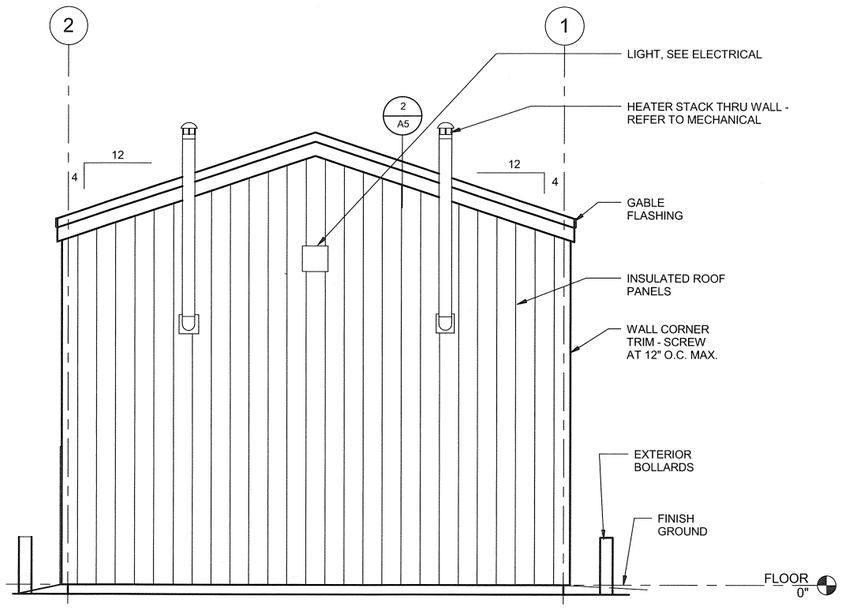


1 A2 BUILDING SIDE ELEVATION - SOUTH

1/4" = 1'-0"

0' 2' 4' 8'

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



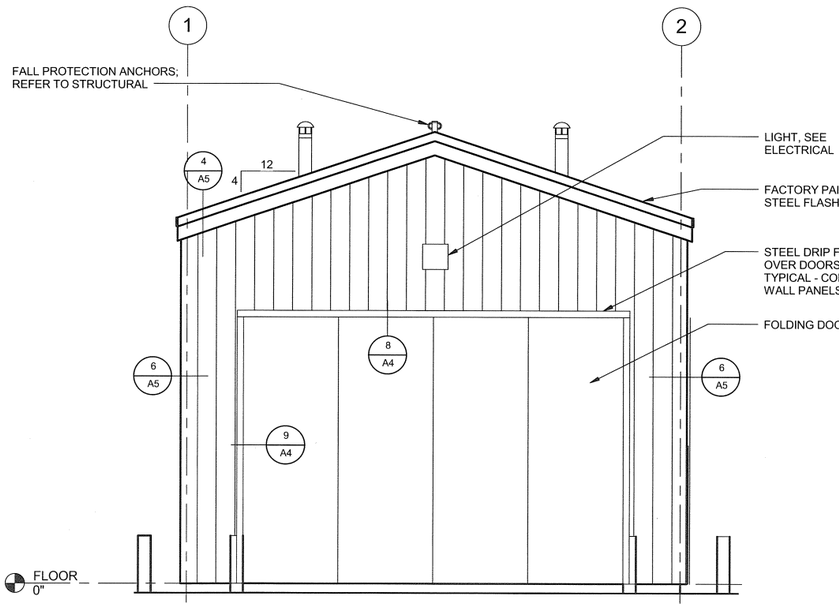
3 A2 BUILDING REAR ELEVATION - EAST

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"



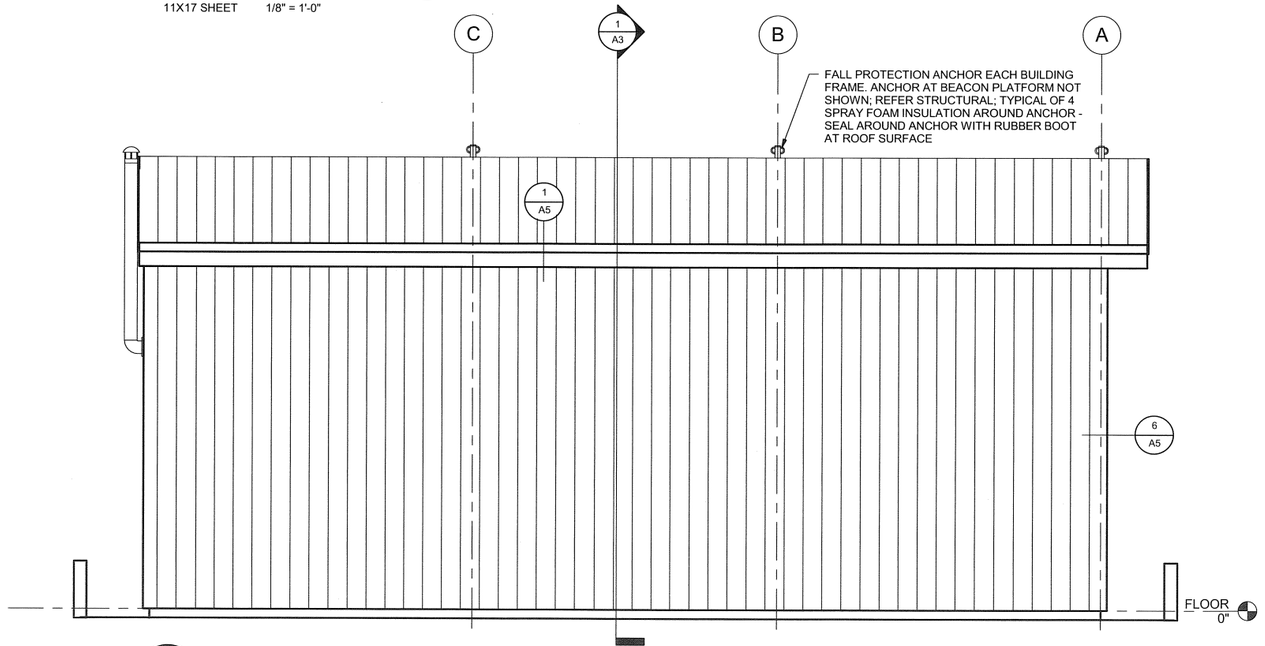
2 A2 BUILDING FRONT ELEVATION - WEST

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 A2 BUILDING SIDE-ELEVATION - NORTH

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"

SHEET NOTES

(1) INSTALL ON ROOF CENTERED ABOVE MAN DOOR 4' UP FROM EAVE - SPACE 4' UP ROOF SLOPE

2" TO 3" PROJECTION POLYCARBONATE PLASTIC RECOMMENDED BY MANUFACTURER TO HOLD SNOW ONTO SLOPING ROOFS ATTACH WITH MANUFACTURER APPROVED ADHESIVE

POLAR BLOX, SNOWJAX, SNO GEM EQUAL

STATE OF ALASKA
49th
John E. McCool
No. 3534-A
PROFESSIONAL ENGINEER
04/04/2015

PLANS DEVELOPED BY:
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PROJ. NO. 2010039.09

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY, AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 59276
AIP No. 3-02-0424-006-2014

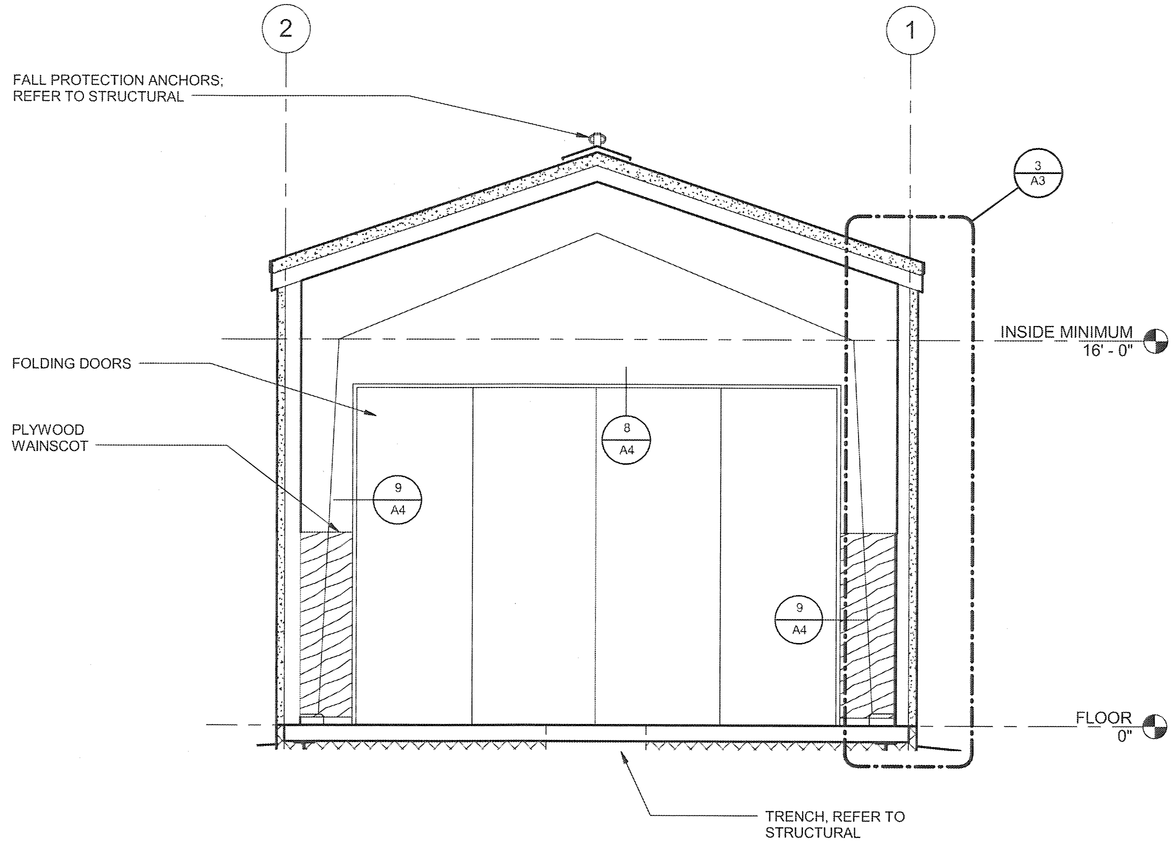
EXTERIOR ELEVATIONS

DATE: 04/04/2015
SHEET: A2 OF A5
AS-BUILT SHEET:

Designed By: JEM
Drawn By: WVZ
Checked By: DDG

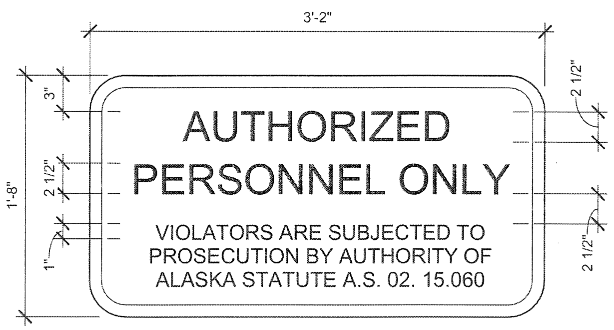
Date Revised: 4/1/2015 12:27:01 PM
Layout Name: A2 EXTERIOR ELEVATIONS
File Path and Name: C:\Users\rrochon\Documents\Hooper Bay_NRochon.rvt

Date Revised:	4/1/2015 12:27:09 PM	Designed By:	JEM
Layout Name:	A3 BUILDING SECTIONS	Drawn By:	WVZ
File Path and Name:	C:\Users\nrochon\Documents\Hooper Bay1_NRochon.rvt	Checked By:	DDG



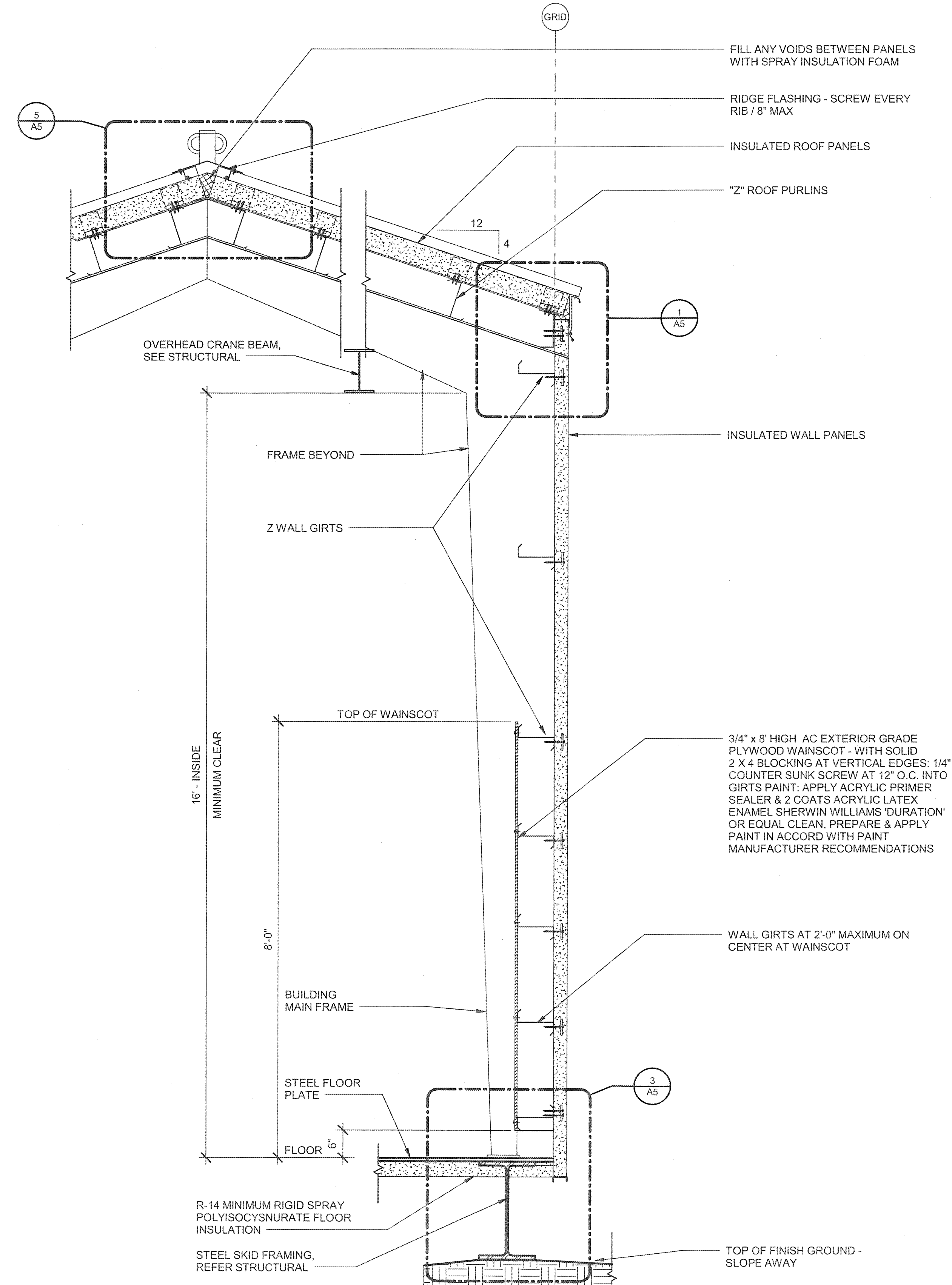
1 CROSS SECTION
A3
1/4" = 1'-0"

0' 2' 4' 8'
22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"



NOTE: PROVIDE SIGN FOR EACH SREB. SIGNS SHALL BE SUBSIDIARY TO PAY ITEM S-142

2 SIGN MESSAGE
A3
1 1/2" = 1'-0"



3 TYPICAL WALL SECTION
A3
3/4" = 1'-0"

0' 1' 2' 4'
22X34 SHEET 3/4" = 1'-0"
11X17 SHEET 3/8" = 1'-0"

PLANS DEVELOPED BY:
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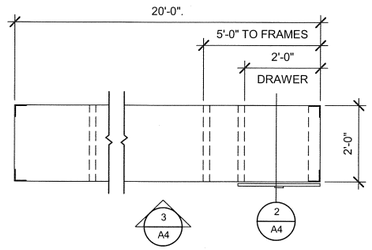
BY	DATE	REVISION

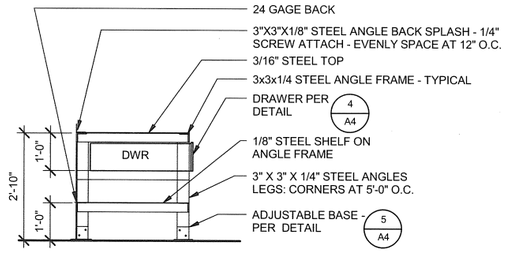
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY, AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 59276
AIP No. 3-02-0424-006-2014
BUILDING SECTIONS

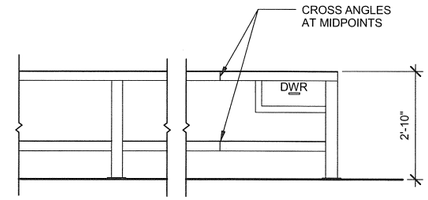
DATE: 04/04/2015
SHEET: A3 OF A5
AS-BUILT SHEET:



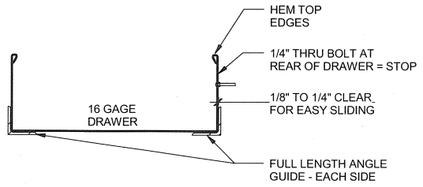
1 WORK BENCH PLAN
A4 — 1/2" = 1'-0"



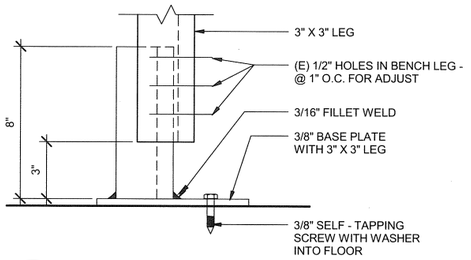
2 WORK BENCH SECTION
A4 — 1/2" = 1'-0"



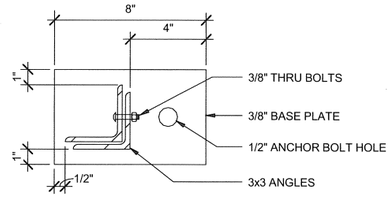
3 WORK BENCH FRONT
A4 — 1/2" = 1'-0"



4 WORK BENCH DRAWER
A4 — 1 1/2" = 1'-0"



5 WORK BENCH LEG
A4 — 3" = 1'-0"



6 WORK BENCH LEGS BASE PLATE
A4 — 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

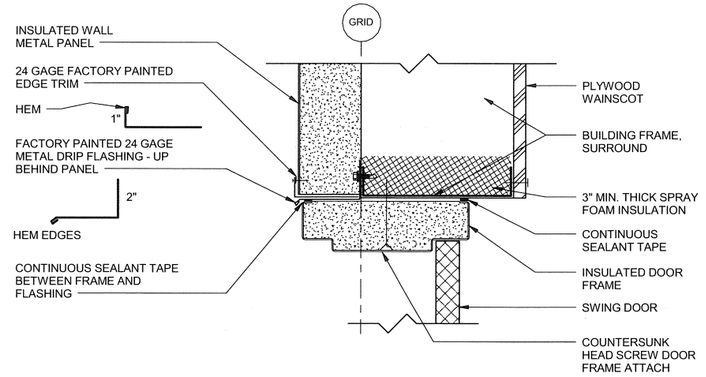
BACK: 24 GAGE STEEL SHEET

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

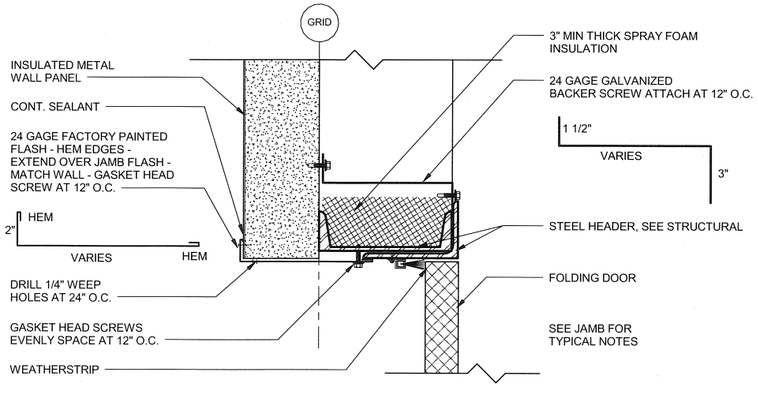
DRAWER: BOTTOM AND SIDES: 16 GAGE GALVANIZE SHEET STEEL BEND OR WELDED - HEM TOP EDGES
PULL: 6x5/16" WIRE: STANLEY 4486 OR EQUAL

EDGES: SMOOTH EDGES BY GRINDING - FREE FROM SHARP SURFACES

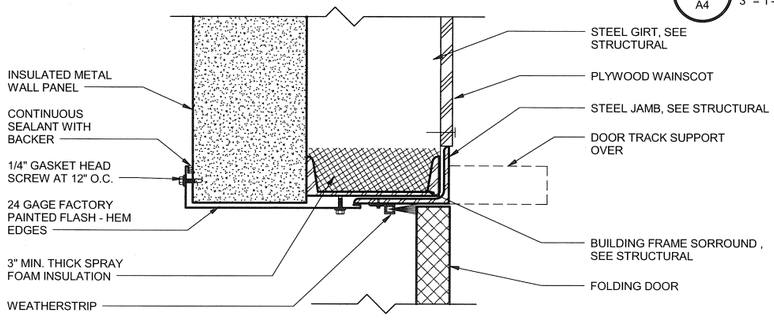
FINISH: SHOP APPLY: SOLVENT CLEAN POWER GRIND OR GRIT BLAST CLEAN, PRIME AND EPOXY ENAMEL PAINT



7 HINGED DOOR HEAD - JAMB SIMILAR
A4 — 3" = 1'-0"



8 FOLDING DOOR HEAD
A4 — 3" = 1'-0"



9 FOLDING DOOR JAMB
A4 — 3" = 1'-0"

STATE OF ALASKA
49th
John E. McCool
No. 3534-A
REGISTERED PROFESSIONAL ENGINEER
04/04/2015

PLANS DEVELOPED BY:
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BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

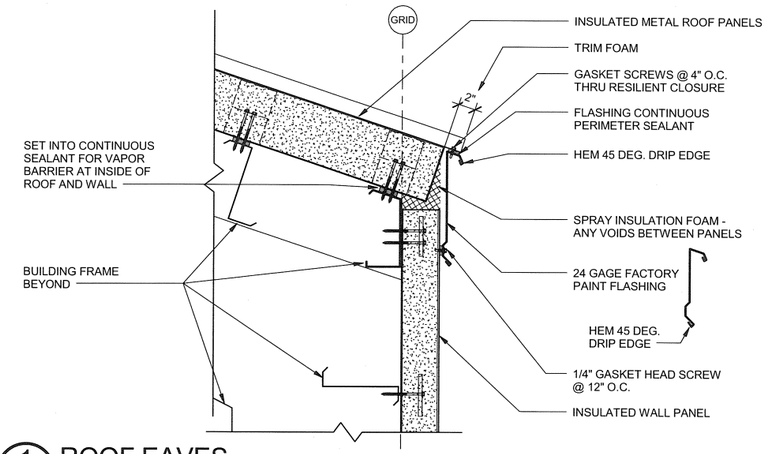
HOOPER BAY, AIRPORT
HOOPER BAY, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. 59276
AIP No. 3-02-0424-006-2014

DETAILS

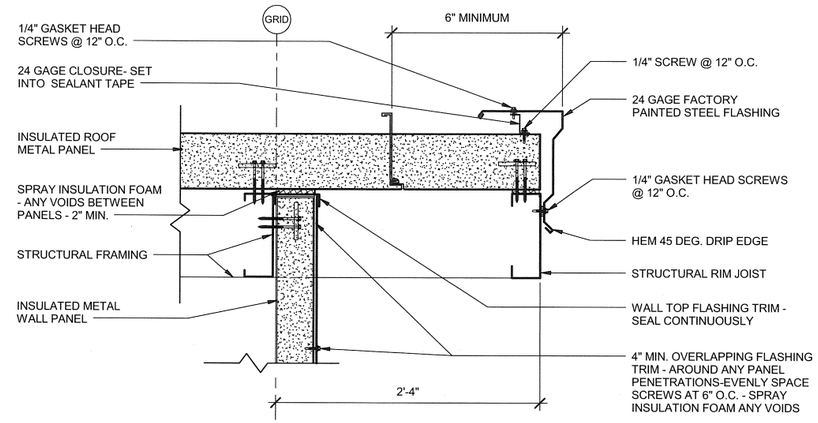
DATE: 04/04/2015
SHEET: A4 OF A5
AS-BUILT SHEET:

