



# Alaska Department of Transportation & Public Facilities

## REQUEST FOR PROPOSALS PACKAGE

(Procurement per Article 3 of AS 36.30)

PART



### TABLE OF CONTENTS

- Form 25A270, Part A - Request for Proposals (RFP)
- " " Part B - Submittal Checklist
- " " Part C - Evaluation Criteria
- " " Part D - Proposal Form
- Certification of Eligibility (Ethics Act)
- Form 25A257, Pre-Audit Statement
- Form 25A269, Indemnification & Insurance

Proposed Statement of Services

Other: N/A

### ISSUING OFFICE

Agency Contact & Phone No.....: Matthew T. Burkholder, PLS, SR/WA, (907) 269-0701  
 Contracting Division .....: State of Alaska Department of Transportation & Public Facilities, Central Region  
 .....: Design & Engineering Services

### PROJECT

**RFP NUMBER** .....: 25212022  
 Project Numbers-State .....: Z592300000 / CFAPT00691  
 Project Numbers-Federal .....: AIP 3-02-0468-003-2022 / AIP 3-02-0255-003-2023  
 Project Site (City, Village, etc.).....: Chevak & Scammon Bay, Alaska  
 Project Title & Contract Description .....: CR 2020 Airport Surveys and ALP Updates

The Contractor shall support the Contracting Agency by providing Surveying, Mapping and Airport Layout Plans (ALPs) as required for the Chevak Airport Rehabilitation, and Scammon Bay Airport Improvements projects. The Contracting Agency reserves the right to add up to three (3) additional airports during the initial period of performance.

### SCHEDULE & PAYMENT

Anticipated period for performance-Begin/End: October 2020 – October 2025

Estimated amount of proposed contract:

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Less than \$200,000    | <input type="checkbox"/> \$200,000 to \$250,000   | <input checked="" type="checkbox"/> \$1,000,000 or greater |
| <input type="checkbox"/> \$250,000 to \$500,000 | <input type="checkbox"/> \$500,000 to \$1,000,000 |  |
- Proposed Method(s) of Payment:
- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Fixed Price Plus Expenses (FPPE) | <input type="checkbox"/> Firm Fixed Price (FFP) | <input checked="" type="checkbox"/> Cost Plus Fixed Fee (CPFF) |
|   | <input type="checkbox"/> Other:                 |  |

### SUBMITTAL DEADLINE AND LOCATION

*OFFERORS ARE RESPONSIBLE TO ASSURE DELIVERY PRIOR TO DEADLINE (2 AAC 12.250). ONLY PROPOSALS RECEIVED PRIOR TO THE FOLLOWING DATE AND TIME WILL BE OPENED.*

DATE: **September 14, 2020** PREVAILING TIME: **4:00 PM**

HAND DELIVER ONLY DIRECTLY TO FOLLOWING LOCATION (and person, if named):

**\*Also see 15. Special Consideration, item 15.5**

Kathleen A. Bridenbaugh, PSA Unit Supervisor  
 AK Department of Transportation and Public Facilities  
 4111 Aviation Avenue  
 Anchorage, AK 99502  
**Email:** [crdotpcontracts@alaska.gov](mailto:crdotpcontracts@alaska.gov)

**IMPORTANT NOTICE:** If you downloaded this solicitation from the State's Website, you must self-register for the Plan Holders list to receive subsequent addenda. Failure to register may adversely affect your proposal. It is the Offeror's responsibility to ensure that he has received all addenda affecting this RFP.

## SELECTION PROCEDURE

1. Competitive Sealed Proposals will be evaluated by a committee (2 AAC 12, Article 4). Evaluation of responses to criteria set forth in Part C results in a numerical score for each proposal. Each criterion in Part C has an assigned weight for this RFP which demonstrates its relative importance. The total of all weights is 100 (100%). Each one-percent weight equates to a range of 0-5 points per Evaluator. The maximum points (score) obtainable for any proposal is equal to the product of 500 multiplied by the number of Evaluators.
2. Scoring of proposals will be accomplished as follows:
  - 2.1 Each Evaluator will individually read and rate each Offeror's response to each criterion described in Part C - Section I - Technical Proposal. Ratings will be based solely on contents of proposal and in compliance with the Contracting Agency's standard Instructions for Evaluation Committee. Except as may be stated within any criterion description in Part C, a rating of "5" = Best Response from all Offerors; "4" to "1" = Progressively Less Responsive; "0" = Non-Responsive. Ratings are multiplied by the assigned weights for each criterion to obtain criteria scores.
  - 2.2 After completion of individual ratings in Part C, Section 1, Technical Proposal, the Evaluation Committee will meet to discuss proposals. Evaluators may then alter their ratings; however, any changes shall be based solely on the criteria set forth in Part C.
  - 2.3 After scoring Part C - Section I - Technical Proposal, criteria scores for Part C - Section II - Preferences, and Section III - Price (if applicable), will be calculated based on criteria descriptions.
  - 2.4 The total score for each Offeror will be obtained by summing the scores determined for each criterion in Sections I, II and III of Part C. The order of ranking for negotiations shall be as follows: highest scored Offeror will be ranked first, next highest scored second, and etcetera.
3. Evaluators may discuss factual knowledge of, and may investigate Offerors' and proposed Subcontractors' prior work experience and performance, including projects referenced in proposal, available written evaluations, etcetera, and may contact listed references or other persons knowledgeable of a Contractor's and/or a Subcontractor's past performance. Factors such as overall experience relative to the proposed contract, quality of work, control of cost, and ability to meet schedules may be addressed. If any issues of significant concern to the proposed contract are discovered, the Committee may:
  - 3.1 Provide written recommendations for consideration during contract negotiations;
  - 3.2 Conduct discussions in accordance with paragraph 4, below.
4. The Committee may decide to conduct discussions (or "interviews") with responsible Offerors whose proposals are determined to be reasonably susceptible of being selected for award for the purpose of clarification to assure full understanding of, and responsiveness to, the solicitation requirements (AS 36.30.240 & 2 AAC 12.290). Offerors selected by the Committee for discussions may be permitted to submit Best and Final Offers (BAFO) for final Committee Evaluation. After discussions and any BAFOs, Evaluators will determine the final scoring and ranking for contract negotiations by evaluating written and oral responses using only the criteria set forth in Part C of this RFP (2 AAC 12.260(b)).
5. All Offerors will be advised of the Offeror selected for negotiation and, after completion of negotiations, a Notice of Intent to Award will be provided to all Offerors. If contract negotiations are unsuccessful with Offeror(s) selected for negotiation, the Contracting Agency may either cancel the solicitation or negotiate with other Offerors in the order of ranking.

## NOTICES

PART

A

1. The Contracting Agency is an equal opportunity employer.
2. Copies of contract documents are available for review at the Contracting Agency's office. Offerors located outside the general vicinity of the Contracting Agency's office may telephone the Agency Contact identified on page one of this Part A for a discussion of such items.

**General Conditions** of the Professional Services Agreement are contained in the Small Procurement Standard Provisions Booklet, which is located on the Department's website under "Procurement."

The General Conditions are the **same** for both Competitive Sealed Proposals and Small Procurements.

3. Offerors are specifically advised that a contract shall not be in effect until a written agreement is executed by an authorized agent of the Contracting Agency. The Contracting Agency shall not be liable for any cost incurred by an Offeror in response to this solicitation, including any work done, even in good faith, prior to execution of a contract and issuance of a Notice to Proceed.

4. The Contracting Agency expressly reserves the right to waive minor informalities, negotiate changes or reject any and all proposals and to not award the proposed contract, if in its best interest. "Minor Informalities" means matters of form rather than substance which are evident from the submittal, or are insignificant matters that have a negligible effect on price, quantity, quality, delivery, or contractual conditions and can be waived or corrected without prejudice to other Offerors (2 AAC 12.990).

5. All proposals shall be open for public inspection (AS 36.30.230) after a Notice of Intent to Award is issued. Offerors should not include proprietary information in proposals if such information should not be disclosed to the public. Any language within a submittal purporting to render all or portions of a proposal confidential will be disregarded. Proprietary information which may be provided after selection for contract negotiations will be confidential if expressly agreed to by the Contracting Agency (AS 36.30.230).

6. Substitution for any personnel named in a proposal may result in termination of negotiations.

7. If it is discovered that a selected Offeror is in arrears on taxes due the State of Alaska, a contract may not be awarded until the Alaska Department of Revenue approves the payment provisions for the contract.

8. **Offerors and proposed subcontractors shall be in compliance with the statutory requirements for Alaska business licensing and professional registrations included in the certification statement on Page 2 of Part D in this RFP package.**

9. **PRICE COMPETITION:** Price cannot be an Evaluation Criterion in accordance with Article 3 of AS 36.30 for services that must be performed only by Architects, Engineers, Land Surveyors, or Landscape Architects (A/E, LS or LA) licensed in the State of Alaska, UNLESS the provisions of AS 36.30.270(d) apply; i.e., unless the services required are repetitious in nature, and the nature and amount of services required are thoroughly defined by measurable and objective standards to reasonably enable firms or persons making proposals to compete with a clear understanding and interpretation of the services required. If price is a factor, a majority of the evaluation committee must be registered in Alaska to perform architectural, engineering, or land surveying services.

- 9.1 If the services performed do not require an A/E, LS or LA, then all Offerors including any A/E, LS or LA must provide Price Proposals in accordance with AS 36.30.270(b) and 2 AAC 12.260(c).

- 9.2 Price (or any estimate of labor hours) cannot be an Evaluation Criterion for contracts that will receive Federal-aid highway program funding per 23 CFR 172.7, and FAA Airport Improvement Program funding per AC 150/5100-14E, 2.1. For FAA exceptions: see AC 150/5100/14E, 2.4.

10. An audit of the selected Offerors' and proposed Subcontractors' cost accounting systems and business records may be required to ascertain if systems are adequate for segregating contract costs; to establish a maximum allowable Indirect Cost Rate for the Agency's negotiator; and to investigate the accuracy of proposed labor rates and unit prices. In order not to unduly delay contract negotiation or award, be prepared to submit Pre-Audit Statement, DOT&PF Form 25A257 immediately for your firm and any subcontract that may exceed \$250,000.

For contract amounts less than \$250,000, the Contracting Agency may require the Offeror and proposed Subcontractor to submit the Pre-Audit Statement if deemed necessary to determine allowable costs under Title 23 CFR requirements. If selected for negotiation, failure to submit properly completed Pre-Audit Statement(s) in a timely manner may disqualify an Offeror from further consideration. Information from Pre-Audit Statements and any Audit conducted for the Contracting Agency is considered proprietary and will be confidential.

11. Standard insurance provisions for Worker's Compensation, General and Automobile Liability, and Professional Liability are contained in DOT&PF Form 25A269, Indemnification and Insurance. Coverages may be modified under very limited circumstances. Offeror should not assume any modification of coverages.

12. Professional Liability Insurance for the proposed contract:  is not required

is required as shown on DOT&PF Form 25A269.

13. The proposed contract  will  will not be a Federally Assisted Program of the U.S. Department of Transportation. If it will be an assisted program, then the Offeror shall insert the following notification in all subcontract solicitations for bids or proposals pertinent to this RFP:

"In accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 USC 2000d to 2000d-4 and Title 49, CFR, U.S. Department of Transportation (U.S. DOT), Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. DOT issued pursuant to such Act, in any Subcontract entered into pursuant to this RFP, Disadvantaged Business Enterprise firms will be afforded full opportunity to submit bids or proposals and will not be discriminated against on the grounds of race, color, sex, or national origin, in consideration for an award.

14. Pre-proposal Conference:  None  As follows:

15. Special Notices:

15.1 Per Alaska Statute (AS) 36.30.210(e): An Alaska Business License is required of Contractors who do business in Alaska at time of award. To qualify for the Alaska Offerors' Preference, under AS 36.30.321, an Offeror shall have a valid Alaska business license as a prerequisite to proposal. Information regarding applying for an Alaska Business License can be found on-line at <https://www.commerce.alaska.gov/web/cbpl/BusinessLicensing.aspx> or by calling 1-907-465-2550. The business license must be in the name of the company under which the proposal is submitted.

15.2 Effective May 8, 2015, the Department, in coordination with the U.S. Department of Transportation, adopted a Race-Neutral Disadvantaged Business Enterprise (DBE) Program for its federal-aid program. The Race-Neutral DBE program applies to federally-funded construction-related professional services solicitations, with the exception of FAA-funded projects located within the boundaries of the Department's Northern Region, which remain under a Race-Conscious DBE program.

The Department encourages contractors to utilize DBEs in all Federal-aid projects to ensure the Department meets its overall DBE Utilization Goal. All DBE participation will count towards the Race-Neutral program. If you have any questions about this notice or the Department's DBE program, please contact the Civil Rights Office at (907) 269-0851 or refer to their website <http://www.dot.alaska.gov/cvlrts/index.shtml>

15.3 The Department intends to send notices (including Notice of Intent to Negotiate, and Notice of Intent to Award) to Offerors by using the email address provided the Offeror's submitted Part D. Such delivery of an email sent by the Department is complete upon receipt in the addressee's email account. An email sent after 4:30pm shall be deemed to have occurred at the opening of business on the next working day. By submitting a response to this RFP, all Offerors consent to the use of Electronic Mail as described herein.

15.4 Interested parties are reminded that the Agency point of contact is noted on page 1 of this section, and all questions and requests for information shall be directed to this individual.

15.5 In light of the current health situation, the Department will accept an electronic (email) submission of proposals for this solicitation. Proposals should be submitted to [crdotpfcontracts@alaska.gov](mailto:crdotpfcontracts@alaska.gov) prior to the date and time shown on page 1. Offerors are responsible to assure timely delivery, and receipt of their proposal. Offerors are cautioned that due to mailbox restrictions, we cannot receive proposals over 20MB in size. The Contracting Agency will either print out proposals in color for distribution, or email a PDF to the Evaluation Committee.

15. Special Notices (cont'd):

15.6 The Contracting Agency anticipates completing the Airport Layout Plans (ALP) for Chevak and Scammon Bay Airports with in-house resources. However, the Contracting Agency reserves the right to accomplish these services by amendment of the Professional Services Agreement, as necessary.

# SUBMITTAL CHECKLIST

PART

**B**

Offeror may use left margin to check off items when completed.

**An Alaska Business License is required of Contractors who do business in Alaska at time of award (AS 36.30.210(e)).**

- [ ] 1. Offerors must carefully review this RFP Package for defects and questionable material, and become familiar with submittal requirements. Submit written comments to the address shown under "Submittal Deadline and Location" on page 1 of Part A - RFP. Substantive issues will be addressed in a written addendum to all RFP recipients on record. Failure to comply with directions may result in lower score and may eliminate a submittal from consideration. Protests based on alleged improprieties or ambiguities in a solicitation may be disallowed at the discretion of the Contracting Agency if the protest is not received in writing at least ten (10) Agency work days prior to the Submittal Deadline (AS 36.30.565).
- [ ] 2. Review Part A - RFP and the proposed Statement of Services and any other attached or referenced materials. If no Statement of Services is attached, telephone the Agency contact person identified on page 1 of Part A.
- [ ] 3. Review Part C - Evaluation Criteria. Read each criterion in light of the proposed Statement of Services. Note any project specific criteria which may have been added or any changes to standard criteria descriptions which may have been made. Be aware of the assigned weight for each criterion. If a weight is not entered for any criterion on Part C, notify the Agency contact person. Plan your proposal to address the applicable criteria. Criteria Responses shall not exceed the number of pages stated below. **Note:** If weight is applied to Criterion #11, Alaska Bidder (Offeror) Preference, that box must be checked on page 1 of Part D, rfp-d.
- [ ] 4. Prepare a distinct Response for each criterion that has a weight more than zero. Failure to respond directly to any criteria weighted more than zero will result in an evaluation score of zero for that criteria. Any Responses to criteria weighted zero will be disregarded. Acceptable Responses must be specific and directly related to the Contracting Agency's proposed Statement of Services. Marketing brochures, federal SF330s, marketing resumes, and other non-project specific materials will be discarded without evaluation and should not be submitted.
- [ ] 5. **Each criterion Response must be titled, numbered and assembled in the order in which the criteria are listed in Part C**, so the criterion to which information applies shall be plainly evident. Material not so identified or assembled may be discarded without evaluation.
- [ ] 6. Price  is  is not an evaluation criterion for the proposed contract.  
If Price is a Criterion, prepare **Billing Rates and/or Price Proposals** as described in Criteria #12 and/or #13.
- [ ] 7. Complete all entries on Part D - Proposal Form. Note the statutory requirements for Alaska business licenses and professional registrations, and be sure to sign and date the Certification. Copies of licenses and registrations may be provided with submittal, and will not count in the requirements of #8 below.
- [ ] 8. Attach Criteria Responses (**except any Billing Rates or Price Proposals**) to Part D - Proposal Form. The maximum number of attached pages (**each printed side equals one page**) for Criteria Responses shall not exceed: **10 (ten)**. Attached page limit does not include the four-page Part D - Proposal Form, or any Billing Rates or Price Proposals.  
  
Criteria Responses shall be presented in **8-1/2" X 11" format**, except for a minimal number of larger sheets (e.g., 11" x 17") that may be used (e.g., for schedules) if they are folded to 8-1/2" X 11" size. Large sheets will count as multiple pages at 93.5 square inches or fraction thereof per page, unless otherwise noted.  
  
**CAUTION:** Criteria Responses which do not comply with the required page limit or presentation size, may result in disqualification. Further, small print or typeface that is difficult to read may negatively influence evaluation of your submittal and affect scoring for "Quality of Proposal."

CHECKLIST IS CONTINUED NEXT PAGE

[ ] 9. N/A

[ ] 10. Parts A, B and C of Form 25A270 and the proposed Statement of Services shall not be returned to the Contracting Agency. **Submittals shall consist of the following applicable items assembled as follows and in the order listed:**

[ ] 10.1 Completed Part D - Proposal Form (generally at least one copy with original signature) and Responses to all evaluation criteria -- **except Billing Rates, Price Proposals** – attached. Each copy shall be fastened with one staple in the upper left corner. No other form of binding shall be used and no cover and no transmittal letter will be included. **CAUTION:** Failure to comply with this instruction will negatively influence evaluation of Submittal.

[ ] 10.2 Number of copies of Part D (**all pages**) and Criteria Responses (**except Billing Rates, and Price Proposals**) required is: **Six (6), if hand-delivered.**

[ ] 10.3 If **Billing Rates and/or Price Proposals** are required, **one copy** bound with one staple in the upper left corner separately enclosed in a sealed envelope marked on the outside to identify it as a **Billing Rates or Price Proposal** and the names of the Project and Offeror. Each **Billing Rates or Price Proposal** must be signed and dated by the person who prepares it (may be different signatures for each Subcontractor).

