

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.

LS-6095 Registration Number

James S. Robar

Registered Land Surveyor



# LEGEND

Found USC&GS Monument

Found BLM Monument

USS 14442 BLM Monument Not Recovered See Note 5

Found Primary Monument

• Found Rebar with Cap

Found Rebar

Found PK Nail

(702) Survey Point Number

BERING

S E A

RECOVERED PROPERTY MONUMENTS								
Point	Northing	Easting	Description					
725	734844.6481	37605.9741	Fnd 3 1/4" BLM Brass Cap Monument					

HORIZONTAL AND VERTICAL CONTROL						
D-:-4	NAD83 (2011)		St Lawrence Island LDP		Classatian	Description
Point	N. Latitude	N. Latitude W. Longitude Northing Easting	Easting	Elevation	Description	
702	63*45'42.88610"	171°43'50.14340"	738460.2680	36951.3764	26.66	Fnd PK Nail with washer in concrete

#### NOTES

- 1. The field survey was performed by R&M Consultants, Inc. (R&M) between August 10, 2015 and August 20, 2015. Field survey information is located in R&M Field Book 2265.01, pages 1 through 36
- 2. All dimensions and coordinates shown hereon are in U. S. Survey Feet. Distances shown are horizontal ground distances in U. S. Survey Feet.
- 3. Horizontal control points were established using networked static GPS methods. The network was adjusted and transformed to the Alaska St. Lawrence Island LDP coordinate system using a simultaneous least squares adjustment constrained to the average NGS OPUS NAD83 (2011) position for Survey Control Point No. 701.
- 4. This survey contains record information from the following sources:
  - R1 U.S. Survey No. 3728, Alaska and U.S. Patent Recorded in Book 252 at Page 189, Cape Nome Recording District for Tract I
  - R2 U.S. Survey No. 4369, Alaska and U.S. Patent Recorded in Book 310 at Page 247, Nome Recording District for Tracts II and III
  - Permit, Avigation and Hazard Easement and Right of Way Recorded in Book 310 at Page 267, Nome Recording District for Tract IV
  - Permit, Avigation and Hazard Easement and Right of Way Recorded in Book 310 at Page 262, Nome Recording District for Tract V
  - Gambell Airport Property Plan dated 7/20/83
  - R6 Gambell Airport Layout Plan approved 11/7/01
- 5. U.S. Survey No. 14442, including a Dependent Resurvey of a portion of U.S. Survey No. 4369, is presently in the BLM review process and has not been accepted and filed, therefore it is not being shown as a record source. Three WCMC monuments (shown) were set as part of the Dependent Resurvey, however they were not recovered during this survey.
- 6. This survey does not constitute a subdivision as defined by Alaska Statute 40.15.900(5)(A)
- 7. The largest Horizontal Semi-Major Error Ellipse reported from the adjustment of the GPS Control Network was 0.011 feet at the 95%
- 8. The natural meanders of the mean high water line (Bering Sea) and ordinary high water (Troutman Lake) form the true bounds of Tracts I, II
- 9. Verify Horizontal and Vertical control prior to use.
- 10. Background mapping is shown for orientation purposes only.
- 11. The purpose of the plat is to record Horizontal and Vertical control points and recovered property corners for their further use in support of construction.

#### S 8\*13'40" E 930.85' S 8'28'00" E 933.95'(R4) -Mean High Water Line N 0'38'54" E 1017.29'(R4) N1\*28'26"W 490.38'(R2) TRACT V 1492.92'(R2) N 10'11'57" W N 11'47'57" W 1234.68' 1563.54'(R2) - -S 8'20'57" E 606.05'(R5) - N 0'38'54" E 701.72'(R5) S11'34'57"E 400.84'(R5) TRACT II 1700.00'(R5) 200.00'(R Monumented Centerline N 7'52'30" $\overline{\alpha}$ USS 14442 USS 4369 LOT 1 (702) ₩ R LOT 1 See Note 5 725 € Threshold RW 34 R<sub>1</sub> Lat. 63°45'37.88320" N Long. 171°43'51.11639" W R2) S 5'27'57" E 1232.52' 1560.90'(R2) S 9'18'57" E 1980.00'(R2) TROUTMAN LAKE