Designed By: Designer
Drawn By: WVZ
Checked By: DDC

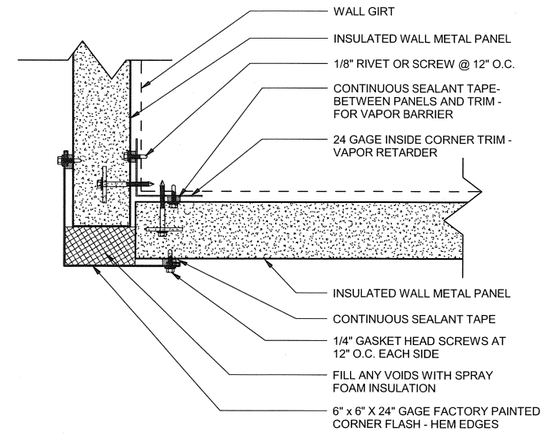
Date Revised: 4/1/2015 12:27:19 PM
Layout Name: A4 DETAILS
File Path and Name: C:\Users\rrochon\Documents\Hooper Bay_NRochon.rvt



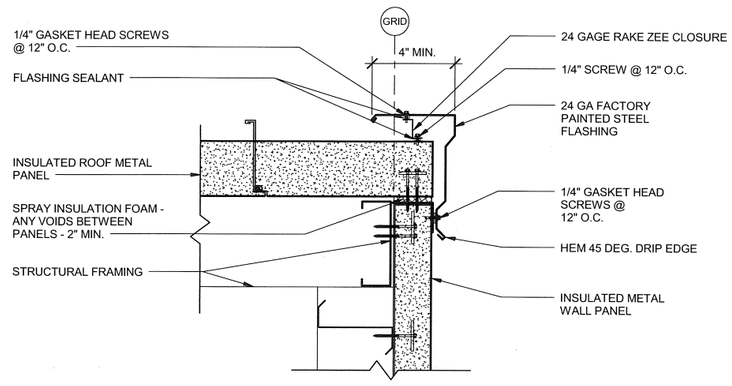
1 ROOF EAVES
A5 — 1 1/2" = 1'-0"



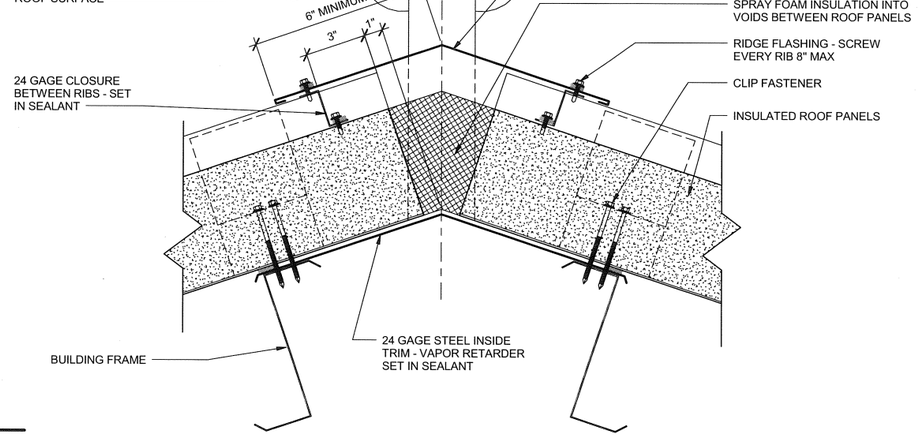
4 ROOF OVER AT OVERHEAD DOOR
A5 — 1 1/2" = 1'-0"



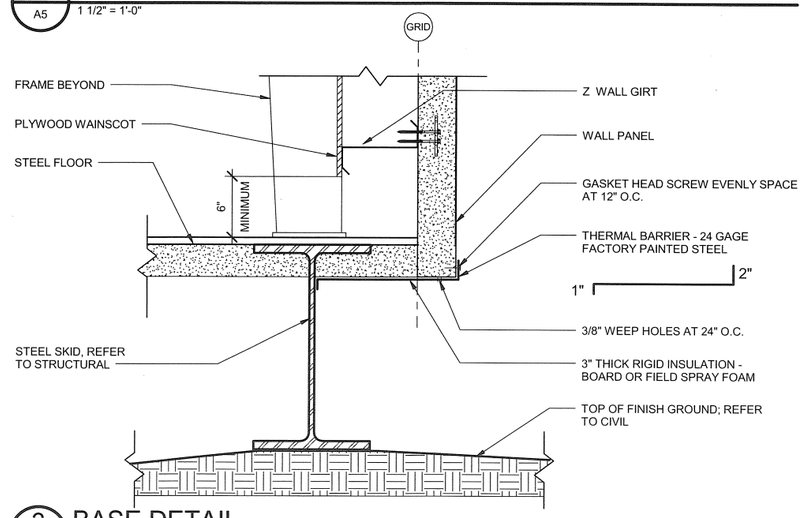
6 CORNER AT WALL PANEL
A5 — 3" = 1'-0"



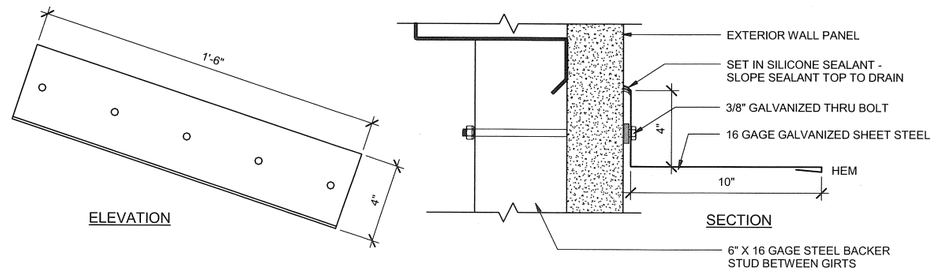
2 ROOF RAKE
A5 — 1 1/2" = 1'-0"



5 RIDGE
A5 — 3" = 1'-0"



3 BASE DETAIL
A5 — 1 1/2" = 1'-0"



7 LIGHT ICE DEFLECTOR DETAIL
A5 — 3" = 1'-0"

STATE OF ALASKA
49th
John E. McCool
No. 3534-A
04/04/2015

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HOOPER BAY, AIRPORT
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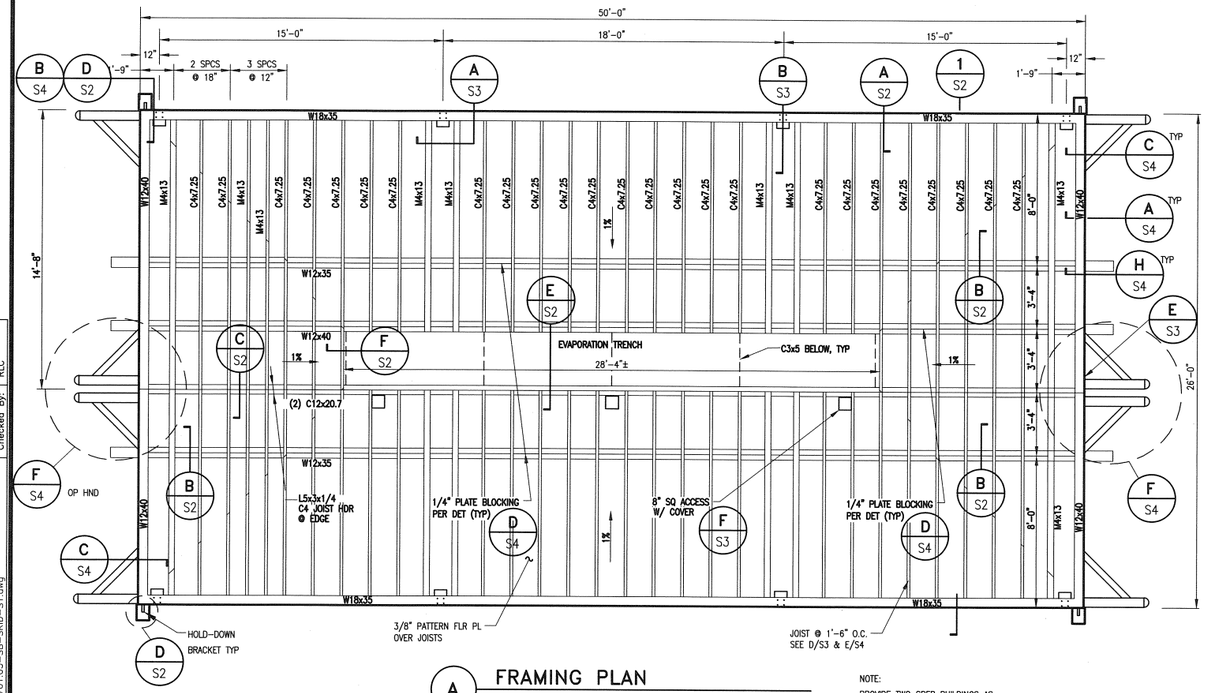
AIRPORT IMPROVEMENTS
PROJECT No. 59276
AIP No. 3-02-0424-006-2014

DETAILS

DATE: 04/04/2015
SHEET: A5 OF A5
AS-BUILT SHEET:

Designed By: JEM
Drawn By: WVZ
Checked By: DDC

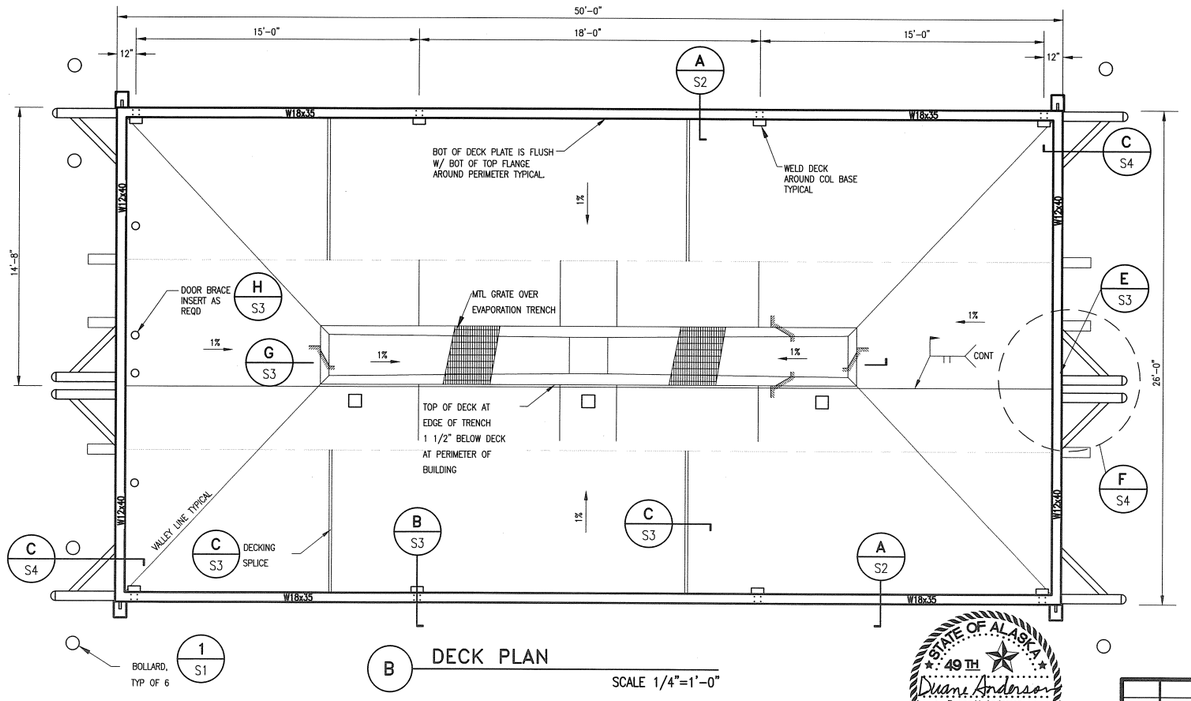
Date Revised: 4/1/2015 12:27:26 PM
Layout Name: A5 DETAILS
File Path and Name: C:\Users\nrochon\Documents\Hooper Bay_NRochon.rvt



A FRAMING PLAN

SCALE 1/4"=1'-0"

NOTE:
PROVIDE TWO SREB BUILDINGS AS SHOWN ON SHEETS S1 TO S4.
SREB BUILDING NO. 1 SHALL HAVE A BEACON PLATFORM PER S5.



B DECK PLAN

SCALE 1/4"=1'-0"

NOTE:
PROVIDE TWO SREB BUILDINGS AS SHOWN ON SHEETS S1 TO S4.

CODE:
2009 IBC

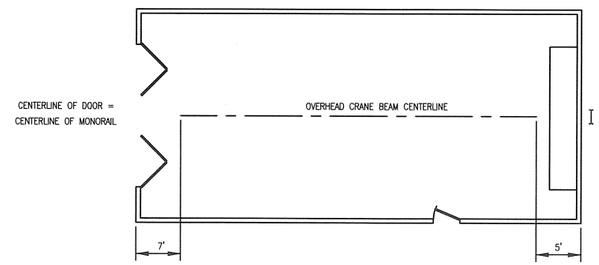
DESIGN LOADS:
FLOOR: 200 PSF
ROOF LIVE LOAD: 20 PSF
ROOF SNOW LOAD: P_g = 50 PSF
P_f = 35 PSF
C_e = .8
I = 1.0
C_t = 1.0
SNOW DRIFT PER ASCE 7
WIND LOADS: WIND SPEED: 130 MPH (3-SECOND GUST)
I = 1.0
EXPOSURE D
C_{pi} = +0.18 / −0.18
a = 3'
C&C: ZONE PER IBC (WIND PRESSURE IN PSF BASED ON 10 SF AREA)

ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5
27/−43	27/−75	27/−110	47/−51	47/−63

EARTHQUAKE DESIGN:
I = 1.0
RISK CATEGORY: I
SITE CLASS: D
S_S = .13g S_1 = .06g
S_{DS} = .14g S_{D1} = .09g
SEISMIC DESIGN CATEGORY = B
OMEGA = 3.0
SEISMIC FORCE RESISTING SYSTEM: STEEL ORDINARY MOMENT FRAME
V = 2 KIPS
C_S = .05*W (STRENGTH DESIGN)
R= 3.5
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

MATERIALS
COMPLY WITH BUY AMERICAN ACT.

STRUCTURAL STEEL AND CONNECTORS:
1. STRUCTURAL STEEL SHALL CONFORM TO IBC CHAPTER 22, FOR ASTM SPECIFICATION A-36, Fy = 36 ksi EXCEPT WHERE NOTED OTHERWISE. ROLLED SHAPES SHALL BE ASTM A992, 50 ksi YIELD.
2. STEEL TUBING (TS) SHALL CONFORM TO ASTM A500, GRADE B, Fy = 46 ksi.
3. DESIGN FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE IBC CHAPTER 22, DIVISION IX, ALLOWABLE STRESS DESIGN.
4. ALL BOLTS (UON) SHALL BE A325 HIGH STRENGTH BOLTS IN CONFORMANCE WITH AISC STANDARD "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
5. MACHINE BOLTS SHALL CONFORM TO ASTM 307, UNLESS NOTED OTHERWISE AND SHALL BE PROVIDED STANDARD HEX HEAD NUTS CONFORMING TO ASTM A563, GRADE A AND CIRCULAR STEEL WASHERS CONFORMING TO ASTM F436.
6. WELDING PER AWS 1.1 WITH E70 ELECTRODES.
7. 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.
8. PROVIDE ADEQUATE LATERAL BRACING FOR STRUCTURE DURING FABRICATION. PLAN WELDING SEQUENCE TO ELIMINATE WARPAGE OF SKID.



C OVERHEAD CRANE (MONORAIL)

NOT TO SCALE

INSULATION:
1. AT UNDERSIDE OF FLOOR PLATE & ON JOIST FRAMING: SPRAY APPLY "URETHANE" FOAM INSULATION TO "R-14" CAPACITY AFTER FABRICATION PER SPEC 07201.

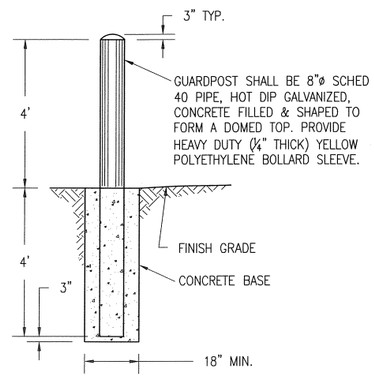
PAINTING:
1. PAINT ALL COMPONENTS PER SPEC SECTION 05121. FLOOR COLOR SHALL BE GRAY.

SKID ACCEPTANCE:
1. PRIOR TO ACCEPTANCE OF THE SREB SKIDS FOR SHIPPING FROM THE POINT OF FABRICATION, THE PERIMETER MEMBERS OF THE SKID FRAMEWORK FOR STRAIGHTNESS. WARPAGE OF THE SKID FRAME EXCEEDING 1/2" (ASSUMING THE BASE LINE IS A STRAIGHT LINE BETWEEN THE ENDS OF THE SKID DECK) SHALL BE CAUSE FOR REJECTION OR SHALL REQUIRE REPAIRS BY THE FABRICATOR TO MEET SUCH TOLERANCE. PROVIDE COPY OF MEASUREMENTS WITH CERTIFICATION LETTER BY QC MANAGER.
2. PRIOR TO ACCEPTANCE OF THE SREB SKIDS FOR ASSEMBLY OF THE BUILDING STRUCTURAL FRAMEWORK, THE PERIMETER MEMBERS OF THE SKID FRAMEWORK SHALL BE CHECKED FOR STRAIGHTNESS BY THE ENGINEER. WARPAGE OF THE SKID FRAME EXCEEDING 1/2" (ASSUMING THE BASE LINE IS A STRAIGHT LINE BETWEEN THE ENDS OF THE SKID DECK) SHALL BE CAUSE FOR REJECTION OR SHALL REQUIRE REPAIRS BY THE FABRICATOR TO MEET SUCH TOLERANCE.

SPECIAL INSPECTION
1. 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.
2. 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 CONTRACTOR FOR CORRECTION, AND TO THE ATTENTION OF THE ENGINEER OF RECORD.
3. 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.
4. 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.

BUILDING FRAME:
1. ANCHOR BOLTS: VERIFY SNUG TIGHT OR AS OTHERWISE SPECIFIED BY THE BUILDING DESIGNER (PERIODIC)*.
2. 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).
3. INSPECT STEEL FRAME JOINT DETAILS INCLUDING MOMENT FRAME CONNS, FRAME BRACING AND FLANGE BRACING OF PRIMARY BUILDING FRAMES (PERIODIC)*.
4. BUILDING IS PRE-ENGINEERED METAL BUILDING, PROVIDE ANY SPECIAL INSPECTIONS REQUIRED BY THE BUILDING DESIGNER.

SKID:
1. VISUAL INSPECTION OF WELDS
2. VERIFY WELDER QUALIFICATIONS
3. REVIEW WELDING PROCEDURES
4. VERIFY MATERIALS CERTIFICATIONS



7/S2 EXTERIOR BOLLARD DET

SCALE: NTS

STATE OF ALASKA
49TH
Duane Anderson
Duane H. Anderson
No. SE 14155
4-3-15
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.

BY	DATE	REVISION

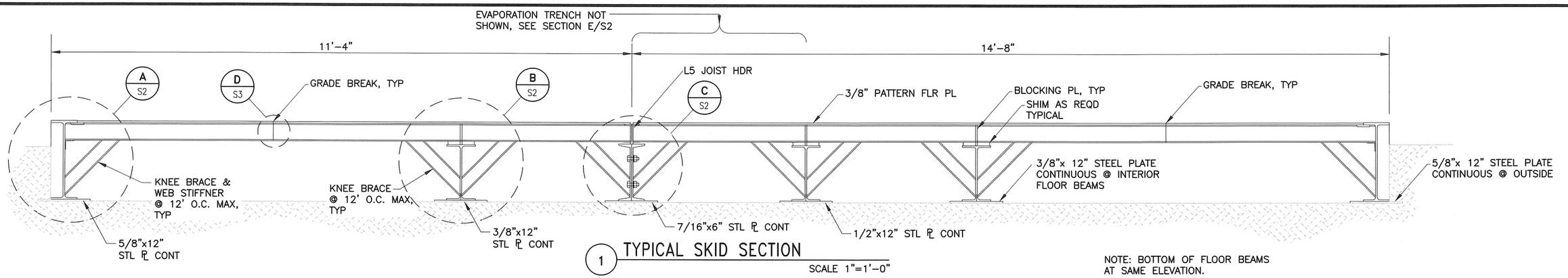
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. 57419
AIP No. 3-02-0126-006-2014

FRAMING AND DECK PLANS

DATE: 04/03/2015
SHEET: S1 OF S4

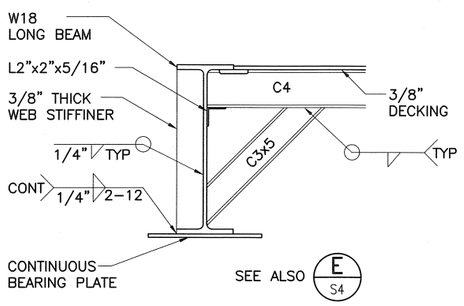
Designed By: MCY
Drawn By: BWD
Checked By: RLC
Date Revised: 4/15/2015, 9:56 AM
Layout Name: FRAMING S--1
File Path and Name: Z:\project\1701.05 DOT_SWFF SREB Term Hooper Bay Airport\Civil\ACAD\1701.05-SB-SKID-S1.dwg

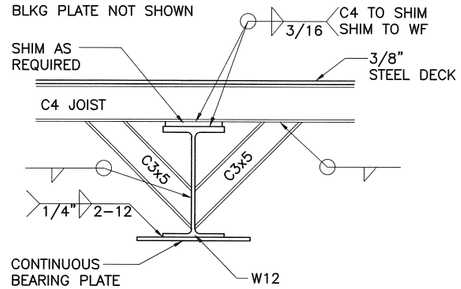


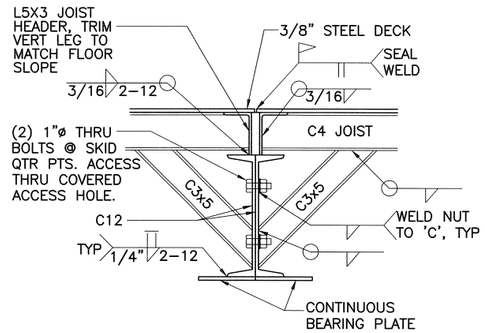
1 TYPICAL SKID SECTION

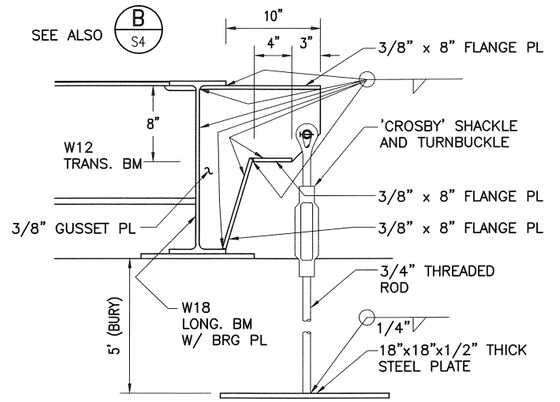
SCALE 1"=1'-0"

NOTE: BOTTOM OF FLOOR BEAMS AT SAME ELEVATION.