[ ] 10.4 If Item 9, above, is completed for this RFP Package, any submittal items described therein. Unless otherwise stated, one copy only, bound appropriately.

[ ] 10.5 Pre-Audit Statement, DOT&PF Form 25A257, shall **not** be provided with Submittal. (See Notice #10 on page 3 of Part A - RFP.)

[ ] 10.6 **CAUTION:** If you replicate (other than by photocopy) Part D or any form in lieu of completing the forms provided by the Contracting Agency, provide a signed certification that lists such forms and attests that they are exact replicas of that issued by the Contracting Agency. Changed forms may result in rejection at the Contracting Agency's discretion. Any alteration – other than completion of the required entries – may be cause for rejection without recourse.

[ ] 11. Deliver **submittals in one sealed package** to the location and before the submittal deadline cited in Part A - RFP. **Mark the outside of the package** to identify the Project and the Offeror. Proposals must be received prior to the specified date and time. Late proposals will not be opened (2 AAC 12.250).

# EVALUATION CRITERIA

Criteria with a weight of zero are not applicable and should be disregarded. If a weight is not indicated for any criterion, telephone the Agency Contact person identified at the top of page 1 of Part A - RFP.

## SECTION I - TECHNICAL PROPOSAL

### 1. Objectives and Services

1. Weight: 10

Response must **demonstrate your comprehension of the objectives and services** for the proposed contract. Do not merely duplicate the Statement of Services provided with this RFP. Also, consider if Statement of Services is sufficiently explicit; are expressed or implied schedules attainable/economically feasible; etcetera? Explain. **Define any assumptions made** in formulating Criteria Response. If design services for a construction project are included, express any opinions regarding alternative design considerations that could impact construction costs.

### 2. Methods

2. Weight: 15

Response must outline the methods for accomplishing the proposed contract or, if methodology is contained in the proposed Statement of Services, address its adequacy. Describe what, when, where, how, and in what sequence the work will be done. Address how proximity to the Project site, *particular* geographic familiarity, experience, and capabilities of your firms (Offeror and Proposed Subcontractors) and Project Staff might *specifically* contribute to the proposed methods. Identify the amount and type of work to be performed by any Subcontractors. Consider how each task may be carried out; what services or interaction required from/with the Contracting Agency; etcetera. Suggest alternatives, if appropriate. Identify any **distinct and substantive qualifications** for undertaking the proposed contract such as the availability of specialized equipment or unique approaches or concepts **relevant to the required services** which the firms may use.

### 3. Management

3. Weight: 10

Response must describe the administrative and operational structures that will be used for performing the proposed contract. For example consider: who will have overall responsibility for the contract? Who will have direct responsibility for specific disciplines? What will the lines of authority be? For any individual who would be in "responsible-charge" (reference AS 08.48) as an Architect, Engineer, Land Surveyor or Landscape Architect, so state and list his/her Alaska professional registration number. A graphic depiction is preferred in your response to this criterion. Additionally, the Contracting Agency may want to inspect work products in progress and have a close ongoing working relationship with your Project Staff. Accordingly, your response should also identify where the various contract services will be performed, *in proximity to the Contracting Agency's office* and how communications will be maintained between your Project Staff, the Contracting Agency, and (as applicable) any other government agencies or the public.

### 4. Proposed Project Staff

4. Weight: 20

Response must name the individuals to perform the following **FUNCTIONS** plus any other professional/technical functions you deem essential to perform the services:

1. Contract Management (contract compliance)
2. Project Management (single point-of-contact directly engaged in contract performance)
3. Civil Engineering\*
4. Land Surveying\*
5. Photogrammetry

\*All personnel acting in responsible charge for all Architectural, Engineering, Land Surveying, and Landscape Architecture functions require an Alaska Registration and must be identified in your proposal.

Continued Next Page

Describe the work to be performed by the individuals you name to perform essential functions and detail their specific qualifications and substantive **experience directly related to the proposed contract**. A response prepared specifically for this proposal is required. Marketing resumes often include non-relevant information that may detract from the evaluation of proposal. Lists of projects are not useful. Focus on individual's specific duties and responsibilities and how project experience is relevant to the proposed contract.

For each person named, identify their: employer, professional discipline or job classification and state of residency. List at least three professional references (contact persons and telephone numbers) for each person.

### 5. Workload and Resources

5. Weight: 20

Response must: (1) discuss both current and potential time commitments of your proposed Project Staff to all clients; (2) discuss the projected workload of each firm (Offeror and Proposed Subcontractors) for all clients; and (3) demonstrate adequate support personnel, facilities and other resources to provide the services required. Provide a list of current contracts with the Contracting Agency in which your proposed Project Staff are participating (include all current contracts statewide with regions, divisions, etc.).

Briefly address capabilities for providing additional services and/or services under an accelerated schedule. Address capacity to reassign personnel, equipment and facilities whenever the proposed contract would not require such capabilities or was delayed.

### 6. Past Performance & Quality Control

6. Weight: 20

Response must describe previous projects the project team has worked on that are related in size and scope to this project. Describe the dollar amount of each project, a brief narrative of the successes of the project, and the year of completion. Address how the experience will help your team to perform under this contract. Provide references (contact name and phone number) for each project. Indicate which of the proposed firms and project staff was involved in each project. The State reserves the right to investigate referenced projects, contact references and research other projects that the respondent has worked on.

Include in your response a description of your firm's quality control process and how this process has affected the quality of your deliverables. Use specific examples.

### 7. Quality of Proposal

7. Weight: 5

**Offerors do not respond to this criterion.** Committee members will rate this criterion based on their perception of the clarity, completeness and presentation of submittal. Note: This criterion is **NOT** used to evaluate color, graphics or other visual techniques except as they may detract from legibility.



8. N/A

8. Weight: 0

9. N/A

9. Weight: 0

## SECTION II - PREFERENCES

**10. Disadvantaged Business Enterprises****49 CFR 26****10. Weight: 0**

This solicitation is being conducted under the Department's Race Neutral Disadvantaged Business Enterprise (DBE) program for construction related professional services solicitations. Therefore, there is no DBE goal for this solicitation and the criterion has a weight of zero (0).

See rfp-a, section 15. Special Notices, paragraph 15.2.

**11. Alaska Bidder (Offeror) Preference****23 CFR 172.7(a)(1)(iii)(C), AC 150/5100-14E, and 2 AAC 12.260(e)****Weight shall be "0" if any federal funding, otherwise weight shall be at least "10".****11. Weight: 0**

To be granted this preference:

***Offeror must claim the Alaska Bidder (Offeror) Preference on page one of Part D Proposal Form. In claiming the Alaska Bidder (Offeror) Preference on page one of Part D, the Offeror is certifying that they meet the following requirements per AS 36.30.990:***

- (A) Firm holds a current Alaska Business License;
- (B) Proposal is submitted under the name as appearing on the Firm's current Alaska Business License;
- (C) Firm has maintained a place of business within Alaska, staffed by the Firm or an employee of the Firm, for a period of six months immediately preceding the date of the offer;
- (D) Firm is incorporated or qualified to do business under the laws of the State of Alaska, is a sole proprietorship, and the proprietor is a resident of Alaska, is a limited liability company organized under AS 10.50 and all members are residents of Alaska, or is a partnership under AS 32.06, or AS 32.11 and all partners are residents of Alaska; and
- (E) If the Firm is a Joint Venture, it is composed entirely of entities that qualify under (A) - (D).

*Alaska Bidder (Offeror) Preference will be scored: Rating x Number of Evaluators x Weight = Criterion Score.*

*Rating will be as follows:*

*An Alaska Offeror's preference (i.e., a Rating of 5) will be assigned to the proposal of an Offeror who certifies (by claiming the preference on page one of Part D) that they are an Alaska Bidder (Offeror) as described above.*

*No Alaska Offeror's preference (i.e., a Rating of 0) will be assigned to the proposal of an Offeror who does not certify (by failure to claim the preference on page one of Part D) that it qualifies as an Alaska Bidder (Offeror) as described above.*

No narrative response to this criterion is required within the Offeror's Proposal.

## SECTION III - PRICE

If price is not an Evaluation Criterion, weights for both Criterion #12 and #13 shall be "0". If price is an Evaluation Criterion, the sum of weights for Criterion #12 and #13 shall be at least "10", and all Offerors shall submit Price Proposals in the specified format(s).

See item #9, under Notices in Part A – RFP, regarding statutory and regulatory provisions about price competition and item #10.3, in Part B – Submittal Checklist, regarding procedure for submittal of Billing Rates and/or Price Proposals. Cost terminology is explained on page 2 of the Pre-Audit Statement (DOT&PF Form 25A257).

CAUTION: Submittal of Offeror's or Subcontractor's "standard" rate schedules or other pricing documents which are not in required format will be non-responsive if they do not allow direct comparison with other responsive proposals.

Rates and costs proposed by the Offeror selected for contract negotiations may be investigated for reasonableness and allowability in accordance with AS 36.30.400, .420 & .480, 2 AAC 12.550 and the contract cost principles in 48 CFR Part 31. Unsupported rates and costs may be disallowed or result in termination of negotiations, or contract award. All proposed rates and the negotiated contract rates will be public information.

12. Labor Billing Rates (Required Format)

12. Weight: 0

Provide a proposed total hourly Billing Rate (i.e., inclusive of Direct Cost of Direct Labor, all Indirect Costs, and Fee) only for each of the job **FUNCTIONS** listed below. Note: Some of these functions may be performed by one or more employees of the Offeror or Subcontractors; consequently, an individual might be billed under the contract at different rates appropriate to the functions performed. **Only the maximum rate paid to any individual for each listed job function** – regardless of employer (Offeror or Subcontractor) – **must be provided and will be considered for this response**. Rates for lower paid individuals or for other job functions, if any, will be addressed during contract negotiations.

|                        |               |                          |
|------------------------|---------------|--------------------------|
| 1. Contract Management | (Estimated at | % of total labor effort) |
| 2. Project Management  | (Estimated at | % of total labor effort) |
| 3.                     | (Estimated at | % of total labor effort) |
| 4.                     | (Estimated at | % of total labor effort) |
| 5.                     | (Estimated at | % of total labor effort) |

\*In accordance with the submittal Checklist ('rfp-b'), item 10.3, *Billing Rates must be signed and dated by the person who prepares it (may be different signatures for each Subcontractor)*

Response will be scored as follows: The maximum hourly rates proposed for the job functions listed above will be multiplied by the percentage of total labor effort (estimated above) and then summed to obtain an aggregate rate for each Offeror. If more than one rate is provided for any job function, only the highest rate will be used. Each Offeror's score will be calculated using the following equation – except that the **score will be zero if a rate for each listed function is not provided by an Offeror**.

$$\frac{(\text{Lowest aggregate rate from all Offerors}) \times (\text{MPP}^*)}{(\text{Offeror's aggregate rate})} = \text{Offeror's Criterion Score}$$

\*MPP = Maximum Possible Points = (5) x (Number of Evaluators) x (Weight)

If no federal funding, then per AS 36.30.250(b), aggregate rates shall be reduced for the above calculation by the following applicable percentages when the rates are from Offerors that **designate preferences on page one of Part D**.

- ALASKA BIDDER (OFFEROR) PREFERENCE [2 AAC 12.260(d)]..... 5%
- ALASKA VETERAN-OWNED BUSINESS PREFERENCE [AS 36.30.175] (maximum \$5000)..... 5%
- and only ONE of the following:
- EMPLOYMENT PROGRAM PREFERENCE [AS 36.30.170(c)] ..... 15%
- DISABLED SOLE PROPRIETOR OR 50% DISABLED EMPLOYEES [AS 36.30.170(e & f)]..... 10%

To claim employment or disabled preference, Offeror must be on the appropriate Alaska Division of Vocational Rehabilitation list at the time designated for opening (i.e., receipt) of proposals.

**13. Total Price Proposal (Required Format)****13. Weight: 0**

Provide proposed costs for all labor, subcontracts, equipment, expenses, etc., and a proposed amount for Fee. Submit a separate price proposal in the following format for the Offeror and for each Subcontract (first, second, third tier, etc.) that may exceed \$25,000. Each price proposal must be signed and dated by the person who prepares it. Note that the PRICES of the next lower tier subcontracts must be listed as COSTS in Item #4 (Other Direct Costs) of the price proposal for the next higher tier contractor so that the price of all subcontracts "roll-up" into the Offeror's total price proposal.

1. Show project title, project number, and Offeror or Subcontractor Name.

**2. Direct Costs of Direct Labor (DCDL)**

Show the estimated costs for each job classification of employees proposed for the contract. List under the following headings. Names required only for key staff and/or persons in "responsible-charge" (Ref: AS 08.48). **Hourly Rates must not include Indirect Costs or Fee.**

| <u>Job Classification</u> | <u>Name</u> | <u>Total Hours</u> | <u>Rate(\$/hr)</u> | <u>Proposed Costs (\$)</u> |
|---------------------------|-------------|--------------------|--------------------|----------------------------|
|                           |             |                    |                    | Total DCDL: \$ _____       |

**3. Indirect Costs (IDC)**

These costs include what are generally referred to as 1) Fringe Benefits and 2) Overhead (including direct and indirect costs of Indirect Labor). Show the Proposed IDC Rate as a percentage of Direct Costs of Direct Labor and the product (IDC Amount) of that Rate multiplied by the total DCDL.

IDC Rate: \_\_\_\_\_ % IDC Amount: \$ \_\_\_\_\_

**4. Other Direct Costs (ODC)**

These costs include: subcontracts, equipment (company owned or rented), and reimbursable expenses (e.g., transportation, food and lodging, reproduction) – if not included in Indirect Costs. List proposed costs under the following headings. If multiples of an item required, list the proposed quantity, unit rate, and total cost for each. **Costs must be based on actual costs to the offeror or the subcontractor, without any profit or other markup.**

| <u>Item</u> | <u>Quantity</u> | <u>Cost (\$/Unit)</u> | <u>Proposed Costs (\$)</u> |
|-------------|-----------------|-----------------------|----------------------------|
|             |                 |                       | Total ODC: \$ _____        |

**5. Total Proposed Cost**

Sum of DCDL + IDC + ODC

Total Cost: \$ \_\_\_\_\_

**6. Proposed Fee**

List a proposed amount (Contract Fee is generally negotiated using a structured Fee analysis of proposed costs).

Proposed Fee: \$ \_\_\_\_\_

**7. Total Proposed Price**

Sum of Total Proposed Cost plus Proposed FEE.

Total Price: \$ \_\_\_\_\_

8. *In accordance with the Submittal Checklist ('rfp-b'), item 10.3, Price Proposals must be signed and dated by the person who prepares it (may be a different signature for each subcontractor).*

Response will be scored as follows: 
$$\frac{(\text{Lowest Total Proposed Price}) \times (\text{MPP}^*)}{(\text{Offeror's Total Proposed Price})} = \text{Criterion Score}$$

\*MPP = Maximum Possible Points = (5) x (Number of Evaluators) x (Weight)

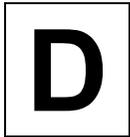
If no federal funding, then per AS 36.30.250(b), total price shall be reduced for the above calculation by the following applicable percentages when the prices are from Offerors **designate preferences on page one of Part D.**

- ALASKA BIDDER (OFFEROR) PREFERENCE [2 AAC 12.260(d)]..... 5%
- ALASKA VETERAN-OWNED BUSINESS PREFERENCE [AS 36.30.321(f)] (maximum \$5,000)..... 5%
- and only ONE of the following:
- EMPLOYMENT PROGRAM PREFERENCE [AS 36.30.321(b)] ..... 15%
- DISABLED SOLE PROPRIETOR [AS 36.30.321(d) / (k)] ..... 10%

To claim employment or disabled preference, Offeror must be on the appropriate Alaska Division of Vocational Rehabilitation list at the time designated for opening (i.e., receipt) of proposals.

# Alaska Department of Transportation & Public Facilities PROPOSAL FORM

PART



**THIS FORM MUST BE THE FIRST PAGE OF PROPOSAL.** Attach criteria responses as explained in Part B - Submittal Checklist. No transmittal letter or cover sheet will be used.

