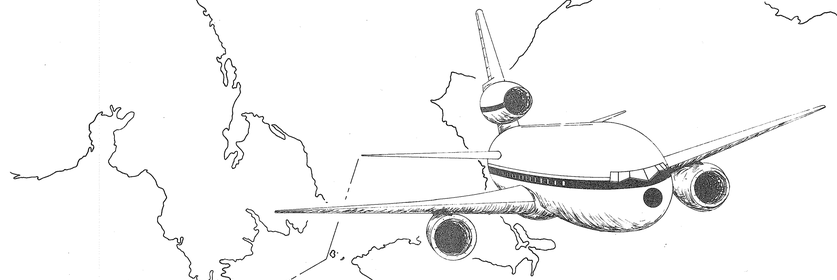
STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION

and PUBLIC FACILITIES

S.E. REGION AVIATION — DESIGN & CONSTRUCTION



CONSTRUCTION PLANS FOR

KAKE AIRPORT

CONSTRUCTION OF 75' x 3,000' RUNWAY, APRON, ACCESS ROAD AND RELATED ITEMS

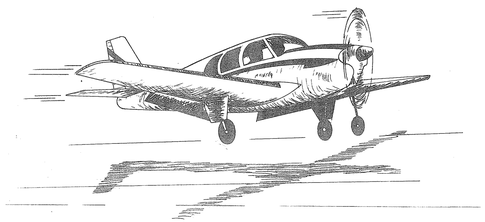
A.I.P. NO. 831-3-02-0398-01-83

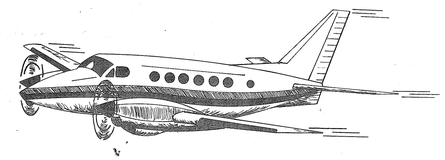
STATE NO. D19712

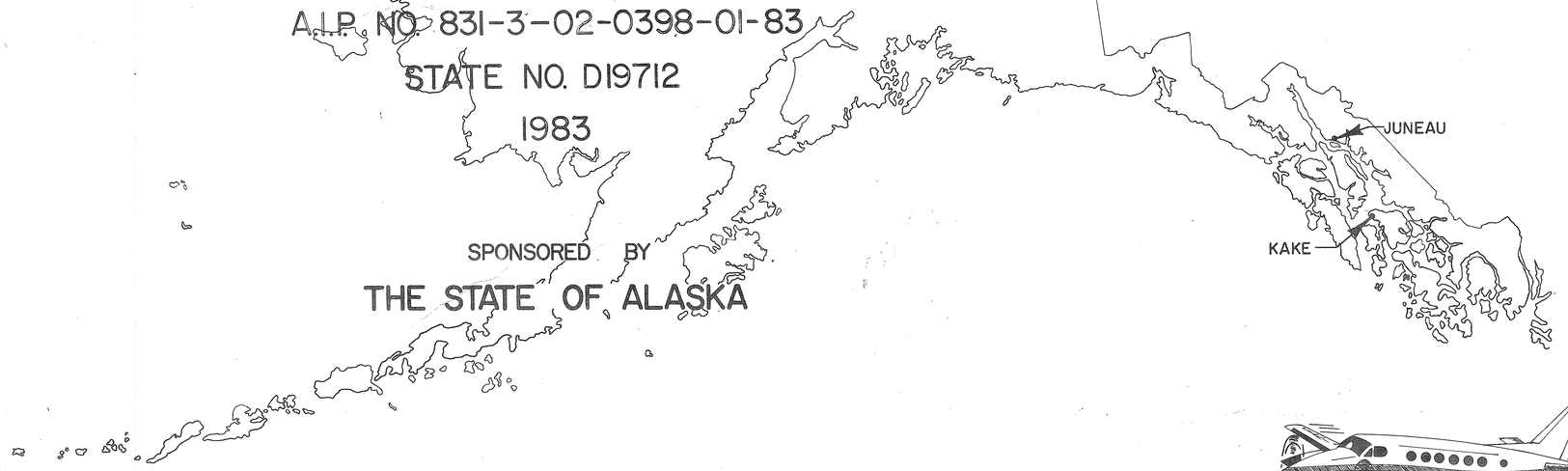
1983

SPONSORED BY

THE STATE OF ALASKA







As-Built Plans

Contractor:	South Coast, Inc.
Project Engineer:	Greg Browning
Date Begun:	7-27-84
Date Complete:	10-25-85

APPROVED

Charles S. Matlock

CHARLES S. MATLOCK, DIRECTOR, S.E. REGION DESIGN & CONSTRUCTION DATE 7-14-83

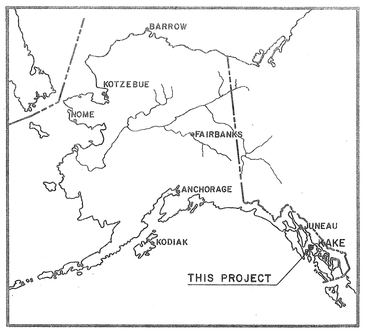
APPROVED

Wallace K. Williams

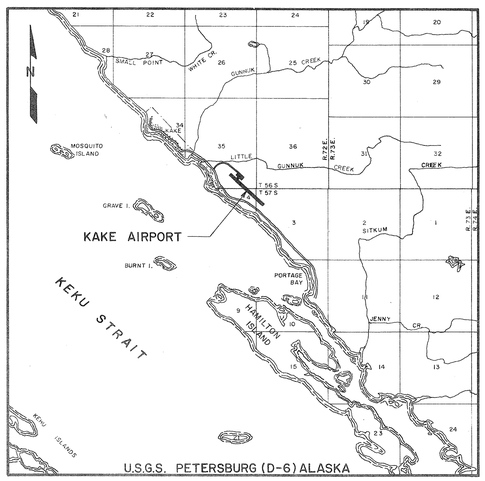
WALLACE K. WILLIAMS, CHIEF, S.E. REGION HIGHWAY & AVIATION DESIGN & CONSTRUCTION DATE 6/29/83

ADDENDUM No.1 ATTACHMENT No.4

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA				



LOCATION MAP



VICINITY MAP
1" = 1 mile

ESTIMATED QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
100	MOBILIZATION AND DEMOBILIZATION	ALL REQ'D	LUMP SUM
~~120a~~	~~MEALS~~	~~4500~~	~~PER MAN-MEAL~~
~~120b~~	~~LODGING~~	~~1500~~	~~PER MAN-NIGHT~~
121	CONSTRUCTION SURVEYING BY THE CONTRACTOR	ALL REQ'D	LUMP SUM
125	ENGINEER'S VEHICLE	3	EACH
130	ENGINEER'S FIELD OFFICE & LABORATORY	ALL REQ'D	LUMP SUM
200a	CLEARING	~~176~~ 158.4	ACRE
200e	CLEARING AND GRUBBING	~~37~~ 34.9	ACRE
330a	COMMON EXCAVATION	~~133,300~~ 109,810	CUBIC YARD
330b	ROCK EXCAVATION	~~109,800~~ 116,563	CUBIC YARD
330c	EMBANKMENT	~~129,200~~ 116,563	CUBIC YARD
400a	CORRUGATED METAL PIPE (30", ALUMINUM, ~~TYPE C~~, 8 GAGE)	~~228~~ 320	LINEAR FEET
400b	CORRUGATED METAL PIPE (36", ALUMINUM, ~~TYPE C~~, 8 GAGE)	~~870~~ 996	LINEAR FEET
~~421~~	~~DITCH LINING~~	~~3070~~	~~SQUARE YARD~~
540	AGGREGATE SURFACE COURSE	~~11,350~~ 11,458	CUBIC YARD
550a	WOVEN POLYMERIC FABRIC	~~21,600~~ 21,407	SQUARE YARD
~~550b~~	~~NON-WOVEN POLYMERIC FABRIC~~	~~3070~~	~~SQUARE YARD~~
553	EROSION CONTROL FABRIC	~~9480~~ 2297	SQUARE YARD
701	SURVEY MONUMENTS	11	EACH
702	STANDARD SIGNS	~~41.25~~ 49.25	SQUARE FOOT
710	RUNWAY BOUNDARY MARKERS	4	EACH
722	SEGMENTED CIRCLE	ALL REQ'D	LUMP SUM
730b	REFLECTIVE MARKERS - TYPE II	70	EACH
820a	TIE-DOWN ANCHORS	15	EACH
900	SEEDING	~~930~~ 583	M.S.F.
980	RAIN SHELTER BUILDING	ALL REQ'D	LUMP SUM
1010	8 FOOT LIGHTED WIND CONE	ALL REQ'D	LUMP SUM
1200	WATER SYSTEMS	~~590~~ 588	LINEAR FEET
1300	PAD DEVELOPMENT	ALL REQ'D	CONTINGENT SUM
550c	REINFORCING FABRIC	~~7,600~~ 6739	SQUARE YARD
121(1)	CLEAR ZONE SURVEYING	ALL REQ'D	LUMP SUM
330f	BORROW	52,035	CUBIC YARD
330g	BORROW for DIKE and STRUCTURES	13,770	C.Y.V.M.
400c	FREIGHT for Addt'l. 36" C.M.P.	ALL REQ'D	LUMP SUM

INDEX

THE FOLLOWING STANDARD DRAWINGS SHALL APPLY TO THIS PROJECT: A-1, C-00.00, C-10.01, C-11.01, D-04.01, S-00.00, S-05.00, S-30.00, U-03.00

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83 PROJECT NO. D-19712
LOCATION & VICINITY MAPS
ESTIMATED QUANTITIES & INDEX

STATE OF ALASKA 49TH — P. Bednarowicz CE-5104 — REGISTERED PROFESSIONAL ENGINEER

BY	DATE	CHANGE
P.B.	4/18/84	Added Item 550c

REVISIONS

APPROVED BY: William A. Locher
WILLIAM A. LOCHER, P.E. — S.E. REGION AVIATION DESIGN ENGINEER
APPROVED BY: W.L. Baumgartner
WILLIAM L. BAUMGARTNER, P.E. — S.E. REGION DESIGN ENGINEER

SCALE:	DESIGNED:	DRAWN: CRH	SHEET 2 OF 19
As Shown	CHECKED: PB	DATE: 6/29/83	

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA				

SUMMARY TABLES

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	ACCESS ROAD	TAXIWAY & APRON	RUNWAY	GRAND TOTAL
100	Mobilization and Demobilization	L.S.	All Req'd	All Req'd	All Req'd	All Req'd
~~120a~~	~~Meals~~	~~Man-meals~~	~~Estimated~~	~~Quantity~~ =	~~4500~~	~~4500~~
~~120b~~	~~Lodging~~	~~Man-night~~	~~Estimated~~	~~Quantity~~ =	~~1500~~	~~1500~~
121	Construction Surveying by Contractor	L.S.	All Req'd	All Req'd	All Req'd	All Req'd
125	Engineers Vehicle	Each				3
130	Engineers Field Office with Laboratory	L.S.	All Req.d	All Req'd	All Req'd	All Req'd
200a	Clearing	Acre	Estimated	Quantity =	~~176~~ 158.4	~~176~~ 158.4
200e	Clearing & Grubbing	Acre	~~7~~ 5.80	~~3~~ 3.14	~~27~~ 25.95	~~37~~ 34.9
330a	Common Excavation	C.Y.	25355 ~~34,700~~	17994 ~~15,300~~	66461 ~~83,300~~	109810 ~~133,300~~
330b	Rock Excavation	C.Y.	28807 ~~26,100~~	-0- ~~4700~~	87756 ~~79,000~~	116563 ~~109,800~~
330c	Embankment	C.Y.	19765 ~~16,400~~	17408 ~~12,600~~	131405 ~~100,200~~	168594 ~~129,200~~
400a	Corrugated Metal Pipe (30", Aluminum, ~~type C~~, 8 gauge)	L.F.	~~118~~ 195	~~110~~ 125	0	~~228~~ 320
400b	Corrugated Metal Pipe (36", Aluminum, ~~type C~~, 8 gauge)	L.F.	0	0	~~870~~ 996	~~870~~ 996
~~421~~	~~Ditch Lining~~	~~S.Y.~~	~~2300~~	~~320~~	~~450~~	~~3070~~
540	Aggregate Surface Course	C.Y.	1301 ~~2050~~	1909.8 ~~1800~~	8247 ~~7500~~	~~11,350~~ 11457.8
550a.	Woven Polymeric Fabric	S.Y.	9799 ~~14,000~~	11608 ~~7600~~	~~0~~	~~21,600~~ 21407
~~550b~~	~~Non-Woven Polymeric Fabric~~	~~S.Y.~~	~~2300~~	~~320~~	~~450~~	~~3070~~
553	Erosion Control Fabric	S.Y.	2297 ~~9480~~	0	0	~~9480~~ 2297
701	Survey Monuments	Each	3	1	7	11
702	Standard Signs	S.F.	49.25 ~~41.25~~	0	0	~~41.25~~ 49.25
710	Runway Boundary Markers	Each	0	0	4	4
722	Segmented Circle	L.S.	0	0	All Req'd	All Req'd
730b	Reflective Markers, Type II	Each	0	21	49	70
820a	Tiedown Anchors	Each	0	15	0	15
900	Seeding	M.S.F.	23.1 ~~121~~	17.3 ~~26~~	542.5 ~~783~~	~~930~~ 582.9
980	Rain Shelter Building	L.S.	0	All Req'd	0	All Req'd
1010	8 Foot Lighted Wind Cone	L.S.	0	0	All Req'd.	All Req'd.
1200	Water Systems	L.F.	~~590~~ 588	0	0	~~590~~ 588
1300	Pad Development	C.S.	All Req'd	0	0	All Req'd
550c	Reinforcing Fabric	S.Y.	0	0	~~7600~~ 6739	~~7600~~ 6739

~~SPECIAL DITCH SUMMARY—CUT SECTION~~

STATION	TO	STATION	REMARKS
"A" 5+00, 19' Rt.		"A" 8+50, 19' Rt.	Beginning of ditch to discharge to 30" cross culvert (℄ Sta. 4+78)
"A" 9+50, 19' Rt.		"A" 12+50, 19' Rt.	

~~SPECIAL DITCH SUMMARY—FILL SECTION~~

STATION	TO	STATION	REMARKS
"T" 2+15, 50' Lt.		"T" 2+60, 230' Lt.	Ditch to discharge to existing creek channel
"A" 8+50, 19' Rt.		"A" 9+50, 19' Rt.	
"A" 12+50, 19' Rt.		"A" 18+00, 39' Rt.	Ditch shall form a smooth transition into the natural creek channel

~~DITCH DIVERSION CHANNEL SUMMARY~~

STATION	TO	STATION	REMARKS
"A" 4+52, 19' Lt.		"A" 5+30, 19' Lt.	

~~CROSS SLOPE CREEK DIVERSION CHANNEL SUMMARY~~

STATION	TO	STATION	REMARKS
"A" 4+25, 55' Lt.		"A" 4+55, 19' Lt.	
"A" 5+35, 20' Lt.		"A" 5+75, 60' Lt.	Discharge to existing natural creek channel
"R" 46+00, 140' Lt.		"R" 46+00, 30' Rt.	

SETTLEMENT PLATFORM SUMMARY

STATION	REMARKS
"R" 11+00	Install on both shoulders
"R" 11+50	Install on centerline
"R" 12+00	Install on both shoulders
"R" 12+50	Install on centerline
"R" 13+00 Lt. Only	Install on ~~both~~ shoulders

(All above were obliterated during construction)

GENERAL NOTES

1.) Vertical and Horizontal alignments shown on these plans are subject to minor field revisions.
2.) Pipe conduit lengths and locations are approximate only and are subject to field adjustments.
3.) Clearing and Grubbing Limits shall be 10' beyond the slope limits in cut areas and 5' beyond the slope limits in fill areas, ~~except on Keku (See Typical Keku Road Section)~~.
4.) If the Contractor elects to stockpile useable excavation for reuse elsewhere on the Project, no measurement of quantities will be made and all work involved shall be considered a subsidiary obligation of the Contractor.
5.) All waste material shall be disposed of at approved locations on the Project Site or at an adjacent site with proper approvals. The Engineer will determine the height and width of the waste embankment adjacent to the Runway. In no case shall the waste be above the Runway.
6.) All work and materials involved with the maintenance of Keku Road in conformance with Section 122, Traffic Maintenance, shall be considered incidental to other items of work.
7.) A Cushion Blanket (4" minus material) 12" thick shall be placed on all woven fabric overlaps. This material shall be included for payment as Embankment.
8.) When rock material is encountered in seeding limits, that area shall not be seeded.
9.) ~~Special Ditch Work and Creek Diversion Channel will be paid for in accordance with Section 421.~~
10.) Stationing for the property monuments are approximate only. The exact location of the existing property monuments are to be tied out and reset by a Registered Land Surveyor. See Section 701.

SIGNING NOTES

1.) Sign locations and post lengths are approximate only and are subject to minor revisions.
2.) All sign posts shall be telescoping, perforated and galvanized steel posts; the 2" size shall be used above ground and the 2¼" size shall be used below ground for the sleeve.
3.) All posts shall be installed with the sleeve type embedment in accordance with Standard Drawing S-30.00, except that the 2¼" size shall be used for the entire embedment depth.