UNOTES:

1. CHANCE HELICAL WITH 2 7/8"ø SHAFT, 10" HELIX WITH 8' BURY MAY MAY BE USED IN LIEU OF TURNBUCKLE/ SHACKLE DETAIL
2. BELOW GRADE STEEL SHALL BE HOT DIP GALV AFTER FABRICATION

A TYP BRACING DET @ EXTERIOR

SCALE 1-1/2"=1'-0"

B TYP BRACING DET @ INTERIOR

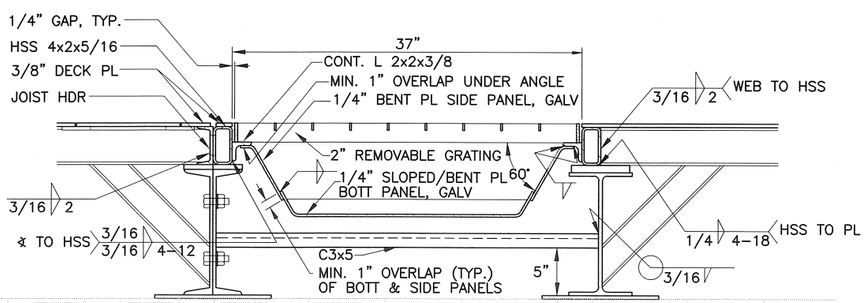
SCALE 1-1/2"=1'-0"

C TYP SKID SPLICE DETAIL

SCALE 1-1/2"=1'-0"

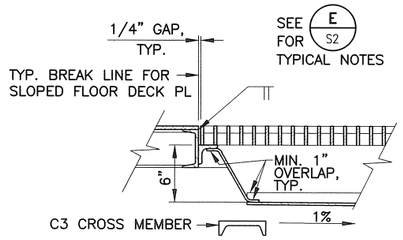
D TYP JACKING POINT & HOLD-DOWN DET

SCALE 1-1/2"=1'-0"



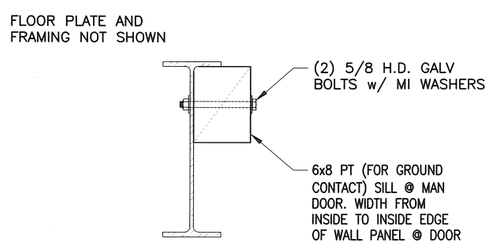
E EVAP. TRENCH CROSS-SECTION

SCALE 1 1/2"=1'-0"



F EVAP. TRENCH SECTION

SCALE 1 1/2"=1'-0"



G SKID SECTION @ MAN DOOR

SCALE 1 1/2"=1'-0"

STATE OF ALASKA 49 TH
Duane Anderson
Duane H. Anderson
No. SE 14155
4-3-15
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
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BY	DATE	REVISION

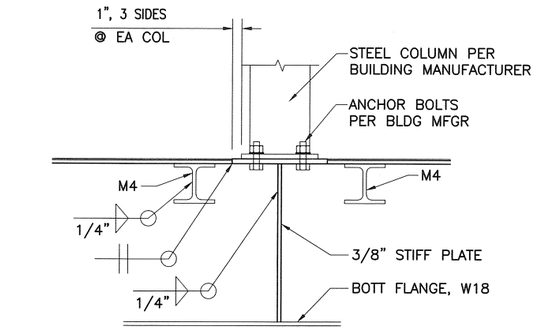
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
STRUCTURAL DETAILS

DATE: 04/03/2015
SHEET: S2 OF S4

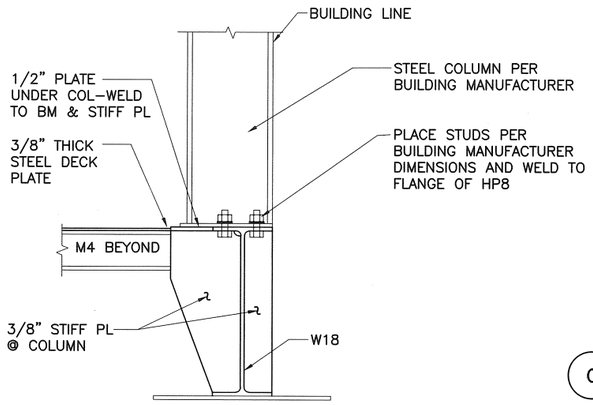
Designed By: MCY
Drawn By: BWD
Checked By: RLC

Date Revised: 4/15/2015, 9:57 AM
Layout Name: DETAILS-S2
File Path and Name: Z:\Projects\1701.05_DOT_SWPF_SREB_Term_Hooper Bay_Airport\Civil\ACAD\1701.05-SRB-SKID-S2.dwg



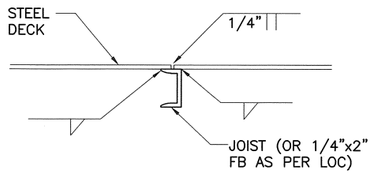
A COLUMN BEARING DETAIL

SCALE 1-1/2"=1'-0"



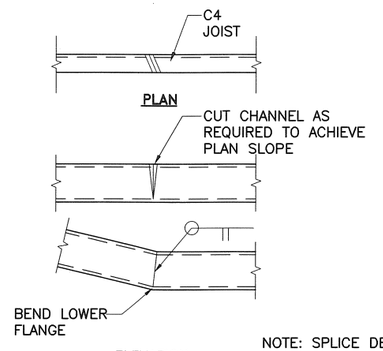
B COLUMN BEARING DETAIL

SCALE 1-1/2"=1'-0"



C SECTION @ DECK PLATE JOIINT

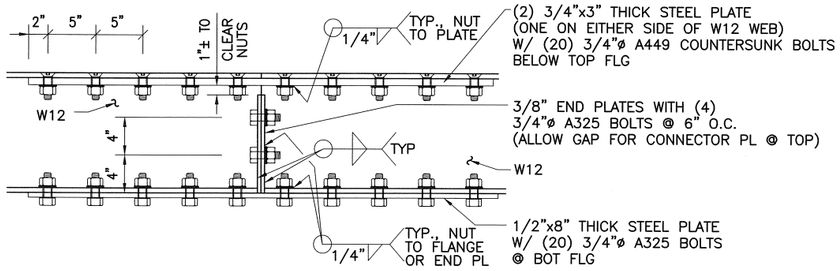
SCALE 1-1/2"=1'-0"



NOTE: SPLICE DECK PL
PER DET C/S4

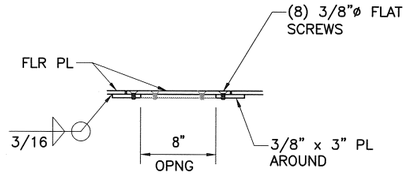
D JOIST CUT & WELD @ SLOPE CHANGES DET

SCALE 1-1/2"=1'-0"



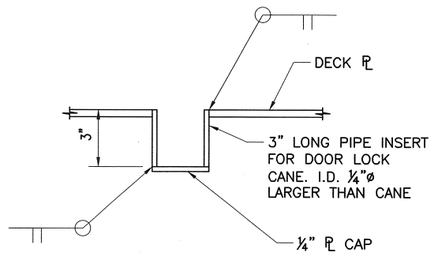
E TYPICAL SPLICE DETAIL

SCALE 1-1/2"=1'-0"



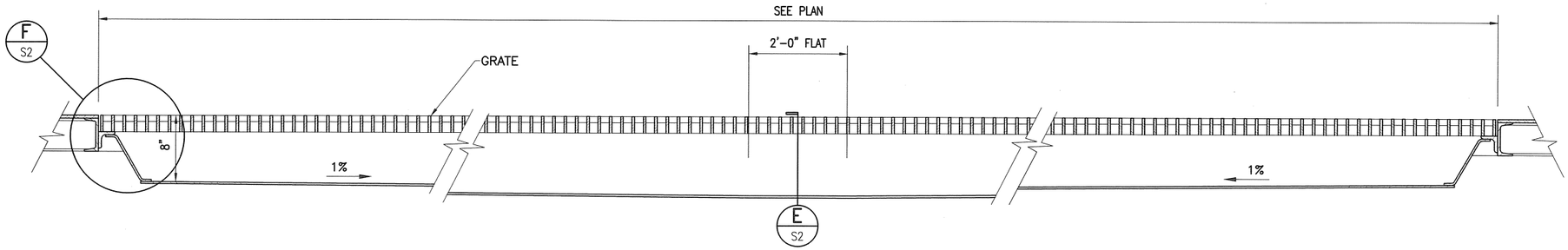
F FLOOR ACCESS HOLE DETAIL

SCALE 1-1/2"=1'-0"



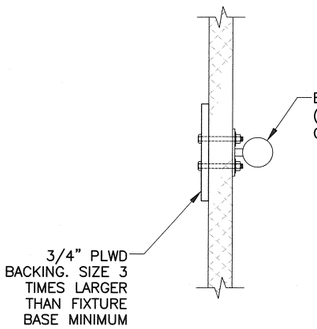
H BIFOLD DOOR BRACE

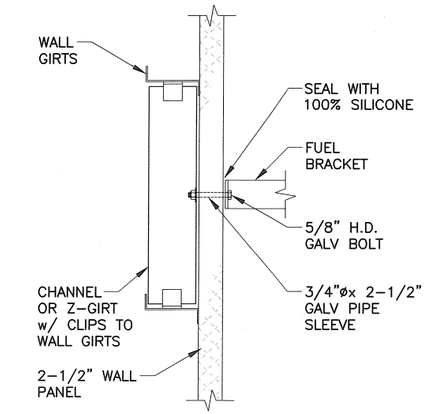
SCALE 3"=1'-0"



G LONGITUDINAL SECTION @ EVAPORATION TRENCH

SCALE 1-1/2"=1'-0"





I TYP WALL MOUNT DETAILS

SCALE 1-1/2"=1'-0"

STATE OF ALASKA
49 TH
Duane Anderson
Duane H. Anderson
No. SE 14155
4-3-15
REGISTERED PROFESSIONAL ENGINEER

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BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. 57419
AIP No. 3-02-0126-006-2014

STRUCTURAL DETAILS

DATE: 04/03/2015
SHEET: S3 OF S4

Designed By: MCY
Drawn By: BWD
Checked By: RLC

Date Revised: 4/15/2015 9:57 AM
Layout Name: DETAIL S-3
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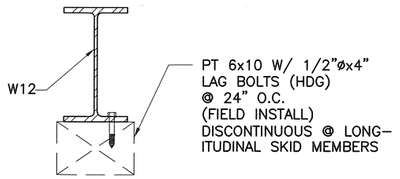
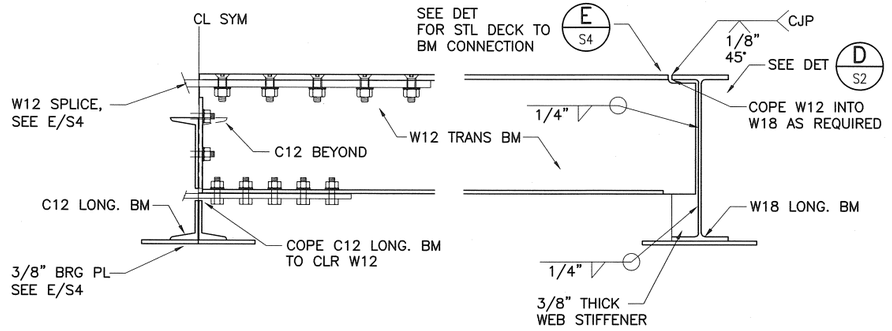
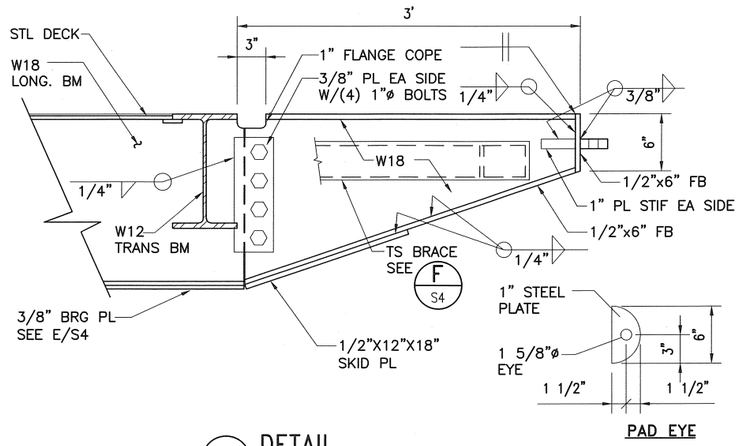




A TRANS BEAM DETAIL

SCALE 1-1/2"=1'-0"

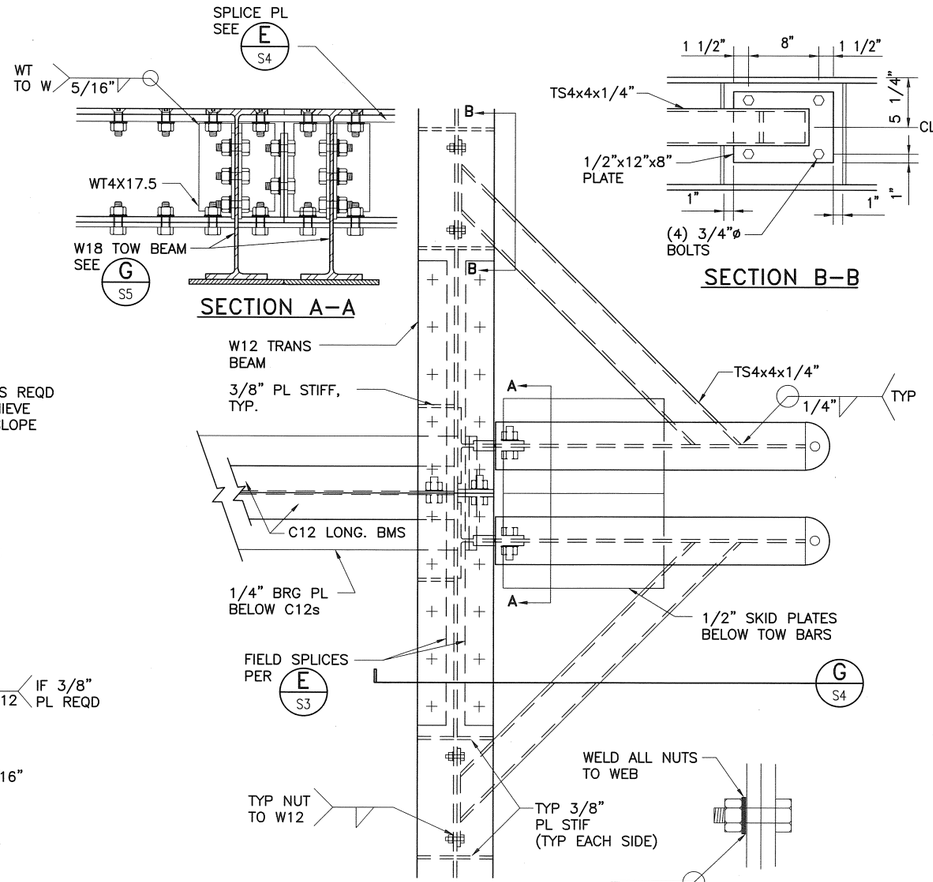


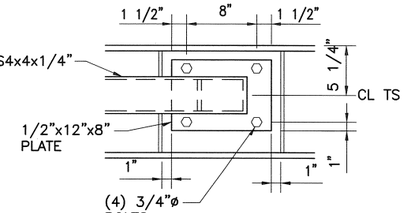
B LONGITUDINAL/TRANS BEAM CONN.

SCALE 1-1/2"=1'-0"

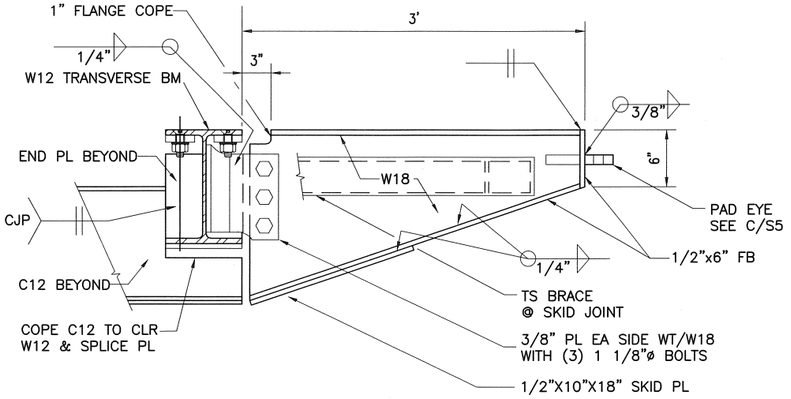
C DETAIL

SCALE 1-1/2"=1'-0"



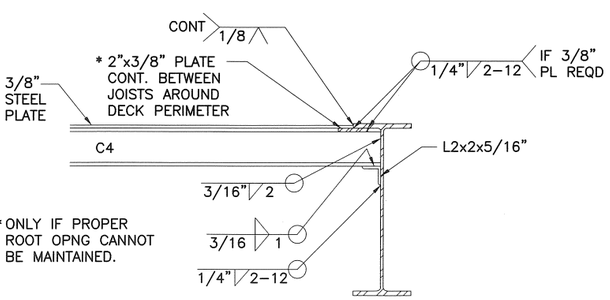


SECTION B-B



D TYPICAL BLOCKING DETAIL

SCALE 1-1/2"=1'-0"



G DETAIL

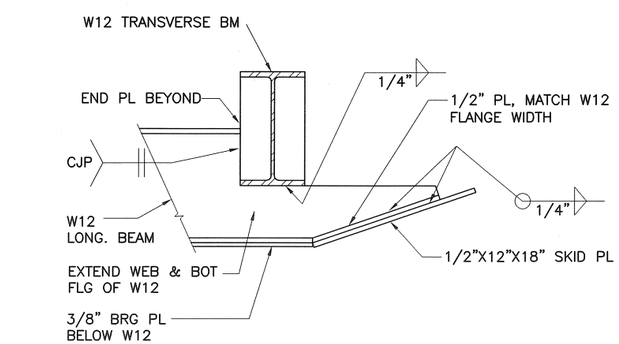
SCALE 1-1/2"=1'-0"

E TYPICAL JOIST CONNECTION

SCALE 1-1/2"=1'-0"

F TOW BAR DETAIL

SCALE 1-1/2"=1'-0"



H DETAIL

SCALE 1-1/2"=1'-0"

STATE OF ALASKA 49TH
Duane Anderson
Duane H. Anderson
No. SE 14155
4-3-15
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. 57419
AIP No. 3-02-0126-006-2014
STRUCTURAL DETAILS

DATE: 04/03/2015
SHEET: S4 OF S4

Designed By:	MCY
Drawn By:	BWD
Checked By:	RLC
Date Revised:	
Layout Name:	DETAIL S-4
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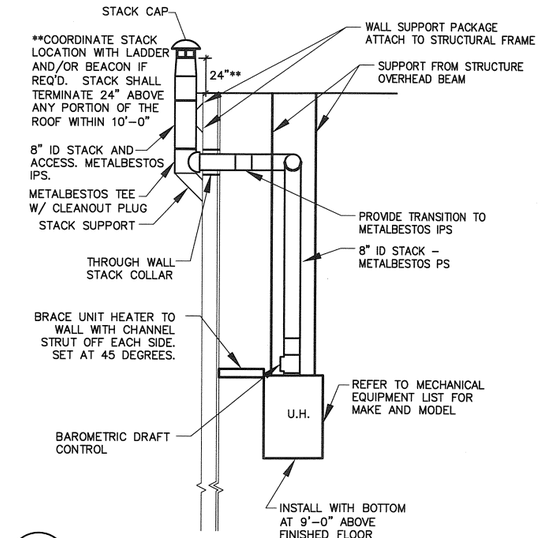
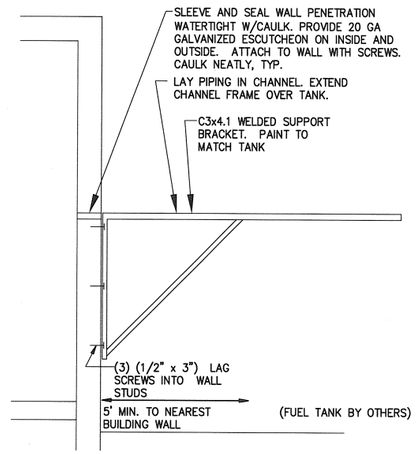


2 / M1 **UNIT HEATER STACK INSTALLATION**
NTS



3 / M1 **FUEL PIPING SUPPORT BRACKET**
NTS

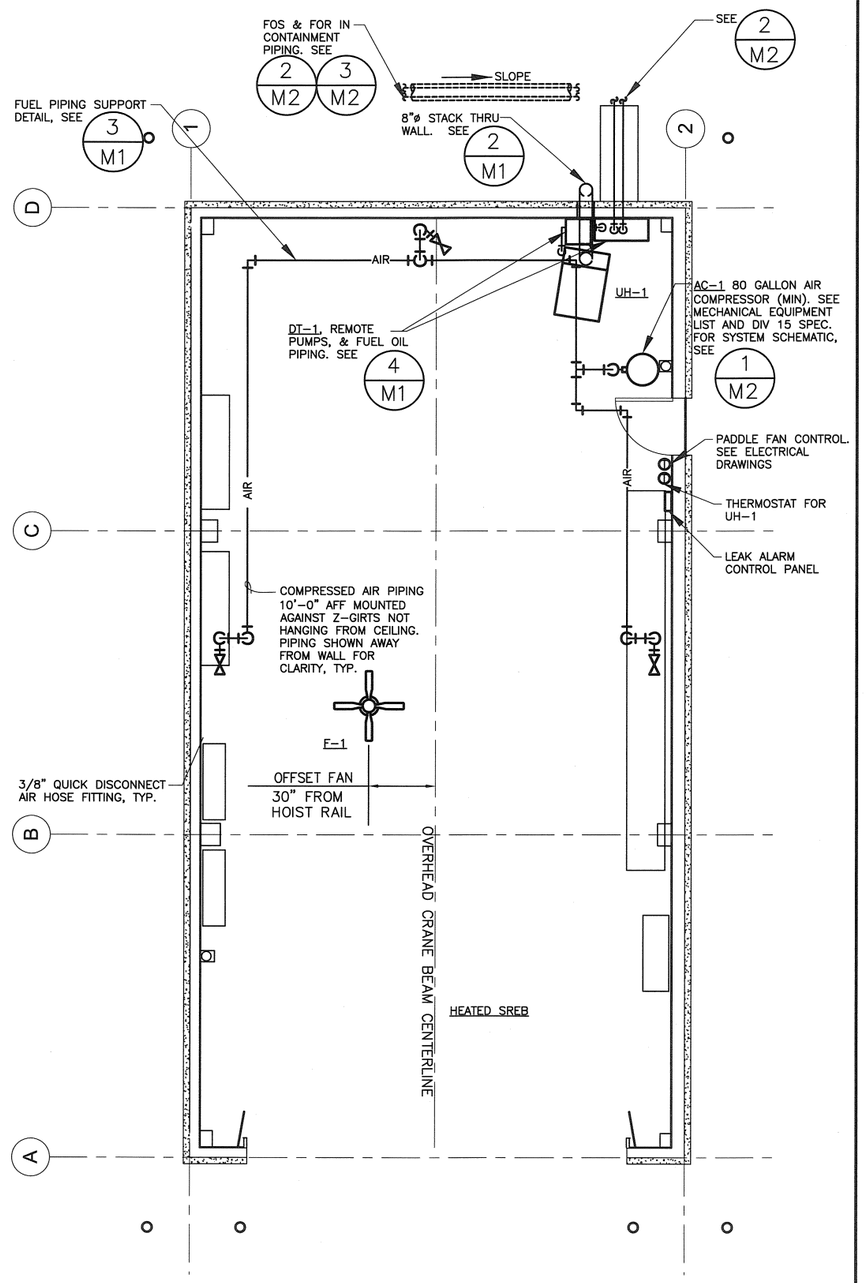
MECHANICAL EQUIPMENT LIST

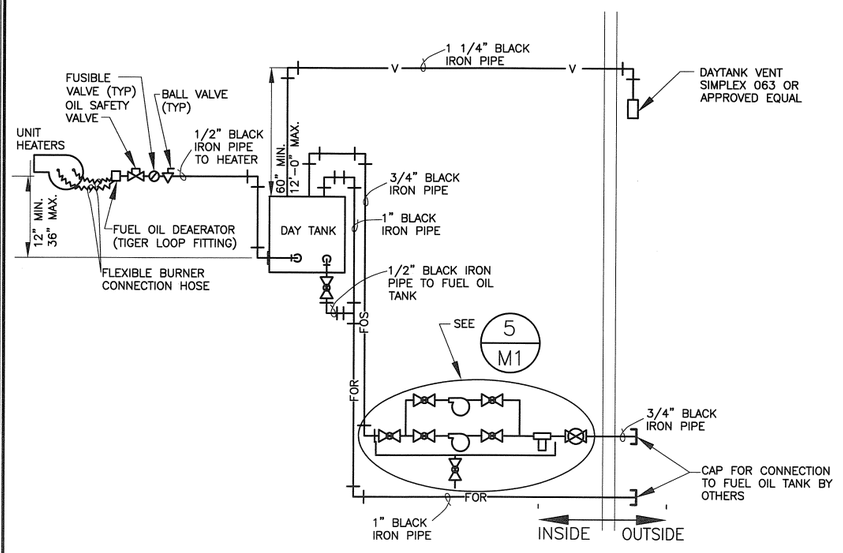
TAG	DESIGN BASIS PRODUCT
*AC-1	AIR COMPRESSOR: INGERSOLL RAND T30-2340-N3-1, 80 GALLON MINIMUM, 9.0 ACFM @ 175 PSI, 3 HP, 1.15 SF, 230V/1PH/60 HZ, CRANKCASE HEATER, LOW OIL LEVEL CUTOUT, AIR FILTER AND PRESSURE REGULATOR, AUTOMATIC CONDENSATE DRAIN W/ HIGH MOUNT ELECTRIC CONDENSATE DRAIN EDV-2000. HOSE REEL: AUTO RETRACTABLE REELCRAFT MODEL NO. 2Z862 LOW PRESSURE, 50 FOOT, 3/8"
*UH-1	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, T-STAT: HONEYWELL T631C1103 W/ LOCKABLE COVER.
*F-1	PADDLE FAN: GRAINGER/DAYTON MODEL #5NP22, 36 INCH, 12,500 CFM @ 395 RPM, 78VA, 120V/1PH/60 HZ, GRAINGER DAYTON MODEL #1AGU6 SPEED SWITCH
*DT-1	DAY TANK: SIMPLEX SST SERIES W/ PCB 1 CONTROLS, WALL MOUNT, 10 GALLON CAPACITY, GRAVITY FEED TO UNIT HEATER, DUPLEX REMOTE FUEL PUMPS - 1/3 HP MOTOR, 115V/60HZ/1PH, 063 VENT CAP
TS-1	TRANSITION SUMP: POLYETHYLENE SUMP/ FIBERGLASS TOP, HEAVILY RIBBED CONTAINMENT CHAMBER, ADJUSTABLE, REMOVABLE TOP FOR ACCESS TO TRANSITION PIPING. OPW PST-4630 TOP ENTRY.