### PROJECT

|                               |   |
|-------------------------------|---|
| Project Numbers-State .....   | : Z592300000 & CFAPT00691                       |
| Project Numbers-Federal ..... | AIP 3-02-0468-003-2022 & AIP 3-02-0255-003-2023 |
| Project Title.....            | : CR 2020 Airport Surveys and ALP Updates       |
| RFP No.....                   | : 25212022                                      |

### OFFEROR (CONTRACTOR)

|  |  |
|--|--|
| Contractor .....   | :  |
| Street .....   | :  |
| P.O. Box .....   | :  |
| City, State, Zip .....   | :  |
| Alaska Business License Number .....                                       | :  |
| Federal Tax Identification No. ....  | :  |
| DOT&PF DBE Certification No. (if any).....                                 | :  |
| Individual(s) to sign contract.....  | :  |
| Title(s).....  | :  |
| Type of business enterprise (check one) ....                               | : [    ] Corporation in the state of . : |
| [    ] Individual      [    ] Partnership      [    ] Other(specify) ..... | :  |

### ALASKA STATUTORY PREFERENCES (IF NO FEDERAL FUNDING)

|   |  |
|---|--|
| Check the applicable preferences that you claim for the proposed contract (reference Criteria 11, 12 & 13 in Part C): |  |
| [    ] Alaska Bidder (Offeror) <b>AND&gt;&gt;</b>   | [    ] Veterans <b>AND&gt;&gt;</b> [    ] Employment Program <u>or</u> [    ] Disabled Persons |

### PROPOSED SUBCONTRACTOR(S)

| <u>Service, Equipment, etc.</u> | <u>Subcontractor &amp; Office Location</u> | <u>AK Business License No.</u> | <u>DOT&amp;PF DBE Certification No.</u> |
|---------------------------------|--|--------------------------------|---|
|                                 |  |                                |   |

### CERTIFICATIONS

|   |                    |
|---|--------------------|
| <p>I certify: that I am a duly authorized representative of the Contractor; that this Submittal accurately represents capabilities of the Contractor and Subcontractors identified herein for providing the services indicated; and that the requirements of the Certifications on page 2 and 3 of this Part D for 1) Alaska Licenses/Registrations, 2) Insurance, 3) Federal-Aid Contracts exceeding \$100,000, 4) Cost and Pricing Data, 5) Trade Restrictions/Suspension/Debarment, 6) Foreign Contracting, 7) DBE Commitment, and 8) Former Public Officer – will be complied with in full. These Certifications are material representations of fact upon which reliance will be placed if the proposed contract is awarded. Failure to comply with these Certifications is a fraudulent act. The Contracting Agency is hereby authorized to request any entity identified in this proposal to furnish information deemed necessary to verify the reputation and capabilities of the Contractor and Subcontractors. This proposal is valid for at least ninety days.</p> |                    |
| Signature .....   | _____              |
| Name .....  | Date:              |
| Title.....  | Telephone (voice): |
|   | (fax):             |
|   | Email Address:     |

## CERTIFICATION FOR ALASKA BUSINESS LICENSES AND REGISTRATIONS

PART

D

Contractor and all Subcontractors shall comply with the following applicable requirements of Alaska Statutes:

1. **Alaska Business License** (Form 08-070 issued under AS 43.70) at the time contract is awarded as required by AS 36.30.210(e) for Contractor and all Subcontractors. In accordance with Administrative Manual, Section 81.120, proof of application for an Alaska Business license will satisfy this requirement. Per AAM 81.120, acceptable evidence that the offeror possesses a valid Alaska business license consists of any one of the following:
  - a. Copy of the Alaska business license.
  - b. A canceled check that demonstrates payment for the Alaska business license fee.
  - c. A copy of the Alaska business license application with a receipt stamp from the State's business license office.
  - d. A sworn notarized affidavit that the bidder/offeror applied and paid for the Alaska business license.
  - e. Other forms of evidence acceptable to the Department of Law.
2. **Certificate of Registration** for each individual to be in "responsible charge" (AS 08.48.341(11-14)) for Architecture, Engineering, Land Surveying, or Landscape Architecture (Form 08-2407 issued under AS 08.48.211) issued prior to submittal of proposal. Associates, consultants, or specialists under the supervision of a registered individual in "responsible charge" are exempt from registration requirements (AS 08.48.331).
3. **Certificate of Authorization for Corporations, Limited Liability Companies, and Limited Liability Partnerships** for Contractors and Subcontractors for Architecture, Engineering, Land Surveying, or Landscape Architecture (Form 08-2407 issued under AS 08.48.241). Entities offering to provide Architectural, Engineering or Land Surveying services do not need to be registered for such disciplines at the time proposal is submitted provided they obtain registration prior to contract award (AS 08.48.241).
4. **Certificate of Incorporation** (Alaska firms) or **Certificate of Authorization for Foreign Firm** ("Out-of-State" firms). All corporations, regardless of type of services provided, must have one of the certificates (AS 10.06.218 and other sections of Title 10.06 - Alaska Corporations Code).
5. **Current Board of Director's Resolution** for incorporated Contractors and incorporated Subcontractors for Architecture, Engineering, Land Surveying or Landscape Architecture (reference AS 08.48.241) that names the person(s) designated in "responsible charge" for each discipline. Such persons shall be licensed in Alaska and shall participate as project staff in the Contract/Subcontracts.
6. **All partners** in a Partnership to provide Architectural, Engineering, Land Surveying, or Landscape Architecture **must be legally registered in Alaska** prior to submittal of proposal for at least one of those disciplines (AS 08.48.251) which the Partnership offers.
7. **Joint Ventures**, regardless of type of services provided, must be licensed/registered in the legal name of the Joint Venture as used in this proposal (AS 43.70.020 and 43.70.110(4)).
8. **Contracts for Architecture, Engineering, Land Surveying, or Landscape Architecture** may not be awarded to individuals, corporations or partnerships not in compliance, respectively, with the provisions of paragraph 2, 3, and 6, above (AS 36.90.100).

**For information about licensing, Offerors may contact the Alaska Department of Commerce, Community, and Economic Development, Division of Corporations, Business and Professional Licensing at P.O. Box 110806, Juneau, AK 99811-0806, or at Telephone (907) 465-2550, or at Internet address: <https://www.commerce.alaska.gov/web/cbpl>**

## CERTIFICATION FOR INSURANCE

Contractor will ensure that it and all Subcontractors have insurance coverage to effectuate the requirements of DOT&PF Form 25A269, Indemnification and Insurance.

## CERTIFICATION FOR FEDERAL-AID CONTRACTS EXCEEDING \$100,000

The individual signing this proposal certifies to the best of his or her knowledge and belief, that:

- (1) No federal appropriated funds have been paid, by or on behalf of the Contractor, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the Contractor shall complete and submit Standard Form-LLL, Disclosure of Lobbying Activities, in accordance with its instructions. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

This certification is a material representation of fact upon which reliance will be placed if the proposed contract is awarded. Submission of this certification is a prerequisite for making or entering into the proposed contract imposed by Section 1352, Title 31, U.S. Code. The Contractor also agrees by submitting this proposal that Contractor shall require that the language of this certification be included in all lower tier subcontracts which exceed \$100,000 and that all such Subcontractors shall certify and disclose accordingly.

**CERTIFICATION – COST AND PRICING DATA**

In accordance with AS 36.30.400, any cost and pricing data submitted herewith, or in any future price proposals for the proposed contract, will be accurate, complete and current as of the date submitted and will continue to be accurate and complete during the performance of the contract, if awarded.

The Contractor certifies that all costs submitted in a current or future price proposal are allowable in accordance with the cost principles of the Federal Acquisition Regulations of Title 48, Code of Federal Regulations (CFR), Part 31 and that the price proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR 31. In addition, all known material transactions or events that have occurred affecting the firm's ownership, organization and indirect costs rates have been disclosed.

**CERTIFICATION – TRADE RESTRICTIONS AND SUSPENSION AND DEBARMENT**

The individual signing this proposal certifies to the best of his or her knowledge that the Contractor and any subcontractors are in compliance with DOT&PF 25A262 Appendix A, General Conditions, Article A25 and Article A26.

**CERTIFICATION - FOREIGN CONTRACTING**

By signature on this solicitation, the offeror certifies that all services provided under this contract by the contractor and all subcontractors shall be performed in the United States. If the offeror cannot certify that all work is being performed in the United States, the offeror must contact the Contracts Officer to request a waiver at least 10 days prior to proposal deadline. The offeror must provide with their submission a detailed description of the portion of work being performed outside the United States, where, by whom, and the reason the waiver is necessary. Failure to comply with this requirement may cause the state to reject the bid or proposal as non-responsive, or cancel the contract.

**CERTIFICATION – DBE COMMITMENT**

For federal-aid projects with DBE goals: if the Contractor submits a utilization report that proposes to use certified DBE's in the performance of work, the Contractor certifies that every effort will be made to meet or exceed the proposed percentage.

In addition, the Contractor certifies that a Consultant Registration form shall be submitted to the DBE/Civil Rights Office for their firm and each subconsultant prior to award.

**CERTIFICATION – FORMER PUBLIC OFFICER**

Any proposer listing as a member of the proposer's team a current public officer or a former public officer who has left state service within the past two years must submit a sworn statement from that individual that the Alaska Executive Branch Ethics Act does not prohibit his or her participation in this project. If a proposer fails to submit a required statement, the proposal may be deemed nonresponsive or nonresponsible, and rejected, depending upon the materiality of the individual's proposed position.

The Ethics Act bars a public officer who leaves State service from representing, advising or assisting a person for compensation regarding a matter –

that was under consideration by the administrative unit in which the officer served, and in which the officer participated personally and substantially through the exercise of official action,

for two years after leaving state service. See AS 39.52.180(a). "Public officer" includes a state employee, a member of a state board and commission, and a trustee of the Exxon Valdez Oil Spill Trust. "Official action" means a recommendation, decision, approval, disapproval, vote, or other similar action or inaction. Possible remedies for violating the bar include penalties against the former public officer and voiding the state grant, contract or lease in which the former public officer is involved.

Additionally, former public officers may not disclose or use information acquired in the course of their official duties that could in any way result in a benefit to the former public officers or their families, if the information has not been disseminated to the public or is confidential by law, without appropriate authorization. See AS 39.52.140.

Each current or former public officer is responsible for determining whether he or she may serve in the listed capacity on this project without violating the Ethics Act. A form that a former public officer may use to certify their eligibility is attached. Current public officers may seek advice from their designated ethics supervisors concerning the scope and application of the Ethics Act. Former public officers may, in writing, request advice from the Office of the Attorney General, Ethics Attorney concerning the application of the Ethics Act to their participation in this project. It is the responsibility of the individual and the proposer to seek resolution in a timely manner of any question concerning the individual's eligibility.



# PRE-AUDIT STATEMENT

(Confidential when completed)

Submit this form, completed and with required attachments, **only** if specifically requested, and **only** to the following address: DOT&PF, Attn: Office of Internal Review, PO Box 196900, Anchorage, AK 99519-6900 OR to fax number: (907) 269-0733. Confidentiality may not be ensured if delivered otherwise.

Evaluation of this statement may preclude the necessity for a comprehensive on-site audit of Contractor's records. Entries may be handwritten, if legible.

1. Identify your financial year including beginning and ending dates .....
2. List your actual costs, by the following categories, for your most recently ended fiscal year. Cost Terminology is defined on the reverse.
  - 2a. Direct Labor ..... \$
  - 2b. Attach a Trial Balance with grouping of accounts used to arrive at the following Indirect Cost amounts:  
Fringe Benefits ..... \$  
General & Administrative Expenses ..... \$  
  
Sum ..... \$
  - 2c. Indirect Cost Rate (Sum of 2b / 2a) .....Percent (%):
3. If your records have been audited within the last two years by a government agency, attach a copy of the Audit Report.
4. Attach copies of your most recent Internal and Audited (if performed by other than the Contracting Agency) Financial Statements.
5. Are your accounting methods for recording contract costs based on a job or project identified cost system?  
[ ] Yes [ ] No If your response is "No", attach an explanation of your project cost accounting system.
6. If you charge projects based on unit rates (e.g.: for computer time, laboratory tests, copies or equipment use, etc.) attach a list of such items and unit rates.
7. Do you offset revenue received from unit rate payments against the applicable Indirect Cost Accounts?  
[ ] Yes [ ] No

***If you have questions concerning this document, please telephone our Auditors at (907) 269-0715.***

### CERTIFICATION

I certify that I am a duly authorized representative of the Contractor and that information and materials enclosed within this statement accurately represent financial records of the office listed below.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Name: \_\_\_\_\_ Telephone: \_\_\_\_\_  
Title: \_\_\_\_\_ Fax: \_\_\_\_\_  
Contractor: \_\_\_\_\_ Email: \_\_\_\_\_

Office Address for which this Submittal is made: Address where Accounting Records are maintained,  
if not at Office Address:  
Street: :  
P.O. Box: :  
City, State, Zip: :

## COST TERMINOLOGY

**DIRECT LABOR** - Base salary or wages paid to employees charged directly to contracts or projects.

**OTHER DIRECT COSTS** - Actual costs of other than Direct Labor. Some examples of Other Direct Costs are subcontracts, equipment (company owned or rented), unit rate items and reimbursable expenses (travel, computer charges, reproduction, etc.).

**INDIRECT COST RATE** – A computed rate developed by adding all of a firm's general and administrative costs, and all other indirect costs, then dividing by a base value, usually direct labor dollars to get a percentage. This rate is normally compiled based on the consultant's applicable fiscal year.

**INDIRECT COSTS** - Indirect costs consist of allowable expenses which, because of their incurrence for common or joint cost objectives, must be prorated (allocated) to jobs or contracts using a specified Indirect Cost Rate. A cost objective is a function, organizational subdivision, contract, project or work unit for which cost data is accumulated under the Contractor's accounting system. Generally, Indirect Costs are segregated into the following categories: Fringe Benefits and General & Administrative Expenses .

Fringe Benefits - Costs for items such as:

Workers' Compensation Insurance  
Deferred Compensation/Retirement Plans

Vacation Time and Authorized Leave  
Social Security and Unemployment Taxes  
Group Medical Plan and Life Insurance Premiums

Overhead costs for items such as the following, if they are not included in Direct Costs:

Indirect Labor (Supervisory, Administrative, etc.)  
Travel, Food and Lodging  
Maintenance and Depreciation of Equipment/Computers  
Business Insurance Premiums Not Billed to Clients  
Rent, Heat, Power, Light and Janitorial Services

Office Supplies  
Communications  
Reproduction Costs  
Recruiting Expense  
Rentals of Equipment/Computers

**UN-ALLOWABLE COSTS** - Costs for the following items and certain other costs defined in 48 CFR Part 31 and related regulations are not allowable. Such costs shall not be included as Indirect Costs or in the calculation of the Indirect Cost Rate.

Alcoholic Beverages  
Advertising  
Interest and Other Financial Costs  
Contributions and Donations  
Federal Income Taxes  
Goodwill

Organization Costs  
Lobbying Costs  
Bad Debts  
Fines and Penalties  
Entertainment  
Keyman Insurance

**NOTE: IF YOUR ACCOUNTING SYSTEM WHOLLY OR PARTIALLY ALLOCATES INDIRECT COSTS ON OTHER THAN A DIRECT LABOR BASIS, ATTACH A DESCRIPTION OF THE COST POOLS OR SERVICE CENTERS YOU USE AND IDENTIFY THE INDIRECT COSTS RATE(S) AND BASE(S).**

# INDEMNIFICATION AND INSURANCE

## Appendix D in Professional Services Agreements

|                     |  |
|---------------------|--|
| IRIS Program No:    | Z592300000 /<br>CFAPT00691                                 |
| Federal Project No: | AIP 3-02-0468-<br>003-2022 /<br>AIP 3-02-0255-<br>003-2023 |
| Date Prepared:      | 8/24/2020  |

CONTRACTOR shall include the provisions of this form in all subcontracts that exceed \$25,000 and shall ensure Subcontractor's compliance with such provisions.

### ARTICLE D1 INDEMNIFICATION

D1.1 The CONTRACTOR shall indemnify, hold harmless, and defend the CONTRACTING AGENCY from and against any claim of, or liability for negligent acts, errors or omissions of the CONTRACTOR under this Agreement. The CONTRACTOR shall not be required to indemnify the CONTRACTING AGENCY for a claim of, or liability for, the independent negligence of the CONTRACTING AGENCY. If there is a claim of, or liability for, the joint negligent error or omission of the CONTRACTOR and the independent negligence of the CONTRACTING AGENCY, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. "CONTRACTOR" and "CONTRACTING AGENCY", as used within this article, include the employees, agents and other contractors who are directly responsible, respectively, to each. The term "Independent Negligence" is negligence other than in the CONTRACTING AGENCY's selection, administration, monitoring, or controlling of the CONTRACTOR and in approving or accepting the CONTRACTOR's Work.

D1.2 The CONTRACTOR shall exercise that degree of skill, care and judgment commensurate with the professional standards for the services of a similar nature. When such standards are in dispute, they shall be established by a panel of three qualified, impartial professionals objectively selected and appointed by the Appeals Officer.

D1.3 The CONTRACTOR shall correct, through re-performance at its expense, any services which are deficient or defective because of the CONTRACTOR's failure to perform said services in accordance with professional standards, provided the CONTRACTING AGENCY has notified the CONTRACTOR in writing within a reasonable time, not to exceed 60 days, of the discovery of any such deficiency during the performance of the services and within 12 months of the date of final payment under this Agreement.

### ARTICLE D2 INSURANCE

D2.1 Without limiting the CONTRACTOR's indemnification, it is agreed that CONTRACTOR shall purchase at its own expense and maintain in force at all

times for the duration of this Agreement, plus one year following the date of final payment, the following policies of insurance. Where specific limits are shown, it is understood that they shall be the minimum acceptable limits. If the CONTRACTOR's policy contains higher limits, the CONTRACTING AGENCY shall be entitled to coverage to the extent of such higher limits. Certificates of insurance must be furnished to the CONTRACTING AGENCY and incorporated into this Agreement with copies attached to this document. Certificates must provide for the CONTRACTING AGENCY to receive notice of any policy cancellation or reduction per AS 21.36 Sections 210-310. Failure to furnish certificates of insurance or lapse of the policy is a material breach and grounds for termination of the CONTRACTOR's services and may preclude other Agreements between the CONTRACTOR and the CONTRACTING AGENCY.

**D2.1.1 Worker's Compensation Insurance:** The CONTRACTOR shall provide and maintain, for all employees engaged in work under this Agreement, coverage as required by AS 23.30.045, and; where applicable, any other statutory obligations including but not limited to Federal USL&H and Jones Act requirements. The policy(s) must waive subrogation against the State of Alaska.

**D2.1.2 Commercial General Liability Insurance:** Such policy shall have *minimum* coverage limits of \$300,000 combined single limit per occurrence, covering all business premises and operations used by the Contractor in the performance of services under this agreement. The policy shall be written on an "occurrence" form and shall not be written as a "claims-made" form unless specifically reviewed and agreed to by the CONTRACTING AGENCY.

**D2.1.3 Comprehensive Automobile Liability Insurance:** Such policy shall have *minimum* coverage of \$300,000 combined single limit per occurrence covering all vehicles used by the Contractor in the performance of services under this agreement.

**D2.1.4 Professional Liability (E&O) Insurance:** Covering all negligent errors or omissions, and negligent acts, which the CONTRACTOR, Subcontractor or anyone directly or indirectly employed by them, make in the performance of this Agreement which result in financial loss to the State of Alaska. Limits required are per the following schedule:



# PROPOSED STATEMENT OF SERVICES

## APPENDIX B

|                            |  |
|----------------------------|--|
| <b>IRIS Project No:</b>    | Z537250000 / CFAPT00691                        |
| <b>Federal Project No:</b> | AIP 3-02-0468-003-2022 / AIP 3-02-055-003-2023 |
| <b>Date Prepared:</b>      | 8/13/2020                                      |

### Central Region Aeronautical Surveys 2020

#### **RFP No. 25212022**

Chevak Airport Rehabilitation – Z537250000  
Scammon Bay Airport Improvements – CFAPT00691

#### **ARTICLE B1** **INDEX**

##### **B1.1 Index of Articles.**

| <b><u>Article</u></b> | <b><u>Group</u></b> | <b><u>Task #</u></b> | <b><u>Subject</u></b>                               |
|-----------------------|---------------------|----------------------|---|
| B1                    |                     |                      | Index and Definitions                               |
| B2                    |                     |                      | Exhibits  |
| B3                    |                     |                      | Codes, Regulations and Standards                    |
| B4                    |                     |                      | Administrative Requirements                         |
| B5                    |                     |                      | Management  |
| B6                    |                     |                      | Project Location and Description                    |
| B7                    |                     |                      | Summary of Contract Services                        |
| B8                    |                     |                      | General Criteria for Surveying and Mapping Services |
| B9                    | A - B               | 1, 3                 | Survey and Mapping Services                         |
| B10                   |                     |                      | Airport Layout Plan (NIC)                           |

The work listed as “NIC” will not be included in the initial Contract. The Contracting Agency is under no obligation to use the Contractor for these services; however, at the Contracting Agency’s discretion, the scope and cost of work under one or more of these Articles may be negotiated, and the Contract amended accordingly.