SIGNING SCHEDULE

NO.	STATION	OFFSET LT.	OFFSET RT.	CODE NUMBER	LEGEND	SIGN PANEL THICKNESS SIZE	UNFRAMED	FRAMED	AREA	NO. OF POSTS	TYPE	POST SIZE	LENGTH	EMBEDMENT	FACING TRAFFIC	REMARKS
1	12+55		15'	I-5	Airport Symbol	24"x36"	.080		6.00	1	PST	2"x2"	11'	3'	SB	
2	15+29		16'	D-1-2	Kake → ← Ferry Terminal	24"x ~~48"~~ 96"	.080		~~8.00~~ 16.00	2	PST	2"x2"	10'	3'	WB	
3	18+25	15'		I-5	Airport Symbol	24"x36"	.080		6.00	1	PST	2"x2"	11'	3'	NB	
4	"A" 0+65	15'		R1-1	Stop	30"x30"	.080		6.25	1	PST	2"x2"	11'	3'	WB	
5	"A" ~~3+40~~ 4+40		15'	R2-1	Speed Limit 35	30"x36"	.080		7.50	1	PST	2"x2"	11'	3'	EB	
6	"A" 18+00	15'		R2-1	Speed Limit 35	30"x36"	.080		7.50	1	PST	2"x2"	11'	3'	WB	
	TOTAL								49.25 ~~41.25~~							

~~AIRPORT LIGHTING PAD SCHEDULE~~

STATION	REMARKS
"R" 13+00	Install Lt. and Rt. of Shoulder
"R" 15+10	Install at Lt. Shoulder
"R" 20+10	Install at Lt. Shoulder
"R" 35+50	Install at Rt. Shoulder
"R" 40+50	Install at Rt. Shoulder
"R" 43+00	Install Lt. and Rt. of Shoulder

MONUMENT INSTALLATION SUMMARY

STATION	POINT	REMARKS
15+28.72 = "A" 0+00.00	P.O.T. = P.O.T.	Beginning of Access Rd.
"A" 3+86.88	P.C.	Access Road
"A" 14+98.62	P.T.	Access Road
"A" 25+28.45 = "T" ~~4+37~~ 4+46.4	P.O.T. = P.O.T.	Apron
"R" 10+60	P.O.T.	Beginning of Runway
"R" 45+40	P.O.T.	End Runway
"R" 16+50.00 = "T" 0+00.00	P.O.T. = P.O.T.	Runway / Taxiway

PIPE CONDUIT SUMMARY

STATION	PIPE LENGTH	30"	~~36"~~	36"	REMARKS
"T" 2+15		125 ~~110'~~			
"R" ~~22+50~~ 22+75			~~230'~~	262	
"R" ~~31+00~~ 31+10			~~200'~~	242	
"R" ~~35+50~~ 35+15			~~210'~~	242	
"R" 41+00			~~230'~~	250	
"A" ~~4+78~~ 4+50		70 ~~62'~~			
"A" 13+20		74 ~~56'~~			
"A" 8+05		51			
		320		996	
TOTAL		~~228'~~	~~870'~~		

EXISTING PROPERTY MONUMENT ADJUSTMENT SUMMARY (SEE NOTE 10)

STATION	REMARKS
"R" 19+90, ~~50'~~ 40.6 Rt.	
"R" 21+60, ~~55'~~ 45.6 Rt.	
"R" 41+00, ~~90'~~ 80.6 Rt.	
"R" 46+00, ~~100'~~ 90.6 Rt.	

STATE OF ALASKA REGISTERED PROFESSIONAL ENGINEER 49TH P. Bednarowicz CE-5104

BY	DATE	CHANGE
P.B.	4/18/84	Added Item 550c.

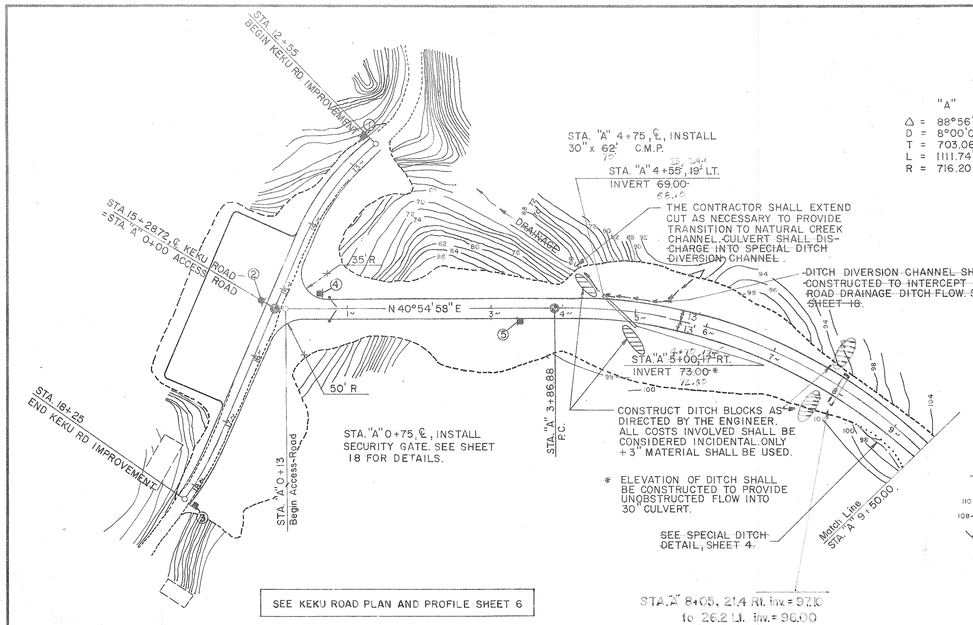
REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

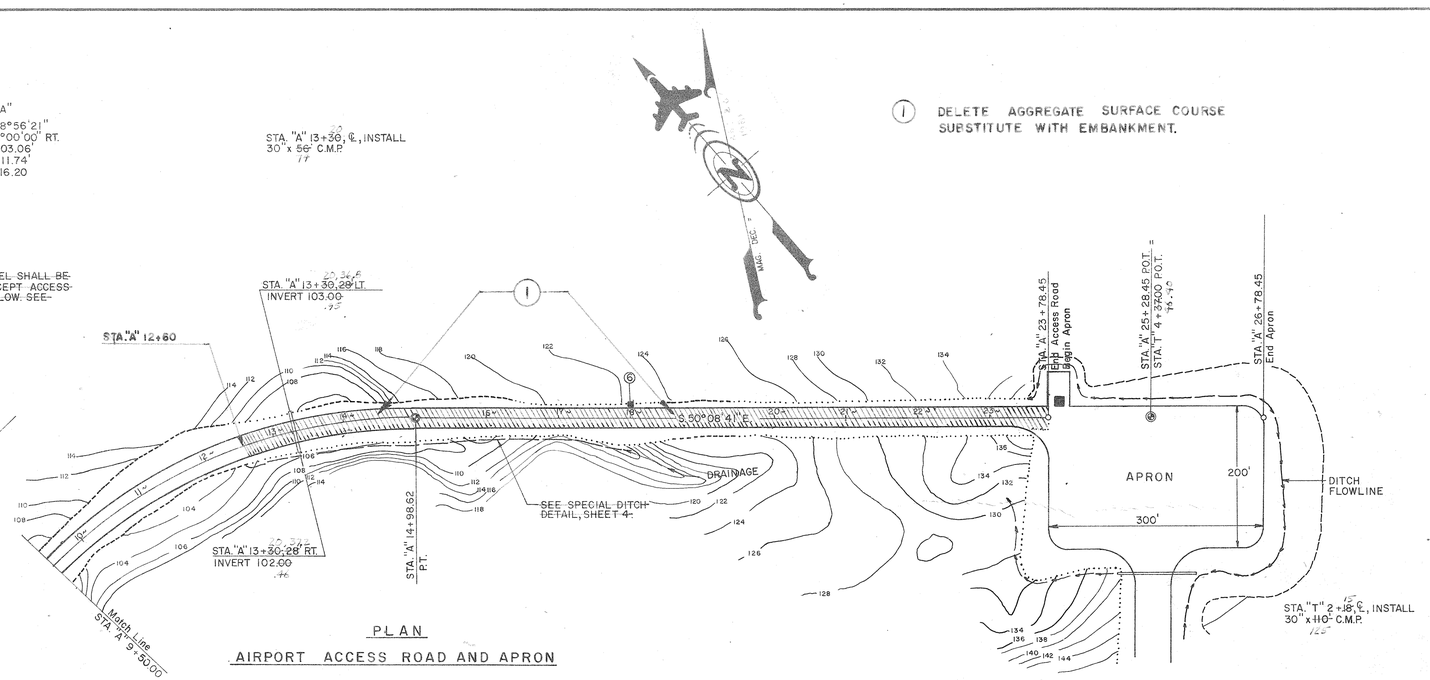
KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
PROJECT NO. D-19712
SUMMARY TABLES

APPROVED BY: William A. Locher — WILLIAM A LOCHER, S.E. REGION AVIATION DESIGN ENGINEER
APPROVED BY: W L Baumgartner — WILLIAM L. BAUMGARTNER, S.E. REGION DESIGN ENGINEER

SCALE: None | DESIGNED: | DRAWN: CMH | CHECKED: PB | DATE: 6/29/83 | SHEET 3 OF 19



"A"
Δ = 88°56'21"
D = 8°00'00" RT.
T = 703.06'
L = 1111.74'
R = 716.20

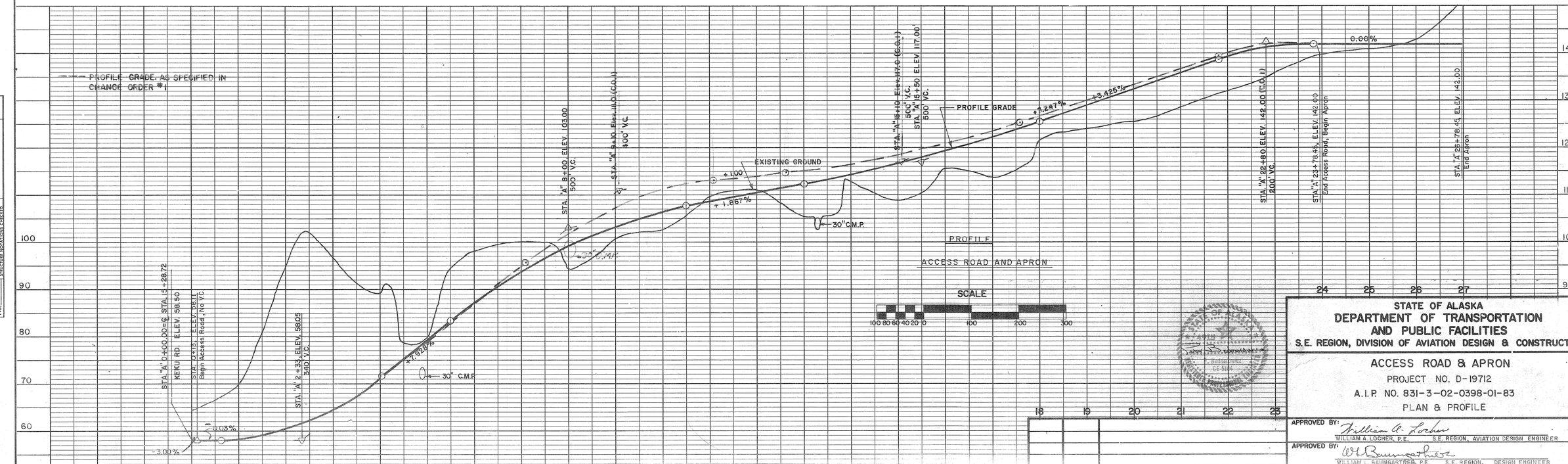


① DELETE AGGREGATE SURFACE COURSE SUBSTITUTE WITH EMBANKMENT.

PLAN
AIRPORT ACCESS ROAD AND APRON

SCALE
100 80 60 40 20 0 100 200 300

⑩ INSTALL SURVEY MONUMENT
① STANDARD SIGNS, SEE SUMMARY, SHEET 3



PROFILE
ACCESS ROAD AND APRON

SCALE
100 80 60 40 20 0 100 200 300

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

ACCESS ROAD & APRON
PROJECT NO. D-19712
A.I.P. NO. 831-3-02-0398-01-83
PLAN & PROFILE

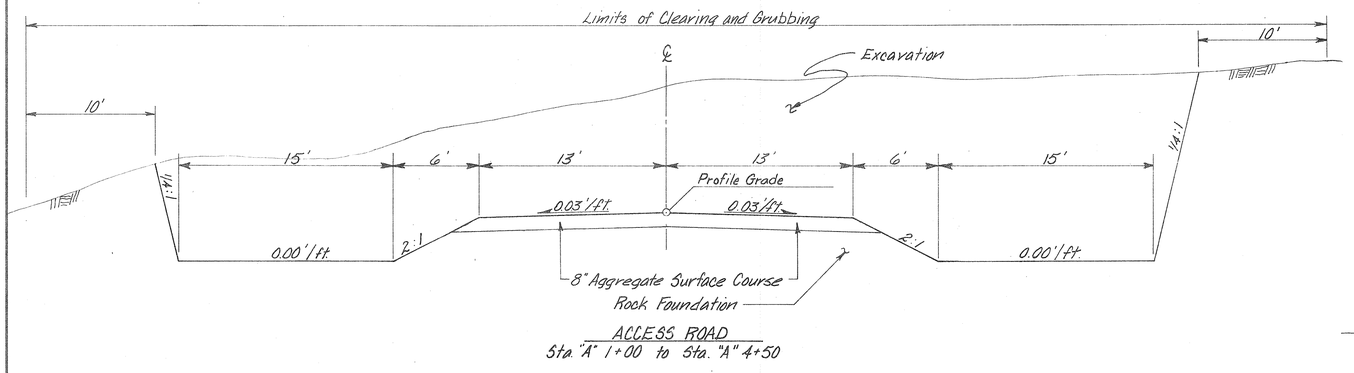
APPROVED BY: William A. Locher
WILLIAM A. LOCHER, P.E. S.E. REGION, AVIATION DESIGN ENGINEER
APPROVED BY: Wm L Baumgartner
WILLIAM L. BAUMGARTNER, P.E. S.E. REGION, DESIGN ENGINEER

SCALE: | DESIGNED: | DRAWN: | SHEET

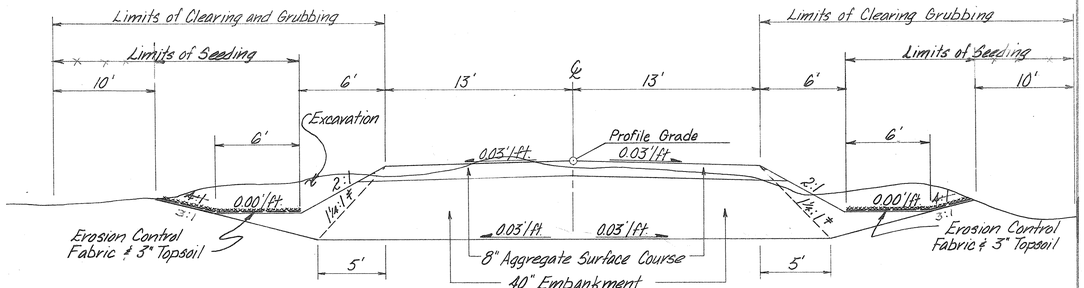
PLAN — SURVEYED, PLOTTED, GRADES CHECKED, R.O.W. CHECKED, NOTE BOOK, No., BY, DATE
PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, R.O.W. CHECKED, STRUCTURE NOTATIONS CHECKED, NOTE BOOK, No., BY, DATE
CHANGE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA				

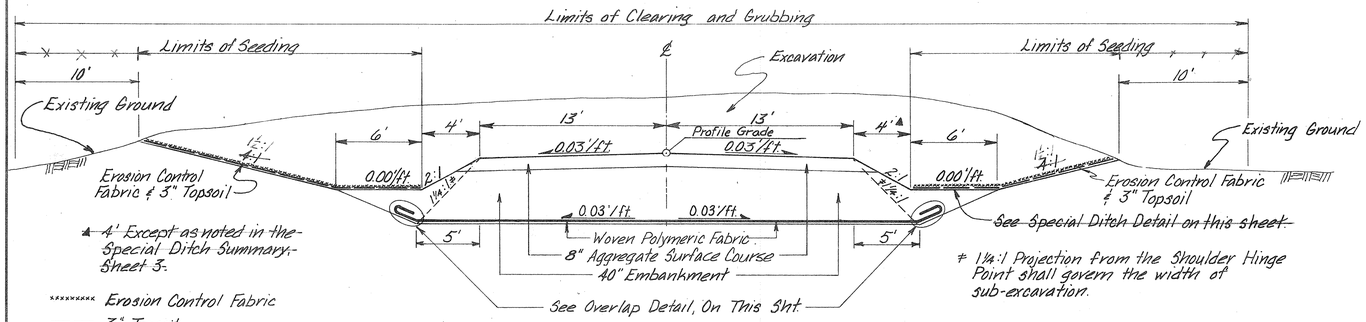
TYPICAL ACCESS ROAD SECTIONS



ACCESS ROAD
Sta. "A" 1+00 to Sta. "A" 4+50



ACCESS ROAD
Sta. "A" 0+13 to Sta. "A" 1+00



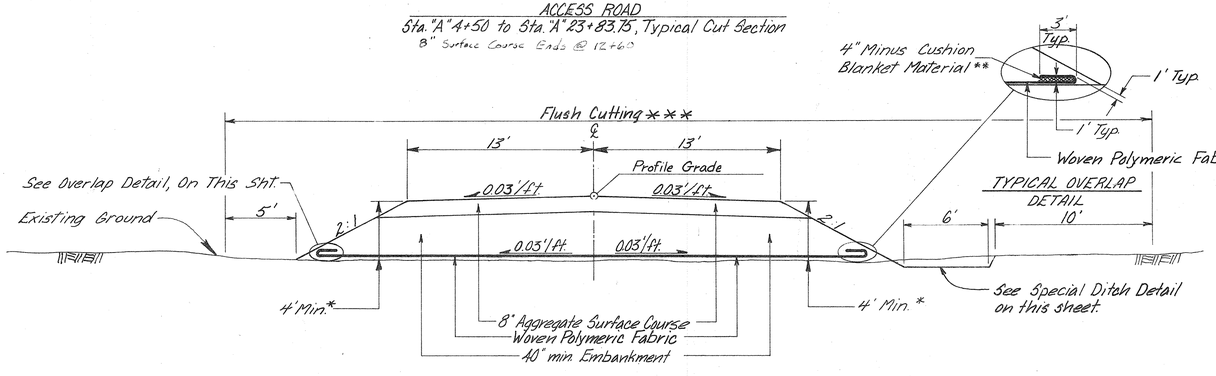
* 4' Except as noted in the Special Ditch Summary, Sheet 3.

