

NOTES

- The information provided is based on a field survey performed by R&M Consultants, Inc. during October 24, 2003 through November 8, 2003 and supplemented with data gathered during a field survey performed by R&M Consultants, Inc. during October 31, 2002 through November 10, 2002. The primary horizontal control was established by R&M Consultants, Inc. using Static GPS techniques with three Trimble dual frequency receivers and was adjusted by simultaneous least squares methods. The primary vertical control was established by R&M Consultants, Inc. by differential levels run between the primary control points. The planimetric and topographic features were collected from the project control using both RTK GPS and conventional radial surveying techniques.
- Project bearings are local grid bearings oriented to the NAD83 (CORS) geodetic mean bearing between CP 8 and CP 11 as determined by static GPS observations. Distances are ground distances reduced to horizontal in U.S. Survey Feet.
- The NAD83 (CORS) geographic position for CP 8 is Lat 60°04'29.52857" N, Long 147°59'48.50256" W and for CP 11 is Lat 60°04'58.67235" N, Long 147°59'37.60211" W. The geographic positions were derived using the NGS OPUS solution from static observations of 20 hours in duration. The NGS OPUS solution used common data from the following CORS stations:
KENAI 1 CORS
Antenna ARP, Epoch: 2002, Lat 60°40'30.284" N, Long 151°21'00.570" W
POTATO POINT 3 CORS
Antenna ARP, Epoch: 2002, Lat 61°03'22.533" N, Long 146°41'48.518" W
HINCHINBROOK 3 CORS
Antenna ARP, Epoch: 2002, Lat 60°14'15.040" N, Long 146°38'47.552" W
- The Project coordinates are referenced to a local horizontal datum based on an assumed coordinate value (N 500,000.00, E 500,000.00) at CP 11. A combined project scale factor of 0.99995327 was applied to the Alaska Coordinate System of 1983 (ACS83), Zone 4 coordinate values to obtain local ground distances in U.S. Survey Feet. The ACS83, Zone 4 value for CP 11 is N 2,227,773.766, E 2,006,702.458. To convert the local coordinates to ACS 1983, Zone 4, U.S. Survey Feet coordinates, translate using +1727669.662 N, +1506608.685 E; then scale coordinates by 1.00004673; apply a rotation of -01°44'16".
- The vertical datum is a local orthometric datum determined by an NGS OPUS solution as outlined in note 3. The project elevations were derived by applying NGS GEOID99 geoid undulations to the NAD83 (CORS) ellipsoid heights at CP8 resulting in a value of 66.588 feet. This datum approximates NAVD88, but does not account for the GEOID99 to NAVD88 bias.
- The contour interval shown is 2 feet.
- The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. The surveyor does certify that they are located as accurately as possible from the information available. The surveyor has not physically located any of the underground utilities.
- Plat dimensions shown are record dimensions rotated to the basis of bearing. The parcel boundaries were located using a "best fit" solution which minimizes the offsets from recovered corners to the record corner positions. The boundary lines shown may not connect to the found monument position.
- See Project No. 56445 Survey Control Diagram for additional survey control data.

TIN CERTIFICATION

I hereby certify that the data contained in this deliverable represents information obtained from a survey made by me or under my direct supervision and that a ground survey was performed to develop the digital Triangular Irregular Network (TIN). The digital TIN is based on topographic information collected from the adjusted project control using conventional and RTK GPS surveying techniques. The digital TIN along with the topographic mapping comply with the National Map Accuracy Standards for 2 foot contour interval mapping at the indicated drawing scale.