#### **Article B2** **Exhibits**

|             |                            |
|-------------|----------------------------|
| Exhibit B-1 | Chevak Survey Request      |
| Exhibit B-2 | Scammon Bay Survey Request |
| Exhibit B-3 | Project Schedule           |

#### **ARTICLE B3** **CODES, REGULATIONS, AND STANDARDS**

##### **B3.1 General**

Perform all studies, reports, and design services in accordance with applicable codes, regulations and standards; professional practice procedures; and commonly recognized construction methods. Consider the geographical location of the project as well as other environmental and site specific constraints when performing services for this project.

### **B3.2 Standards and Guidelines**

Publications that contain the current aviation design standards and guidelines are referenced throughout this Statement of Services. During the period of this agreement these documents may be supplemented, deleted, or revised.

### **B3.3 Units of Measurement**

Use U.S. Customary units of measurement throughout development of the project.

## **ARTICLE B4** **ADMINISTRATIVE REQUIREMENTS**

**B4.1 General.** Perform the Contract in accordance with the requirements and conditions specified in this Statement of Services. Do not perform services or incur billable expenses except as authorized by a Notice-to-Proceed (NTP). The Contracting Agency makes no guarantee that all tasks will be accomplished and reserves the option to terminate the Agreement at any time, irrespective of whether a certain task or tasks have been completed.

**B4.2 Task Authorizations.** The Statement of Services is divided into several work elements or tasks. Provide services as identified and authorized by sequentially numbered NTP. An NTP may authorize a portion of a task, a complete task, or a group of tasks concurrently.

### **B4.3 Project Staff**

All services must be performed by or under the direct supervision of the individuals listed below. Replace, add, or change Project Staff named below only with prior written approval by the Contracting Agency.

**Name**

**Project Responsibilities**

### **B4.4 Professional Registration**

Prepare all work products by or under the supervision of the Registered Engineer or Land Surveyor in responsible charge for the services. These Engineers and Land Surveyors must be currently registered in the State of Alaska and they must sign, seal, and certify as to the accuracy of each final work product for which they are responsible.

### **B4.5 Billing Reports**

Submit billings before the 15th of each month. Provide a two-page (typical) report with each monthly billing for months in which services are performed in a format the Contracting Agency approves. Specifically describe the work completed, problems encountered, and the focus of the effort ahead for prime and subconsultants. For each task, list the dollars expended to date, the remaining dollars needed to complete it, and the estimated percent complete. Include supporting documentation such as receipts for reimbursable expenses and a summary of labor charges with all costs clearly identified. Clearly explain in the report any delayed costs from previous billing periods that are included in the current billing.

### **B4.6 Correspondence**

Include the project name and numbers (State & Federal) on all correspondence pertaining to the project. Provide copies of all outgoing correspondence and originals of all incoming correspondence to the Contracting Agency at least once a week.

#### **B4.7 Documents and Reports**

Prepare documents with solid black letters and double-spaced lines on white, 8.5 inch x 11-inch bond paper. Other size paper may be used for illustrations if they are folded to 8.5 inch x 11-inch size. Print original documents and reports on one side of the paper only. Do not use photographs or multicolored graphics except as specifically approved by the Contracting Agency. Deliver original, camera-ready copies of final documents and reports to the Contracting Agency for a check before printing. Use “active voice” verb forms when writing documents and reports where feasible.

In addition to the hard copy deliverables, submit all final documents and reports in digital form as pdf files and as document files for current version of Microsoft Word (or appropriate Microsoft Office product).

**B4.7.1 Digital Copies.** The Contracting Agency uses Microsoft Windows, Microsoft Office Suite (Word, Excel, et al.) and AutoCAD Civil 3D 2016 software. Submit all digital files in formats fully compatible with the Contracting Agency’s software. Provide formal submittals on CD-R(W), portable hard drive, or as approved by the Project Manager. Provide informal digital submittals as approved by the Project Manager, usually as e-mail attachments.

#### **B4.8 Plans, Maps, and Plats**

Submit with solid black ink on 11 x 17-inch bond paper. Submit final drawings on 11 x 17-inch bond paper and in .pdf format and as described further in the Contract. Drawings not meeting the following standards may be rejected.

**B4.8.1** Unless otherwise stated, conform to the format and standards according to the most current Contracting Agency’s Central Region Aviation Design Drafting Manual for all drawings. These standards are available upon request. Use plot scale as specified by the Contracting Agency.

**B4.8.2** Provide drawings in English (foot units) format. Show distances in horizontal ground foot units. Annotate areas with “Ac.” for acres and “SF” for square feet. Do not use metric units.

**B4.8.3** All linework and lettering must be of professional quality and all line widths and lettering sizes must be of such size that all information can be clearly shown without overlap or confusion. All lettering must follow the Contracting Agency’s specified standards. Lettering and linework must be in the appropriate black drafting ink. Follow the Contracting Agency’s specified standards for AutoCAD style names and fonts. See the current Contracting Agency’s Central Region Aviation Design Drafting Manual.

**B4.8.4** Do not allow linework to run through text. Do not break lines at text; mask the linework using color 155 solids. Place solids on the same layer as the text that the solid lies under.

**B4.8.5** Drawings are to be accurate models of the data shown; e.g., a line labeled N 10°00'00" E 104.35' is electronically drawn exactly as labeled.

**B4.8.6 AutoCAD Drawing:** Perform all work within Model Space by layer. Purge the before submitting. Zoom to extents and remove any extraneous features. Remove all empty layers. Check to ensure that all symbols are the same scale, which should be the plotted scale of the drawing. Include a standard Contracting Agency north arrow, a legend depicting symbols used, a foot unit bar scale, the drawing file name, date of last edit, and standard Contracting Agency border on each sheet within the drawing. Visit the Contracting Agency’s FTP site for an updated English Contracting Agency border. Submit all final drawing files as standalone files with all data contained within the drawing. Bind all Xrefs and promote all data shortcuts.

**B4.8.7** Submit final Plans, Maps, and Plats with solid black ink on 22" x 34" original 4 mil double-mat Mylar film, or as otherwise described. Plot all final drawings so that the ink is on the front surface of the Mylar. Submit a printed Mylar sample to the Contracting Agency before final production.

**B4.8.8 Drafting.** Submit all drawings as AutoCAD Civil 3D 2016 drawing files and plot files. Submit draft and final drawing and plot files on CD ROM disks, or other approved medium. The Contracting Agency will provide a standard layering scheme and plot files for Contractor use. Use drafting procedures outlined in the current Central Region Aviation Design Drafting Manual unless specified elsewhere in the Contract.

**B4.8.9 Contractor Name on Plan Sheets and Documents.** No Contractor logos are allowed on any electronic or hard-copy document produced for the Contracting Agency. Include the Contractor's company name in the box above or below the Engineer's seal on each plan sheet. Include the company name only at the bottom right of the first page, cover sheet, or title sheet of other documents produced for the Contracting Agency. Contractor letterhead is allowed only in exhibits in document appendices. Include Contractor name in the same font as other non-emphasized lettering on the plan sheet or document. Do not exceed 1/16" in height on 11"X17" plan sheets, and follow the format:

**PLAN DEVELOPED BY:**  
COMPANY NAME

#### **B4.9 Proofreading**

Prepare reports and specifications, to the greatest extent possible, free of mathematical, grammar, spelling and typographical errors. The Contractor is responsible for professional proofreading of the documents to meet the intent of this requirement. All errors and omissions in deliverables will be corrected at the Contractor's expense.

**B4.9.1 Quality Assurance Memo.** Provide with each submittal a Quality Assurance memo signed by the person in responsible charge for the project, certifying that he/she has performed a quality control check on the items included in the submittal. A memo template will be provided by the Contracting Agency.

#### **B4.10 Revisions**

Modify work products in response to Contracting Agency direction. Consider corrections, adjustments, or modifications indicated during the review/approval process, but which do not substantially affect the scope, complexity, or character of the services, a normal part of Contractor services.

**B4.11.1 Errors and Omissions.** Except as described in this Statement of Services, submit complete work products. The Contracting Agency will not accept work products having significant errors or omissions until they are corrected.

**B4.11.2 Comment Resolution.** Provide with subsequent submittals a technical memo that clearly documents and explains all comments and changes from previous submittal.

#### **B4.11 Conflict of Interest**

Do not represent any parties other than the Contracting Agency concerning this project.

## **ARTICLE B5** **MANAGEMENT**

**Note: Do not treat this Article as a distinct task. Apportion costs associated with the services described in this Article among other tasks required to accomplish the work.**

**B5.1 Performance Schedule.** Perform work in accordance with the project schedule in **Exhibit B-3**.

**B5.1.1 Schedule changes.** Expend every effort necessary to stay on schedule and to meet the contract delivery dates. Any schedule changes must be approved by the Project Manager.

**B5.1.2 Progress Reports.** Provide progress reports every month to the Contracting Agency. The Contractor is responsible to:

- Provide "exception reporting" of scheduled activities that are late, suspended, or significantly accelerated.
- Explain why any activity is off schedule, or likely to become so.
- Explain what corrective action(s) are being taken.
- Discuss approaching events and milestones to be achieved over the next month at the meetings.
- Keep minutes of all meetings and submit them to the Contracting Agency within five working days.

### **B5.2 Project Coordination within DOT&PF**

The Project Manager will coordinate any required services or activities from Contracting Agency functional groups. Provide information required by the functional groups in a timely manner.

**B5.2.1 Federal Aviation Administration (FAA) Communication.** Communications with the FAA regarding this project will be handled solely by the Contracting Agency.

**B5.2.2 Contracting Agency and Public Coordination.** Assist in coordinating with appropriate federal, state, and local government agencies, and the public, including special interest groups and organizations that potentially could be affected by the proposed project. Make no commitments on behalf of the Contracting Agency; any commitments for action or mitigation will be made by the Contracting Agency.

**B5.2.3 Agency Meetings/Release of Information.** Notify the Project Manager of all meetings with agencies, organizations, or individuals at least three working days in advance. Prior to such meetings, discuss the agenda for the meetings with the Project Manager to ensure that no inappropriate or incorrect information is disclosed. Do not release data collected under this agreement to any agency or to the public without our prior approval. Document all meetings and telephone conversations concerning the proposed project. Forward original signed documents to the Project Manager.

### **B5.3 Right-of-Entry Permits**

Obtain Right-of-Entry authorizations when required for field work. Provide copies of correspondence and permits to the Contracting Agency. Should the authorizations take additional time to obtain than anticipated, performance schedule(s) may be adjusted accordingly. Contractor is not entitled to any additional compensation for any delay incurred in obtaining Right-of-Entry Permits.

Draft any required notification letters and provide them to the Contracting Agency to be sent out on State letterhead.

**B5.3.1 Access to Restricted Native Allotments and Townsite Lots.** Access to a restricted native allotment or townsite lot for purposes including, but not limited to, surveying or other design related services requires written permission to enter by the Bureau of Indian Affairs (BIA) (25 CFR 169.3). Do not enter these properties without a copy of a BIA approved Revocable Use Permit in possession. The

Contractor is solely responsible for any and all penalties or fees resulting from the unpermitted entry by the Contractor or his representative onto these lands. The issuance of a Professional Services Agreement, Contract Award, or Notice to Proceed does not exempt the Contractor from this requirement. The Contracting Agency will acquire Revocable Use Permits (RUPs); provide a work plan for proposed activities on the Native lands and comply with all stipulations. An amendment may be negotiated and executed if the Contractor is requested to complete all forms and coordinate with BIA or the Native Association to secure RUPs. Contractor-secured RUPs are subject to the Contracting Agency's Right-of-Way concurrence prior to commencement of work.

## **ARTICLE B6**

### **PROJECT LOCATION AND DESCRIPTION**

#### **B 6.1 Location**

Perform services for the airports located in Chevak and Scammon Bay, AK. Up to three (3) additional airports may be added by the Contracting Agency by amendment.

#### **B 6.2 Project Description**

Obtain all required professional land surveying, engineering, and photogrammetric services necessary to complete surveying, mapping and ALP services for these airports as requested by the Contracting Agency.

## **ARTICLE B7**

### **SUMMARY OF CONTRACT SERVICES**

#### **B7.1 General**

Provide professional services as follows:

- (1) Perform Design and Aeronautical Surveys as requested.
- (2) Prepare Airport Layout Plans as requested.
- (3) Prepare Airport Property Mapping as requested.

The Contracting Agency reserves the right to negotiate and add any or all of the services listed in the SOS at up to three additional airport locations by amendment; however, the Contracting Agency is under no obligation to do so, and reserves the right to complete any of the services by any other means, including the use of in-house forces.

The schedule of project milestones appearing in **Exhibit B-3** applies to this contract.

#### **B7.2 Contract does not guarantee amount of design services**

The Contracting Agency does not guarantee that the Contractor will be required to provide all of the services detailed in this Statement of Services nor that the Contractor will incur all of the costs estimated in Appendix C. The Contractor may be asked perform other services by amendment for the project beyond those defined in this contract.

#### **B7.3 Deliverable Items.**

**B7.3.1. Deliverable Task Description.** The following describes the Contract deliverable documents by Task number and associated Contract location:

| <b>Task Number</b>  | <b>Article</b> |
|---|----------------|
| Task 1 – Design/Aeronautical Survey (AS)                            | B9             |
| Task 2 – Airport Layout Plan (ALP)                                  | B10            |
| Task 3 – Airport Property Plan (APP) or ROW Acquisition Plat (RWAP) | B9             |

**B7.3.2. Deliverables by airport.** Deliver the following products for each listed airport:

| <b>Task Group</b> | <b>Airport</b> | <b>Task 1<br/>AS</b> | <b>Task 2<br/>ALP</b> | <b>Task 3<br/>APM /<br/>RWAP</b> | <b>Task 4<br/>LO</b> |
|-------------------|----------------|----------------------|-----------------------|----------------------------------|----------------------|
| A                 | Chevak         | X                    | N/A                   | APM                              | N/A                  |
| B                 | Scammon Bay    | X                    | N/A                   | RWAP                             | N/A                  |

## **ARTICLE B8**

### **GENERAL CRITERIA FOR SURVEYING AND MAPPING SERVICES**

**B8.1 Standards.** The Contractor shall perform the services to standards called for in the Alaska State Professional Land Surveyors (ASPLS) Standards of Practice, the California Geodetic Control Committee (CGCC) Standards for Band IV surveys, U.S. COE Manual EM-1110-1-10000 for Photogrammetric Mapping, or the DOT&PF Construction Surveying Requirements, as appropriate to the services being performed.

All studies, reports and services shall be performed in accordance with applicable codes, regulations and standards; professional practice procedures; and commonly recognized surveying and mapping methods. The contractor shall package the deliverable in an electronic format using folders. The Contractor shall not begin surveying for design, surveying for right-of way, or right-of-way mapping without specific written authorization from the Contracting Agency.

**B8.2 Considerations.** The Contractor shall consider the geographical location of the project as well as other environmental and site specific constraints when performing services. The Contractor shall procure the necessary right of entry permissions when required, including private property, any Native Allotments, and Alaska Railroad property.

**B8.3 Registration.** All survey services shall be conducted by, or under, the direct supervision of a Professional Land Surveyor (PLS) holding current registration in the State of Alaska. A PLS shall be an active, on-site field supervisor of the survey crew. A PLS shall also be directly involved in the preparation of all survey deliverables.

**B8.4 Field books.** The Contractor shall furnish hardbound field books for recording survey information. The books shall become the property of the Contracting Agency after the survey information has been entered and the contract completed. Each book shall be labeled with the project name and an appropriate title, e.g. Horizontal Control, Vertical Control, etc., and shall have an index and comments page. The index page shall reference the contents by page number. A readable PDF copy of the field books is acceptable.

**B8.4.1** Field notes shall be kept in a neat and orderly fashion. All pages shall be consecutively numbered, showing date, weather, and crew names. All abbreviations used shall be described on the comments page. Sketches are to be used frequently and shall be detailed enough to assist in following the progression of the services. Notes and sketches shall be adequately detailed to convey their intent to a person who is not familiar

with the project. Descriptions of all monuments or other points, recovered or set, are to include the data stamped on the monument and the condition of the monument.

**B8.5 Units.** U.S. Customary System of Measurement (foot units) shall be used throughout development of the project. Any metric conversions required shall be based upon the U.S. Survey Foot (3937 feet = 1200 meters exact).

**B8.6 Drawings, Plats, and Maps** shall be prepared in electronic format as specified by the Contracting Agency.

**B8.6.1** Unless otherwise stated, the format and standards for all drawings will be according to the most current DOT/PF Central Region Design Drafting Manual. These standards are available upon request. The plotted scale shall be as specified by the Contracting Agency.

**B8.6.2** Drawings shall be produced and provided in English (U.S. Survey foot units) format. Distances will be shown in horizontal ground foot units. Areas shall be annotated with "Ac." for acres, and "sq. ft." for square feet. Metric units shall not be shown on drawings developed for design work, unless requested to do so by the Contracting Agency.

**B8.6.3** All linework and lettering must be of professional quality and all line widths and lettering sizes must be of such size that all information can be clearly shown without overlap or confusion. All lettering must be a minimum size of 0.1 inch at a full-scale plot. Lettering and linework must be in the appropriate black drafting ink. AutoCAD style names and fonts shall follow the Contracting Agency's specified standards. See the current Design Drafting Manual (B8.6.1)

**B8.6.4** Linework shall not run through text. Do not break lines at text; mask the linework using color 155 solids. Solids shall be placed on the same layer as the text that the solid lies under.

**B8.6.5** Drawings are to be accurate models of the data shown, e.g.; a line labeled N 10°00'00" E 104.35' shall be electronically drawn exactly as labeled, a line that is shown to terminate at a monument symbol shall be electronically drawn with no distance between the endpoint of the line and the center of the symbol, etc.

**B8.6.6** All CAD work within Model Space shall be color by layer. The drawing shall include metadata, to include: control statements, drawing notes, and any other survey related info shown as text within Model space. The drawing shall be purged before submitting. Zoom to extents and remove any extraneous features. Check to ensure that all symbols are the same scale, which should be the plotted scale of the drawing. A standard DOT&PF north arrow, a legend depicting only the symbols and linework used on that sheet, a foot unit bar scale, and standard DOT&PF border will be included on each sheet within the drawing. Do not include any extraneous backup files.

