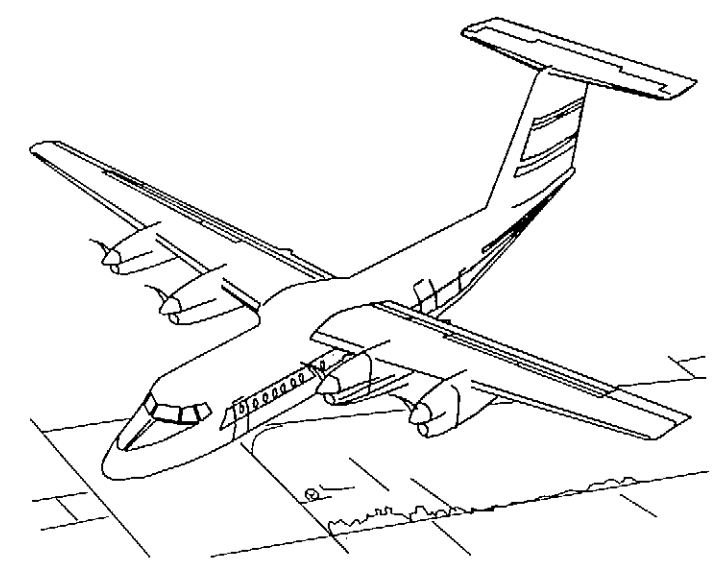
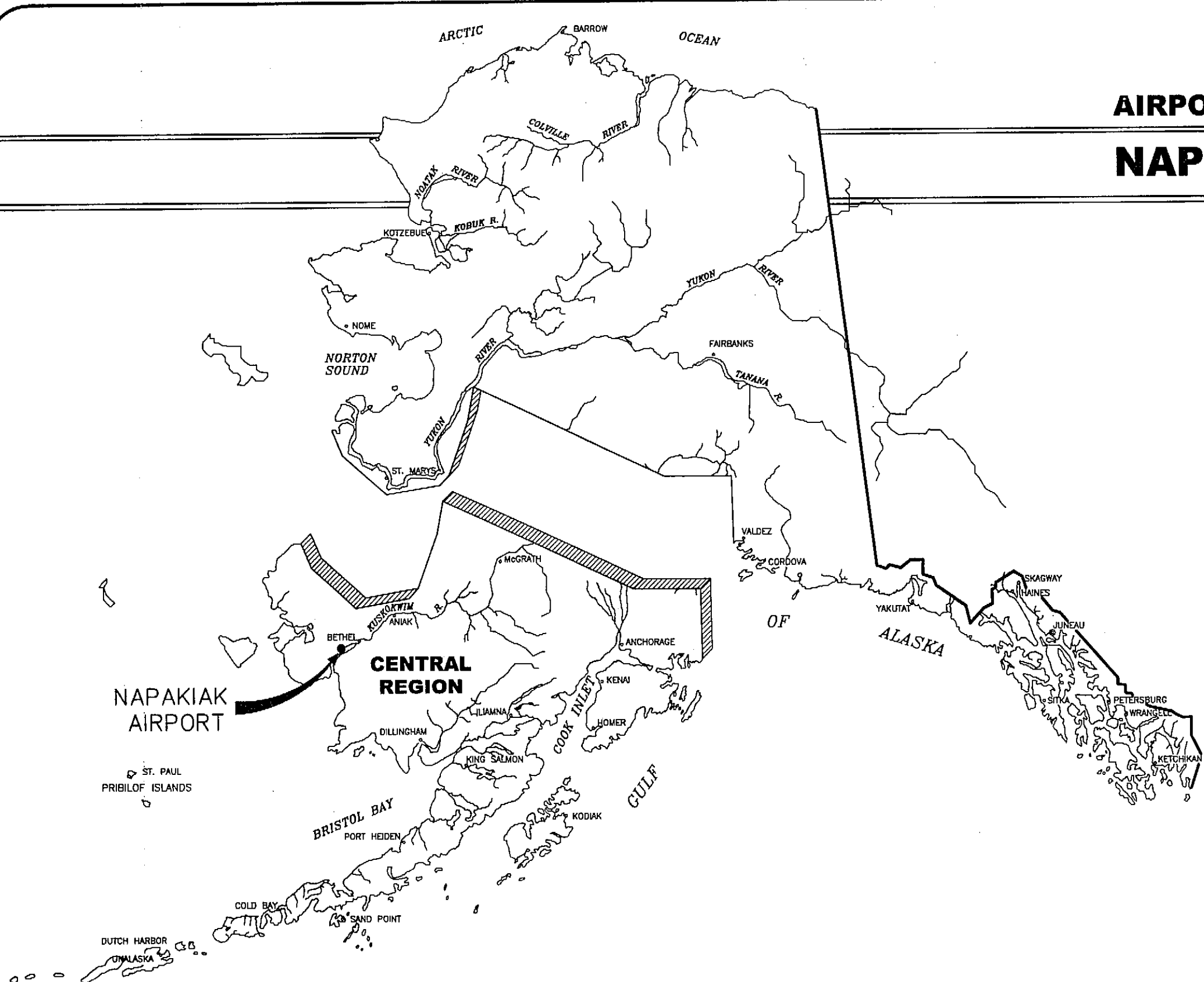


AIRPORT LAYOUT PLAN FOR NAPAKIAK AIRPORT

2002

DRAWING INDEX

- 1 - COVER SHEET AND INDEX
- 2 - VICINITY MAP AND DATA TABLES
- 3 - PLAN AND PROFILE
- 4 - RUNWAY APPROACH SURFACES PLAN AND PROFILE
- 5 - F.A.R. PART 77 SURFACES
- 6 - PROPERTY PLAN
- 7 - NARRATIVE REPORT