NOTE: FURNISH AND INSTALL MAKES AND MODELS CITED HERE OR IN THE SPECIFICATIONS OR APPROVED EQUALS. * DENOTES EQUIPMENT REQUIRED IN BOTH SREB #1 AND #2

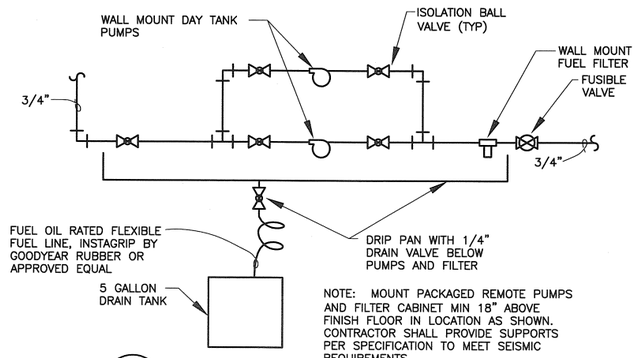
MECHANICAL LEGEND

SYMBOL	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





4 / M1 **UNIT HEATER FUEL OIL PIPE ONE-LINE**
NTS



NOTE: MOUNT PACKAGED REMOTE PUMPS AND FILTER CABINET MIN 18" ABOVE FINISH FLOOR IN LOCATION AS SHOWN. CONTRACTOR SHALL PROVIDE SUPPORTS PER SPECIFICATION TO MEET SEISMIC REQUIREMENTS.

5 / M1 **DAY TANK PUMP ASSEMBLY DETAIL**
NTS

1 / M1 **SREB #1 FUEL PIPING AND HEATING FLOOR PLAN**
1/8" = 1'-0"

NOTE: WORK SHALL APPLY FOR BOTH HEATED SREB BUILDINGS.

4' 0 4' 8' 12'
GRAPHIC SCALE: 1/8" = 1'-0"

Designed By:
Drawn By:
Checked By:
Date Revised: 6/11/2015, 8:44 AM
Layout Name: Layout1
File Path and Name: Z:\14014HBS - Hooper Bay SREB\M-Working\Drawings\14014_M1.dwg

STATE OF ALASKA * 49TH * BRADLEY S. SORDAHL 06/11/2015 ME-7568 REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY MBA CONSULTING ENGINEERS, INC.

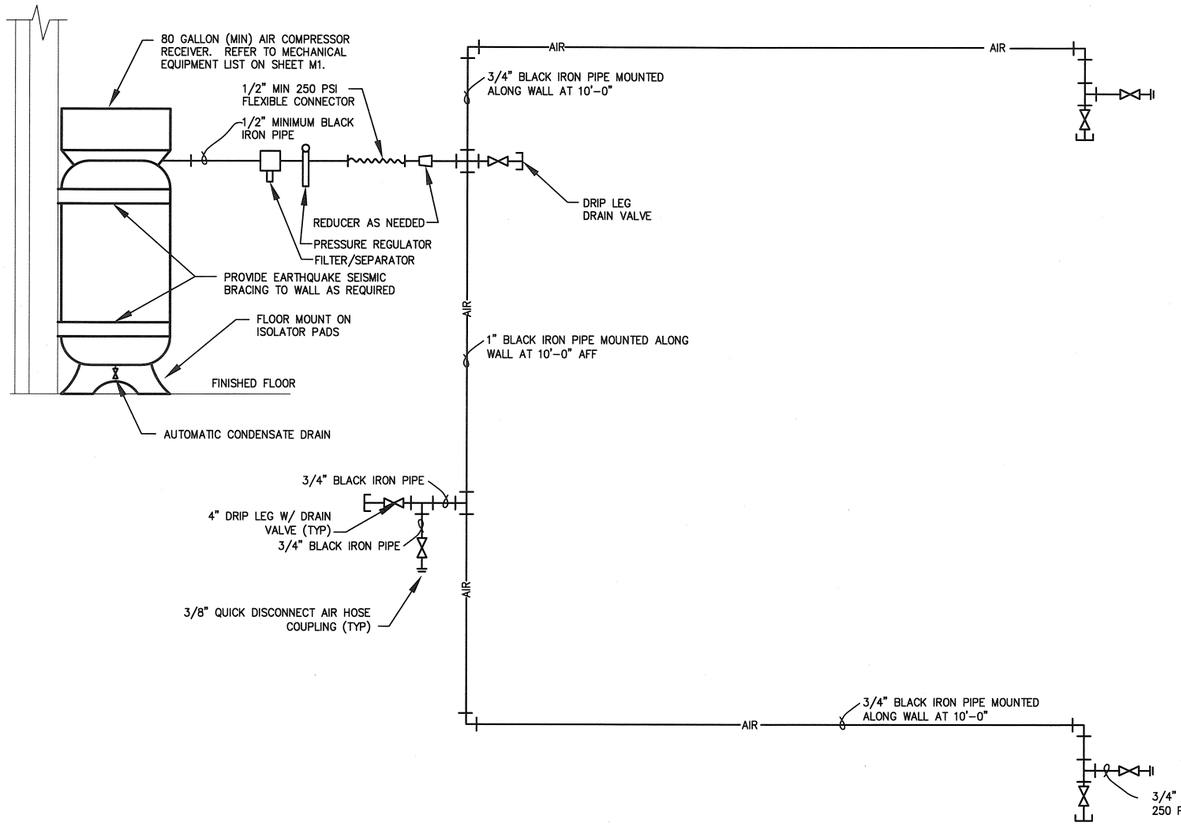
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
AIP_NUMBER: 3-02-0126-006-2014

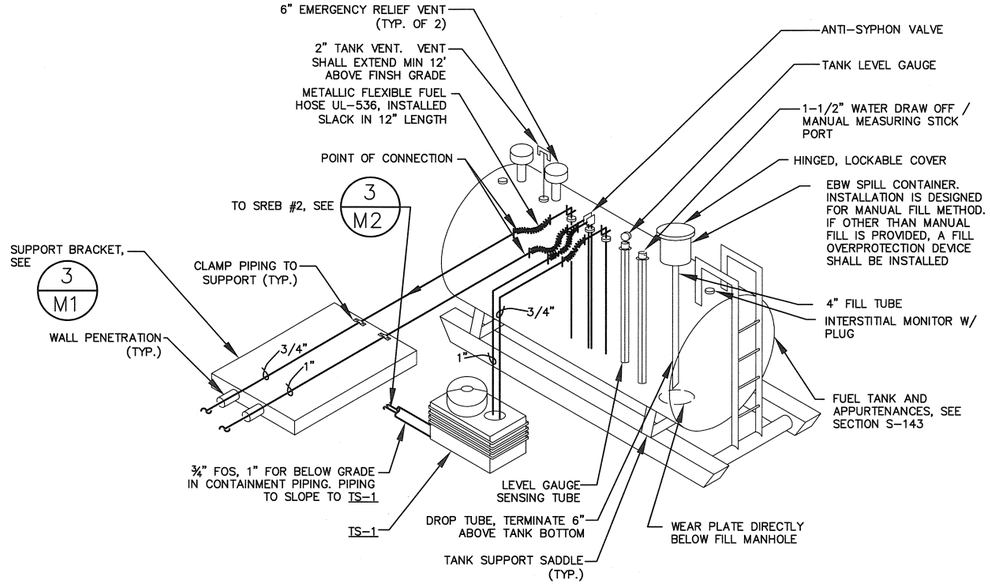
MECHANICAL PLAN AND DETAILS

DATE: 6/11/2015
SHEET: M1 OF M2
AS-BUILT SHEET:

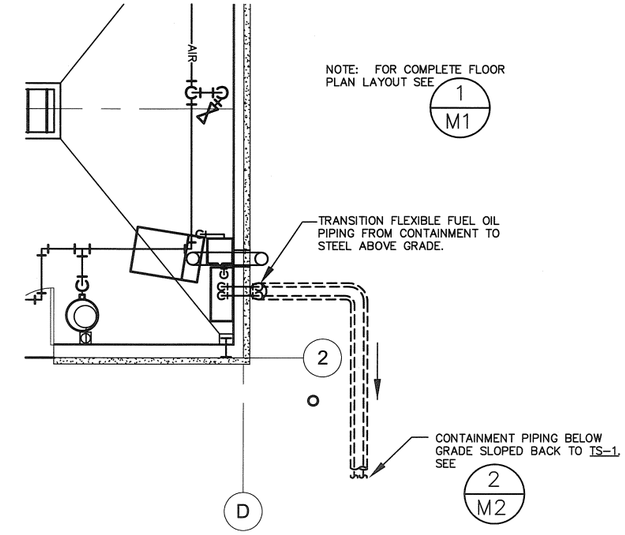


1 / M2 COMPRESSED AIR SYSTEM PIPING SCHEMATIC
NTS

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



2 / M2 FUEL OIL TANK DETAIL
NTS



3 / M2 SREB #2 PARTIAL PLAN
1/8" = 1'-0"

PLAN PREPARED BY MBA CONSULTING ENGINEERS, INC.

STATE OF ALASKA 49TH — BRADLEY S. SORDAHL — 06/11/2015 — ME-7568 — REGISTERED PROFESSIONAL ENGINEER

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
AIP_NUMBER: 3-02-0126-006-2014

COMPRESSED AIR SCHEMATIC

DATE: 6/11/2015
SHEET: M2 OF M2
AS-BUILT SHEET:

Designed By:
Drawn By:
Checked By:
Date Revised: 6/11/2015, 8:45 AM
Layout Name: Layout1
File Path and Name: Z:\14014HBS - Hooper Bay SREB\VM-Working\Drawings\14014_M2.dwg

PANEL: C

PROJECT: SINGLE 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	5.83	50/	1	2	30/1	2.88	NEMA 5-30 RECEPTACLE
		/2	3	4	30/		SPARE
50 AMP 240 VOLT RECEPTACLE	9.6	50/	5	6	/2		
NEMA 6-50R		/2	7	8	30/		SPARE
NEMA 5-20 RECEPTACLES	0.72	20/1	9	10	/2		
NEMA 5-20 RECEPTACLES	0.54	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
SPARE		20/1	17	18	20/1		SPARE
SPARE		20/1	19	20	20/1		SPARE
SPACE			21	22	20/1		SPARE
SPACE			23	24	20/		SPARE
SPACE			25	26	/2		
SPACE			27	28	20/1		SPARE
SPACE			29	30	20/1		SPARE

CONNECTED LOAD:	24.53	KVA	102.2 A
DEMAND LOAD:	24.53	KVA	102.2 A
DEMAND + CONT.	25.81	KVA	107.6 A
DATE:			
REV:			

REMARKS:
(1) FAULT CURRENT BASED ON 50 KVA 1.0% Z TRANSFORMER
2. PROVIDE SEPARATE NEUTRAL AND EQUIPMENT GROUND BARS
3. PROVIDE 200/2 MAIN CB

PANEL: G

PROJECT: SINGLE 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	1.26	20/1	1	2	30/		SPARE
LIGHTING	0.29	20/1	3	4	/2		
SPARE		15/1	5	6	20/		SPARE
PADDLE FAN & UNIT HEATER	0.75	15/1	7	8	/2		
1/3 HP FUEL PUMP AND DISPENSER	0.83	20/1	9	10	15/1	0.8	DAY TANK PUMP
FUEL PUMP STOP/DISCONNECT	0.1	15/1	11	12	15/1	0.8	DAY TANK PUMP
SPACE			13	14	20/1	1.0	LEAK ALARM PANEL
SPACE			15	16			SPACE

CONNECTED LOAD:	5.83	KVA	24.3 A
DEMAND LOAD:	5.83	KVA	24.3 A
DEMAND + CONT.	6.47	KVA	26.9 A
DATE:			
REV:			

REMARKS:
1. PROVIDE SEPARATE NEUTRAL AND EQUIPMENT GROUND BARS
2. VERIFY CB REQUIREMENTS FOR FUEL DISPENSER

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/150	CEILING MOUNT WITH POWER HOOK AND SAFETY CHAIN, 12,000 LUMENS, WIDE DISTRIBUTION, NO SHIELDING, 120 VOLT, 70 CRI, 4000K CCT. FIXTURE STANDARD FINISH TO MATCH BUILDING FINISH AS CLOSELY AS POSSIBLE. SUITABLE FOR -40F, DAMP LOCATION LISTED. LITHONIA IBL-12L-WD-LP740DLC OR APPROVED EQUAL.	16'-0"	LED	
B/75	WALL MOUNT AREA LIGHT, POLYCARBONATE REFRACTOR, 120-VOLT, 5100K CCT, 5337 LUMENS. PROVIDE INTEGRAL PHOTO-ELECTRIC CELL WHERE NOTED ON PLANS. FIXTURE STANDARD FINISH TO MATCH BUILDING FINISH AS CLOSELY AS POSSIBLE. UL LISTED FOR WET LOCATION. HUBBELL PVL3-30LU-5K-BZ OR APPROVED EQUAL.	2 FEET BELOW ROOF STRUCTURE	LED	
E/60 B	EMERGENCY EGRESS LIGHT, NICKEL-CADMIUM BATTERY. 12V, -40°C RATING. INDUSTRIAL LIGHTING UNIT, UL LISTED FOR WET LOCATION. SURVIVE-ALL SV SERIES CATALOG NO. W-12SV24N-2-LJ-D-CW4, OR APPROVED EQUAL.	8'-0"	LED	
1	NOTE SYMBOL - NUMBER INDICATED			
$	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, 50 AMP, 240V, NEMA 6-50R	48"		PROVIDE MATCHING ANGLE PLUG
	DISCONNECT SWITCH, 60A, 2P, S/N, 240V	5'-6"		
F	FAN JUNCTION BOX			
3	MOTOR WITH HORSEPOWER INDICATED			
G	GENERATOR INLET, NEMA L14-30 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			

SREB GENERAL NOTES:

1. THE WORK SHOWN ON THIS DRAWING IS APPLICABLE TO SREB #1.
2. THE WORK SHOWN ON THIS DRAWING IS APPLICABLE TO SREB #2, EXCEPT FOR THE FOLLOWING:
   - A. PANEL C:
     1. PANEL DEMAND + CONT. = 22.99 KVA, 95.8 AMPS @ 120/240V.
   - B. THE FOLLOWING CIRCUIT BREAKERS ARE NOT REQUIRED IN PANEL G (CONVERT THEM TO "SPARE"):
     1. LEAK ALARM PANEL (G-14)
     2. FUEL PUMP AND DISPENSER (G-9).
     3. FUEL PUMP STOP/DISCONNECT (G-11).
     4. PANEL DEMAND + CONT. = 4.29 KVA, 17.9 AMPS @ 120/240V.

STATE OF ALASKA 49TH — MICHAEL J. LOVE 4/3/2015 EE-5818 REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY MBA CONSULTING ENGINEERS, INC.

BY	DATE	REVISION

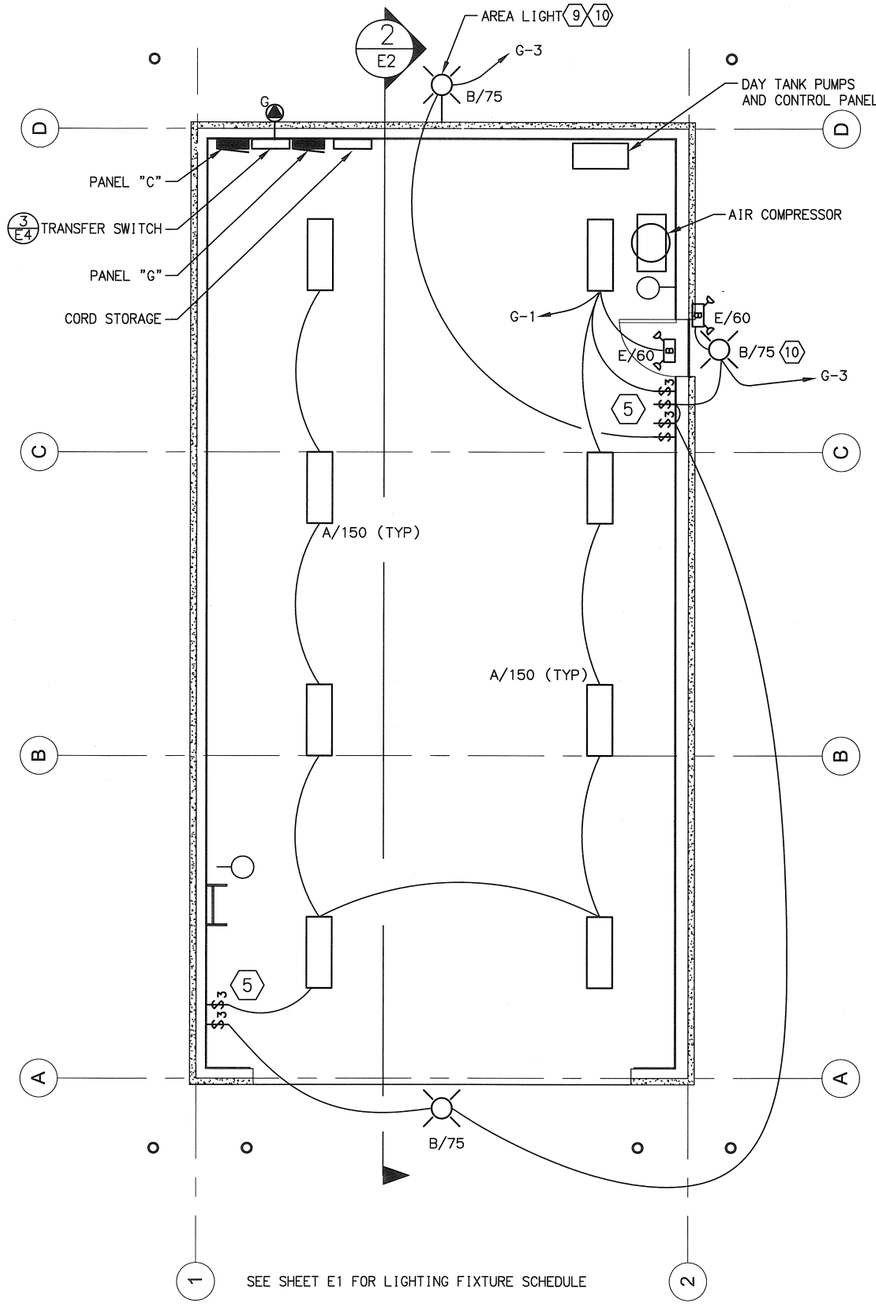
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
AIP_NUMBER: 3-02-0126-006-2014

ELECTRICAL LEGEND AND SCHEDULES

DATE: 4/3/2015
SHEET: E1 OF E4
AS-BUILT SHEET:

Designed By: KSLP
Drawn By:
Checked By: DCH
Date Revised: 3/12/2015, 10:53 AM
Layout Name: Layout1
File Path and Name: Z:\14014HBS - Hooper Bay SREB\E-Working\Drawings\14014_E1.dwg



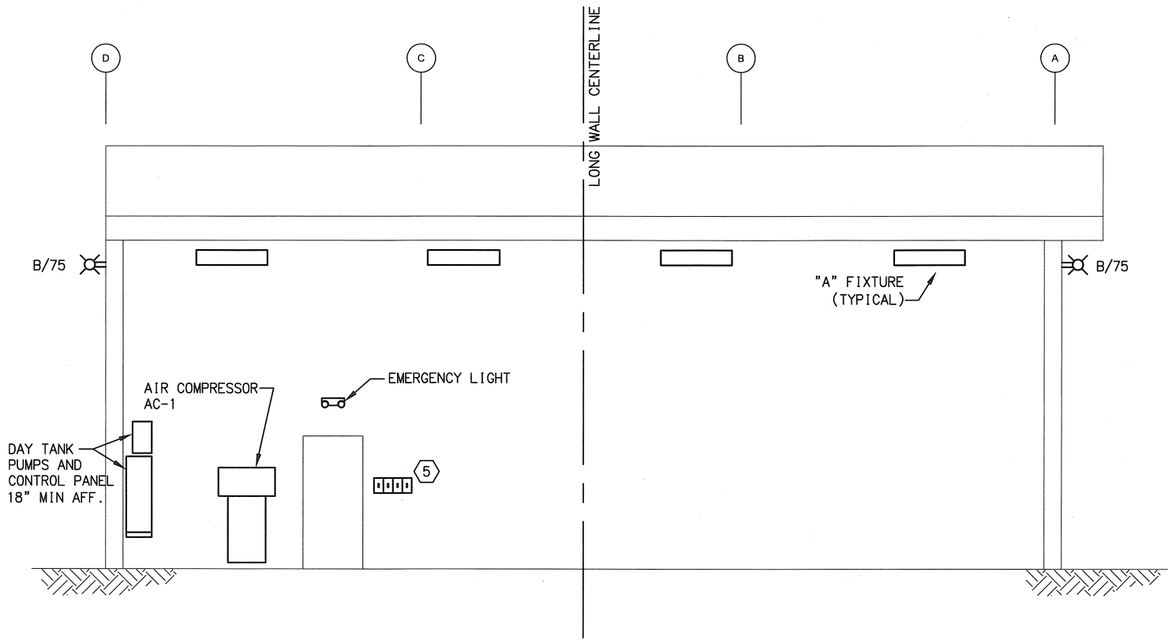
SEE SHEET E1 FOR LIGHTING FIXTURE SCHEDULE

1/E2 **LIGHTING PLAN** 1/8" = 1'-0"

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. NOT USED.
4. INSTALL CONTINUOUS #3/0 AWG BCG GROUND RING, BURY DEPTH 30". GROUNDING ELECTRODE SYSTEM: BOND TOGETHER GROUND RODS, THE BUILDING STEEL FRAME, BUILDING STEEL FLOOR, AND THE GROUND RING WITH #2 AWG CONDUCTORS. AT THE SERVICE ENTRANCE, BOND #6 AWG CONDUCTOR TO GROUNDING ELECTRODE SYSTEM FOR CONNECTION TO BUILDING DISCONNECT. SEE AIRFIELD LIGHTING DRAWINGS.
5. SWITCHES FOR LIGHT FIXTURES-A/150 & B/75 TO HAVE LOCATOR LIGHTS IN TOGGLE.
6. FOR ALL EXTERIOR WIRING AND INTERIOR WIRING BELOW 10 FT ABOVE FINISH FLOOR, USE RIGID STEEL CONDUIT. IMC AND EMT CONDUIT MAY BE USED 10 FT A.F.F. WITHIN THE BUILDING ENVELOPE.
7. NOT USED.

   NOT USED.
9. LOCATE FIXTURE TO ILLUMINATE THE FUEL DISPENSING AREA AND ELECTRICAL EQUIPMENT BUILDING. LOCATE TO AVOID CONFLICT WITH UNIT HEATER EXHAUST AND OTHER ITEMS.
10. MOUNT 2 FEET BELOW ROOF STRUCTURE. PROVIDE WITH MOTION SENSOR (WATTSTOPPER EW-200-120-G OR APPROVED EQUAL) AND INTEGRAL PHOTOCELL. SEE DETAIL 4/E4 FOR CONTROL DIAGRAM.
11. PROVIDE SLACK LOOP ADEQUATE TO ACCOMMODATE MOVEMENT OF 12 INCHES IN ANY DIRECTION WHEN TRANSITIONING TO UNDERGROUND CONDUIT.
12. PENETRATIONS THROUGH EXTERIOR WALL SHALL BE BELOW SERVED EQUIPMENT.



2/E2 **INTERIOR ELEVATION** 1/8" = 1'-0"

MAGNETIC

4' 0 4' 8' 12'

GRAPHIC SCALE: 1/8" = 1'-0"

SREB GENERAL NOTES:

1. THE WORK SHOWN ON THIS DRAWING IS APPLICABLE TO SREB #1 AND TO SREB #2.

STATE OF ALASKA 49TH — MICHAEL J. LOVE 4/3/2015 EE-5818 REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY MBA CONSULTING ENGINEERS, INC.