**B8.6.7** Final Plans, Maps, and Plats shall be submitted electronically and with solid black ink on 22" x 34" original mylar. All final drawings shall be plotted so that the ink is on the front surface of the mylar. Topographic drawings are not required to be plotted.

**B8.6.8** Drawings not meeting these standards will be rejected. All drawing files shall be submitted electronically to the AK DOT&PF Survey Manager upon completion for review. The contractor shall perform their own internal review of these products before delivery, to see that Department standards have been followed.

**B8.7** TINs shall be an Autodesk Civil3D Surface or 3D lines with an accompanying LandXML file. Include the TIN boundary as a closed polyline at elevation zero, and the fault lines as 3D polylines. All TINs produced shall be checked by ground based survey methods and by field inspection of contours generated by the TIN.

**B8.7.1** A TIN certificate shall be submitted, signed, and sealed by the responsible PLS and shall contain the following: 1) the methods used to gather data for production of the TIN(s), 2) the accuracy of the TIN(s), and 3) the checks used to substantiate the accuracy of the TIN(s). All ground based TIN(s) shall be field checked before final submittal, and this shall be stated on the TIN certificate. All TIN(s) shall be checked by a PLS using withheld Topographic points randomly collected throughout the TIN(s) area. A minimum of 50 points shall be collected. Provide a spreadsheet showing the elevation differences from the TIN(s). A sample certification of TIN is available from the Contracting Agency’s Survey Section.

**B8.8** **Coordinate Files** shall be comma-delimited ASCII text files. Data shall be in the sequence Point Number, N, E, Z, and Description. Coordinates shall be given to four decimals for the Northings and Eastings, and two decimals for elevations. Points of unknown elevation shall have a placeholder of -9999 in the Z position. Descriptors are to be case sensitive; e.g., Rebar5 shall not equal REBAR5. Descriptors for found or set monuments shall follow examples provided by the Contracting Agency.

**B8.8.1** Point Numbering Scheme. The following point numbering scheme shall be used:

| Range         | Use   |
|---------------|---|
| 1-200         | Primary Control Set (main project, line-of-sight traverses) |
| 201-300       | Primary GNSS Control  |
| 301-400       | Aerial Control Panels or Naturals (HV’s)                    |
| 401-550       | Secondary Control Points (Spikes/Nails)                     |
| 551-600       | Recovered Published Hz. Control (NGS, NOS, etc.)            |
| 601-700       | Set or Recovered Vertical Control                           |
| 701-2000      | Fnd Mons/Prop Cors  |
| 2,001-5,000   | Computed/Protracted Points, Search, Pre/Post Stakeout       |
| 5,001-20,000+ | Topography Survey Points                                    |

The Surveyor shall ensure that point numbers used in this task do not conflict with point numbers used in other survey tasks on this project.

**B8.9** **Electronic Data** (drawing files, coordinate files, reports, etc.) shall be submitted on appropriate size and type of digital media.

**B8.10** **Quality Control** shall be performed by the Contractor prior to all submittals. Three dimensional backsight checks shall be recorded at the beginning and end of all instrument setups. Three dimensional coordinate checks shall be recorded at the beginning and end of an RTK GNSS work session. These checks shall become part of the submittal, labeled as “Quality Control Checks” within the Control Summary

deliverable. The Contracting Agency will **reject** submittals that do not substantially conform to the requirements of this statement of services.

**B8.11 Reviews.** Draft documents required under this agreement shall be submitted to the Contracting Agency Survey Manager for review. The Contractor shall allow three weeks for the return of written comments. The Contractor shall address and respond to these comments to the satisfaction of the Contracting Agency prior to submitting the final documents.

**B8.12 Submittal Delivery.** Deliverables shall be submitted to the Contracting Agency in accordance with the negotiated schedule.

## **ARTICLE B9**

### **SURVEYING AND MAPPING SERVICES**

#### **B9.1 OVERVIEW**

**B9.1.1 General.** The Contractor shall research all information applicable to the requirements of the assigned project and perform all necessary field and office services necessary to collect geospatial data and to reduce the collected data to a form useful for the Contracting Agency's project.

**B9.1.2 Survey Limits and Scope.** The survey limits and scope for each airport are provided in **Exhibits B-1 and B-2.**

**B9.1.3 Survey Services** shall be performed in the following sequence unless otherwise directed by the Contracting Agency:

- A. Research
- B. Pre-Work Meeting with ADOT&PF
- C. Control Survey
- D. Aerial Photography/Photogrammetry
- E. Aeronautical/Topographic/Planimetric Surveys
- F. Bridge Site(s)/Drainage Survey
- G. Special Features
- H. Right-of-Way Survey
- I. Right-of-Way Mapping
- J. Preconstruction Surveying
- K. Post Construction Surveying
- L. Right of Way Engineering Closeout Services

#### **B9.2 Control Surveys**

**B9.2.1 General.** Control surveys include establishing horizontal and vertical control points as directed by the Contracting Agency. The Contractor shall prepare a Survey Control Diagram (SCD) showing the results of the control survey. The SCD will be a recorded document, and as such, will need to meet certain criteria. All points used or tied as a part of these control surveys shall be included in the project coordinate file and shown on the SCD. SCD guidelines are available from the DOT&PF Survey Section. Prior to performing field surveys for the project, the Contractor shall meet with the Contracting Agency's Survey Manager, or their designee, to get existing Department control data and to discuss the control requirements for the project.

**B9.2.1.1 Basis of Horizontal Control.** When the primary control is provided by the Contracting Agency, it shall be held as the basis of control for the project. Contact the Contracting Agency if the provided

control is found to be disturbed or out of tolerance. Any auxiliary control points necessary to augment this control shall be incidental to the task for which it is required. When the primary control is to be performed by the Contractor, the basis of control shall be as directed by the Contracting Agency's Survey Section. The local project coordinate system to be used shall be based upon transformation parameters supplied by the Contracting Agency.

**B9.2.1.2 Horizontal Control Standards.** All horizontal control survey measurements and references shall be recorded in field books. Electronic data collection can be used to record control data, but is not acceptable as the sole data source for survey measurements. Distances shall be measured and recorded in both feet (nearest 0.01 foot) and meters (nearest 0.001 meter) as a check. Recorded angle sets, at a minimum, will contain 2 direct and 2 reverse measurements of the forward angle right. When the difference between a direct and reverse pointing of an angle pair exceeds six seconds (ten seconds for distances of 150 feet or less), then that angle pair shall be rejected and remeasured. The mean angle right shall be used for all computations. All foresights and backsights shall be of the fixed leg type. Secondary control points may be side-tied in the same manner. Secondary control points shall be, at minimum, a mag-nail in paved areas or a 6-inch spike in unpaved areas.

All traverses performed shall meet or exceed the standards for Third Order Class I, Traverse Surveys as specified in the ASPLS Standards of Practice. All traverses shall be closed; beginning and ending at known points with an allowable linear error of closure of 1:10,000 or better. In no case shall ground traverses run greater than 2 miles between GNSS controlled points. Static GNSS work shall meet current CGCC Standards for Band IV Surveys. Traverse and GNSS network adjustments shall be by simultaneous least squares adjustment methods.

All cadastral, property, or right of way corners controlled with GNSS shall be done using Static GNSS survey methods. These corners are to be considered secondary control and need only to be occupied once, providing there is a minimum of two 20 minute duration vectors from project control computed for the corner position that differ by no more than 0.08 feet horizontally.

**The use of Post-Processed Kinematic (PPK) or Real-Time-Kinematic (RTK) GNSS procedures are not allowed for establishing control.**

**B9.2.1.3 Primary Horizontal Control.** For Highway Projects or traverses along road corridors, GNSS control points shall be set at approximately 2 mile intervals within the project limits, in areas where they may be easily traversed in and out of. These points shall be used for both the project horizontal and vertical control. A 9/16" dia. stainless steel rod shall be used for these deep monuments. A minimum 4" dia. well case of length 2.5 feet shall be set around each monument with a protective cap and marker post. These points shall be driven to a maximum of 40 feet or refusal, whichever is less. An acceptable alternative would be to cement a cap into a solid rock outcropping or bedrock, or a dig-in type flared-base monument where conditions warrant.

Additional intervisible traverse points, as needed, shall be set at maximum 1320 foot intervals, and shall consist of a minimum 5/8" x 24" rebar (5/8" x 8" in pavement) with identifying cap. These points shall be located off of the existing paved surface wherever possible, and shall be set at least 0.1 foot below the existing ground surface. No spikes or nails shall be used as the Primary Horizontal Control.

All primary horizontal control points and reference points, found or set, shall be shown on the SCD.

The Contractor shall prepare a narrative horizontal control summary detailing the datum, primary control points used, Basis of Bearings, type of adjustment performed and statistics, problems encountered during the survey, equipment used, etc., which shall include annotated copies of control computations and control

adjustments, and a horizontal control statement. For GNSS control surveys, the Contractor shall also provide a RINEX2 format data file of at least 8 hours of GNSS data for at least two control points for at least two different days in the Contractor's control network. **The Contracting Agency recommends logging as much data on as many different days as possible to account for any solar disturbances or other unanticipated problems that might occur.**

**B9.2.1.4 Basis of Vertical Control.** When primary vertical control is provided by the Contracting Agency, it shall be held as the basis of control for the project. Any auxiliary control points necessary to augment this control shall be incidental to the task for which it is required. When the primary vertical is to be established by the Contractor, the vertical datum shall be determined by the Contracting Agency. Note: A tie to MLLW shall be made for all surveys in or adjoining tidally influenced areas unless specifically directed to do otherwise by the Contracting Agency.

**B9.2.1.5 Vertical Control Standards.** All vertical control survey measurements shall be recorded in field books. If an electronic digital level is used and the data is recorded electronically the Contractor shall provide annotated copies of the raw and reduced data. All vertical survey circuits shall meet or exceed the standards for third order leveling as specified in the latest printing of the Federal Geodetic Control Committee's Standards and Specifications for Geodetic Control Networks. All vertical control points shall be part of a closed level loop; side-shots are not acceptable. Each loop shall be adjusted and this adjusted elevation used for any further loops. Loop closures and loop-adjusted elevations shall be shown in the field books. The books shall also be used to record descriptions and sketches of vertical control points found or set, condition of found points, and for electronically recorded data the loop information (start point, point(s) controlled, end point, etc.) necessary to interpret the data. Primary vertical control points (BMs and TBMs) shall be controlled by differential leveling. Elevations may be established for secondary control points by closed trigonometric loops, in which case sight distances shall not exceed 750 feet with foresights and backsights of approximately equal lengths, and the line of sight shall clear obstacles by a minimum of 1.5 feet to avoid the effects of adverse refraction. Elevation differences shall be measured and recorded to the nearest 0.01 foot.

**B9.2.1.6 Primary Vertical Control.** For highway projects or projects along road corridors, primary vertical control points shall be established every ½ mile or less. Existing official bench marks (BMs) shall be used wherever possible, with intermediate temporary bench marks (TBMs) established between them. These TBMs shall be stable objects such as luminaire and signal pole base bolts, spikes in trees, etc.

**Wooden utility poles, scribes in concrete, and traverse points shall not be used for TBMs.** Contact the Contracting Agency for direction if no suitable TBM locations exist. Where no permanent official bench marks exist, the Contractor shall establish a minimum of two **permanent bench marks** per project site, or one per mile, whichever is the greater number, for use through project construction. Permanent bench marks shall be at a minimum, 9/16" dia. stainless steel rod driven no more than 40 feet or until refusal into dry ground, encased by a 2.5 foot section of 4" dia. well casing flush with the ground with a rubber cap covering the top of the pipe, or a brass cap cemented into rock outcrops or stable concrete structures, e.g. bridge abutments or building foundations and walls. These points may also satisfy the requirements for Horizontal control, under section B9.2.1.3. A marker post shall be placed near each permanent benchmark, found or set. Refer to the NOAA Manual NOS NGS 1, Geodetic Bench Marks for recommended guidelines for setting permanent benchmarks.

Primary vertical control points, found or set, shall be described in great detail, identifying the particular physical feature used for the elevation point, and sketches shall be made to aid in this effort. Instructions sufficient to enable someone unfamiliar with the project to find these points shall be recorded; these instructions shall include distances and directions from recognizable terrain features such as major intersections, bridges, buildings, etc. All primary vertical control points, found or set, shall be tied to the project horizontal control and shown on the SCD.

The Contractor shall prepare and provide a narrative vertical control summary detailing the datum, primary control points used, vertical network adjustment data, problems encountered during the survey, equipment used, etc., which shall include an NGS benchmark data sheet if available.

**B9.2.2 Survey Control Diagram.** The Contractor shall prepare a Survey Control Diagram (SCD) for the project showing the relationship between survey monuments set and found in the field. The SCD typically shows all horizontal and vertical control found or set in the course of a survey, as well as all found or set monuments that exist in the roadway. The SCD will be recorded as a Record of Survey in the appropriate Recording District by the Contracting Agency once approved. In cases where Right of Way Mapping will not take place as part of a project, the Contractor may be required to show all monument ties on the SCD, as directed by the Contracting Agency.

**B9.2.3 Survey Control Sheet. (NIC)** The Contractor shall prepare a Survey Control Sheet (SCS) for the project showing the relationship between the final project centerline and survey monuments in the field. This differs from a Survey Control Diagram (SCD-see section B9.2.2) in that the SCD does not show the final project centerline. The SCS shall be part of the construction plan set and its principal users will likely be Land Surveyors staking the project centerline prior to and after construction or replacing corners that have been disturbed, Contracting Agency surveyors checking that work, and the Project Engineer to ensure that existing monumentation does not get disturbed. Other near-term users may include Land Surveyors who are performing boundary work in the vicinity of the project. The SCS may be recorded as a Record of Survey, but typically is not. **The SCS must not be prepared before the final design centerline is known,** typically after the Pre PS&E Review. Samples are available from the Contracting Agency's Survey Section.

**B9.2.4 Electronic Photographs.** To assist in the point identification, verification of markings, condition of monument and accessories, we ask that .jpg digital photographs be gathered of all monuments found, set, or tied. Each corner should have a minimum of three photographs: one readable close-up of the cap, one near distance showing monument condition, and one with an overview of the monument and its surroundings (it helps to have a tripod setup over the point or some other indicator like fiberglass post to find monument in surrounding picture). All original bearing trees and other accessories of record should also be photographed for these corners. The photographs should be indexed by point number, with the point number in the file name to aid identification of the point. Many times a chalkboard or other similar device can be used in the field to identify the point in the photographs by writing the point legal designation and project point number on the board, and placing board in scene of the pictures. Resolution/File Size should be limited to no more than 1Mb per photo, or a resolution of no more than 2048x1356.

### **B9.3 Survey for Design**

**B9.3.1 General.** Design Surveys include topographic, hydrographic, photogrammetric, and other geospatial methods of data collection associated with defining the existing ground surface and both natural and man-made features.

**B9.3.2 Monument Ties.** The Contractor shall research, locate, photograph, and verify all monuments within the existing Right-of-Way limits and the proposed construction limits. If the Contracting Agency previously performed a field survey tying monumentation, the existence of these monuments shall be field verified. This will insure that the Contracting Agency can comply with the provisions of AS 19.10.260 and AS 34.65.040, and enable an estimate of quantities to be made. Examples would be Rectangular or Centerline monuments. In the event there is no Right of Way survey performed, these corners will need to be surveyed using the methodology described in section B9.2.1.2, so their position can be accurately reestablished.

**B9.3.3 Remote Sensing. (NIC)** When directed by the Contracting Agency, the Contractor shall obtain remotely sensed and associated mapping products. The Contracting Agency shall be granted rights to use of the data and associated delivered products, for our project design and other in-house uses, including transmittal to others.

**B9.3.3.1 Photogrammetry.** As an alternative to ground surveying, the Contractor may use controlled aerial photography to provide planimetric and topographic information. Use of photogrammetric data for this project is subject to the Contracting Agency's approval. As aerial photography may be used for a variety of analyses, the photography shall be natural color and have sufficient scale and resolution to allow for the preparation of the photogrammetric products, which meet the required accuracies and provide economical acquisition. Aerial photography used for topographic mapping products shall be acquired during leaf-free and snow free conditions. Aerial photography used solely for orthophoto products may be acquired with leaf-on conditions. Existing photography may be substituted for new photography with the approval of the Contracting Agency Project Manager. All acquired aerial photography, and all photogrammetric products prepared by the Contractor, shall conform to the guidelines and standards of the US COE Manual EM-1110-1-1000. The Contractor using methods suitable to return the desired mapping accuracies shall control aerial photography used for mapping products. Horizontal and vertical datum for the photogrammetric products shall be on the same datums as that used for the project control. Any photo pre-mark panel points shall be set and controlled for this task, using the same methods and materials as detailed for auxiliary control points presented above for Horizontal and Vertical Control. The Contractor shall determine the number of, location of, and panel size for these points in conjunction with the firm performing the aerial photography. Each photogrammetric control point shall be marked using appropriate panel material. The Contractor shall remove and dispose of all panels set under this contract at the direction of the Contracting Agency. The use of the most cost effective techniques that will provide the specified products is encouraged. All photogrammetric products for development of TINs shall meet the format, content, accuracy and certification requirements of Section B9.3.4.1 through B9.3.4.6 unless directed otherwise by the Contracting Agency.

If aerial photography is acquired for, or available for use on this project, a digital orthophoto, geo-referenced to the project coordinates, shall be provided to the Contracting Agency for use in design. Orthophotos shall be delivered in two formats with the associated world files: uncompressed .TIF, and compressed Mr. Sid image file.