**SPONSORED BY
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION**

CONCUR Gordon C. Keith DATE 6/7/02
GORDON C. KEITH, PE CONSTRUCTION & OPERATIONS DIRECTOR

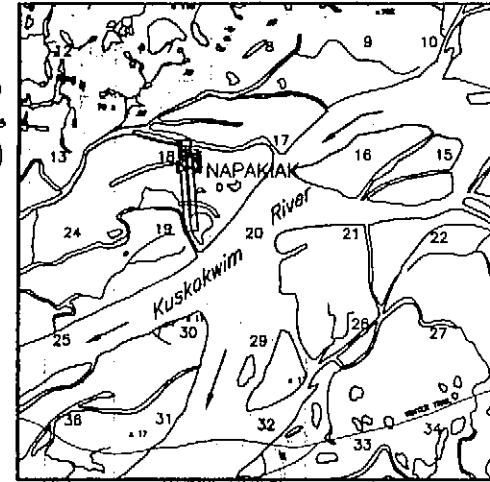
APPROVED Steven R. Horn DATE 6/7/02
STEVEN R. HORN, P.E. REGIONAL PRECONSTRUCTION ENGINEER

**NAPAKIAK AIRPORT
AIRPORT LAYOUT PLAN**

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED 7/15/02
By: Paul W. DATE: 7/15/02
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-600

F.A.A. AIRSPACE REVIEW NUMBER:
97-AAL-069-NRA

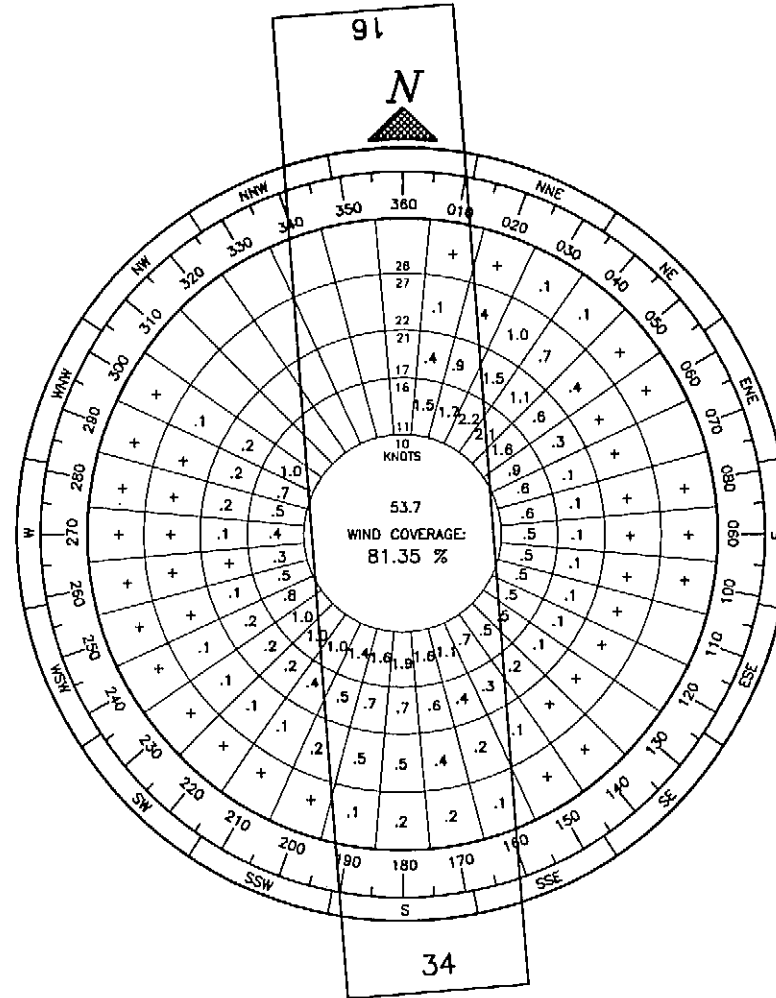
SHEET 1 OF 7



NOTE: CONTOUR ELEVATIONS ON THIS MAP ARE IN FEET.

VICINITY MAP

1:63,360
T 7 N, R 72 W, SEC. 18 & 19
SEWARD MERIDIAN
U.S.G.S. BETHEL (C-8), ALASKA



WIND DATA

WIND COVERAGE: 10.5 KNOTS 81.35%
13.0 KNOTS 89.63%

SOURCE: WIND-CEILING-VISIBILITY DATA AT SELECTED AIRPORTS, VOLUME X, PART A, ALASKA AND PACIFIC REGIONS, JUNE 1981, U.S.D.O.T., F.A.A. DATA IS FOR BETHEL, ALASKA WHICH IS LOCATED 16 KILOMETERS NORTHEAST OF NAPAIAK.

PERIOD: 1991-1996

MODIFICATIONS OF STANDARDS

ITEM	EXISTING	STANDARD	FUTURE
WIND COVERAGE (10.5 KNOTS)	81.35%	95.0%	81.35%
WIND COVERAGE (13.0 KNOTS)	89.63%	95.0%	89.63%
TAXIWAY WIDTH	12m [39']	7.5m [25']	12m [39']
TAXIWAY SAFETY AREA WIDTH	24m [79']	15m [49']	24m [79']

- NOTES:
1. NO THRESHOLD SITING SURFACE OBJECT PENETRATIONS
2. NO OFZ OBJECT PENETRATIONS

BASIC DATA TABLE

RUNWAY DATA

ITEM	RUNWAY 17/35	
	EXISTING	ULTIMATE
EFFECTIVE GRADIENT	0%	0%
% WIND COVERAGE	81.35%	81.35%
INSTRUMENT RUNWAY	N/A	N/A
RUNWAY SURFACE	GRAVEL	GRAVEL
PAVEMENT STRENGTH (LBS.)	N/A	N/A
APPROACH SURFACES	20:1	20:1
VISIBILITY MINIMUM	VISUAL	VISUAL
RUNWAY LIGHTING	M.I.	M.I.
RUNWAY MARKING	NONE	NONE
NAVIGATION AIDS	NONE	NONE
RUNWAY SAFETY AREA DIMENSION	36m x 1134m (118' x 3,720')	36m x 1134m (118' x 3,720')
RUNWAY DIMENSION	18m x 990m (59' x 3,248')	18m x 990m (59' x 3,248')
RUNWAY OBJECT FREE AREA	120m x 1134m (394' x 3,720')	120m x 1134m (394' x 3,720')
RUNWAY OBSTACLE FREE ZONE	120m x 1110m (394' x 3,642')	120m x 1110m (394' x 3,642')
MAXIMUM GRADE	0%	0%
N.A.D. 1983	R/W 16 THRESHOLD	LAT. 60° 41' 41.1" LONG. 161° 58' 45.0"
	R/W 34 THRESHOLD	LAT. 60° 41' 09.2" LONG. 161° 58' 40.1"