BY	DATE	REVISION

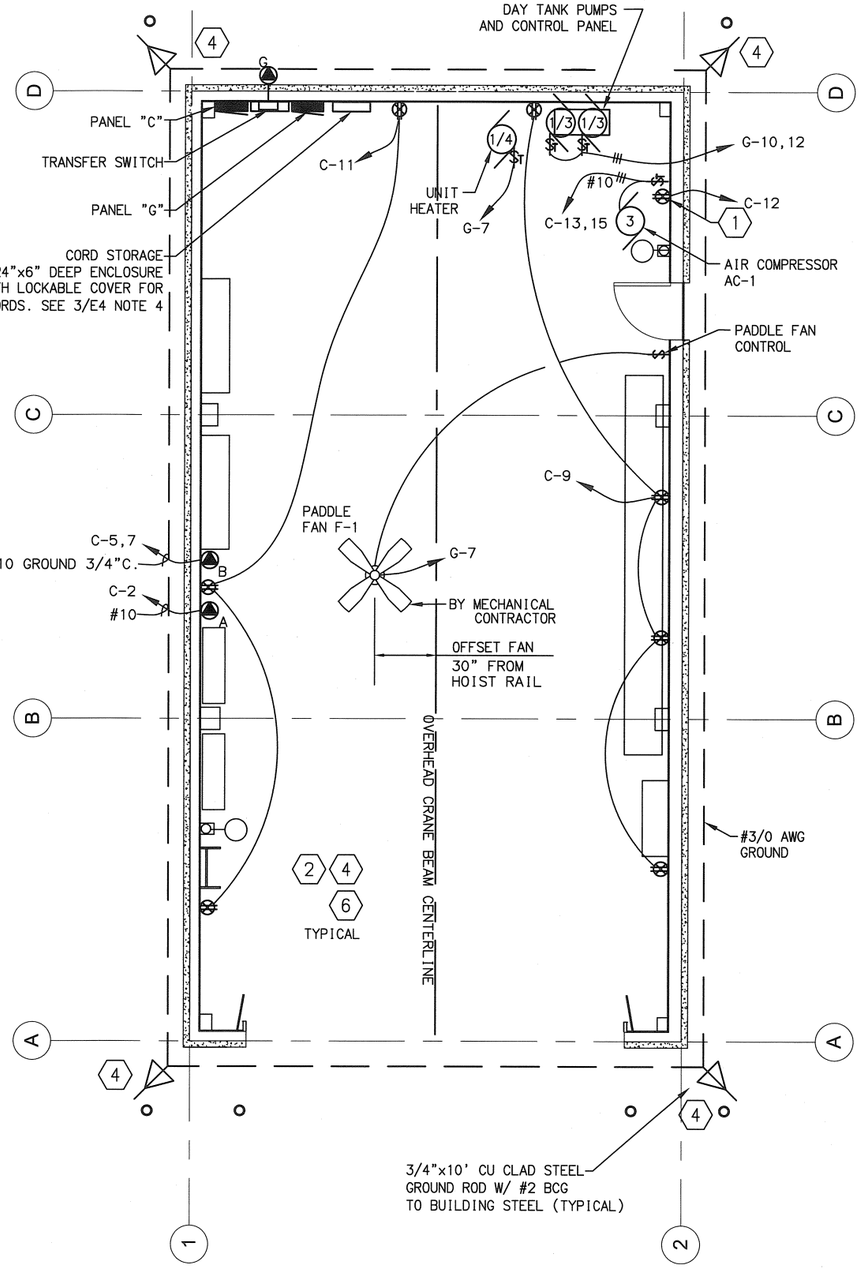
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
AIP_NUMBER: 3-02-0126-006-2014

ELECTRICAL LIGHTING PLAN

DATE: 4/3/2015
SHEET: E2 OF E4
AS-BUILT SHEET:

Designed By: KSLP
Drawn By:
Checked By: DCH
Date Revised: 3/12/2015, 11:22 AM
Layout Name: Layout1
File Path and Name: Z:\14014HBS - Hooper Bay SREB\E-Working\Drawings\14014_E2.dwg

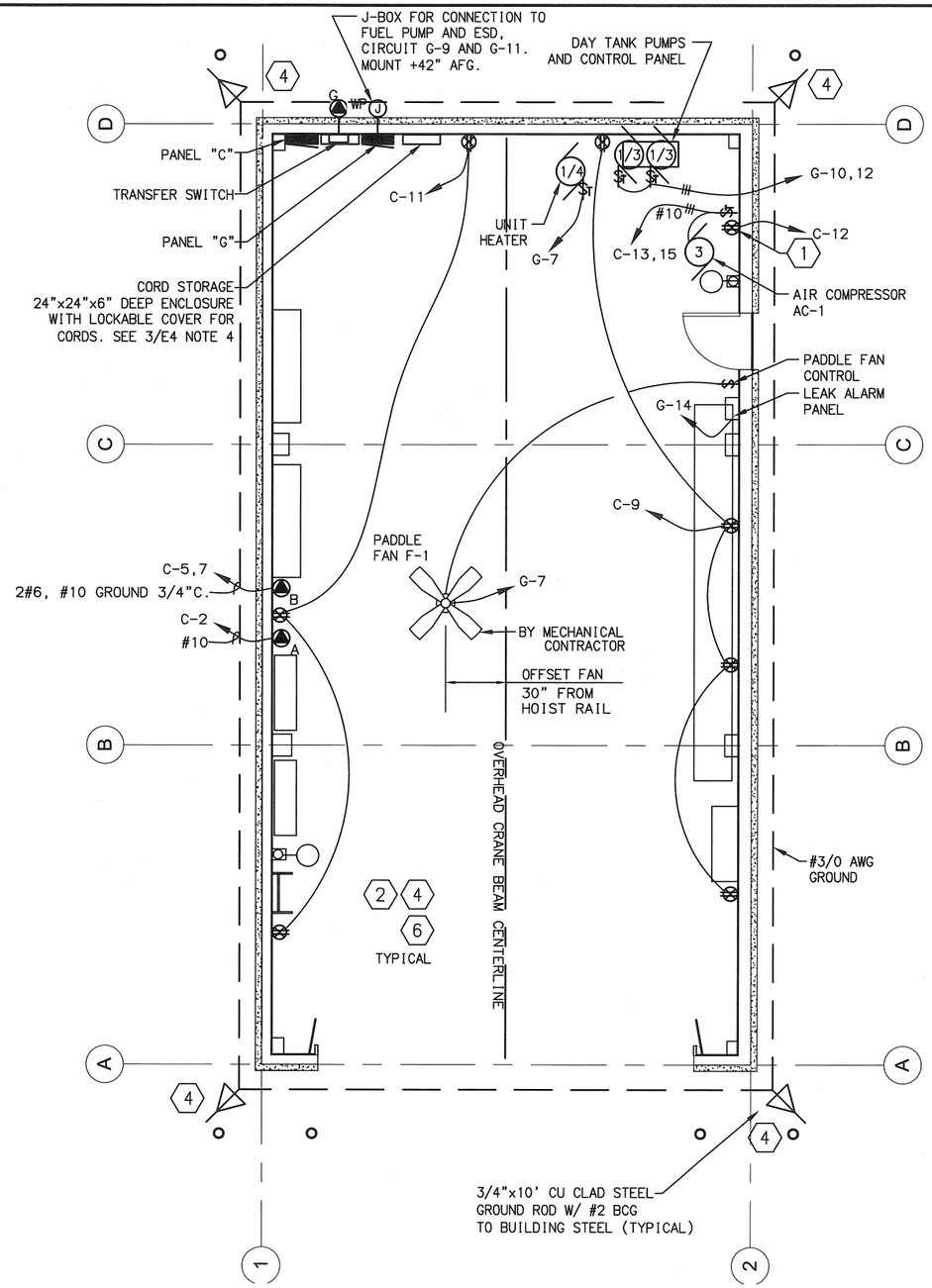


1/E3 POWER PLAN - SREB #2

1/8" = 1'-0"

NOTES:

1. SEE ELECTRICAL NOTES FOR THIS DETAIL ON SHEET E2.
2. REFER TO AIRPORT LIGHTING SHEETS FOR METER PANEL LOCATION AND DETAIL.



2/E3 POWER PLAN - SREB #1

1/8" = 1'-0"

NOTES:

1. SEE ELECTRICAL NOTES FOR THIS DETAIL ON SHEET E2.
2. REFER TO AIRPORT LIGHTING SHEETS FOR METER PANEL LOCATION AND DETAIL.

4' 0 4' 8' 12'

GRAPHIC SCALE: 1/8" = 1'-0"

STATE OF ALASKA 49TH MICHAEL J. LOVE 4/3/2015 EE-5818 REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY MBA CONSULTING ENGINEERS, INC.

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
AIP_NUMBER: 3-02-0126-006-2014

ELECTRICAL POWER PLAN & DETAILS

DATE: 4/3/2015
SHEET: E3 OF E4
AS-BUILT SHEET:

Designed By: KSLP
Drawn By:
Checked By: DCH
Date Revised:
Layout Name: 3/12/2015, 11:20 AM Layout1
File Path and Name: Z:\14014HBS - Hooper Bay SREB\E-Working\Drawings\14014_E3.dwg

DETAIL NOTES:

(1) NOT USED.

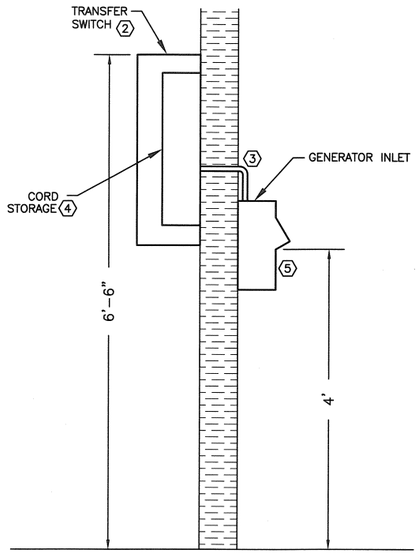
(2) 60–AMP 250–VOLT NON–FUSED TWO–POLE DOUBLE–THROW TRANSFER SWITCH, SQUARE–D CATALOG NO. DTU222 OR APPROVED EQUAL.

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

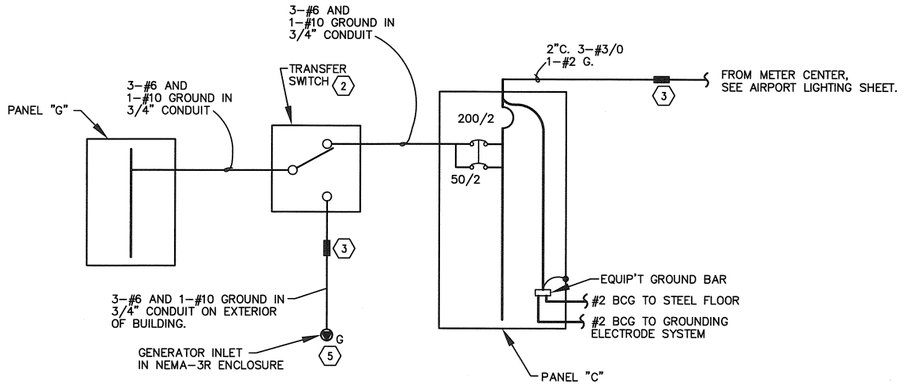
(4) PROVIDE A 20–FOOT "ARCTIC" POWER CORD CONTAINING THREE #8 AWG POWER CONDUCTORS AND ONE #10 AWG GROUND CONDUCTOR WITH A CS63–64C* CONNECTOR ON ONE END AND A CS63–65C* PLUG ON THE OTHER. PROVIDE THE FOLLOWING 36–INCH LONG ADAPTER CORDS.
- (A) 1–4C #10 POWER CORD WITH A CS63–64C* CONNECTOR ON ONE END 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 THE FLOOR LEVEL – 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).

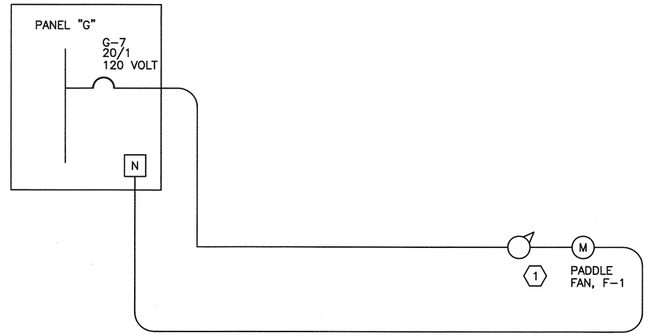


3 / E4 **PANEL "G" - GENERATOR INLET ELEVATION**
NTS



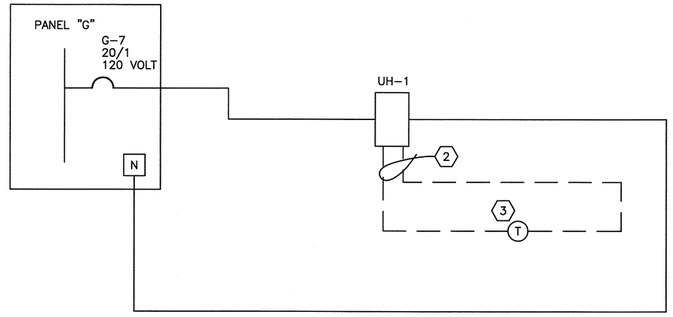
4 / E4 **POWER ONE LINE DIAGRAM**
NTS

NOTE: REFER TO AIRPORT LIGHTING SHEETS FOR METER PANEL LOCATION AND DETAIL.



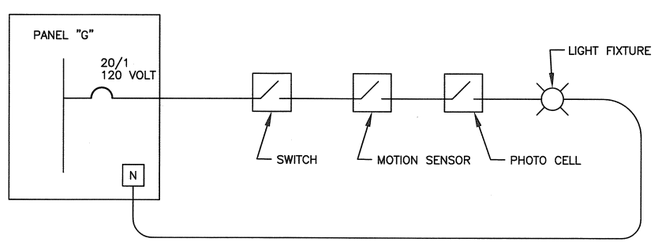
1 / E4 **PADDLE FAN CONTROL DIAGRAM**
NTS

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



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

NOTES:
(1) NOT USED.
(2) THERMOSTAT WIRE – CAN RUN EXPOSED BUT MUST BE STAPLED TO WAINSCOT 24 INCHES O.C.
(3) THERMOSTAT FOR UNIT HEATER – NON MERCURY TYPE.



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

SREB GENERAL NOTES:

1. THE WORK SHOWN ON DETAILS 1/E4 AND 2/E4 IS APPLICABLE TO THE HEATED BUILDING, SREB #1.
2. THE WORK SHOWN ON DETAILS 3/E4, 4/E4 AND 5/E4 IS APPLICABLE TO THE HEATED BUILDING, SREB #1 AND TO THE UNHEATED BUILDING, SREB #2.

Date Revised:
Layout Name: Power (3)
File Path and Name: Z:\14014HBS – Hooper Bay SREB\E–Working\Drawings\14014_E4.dwg
Designed By: KSLP
Drawn By:
Checked By: DCH
3/12/2015, 11:22 AM

STATE OF ALASKA 49TH
MICHAEL J. LOVE
4/3/2015
EE-5818
REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY MBA CONSULTING ENGINEERS, INC.

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

HOOPER BAY AIRPORT
HOOPER BAY, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
AIP_NUMBER: 3-02-0126-006-2014

HEAT CONTROLS & POWER DETAILS

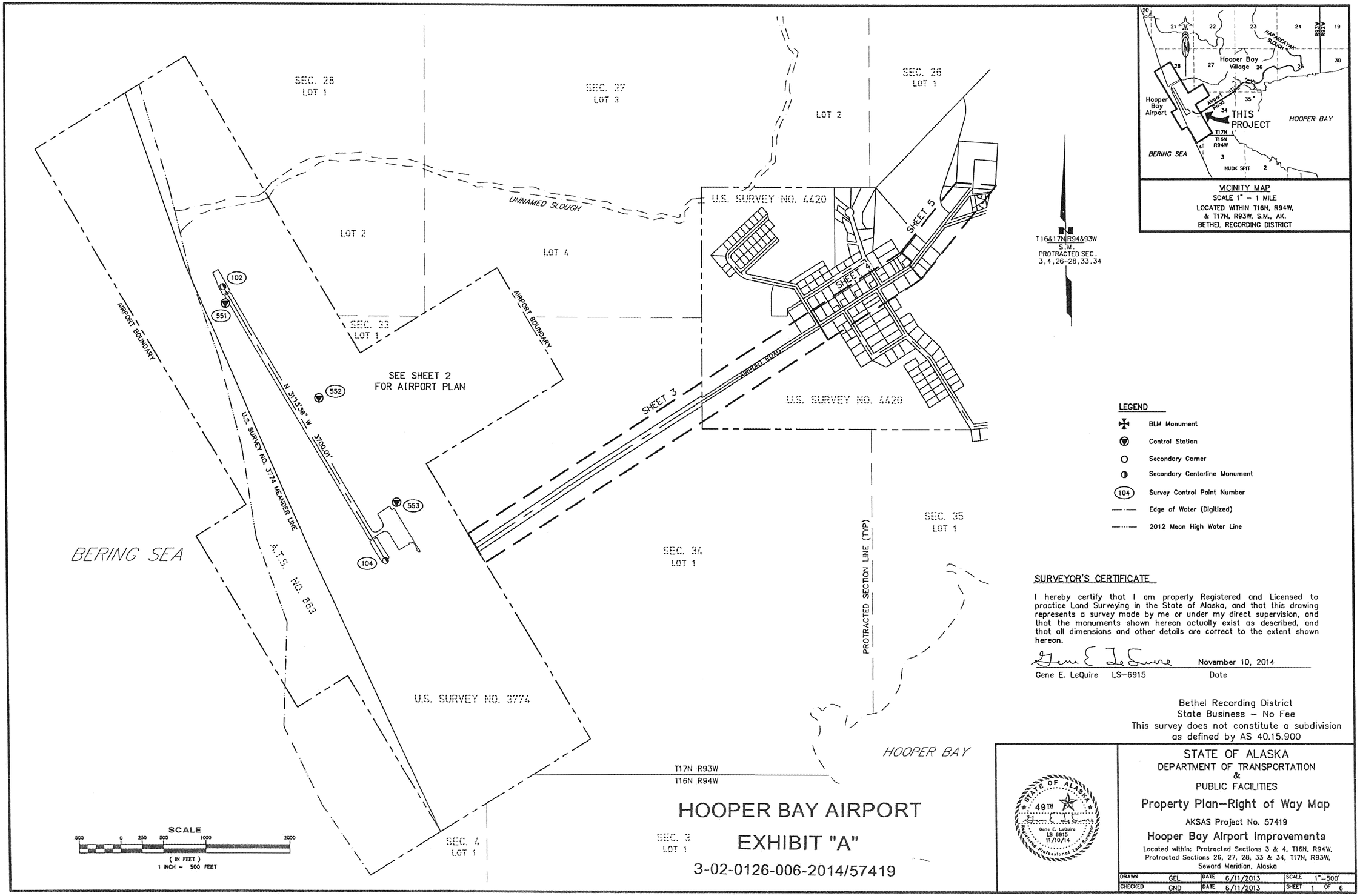
DATE: 4/3/2015
SHEET: E4 OF E4
AS–BUILT SHEET:

Designed By:	BT
Drawn By:	RJB
Checked By:	MHH

Date Revised:	7/15/2015, 3:29 PM
Layout Name:	PROPERTY PLAN
File Path and Name:	W:\Projects\Hooper Bay\Hooper Bay Airport improvements 57419\Final Drawings

PROPERTY PLAN

STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** CENTRAL REGION	**HOOPER BAY AIRPORT** HOOPER BAY, ALASKA AIRPORT IMPROVEMENTS PROJECT No. 57419 AIP No. 3-02-0126-006-2014	DATE: 7/16/2015 SHEET: OF AS-BUILT SHEET:



VICINITY MAP
SCALE 1" = 1 MILE
LOCATED WITHIN T16N, R94W,
& T17N, R93W, S.M., AK.
BETHEL RECORDING DISTRICT

LEGEND

- BLM Monument
- Control Station
- Secondary Corner
- Secondary Centerline Monument
- (104) Survey Control Point Number
- Edge of Water (Digitized)
- 2012 Mean High Water Line

SURVEYOR'S CERTIFICATE

I hereby certify that I am properly Registered and Licensed to practice Land Surveying in the State of Alaska, and that this drawing represents a survey made by me or under my direct supervision, and that the monuments shown hereon actually exist as described, and that all dimensions and other details are correct to the extent shown hereon.

Gene E. LeQuire LS-6915 — November 10, 2014 Date

Bethel Recording District
State Business – No Fee
This survey does not constitute a subdivision
as defined by AS 40.15.900

STATE OF ALASKA
Gene E. LeQuire
LS 6915
11/10/14
Registered Professional Land Surveyor

HOOPER BAY AIRPORT
EXHIBIT "A"
3-02-0126-006-2014/57419

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

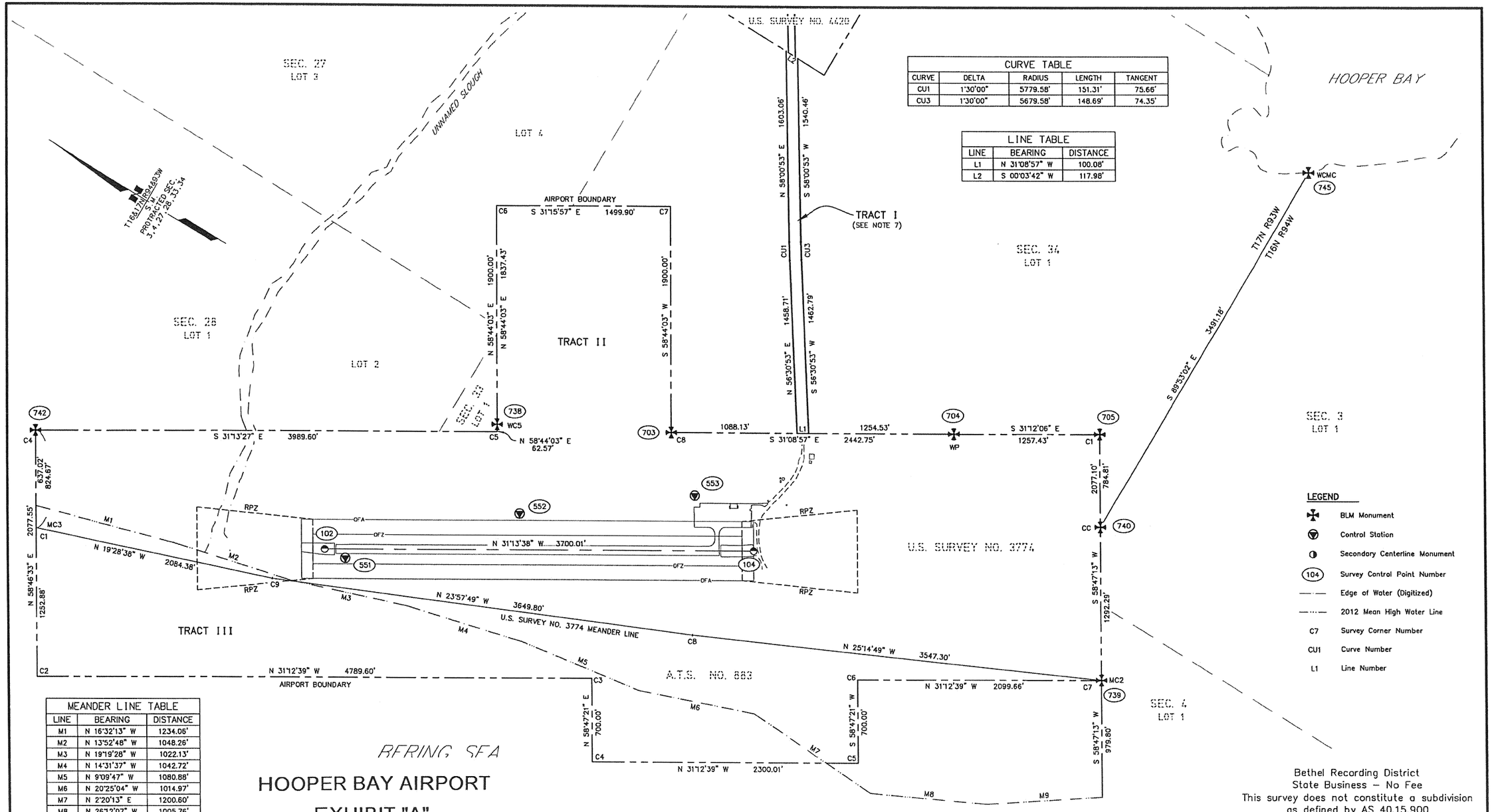
Property Plan–Right of Way Map

AKSAS Project No. 57419

Hooper Bay Airport Improvements

Located within: Protracted Sections 3 & 4, T16N, R94W,
Protracted Sections 26, 27, 28, 33 & 34, T17N, R93W,
Seward Meridian, Alaska

DRAWN	GEL	DATE	6/11/2013	SCALE	1"=500'
CHECKED	GND	DATE	6/11/2013	SHEET	1 OF 6



CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	TANGENT
CU1	1°30'00"	5779.58'	151.31'	75.66'
CU3	1°30'00"	5679.58'	148.69'	74.35'

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 31°08'57" W	100.08'
L2	S 00°03'42" W	117.98'

MEANDER LINE TABLE		
LINE	BEARING	DISTANCE
M1	N 16°32'13" W	1234.06'
M2	N 13°52'48" W	1048.26'
M3	N 19°19'28" W	1022.13'
M4	N 14°31'37" W	1042.72'
M5	N 9°09'47" W	1080.88'
M6	N 20°25'04" W	1014.97'
M7	N 2°20'13" E	1200.60'
M8	N 26°12'07" W	1005.76'
M9	N 34°44'59" W	996.64'

LEGEND

- BLM Monument
- Control Station
- Secondary Centerline Monument
- (104) Survey Control Point Number
- Edge of Water (Digitized)
- 2012 Mean High Water Line
- C7 Survey Corner Number
- CU1 Curve Number
- L1 Line Number

RFRING SFA

HOOPER BAY AIRPORT
EXHIBIT "A"

3-02-0126-006-2014/57419

PROPERTY STATUS

PARCEL NO.	INTEREST	GRANTOR	GRANTEE	PARCEL SIZE	DATE ACQUIRED	RECORDED DOCUMENT NO.	ACQUIRED A.I.P. NO.
TRACT I	100' RIGHT OF WAY EASEMENT	RS 2477	STATE OF ALASKA, DOT&PF	7.31 ACRES	1/18/1958	N/A	
TRACT II	FEDERAL PATENT #1235732	U.S. of A, DOI	STATE OF ALASKA, DOT&PF	390.39 ACRES	4/14/1964	2005-001109-0 BRD	
TRACT III	ILMT	STATE OF ALASKA, DNR	STATE OF ALASKA, DOT&PF	150.42 ACRES	2/2/1973	BK 27 PG 410 BRD	

SCALE
400 0 200 400 800 1600
(IN FEET)
1 INCH = 400 FEET

Bethel Recording District
State Business – No Fee
This survey does not constitute a subdivision as defined by AS 40.15.900