(NAVVOOK LAKE)

# HORIZONTAL CONTROL STATEMENT

Coordinate System:

This project is located entirely within the Alaska. St Lawrence Island. Low Distortion Projection (LDP), a local, low distortion grid coordinate system, expressed in U.S. Survey Feet, developed by the Alaska Department of Transportation and Public Facilities.

St Lawrence Island LDP Definition: Linear Unit: U.S. Survey Foot

Datum: NAD83 (2011) Ellipsoid: GRS1980

System: Alaska, St Lawrence Is

Zone: AK83-St Lawrence Is

Projection: Lambert Conformal Conic, single standard parallel

Origin Longitude: 171°39'00.0"W. (-171.65°)

Origin Latitude: 63'23'00.0"N. (63.383333333333333)

False Easting: 50000.0 feet

False Northing: 600000.0 feet Grid Scale Factor: 0.999987

The Basis of Coordinates for this project is the National Ocean Service (NOS) Geo Station 50391, Point No. 701, a standard NOS 3 1/4" brass disk set flush in the NW corner of an old concrete foundation, located on the shore of Troutman Lake 441 ft. SW of the SW corner of the Airport SREB building. Three 7-9 hour static GPS observation files were sent to the NGS OPUS utility for processing. The NAD83 (2011) (EPOCH:2010.0000) position for Point No. 701 is the average of the processing results. NAD83 (2011) (EPOCH:2010.0000)

Latitude 63\*46'28.08853" North, Longitude 171\*43'55.13767" West St Lawrence Island LDP Coordinates, (U.S. Survey Feet) North 743,052.74333 usft, East 36,732.64351 usft

Project bearings are St Lawrence Island LDP grid bearings.

# VERTICAL CONTROL STATEMENT

The Vertical Datum is NAVD88 GEOID 12B. The Basis of Vertical Control is the National Ocean Service (NOS) Geo Station 50391, Point No. 701, a standard NOS 3 1/4" brass disk set flush in the NW corner of an old concrete foundation, located on the shore of Troutman Lake 441 ft. SW of the SW corner of the Airport SREB building. Three 7-9 hour static GPS observation files were sent to the NGS OPUS utility for processing. The NAVD88 (GEOID12B) Orthometric Height (Elevation) of 8.47 feet for Point No. 701 is the average of the processing results. Project elevations are based on differential level loops, performed by R&M Consultants, Inc. using a Leica DNA10 digital level, from Point No. 701 through all project control

A static GPS tie was made to NOS Tidal Bench Mark 8283 B. Station 9468283 Akeftapak, St. Lawrence Island, Alaska, Point No. 713, in order to establish a Project Elevation for Mean High Water. NOS does not publish data for this Tide Station but did provide Bench Mark data with the following warning; "This data is from a station that showed sensor movement and Bench Mark instability. This data does not meet NOS standards for publication. This data is provided to support a request but should not be used for operational efforts. Associated errors for tidal/bench mark relationships should be assumed to be on the magnitude of 0.1-0.2 meters."

Point No. 713, is a standard NOS 3 1/4" brass disk set flush in the top of a 11ft x 17ft x 14ft triangular boulder, 55 ft west of the easterly edge of a rocky beach, 4.3 ft west of the easterly tip of the boulder and 2.7 ft above ground, located near the shore of the Bering Sea 4.75 miles SE of the Airport apron.

NAD83 (2011) (EPOCH:2010.0000)

Latitude 63°43'06.32106" North, Longitude 171°38'43.90794" West Project Elevation = 26.88 feet.

Bench Mark is 23.43 feet above Mean High Water. Project Elevation of Mean High Water = 3.45 feet.