******** Erosion Control Fabric

—— 3" Topsoil

\# 1¼:1 Projection from the Shoulder Hinge Point shall govern the width of sub-excavation.

ACCESS ROAD
Sta. "A" 4+50 to Sta. "A" 23+83.75, Typical Cut Section
8" Surface Course Ends @ 12+60

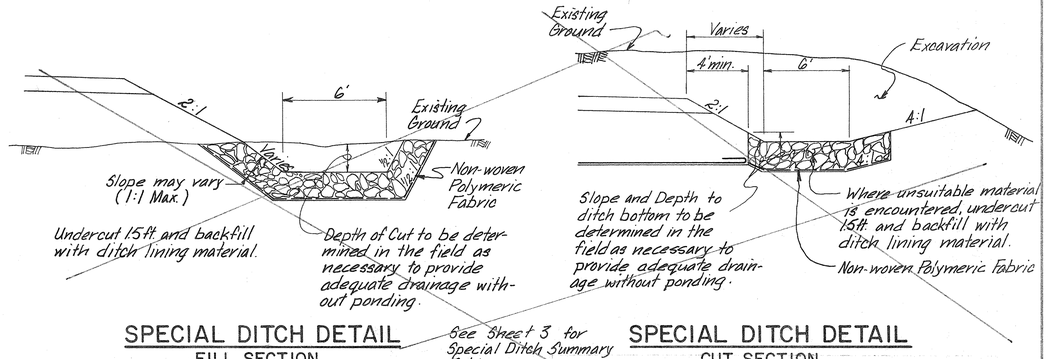


ACCESS ROAD
Sta. "A" 4+50 to Sta. "A" 23+83.75, Typical Fill Section

* Where necessary, subcut to obtain minimum fill depth.

** 4" minus Cushion Blanket Material shall be 1 ft. in depth and laid along fabric overlap.

*** See Note 4, Sheet 9



SPECIAL DITCH DETAIL
FILL SECTION

See Sheet 3 for Special Ditch Summary Tables

SPECIAL DITCH DETAIL
CUT SECTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

STATE OF ALASKA 49TH STATE — F. Bednarowicz CE-5104 — REGISTERED PROFESSIONAL ENGINEER

KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
PROJECT NO. D-19712
ACCESS ROAD TYPICAL SECTIONS

BY	DATE	CHANGE

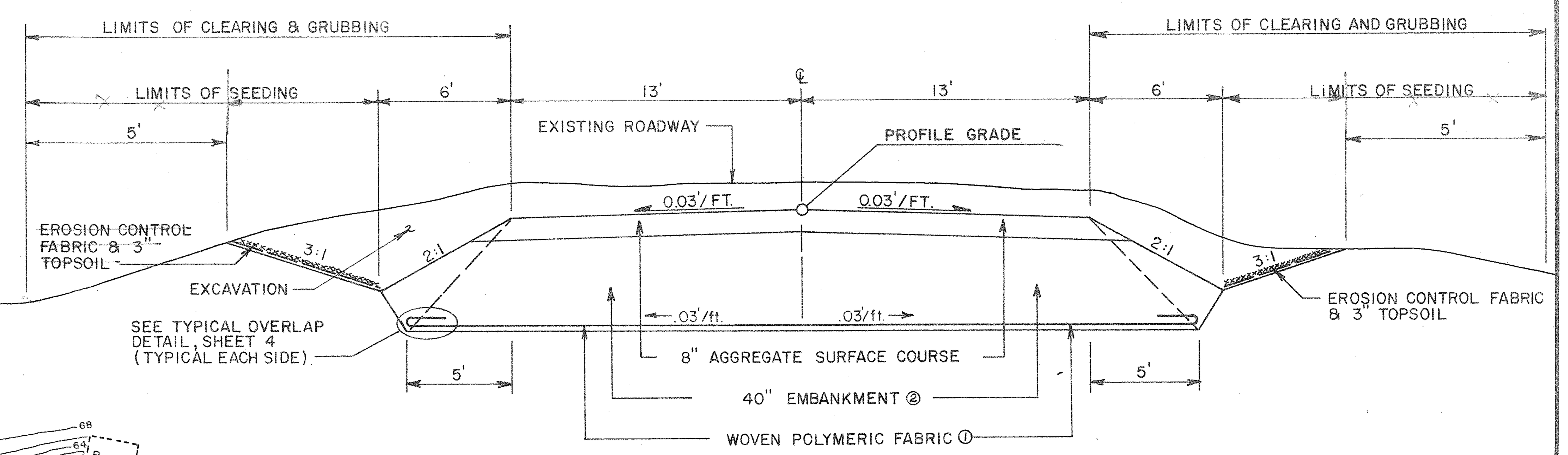
REVISIONS

APPROVED BY: William A. Locher
WILLIAM A. LOCHER, P.E. — S.E. REGION AVIATION DESIGN ENGINEER

APPROVED BY: Wm Baumgartner
WILLIAM L. BAUMGARTNER, P.E. — S.E. REGION DESIGN ENGINEER

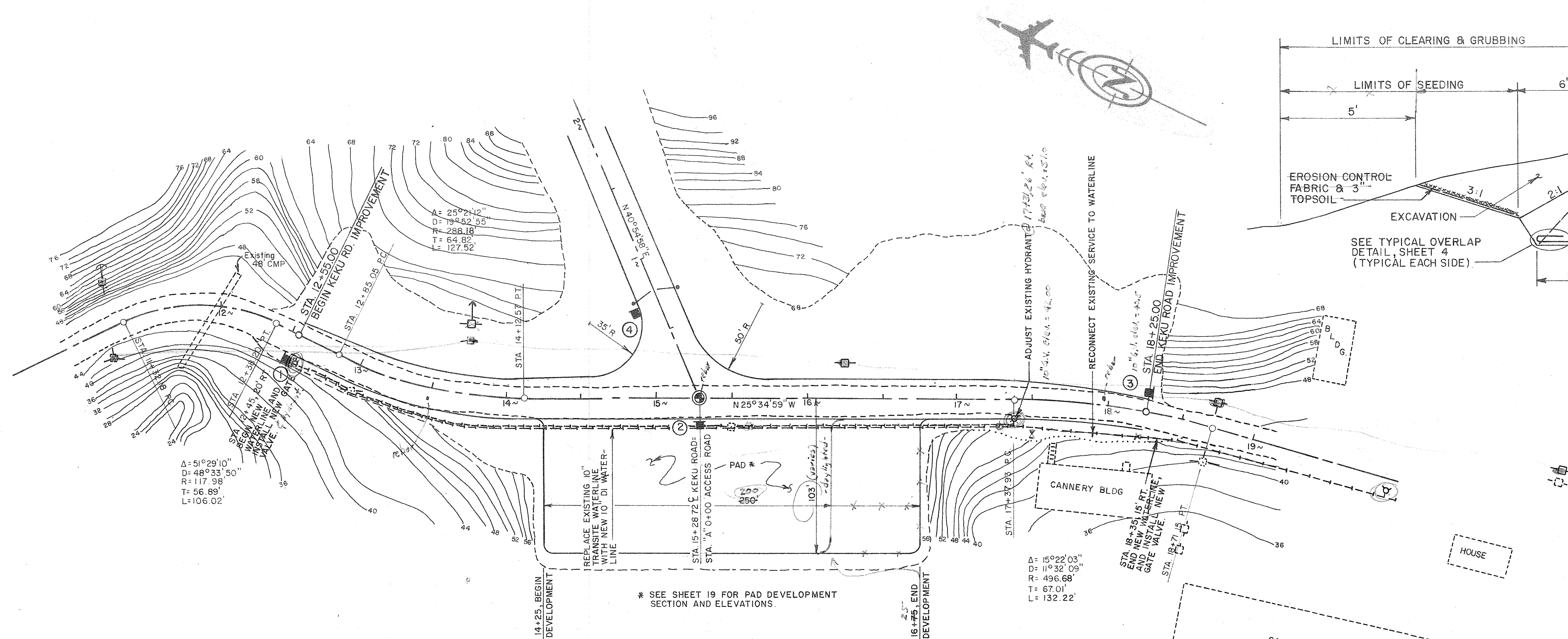
SCALE: No Scale
DESIGNED:
DRAWN: CBH
CHECKED: WB
DATE: 6/20/83
SHEET 4 OF 19

TYPICAL KEKU ROAD SECTION



KEKU ROAD
STA. 12+55 TO STA. 18+25

① FABRIC MAY BE DELETED IF ON ROCK
② 40" DOES NOT APPLY WHEN ON SUITABLE BASE MATERIAL



PLAN
KEKU ROAD

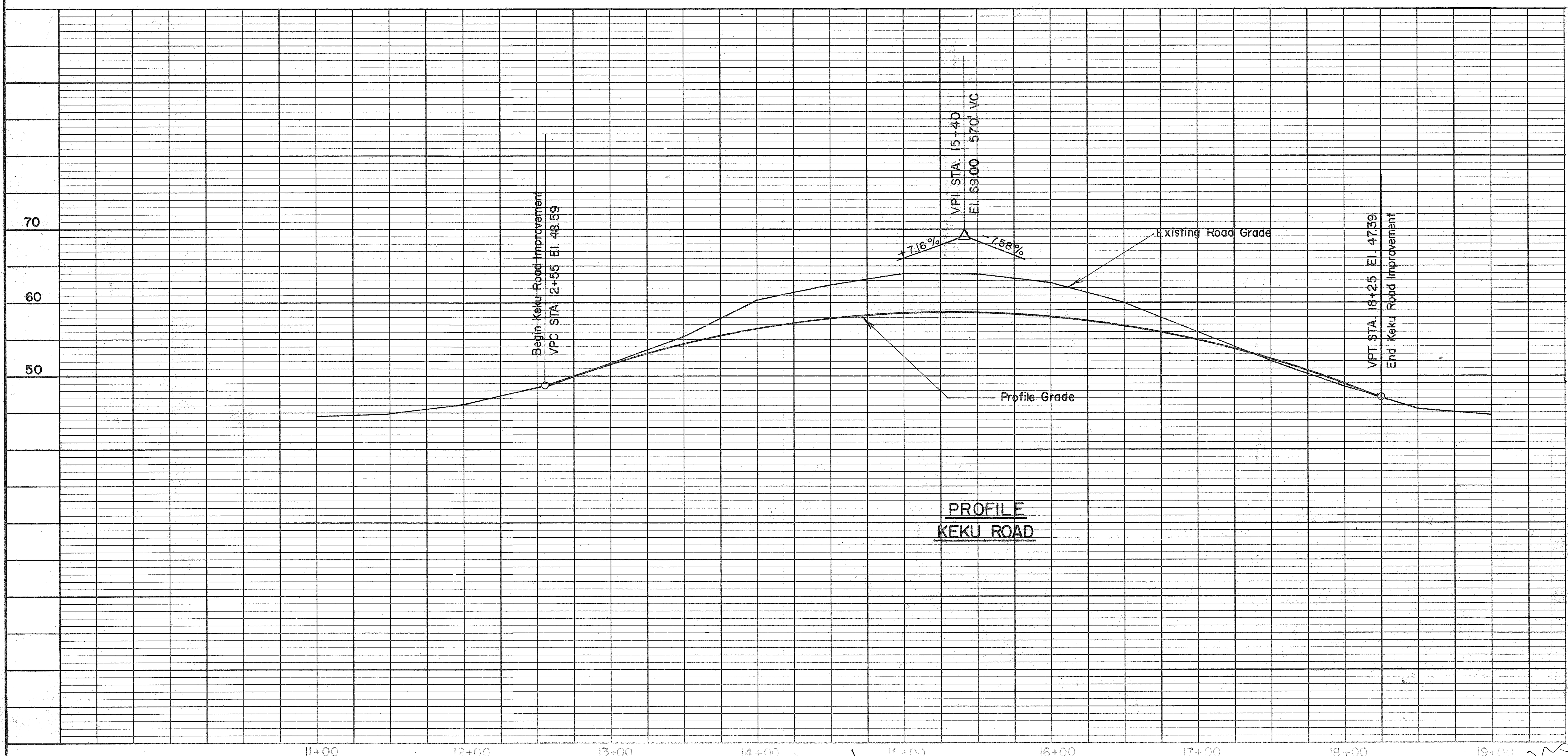
① Standard Signs, See Summary, Sheet 3

⊕ – Install Survey Monument

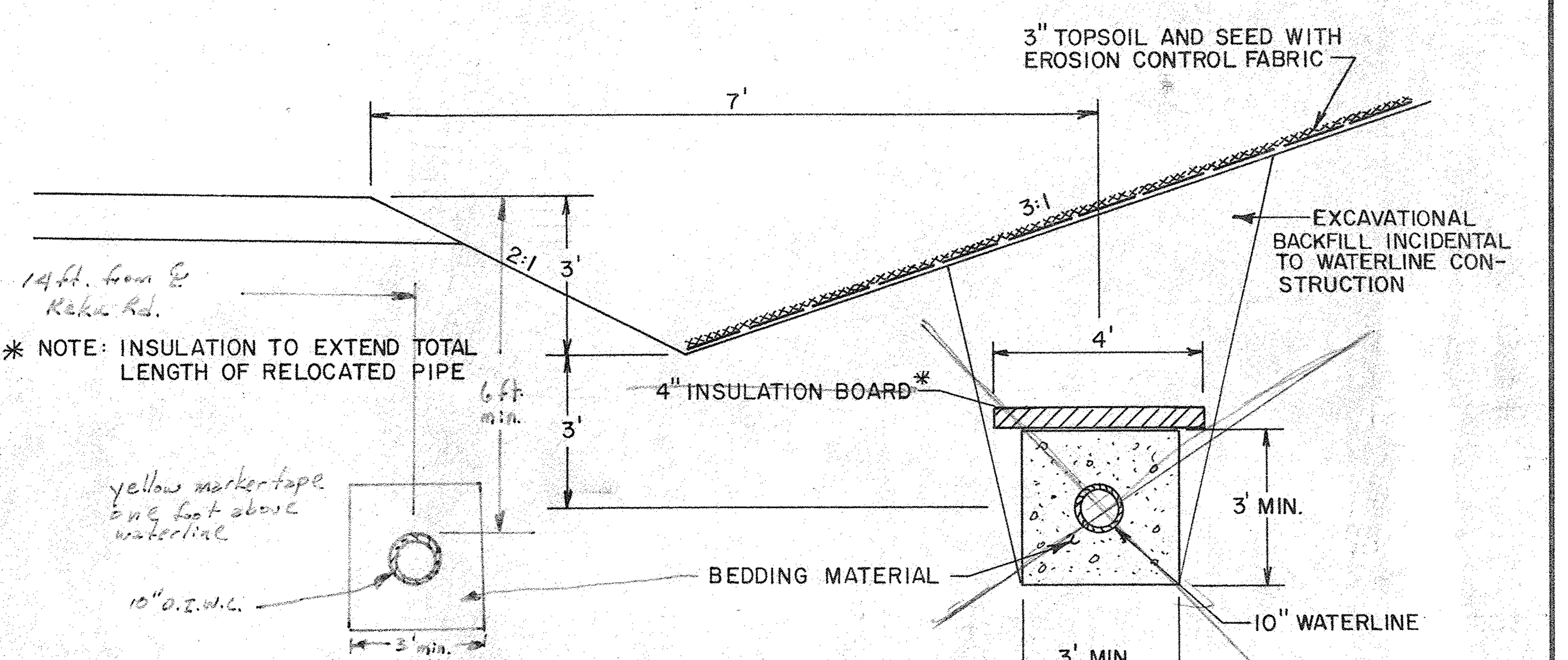
SCALE
HORIZONTAL 50 30 10 0 50 100 150
VERTICAL 10 0 10 20 30

NOTES

1. INSTALLATION OF GATE VALVE, ADJUSTMENT OF EXISTING HYDRANT, CURB STOP AND CORPORATION STOP, AND CONNECTION OF NEW WATERLINE TO OLD WATERLINE IS INCIDENTAL TO ITEM 1200 WATER SYSTEMS, AND NO COMPENSATION WILL BE MADE.
2. THE MAINTENANCE FOREMAN OF KAKE BELIEVES THE WATERLINE TO BE ALONG THE RIGHT SIDE OF KEKU ROAD. THE CONTRACTOR SHALL VERIFY THE SIZE, TYPE AND LOCATION OF THE WATERLINE PRIOR TO EXCAVATION ON KEKU ROAD. THE ABANDONED WATERLINE SHALL BE DISPOSED OF IN ANY WASTE DISPOSAL AREA SHOWN ON THE PLANS OR AT THE CONTRACTOR'S CHOICE, AS APPROVED BY THE ENGINEER. (INCIDENTAL TO ITEM 1200, WATER SYSTEMS)
3. REFER TO THE SPECIAL PROVISIONS FOR WORKING AROUND AND FOR RELOCATION (BY OTHERS) OF THE POWER, TELEPHONE AND CABLE TV POLE LINE FACILITIES.
4. WHEN THE WATERLINE IS LOCATED ON UNSUITABLE MATERIAL (DETERMINED BY THE ENGINEER), REMOVE UNSUITABLE MATERIAL AND BACKFILL IN ACCORDANCE WITH ITEMS 330a, 330b & 330c. BEDDING MATERIAL SHALL BE TYPE "C" GRADATION IN ACCORDANCE WITH SECTION 400.
5. Hydrant at 12+55 was omitted during the location survey. Contractor installed as a public service to Kake. (needed for temporary bypass)



PROFILE
KEKU ROAD



WATERLINE RELOCATION DETAIL
N.T.S.

PLAN	
NOTE BOOK	SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED
No.	