BASIC DATA TABLE

AIRPORT DATA

ITEM	EXISTING	ULTIMATE
AIRPORT ELEVATION (M.S.L.) (METERS)	6.75m [22']	6.75m [22']
AIRPORT REFERENCE POINT (A.R.P.), N.A.D. 1983	LAT. 60° 41' 25.2" LONG. 161° 58' 42.0"	60° 41' 25.2" 161° 58' 42.0"
TAXIWAY LIGHTING	M.I.	M.I.
RAMP LIGHTING	FLOOD	FLOOD
MEAN MAX. TEMPERATURE HOTTEST MONTH (°C)	15.6° C	15.6° C
MAGNETIC DECLINATION, YEAR	17.1° E, 1995	17.1° E, 1995
AIRPORT REFERENCE CODE (ARC)	B-I	B-I

LEGEND

ITEM	EXISTING	ULTIMATE
PROPERTY LINE	---	---
BUILDING RESTRICTION LINE	---	---
AIRPORT REFERENCE POINT (A.R.P.)	●	●
WIND CONE AND SEGMENTED CIRCLE	⊙	⊙
CONTOURS	—	—
ROADWAYS	==	==
BUILDINGS	▭	▭
ROTATING BEACON	⊙	⊙
WATER	~	~
FENCING	—x—x—x—	—x—x—x—
RUNWAY THRESHOLD LIGHTS	—	—

CONVERSION FACTORS FROM SI UNITS

TO CONVERT FROM	TO	MULTIPLY BY
STATION (1000 METERS (M))	FEET	3280.84
KILOMETER (KM)	MILE	0.6214
METER (M)	MILE	0.00062137
METER (M)	FOOT	3.28084
CENTIMETER (CM)	FOOT	0.0328084
CENTIMETER (CM)	INCH	0.3937008
SQUARE METER (M ²)	SQUARE FOOT	10.76391042
SQUARE METER (M ²)	SQUARE YARD	1.19599
SQUARE METER (M ²)	ACRE	0.00024711
CUBIC METER (M ³)	CUBIC FOOT	35.3146667
CUBIC METER (M ³)	CUBIC YARD	1.3079506
CUBIC METER (M ³)	GALLON (US LIQUID)	264.17204
CUBIC METER (M ³)	M. GAL.	0.26417204
KILOGRAM (KG)	POUND-MASS (LBF)	2.2046225
KILOGRAM (KG)	TON (SHORT)	0.00110231
NEWTON (N)	POUND-FORCE (LBF)	0.2248089
LUX (LX)	FOOTCANDLE	0.092903
DEGREE CELSIUS (°C)	DEGREE FAHRENHEIT	T°F=(1.8 x T°C)+32

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AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED 7/15/02
By: *Patricia L. O'Neil* DATE: 7/15/02
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-000
F.A.A. AIRSPACE REVIEW NUMBER: 97-AAL-069-NRA