**B9.3.4 Topographic Survey.** Topographic features shall be surveyed using appropriate data collection methods. The Contractor shall provide complete topographic mapping in a single AutoCAD drawing file along with a single TIN upon completion. All points located in these surveys shall be included in the project coordinate file. The Contractor shall:

**B9.3.4.1 Define the existing ground surface** by creating a Triangular Irregular Network (TIN). The TIN shall be capable of accurately generating 1 foot contours in all areas. Hard shots (pavement, concrete, etc.) shall have vertical accuracy of less than 0.1 foot. The TIN shall incorporate fault lines (grade breaks, existing centerlines, edges of pavement, curbs [flowline and top back], sidewalks, shoulders and/or tops of bank, toes of slope/fill, ditches and/or drainages, etc.) and additional shots as necessary to insure that the TIN accurately represents the **existing ground surface**. The TIN shall not represent water surfaces. Sufficient data shall be gathered along driveways and side streets to allow grade matching. Provide TIN verification in the form of the Contracting Agency's TIN Certificate. (B8.7)

**B9.3.4.2 Locate and map all existing improvements and utilities** (above and below ground) within the survey limits. Mapping of overhead utility wires shall include the apparent low point of the wire sag. Overhead wire crossings shall also be located at the existing and proposed centerlines. Elevations for these points shall be the bottom wire elevation. Locate all attachments (guy wires, pedestals, stand pipes, load centers, lights, etc.) within the project survey limits. This includes, but is not limited to, power, telephone,

fuel lines, water and sewer lines, cable television, edge of pavement, fences, signage, and nav aids within the survey limits. Note any historical sites located in this area. Caution shall be used to avoid disturbing any historic remnants. Locate the edge of trees and identify the approximate average height of the trees at the edge. Locate the limits of any apparent contaminated soils and waters within the project area. Tie to any Corp of Engineers flood plain datums. For Airports: Heights of towers, antennas and any other structure that could be considered a hazard to aircraft shall be included. Determine location, finish floor elevations, peak roof elevations and a description of all buildings in and within 100 feet of the surveyed area. Locate the first tier of structures lying outside of the proposed airport boundary and within 200 feet of that boundary.

**B9.3.4.3** Locate and map all **drainage structures** within the survey limits. Record diameter, length, invert elevations, structure type and condition, high water marks, and apparent flow direction.

**B9.3.4.4** Locate and map any **other physical feature, natural or man-made**, including any ordinary or mean high water boundaries that could affect the design of the project, as directed by the Contracting Agency.

**B9.3.4.5** After the Contracting Agency has reviewed the provided data, the Contractor may need to **extend the TIN & topographic mapping as specified** by the Contracting Agency.

**B9.3.4.6** Locate and tie, both horizontally and vertically, **all proposed and existing geotechnical sample locations**. The Contractor shall stake the baseline or sample locations as directed by the Contracting Agency.

**B9.3.5 Bridge Site/Drainage Survey. (As Necessary)** The Contractor shall perform drainage surveys in the vicinity of proposed channel crossings or major drainages. All work shall be tied to project horizontal and vertical control. Surveys shall be performed as specified in the Preconstruction or Drainage Manual unless otherwise directed by the Contracting Agency. The Contractor shall coordinate with the Contracting Agency for site-specific requirements. The data collected for these surveys shall be incorporated into the TIN and topographic files, and all shots taken shall be included in the project coordinate file.

For culverts 36 inches and over in diameter, 4 cross sections upstream and 4 cross sections downstream from the inlet and outlet of said culvert shall be surveyed. The spacing of these cross sections shall typically be equal to the average width of the existing streambed (i.e. 10 feet wide will then have cross sections taken at 10, 20, 30, and 40 feet upstream and downstream). Cross sections shall be taken perpendicular to the existing streambed. Shots shall be taken at: the thalweg, the toe of slope, the edge of existing water, ordinary high water, the top of bank, and one shot past the top of bank. The data collected for these surveys shall be incorporated into the TIN, topographic, and project coordinate files. The Contractor shall perform the following drainage survey work:

**B9.3.5.1** For bridge sites, the line of **ordinary high water** shall be located. The Contractor shall search for evidence of extreme high water and locate it at the existing structure. These items shall be located both horizontally and vertically. The Contractor shall complete the appropriate sections of the Contracting Agency's Bridge Site Survey Form.

**B9.3.5.2** Prepare a topographic map of each bridge site. The map shall show the ordinary high water elevation (or mean high water in tidally influenced areas) and indicate the edge of water at the time of the survey. All buildings, dikes, rock outcroppings and other physical features shall be noted on the map.

**B9.3.5.3** Additional data collection for the Hydraulic Report may be required after the design has reached the Local Review stage.

**B9.3.5.4** Prepare a Bridge Site Report, which is a summary in ASCII format noting pertinent information such as horizontal and vertical control basis, date of survey, bridge number, name of water body, ordinary high water coordinate point numbers, extreme high water coordinate point numbers, existing structure coordinate point numbers, and note whether body of water is navigable.

**B9.3.6 Special Features.** The Contractor shall collect ground elevation data necessary and stake the location of project specific appurtenances to the roadway (retaining walls, breakwaters, special ditches, turnouts, sound barriers, etc.) as necessary for their design and field review by the Contracting Agency.

**B9.3.7 Deliverable Items.** The deliverables shall be organized electronically in folders according to the following list. Only submit what is required for your specific project. Do not submit extra information not required by the Contracting Agency. Name the files and folders according to what they represent. Do not use contractor specific job numbers. CAD drawings should be named in such a manner that anyone can tell what it represents without having to open the drawing. An example would be “Sleetmute\_Topo.dwg”, and not “06-342.dwg”. The Contractor shall submit the following items related to their survey to the AK DOT&PF Survey Section:

#### **Deliverable Description**

- A. Field Books: The original field books or PDF indexed, reduced, stamped and checked. (B8.4)
- B. Point Files: An ASCII coordinate file containing all recovered, computed, and topographic points in the local system (if provided). Electronic format shall be submitted. Elevations that are not valid TIN elevations shall be coded as such in the descriptor. (B8.8)
- C. Descriptors: An ASCII file listing all descriptors used and an expanded description of their meanings. Descriptors not used on this project shall not be included in this list. (B8.8)
- D. Survey Report and Control Summary: Horizontal and vertical control summaries in ASCII format. The Contractor shall also provide stamped annotated copies of control computations and control adjustments, including a check shot report. (B9.2)
- E. Survey Control Diagram (Record of Survey): Electronic CAD and PDF copy. (B9.2.2)
- F. Survey Control Sheet(s): Electronic CAD and PDF copy. (B9.2.3) (NIC)
- G. GNSS Data: For GNSS control surveys, the Contractor shall provide RINEX2 GNSS data files of 8 hours length for at least 2 control points, along with any GNSS processing or OPUS reports. (B9.2.1.3)
- H. Electronic Pictures: Organized folders containing all of the control, monument ties, and project site photos. Do not use separate folders for each point. If applicable, the point number should be referenced within the image filename. (B9.2.4)
- I. TIN: All TIN files with a sealed and signed certificate of accuracy. Quality control check spreadsheet showing the differences from the true values (B8.7).
- J. Bridge Site/Drainage Survey mapping: Electronic drawing files and TIN files (B9.3.5.2)
- K. Bridge Site Report: Refer to the Preconstruction or Drainage Manual, and or the Contracting Agency for possible additional information. (B9.3.5.4)
- L. Project Drawing: A single complete and edited AutoCAD drawing file of the entire survey limits, containing topographic mapping (points, surfaces, annotations, metadata), base-mapping, bridge site/drainage surveys. (B9.3.4)

## Deliverable Description

- M. Air Photo Report: A report of the photogrammetric control shall be provided including all ground control points, aerial photography camera logs, airborne GNSS control procedures and results, analytical aero triangulation results, current camera calibration reports, and other data associated with control of the aerial photography. (B9.3.3.1) (NIC)
- N. Ortho Photo Mosaic: .tif format files shall be delivered in files less than 250MB in size. A compressed image file in Mr. Sid format shall also be included. An index file showing the project area and the areas covered by the individual files shall be included. (B9.3.3.1) (NIC)

## B9.4 SURVEYING FOR RIGHT-OF-WAY

**B9.4.1 General.** The Contractor shall perform the following services to the standards in B9.2. Typically the surveying for ROW is performed after horizontal control is established for the project. Any exceptions shall be discussed at the project pre-work meeting.

**B9.4.1.1** Prior to commencement of the survey, the Contractor shall review any title documents and mapping in the Contracting Agency's possession which is considered relevant to the project. The Contractor shall be responsible for researching additional relevant documentation from other sources. These documents include but are not limited to the following:

Bureau of Land Management (BLM) and Department of Natural Resources (DNR) land status plats, BLM township survey plats, Mineral and U.S. Survey plats and field notes, any records of survey, subdivisions, and relevant engineering control surveys, United States Coast and Geodetic Survey (USC&GS)/ National Geodetic Survey (NGS) control diagrams-descriptions, DOT&PF right-of-way records and other easement or boundary documents of record, DOT&PF engineering as-builts, DOT&PF Airport Leasing documents, DNR surveys, and aerial photos, DEC Community Profile Maps, Local or Municipal data.

All research for property corner ties (generally includes local platting authority subdivision plats and right-of-way plats, BLM U.S. Surveys, state land survey plats, waiver documents, deeds, record of surveys and monument records) should be done prior to commencement of searching and tying property and ROW controlling corners.

**B9.4.1.2** Tie the nearest Public Land Survey System (PLSS) monuments (Section, 1/4 Section and 1/16 Section Corners) left and right of the project Right-of-Way corridor or if existing monuments that represent the legal corner positions do not exist at those locations, sufficient additional rectangular monuments and/or accessories to control the computations of the legal locations of those corners per the relevant BLM *Manual of Surveying Instructions for Public Lands*. Any corner monument in need of rehabilitation or re-monumentation shall first be photographed, and then have rehabilitation accomplished prior to tying the monument location and re-photographing the final condition. The intent of the PLSS monument ties is to define the larger remaining parcel surrounding the existing road Right-of-Way.

Tie all existing centerline monumentation throughout the project limits including two centerline monuments at each end that extend beyond the limits of the project. Additional PLSS monuments shall be recovered to allow section breakdown for property boundary determination as directed by the Contracting Agency. Tie adequate centerline monumentation on side streets to determine side street alignment to the project limits. A minimum of two side street centerline monuments shall be tied. If side street centerline monuments are not recovered then sufficient block or lot corners will be tied to define the side streets.

For the initial surveys all property corners within and along the existing ROW and the ROW centerlines should be searched for, documented and tied. In most cases, there will be some non-fronting property corners also required to be tied to setup subdivision blocks, survey boundaries and side-street ROWs. Sufficient control is required to establish the location of all surveys adjoining the ROW, or where acquisitions are planned. The extent of the corners to be tied normally is discussed and clarified during contract negotiations or at the survey pre-work meeting.

**B9.4.1.3** For projects with PLO ROWs or other ROWs dependent on the physical road location (such as prescriptive claims), tangent as-builts are required. This procedure normally requires the field determination of pavement or unpaved surfaces centerline by physical measurement, and then location of those points. Points are normally surveyed near each tangent end and a minimum of 3 points on curves. The number of shots actually required depends on curve length and degree of curve and should be clarified in writing at the pre-work meeting. The Contractor at the direction of the Contracting Agency may also be tasked with developing an alignment and locating existing slope or clearing limits. Please consult the Contracting Agency's ROW Engineering section for guidance.

**B9.4.2 Record of Survey.** A Record of Survey shall be prepared for recording in the appropriate Recording District for the Right of Way survey. All Right of Way surveying completed above in section B9.4.1 shall be included in the Record of Survey. Consult with the Contracting Agency for guidance in the preparation of the Record of Survey.

**B9.4.3 Annotated Plats and Research Documents.** PDF Copies of all of the research documents for the rectangular survey, centerline monuments, ROW monuments and property corners shall be provided, along with annotations of whether the point was searched for and not found, or monument destroyed, or if found it's corresponding project point number. These annotations do not need to be "works of art," and many times are the original paper plat copies, or scans of such, that the field crews had in the field with them. The annotated plats should be indexed in some method (by Section Location, MOA grid, or other logical means), placed in labeled folders organized by the indexing scheme.

**B9.4.4 Additional Topography for Right-of-Way Acquisition.** The Contractor shall collect all topographic information that may affect the cost and/or schedule of defined right-of-way acquisitions for the project, such as culverts, land service or access roads, improvements, apparent contaminated soils or waters, buried fuel tanks, fences and any structures. Septic system, well and building locations are examples of pertinent data, usually outside of the acquisition area, that may affect the value of the right-of-way to be acquired.

**B9.4.5 Deliverable Items.** The deliverables shall be organized electronically in folders according to the following list. Only submit what is required for your specific project. Do not submit extra information not required by the Contracting Agency. Name the files and folders according to what they represent. Do not use contractor specific job numbers. CAD drawings should be named in such a manner that anyone can tell what it represents without having to open the drawing. An example would be "Sleetmute\_ROW.dwg", and not "06-342.dwg". The Contractor shall submit the following items related to their Survey to the AK DOT&PF Survey Section:

**Deliverable Description**

- A. Field Books: The original field books or PDF indexed, reduced, stamped and checked. (B8.4)
- B. An ASCII coordinate file containing all recovered, computed, and topographic points in the local system (if provided). Electronic format shall be submitted. Elevations that are not valid TIN elevations shall be shown as -9999. (B8.8)

- C. An ASCII file listing all descriptors used and an expanded description of their meanings. Descriptors not used on this project shall not be included in this list. This file shall be submitted with the draft coordinate file. (B8.8)
- D. Right of Way Survey Report Memo. A brief description of the survey methods, equipment, computations, quality control checks and accuracy estimates.
- E. Survey Control Diagram (Record of Survey): Electronic CAD and PDF copy. (B9.2.2)
- F. Annotated Plats and Research Documents. (B9.4.3)
- G. GNSS Data: For GNSS control surveys, the Contractor shall provide RINEX2 GNSS data files of 8 hours length for at least 2 control points, along with any GNSS processing or OPUS reports. (B9.2.1.3)
- H. Electronic Pictures: Organized folders containing all of the control, monument ties, and project site photos. Do not use separate folders for each point. If applicable, the point number should be referenced within the image filename. (B9.2.4)

## **B9.5 RIGHT-OF-WAY MAPPING**

**B9.5.1 General.** The Contractor shall perform the services necessary to establish the existing Right of Way, and, prepare ROW Lines for Construction Plans, Base Maps, Right of Way Maps, Parcel Plats, Airport Property Plans, Airport Land Occupancy Maps, and Right of Way Acquisition Plats in accordance with the DOT&PF Right of Way Manual and specific instructions from the Contracting Agency.

**B9.5.2 ROW Lines for Construction Plans.** The Contractor shall submit an electronic drawing file which contains the existing ROW lines, existing ROW centerline, adjoining property lines and subdivisions. The Contractor shall include a narrative of the ROW that is being shown. Narrative shall include source documents and methods used to determine existing rights-of-way.

**B9.5.3 Base Maps (NIC)** shall show the entire project limits and shall include a DOT&PF standard Right of Way title sheet, legend sheet, tract maps, plan sheets, monument summary sheets, and general notes sheet including a source document table using Contracting Agency supplied AutoCAD format at the scale and layout specified by the Contract Manager. The plan sheets shall show the following information:

- A. Existing property boundaries, including all Public Land Survey System survey lines.
- B. All subdivisions, including name, plat number, lot and block, or aliquot part description, and easements as shown.
- C. Existing right of way centerline.
- D. Existing rights-of-way
- E. Improvements.
- F. Other features required by the Right of Way Manual and /or the Contracting Agency.

**B9.5.3.1** When preparing Base Maps, the Contractor shall (a) thoroughly document sources of existing rights-of-way (b) resolve problems with existing Right of Way and boundary locations and (c) analyze preliminary engineering information to determine where additional survey ties are required. The Contractor shall provide a written summary of (any significant) Boundary Problems encountered in making specific boundary determinations, including rationale for the solution. The Contractor shall provide digital copies of all research with the preliminary Base Map.

**B9.5.3.2** The Contractor shall not begin preparing Base Maps without prior specific written authorization from the Contracting Agency.

**B9.5.4 Right of Way Maps (NIC)** shall show the entire project limits and shall include a DOT&PF standard Right of Way title sheet, legend sheet, tract maps, plan sheets, and monument summary sheets. The plan sheets shall show all the information required for the Base Maps plus the following information:

- A. Proposed Right of Way.
- B. Proposed project centerline.
- C. Station and offsets to right of way limits.
- D. Easements.
- E. Parcels.
- F. Parcel Information Block.
- G. Proposed slope limits.
- H. Revision block.
- I. Other features required by the Right of Way Manual and /or the Contracting Agency.
- J. For Airport Property Plan and Airport Acquisition Plat (in addition to the above):
  - 1. Plan view showing Tracts and Parcels.
  - 2. Runway Centerline end coordinates in the NAD83 CORS datum.

**B9.5.4.1** When preparing Right of Way Maps, the Contractor shall:

- A. Resolve survey conflicts with existing right of way and boundary locations.
- B. Analyze preliminary engineering information to determine where additional survey ties are required.
- C. Examine Title Reports and adjust preliminary boundaries, add additional easements and update owner information as required.
- D. Compute the Take and Remain areas of each parcel based on right of way requirements supplied by the Contracting Agency.
- E. Prepare Map per appropriate platting codes.

**B9.5.5 Parcel Plats.** The Contractor shall prepare plats for all parcels to be acquired for this project when directed by the Contracting Agency. Note: full takes do not need a parcel plat prepared. Parcel plats shall contain the information required by the DOT&PF Right of Way Manual. . The Contractor shall make revisions to Parcel Plats requested by the Contracting Agency. Parcel Plats shall use the Contracting Agency's standard 8-1/2 by 14 inch format and be submitted as a PDF or in a format specified by the Contracting Agency. Plats shall be at a scale suitable for legibility and clarity of detail using Contracting Agency supplied AutoCAD format and shall contain information as required by the DOT&PF Right of Way Manual and the parcel plat checklist. A Title block and border drawing file will be supplied by the Contracting Agency.

**B9.5.6 Airport Property Plan and Right-Of-Way Acquisition Plat.** The Contractor shall prepare an Airport Property Plan according to the DOT&PF Right of Way Manual. The Airport Property Plan is considered similar to a Base Map and relates the existing property boundary and property status. A Right-Of-Way Acquisition Plat is necessary for acquisition areas in the Unorganized Borough and is required to follow the regulations as set for Right-of-Way Acquisition Plats by Department of Natural Resources.

**B9.5.7 Airport Land Occupancy Maps (NIC).**

**B9.5.7.1 General.** Perform the following tasks at each airport:

- Research current and historic airport tenant lease documents,
- resolve any found discrepancies and map errors,
- provide an updated Airport Land Occupancy (LO) Map to reflect current land use conditions and encumbrances.
- Provide an end product that supports management of leased and non-leased properties while allowing for updates as land uses and tenants change over time.

Services to develop the LO include research to ensure that the most current lease documents are used. Coordinate with the Contracting Agency's staff to make sure expectations are met in regard to field surveys, data reduction, computations, and mapping.

**B9.5.7.2 Research.** The LO must reflect the true physical location of improvements, lease lot surveys, land ownership, and survey control data.

**B9.5.7.3 Field Surveying and Topographic Data.** Field locate lot corners on existing lease lots, tying into lease lot surveys if available, and establish a minimum of two additional permanent control monuments that are easily accessible and visible.