PROFILE	
NOTE BOOK	SURVEYED / PLOTTED / GRADES CHECKED / B. M.'s NOTED / STRUCTURE NOTATIONS CHECKED
No.	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

KEKU ROAD
PROJECT NO. D19712
A.I.P. 831-3-02-0398-01-83
PLAN, PROFILE & TYPICAL SECTION

APPROVED BY: William A. Locher
WILLIAM A. LOCHER, P.E. — S.E. REGION AVIATION DESIGN ENGINEER

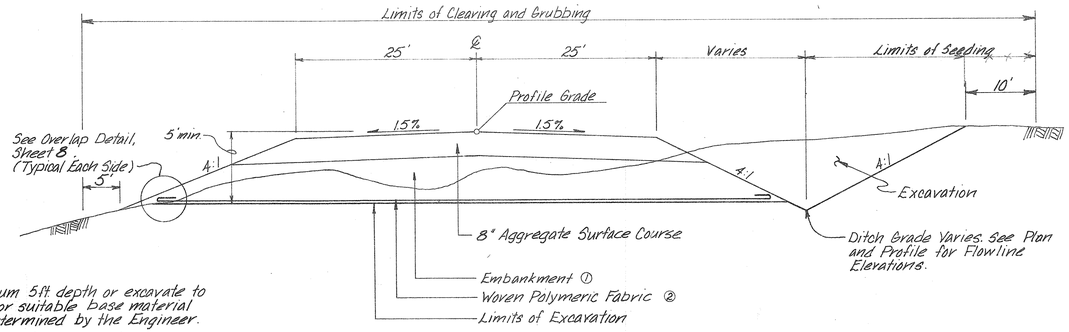
APPROVED BY: W L Baumgartner
WILLIAM L. BAUMGARTNER, P.E. — S.E. REGION DESIGN ENGINEER

BY	DATE	CHANGE
		REVISIONS

SCALE: As Shown | DESIGNED: | CHECKED: | DRAWN: | DATE: | SHEET 6 OF 19

TYPICAL TAXIWAY SECTION

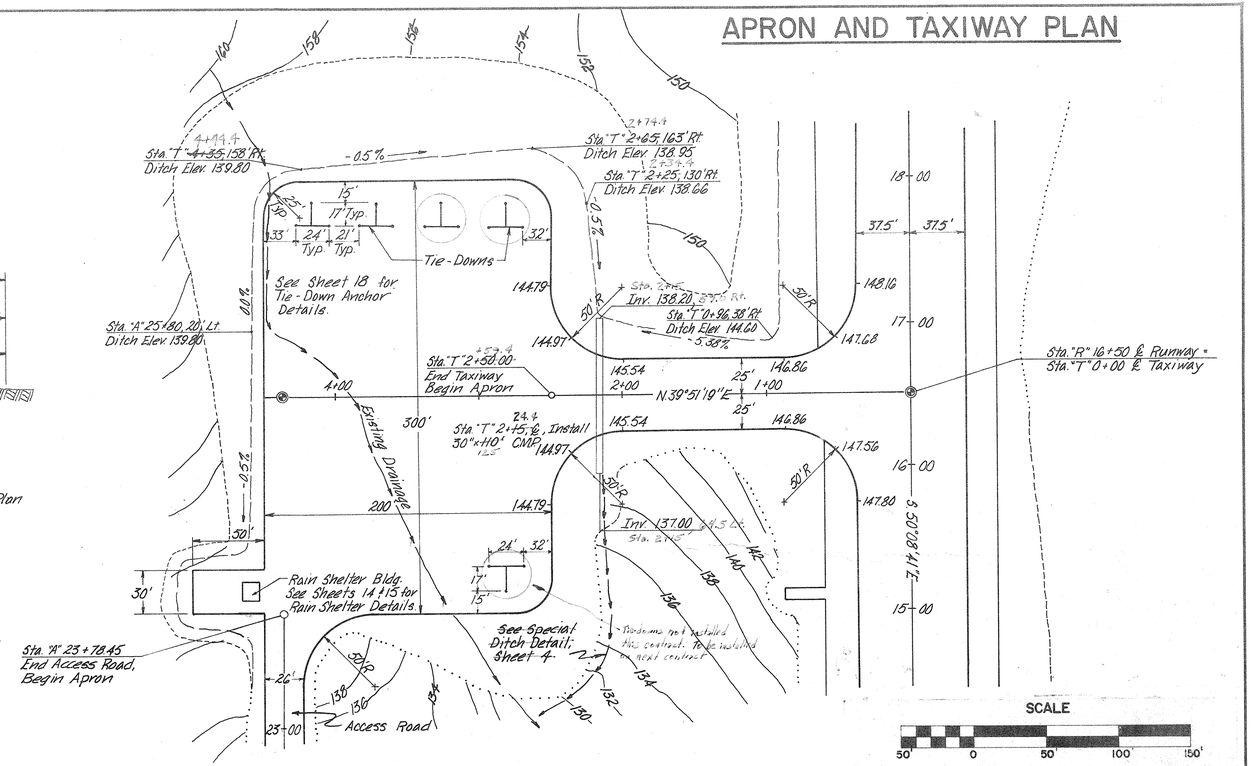
N.T.S.



① Minimum 5 ft. depth or excavate to rock or suitable base material as determined by the Engineer.

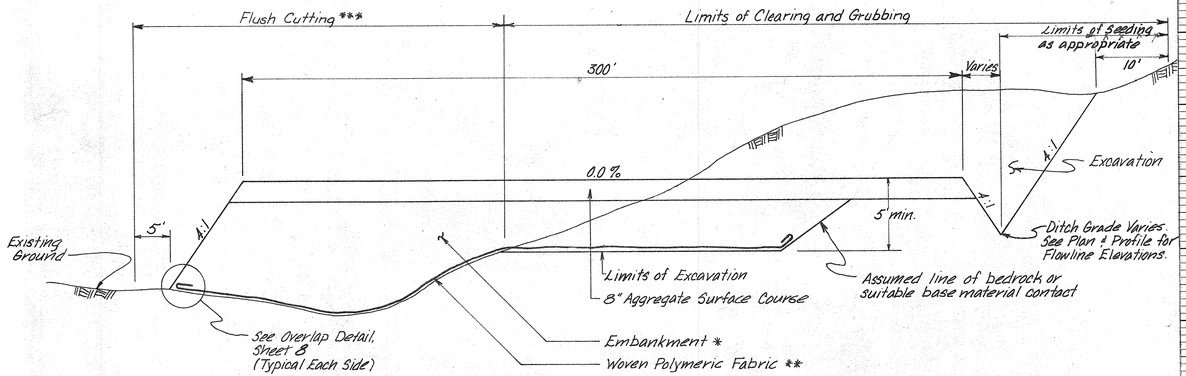
② Fabric shall be placed over unsuitable base material and shall overlap 6 ft. over rock or suitable base material. All seams shall be sewn.

APRON AND TAXIWAY PLAN



TYPICAL APRON SECTION

N.T.S.

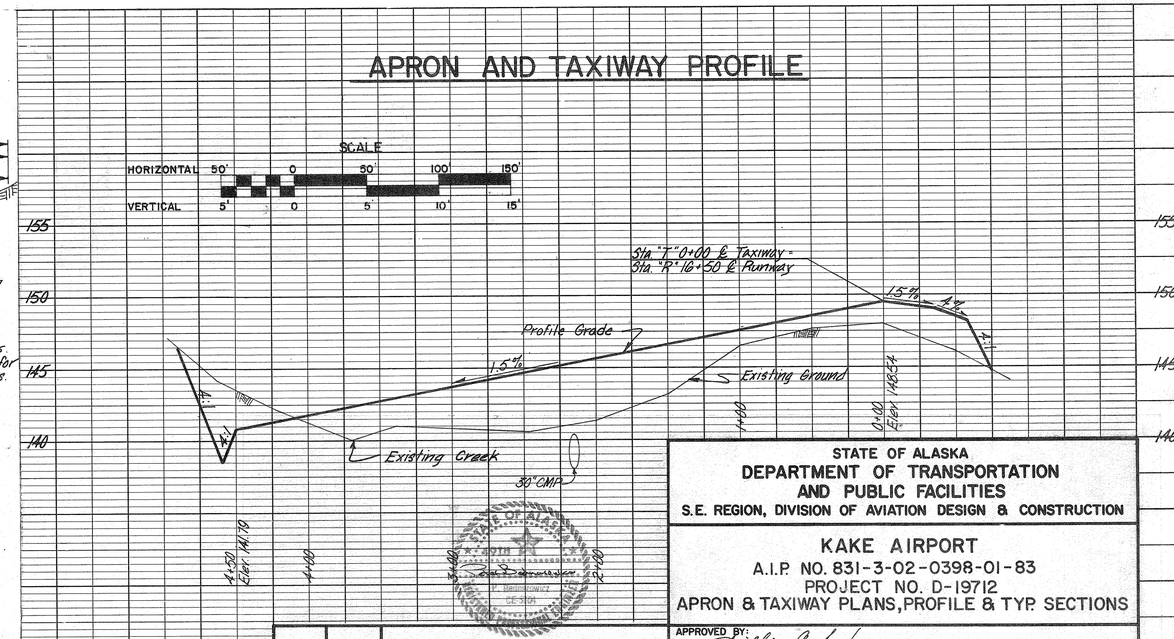


* Minimum 5 ft. depth or excavate to rock or suitable base material as determined by the Engineer.

** Fabric shall be placed over unsuitable base material and shall overlap 6 ft. over rock or suitable base material. All seams shall be sewn.

*** See Note 4, Sheet 9

APRON AND TAXIWAY PROFILE



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
PROJECT NO. D-19712
APRON & TAXIWAY PLANS, PROFILE & TYP. SECTIONS

BY	DATE	CHANGE
		REVISIONS

APPROVED BY: William A. Locher
WILLIAM A. LOCHER, P.E. — S.E. REGION AVIATION DESIGN ENGINEER

APPROVED BY: W L Baumgartner
WILLIAM L. BAUMGARTNER P.E. — S.E. REGION DESIGN ENGINEER

SCALE:	DESIGNED:	DRAWN: C.R.H.	SHEET 7 OF 19
As Shown	CHECKED: WB	DATE: 6/29/83	

PLATE 1, PLAN-PROFILE

ADDENDUM No. 1 ATTACHMENT No. 6

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA				

TYPICAL RUNWAY SECTIONS

RUNWAY SECTION

STA. 10+60 TO STA. 13+~~50~~ 00

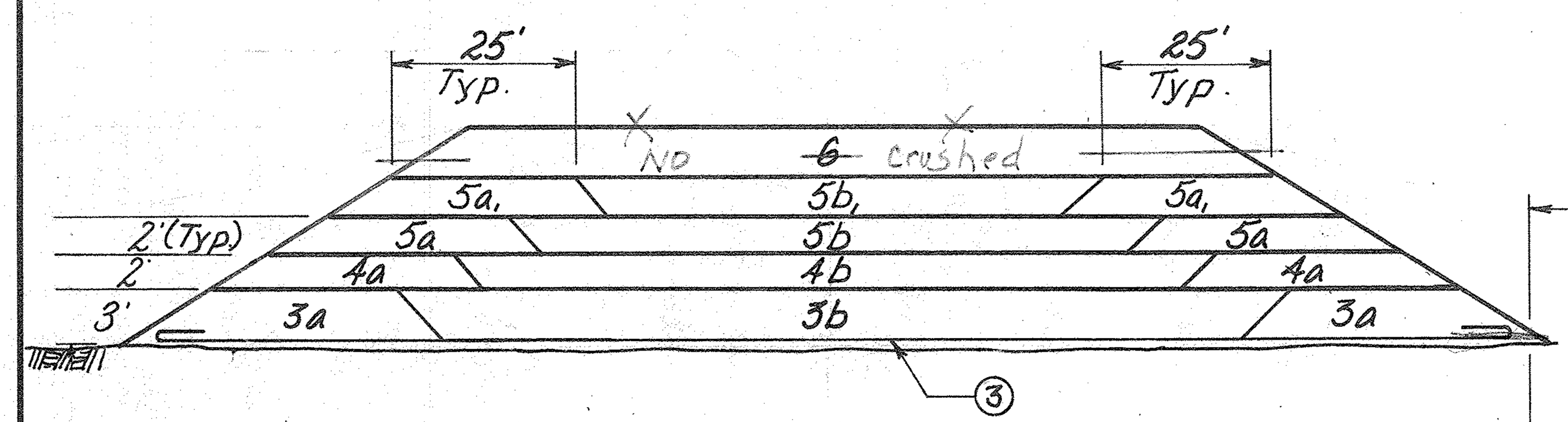
SEE SEQUENCE OF CONSTRUCTION

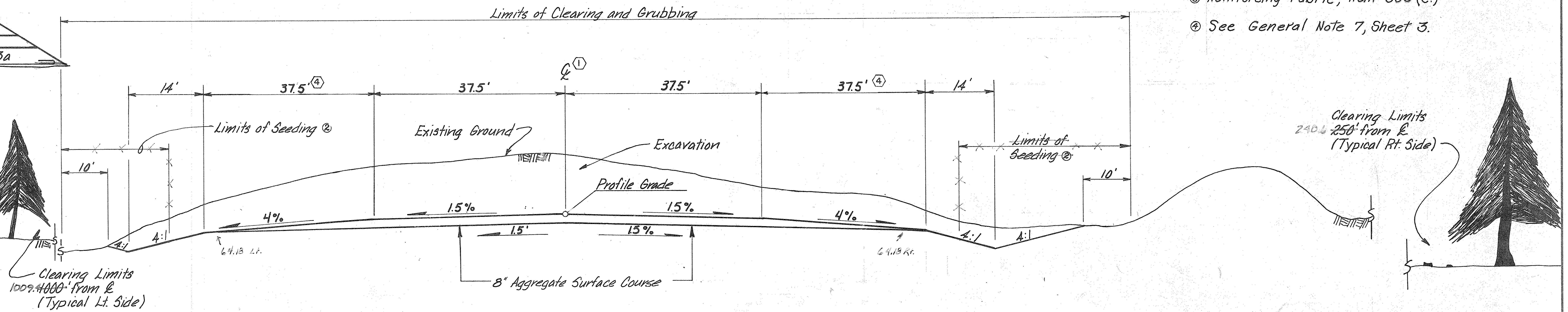
① Slope Varies 2:1 to 4:1, to be determined by the Engineer.

② See General Note 8, Sheet 3.

③ Reinforcing Fabric, Item 550 (C.)

④ See General Note 7, Sheet 3.





SEQUENCE OF CONSTRUCTION

STA. 10+60 TO STA. 13+~~50~~ 00

1.) Install Settlement Platforms and Piezometers.
2.) Place Fabric Perpendicular to ℄ on Original Ground.
3a.) Construct Outside Sections of Initial Lift.
3b.) Construct Interior Section of Initial Lift. Next, Wait 10 Days Maximum, or Until Pore Pressure is Reduced to an Acceptable Level.
4a.) Contruct Outside Sections of Second Lift.
4b.) Contruct Interior Section of Second Lift. Next, Wait 10 Days Maximum, or Until Pore Pressure is Reduced to an Acceptable Level.
5.) Repeat Steps 5a, 5b and Waiting Period, until Embankment has been Constructed to the Bottom of Subbase.
6.) ~~Construct Aggregate Surface Course Lift~~

RUNWAY SECTION

STA. 13+~~50~~ 00 TO STA. 17+00

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
PROJECT NO. D-19712
RUNWAY TYPICAL SECTIONS

BY	DATE	CHANGE
P.B.	4/18/84	Minor Revisions made to Fabric
P.B.	10/12/84	○ CHANGE ORDER # 3 # 6

REVISIONS

APPROVED BY: William A. Locher, P.E., S.E. Region Aviation Design Engineer

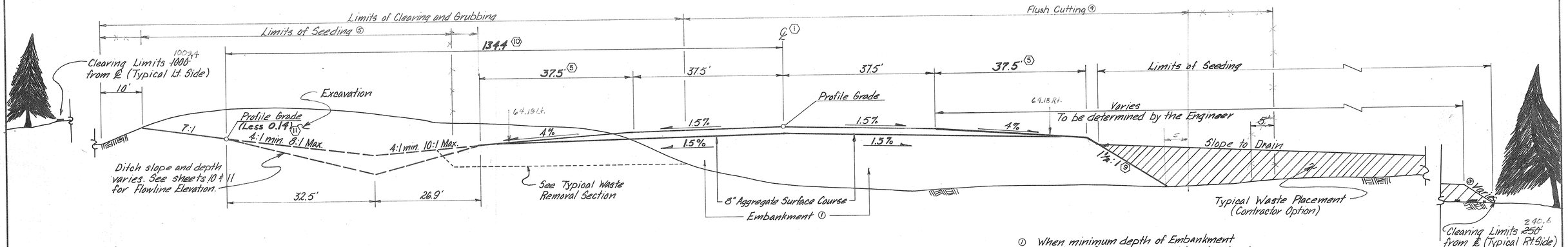
APPROVED BY: William L. Baumgartner, P.E., S.E. Region Design Engineer

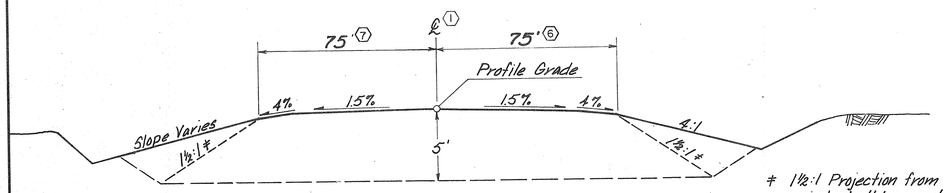
SCALE: No Scale	DESIGNED:	DRAWN: CKH	SHEET 8 OF 19
	CHECKED:	DATE: 6/29/83	

K&E 10 1253 7-81 MC 2693*

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA				

TYPICAL RUNWAY SECTIONS





TYPICAL WASTE REMOVAL SECTION

TOTAL LENGTH OF RUNWAY ②
(WHERE APPROPRIATE)

* 1½:1 Projection from hinge point shall be used to determine the width of excavation.