STATE BUSINESS, NO CHARGE FOR RECORDING

DATE: 1/5/16

FILE NO.:

DATE OF SURVEY Beginning: 8/10/2015 Ending: 8/20/2015 NAME AND ADDRESS: Department of Transportation and Public Facilities (DOT&PF) 2301 Peger Road Fairbanks, Alaska 99709

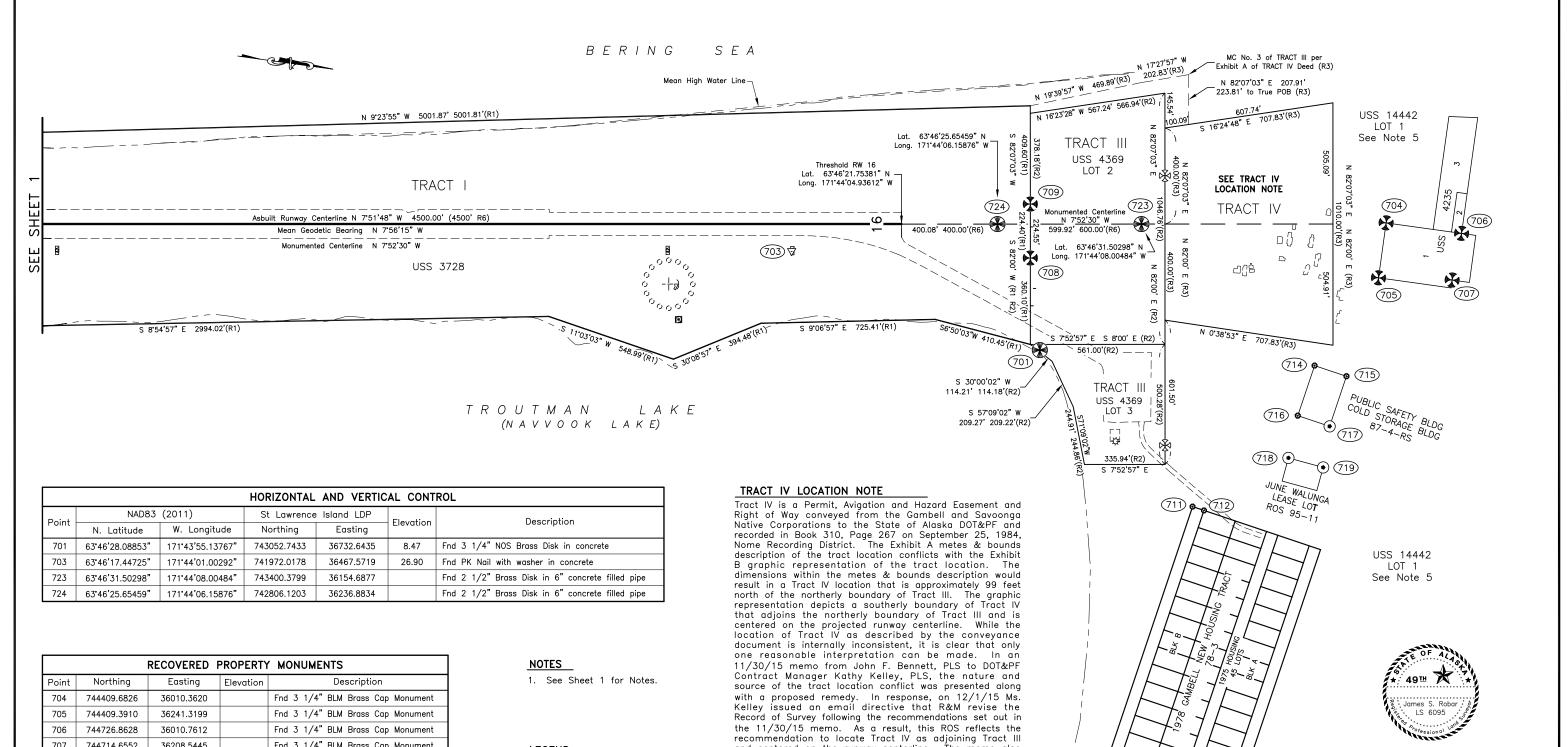
# RECORD OF SURVEY

PRE-CONSTRUCTION CONTROL DIAGRAM
GAMBELL AIRPORT PAVEMENT REHAB AND LIGHTING AKSAS 60585

SECTIONS 10 AND 15 UNSURVEYED T 20 S, R 67 W KATEEL MERIDIAN, ALASKA CAPE NOME RECORDING DISTRICT

SCALE: CHECKED BY: DRAWN BY: 1"= 200' KJR

CONTROL SHEET 1 OF 3



		RECOVERED	PROPERIT	MUNUMENIS
Point	Northing	Easting	Elevation	Description
704	744409.6826	36010.3620		Fnd 3 1/4" BLM Brass Cap Monument
705	744409.3910	36241.3199		Fnd 3 1/4" BLM Brass Cap Monument
706	744726.8628	36010.7612		Fnd 3 1/4" BLM Brass Cap Monument
707	744714.6552	36208.5445		Fnd 3 1/4" BLM Brass Cap Monument
708	742961.1090	36357.9879	28.67	Fnd 3 1/4" BLM Brass Cap Monument
709	742930.3127	36135.5556	30.24	Fnd 3 1/4" BLM Brass Cap Monument
711	743772.3680	37291.6745		Fnd 5/8" Rebar
712	743821.5674	37300.9939		Fnd 5/8" Rebar
714	744195.6231	36640.1368		Fnd 5/8" Rebar