Building and utility locations may be added from controlled aerial photography or utility As-Builts.

**B9.5.7.4 Drawing Format.** Coordinate format and AutoCAD drawing setup with Aviation Leasing staff and their drafting support personnel in the Contracting Agency's Northern Region.

**B9.5.7.5 Title Opinion.** The Contracting Agency reserves the right to negotiate and add title opinion services by amendment. However, the Contracting Agency is under no obligation to do so and reserves the right to perform these services by any other means, including the use of in-house forces.

**B9.5.7.6 Review.** Provide a draft LO at approximately 95% complete to the Contracting Agency for review. Incorporate comments as necessary before submitting the final documents.

**B9.5.7.7 Schedule.** Follow the schedule as shown in **Exhibit B-3**.

**B9.5.7.8 Deliverable Items.** Submit, for each airport, the following items to the Contracting Agency's Project Manager:

- A. 1 – Orthophoto(s) (B9.3.3.1)
- B. 1 – AutoCAD Project File(s)
- C. 2 – Hard Copies and .pdf files of the LO Drawing(s)

**B9.5.8 Right-of-Way Negotiations.** The Contractor shall provide technical support for right-of-way negotiations. This shall include interpreting documents prepared for the project and explaining project impacts to the Contracting Agency's personnel, property owners, and others. The Contractor shall also attend meetings as required to make presentations and answer questions.

**B9.5.9 Pre-Acquisition Meeting.** When requested by the Contracting Agency, the Contractor shall attend the pre-acquisition meeting. The purpose of this meeting is to discuss proposed project features and impacts to adjoining properties and parcel configuration prior to plat approval and acquisition. The Contractor should be prepared to discuss any design features which may affect adjoining properties such as project alignments, pathways, sidewalks, medians, curb and gutter, slope limits, impacts to driveways and utilities. Adjoining property information shall include lot boundaries, buildings, driveways, and any other features/improvements that will help the Contracting Agency in negotiations with affected property owners and others to assess project impacts. In addition to preliminary right of way plans, the Contractor may be requested to provide additional visual displays for clarification.

**B9.5.10 Reviews and Schedule.** The Contractor shall submit drafts of the Base Maps, Right of Way Maps and Parcel Plats, for the Contracting Agency's review, in accordance with the following: Base Maps shall be submitted with the Local Review Assembly. Right of Way Maps including proposed takes for project construction shall be submitted with the Plans-In-Hand Review Assembly. Right of Way Maps including proposed takes for the project and all required utility relocations shall be submitted within four months of the

Plans-In-Hand Review submittal. Current Right of Way Maps shall be submitted with the PS&E Assembly. The Summary of Boundary Problems shall be submitted with the drafts of Base Maps. The Contracting Agency shall have a minimum of four weeks for the return of written comments.

The Contractor shall address comments to the satisfaction of the Contracting Agency prior to submitting final documents for Right of Way Certification.

**B9.5.11 Deliverable Items.** The Contractor shall submit draft and final Base Maps, Right of Way Maps and Parcel Plats in PDF and DWG format for Contracting Agency review. Electronic copies of all research and the Summary of Boundary Problems shall be submitted with the draft Base Map. If requested by the Contracting Agency, the Contractor shall provide full sized mylars with original signature for recording along with the final Base Map submittal. Prior to Right of Way Certification, the Contractor shall submit two final Right of Way Maps on 11x17 paper with original signatures and one full size mylar with original signature.

**B9.5.12 Provided Items.** The Contracting Agency will provide the following (item A can be found on the DOT&PF web site. Items B-D can be obtained on the DOT&PF FTP site. Call 269-0680 for site addresses):

- A. **One copy of the Title and Plans Section from the DOT&PF Right of Way Manual.**
- B. Samples of final drawings, parcel plats, and title reports.
- C. Civil 3D Drawing Template
- D. The Contracting Agency's Standard Right of Way legend sheet.
- E. Original Title reports for each property to be acquired.

## **B9.6 Pre & Post Construction Surveys (NIC)**

**B9.6.1 General.** In order to best perpetuate the positions of DOT/PF Project Centerline Monuments, we encourage the use of Static GPS ties to permanent control stations that are set outside project limits, and are expected to last well beyond construction.

**B9.6.2 Pre-Construction.** When directed by the Contracting Agency upon completion of the design phase of the project, but prior to advertising for construction, the Contractor, using the previously established project control shall monument the project (PCs, PTs, and no-curve PIs, etc.) using conventional methods. All monuments established shall consist of a minimum 5/8" dia. X 24" rebar (5/8" dia. X 8" in pavement) with a 2" dia. cap, and stake nearby. Once set, all monuments shall be photographed and re-tied to verify their position (B9.2), and a comparison to the design coordinates shall be presented to the Contracting Agency in spreadsheet format. This information shall be presented in project staking report.

Static GNSS Control points for this task shall be set at approximately two mile intervals, or closer for a small project, outside of the construction limits, so as to last for the duration of the project. A plan identifying the type of monument to be set for control, and its proposed location, shall be submitted to the Contracting Agency prior to the work being performed. Control points from the design survey effort may be used for this effort upon approval.

Monuments that may be disturbed during construction shall be referenced by static GNSS to the off-project control. It shall be the Contractor's responsibility to coordinate with the Agency or Firm developing the Right of Way Mapping to identify these monuments. Two in line conventional reference points, set outside the construction limits, may be used in the cases where static GNSS will not work. Two vectors at a minimum shall establish the position of the monument to be referenced. These two vectors shall differ by no more than 0.08 feet.

This procedure is further explained here:

[http://www.dot.state.ak.us/creg/dot-cadastral/Construction Surveys/Centerline Referencing and Perpetuation 2011.doc](http://www.dot.state.ak.us/creg/dot-cadastral/Construction%20Surveys/Centerline%20Referencing%20and%20Perpetuation%202011.doc).

**B9.6.3 Post-Construction:** When directed by the Contracting Agency, and upon completion of the construction phase of the project, the Contractor shall establish and monument the project and a random control line. Monument type and spacing shall be determined in discussions with the Contracting Agency. In the case of a project centerline, the points shall be established using the data from the Pre-Construction effort. Right of Way monumentation that was referenced prior to construction shall be field verified that it was not disturbed. A digital photo shall be required as proof. Any disturbed ROW monuments shall be reestablished as part of this effort. This procedure is further explained here [http://www.dot.state.ak.us/creg/dot-cadastral/Construction Surveys/Centerline Referencing and Perpetuation 2011.doc](http://www.dot.state.ak.us/creg/dot-cadastral/Construction%20Surveys/Centerline%20Referencing%20and%20Perpetuation%202011.doc). A final Record of Survey or data incorporation into the project Right of Way Mapping shall be completed that shows any new monumentation set.

**B9.6.4 Final Record of Survey (Airports).** When directed by the Contracting Agency, and upon completion of the Construction phase, the Contractor shall complete the final Record of Survey which may include, but is not limited to, the following tasks: FAA Aeronautical Survey, locate all navigational aids, as built the runway using guidelines provided by the Contracting Agency, set or check the airport boundary monumentation, set or check the access road monumentation, tie into older horizontal and vertical datums, and establish threshold coordinates. If land was acquired as part of the project a Right-of-Way Acquisition plat will be developed and recorded in the appropriate recording district.

#### **Deliverable Description**

- A. Field Books: The original field books or PDF indexed, reduced, stamped and checked. (B8.4)
- B. Point Files: An ASCII coordinate file containing all recovered, computed, and topographic points in the local system (if provided). Electronic format shall be submitted. Elevations that are not valid TIN elevations shall be coded as such in the descriptor. (B8.8)
- C. Descriptors: An ASCII file listing all descriptors used and an expanded description of their meanings. Descriptors not used on this project shall not be included in this list. (B8.8)
- D. Survey Report and Control Summary: Horizontal and vertical control summaries in ASCII format. The Contractor shall also provide stamped annotated copies of control computations and control adjustments, including a check shot report. (B9.2)
- E. Record of Survey for centerline and random control, and/or Monument of Record Forms (B9.6.3) if this information is not incorporated with the project Right of Way Mapping closeout effort. (B9.5 or B9.7)
- F. Project Staking Report (B9.6.2)
- G. GNSS Data: For GNSS control surveys, the Contractor shall provide RINEX2 GNSS data files of 8 hours length for at least 2 control points, along with any GNSS processing or OPUS reports. (B39.2.1.3)
- H. Electronic Pictures: Organized folders containing all of the control, monument ties, and project site photos. Do not use separate folders for each point. If applicable, the point number should be referenced within the image filename. (B9.2.4)
- I. Right of Way Acquisition plat. (B9.5.6)
- J. Airport as-built Record of Survey (B9.6.4)

#### **B9.7 Right of Way Engineering Closeout Services (NIC)**

**B9.7.1 Right of Way Engineering Services:** *Engineering Services* may include identification of field surveying and mapping services necessary to close out the various projects, such as a Record of Survey or

ROW Acquisition Plat, but the performance of the identified field surveying and associated mapping services will not be part of the initial *Right of Way Engineering Services*.

- A. The Contractor shall perform the services necessary to reconcile the Right of Way conveyance documents with the Right of Way Mapping in accordance with the Department Project Close Out check list, and specific instructions from the Contract Manager.
- B. The Contractor should check the centerline and right of way geometry (Bearings, Distances, Curves, Station-offsets, Monument Summary Tables etc.) for any mathematical errors to verify that the right of way can be computed from the information shown.
- C. The Contractor shall proof read the vesting documents of record on file with the Department and/or the Recorders Office. The written legal description and parcel plats will be checked against the Right of Way mapping both visually and for mathematical closure.
- D. The Contractor shall review the Right of Way mapping. The Right of Way mapping shall include (if it applies) the following information:
  - 1. Information as defined in the Project Close Out check list.
  - 2. Lands purchased in excess to the ROW needed for the project. These lands will be identified on the ROW mapping as “X” or “R” parcels on older projects.
  - 3. Commissioner’s Quit Claim Deed or Relinquishment.
  - 4. Lands acquired from DNR will be referenced to the ADL number associated with the parcel.
  - 5. Files involving these parcels are contained within the Department Right of Way Section.
  - 6. Final Judgments need to be researched if there was a declaration of taking on the project.
- E. When reviewing the Right of Way mapping, the Contractor shall identify discrepancies among the ROW mapping, written legal descriptions, and parcel plats. The Department will review and approve and/or modify the corrective actions the contractor is to take.
- F. When directed by the Department the Contractor shall hand edit the original mylar Right of Way mapping using drafting ink and lettering sets and update any electronic drawings provided by the Department.
- G. The Contractor will submit copies of the edited ROW mapping to the Contracting Agency who will then submit the plans to the appropriate platting authority for plat approval. When directed by the Contracting Agency, the Contractor will make the final changes to the mylars and electronic drawings then submit for final review to the Contracting Agency. After platting authority and Department approval the contractor will sign the mylars using the Department’s Contractor Closeout Certificate.

## **B9.8 Aeronautical Surveys (Review Survey Request)**

**B9.8.1 General** When directed by the Contracting Agency the Contractor shall perform any and all necessary tasks required by current FAA Advisory Circulars related to the performance and delivery of Aeronautical Surveys.

The Contractor shall contact the Contracting Agency’s Maintenance and Operation Supervisor and Airport Manager, in the appropriate district, to coordinate airport entry procedures and shall exercise caution when working in the vicinity of the runway.

The Contractor shall coordinate with the Contracting Agency prior to fieldwork for threshold locations, runway length, and runway width; no changes to these shall be made without Contracting Agency approval.

Data providers shall make maximum use of existing data for the airport that is traceable to the source to meet the requirements of this Statement of Services before undertaking additional data collection.

**B9.8.2 Services.** For each of the airports, the Contractor shall perform the following tasks:

The ACs identified below detail the data collection requirements and accuracies for the AOC Survey.  
AC 150/5300-16B “General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey.”

AC 150/5300-17C-Chg 1 “General Guidance and Specifications for Aeronautical Survey Airport Imagery Acquisition and Submission to the National Geodetic Survey.”

AC 150/5300-18B-Chg 1 “General Guidance and Specifications for Submission of Aeronautical Surveys to National Geodetic Survey (NGS): Field Data Collection and Geographic Information System (GIS) Standards.”

Note: The FAA Airports GIS (AGIS) website and the ACs mentioned above are currently being refined and changes to the process should be expected. The Contractor shall use the most current AC upon the start of work for each airport.

Complete all required tasks for Airport Layout Plans / Airspace Obstruction Charts as listed in AC 150/5300-18B Table 2-1 for vertically guided approaches.

Acquire imagery and submit the required deliverables as specified in AC 150/5300-17C –chg 1. Collect digital stereo aerial imagery covering the entire area of analysis including required side lap and overlap. The imagery will be used for government verification ensuring the survey data adheres to the quality requirements set forth by AC 150/5300-18B. Submission of field data shall not occur without government acceptance of aerial imagery. Aerial photography or imagery shall be submitted directly to NGS at the address listed in AC 150/5300-17C chg -1 on an appropriately labeled recordable media such as CD, DVD, portable hard drive etc.; with the label identifying the airport and company contact information. In order to provide the most current imagery for analysis, it should be collected within 6 months of the start of field survey operations. The Contracting Agency shall be granted full rights to use the aerial photography and associated delivered photogrammetric products. Coordinate the date of imagery acquisition with the Contracting Agency to ensure airport conditions are ready for photography.

| <b>Provide these products as described in AC 150/5300-18B:</b> | <b>And as further described in this Contract:</b> |
|--|---|
| Airport Geodetic Control Survey                                | Article B9.2                                      |
| Runway Survey  |   |
| Navigational Aid Survey  |   |
| Airport Airspace Analysis (Part 77)                            |   |
| Surface Analysis (Analyze for Vertical Guidance)               |   |
| Airport Layout Plan Survey                                     | Article B9.3.                                     |
| Topographic Survey   | Articles B9.3 and B10.3                           |
| Airport Mapping Database (AMBD) Survey                         |   |
| Engineering Survey (NIC)                                       |   |
| Sub-Surface (NIC)  |   |
| Boundary Survey/Land Use                                       | Article B9.4                                      |

**B9.8.3 Record of Survey.** A Record of Survey shall be prepared for recording in the appropriate Recording District for the Airport Monuments. All temporary monumentation completed above in Section B9.8.2 shall be included in the Record of Survey. Consult with the Contracting Agency for guidance in the preparation of the Record of Survey.

**B9.8.4 Deliverable Items.** Deliverables will be submitted to the FAA AGIS Portal, and copies of final FAA approved deliverables will be submitted to the Contracting Agency in a local system as specified by the contracting agency or developed by the Contractor as directed by the Contracting Agency.

The Contractor shall submit, for each airport, the following items:

### **Deliverable Description**

**A. AC 150/5300-16A Deliverables:**

Geodetic Control Plan

Geodetic Control Data and Report

**B. AC 150/5300-17C Deliverables:**

Imagery Plan

Georeferenced Imagery & Orthophotos

Orthophotos

**C. AC 150/5300-18B Deliverables:**

Survey and Quality Control Plan

Airport GIS Survey Data

AutoCAD Support Drawings and Files

Final Project Report & Spreadsheet

In addition to the deliverables submitted through the FAA AGIS Portal, **submit the following only to the Contracting Agency:**

A comma delimited data file (.csv) and Microsoft Excel (.xls) file containing all recovered, computed, and topographic points in the local geodetic coordinate system and in the local orthogonal coordinate system. Submit with data column headings: Point Number, Latitude, Longitude, Northing, Easting, Elevation, Description. Elevations that are not valid TIN elevations shall be shown as -9999.

TIN: All TIN files with a sealed and signed certificate of accuracy. Quality control check spreadsheet showing the differences from the true values (B8.7).

## **ARTICLE B10 (NIC)**

### **TASK 2**

### **AIRPORT LAYOUT PLAN (ALP)**

**B10.1. General.** Develop and ALP consistent with the standards and guidelines listed below. Coordinate with the Contracting Agency prior to beginning work to ensure all standards and expectations are mutually understood.

**B10.2 Standards and Guidelines.** Adhere to guidance from the following list of documents. All versions of documents listed below are for reference only. Future versions also apply to this contract as they become available.

- AC 150/5300-13A “Airport Design”
- AC 150/5070-6B “Airport Master Plans”
- 14 Code of Federal Regulations Part 77
- ARP SOP 2.00 “Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs)”
- Current ALP Guidance provided by the Contracting Agency

- Aviation Design Drafting Manual, Alaska Department of Transportation & Public Facilities Central Region, Aviation Design

Direct questions about the interpretation and coordination of the above resources to the Contracting Agency.

### **B10.3 Services.**

Provide all services needed to create the ALP as described. This includes at a minimum:

- all survey work necessary to complete an ALP as described in Table 2-1 of AC 150/5300-18B.
- wind analysis
- airport operations summary, analysis, and forecasting
- review of design standards

**B10.3.1 Scoping Meeting.** Attend a meeting with the Contracting Agency before commencing work on the ALP to determine the level of effort required for each ALP. Existing information may be drawn from the existing ALP on a case-by-case basis. Some drawing updates may not be required when performing minor updates or as-built updates to ALPs, but only when directed as such by the Contracting Agency.

**B10.3.2 Airport Layout Plan drawing form and content.** Follow the current ALP Guidance provided by the Contracting Agency and as directed by the Contracting Agency. Include drawings as required by the manual and as Directed by the Contracting Agency.

For each airport, produce an ALP to include the new survey data, obstruction data, topographic data, and planimetric data gathered in the Survey. This includes, but is not limited to:

- Contract survey deliverables
- land use inventory
- airspace conflicts analysis for objects affecting navigable airspace (14CFR Part 77, Subparts A and C).
- the most recent construction as-builts

**B10.3.2a. New ALPs.** Provide ALPs conforming to the major update/new ALP standards provided by the Contracting Agency.

**B10.3.2b. As-built ALPs.** Provide ALPs conforming to the as-built ALP standards provided by the Contracting Agency.

### **B10.3.3. Supporting Documents.**

**B10.3.3.1. FAA Forms.** Support the Contracting Agency in updating or completing FAA forms such as the Airport Master Record (5010-1) form, the Notice of Landing Area Proposal (7480-1) form, the AVN Data List, and any other forms the project requires.

**B10.3.3.2 Estimates, Capital Spending Plan, and quantity calculations.** Estimate project costs as described in the ALP narrative. Provide the Contracting Agency a quantity and estimate notebook showing all assumptions of cost, material quality, and other associated large-scale costs. Provide an estimate that is accurate to  $\pm 50\%$ . The level of detail in the quantities and calculations should reflect the relative accuracy of the estimate.