RUNWAY SECTION

STA. 17+00 TO STA. 19+00
&
STA. 25+00 TO STA. 45+40

① When minimum depth of Embankment (4.33' at ℄) cannot be achieved, refer to Typical Waste Removal Section.

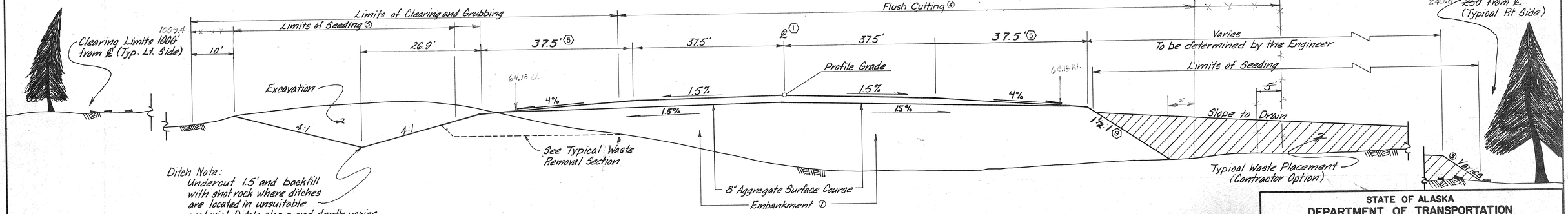
② Waste material may include vegetation, muskeg organic soils and other materials which are unsuitable for use in Embankment as determined by the Engineer. Note, the thickness and amounts of waste material varies throughout the Project. The Typical Waste Removal Section does not apply when in ground suitable for Embankment.

③ Varies 2:1 to 4:1, to be determined by the Engineer.

④ Flush Cutting shall be done in lieu of Clearing & Grubbing, and shall be paid for as Clearing & Grubbing.

⑤ See General Note 8, Sheet 3.

6 No waste placement between 41+00 & 45+40. Maintain 4:1 slopes.



Ditch Note:
Undercut 1.5' and backfill with shot rock where ditches are located in unsuitable material. Ditch slope and depth varies. See Sheet 10 for Flowline Elevation.

RUNWAY SECTION

STA. 19+00 TO STA. 25+00

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
PROJECT NO. D-19712
RUNWAY TYPICAL SECTIONS

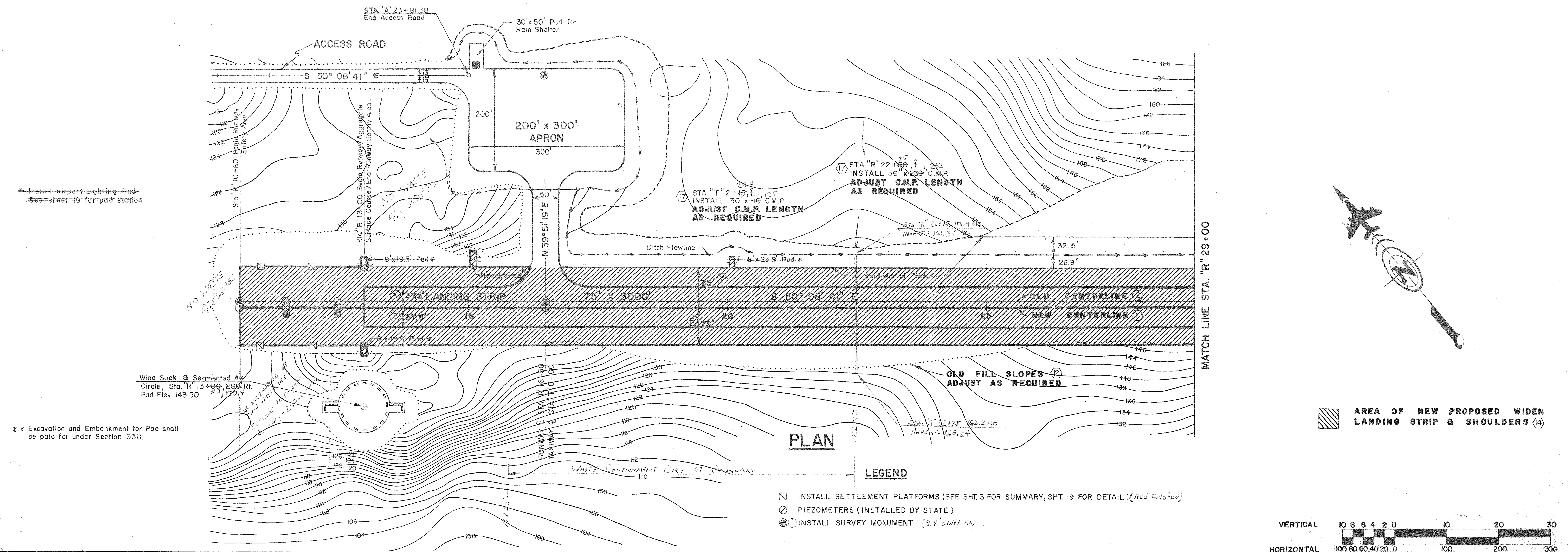
BY	DATE	REVISIONS
P.B.	10/12/84	○ CHANGE ORDER #3 ℄ #6

APPROVED BY: William A. Locher
WILLIAM A. LOCHER, P.E. S.E. REGION AVIATION DESIGN ENGINEER

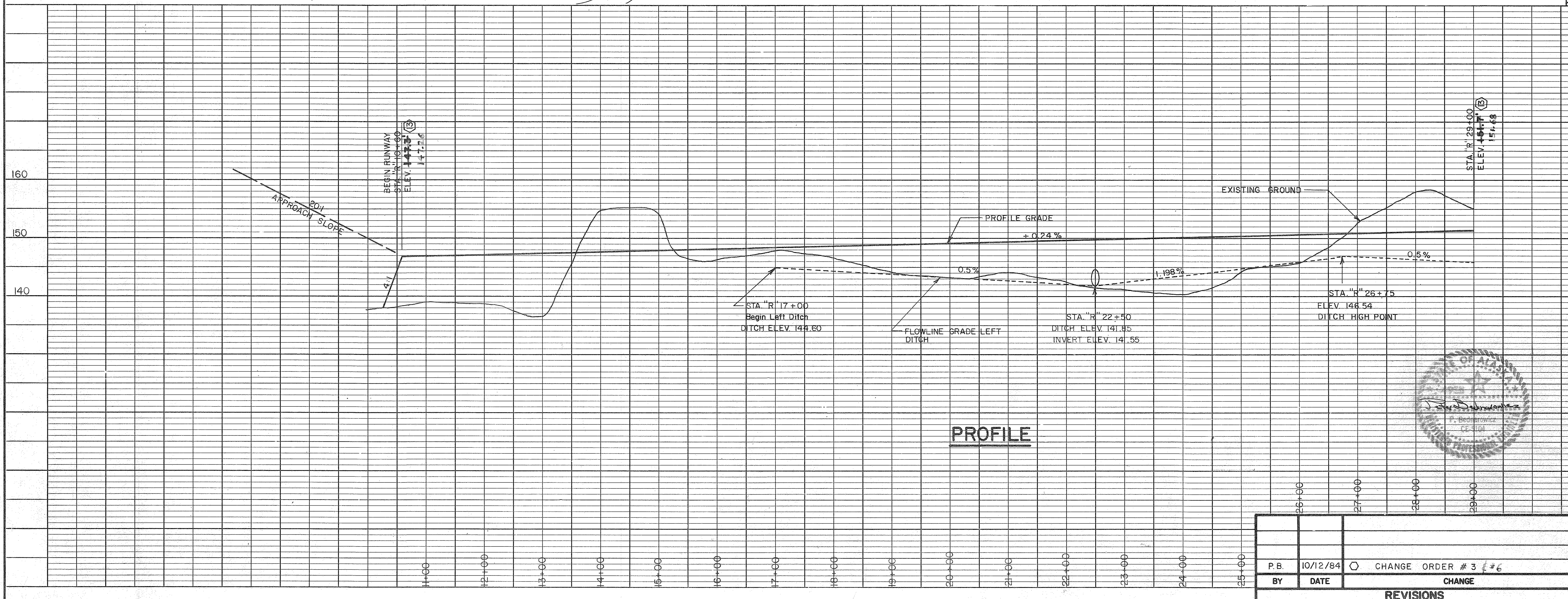
APPROVED BY: W.L. Baumgartner
WILLIAM L. BAUMGARTNER, P.E. S.E. REGION DESIGN ENGINEER

SCALE: No Scale
DESIGNED:
CHECKED: JB
DRAWN: CRH
DATE: 6/29/83

SHEET 9 OF 19



STA. "A" 23+81.38
End Access Road
30'x 50' Pad for Rain Shelter
ACCESS ROAD
S 50° 08' 41" E
200' x 300'
APRON
200'
300'
50'
N.39°51'19"E
* Install airport Lighting Pad
See sheet 19 for pad section
8'x19.5' Pad *
8'x23.9' Pad *
Ditch Flowline
32.5'
26.9'
STA. "T" 2+15, ℄
INSTALL 30" x 110' C.M.P.
ADJUST C.M.P. LENGTH AS REQUIRED
STA. "R" 22+50, ℄
INSTALL 36" x 232' C.M.P.
ADJUST C.M.P. LENGTH AS REQUIRED
LANDING STRIP
75' x 3000'
S 50° 08' 41" E
OLD CENTERLINE
NEW CENTERLINE
OLD FILL SLOPES
ADJUST AS REQUIRED
MATCH LINE STA. "R" 29+00
Wind Sock & Segmented ** Circle, Sta. "R" 13+00, 200' Rt.
Pad Elev. 143.50
** Excavation and Embankment for Pad shall be paid for under Section 330.
PLAN
LEGEND
INSTALL SETTLEMENT PLATFORMS (SEE SHT. 3 FOR SUMMARY, SHT. 19 FOR DETAIL)
PIEZOMETERS (INSTALLED BY STATE)
INSTALL SURVEY MONUMENT
AREA OF NEW PROPOSED WIDEN LANDING STRIP & SHOULDERS
VERTICAL
HORIZONTAL



BEGIN RUNWAY
20:1 APPROACH SLOPE
4:1
PROFILE GRADE
+0.24%
EXISTING GROUND
STA. "R" 29+00
STA. "R" 17+00
Begin Left Ditch
DITCH ELEV. 144.60
FLOWLINE GRADE LEFT DITCH
STA. "R" 22+50
DITCH ELEV. 141.85
INVERT ELEV. 141.55
STA. "R" 26+75
ELEV. 146.54
DITCH HIGH POINT
0.5%
1.198%
0.5%
160
150
140
PROFILE

BY	DATE		CHANGE
P.B.	10/12/84	○	CHANGE ORDER # 3 & #6

REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
Project No. D19712
Plan & Profile
Sta. "R" 10+60 to Sta. "R" 29+00

APPROVED BY: William A. Locher, P.E. — S.E. Region, Aviation Design Engineer
APPROVED BY: William L. Baumgartner, P.E. — S.E. Region Design Engineer

SCALE: As Shown | DESIGNED: | DRAWN: CKH | CHECKED: DB | DATE: 6/28/83 | SHEET 10 OF 19

PLATE 1, PLAN-PROFILE

ADDENDUM NO. 5 ATTACHMENT NO. 4

STA. "R" 31+10 ℄, INSTALL 36" x 242' C.M.P. ADJUST C.M.P. LENGTH AS REQUIRED
STA. "R" 35+15 ℄, INSTALL 36" x 242' C.M.P. ADJUST C.M.P. LENGTH AS REQUIRED
STA. "R" 41+00, ℄, INSTALL 36" x 220' C.M.P. ADJUST C.M.P. LENGTH AS REQUIRED
Delete Clear Zone (Borrow Area)
OLD CLEAR ZONE SLOPE
NEW CLEAR ZONE SLOPE
CREEK DIVERSION CHANNEL, SEE SHEET 18 FOR DETAILS.
DAYLIGHT INTO EXISTING CREEK
WIDEN AS MUCH AS POSSIBLE (UP TO 75')
MATCH LINE STA. "R" 29+00
LANDING STRIP 75' x 3,000'
OLD CENTERLINE S 50°08'41" E
NEW CENTERLINE
Ditch Flowline
Shoulders of Ditch
Waste Area
Waste Containment Dike At Property Boundary
OLD FILL SLOPES ADJUST AS REQUIRED
No Waste - 4:1 Slopes
PLAN
INSTALL SURVEY MONUMENTS
INSTALL AIRPORT LIGHTING PAD SEE SHEET 19 FOR PAD SECTION
NO FILL PLACEMENT ALLOWED BEYOND ABOVE MONUMENTS. WARP SLOPES AS NECESSARY.
TYPICAL CLEAR ZONE SECTION A-A
STA. 45+40 TO STA. "R" 50+40
ELEVATION 155.65 AT STA. "R" 45+40. ELEVATION RISES AT A 20:1 SLOPE
EXCAVATION
ELEVATION VARIES
WIDTH VARIES
250' AT STA. "R" 45+40 INCREASING 15' PER 100'
LIMITS OF CLEARING AND GRUBBING
ITEM DESCRIPTION
1 Add Vertical Curve Adjustment
2 Reconstruct Drainage Ditch
3 Delete Fill Placement Restrictions
4 Delete Clear Zone
VERTICAL
HORIZONTAL
PROFILE
EXISTING GROUND
PROFILE GRADE
20:1 APPROACH SLOPE
End Runway STA. "R" 45+40 ELEV. 155.94
STA. "R" 31+10 DITCH ELEV. 144.82 INVERT ELEV. 144.32
STA. "R" 33+25 ELEV. 148.50 DITCH HIGH POINT
STA. "R" 35+15 DITCH 147.04 INVERT ELEV. 146.54
STA. "R" 38+00 ELEV. 149.02 DITCH HIGH POINT
STA. "R" 41+00 DITCH ELEV. 148.00 INVERT ELEV. 147.50
STA. "R" 43+00 ELEV. 150.00 DITCH HIGH POINT
STA. "R" 43+00 ELEV. 154.74 DITCH HIGH POINT
PROFILE GRADE, LT. DITCH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION
KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
Project No. D19712
Plan & Profile
Sta. 29+00 to 45+40

APPROVED BY: William A. Locher, P.E. S.E. Region, Aviation Design Engineer

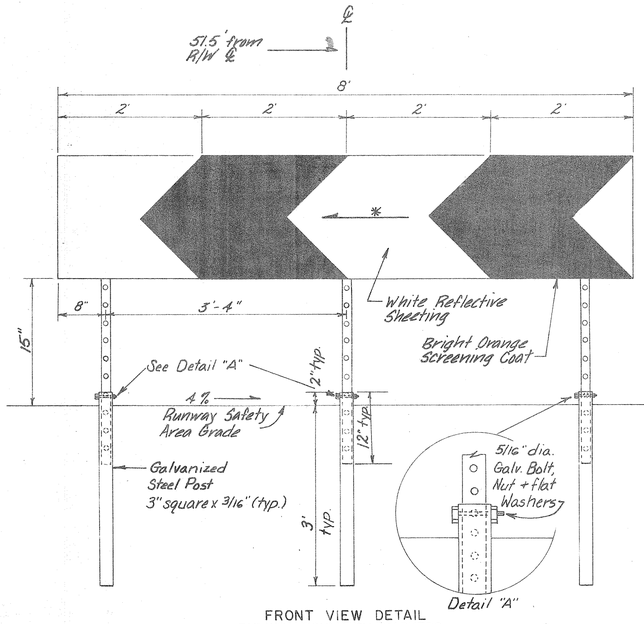
APPROVED BY: William L. Baumgartner, P.E. S.E. Region Design Engineer

SCALE:	DESIGNED:	DRAWN: CKA	SHEET 11 OF 19
As Shown	CHECKED: TB	DATE: 6/29/83	

BY	DATE	CHANGE
P.B.	10/12/84	CHANGE ORDER # 3 & #6

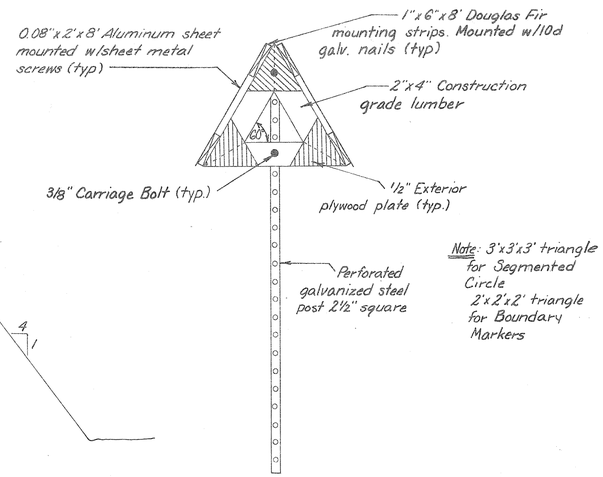
REVISIONS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA				

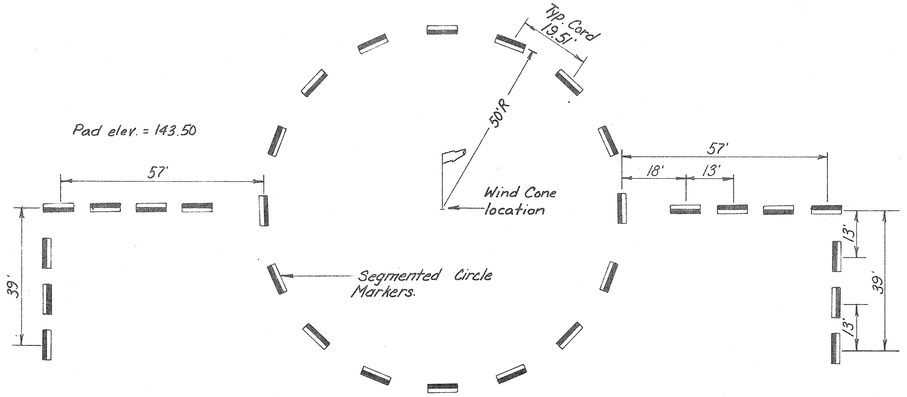


FRONT VIEW DETAIL
RUNWAY BOUNDARY MARKERS
no scale

*Note: Stripes shall point toward the runway



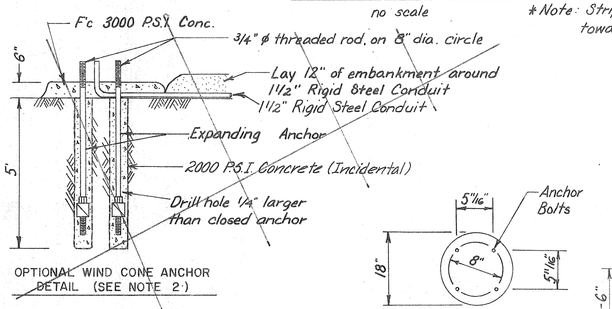
SIDE VIEW DETAIL, BOUNDARY
MARKERS & SEGMENTED CIRLE
no scale



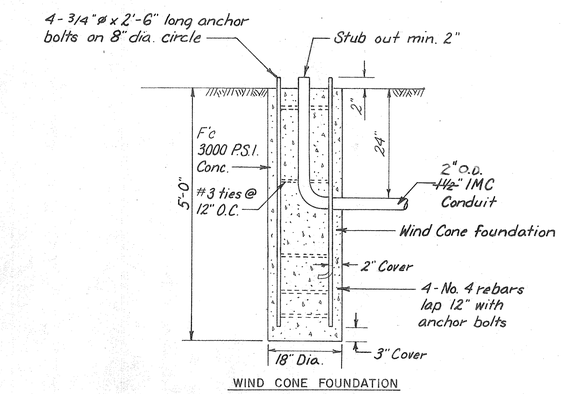
SEGMENTED CIRCLE DETAIL WITH TRAFFIC PATTERN INDICATORS
1" = 20 ft.