Lendle C. Story
LENDLE C. STORY, L.S. 7843

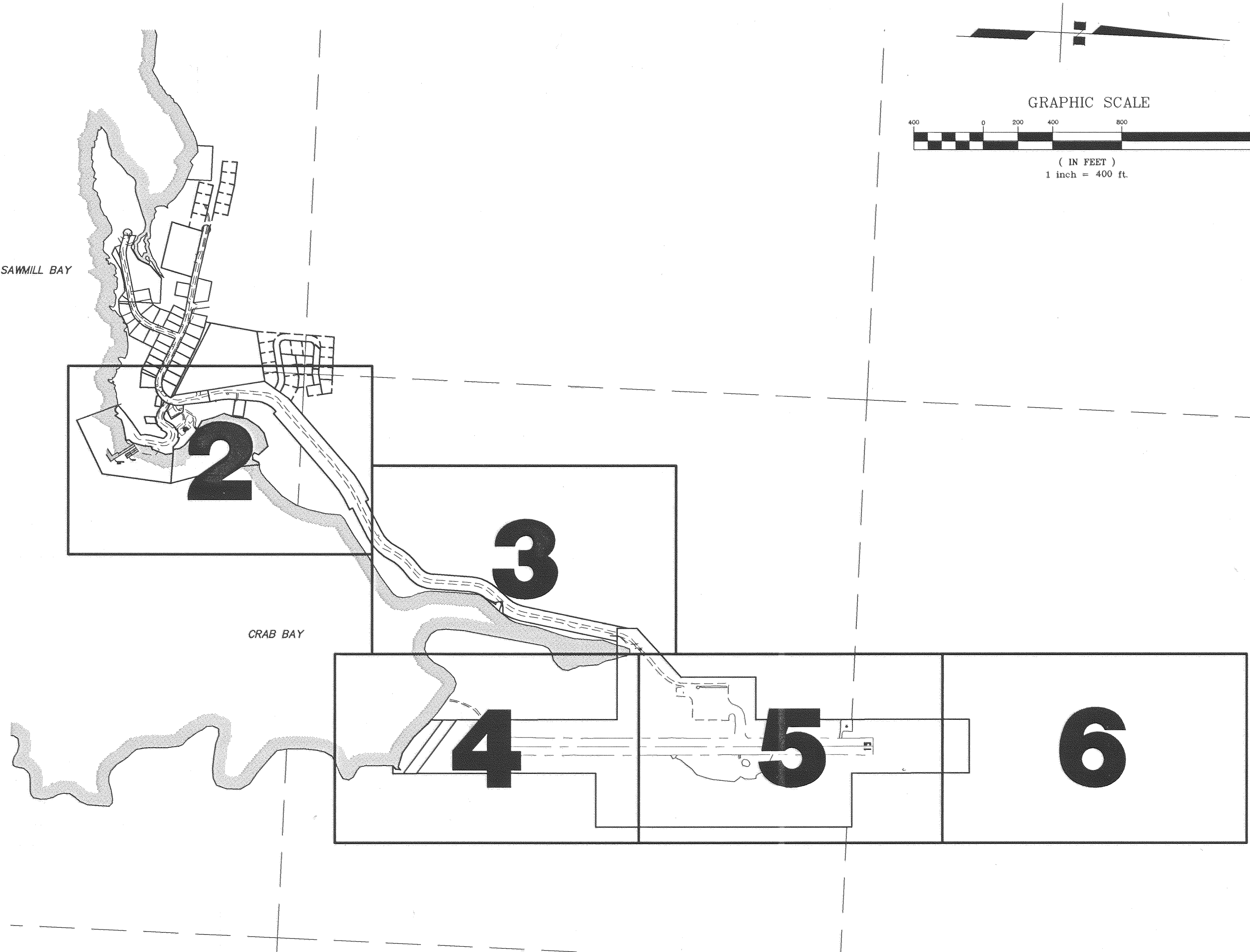
DATE 1-5-04

LEGEND

- BOLLARD
- 50— CONTOUR MAJOR
- 52— CONTOUR MINOR
- ⊕ ELECTRIC METER
- ⚡ ELECTRIC PEDESTAL
- ⚡ ELECTRIC TRANSFORMER
- ⚡ FIRE HYDRANT
- ⚡ LIGHT POLE
- ⚡ SIGN
- SSCO SANITARY SEWER CLEANOUT
- SS SANITARY SEWER MANHOLE
- +110.5' SPOT ELEVATION
- ⚡ TELEPHONE PEDESTAL
- ⚡ WATER VALVE
- · · · — CREEK CENTERLINE
- · · · — CULVERT
- x — x — x — FENCE
- S — UNDERGROUND SANITARY SEWER
- W — UNDERGROUND WATER

MONUMENT LEGEND

- ✱ BLM MONUMENT
- ⊕ PRIMARY MONUMENT
- SECONDARY CORNER
- ⚡ SECONDARY SURVEY CONTROL POINT
- 123 SURVEY CONTROL POINT, SEE NOTE 9.
- ⊗ TBM TEMPORARY BENCH MARK



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.

Lendle C. Story
LENDLE C. STORY, L.S. 7843

DATE 1-5-04

BY	DATE	REVISIONS



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

APPROVED: _____ DESIGN SECTION CHIEF
APPROVED: _____ PROJECT MANAGER

DATE: 12-05-03
DESIGN: DSN
DRAWN: KSLP
CHECKED: LCS

CHENEGA BAY AIRPORT
RESURFACING & LIGHTING
AKSAS PROJECT No. 56445

INDEX SHEET
TOPOGRAPHIC MAPPING

SHEET
1
OF
6