BY DATE REVISIONS

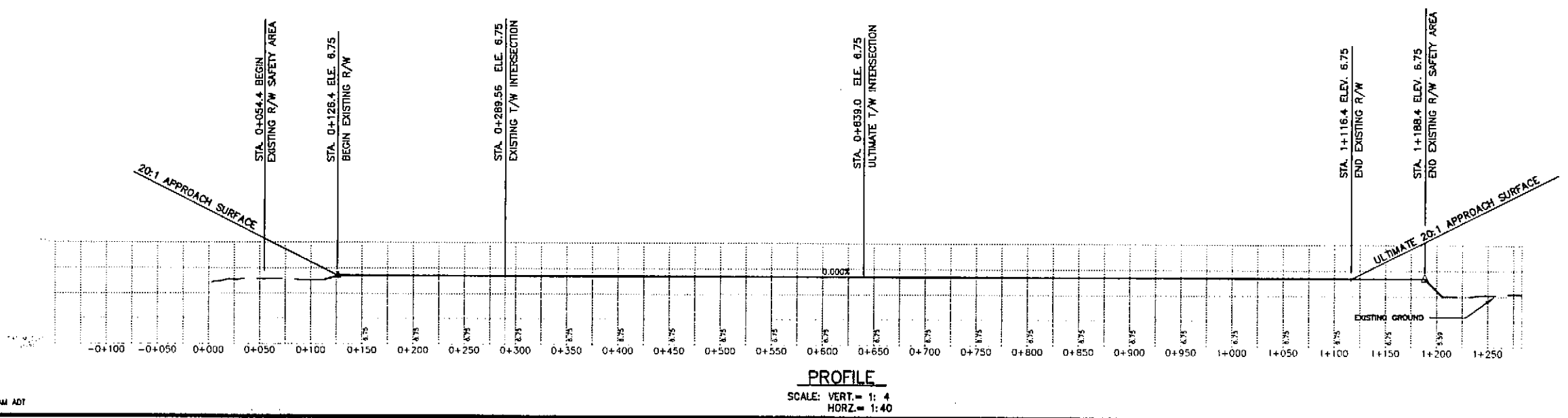
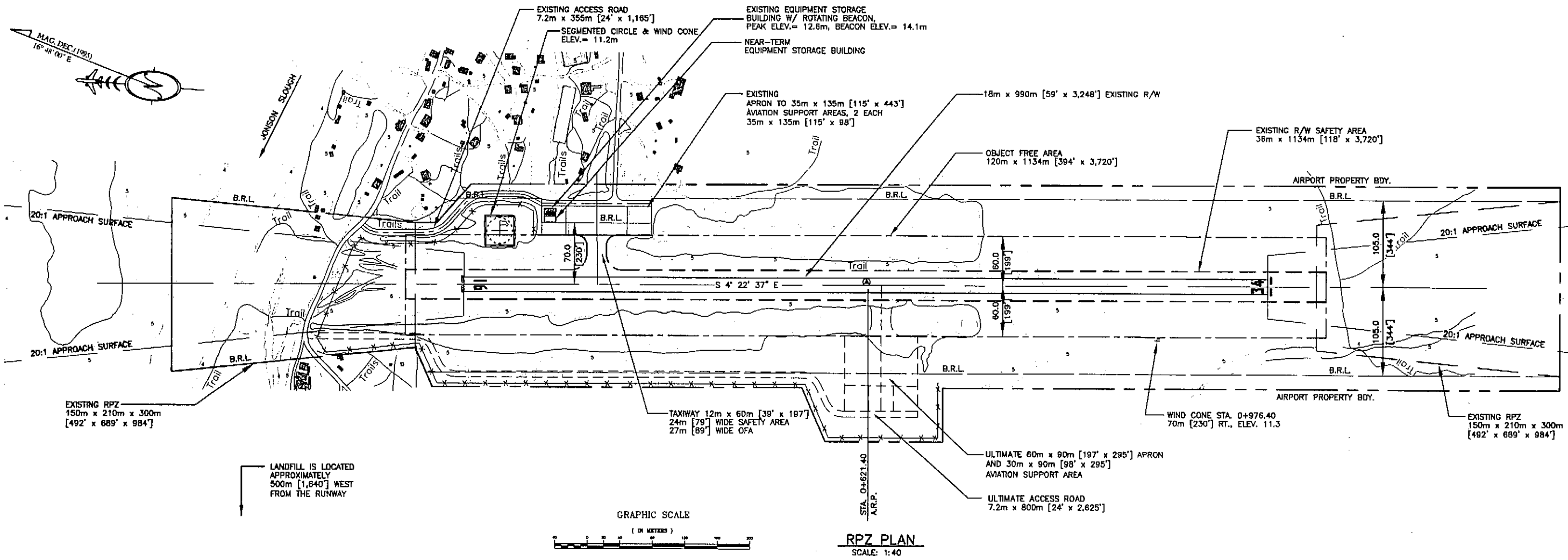
STATE OF ALASKA
**DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES**
CENTRAL REGION

APPROVED: *Stephan M. Ryan* DESIGN SECTION CHIEF
STEPHAN M. RYAN, P.E.
APPROVED: *John G. Wahl* PROJECT MANAGER
JOHN G. WAHL, P.E.

DATE 6/7/02
DESIGN *MJB*
DRAWN *MJB*
CHECKED *JGW*

NAPAIAK AIRPORT
AIRPORT LAYOUT PLAN
VICINITY MAP AND DATA TABLES

SHEET
2
OF
7



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FILE: AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED 7/15/02

DATE: 7/15/02

BY: *Pat L. Olin*

F.A.A. AIRSPACE REVIEW NUMBER: 97-AAL-069-NRA

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: *Stephen M. Ryan*
STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF

APPROVED: *John G. Wahl*
JOHN G. WAHL, P.E. PROJECT MANAGER

DATE: 6/7/02

DESIGN: *MAJ*

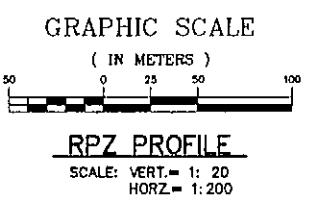
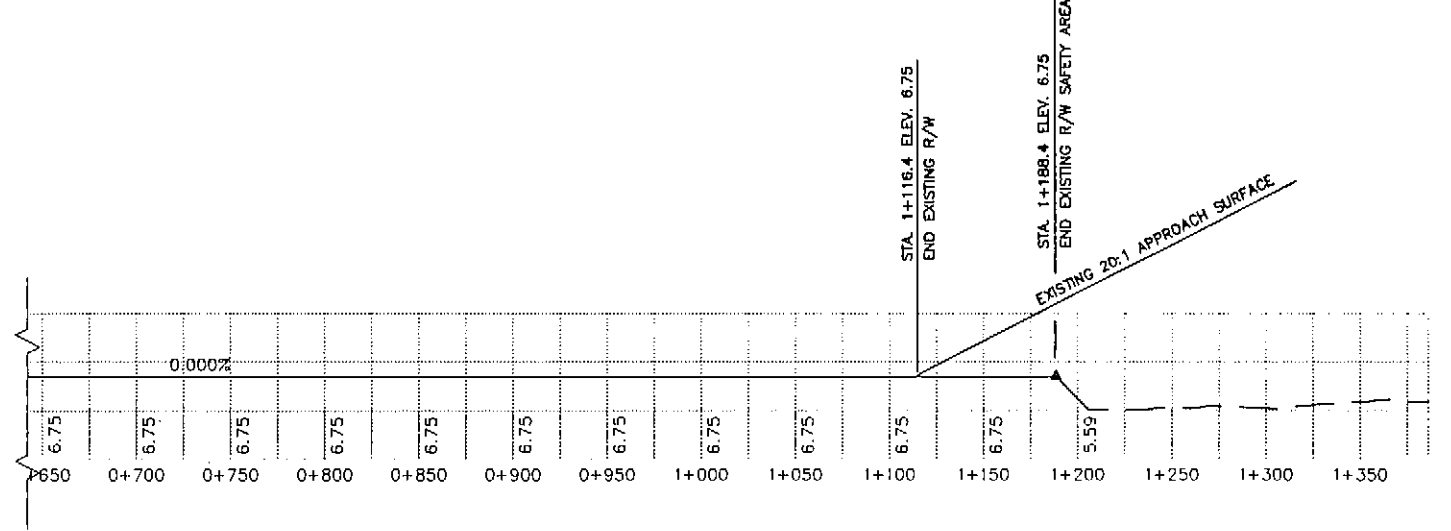
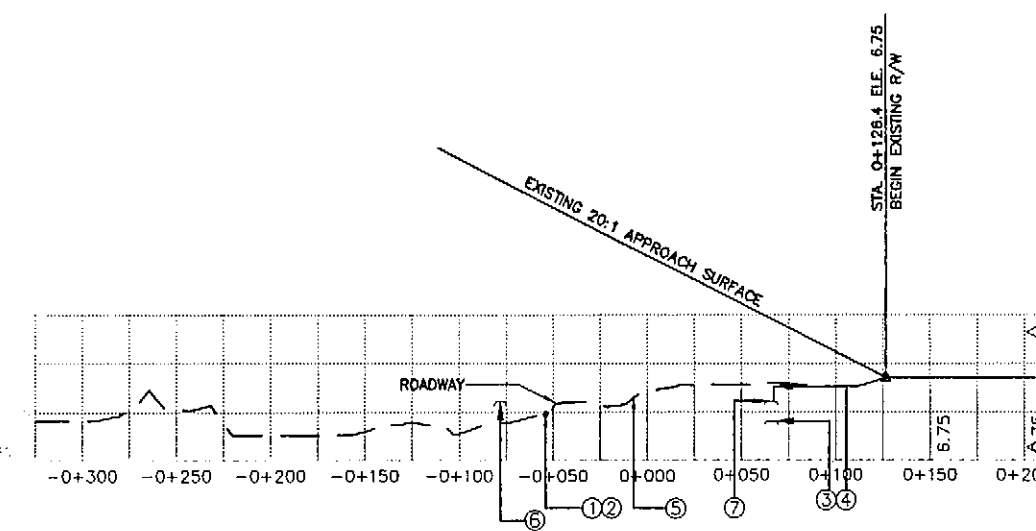
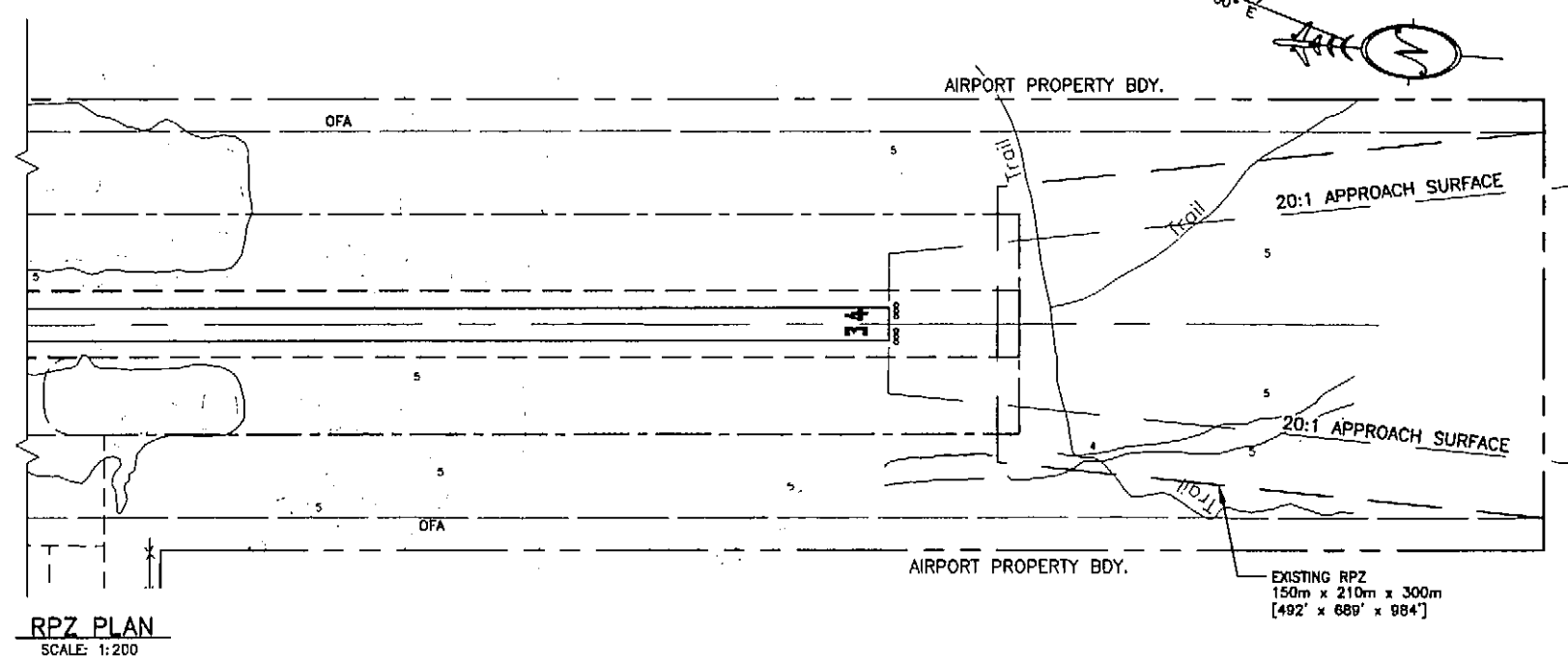
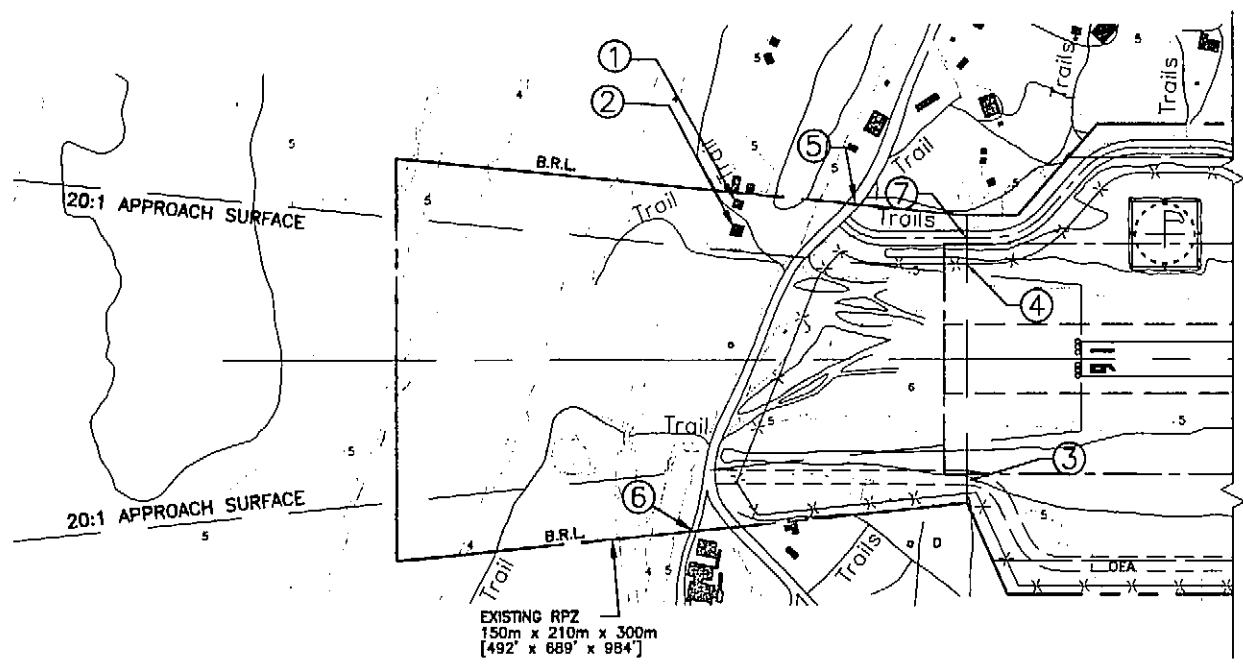
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CHECKED: *MAJ*