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

Property Plan–Right of Way Map

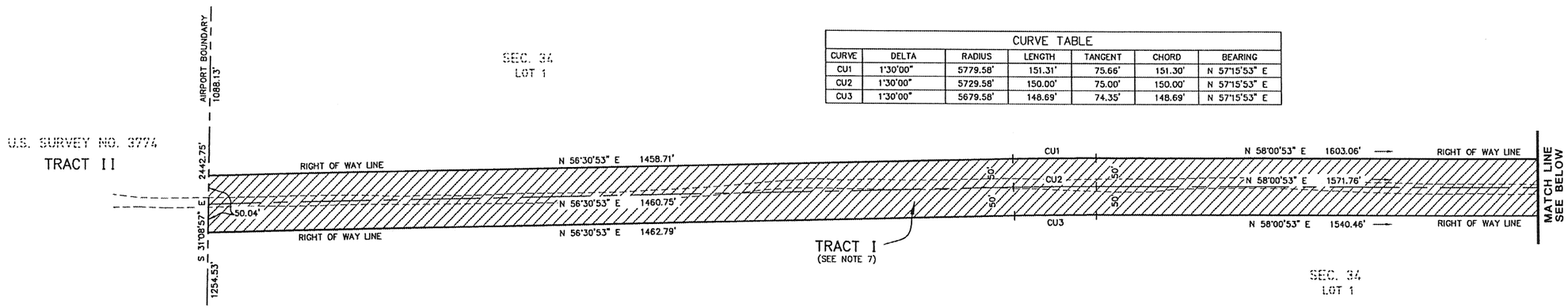
AKSAS Project No. 57419

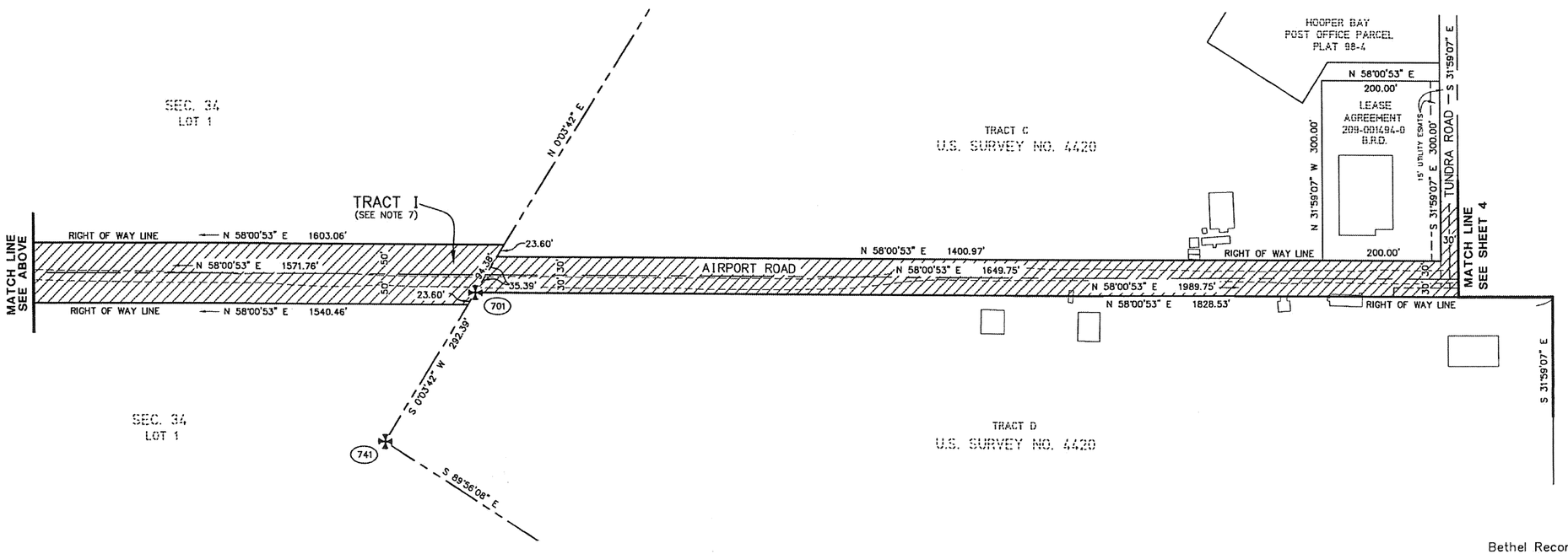
Hooper Bay Airport Improvements

Located within: Protracted Sections 3 & 4, T16N, R94W, Protracted Sections 26, 27, 28, 33 & 34, T17N, R93W, Seward Meridian, Alaska

DRAWN	GEL	DATE	6/11/2013	SCALE	1"=400'
CHECKED	GND	DATE	6/11/2013	SHEET	2 OF 6

CURVE TABLE						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD	BEARING
CU1	1°30'00"	5779.58'	151.31'	75.66'	151.30'	N 57°15'53" E
CU2	1°30'00"	5729.58'	150.00'	75.00'	150.00'	N 57°15'53" E
CU3	1°30'00"	5679.58'	148.69'	74.35'	148.69'	N 57°15'53" E





LEGEND

- BLM Monument
- CU1 Curve Number
- (104) Survey Control Point Number

SCALE

100 0 50 100 200 400

(IN FEET)

1 INCH = 100 FEET

HOOPER BAY AIRPORT

EXHIBIT "A"

3-02-0126-006-2014/57419

Bethel Recording District
State Business – No Fee
This survey does not constitute a subdivision as defined by AS 40.15.900

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

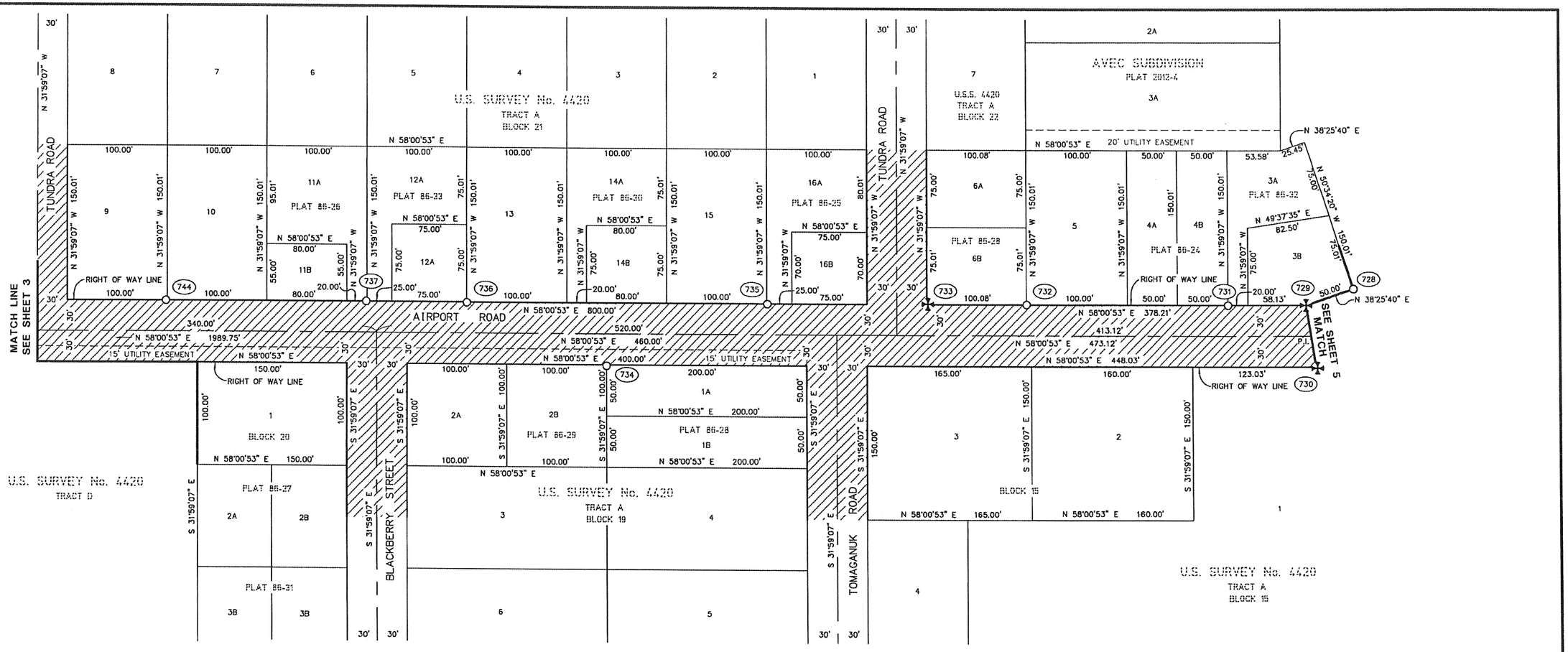
Property Plan–Right of Way Map

AKSAS Project No. 57419

Hooper Bay Airport Improvements

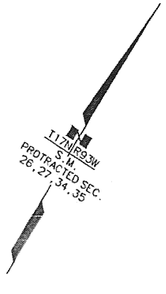
Located within: Protracted Sections 3 & 4, T16N, R94W, Protracted Sections 26, 27, 28, 33 & 34, T17N, R93W, Seward Meridian, Alaska

DRAWN	CEL	DATE	6/11/2013	SCALE	1" = 100'
CHECKED	GND	DATE	6/11/2013	SHEET	3 OF 6



LEGEND

- BLM Monument
- Secondary Corner
- (104) Survey Control Point Number



SCALE

50 0 25 50 100 200

(IN FEET)

1 INCH = 50 FEET

Bethel Recording District
State Business – No Fee
This survey does not constitute a subdivision as defined by AS 40.15.900

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

Property Plan–Right of Way Map

AKSAS Project No. 57419

Hooper Bay Airport Improvements

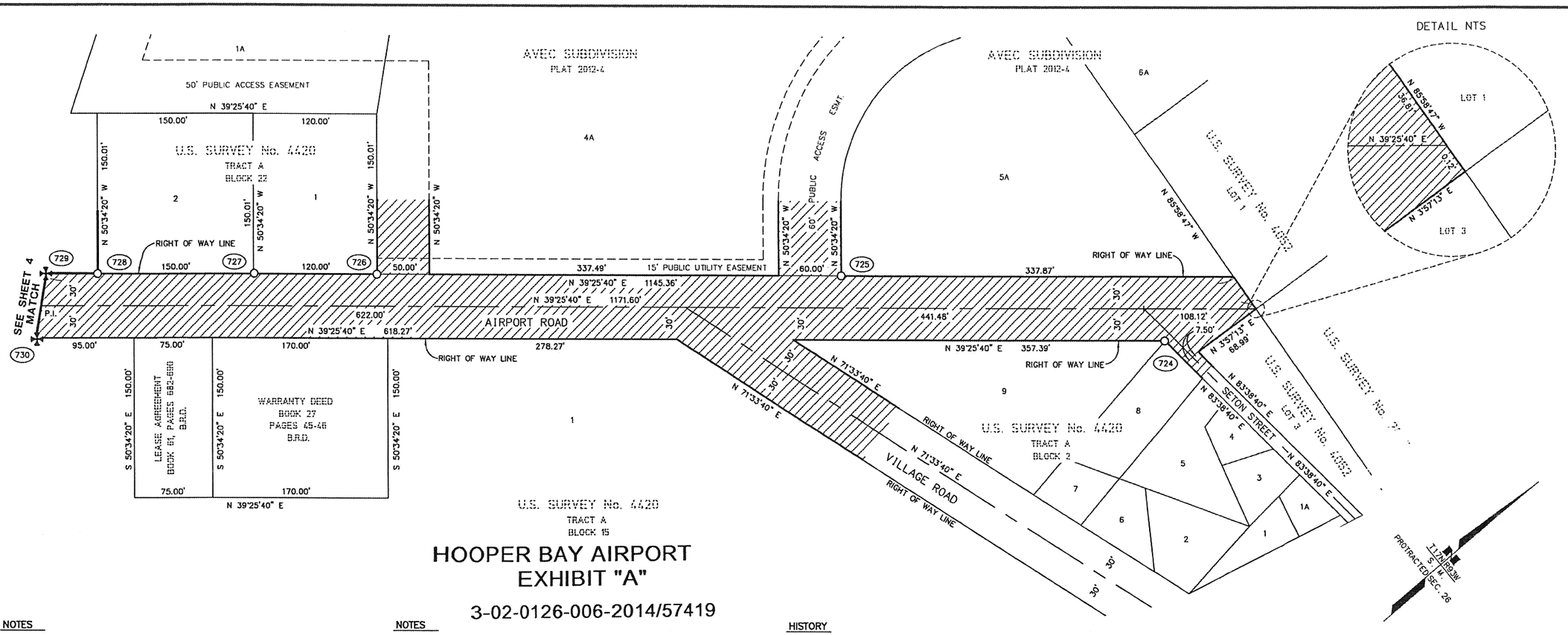
Located within: Protracted Sections 3 & 4, T16N, R94W, Protracted Sections 26, 27, 28, 33 & 34, T17N, R93W, Seward Meridian, Alaska

DRAWN	GEL	DATE	6/11/2013	SCALE	1" = 50'
CHECKED	GND	DATE	6/11/2013	SHEET	4 OF 6

HOOPER BAY AIRPORT

EXHIBIT "A"

3-02-0126-006-2014/57419



HOOPER BAY AIRPORT
EXHIBIT "A"

3-02-0126-006-2014/57419

NOTES

1. The field survey was performed by R&M Consultants, Inc. (R&M) between October 23, and November 19, 2012. Field survey information is located in R&M field books 1886.01 Bk. 1, pages 1 through 70 and 1886.01 Bk. 2, pages 1 through 42.
2. All dimensions and coordinates shown hereon are in U.S. Survey Feet.
3. Bearings and distances not fixed by recovered monumentation were computed. Line work may not terminate at the found monument.
4. All plats and documents referred to by Number or Book and Page can be found in the Bethel Recording District (BRD).
5. Title Reports were not prepared in association with this mapping effort. Easements may exist that are not shown hereon.
6. Tract designations for the Airport are from the Hooper Bay Airport Property Plan dated March 15, 1972, Revised April 11, 1975.
7. Tract I was established as a 100 foot road right of way easement accepted under provisions of R.S 2477, 50 feet either side of centerline. Within Tract I is a 17(b) public easement (EIN 9 C5), 60 foot in width, 30 feet either side of centerline. (See History)
8. The 2012 mean high water line shown was field located at the line of evidence and confirmed with tidal datum comparisons.
9. Corners 5, 6 and 7 of U.S. Survey No. 3774 were computed using record computed angles and distances holding points 703 and 738.

NOTES

10. MC3 of U.S. Survey No. 3774 and C2 of A.T.S. No. 883 were computed using record angle and distances holding point 742 and computed point C5. The distance between point 742 and computed point C5 is 10.40 feet short of record.
11. The U.S. Survey No. 3774 meander line was created using record angle and distance holding points 739 and 705. It was then rotated to computed MC3. The first two legs were left with record distances. The third leg was aligned to computed MC3 absorbing the distance error listed in Note 10.
12. The South boundary of A.T.S. No. 883 was computed holding point 739 and computed point C2. C3 was set on line 10.40 feet short of record to absorb the distance error listed in Note 10. Points C4, C5 and C6 were set at record angle and distance from line C3–C2.
13. The centerline of Airport Road along the West boundary of U.S. Survey No. 4420 was computed at record distance from point 701 on line 741–701. A centerline point of Airport Road on the east end of the road was computed from point 724 at 30.00 feet using record rotated bearing. Centerline points of Airport Road near the angle point were computed at 30.00 feet using record rotated bearings from point 729. The lines were connected between the computed points and intersected to compute the P.I.
14. The centerline of Right of Way in Tract I was computed by extending the centerline of Airport Road westerly from the west boundary of U.S. Survey No. 4420. The record computed distance from the State of Alaska Department of Highways Right of Way Map, Project No. EMP–RS–0207(1) was held to compute the P.I. of the curve. Record curve data was used to complete the curve and intersect the Airport Boundary.

HISTORY

In November of 1958 an application was filed for the Hooper Bay Townsite. In December of 1958 an application was filed for the Hooper Bay Airport. In 1959 and 1960 the Airport and Access road were constructed. A 100 foot road Right of Way (ROW) for the road was believed to be accepted under provisions of U.S.R.S. 2477. In 1961 U.S. Survey No. 3774, Hooper Bay Airport was accepted. In April of 1971 U.S. Survey No. 4420, Townsite of Hooper Bay, was accepted showing tracts and roads. The 1972 Division of Aviation, Hooper Bay Airport Plan refers to a 100 foot wide ROW accepted by U.S.R.S. 2477, 11/18/58. This Property Plan supersedes Property Plan dated 11/23/66, revised thru 9/5/68. The 100 foot ROW, (designated Tract I), runs from the east boundary of U.S. Survey 3774 to U.S. Survey No. 2026 (School Reserve), approximately 7300 feet. The 1972 State of Alaska, Department of Highways, ROW Map, Alaska Project No. "Hooper Bay, EMP–RS–0207(1)", refers to a 100 foot wide ROW as shown on the property plan by Division of Aviation, Hooper Bay Airport, November 23, 1966. This 100 foot wide ROW runs from the east boundary of U.S. Survey No. 3774 to the west boundary of U.S. Survey No. 4420, approximately 3200 feet. In 1974 an application was filed for Village Land Selections, including Sections 33 & 34 T17N R93W S.M. (The area encompassing the road). In 1981 the State of Alaska requested that the Bureau of Land Management (BLM) recognize the 100 foot R.S. 2477 ROW between the U.S. Surveys with the Village Land disposal. The BLM had reserved a 60 foot easement to accompany the land disposal and decided that would be sufficient. The State appealed that decision to the Alaska Native Claims Appeal Board (ANCAB). On June 26, 1981 ANCAB decided that the RS 2477 ROW should be identified on the conveyance but could not declare the validity of the claim. The BLM appealed that decision. In May of 1982, Interim Conveyance No. 510 was issued to the Sea Lion Corporation excluding Sections 33 and 34, T17N, R93W. On June 4, 1982 ANCAB upheld the original decision. In December of 1982, Interim Conveyance No. 578 was issued for Sections 33 & 34, T17N, R93W, S.M. excluding U.S. Survey No. 3774 and U.S. Survey No. 4420. Within the Interim Conveyance is a 17(b) easement referenced as:

(EIN 9 C5) An easement sixty (60) feet in width for an existing road from the south end of the Hooper Bay Airport in Sec. 33, T. 17 N., R. 93 W., Seward Meridian, easterly to the village of Hooper Bay. The uses allowed are those listed for a sixty (60) foot wide road easement. This easement is subject to the State of Alaska's claimed R.S. 2477 right–of–way, if valid.

Village Selection Patent No. 50–2012–0088 was issued to Sea Lion Corporation on February 24, 2012 and recorded as Document No. 2012–000489–0 on May 4, 2012 in the Bethel Recording District.

SCALE

50 0 25 50 100 200

(IN FEET)

1 INCH = 50 FEET

LEGEND

- BLM Monument
- Secondary Corner
- (104) Survey Control Point Number

Bethel Recording District
State Business – No Fee
This survey does not constitute a subdivision as defined by AS 40.15.900

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

Property Plan–Right of Way Map

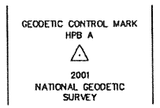
AKSAS Project No. 57419

Hooper Bay Airport Improvements

Located within: Protracted Sections 3 & 4, T16N, R94W, Protracted Sections 26, 27, 28, 33 & 34, T17N, R93W, Seward Meridian, Alaska

DRAWN	GEL	DATE	6/11/2013	SCALE	1" = 50'
CHECKED	GND	DATE	6/11/2013	SHEET	5 OF 6

(551)



FOUND
STAMPED SHEET PILE
3.5' BELOW GROUND

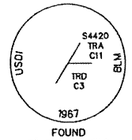
(552)

FOUND
3 1/4" BRASS CAP ON
2 1/2" STAINLESS STEEL POST
0.5' BELOW GROUND

(553)

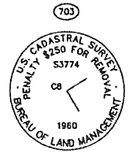
FOUND
2 1/2" BRASS CAP ON
CRIMPED STAINLESS STEEL ROD
0.2' ABOVE GROUND

(701)



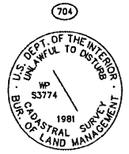
FOUND
2" COPPERWELD
0.2' BELOW GROUND

(703)



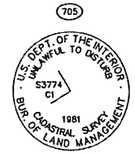
FOUND
3 1/4" BLM BRASS CAP
ON 2 1/2" IRON POST
0.2' ABOVE GROUND

(704)



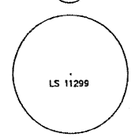
FOUND
3 1/4" BLM ALUMINUM CAP
ON 2 1/2" ALUMINUM POST
0.4' ABOVE GROUND

(705)



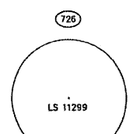
FOUND
3 1/4" BLM ALUMINUM CAP
ON 2 1/2" ALUMINUM POST
0.2' ABOVE GROUND

(725)



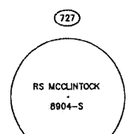
FOUND
1 3/8" YELLOW PLASTIC CAP ON
5/8" REBAR, 0.1' ABOVE GROUND

(726)



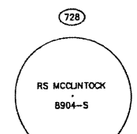
FOUND
1 3/8" YELLOW PLASTIC CAP
FLUSH WITH GROUND

(727)



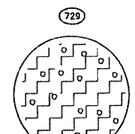
FOUND
1 3/8" RED PLASTIC CAP
0.1' ABOVE GROUND

(728)



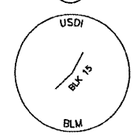
FOUND
1 3/8" RED PLASTIC CAP
0.1' ABOVE GROUND

(729)



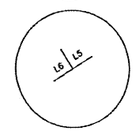
FOUND
2" COPPERWELD
0.1' ABOVE GROUND

(730)



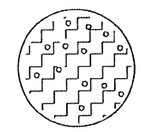
FOUND
2" COPPERWELD, MANGLED
LOCATED UNDER BOARDWALK

(732)



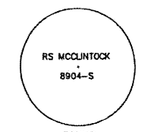
FOUND
1 1/2" ALUMINUM CAP ON 5/8" REBAR
0.1' ABOVE GROUND

(733)



FOUND
2" COPPERWELD, ILLEGIBLE
BENT, 0.2' ABOVE GROUND

(734)

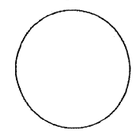


FOUND
1 3/8" RED PLASTIC CAP
0.1' ABOVE GROUND

(738)

FOUND
3 1/4" BLM BRASS CAP
ON 2 1/2" IRON POST
FLUSH WITH GROUND

(739)



FOUND
2 1/2" ALUMINUM PIPE
WITH NO CAP
0.2' BELOW GROUND

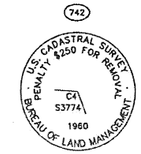
(740)

FOUND
3 1/4" BLM ALUMINUM CAP
ON 3/4" ALUMINUM ROD
0.5' ABOVE GROUND

(741)

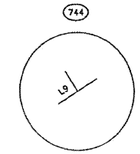
FOUND
3 1/4" BLM BRASS CAP
ON 2 1/2" IRON POST
0.6' ABOVE GROUND

(742)



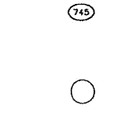
FOUND
3 1/4" BLM BRASS CAP
ON 2 1/2" IRON POST
0.8' ABOVE GROUND

(744)



FOUND
1 1/2" ALUMINUM CAP
0.5' BELOW GROUND

(745)



FOUND
3/4" ALUMINUM ROD
WITH NO CAP, MANGLED
1.2' ABOVE GROUND

HOOPER BAY AIRPORT

EXHIBIT "A"

3-02-0126-006-2014/57419

MONUMENT SUMMARY

POINT	NORTHING	EASTING	DESCRIPTION
102	31281.1606	48863.4439	Fd Rbr: RW CL
104	28117.2145	50781.6542	Fd Rbr: RW CL
551	31090.8325	48891.3057	Fd Punch Mark in Piling[NGS]: Station HPB A 2001
552	30000.0000	50000.0000	Fd BC[NGS]: Station HPB B 2001
553	28792.4781	50918.2789	Fd BC/ROD[DOT/PF]: Station HOOP 1991
701	29948.8239	54536.8522	Fd Copperweld[BLM]: C3 Tr D/C11 Tr A S4420
703	29238.6915	51270.5344	Fd BC[BLM]: C8 S3774
704	27148.1296	52534.0846	Fd AC[BLM]: WP S3774
705	26072.5874	53185.4970	Fd AC[BLM]: C1 S3774
724	32349.9478	57727.0143	Fd Rbr: ROW NW L8 Blk2 Tr A S4420
725	32148.1005	57483.2863	Fd Rbr/PC[1299-S]: ROW S L5A AVEC
726	31802.1770	57199.0081	Fd Rbr/PC[1299-S]: ROW NE L1 Blk22 Tr A S4420
727	31710.4497	57123.1005	Fd Rbr/PC[8904-S]: ROW L1/L2 Blk22 Tr A S4420
728	31593.9619	57027.7712	Fd Rbr/PC[8904-S]: ROW L2/L3 Blk22 Tr A S4420
729	31555.3049	56995.9663	Fd Copperweld[BLM]: ROW AP L3 Blk 22 Tr A S4420
730	31509.5751	57037.7245	Fd Copperweld[BLM]: AP ROW Tr A S4420
731	31513.9238	56929.8523	Fd Rbr: ROW L3A/L4B Blk22 Tr A S4420
732	31408.3031	56760.1254	Fd Rbr/AC: ROW L5/L6 Blk22 Tr A S4420
733	31355.7974	56675.7619	Fd Copperweld[BLM]: ROW L6B Blk22 Tr A S4420
734	31133.7623	56436.0058	Fd Rbr/PC[8904-S]: ROW L1A/L2B Blk19 Tr A S4420
735	31270.4833	56540.0358	Fd Rbr: ROW L15/L16A Blk21 Tr A S4420
736	31111.0915	56285.2886	Fd Rbr: ROW L12A/L13 Blk21 Tr A S4420
737	31058.2399	56199.4229	Fd Rbr: ROW L11A/L12A Blk21 Tr A S4420
738	30553.2278	50545.5509	Fd BC[BLM]: C5 S3774
739	24996.1911	51409.0683	Fd Al Pipe[BLM]: C2 S3774
740	25665.8830	52513.3936	Fd AC[BLM]: CC S34 T17N R93W/S3774
741	29656.4356	54536.5372	Fd BC[BLM]: C2 TR D S4420
742	33932.4501	48423.9115	Fd BC[BLM]: C4 S3774
744	30951.8744	56029.5507	Fd Rb/AC: ROW L9/L10 Blk21 Tr A S4420
745	25658.8078	56005.4657	Fd Al Rod[BLM]: WCMC S34 T17N R93W