NOTES:

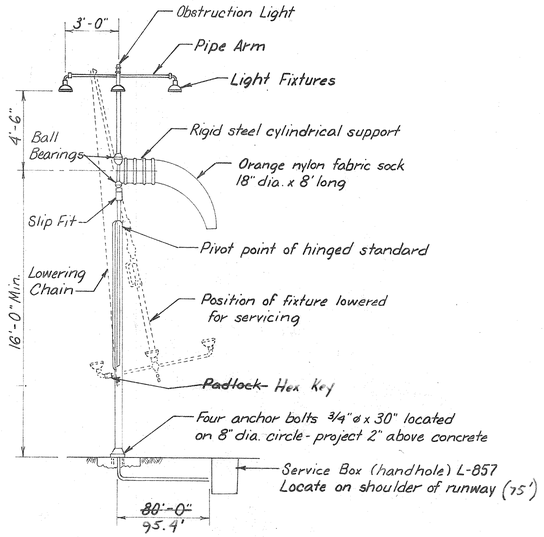
1. All work and materials including drilling and concrete as required, per details on this sheet are incidental to their respective pay item (Items 710, 722 and 1010) and no separate payment will be made for this work.
2. If the wind cone is not located on rock, an excavated area large enough to accommodate the wind cone foundation, as detailed on this sheet, will be necessary. Backfill with 4" minus material in 6" or 12" layers and compact throughly. 3/4" dia. expanding rock anchors may be substituted for the wind cone foundation, only if feasable to both drill the required holes, and obtain 5,000 lb pullout strength when installed.
3. Locate Runway Boundary Markers 515' Lt. & Rt. of Stations "R" 12+90 & "R" 43+10 as shown on sheet 13. Locate Segmented Circle at Sta. "R" 13+00, 200' Rt. as shown on sheet 10. 13+30, 110.4
4. The boundry markers and segmented circle triangular mounting frames shall be fastened to the steel posts with two 3/8" x 5" galvanized carriage bolts. Fasten mounting strips to 2" x 4" frame with exterior cement and galvanized nails. Prepunch aluminum sheets on 12" centers, 3" from top and bottom. Fasten to mounting strips with 1/2" x #8 pan head zinc coated sheet metal screws.



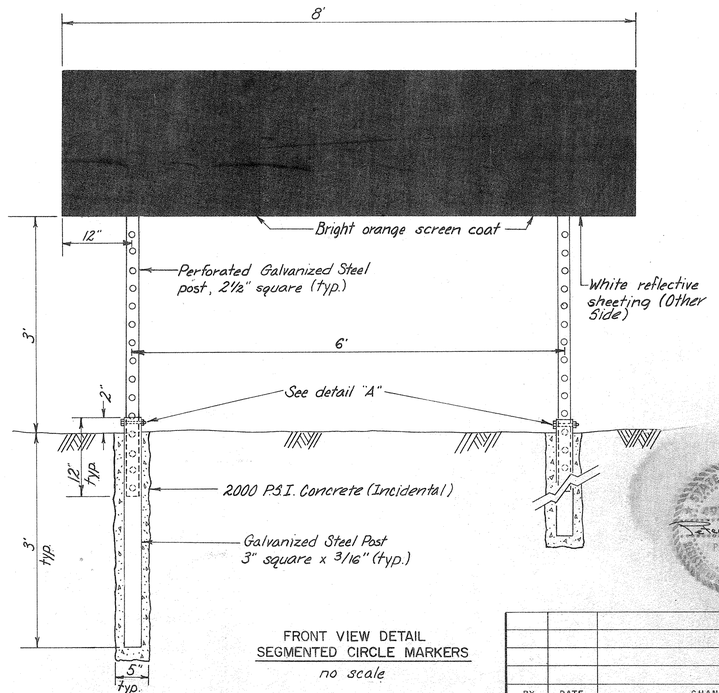
OPTIONAL WIND CONE ANCHOR
DETAIL (SEE NOTE 2.)



WIND CONE FOUNDATION



TYPE I, L-807 EIGHT FOOT LIGHTED
WIND CONE & FOUNDATION DETAIL
no scale



FRONT VIEW DETAIL
SEGMENTED CIRCLE MARKERS
no scale

BY	DATE	CHANGE

REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF AVIATION—DESIGN AND CONSTRUCTION

KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83 PROJECT NO. D-19712
WIND CONE, SEGMENTED CIRCLE, AND RUNWAY BOUNDARY MARKER DETAILS

APPROVED William A. Locher
WILLIAM A. LOCHER, P.E. S.E. REGION AVIATION DESIGN ENGINEER

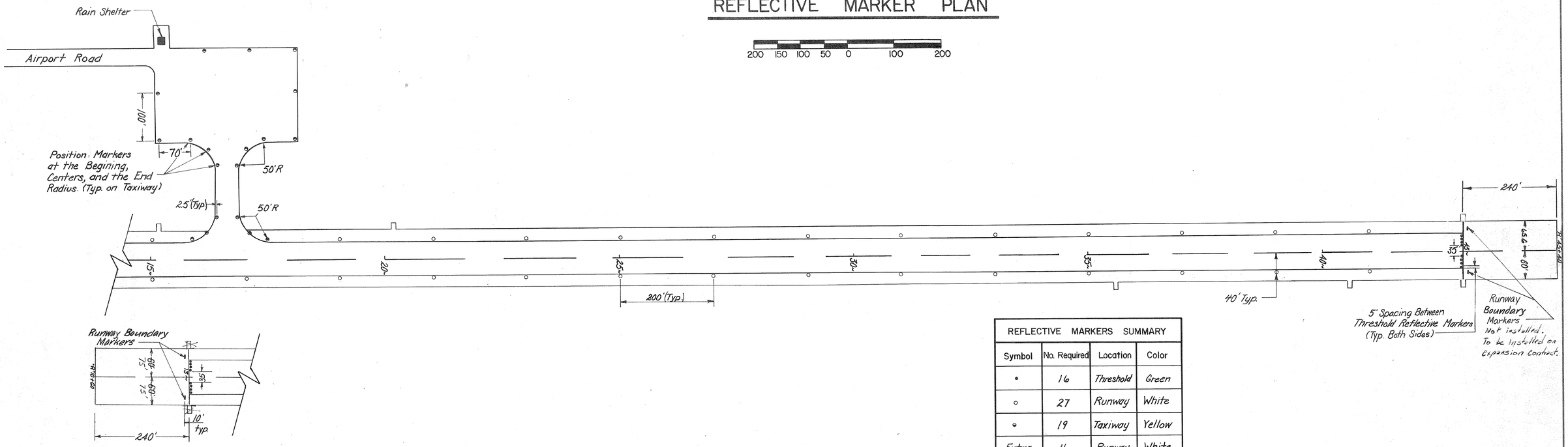
APPROVED W L Baumgartner
WILLIAM L. BAUMGARTNER, P.E. S.E. REGION DESIGN ENGINEER

SCALE	DESIGNED	DRAWN	SHEET
As shown	CHECKED RB	DATE 6/20/83	12 OF 19

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA				

TYPE II
REFLECTIVE MARKER PLAN

200 150 100 50 0 100 200



REFLECTIVE MARKERS SUMMARY			
Symbol	No. Required	Location	Color
•	16	Threshold	Green
○	27	Runway	White
⊕	19	Taxiway	Yellow
Extra	4	Runway	White
Extra	2	Taxiway	Yellow
Extra	2	Threshold	Green
Total	70		

STATE OF ALASKA 49TH
P. Bednarowicz CE-5101
REGISTERED PROFESSIONAL ENGINEER

BY	DATE	CHANGE

REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

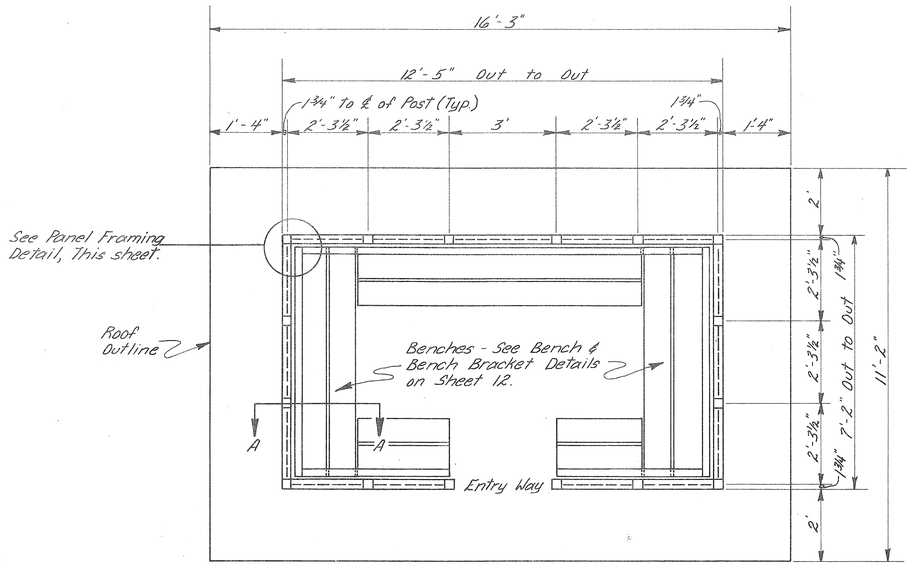
KAKE AIRPORT
PROJECT NO. D19712
A.I.P. NO. 831-3-02-0398-01-83
REFLECTIVE MARKER PLAN

APPROVED BY: William A. Locher
WILLIAM A. LOCHER S.E. REGION AVIATION DESIGN ENGINEER

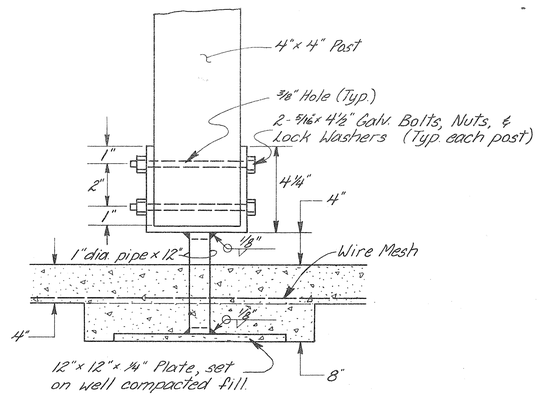
APPROVED BY: W L Baumgartner
WILLIAM L. BAUMGARTNER S.E. REGION DESIGN ENGINEER

SCALE:	DESIGNED:	DRAWN:	SHEET 13 OF 19
AS SHOWN	CHECKED: TB	DATE: 6/29/83	

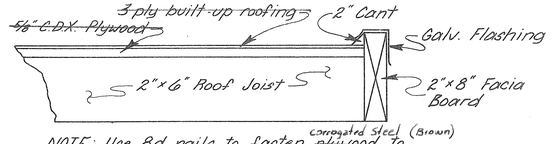
PLAN VIEW



POST SUPPORT DETAIL

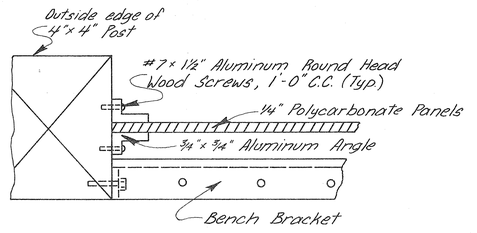


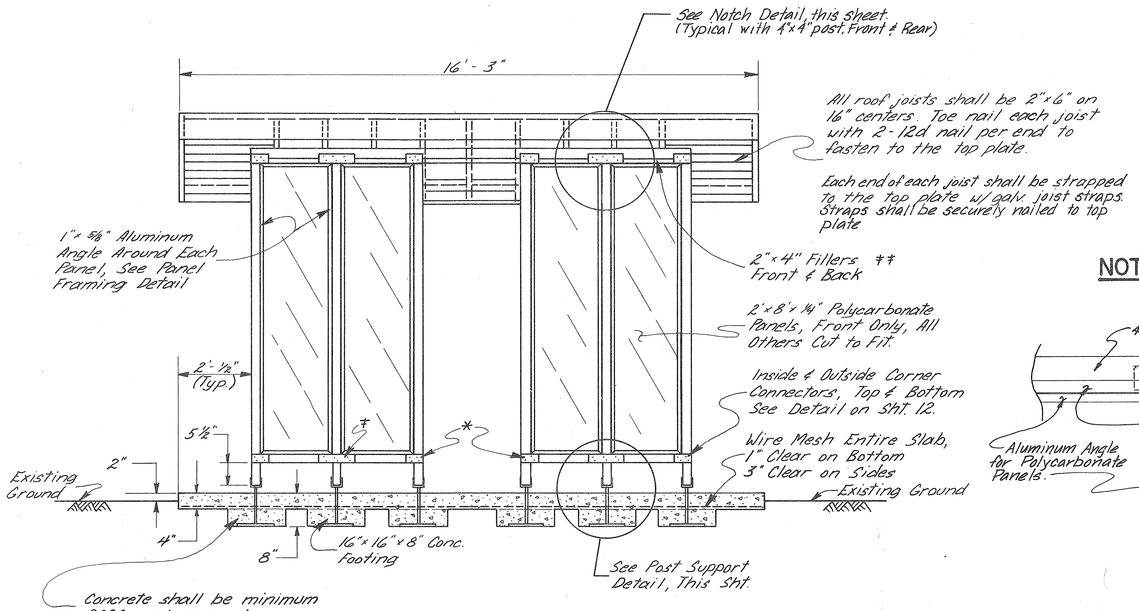
ROOF DETAIL
TYPICAL ALL SIDES



NOTE: Use 8d nails to fasten ~~plywood~~ to joists. Spacing shall be 1' c.c., 6" c.c. along edges, ~~of plywood~~. Flashing used for gutters.

PANEL FRAMING DETAIL

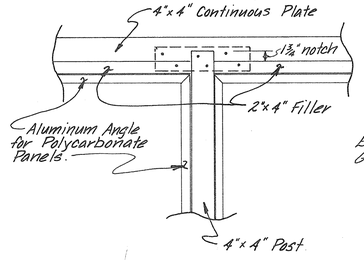




* Entryway Connector Plate In & Out, Top & Bottom

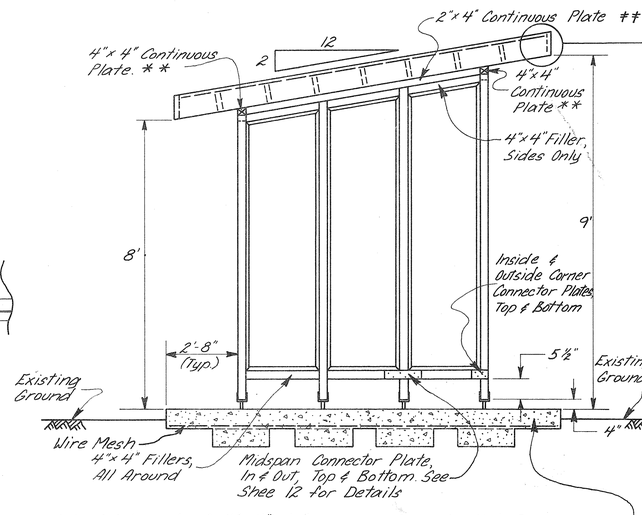
‡ Midspan Connector Plate, In & Out, Top & Bottom.

NOTCH DETAIL



‡‡ All filler plates shall be securely nailed to continuous plate with 16p nails, 6" C.C.