NAPAKIAK AIRPORT

AIRPORT LAYOUT PLAN
RUNWAY 16/34
PLAN AND PROFILE

SHEET
3
OF
7



RPZ OBSTRUCTION TABLE						
NO.	DESCRIPTION	OBJECT ELEVATION	APPROACH SURFACE ELEVATION	VERTICAL CLEARANCE	PENETRATION	DISPOSITION
①	BUILDING	4.9*	16.0	11.1	0	**
②	BUILDING	4.9*	16.0	11.1	0	**
③	FUTURE ROADWAY	4.5	9.75	5.25	0	N/A
④	FENCE	6.3	9.75	3.45	0	N/A
⑤	EXISTING ROADWAY	5.7	12.7	7.0	0	N/A
⑥	EXISTING ROADWAY	5.5	15.75	10.5	0	N/A
⑦	N-T ROADWAY	5.5	9.75	4.25	0	N/A

* ESTIMATED
 ** TO BE REMOVED IN THE NEAR-TERM

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 AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
 SUBJECT TO ALP APPROVAL LETTER DATED 7/15/02
 BY: Phyllis DATE: 7/15/02
 FAA, AIRPORTS DIVISION
 ALASKAN REGION, AAL-600
 FAA AIRSPACE REVIEW NUMBER: 97-AAL-069-NRA