SOURCE DOCUMENTS

1. Hooper Bay Airport and Access Road Repair Record of Survey No. 2005-24, Bethel Recording District (BRD)
2. U.S. Survey 4420 and associated Field Notes
3. U.S. Survey 3774 and associated Field Notes
4. U.S. Survey 4052 and associated Field Notes
5. U.S. Survey 2026 and associated Field Notes
6. Alaska Tideland Survey No. 883
7. US Rectangular Survey for T 17 N, R 93 W and associated Field Notes.
8. Avec Subdivision, Plat No. 2012-4, (BRD)
9. Uinaq Subdivision, Plat No. 93-24, (BRD)
10. Hooper Bay Post Office Parcel, Plat No. 98-4, (BRD)
11. Subdivision of Block 23 in Tract A, Plat No. 85-3, (BRD)
12. Qemirllugaq Subdivision, Plat No. 2003-3, (BRD)
13. Subd. Lot 4 Blk 20 U.S. Survey 4420, Plat No. 86-23, (BRD)
14. Subd. Lot 4 Blk 22 U.S. Survey 4420, Plat No. 86-24, (BRD)
15. Subd. Lot 16 Blk 21 U.S. Survey 4420, Plat No. 86-25, (BRD)
16. Subd. Lot 11 Blk 21 U.S. Survey 4420, Plat No. 86-26, (BRD)
17. Subd. Lot 2 Blk 20 U.S. Survey 4420, Plat No. 86-27, (BRD)
18. Subd. Lot 1 Blk 19 U.S. Survey 4420, Plat No. 86-28, (BRD)
19. Subd. Lot 2 Blk 19 U.S. Survey 4420, Plat No. 86-29, (BRD)
20. Subd. Lot 14 Blk 21 U.S. Survey 4420, Plat No. 86-30, (BRD)
21. Subd. Lot 3 Blk 20 U.S. Survey 4420, Plat No. 86-31, (BRD)
22. Subd. Lot 3 Blk 22 U.S. Survey 4420, Plat No. 86-32, (BRD)
23. Subd. Lot 12 Blk 21 U.S. Survey 4420, Plat No. 86-33, (BRD)
24. Subd. Lot 6 Blk 22 U.S. Survey 4420, Plat No. 86-34, (BRD)
25. U.S. Survey 4420, Blk 2&3, Record of Survey, 2007-15, (BRD)
26. Lease Agreement, Document No. 2009-001494-0, (BRD)
25. Lease Agreement, Book 61, Page 682-690, (BRD)
25. Statutory Warranty Deed, Book 27, Page 45-46, (BRD)
26. Interim Conveyance No. 578, December 22, 1982, (EIN 9 C5)
27. Patent No. 50-2012-0088 (Doc. No. 2012-000489-0 BRD)
28. State of Alaska Department of Highways, Right of Way Map. Alaska Project No. Hooper Bay EMP-RS-0207(1), 1972
27. State of Alaska Department of Public Works, Division of Aviation, Hooper Bay Airport, Property Plan, 1972 (Rev. 1975)
28. State of Alaska Department of Aviation, Hooper Bay Airport, Property Plan, 1958 (Rev. 1963)

CONTROL STATEMENT

Coordinate System:
This project is located entirely within the Hooper Bay adjustment, a local surface grid coordinate system, expressed in U.S. Survey Feet, developed by the Alaska DOT Central Region Survey Department in 2005.

Basis of Coordinates:
The Basis of Coordinates is Secondary Airport Control Station (SACS) "HPB B", located near the midpoint of the runway, approximately 300 feet easterly of the runway centerline. Said station has local coordinates of
30,000.0000' N. and 50,000.0000' E.

Basis of Bearings:
Project bearings are NAD83 (1992) Alaska State Plane Zone 8 grid bearings.

Translation Parameters:
To convert the local Hooper Bay coordinates to NAD83 (1992) Alaska State Plane, Zone 8, coordinates, expressed in U.S. Survey Feet; translate using +2,719,432.8161' N., +1,565,211.8957' E., and scale using 0.9998997782.

Bethel Recording District
State Business - No Fee
This survey does not constitute a subdivision as defined by AS 40.15.900

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

Property Plan-Right of Way Map

AKSAS Project No. 57419

Hooper Bay Airport Improvements

Located within: Protracted Sections 3 & 4, T16N, R94W, Protracted Sections 26, 27, 28, 33 & 34, T17N, R93W, Seward Meridian, Alaska

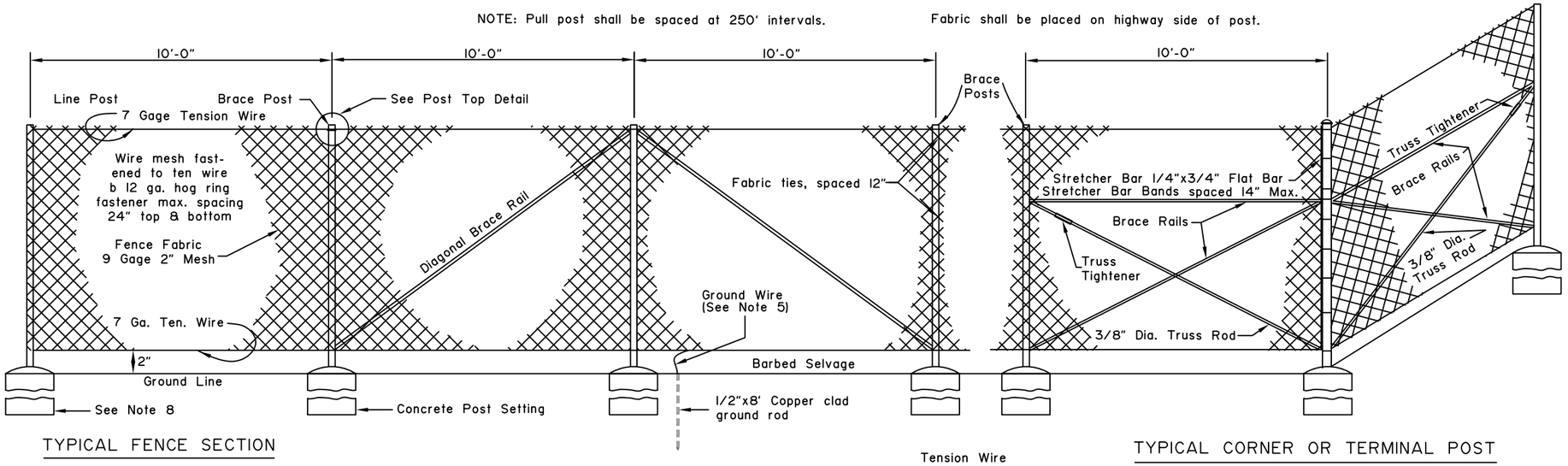
DRAWN	GEL	DATE 6/11/2013	SCALE N/A
CHECKED	GND	DATE 6/11/2013	SHEET 6 OF 6

F-01.02

SHEET | of |

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

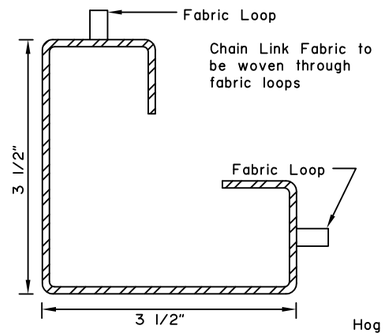
Fabric shall be placed on highway side of post.



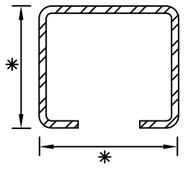
TYPICAL FENCE SECTION

TYPICAL PULL POST

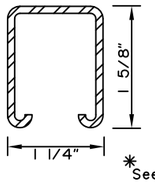
TYPICAL CORNER OR TERMINAL POST



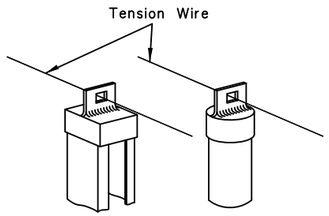
ROLL FORMED POST



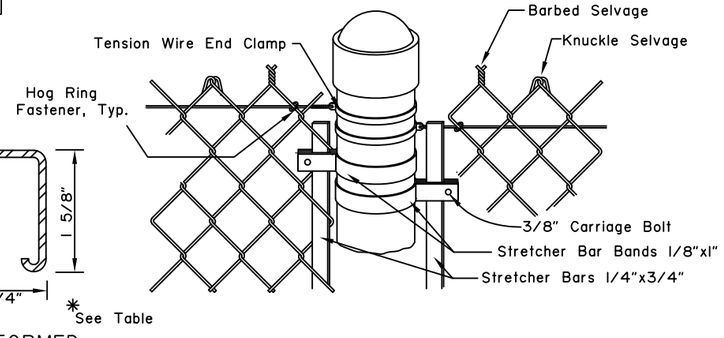
C POST



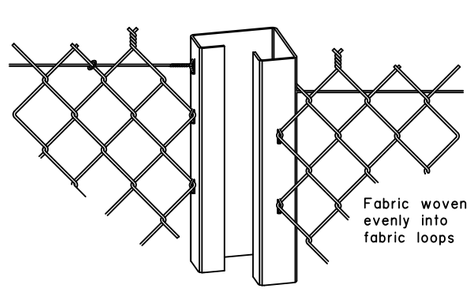
ROLL FORMED BRACE



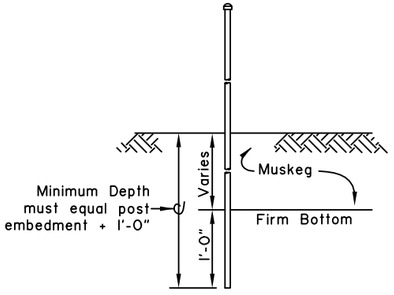
LINE POST TOPS



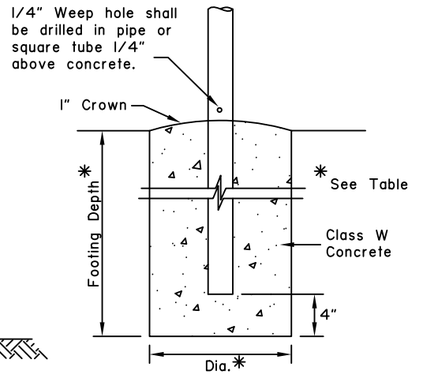
PIPE STYLE POST TOP



ROLL FORMED POST TOP



POST SETTING IN MUSKEG AREAS

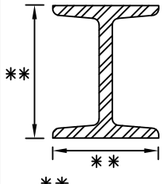


CONCRETE POST SETTING

GENERAL NOTES:

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

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



H POST

REVISIONS		
Date	Description	By
3/1/83	Revised Gen. Notes	WJF/HK
2/01/15	8 Foot Ground Rod Fix	LRG

State of Alaska
Department of Transportation & Public Facilities

CHAIN LINK FENCE

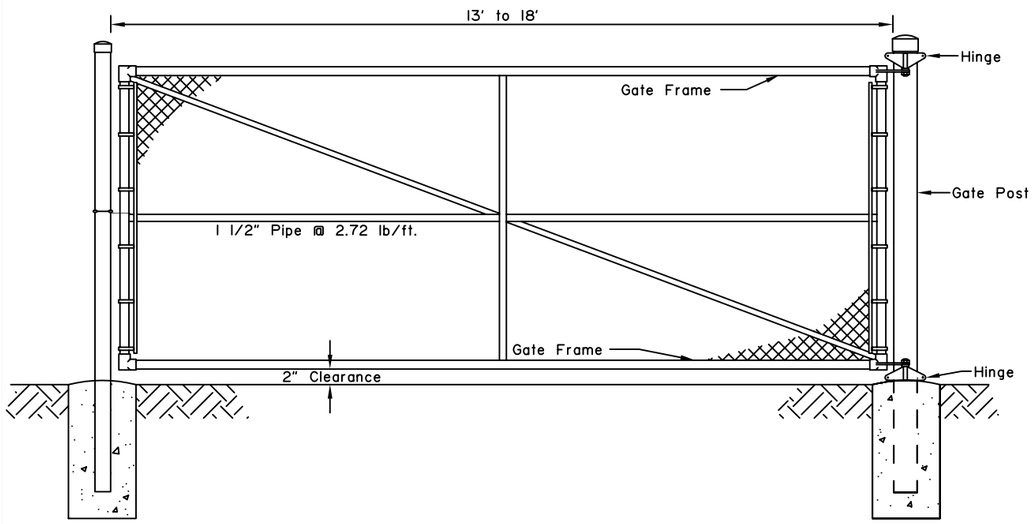
APPROVED
49TH STATE OF ALASKA
Lars R. Gregovich CE-8065
3/31/2015
Date

F-01.02

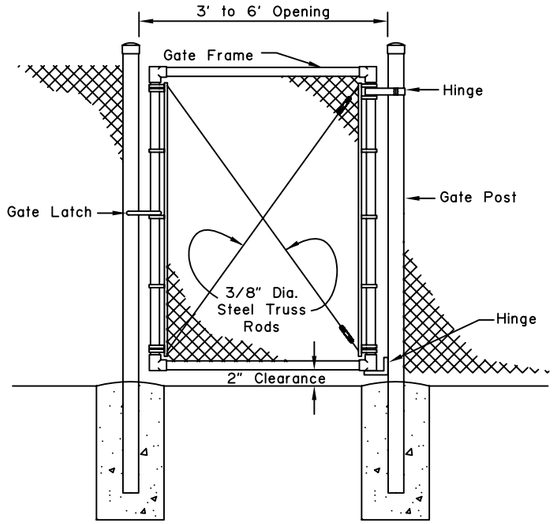
F-03.01

SHEET 1 of 1

DOUBLE OR SINGLE SWING GATE



PEDESTRIAN GATE

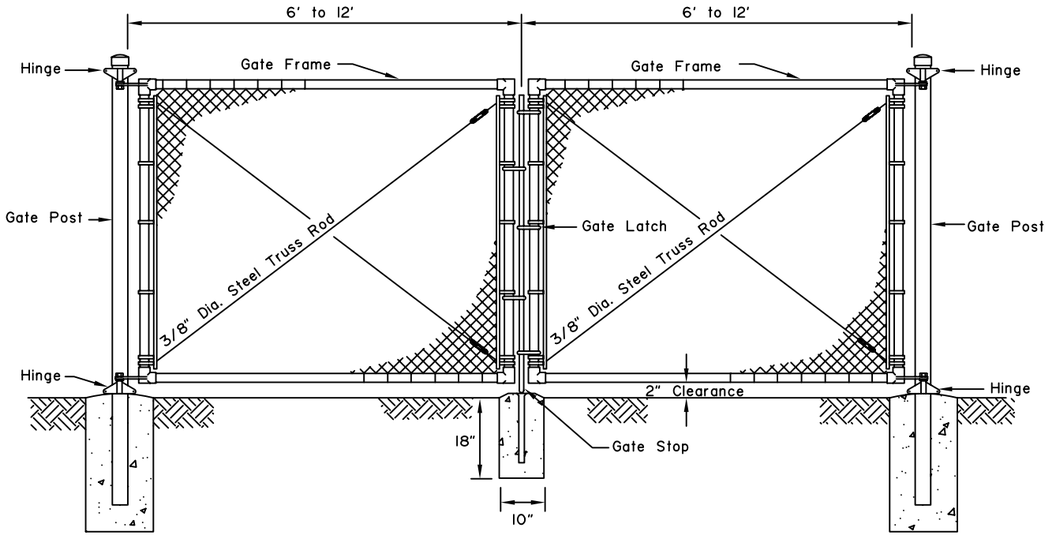


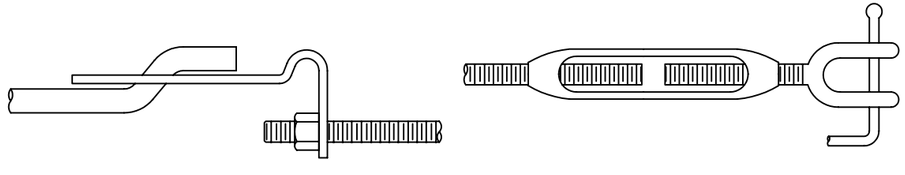
GENERAL NOTES:

1. Details shown are to indicate general design only. Dimensions may vary slightly among the manufacturers.
2. Gate fabric shall be of the same design and height of line fence fabric.
3. Gate fabric shall be furnished with knuckle selvage top and bottom.
4. Concrete footings shall be class W concrete.
5. Concrete footings shall be of the same depth as end posts with a diameter 1 1/2 times larger except as shown for gate stop.
6. Gate frames may be fabricated by welding or riveting and shall be braced to eliminate sagging. Hinges, latches and other gate appurtenances shall be of sufficient strength and design to assure easy trouble free operation.

Gate Fabric Height	Gate Opening		GATE POST						GATE FRAME			
	SINGLE GATE	DOUBLE GATE	ST'D PIPE		SQUARE TUBE		ROLL FORMED		ST'D PIPE		SQUARE TUBE	
			SIZE	WT/FT.	SIZE	WT/FT.	SIZE	WT/FT.	SIZE	WT/FT.	SIZE	WT/FT.
3' to 5'	3' to 6'	6' to 12'	2"	3.65#	2" x 2"	4.31 #	3 1/2"x3 1/2"	5.14 #	1 1/2"	2.72 #	2" x 2"	4.31 #
"	7' to 12'	13' to 24'	2 1/2"	5.79#	2 1/2"x2 1/2"	5.59 #	" "	"	"	"	" "	"
"	13' to 18'	25' to 36'	"	"	" "	"	" "	"	"	"	" "	"
6' to 8'	3' to 6'	6' to 12'	2 1/2"	5.79#	2 1/2"x2 1/2"	5.59 #	3 1/2"x3 1/2"	5.14 #	1 1/2"	2.72 #	" "	"
"	7' to 12'	13' to 24'	3 1/2"	9.11 #	3 1/2"x3 1/2"	8.14 #	———	———	2"	3.65#	" "	"
"	13' to 18'	25' to 36'	6"	18.97#	6" x 6"	18.82#	———	———	"	"	2" x 2"	4.31 #

DOUBLE SWING GATE





TYPICAL TRUSS ROD TIGHTENERS

REVISIONS		
Date	Description	By
3/1/83	*Revised Gen. Notes*	*WJF/HK*

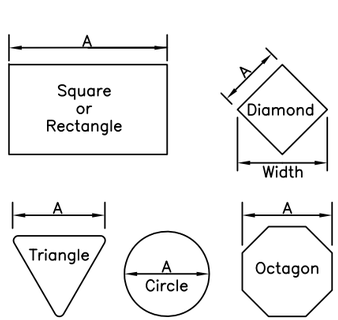
State of Alaska
Department of Transportation
& Public Facilities

CHAIN LINK FENCE GATE

APPROVED
Date *7/15/82*

F-03.01

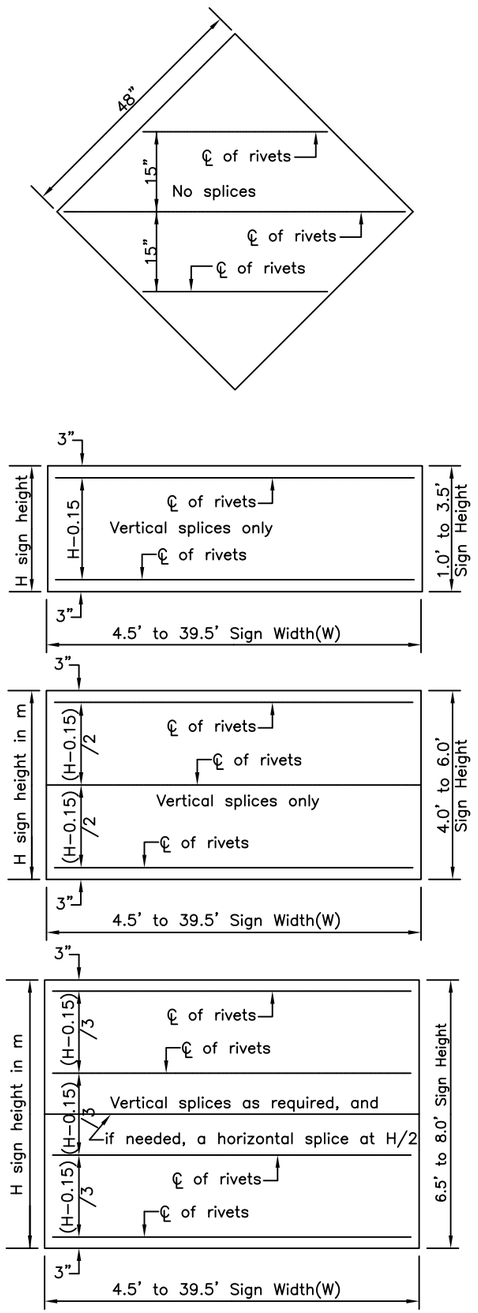
S-00.11



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

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

LIGHT SIGNS

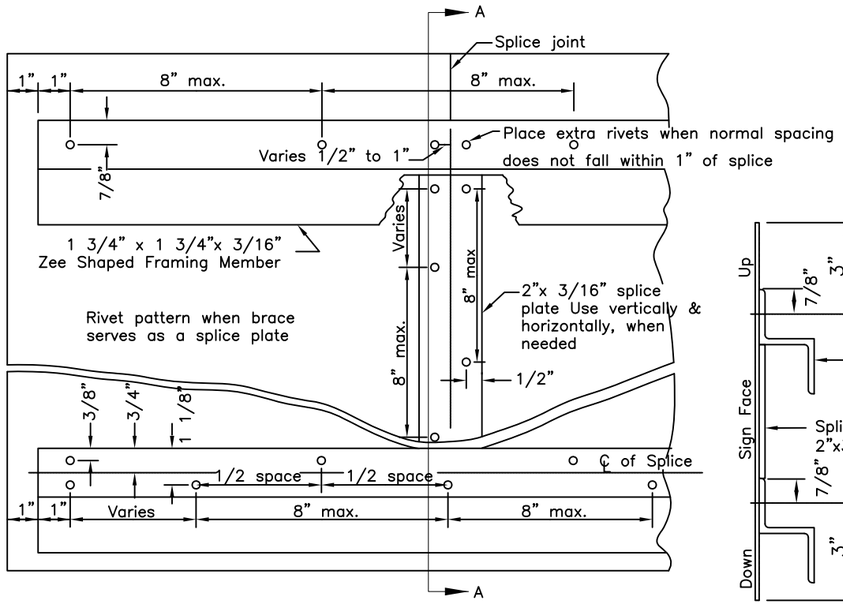


WIND FRAMING LOCATIONS

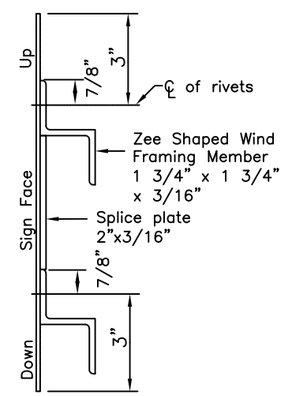
TUBE SIGN POST SPACING								
Sign Width (feet)	No. of Posts	Distance Between Posts	Sign Overhang	Post Type				Notes
				P.S.T.	Wood	Steel Tube	W–Shape	
0.5 to 4.0	1	–	0.5W	X	X	X		See Note 2.
4.5 to 10.0	2	0.6W	0.2W	X	X	X		See Note 3.
10.5 to 11.0	2	6	Varies	X	X	X		See Note 3.
11.5 to 13.0	2	8	Varies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

SIGN POST SPACING NOTES:

1. Install sign support in accordance with the table above, unless otherwise required by plans or specifications.
2. Exceptions:
   a. Use one post for all E5–1 gore signs, regardless of width.
   b. Use one 2.5" P.S.T. for all STOP signs, with or without street name signs.
3. Supports placed within 7' of each other must be acceptable for that use. See Standard Drawing S–30 for the sizes of wood posts and P.S.T.s that may be used within 7'. See Manufacturer's documentation for breakaway couplings and tubes that may be used within 7'.
4. See Standard Drawing S–31 for frangible couplings, hinges, and foundations for tube and W–shape sign supports.