715	744333.2183	36665.9345		Fnd 5/8" Rebar
716	744154.7698	36856.2409		Fnd 5/8" Rebar
717	744292.4056	36882.2816		Fnd 2" ALCAP on 5/8" Rebar
718	744140.3341	37036.1134		Fnd 1 1/2" ALCAP on 5/8" Rebar
719	744289.0604	37055.4650		Fnd 1 1/2" ALCAP on 5/8" Rebar
720	743553.6105	38446.2607		Fnd 5/8" Rebar

#### LEGEND

Found USC&GS Monument

Found BLM Monument

USS 14442 BLM Monument Not Recovered See Note 5

Found Primary Monument

Found Rebar with Cap

Found Rebar

Found PK Nail

(702) Survey Point Number

and centered on the runway centerline. The memo also recommended that DOT&PF pursue a corrective deed from STATE BUSINESS, NO CHARGE FOR RECORDING the land owners in order to avoid future title questions. (720)DATE: 1/5/16 NAME AND ADDRESS: DATE OF SURVEY Department of Transportation and Public Facilities (DOT&PF) 2301 Peger Road Fairbanks, Alaska 99709 Beginning: 8/10/2015 Ending: 8/20/2015

RECORD OF SURVEY

PRE-CONSTRUCTION CONTROL DIAGRAM
GAMBELL AIRPORT PAVEMENT REHAB AND LIGHTING
AKSAS 60585

SECTIONS 10 AND 15 UNSURVEYED T 20 S, R 67 W KATEEL MERIDIAN, ALASKA

CAPE NOME RECORDING DISTRICT

CHECKED BY:

KJR

SCALE:

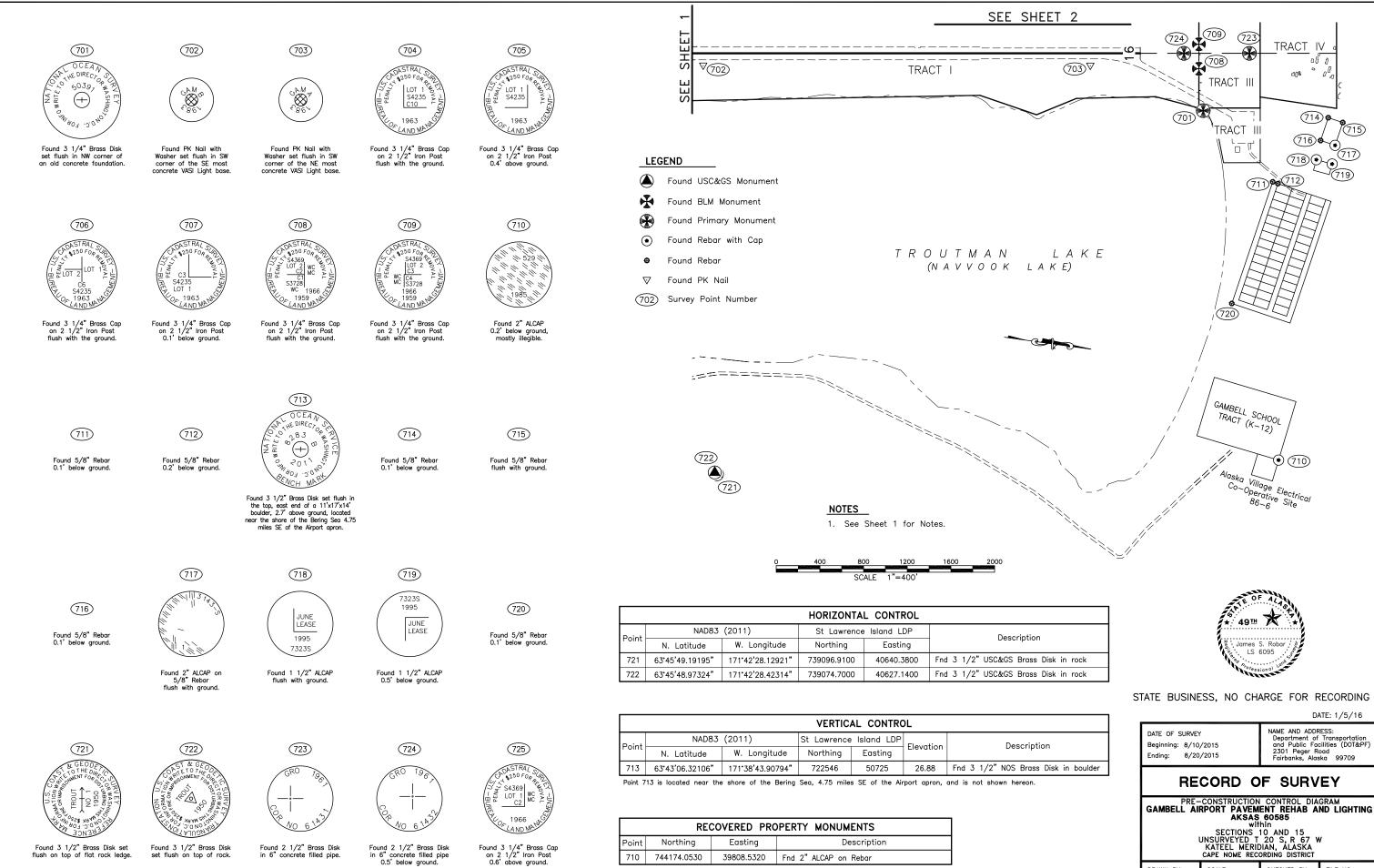
1"= 200'

DRAWN BY:

CONTROL SHEET 2 OF 3

FILE NO.:

SEE SHEET 3



CONTROL SHEET 3 OF 3

DRAWN BY: SCALE: 1"= 400'

FILE NO.: CHECKED BY: KJR

LS 6095

DATE: 1/5/16

Department of Transportation and Public Facilities (DOT&PF) 2301 Peger Road Fairbanks, Alaska 99709

NAME AND ADDRESS:

TRACT IV

711) 712

710

714

716 718 (719)