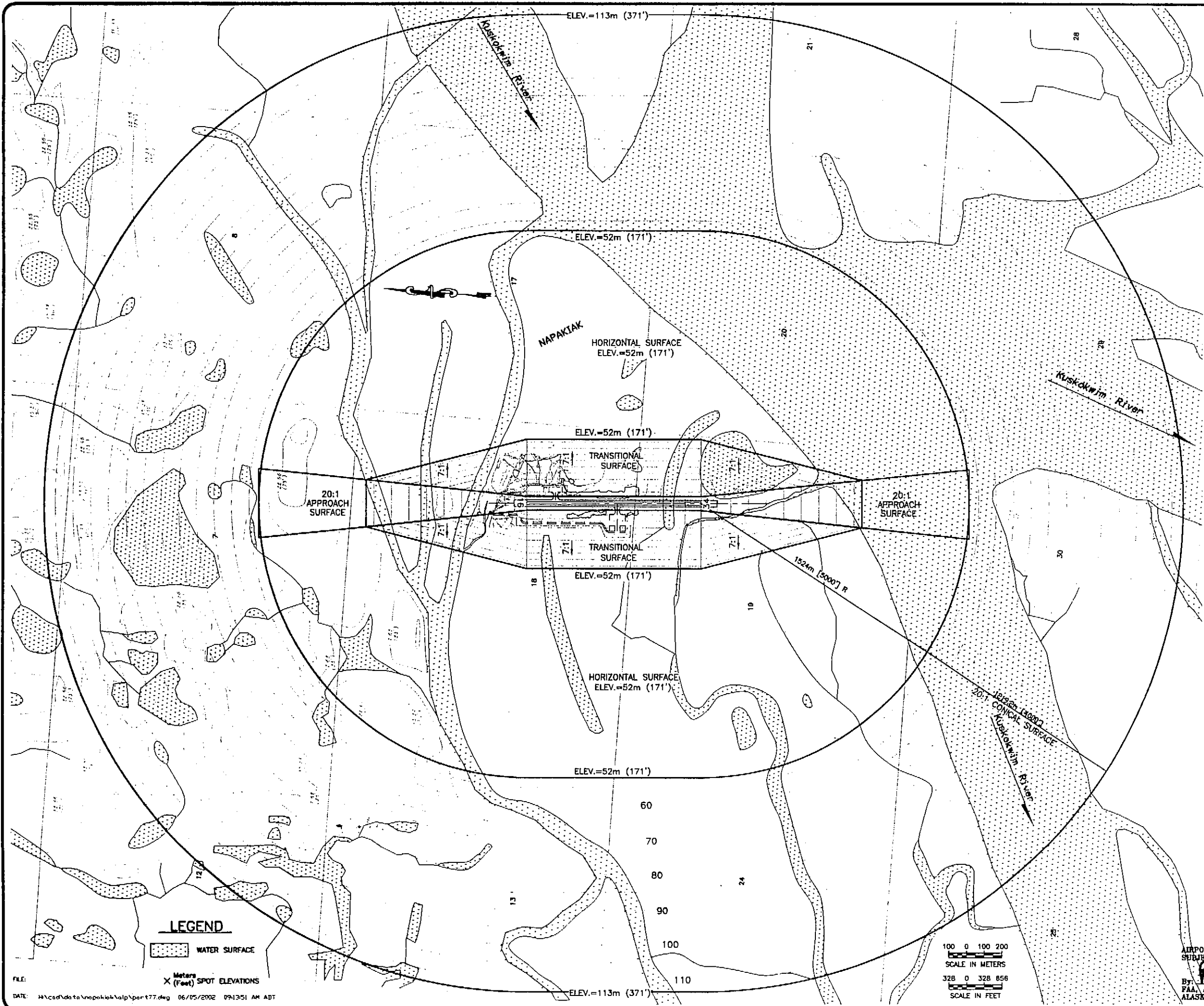
BY	DATE	REVISIONS

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 CENTRAL REGION
 APPROVED: Stephen M. Ryan DESIGN SECTION CHIEF
 STEPHEN M. RYAN, P.E.
 APPROVED: John C. Wahl PROJECT MANAGER
 JOHN C. WAHL, P.E.

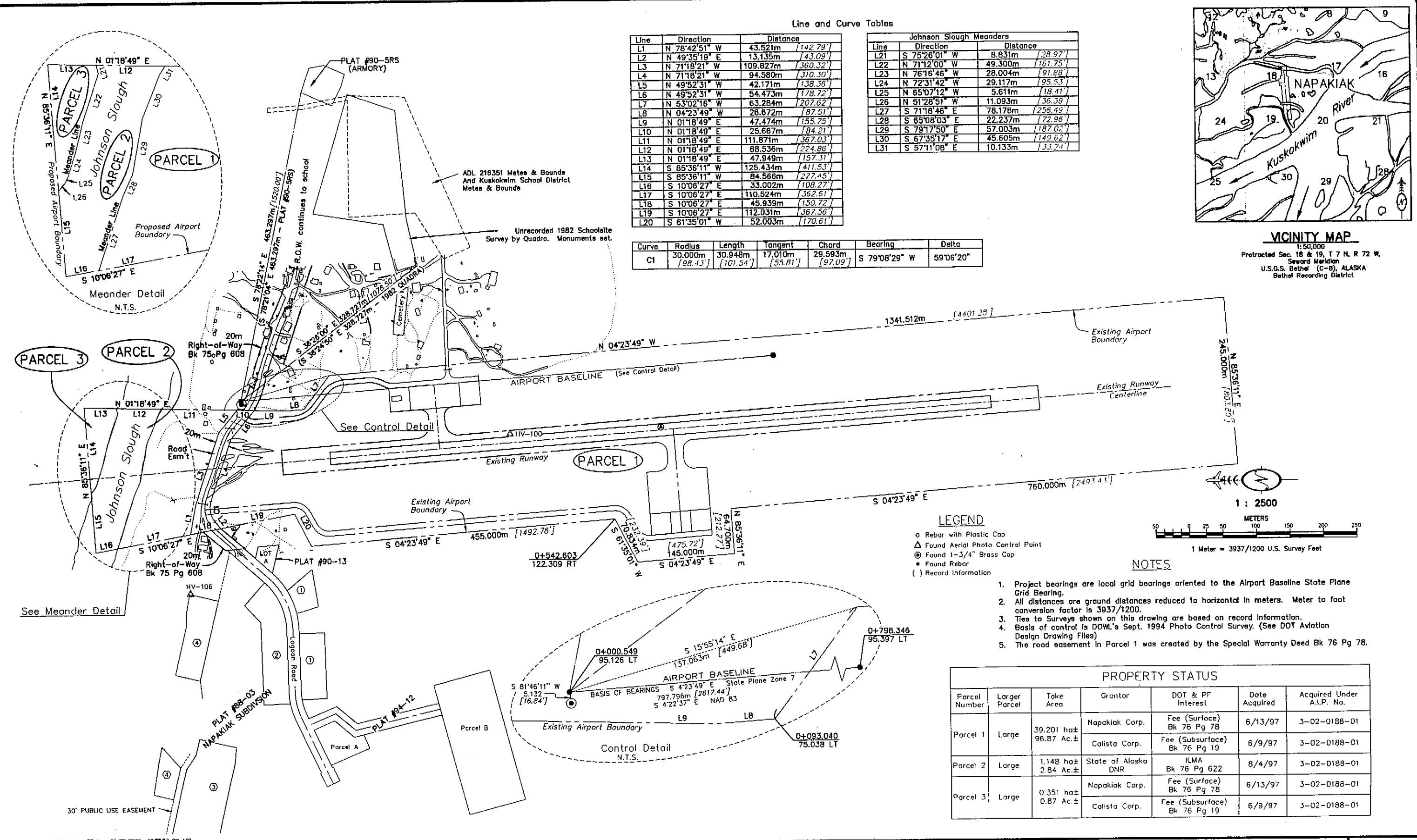
DATE: 6/7/02
 DESIGN: WHL
 DRAWN: WHL
 CHECKED: WHL

NAPAKIAK AIRPORT
 AIRPORT LAYOUT PLAN
 RUNWAY PROTECTION ZONES
 PLAN AND PROFILE

SHEET
 4
 OF
 7



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION		DESIGN SECTION CHIEF PROJECT MANAGER
NAPAKIAK AIRPORT NAPAKIAK, ALASKA AIRPORT LAYOUT PLAN F.A.R. PART 77		APPROVER: STEPHEN M. RYAN, P.E. APPROVED: [Signature] JOHN G. WALSH, P.E.
DATE: 6/7/02	DESIGN: [Signature]	REVISIONS:
DRAWN: [Signature]	CHECKED: [Signature]	BY: [Signature]
SHEET 5 OF 7		DATE: [Signature]