RIVET DETAIL FOR ZEE SHAPED WIND FRAMING & SPLICE PLATE



SECTION A–A

GENERAL NOTES

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

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

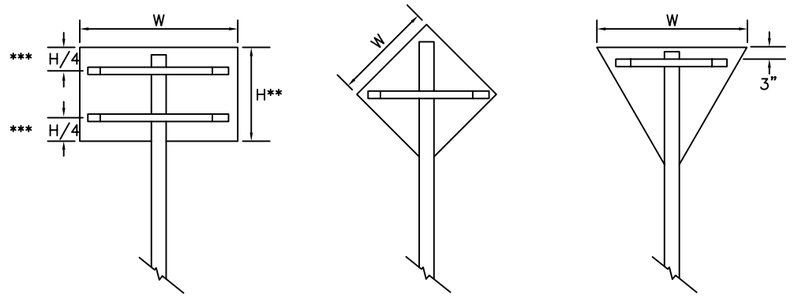
Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

SIGN FRAMING AND POST SPACING

APPROVED
49TH STATE
CE-7347
4/28/10
Date 5/31/12

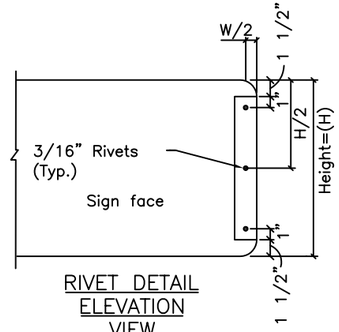
S-00.11



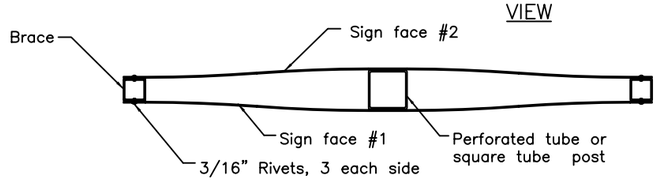
*** Use one brace when H ≤ 18"
Use two braces when 18"< H < 48"
Use three braces when H ≥ 48"

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

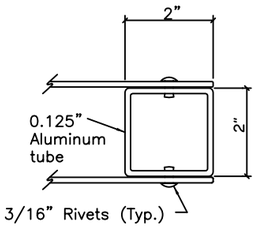
SIGN BRACING PLACEMENT



RIVET DETAIL
ELEVATION
VIEW

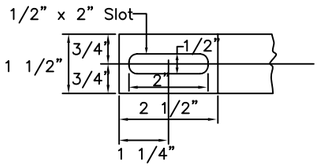


PLAN VIEW

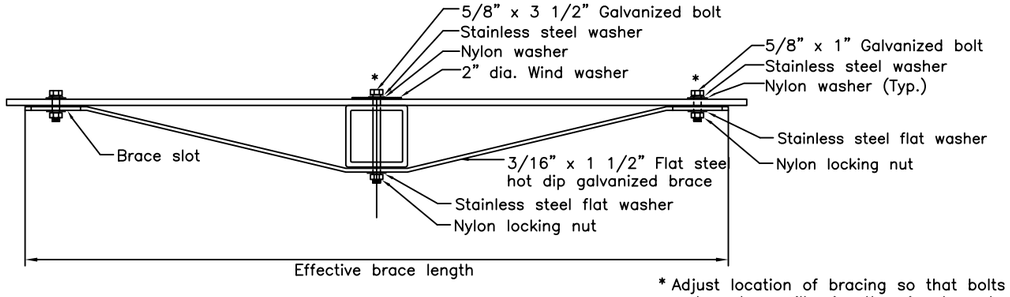


END BRACE DETAIL

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



DETAIL OF BRACE SLOT
Elevation view



* Adjust location of bracing so that bolts and washers will miss the sign legend

TUBE POST SIGN BRACING
Plan view

SIGN WIDTH(W)	EFFECTIVE BRACE LENGTH		
	WARNING	YIELD	OTHER
30"	36"	24"	24"
36"	42"	30"	30"
42"	48"	–	36"
48"	TWO POSTS	36"	42"

< 30" No bracing required and use square tube

REVISIONS		
Date	Description	By

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

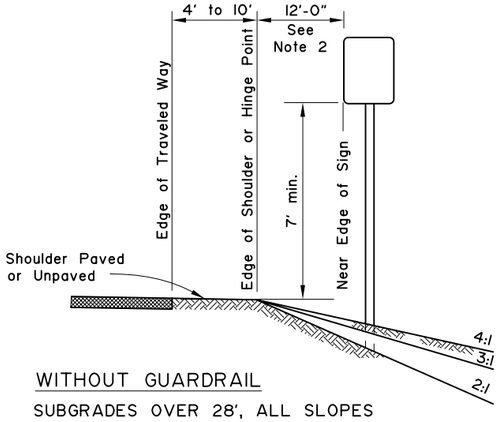
BRACING FOR SIGNS
MOUNTED ON SINGLE POST

APPROVED

Date 2/28/03

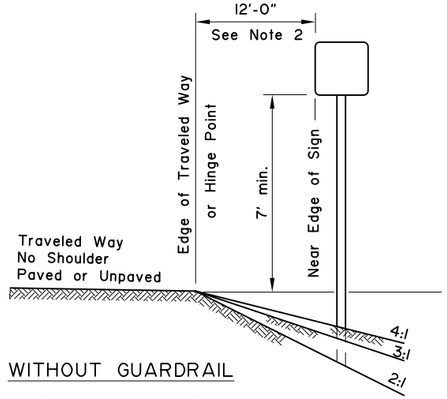
S-01.00

S-05.01



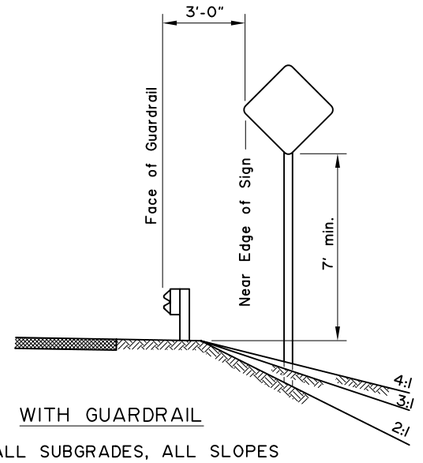
WITHOUT GUARDRAIL

SUBGRADES OVER 28', ALL SLOPES



WITHOUT GUARDRAIL

SUBGRADES 24' TO 28', ALL SLOPES

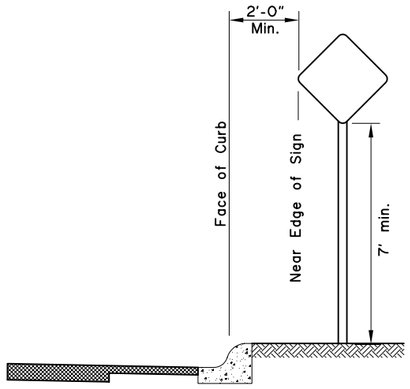


WITH GUARDRAIL

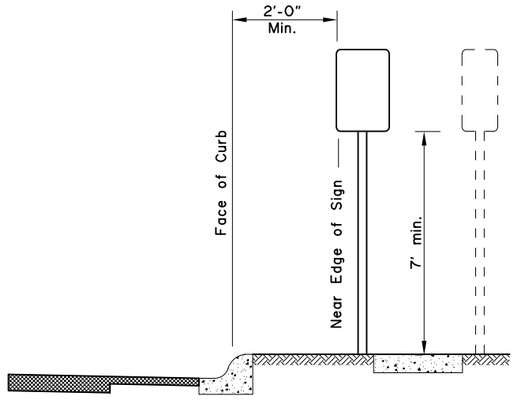
ALL SUBGRADES, ALL SLOPES

GENERAL NOTES

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

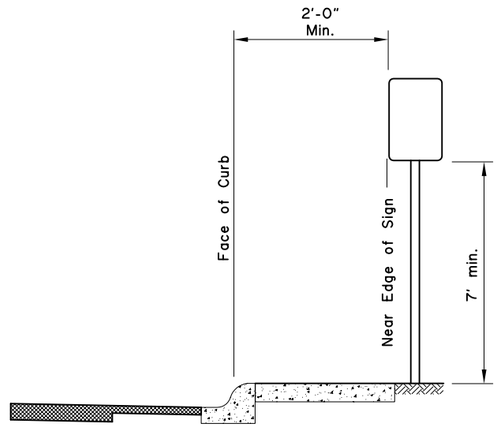


CURB WITHOUT SIDEWALK

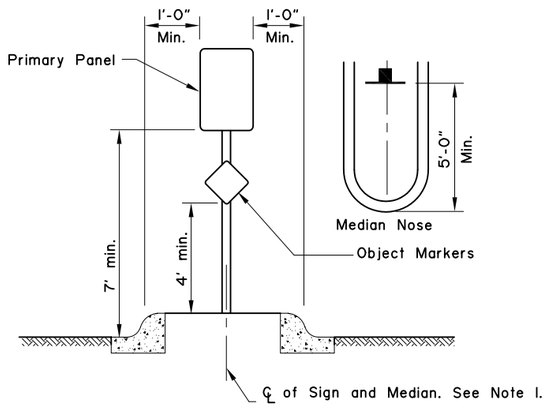


CURB WITH PARKWAY AND SIDEWALK

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

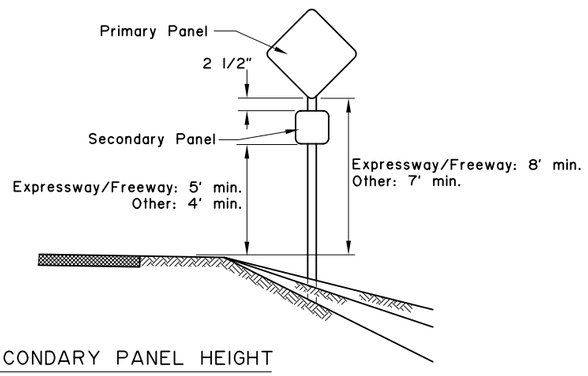


CURB WITH SIDEWALK WITHOUT PARKWAY



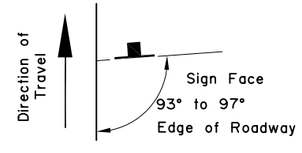
RAISED MEDIANS

Minimum 4' Width for Signing



SECONDARY PANEL HEIGHT

ALL TWO PANEL MOUNTING



SIGN POSITIONING

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

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

POST MOUNTED SIGN OFFSET AND HEIGHT

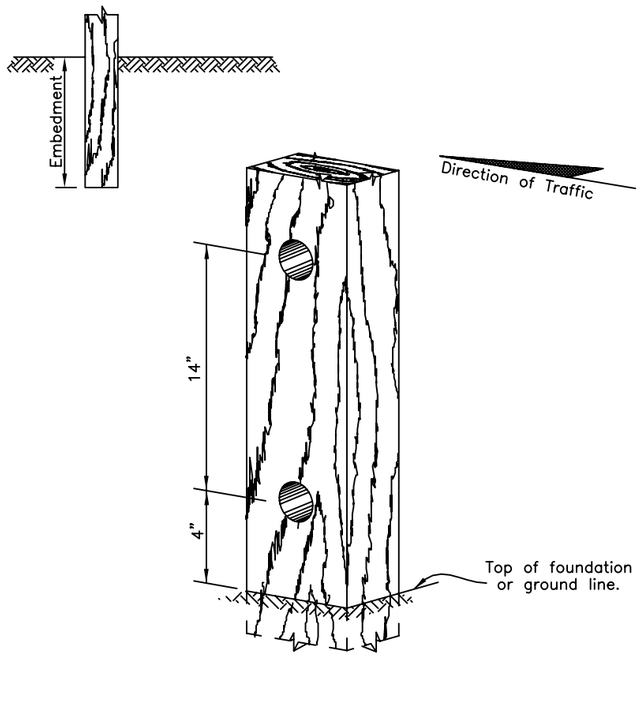
APPROVED

Kurtis J. Smith CE-7547

Date 7/15/82

S-05.01

S-30.03

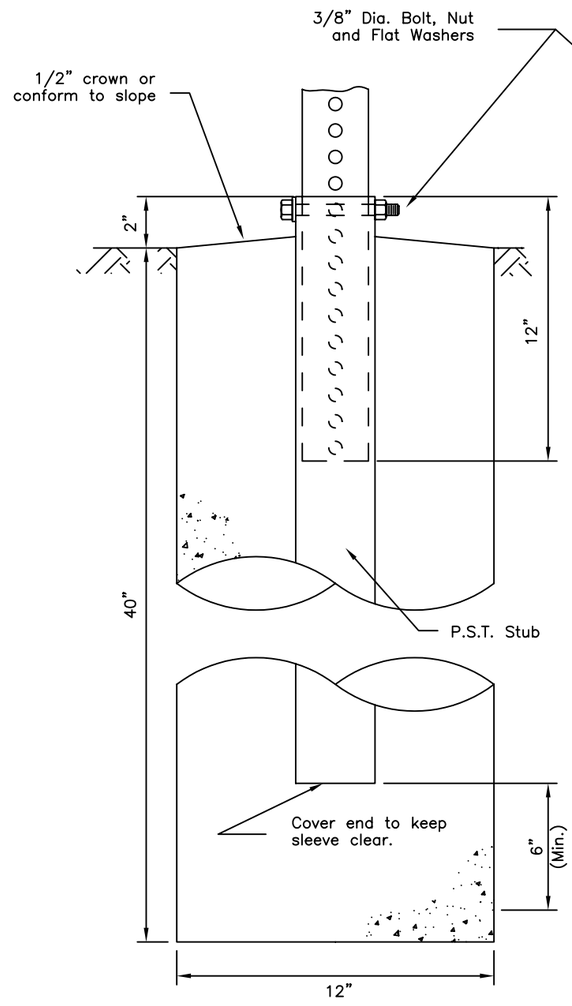


Note: If holes are field drilled after post has been treated, the holes shall be thoroughly swabbed with a 5% solution of pentachlorophenol and mineral spirits.

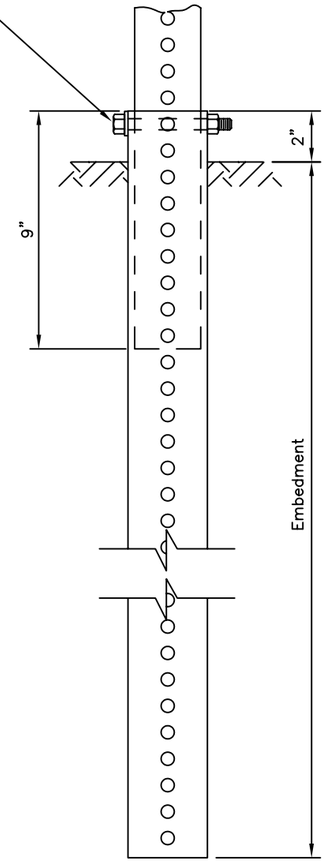
WOOD POSTS			
SIZE	HOLE DIA.	EMBEDMENT*	NUMBER OF POSTS WITHIN 7 Ft. PATH
4"x4"	NONE	36"	2
4"x6"	1 1/2"	36"	2
6"x6"	1 1/2"	40"	1
6"x8"	3"	48"	1

* Embedment depth applies in both strong and weak soil.

WOOD POSTS



SLEEVE TYPE
–CONCRETE FOUNDATION–



SLEEVE TYPE *
–SOIL EMBEDMENT–

PERFORATED STEEL TUBES (P.S.T.) (12 ga. – .105" Wall Thickness)		
POST SIZE (inch)	Embedment Depth	No. of P.S.T.s permitted within 7 ft path
1 1/2" x 1 1/2"	3'–0"	2
1 3/4" x 1 3/4"	3'–0"	2
2" x 2"	3'–6"	2
2 1/4" x 2 1/4"	4'–0"	1
2 1/2" x 2 1/2"	4'–6"	1

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

PERFORATED STEEL TUBE (PST) POSTS

GENERAL NOTES:

1. Refer to Standard Drawing "Sheet Aluminum Sign and Framing" for light sign details.
2. See plans for type of post, size and embedment type.
3. To maintain crashworthiness, install no more than the number of P.S.T.s or wood posts specified in the tables within 7' of each other.
4. Do not install wood posts larger than 6"x8".
5. Use larger posts than shown on this sheet, with hinges, for multiple support signs where the supports are separated by more than 7 feet.

REVISIONS		
Date	Description	By
1/1/85	Redraft–Delete Post	Gdo
4/2/01	Revised PST table	Kjs
	Added note 3	
2/12/02	Revised Wood Posts	Kjs

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

LIGHT SIGN
STRUCTURE POST
EMBEDMENT

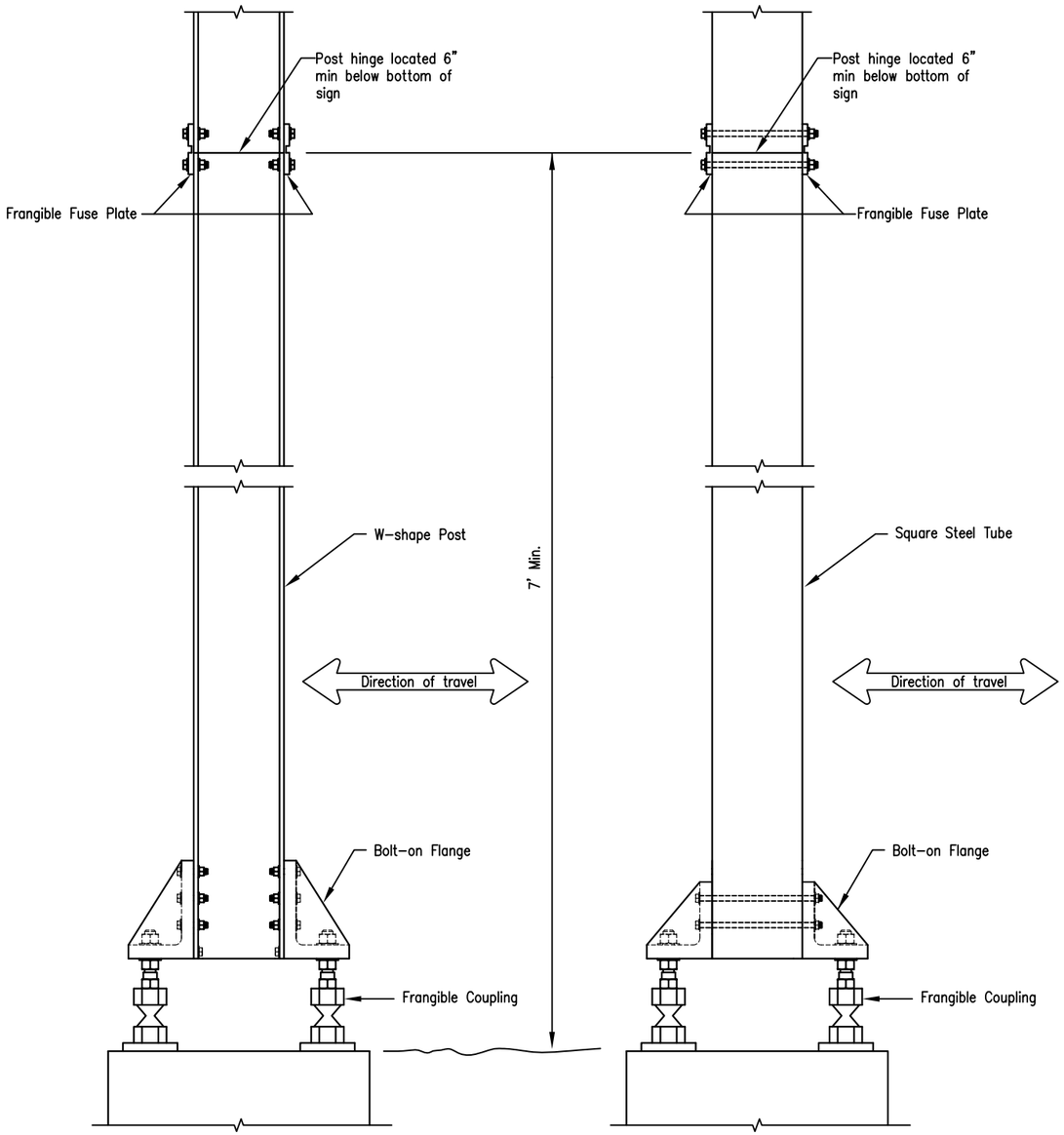
APPROVED
Kurtis J. Smith
CE-7347
REGISTERED PROFESSIONAL ENGINEER

Date 7/15/82

S-30.03

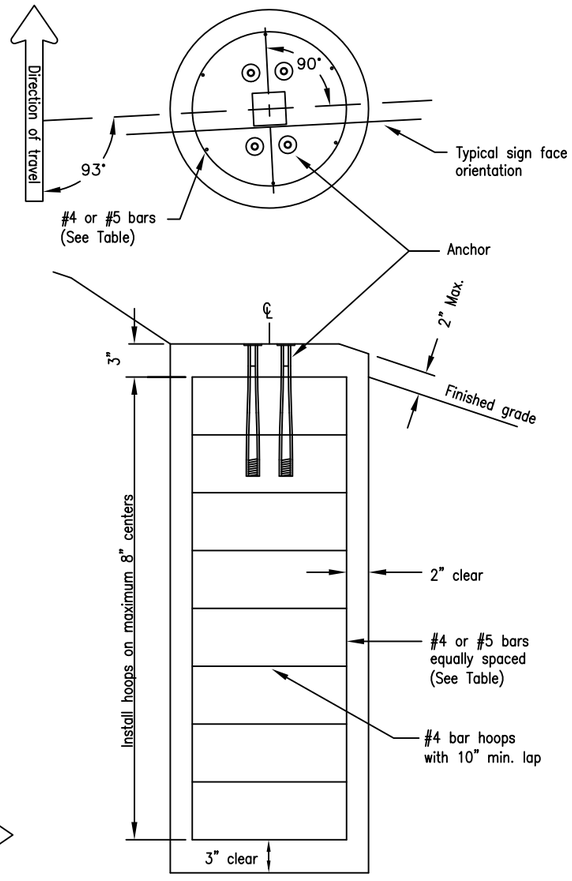
S-31.01

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



FRANGIBLE COUPLING SYSTEM FOR W-SHAPE POST

FRANGIBLE COUPLING SYSTEM FOR SQUARE STEEL TUBES



SIGN POST FOUNDATION

See Table for depth and diameter

POST SIZE & TYPE	FOUNDATION *			REINFORCEMENT					
	DIA.	MIN. DEPTH	CY^3 CONC.	VERTICAL BARS			HOOPS		
				QTY.	SIZE	LGTH.	QTY.	SIZE	DIA.
2 1/2" TUBE	1'-6"	4'-0"	0.26	6	#4	3'-6"	7	#4	1'-2"
3" TUBE	1'-6"	4'-0"	0.26	6	#4	3'-6"	7	#4	1'-2"
3 1/2" TUBE	1'-6"	4'-6"	0.30	6	#4	4'-0"	8	#4	1'-2"
4" TUBE	2'-6"	4'-0"	0.72	7	#5	3'-6"	7	#4	2'-2"
4 1/2" TUBE	2'-6"	4'-6"	0.81	7	#5	4'-0"	8	#4	2'-2"
5" TUBE	2'-6"	5'-6"	1.00	7	#5	5'-0"	9	#4	2'-2"
W6 x 9	2'-6"	4'-0"	0.95	8	#5	3'-6"	7	#4	2'-2"
W6 x 12	2'-6"	4'-6"	1.07	8	#5	4'-0"	8	#4	2'-2"
W6 x 15	3'-0"	6'-6"	1.69	8	#5	6'-0"	11	#4	2'-8"
W6 x 30	3'-0"	7'-6"	1.95	8	#5	7'-0"	12	#4	2'-8"

FOUNDATION TABLE

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

GENERAL NOTES

1. Furnish sign posts with NCHRP 350 or MASH compliant FHWA-approved frangible couplings designed to break away safely when struck from any direction. The frangible couplings shall not have specific installation torque requirements.
2. Furnish frangible coupling systems with bolt-on flanges.
3. Details on this sheet illustrate only the general components of a frangible coupling system, and are not intended to specify a particular product.
4. Install frangible fuse plates as specified by the manufacturer and hinged joints when multiple posts are used to support a sign. Do not use round pipes.
5. Install the components of the breakaway system, including hinges, in accordance with the written instructions of the system manufacturer.
6. Use Class A concrete conforming to section 501 of the Standard Specifications. Furnish ASTM A615 grade 60 steel bars for concrete reinforcement conforming to AASHTO M31.
7. Spiral reinforcing steel may be substituted for hoops in concrete foundation. Spiral option shall consist of #3 plain spiral with 6" pitch with three flat turns at the top and one flat turn at the bottom.
8. Install the concrete anchors using a rigid template. Locate the anchors on centers and within tolerances specified by the manufacturer.
9. Install the anchors in fresh concrete as recommended by the manufacturer. Adjust the template's final position until it is level. Remove and replace all foundations that need more than 2 shims under any 1 coupling or more than a total of 3 shims under any pair of couplings to plumb the post.
10. Drill the holes for attaching brackets before the sign posts are hot dip galvanized. Test fit templates in the holes to ensure the brackets can be installed square to the posts.

REVISIONS		
Date	Description	By
4/28/10	Delete pipe, Add hinge	KJS

Sheet 1 of 1

State of Alaska
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SIGN POST BASE AND FOUNDATION

APPROVED
Date 5/31/12

S-31.01