FRONT VIEW



** Notch ends of 4"x 4" plate to recieve 2"x 4" plates.

SIDE VIEW

BY	DATE	CHANGE

REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

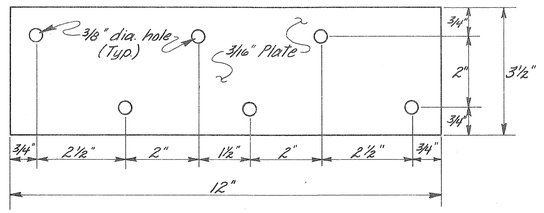
KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
PROJECT NO. D-19712
RAIN SHELTER DETAILS

APPROVED William A. Locher
WILLIAM A. LOCHER S.E. REGION AVIATION DESIGN ENGINEER

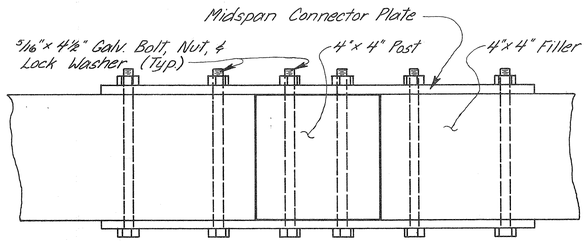
APPROVED W.L. Baumgartner
WILLIAM L. BAUMGARTNER S.E. REGION DESIGN ENGINEER

SCALE	DESIGNED	DRAWN	SHEET 14 OF 19
NONE	CHECKED PB	DATE 6/20/83	

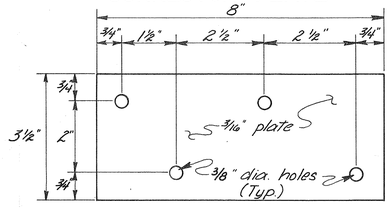
MIDSPAN CONNECTOR PLATE



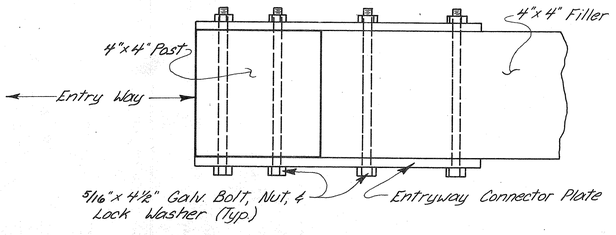
MIDSPAN CONNECTOR PLATE DETAIL



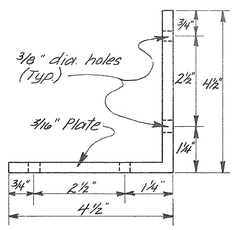
OUTSIDE CORNER AND ENTRYWAY CONNECTOR PLATE



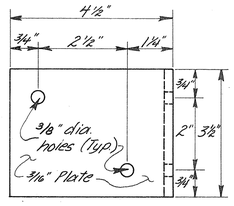
ENTRYWAY CONNECTOR PLATE DETAIL



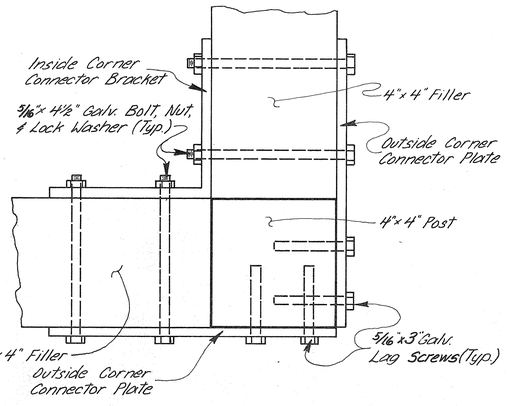
INSIDE CORNER BRACKET



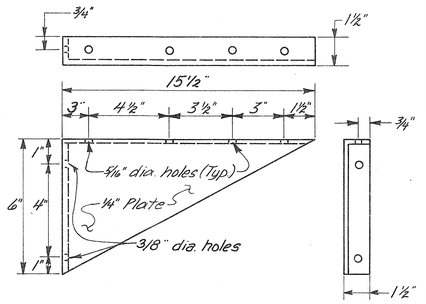
INSIDE CORNER BRACKET SIDE VIEW



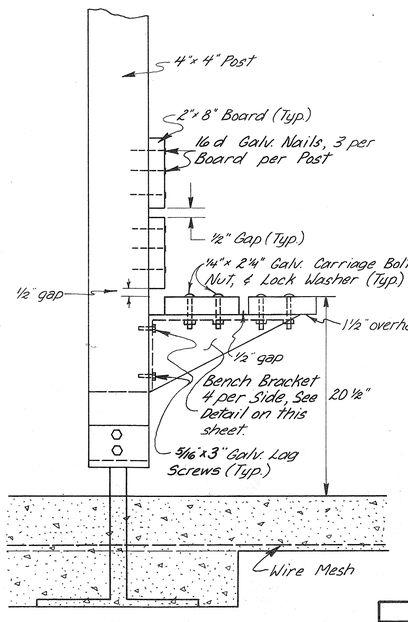
OUTSIDE CORNER CONNECTOR PLATE AND INSIDE CORNER BRACKET DETAIL



BENCH BRACKET



SECTION A-A BENCH DETAIL



ESTIMATE OF QUANTITIES

ITEM	QUANTITY
Post Supports	16 ea.
5/16"x 4 1/2" Galv. Bolts, Nuts, & Lock Washers	200 ea.
4"x 4"	280 b.m.
2"x 4"	30 b.m.
2"x 6"	160 b.m.
2"x 8"	260 b.m.
~4'x 8'x 5/8" CDX Plywood~	6 shts.
15 Lbs. Roof Felt	1-600 sq. roll
Tar	2-100# blocks
Galv. Flashing	60 l.f.
4'x 8'x 1/4" Clear Polycarbonate Panels	8 shts.
3/4"x 3/4"x 1/4" Aluminum Angle	575 l.f.
3 1/2"x 8" Outside Corner & Entryway Connector Plates	24 ea.
3 1/2"x 12" Midspan Connector Plates	40 ea.
Inside Corner Connector Brackets	8 ea.
Bench Brackets	16 ea.
5/16 x 3" Galv. Lag Screws	64 ea.
1/2"x 2 1/2" Galv. Carriage Bolts, Nuts, & Lock Washers	64 ea.
#7 x 1 1/2" Aluminum Round Head Wood Screws	700 ea.
1 1/2" Roof Drain	1 ea.
16 d Galv. Nails	5 lb.
Portland Cement Concrete	3.24 c.y.
6"x 6" No. 10 Welded Wire Mesh	229 s.y.
Galv. Joist Straps	28 ea.
8 d Galv. Nails	6 lbs
Excavation	1.6 c.y.
12 d Galv. Nails	1 lb.

GENERAL NOTES

1. All lumber shall be S-4-S, Douglas Fir or Hemlock, & shall be construction grade no. 1 or better.
2. Sizing of the polycarbonate panels for expansion shall be in accordance with the manufacturers specifications.
3. All wood shall be stained with linseed oil base semi-transparent stain. Stain specifications, manufacturers application recommend--ations, & color samples shall be submitted to the engineer for approval prior to the application of any stain.
4. Approved equal rain shelter building (prefabricated or like designs) may be used, subject to approval by the Aviation Design Engineer.
5. Post supports, bench brackets, & connector plates shall be shop fabricated & shall recieve two coats of metal paint prior to installation.
6. Pre-drill and Stain all holes for all bolts.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

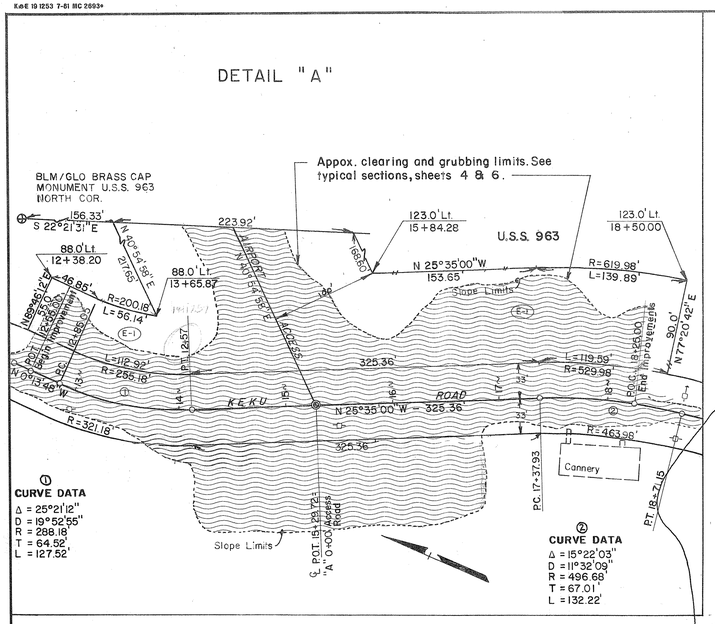
KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
PROJECT NO. D-19712
RAIN SHELTER DETAILS

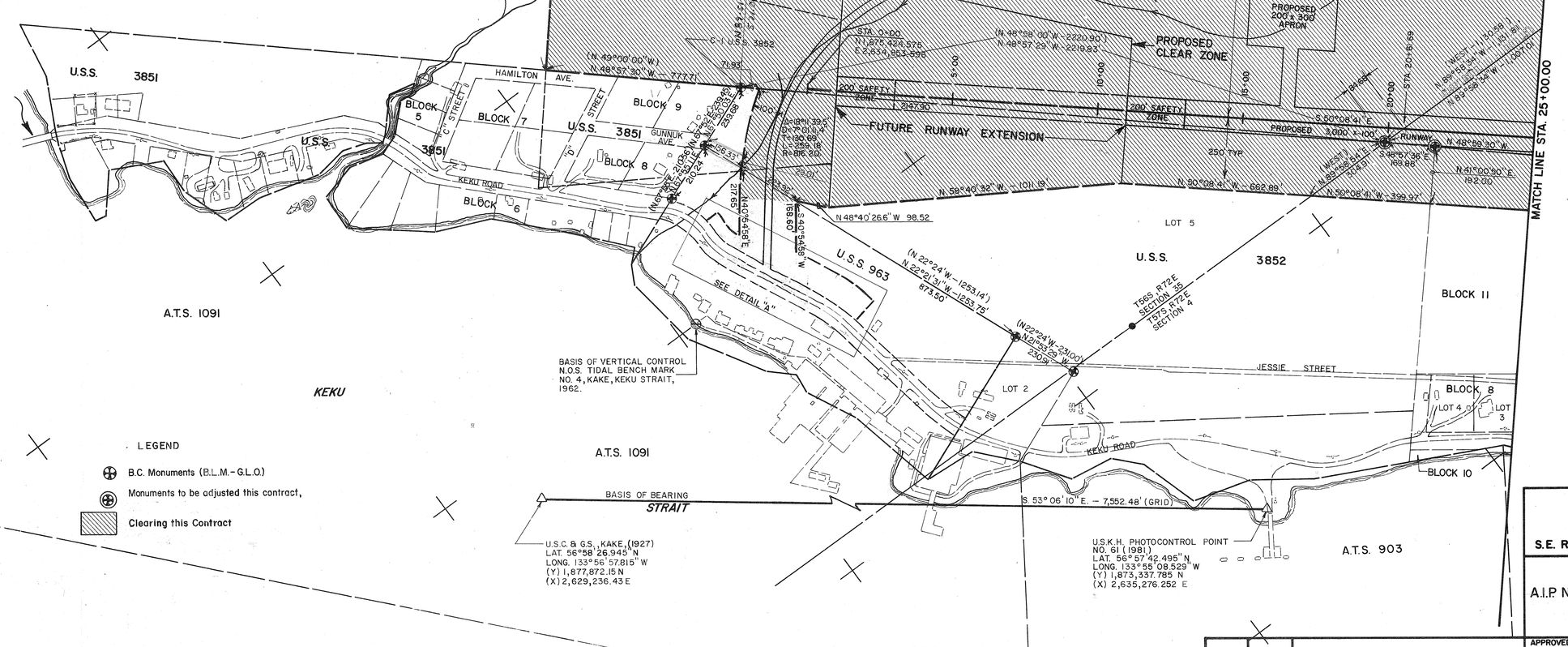
BY	DATE	CHANGE
		REVISIONS

APPROVED William A. Locher
WILLIAM A. LOCHER S.E. REGION AVIATION DESIGN ENGINEER
APPROVED William L. Baumgartner
WILLIAM L. BAUMGARTNER S.E. REGION DESIGN ENGINEER

SCALE NONE | DESIGNED | DRAWN JM | CHECKED PB | DATE 6/29/83 | SHEET 15 OF 19

K&E 10 1253 7-81 MC 2693+





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 plat 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.

John M. Lauritzen
John Lauritzen
No. 5115-S
REGISTERED PROFESSIONAL LAND SURVEYOR

5115-S — Registered Surveyor
6-25-83 — Date

VERTICAL CONTROL

THE BASIS OF VERTICAL CONTROL FOR THIS PROJECT WAS N.O.S. TIDAL BENCH MARK NO. 4, KAKE, KEKU STRAIT, 1962, WITH A PUBLISHED ELEVATION OF 14.51 M.L.L.W. (1964 MEAN VALUE).

TIDAL DATUMS

MEAN HIGHER HIGH WATER	14.00
MEAN HIGH WATER	13.10
MEAN TIDE LEVEL	7.25
MEAN LOW WATER	1.40
MEAN LOWER LOW WATER	0.00
ESTIMATED HIGHEST TIDE	18.00
ESTIMATED LOWEST TIDE	-4.00

HORIZONTAL CONTROL

THE BASIS OF BEARING WAS THE LINE-OF-SIGHT BETWEEN N.O.S. STATION "KAKE" AND U.S.K.H. ENGINEERS PHOTOCONTROL POINT NO. 61 (1981), WITH AN A.S.P. GRID BEARING OF S. 53°06'10"E. BASED ON THE FOLLOWING ACCEPTED VALUES:

U.S.C.& G.S "KAKE" (1927)	LAT. 56°58'26.945" N LONG. 133°56'57.815" W (Y) 1,877,872.15 N (X) 2,629,236.43 E
U.S.K.H. NO. 61 (1981)	LAT. 56°57'42.495" N LONG. 133°55'08.529" W (Y) 1,873,337.785 N (X) 2,635,276.252 E

PROJECT COORDINATES

A LOCAL SYSTEM OF COORDINATES FOR THIS PROJECT WAS DEVELOPED ON A PLANE WITH ITS POINT OF TANGENCY AT C-1, U.S.S. 3852 AND THE FOLLOWING PROJECT AVERAGE GRID VALUES APPLIED IN CONVERTING THE A.S.P. VALUES.

PROJECT AVERAGE GAMMA ∢ = -0°12'30"
PROJECT AVERAGE SCALE FACTOR = .9999031

C-1, U.S.S. 3852	N 75,561.200 E 34,677.865
A.S.P. GRID	(Y) 1,875,561.200N (X) 2,634,677.865 E
C-2, U.S.S. 3852	N 72,394.795 E 38,316.833
0+00, ℄ RUNWAY	N 75,425.202 E 34,854.109
45+00, L RUNWAY	N 72,541.380 E 38,308.609

NOTES

1.) THE SECTION LINES, AS SHOWN, WHERE THEY ARE NOT MONUMENTED, ARE BASED ON PROTRACTED VALUES TAKEN FROM THE OFFICIAL D.N.R. PROTRACTION DIAGRAMS CR-40 & CR-41.

2.) RECORD BEARINGS AND DISTANCES ARE SHOWN ENCLOSED WITH PARENTHESES, THOSE MEASURED OR COMPUTED BY THIS SURVEY ARE WITHOUT PARENTHESES.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

KAKE AIRPORT

A.I.P. NO. 831-3-02-0398-01-83 PROJECT NO. D19712

CLEARING LIMITS & PROPERTY PLAN

BY	DATE	CHANGE

REVISIONS

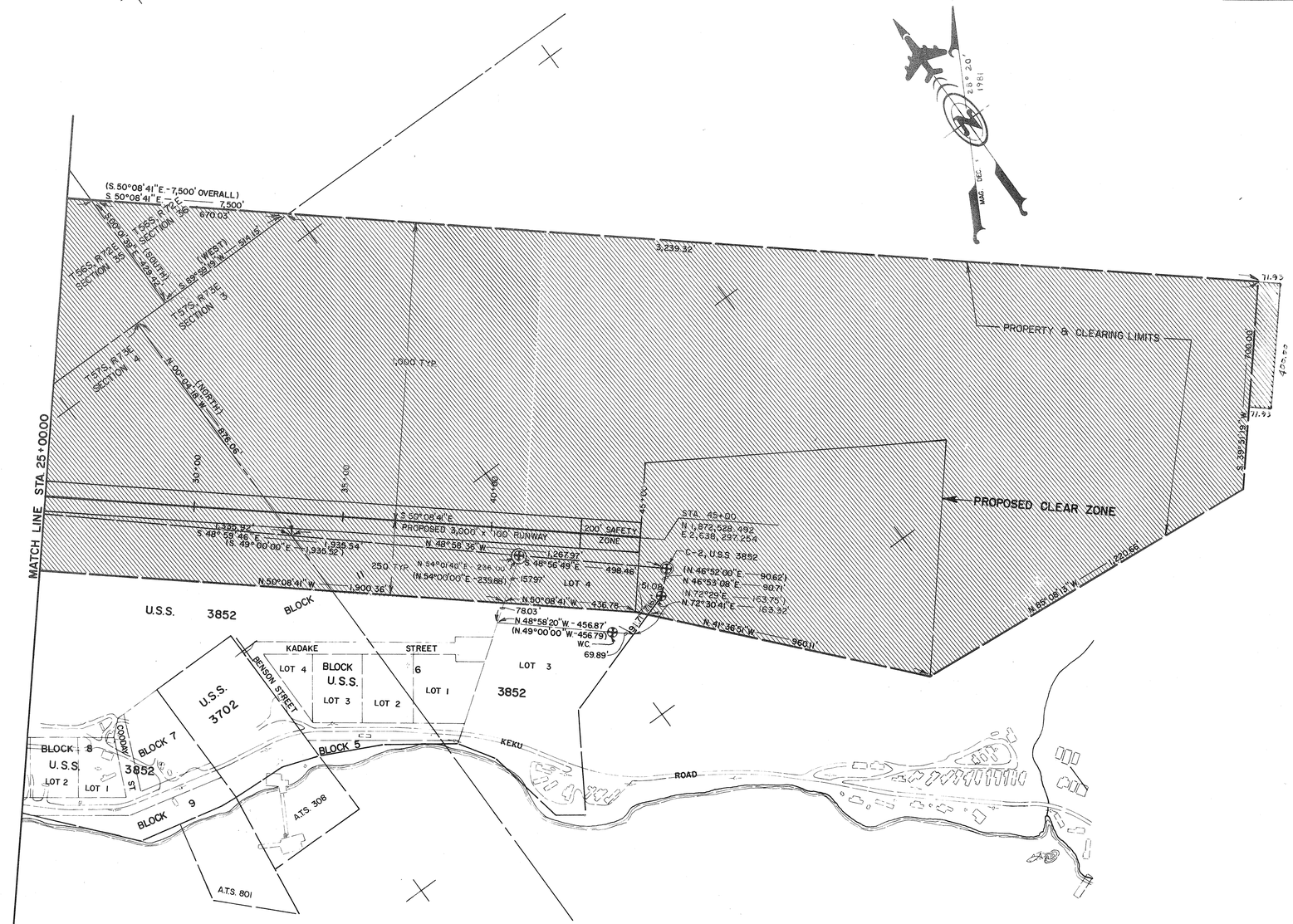
APPROVED BY: William A. Locher — William A. Locher S.E. Region Aviation Design Engineer

APPROVED BY: W.L. Baumgartner — William L. Baumgartner S.E. Region Design Engineer

SCALE: AS SHOWN | DESIGNED: | DRAWN: | CHECKED: TB | DATE: 6/20/83

Kake 19 1253 7-81 MC 2693*

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA				



LEGEND

- B.C. Monuments (B.L.M. - G.L.O.)
- Monuments to be adjusted, this contract,
- Clearing this Contract

SCALE

200 150 100 50 0 200 400 600

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 plat 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.