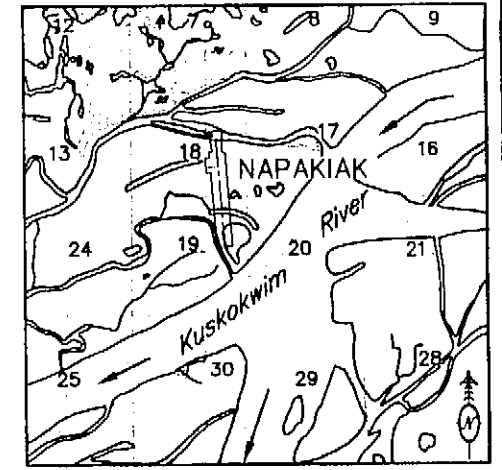


Line and Curve Tables

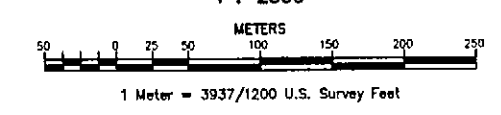
Line	Direction	Distance
L1	N 78°42'51" W	43.521m [142.79']
L2	N 49°35'19" E	13.135m [43.09']
L3	N 71°18'21" W	109.827m [360.32']
L4	N 71°18'21" W	94.580m [310.30']
L5	N 49°52'31" W	42.171m [138.36']
L6	N 49°52'31" W	54.473m [178.72']
L7	N 53°02'16" W	63.284m [207.62']
L8	N 04°23'49" W	26.672m [87.51']
L9	N 01°18'49" E	47.474m [155.75']
L10	N 01°18'49" E	25.667m [84.21']
L11	N 01°18'49" E	111.871m [367.03']
L12	N 01°18'49" E	68.536m [224.86']
L13	N 01°18'49" E	47.949m [157.31']
L14	S 85°36'11" W	125.434m [411.53']
L15	S 85°36'11" W	84.566m [277.45']
L16	S 10°06'27" E	33.002m [108.27']
L17	S 10°06'27" E	110.524m [362.61']
L18	S 10°06'27" E	45.939m [150.72']
L19	S 10°06'27" E	112.031m [367.56']
L20	S 81°35'01" W	52.003m [170.61']

Line	Direction	Distance
L21	S 75°26'01" W	8.831m [28.97']
L22	N 71°12'00" W	49.300m [161.75']
L23	N 76°16'46" W	28.004m [91.88']
L24	N 72°31'42" W	29.117m [95.53']
L25	N 65°07'12" W	5.611m [18.41']
L26	N 51°28'51" W	11.093m [36.39']
L27	S 71°18'46" E	78.178m [256.49']
L28	S 65°08'03" E	22.237m [72.96']
L29	S 79°17'50" E	57.003m [187.02']
L30	S 67°35'17" E	45.805m [149.62']
L31	S 57°11'06" E	10.133m [33.24']

Curve	Radius	Length	Tangent	Chord	Bearing	Delta
C1	30.000m [98.43']	30.948m [101.54']	17.010m [55.81']	29.593m [97.09']	S 79°08'29" W	59°06'20"



VICINITY MAP
 1:50,000
 Projected Sec. 18 & 19, T 7 N, R 72 W,
 Seward Meridian
 U.S.G.S. Bethel (C-B), ALASKA
 Bethel Recording District



- LEGEND**
- o Rebar with Plastic Cap
 - △ Found Aerial Photo Control Point
 - ⊙ Found 1-3/4" Brass Cap
 - Found Rebar
 - () Record Information

- NOTES**
1. Project bearings are local grid bearings oriented to the Airport Baseline State Plane Grid Bearing.
 2. All distances are ground distances reduced to horizontal in meters. Meter to foot conversion factor is 3937/1200.
 3. Ties to Surveys shown on this drawing are based on record information.
 4. Basis of control is DOWL's Sept. 1994 Photo Control Survey. (See DOT Aviation Design Drawing Files)
 5. The road easement in Parcel 1 was created by the Special Warranty Deed Bk 76 Pg 78.

PROPERTY STATUS						
Parcel Number	Larger Parcel	Take Area	Grantor	DOT & PF Interest	Date Acquired	Acquired Under A.I.P. No.
Parcel 1	Large	39.201 ha± 96.87 Ac.±	Napakiak Corp.	Fee (Surface) Bk 76 Pg 78	6/13/97	3-02-0188-01
			Calista Corp.	Fee (Subsurface) Bk 76 Pg 19	6/9/97	3-02-0188-01
Parcel 2	Large	1.148 ha± 2.84 Ac.±	State of Alaska DNR	ILMA Bk 76 Pg 622	8/4/97	3-02-0188-01
Parcel 3	Large	0.351 ha± 0.87 Ac.±	Napakiak Corp.	Fee (Surface) Bk 76 Pg 78	6/13/97	3-02-0188-01
			Calista Corp.	Fee (Subsurface) Bk 76 Pg 19	6/9/97	3-02-0188-01

FILE: DATE:	AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO AIP APPROVAL LETTER DATED 7/15/02 By: <i>Pete L. Olin</i> DATE: 7/15/02 FAA AIRPORTS DIVISION ALASKAN REGION, AAL-600 F.A.A. AIRSPACE REVIEW NUMBER: 97-AAL-089-NRA	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION APPROVED: <i>Stephen M. Ryan</i> STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF APPROVED: <i>John D. Wall</i> JOHN D. WALL, E.E. PROJECT MANAGER	DATE: 6/7/02 DESIGN: <i>[Signature]</i> DRAWN: <i>[Signature]</i> CHECKED: <i>[Signature]</i>	SHEET 6 OF 7 NAPA K I A K A I R P O R T A I R P O R T L A Y O U T P L A N P R O P E R T Y P L A N P R O P E R T Y P L A N S H E E T 1 O F 1
	REVISIONS BY DATE			