John Lauritzen
No. 5115-S

5115-S
Registered Surveyor

6-25-83
Date

BY	DATE	CHANGE

REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

KAKE AIRPORT

A.I.P. NO. 831-3-02-0398-01-83 PROJECT D-19712

CLEARING LIMITS & PROPERTY PLAN

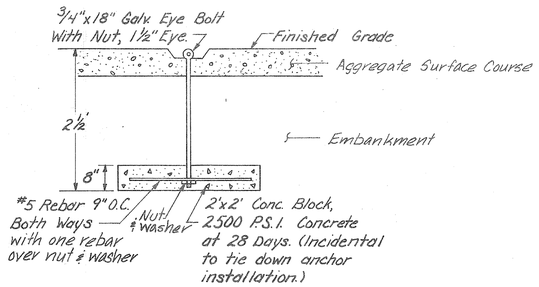
APPROVED BY: William A. Locher
William A. Locher S.E. Region Aviation Design Engineer

APPROVED BY: W.L. Baumgartner
William L. Baumgartner S.E. Region Design Engineer

SCALE	DESIGNED	DRAWN	SHEET
AS SHOWN	CHECKED: PB	DATE: 6/29/83	17 OF 19

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA				

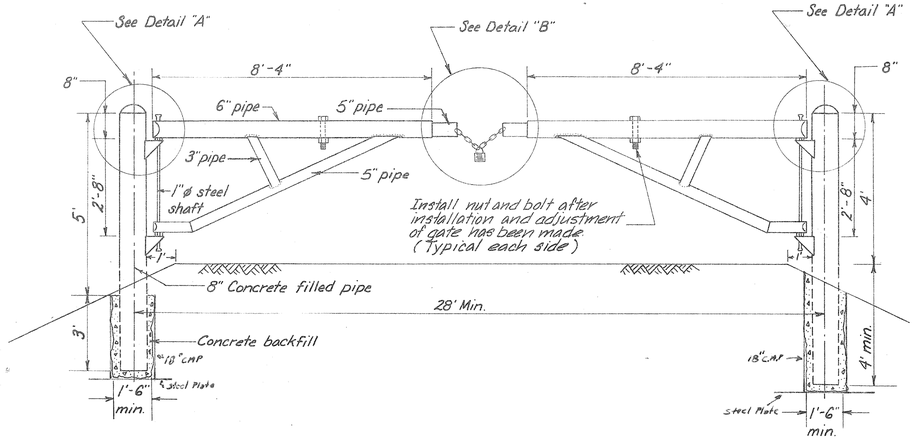
MISCELLANEOUS DETAILS



EMBANKMENT TIE-DOWN ANCHOR
N.T.S.

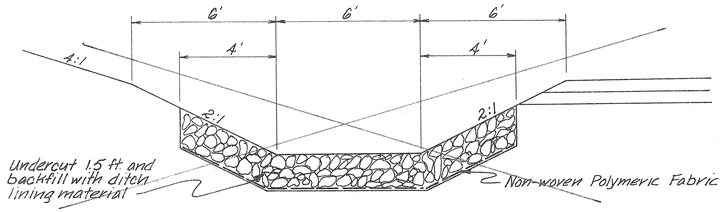
TIE-DOWN ANCHOR NOTES

1) It is the Contractor's responsibility to verify the type of material in the Tie-Downs.
2) Depth of anchor shall be as required to develop 5000 lbs. of pullout strength per anchor.
3) When rock is encountered, rock anchors shall be used. Rod diameter shall be ¾".
4) All eye-bolts shall be ASTM A-36, 40,000 P.S.I. min. yeild strength.

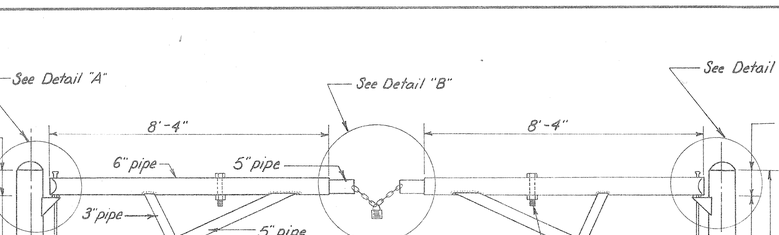


SECURITY GATE DETAIL *
STA. "A" 0+75
N.T.S.

* Security Gate is incidental to other Pay Items of Work

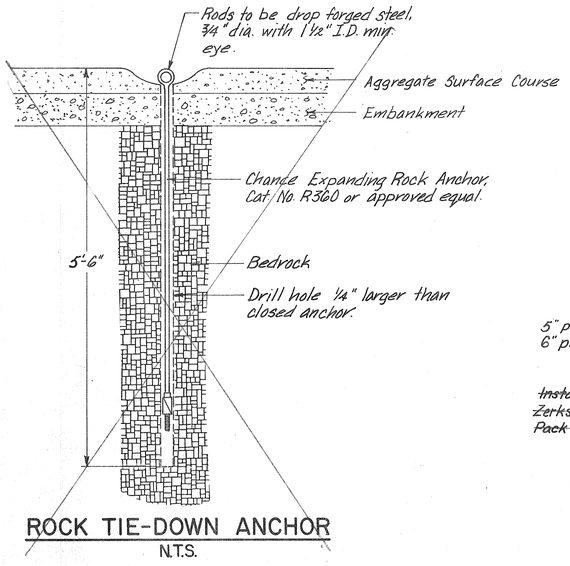


SPECIAL DITCH DIVERSION CHANNEL
See Summary Table, Sheet 3

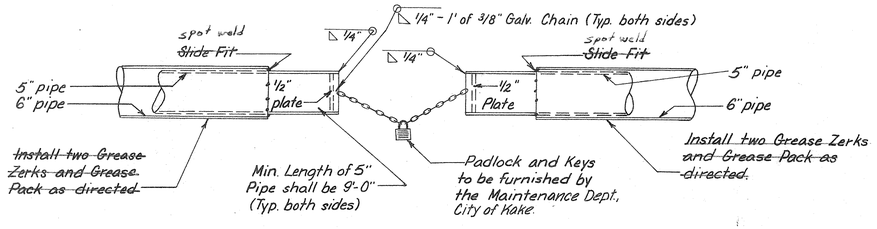


ELEVATION PLAN

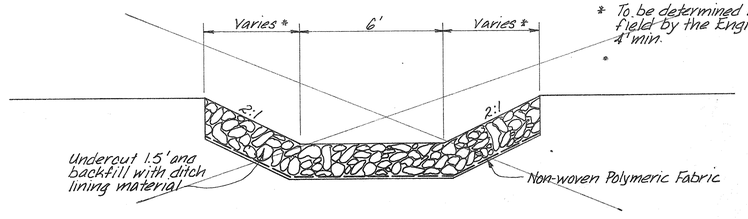
DETAIL "A"
N.T.S.



ROCK TIE-DOWN ANCHOR
N.T.S.



DETAIL "B"
N.T.S.



CROSS SLOPE CREEK DIVERSION CHANNEL
See Summary Table, Sheet 3

SECURITY GATE NOTES

1) All pipe shall be schedule 40 pipe.
2) All items to be fabricated shall be made of ½" mild steel plate or flat bar.
3) Prior to erecting the gate, it shall be painted with one coat of Zinc Chromate Primer and one coat of International Orange Paint.

STATE OF ALASKA
P. Bednarowicz CE-5134 PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
PROJECT NO. D-19712
MISCELLANEOUS DETAILS

BY	DATE	CHANGE

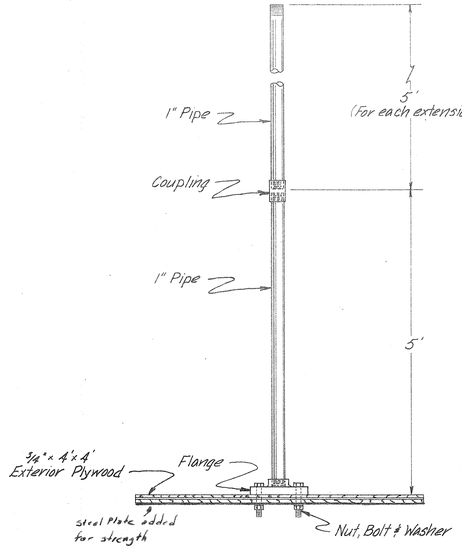
REVISIONS

APPROVED BY: William A. Locher
WILLIAM A. LOCHER, P.E. S.E. REGION AVIATION DESIGN ENGINEER
APPROVED BY: W.L. Baumgartner
WILLIAM L. BAUMGARTNER, P.E. S.E. REGION DESIGN ENGINEER

SCALE:	DESIGNED:	DRAWN: CRM	SHEET 18 OF 19
AS SHOWN	CHECKED: PB	DATE: 6/29/93	

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA				

MISCELLANEOUS DETAILS

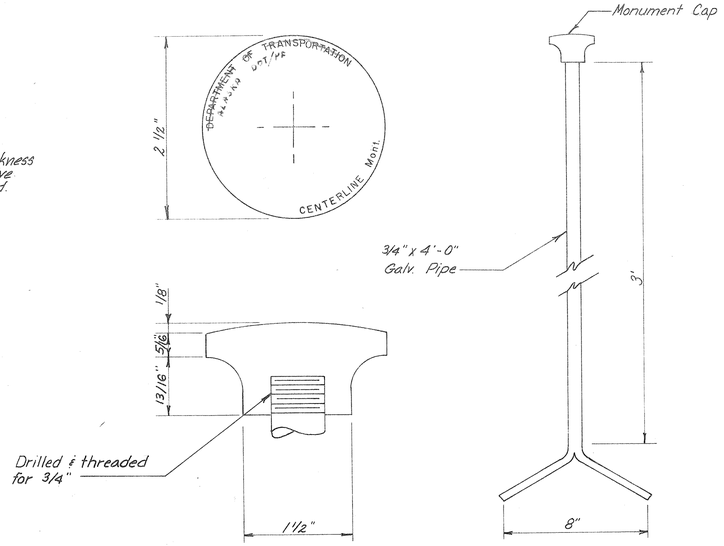


* As the Embankment Thickness increases, additional five foot sections are added.

SETTLEMENT PLATFORM DETAIL

N.T.S.

See Summary Table, Sheet 3



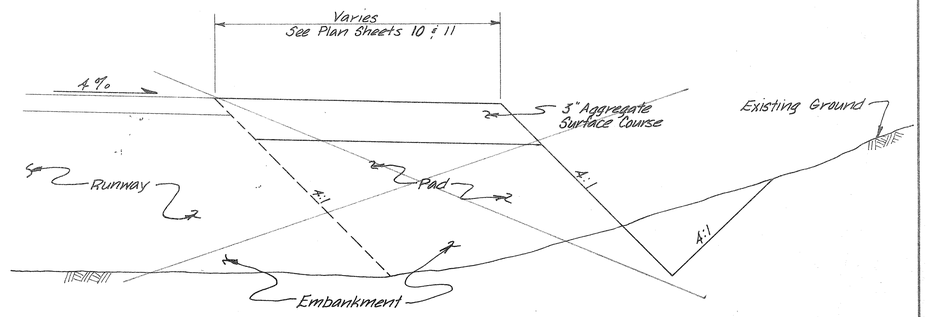
Monument Cap

MONUMENT DETAIL

N.T.S.

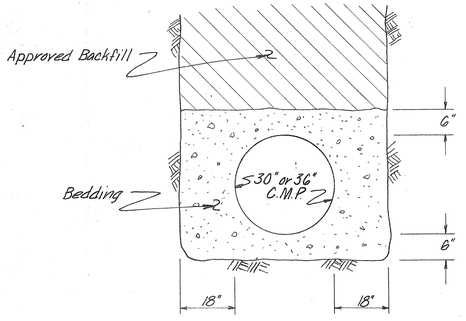
MONUMENT DETAIL NOTES

1. In solid rock, drill a 2" dia. hole a minimum of 1'-0" deep, fill with mortar and set cap. 3/4" x 9" galvanized pipe, designated length when set in motar.
2. Monuments shall be placed 6" below top of the finished surface.



AIRPORT LIGHTING PAD SECTION

N.T.S.

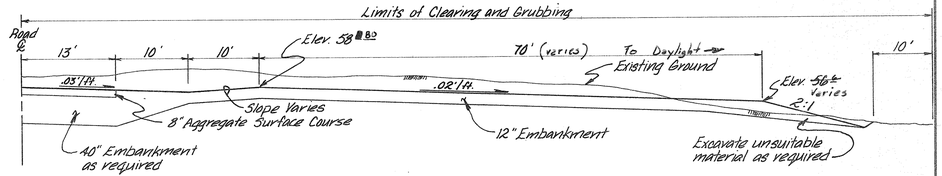


PIPE BEDDING DETAIL

N.T.S.

PIPE BEDDING NOTES

1) When the pipe is located on unsuitable material (determined by the Engineer), remove unsuitable material and backfill in accordance with Items 330a, 330b and 330c.
2) ~~Bedding material shall be Type "C" gradation, in accordance with Section 400.~~



PAD DEVELOPMENT SECTION

N.T.S.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
S.E. REGION, DIVISION OF AVIATION DESIGN & CONSTRUCTION

KAKE AIRPORT
A.I.P. NO. 831-3-02-0398-01-83
PROJECT NO. D-19712
MISCELLANEOUS DETAILS

BY	DATE	CHANGE

REVISIONS

APPROVED BY: William A. Locher
WILLIAM A. LOCHER, P.E. — S.E. REGION AVIATION DESIGN ENGINEER

APPROVED BY: W. L. Baumgartner
WILLIAM L. BAUMGARTNER, P.E. — S.E. REGION DESIGN ENGINEER

SCALE: AS SHOWN | DESIGNED: | DRAWN: CAA | CHECKED: WB | DATE: 6/29/87

SHEET 19 OF 19


PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT OF WAY CHECKED
ALTERNATE MATERIAL SOURCE
8-15 thousand c.y. borrow taken from this area
3:1
A
Ditch Flowline
Shoulder of Ditch
32.5'
26.9
8'x 13.5' Pad*
8'x 34.5' Pad*
8'x 34.5' Pad*
8'x 19.5' Pad*
MATCH LINE STA. "R" 45+40
190'
250'
340'
400'
1000'
60~
65~
20:1 Approach Slope
Sta. "R" 53+00 End Runway Aggregate Surface Course Begin Runway Safety Area
Sta. "R" 56+00 End Runway Safety Area
* Install Airport Lighting Pad See Sheet for Pad Section
Install Survey Monument
Future Runway Extension
* ELEVATION 174.33 AT STA. "R" 55+00. ELEVATION RISES AT A 20:1 SLOPE.
EXCAVATION
3:1
0.0%
* ELEVATION VARIES
# WIDTH VARIES
# 190' AT STA. "R" 55+00 INCREASING 15' PER 100'
Limits of Clearing and Grubbing
ALTERNATE MATERIAL SOURCE
SECTION A-A
STA. "R" 61 + 80 TO STA. "R" 69 + 90
PROFILE
NOTE BOOK
NO.
SURVEYED
PLOTTED
GRADES CHECKED
B. M. NOTED
STRUCTURE NOTATIONS CHECKED
190
180
170
160
150
140
Sta. "R" 45+40 Elev. 159.93
Begin Approach Slope Elev. 174.33
End Runway Sta. "R" 56+00 Elev. 175.83
20:1 Approach Slope
Profile Grade
+1.5%
.11%
2%
.5%
2.84%
.31%
1:4
Profile Grade, Lt. Ditch
Existing Ground
Sta. "R" 46+00 Ditch Elev. 153.81 Invert Elev. 153.31
Sta. "R" 49+00 Elev. 162.33 Ditch High Point
Sta. "R" 51+56 Ditch Elev. 162.05 Invert Elev. 161.55
Sta. "R" 54+00 Elev. 167.05 Ditch High Point
Daylight
45~
46~
47~
48~
49~
50~
51~
52~
53~
54~
55~
56~