**B10.3.3.3. Supporting Calculations.** Provide the contracting Agency background calculations for all submittals as applicable. This includes, but is not limited to, wind analysis, magnetic declination calculations, threshold coordinate calculations and checks, and BRL calculations.

**B10.3.3.4. Design standards report.** Provide, in addition to the ALP Narrative Report described in Section 3.6 of this Article, a report describing design standard discrepancies. If the discrepancies are a result of a change in aircraft operations data, provide a recommended design designation (Airport Reference Code, Runway Design Codes, and Taxiway Design Groups for each facility) to the Contracting Agency before beginning work on the ALP drawings. The Contracting Agency will provide design designations for the airport and each runway based in part on these recommendations.

**B10.3.3.5. ALP checklists.** Provide with each ALP submittal a completed current ALP SOP checklist and a completed DOT CR ALP checklist.

**B10.3.4 Digital ALP Drawings.** Provide AutoCAD files compatible with the Contracting Agency's current edition. Provide all drawings in the orthographic coordinate system directed by the Contracting Agency.

**B10.3.4.1. Surfaces.** Provide all surfaces used in the development of the ALP in AutoCAD Civil 3D .dwg format.

**B10.3.4.2. Planimetry.** Provide all linework in the digital drawing on unique layers. See the Central Region Drafting Guidance document. TINs (B7.6.H & B9.2). Control Summary (B7.6.D). Field Books (B7.6.A)

**B10.3.4.3. Points.** Provide all point attribute data as AutoCAD Civil 3D Points and provide a summary .txt or .csv file of the points in PENZD format (Point, Easting, Northing, Elevation, Description).

**B10.3.5 Hard Copies.** Provide review submittals on 11x17 bond paper. Submit 2 copies of the final product on 4 mil mylar, approved by the Contracting Agency (See Sec. B4.8.7). Also provide an 11 x 17 bond copy.

**B10.3.6 ALP Narrative.** Provide all sections as required by the current ALP Guidance and the Project Manager.

#### **B10.3.7 TINs:**

**B10.3.7.1. Existing Ground.** Define the existing ground surface by creating a TIN capable of accurately generating four foot contours within the Airport Boundary and ten foot contours within the outer boundary of the 14 CFR Part 77 conical surface. Follow methods as outlined in Articles B8 and B10.

**B10.3.7.2. Part 77.** Provide a Part 77 TIN accurately depicting all of the airport's Part 77 imaginary Surfaces (primary, transitional, horizontal, conical, and approach) and their relationship to each other. Incorporate fault lines as necessary to provide an accurate product. Provide both a combined TIN of the most demanding surfaces, and individual TINs of each surface.

**B10.3.7.1. Threshold Siting Surfaces.** Provide Individual surface TINs for Threshold Siting Surfaces as defined in AC150/5300-13A, NAVAID siting surfaces, and/or other surfaces as directed by the Contracting Agency. Refer to AC 150/5300-13A, Airport Design and AC 150/5070-6B, Airport Master Plans.

#### **B10.4 Schedule.**

#### **B10.5 Reviews**

**B10.5.1. Contracting Agency Review.** Submit the ALP to the Contracting Agency according to the project schedule, when it is 95% complete. If the submittal is acceptable, the ALP will be reviewed by the Contracting Agency and comments will be provided within 30 days. Incorporate all comments as directed by the Contracting Agency.

Provide with the review set:

- Draft ALP drawing set.
- ALP narrative report (as applicable).
- Completed FAA SOP 2.00 ALP checklist. Items that do not adhere to the checklist require an alternative plan to address the required information and discussion with the Contracting Agency.
- Completed current Central Region ALP Checklist.
- Drafts of any required modifications to design standards.
- Drafts of requests for any required letters of determination for non-standard conditions.
- Supporting calculations and estimates in section 3.3 of this article.

**B10.5.2. FAA Review.** After the Contracting Agency review has been completed and comments have been satisfactorily addressed, the Contracting Agency will submit the ALP to FAA for their review. FAA will review the ALP and provide comments within 45 days. Incorporate all comments and any additional comments as directed by the Contracting Agency.

Provide final versions of all documents submitted for the Contracting Agency review along with adjudicated comments from the Contracting Agency Review.

**B10.5.3. Final Submittal.** After FAA has reviewed and accepted the ALP and all revisions, submit two of 22 x 34” mirrored Mylar copies and one 11 x 17” paper copy for signature to the Contracting Agency.

**B10.6 Deliverable Items.** Submit the following. Submit Digital files on a CD, DVD, or hard drive.

**B10.6.1 Draft ALP**

| <b>Type of Document</b>        | <b>Section Reference</b> | <b>Hardcopy Originals</b> | <b>Digital files</b>                  |
|--------------------------------|--------------------------|---------------------------|---------------------------------------|
| Fields Books                   | B8.4                     | 11 x 17”                  | AutoCAD, .pdf                         |
| Control Summary                | B9.2                     |                           |                                       |
| TINs                           | B8.7                     |                           |                                       |
| Orthophoto(s)                  | B9.3.3.1                 |                           |                                       |
| Design Standards Report        | B10.3.3.4                |                           |                                       |
| Draft ALP                      | B10.3.2, B10.5.1         |                           |                                       |
| Draft ALP Narrative            | B10.3.6                  | 8 ½ x 11”                 | Microsoft Word, .pdf                  |
| Completed FAA SOP checklist    | B10.3.3                  | 8 ½ x 11”                 | .pdf                                  |
| Completed DOT CR checklist     | B10.3.3                  | 8 ½ x 11”                 | Microsoft Word, .pdf                  |
| Supporting documents           | B10.3.3                  | N/A                       | Microsoft Word, .pdf                  |
| Capital Spending Plan Estimate | B10.3.3                  | N/A                       | Microsoft Word, .pdf, Microsoft Excel |
| Quantities and Calculations    | B10.3.3                  | N/A                       | Microsoft Word, .pdf, Microsoft Excel |
| 5010 Master Record Redlines    | B10.3.3                  | 8 ½ x 11”                 | AutoCAD, .pdf                         |

## B10.6.2 Final ALP

| <b>Type of Document</b>     | <b>Section Reference</b> | <b>Hardcopy Originals</b>                     | <b>Digital files</b>                     |
|-----------------------------|--------------------------|---|--|
| Fields Books                | B8.4                     | 11 x 17"                                      | AutoCAD, .pdf                            |
| Control Summary             | B9.2                     |   |  |
| TINs                        | B8.7                     |   |  |
| Orthophoto(s)               | B9.3.3.1                 |   |  |
| Draft ALP                   |                          |   |  |
| Draft ALP Narrative         | B10.3.6                  | 8 ½ x 11"                                     | Microsoft Word, .pdf                     |
| Completed FAA SOP checklist | B10.3.3                  | 8 ½ x 11"                                     | .pdf                                     |
| Completed DOT CR checklist  | B10.3.3                  | 8 ½ x 11"                                     | Microsoft Word, .pdf                     |
| Final ALP                   | B10.3.2                  | 11 x 17" (bond),<br>22 x 34" (mirrored Mylar) | AutoCAD, Microsoft Word, .pdf            |
| Final ALP Narrative         | B10.3.6                  | 8 ½ x 11"                                     | Microsoft Word, .pdf                     |
| Final FAA SOP Checklist     |                          | 8 ½ x 11"                                     | .pdf                                     |
| Adjudicated ALP comments    | B10.5.2                  | 8 ½ x 11" or 11 x 17"                         | Microsoft Word, .pdf,<br>Microsoft Excel |
| Supporting documents        | B10.3.3                  | N/A   | Microsoft Word, .pdf                     |
| Capital Spending Plan       | B10.3.3                  | N/A   | Microsoft Word, .pdf,<br>Microsoft Excel |
| Estimate                    |                          |   | Microsoft Excel                          |
| Quantities and Calculations | B10.3.3                  | N/A   | Microsoft Word, .pdf,<br>Microsoft Excel |
| 5010 Master Record Redlines | B10.3.3                  | 8 ½ x 11"                                     | AutoCAD, .pdf                            |

# EXHIBIT B-1

## SURVEY REQUEST



|   |   |
|---|---|
| <b>Project Name:</b> Chevak Airport Rehabilitation                |   |
| <b>From:</b> (Section, Design Group) Aviation Design Section      | <b>Date Submitted:</b> 7/15/2020                  |
| <b>Request Initiated by:</b> Phil Cheasebro                       | <b>Phone:</b> 269-0621                            |
| <b>State/Federal/AIP Project #:</b> Z592300000/3-02-0468-003-2022 |   |
| <b>Desired Completion Date:</b> Summer/Fall 2020                  | <b>Activity Code:</b> P <b>Phase Code:</b> TC2000 |

**Project Scope & Survey Limits:** (include exhibits as attachments)

*(Please contact Right of Way Engineering prior to filling this out, as their requirements may directly affect the survey effort required. Include their response)*

For each area the following information is needed: Alignment data or physical location of line (exist CL, top bluff, etc.); Desired contour interval; Distance or physical limits left and/or right from line desired. Please provide an attachment for each alignment.

**Scope of overall project:**

Rehabilitate the runway, taxiway, apron and airport access road with crushed aggregate surface course and dust palliative to repair frequent ruts, humps, depression, ponding and other surface variations. Correct runway grades to meet line-of-sight requirements. Extend and widen runway safety area (RSA) to meet Airplane Design Group (ADG) II standards. Replace airport lighting system. Replace existing rotating beacon from roof of SREB to tip-down pole. Update the Airport Layout Plan for ADG-II standards. An ALP update will be accomplished as part of the project.

**Scope of survey work requested:**

Design-level airfield survey, during snow-free ground conditions, including grade breaks and top of all embankments, toe of embankments, and other features contained within the area. The attached survey diagram shows the project limits as currently scoped, some survey request items are outside of these limits. Please tie to 2012 survey. See below for the details of the survey scope request not shown on the survey diagram. See FAA Airport Design AC 150/5300-13A and FAA General Guidance and Specifications for Submission of Aeronautical Surveys to NGS AC 150/5300-18B for more information on surveying features on the airfield. See selected supporting features in attached Table 2-1.

**Locate: (Fill empty slots if desired & Check all that apply)**

| Improvements             |   | Drainage    |   | Utilities     |   | Right of way/Monuments |   | Other |  |
|--------------------------|---|-------------|---|---------------|---|------------------------|---|-------|--|
| Edge Pvmnt., Curbs, etc. |   | Culverts    | X | Above Ground  | X | Front Corners Only     |   |       |  |
| Structures               | X | Ditches     |   | O'head X-ings | X | Front & Back Corners   |   |       |  |
| Sewer/Septic System      |   | Storm Drain | X | Inverts       | X | Monuments in Roadway   | X |       |  |
| Bridge Site Survey       |   |             |   |               |   | Encroachments          |   |       |  |
|                          |   |             |   |               |   |                        |   |       |  |

**Vertical Control**

Are there any elevation-critical features needing to be located?  Yes  No  
 If Yes, which datum are these features to be referenced to? (MSL, MLLW, MHW, Project, Geoid\_\_, etc...)

Survey performed for Chevak Airport Extension 53725

**Monuments in the road**

Are there survey monuments in the roadway (from as-builts)?  Yes  No

**Construction Schedule**

When is construction anticipated to occur? Summer 2023 and 2024

Completed by \_\_\_\_\_ Date Completed \_\_\_\_\_  
 Notes: \_\_\_\_\_

### **Detailed Survey Scope Request:**

(Some of the items below may be outside the limits shown on the survey diagram)

1. GRID SPACING:
  - a. 50 ft grid (or typical grid interval) for hatched areas within the survey limits in the attached figures, including:
    - i. Edge of existing runway (37.5' each side of centerline)
    - ii. Edge of existing runway safety area (RSA) (60' each side of centerline)
    - iii. Existing runway centerline profile at 50' intervals.
    - iv. All runway edge and threshold lights and taxiway edge lights
    - v. Edge and crown of existing airport access road
    - vi. Unpaved
2. UTILITIES
  - a. Above and below ground utilities within survey limits
  - b. Capture above ground utility clearance crossing airport access road
  - c. FAA underground power and telco lines back to the transformer or telco junction box.
3. ACCESS ROAD CULVERT
  - a. Culvert size, location, inverts on both ends
  - b. Survey all sides of inlet and outlet of culvert based on water flow:
    - i. Water that flows with more than minimal velocity that establishes a stream, survey limits are 300 feet upstream of the culvert and 300 feet downstream of the culvert
    - ii. Water that flows primarily between ponds and is not determined by the ground elevations, survey limits should include data that defines the water surface elevation and slope for 50 feet both sides of the culvert
  - c. Elevation of corrosion line or waterline on the culvert, if visible
  - d. Photos taken during surveying of the culvert are requested
4. PACS and SACS
  - a. Elevation (NAVD 88 and NAD 83)
  - b. Latitude
  - c. Longitude
5. PAPIS
  - a. Ground shots at the 4 corners of each PAPI foundation pad
  - b. Center of each lamp lens on each lamp housing
  - c. Ground shot at each base below center of each lamp housing
  - d. Height from ground to bottom of the lamp housing box
  - e. PAPI Control: Top four corners and ground at corner closest to runway or ground and top at center of control pedestal.
6. REILS
  - a. Ground at center of support assembly
  - b. Ground at 4 corners of each foundation pad
  - c. Center of lamp lens
7. WIND CONE
  - a. Ground at center of support assembly
  - b. Ground at 4 corners of each foundation pad
  - c. Highest point on total assembly
8. NAVAID Shelters & Buildings (All)  
(Not all FAA NAVAID Shelters & Buildings may be shown on survey diagram)
  - a. Ground at corner closest to runway
  - b. Ground at 4 corners of each foundation pad
  - c. Top 4 corners
  - d. NAVAID Vertical Control: NAVD88 and all NAVAIDs tied to it

Completed by \_\_\_\_\_ Date Completed \_\_\_\_\_  
Notes: \_\_\_\_\_

9. Shelters & Buildings (All)

- a. Ground at corner closest to runway
- b. Ground at 4 corners of each foundation pad
- c. Top 4 corners

10. MONUMENTS

- a. Monuments in runway and taxiway

11. Weather Station

- a. Ground at center of support assembly
- b. Ground at 4 corners of each foundation pad
- c. Highest point on total assembly

12. Wind Towers

- a. Survey tops of wind towers to the SW of runway (4 towers). Include shots for max elevation of turbine blades.

Completed by \_\_\_\_\_ Date Completed \_\_\_\_\_

Notes: \_\_\_\_\_

---

*(This section for Survey Section use)*

Survey Assigned to: Consultant

Estimated Completion Date: 12/31/2020

**Project History:**

N/A

**Hz/Vert Control:**

SCD 2012-32 Bethel Recording District should be the basis for this project. It is anticipated that New Horizontal and Vertical Control will need to be established.

**ROW/Monument Ties:**

Enough boundary monuments should be tied to be able to bring in the record boundary to this project.  
ANCSA Survey 2002-2 BRD, RWAP 2016-4 BRD

**TIN/Topo:**

The design survey should follow the survey request keeping in mind that the Department's Aviation Design Section will be updating the ALP 5-24-2016 from this survey.

**Other:**

Completed by \_\_\_\_\_ Date Completed \_\_\_\_\_

Notes: \_\_\_\_\_

**Table 2-1. Survey Requirements Matrix**

This table is designed for use in two ways. First, it defines in a general fashion the task required to meet a specific objective. Each task listed is generalized and the process to complete it many contain many other pieces. Users should refer to the text of the referenced AC to ensure that all the required subtasks are completed. The second way to use this matrix is as a checklist to ensure all the required data is collected either before leaving the field or before submitting the data to the FAA.

| Intended End Use of the Data ➤  | AC Reference      | Category II or III Operations | Navigational Aid Siting |                |        | Airport Layout Plan (ALP) | Airport Obstruction Chart | Construction   |                | Instrument Procedure Development | Pavement Design, Construction, Rehabilitation or Roughness | Airport Mapping Database |
|---|-------------------|-------------------------------|-------------------------|----------------|--------|---------------------------|---------------------------|----------------|----------------|----------------------------------|--|--------------------------|
|   |                   |                               | Non-Precision           | Precision      | Visual |                           |                           | Airside        | Landside       |                                  |  |                          |
| Required Tasks ▼  |                   |                               |                         |                |        |                           |                           |                |                |                                  |  |                          |
| Provide a Survey and Quality Control Plan   | 150/5300-16/17/18 | •                             | •                       | •              | •      | •                         | •                         | •              | •              | •                                | •  | •                        |
| Establish or validate Airport Geodetic Control  | 150/5300-16       | •                             | •                       | •              |        | •                         | •                         | •              |                | •                                | •  | •                        |
| Perform, document and report the tie to National Spatial Reference System (NSRS)                          | 150/5300-16       | •                             | •                       | •              | •      | •                         | •                         |                |                | •                                |  | •                        |
| Survey runway end(s)/threshold(s)   | 150/5300-18       | •                             | •                       | •              |        | •                         | •                         | • <sup>1</sup> |                | •                                | •  | •                        |
| Monument runway end(s)/threshold(s)   | 150/5300-18       | •                             | •                       | •              |        | •                         | •                         | • <sup>1</sup> |                | •                                | •  |                          |
| Document runway end(s)/threshold location(s)  | 150/5300-18       | •                             | •                       | •              |        | •                         | •                         | • <sup>1</sup> | • <sup>1</sup> | •                                | • <sup>1</sup>   |                          |
| Identify and survey any displaced threshold(s)  | 150/5300-18       | •                             | •                       | •              |        | •                         | •                         | • <sup>1</sup> |                | •                                | •  | •                        |
| Monument displaced threshold(s)   | 150/5300-18       | •                             | •                       | •              |        | • <sup>1</sup>            | • <sup>1</sup>            | • <sup>1</sup> |                | •                                |  |                          |
| Document displaced threshold(s) location  | 150/5300-18       | •                             | •                       | •              |        | •                         | •                         | • <sup>1</sup> |                | •                                | •  | •                        |
| Determine or validate runway length   | 150/5300-18       | •                             |                         |                |        | •                         | •                         | • <sup>1</sup> |                | •                                | •  | •                        |
| Determine or validate runway width  | 150/5300-18       | •                             |                         |                |        | •                         | •                         | • <sup>1</sup> |                | •                                | •  | •                        |
| Determine runway profile using 50 foot stations   | 150/5300-18       |                               |                         | • <sup>2</sup> |        | • <sup>2</sup>            | • <sup>2</sup>            | • <sup>1</sup> |                | •                                | • <sup>2</sup>   |                          |
| Determine runway profile using 10 foot stations   | 150/5300-18       | •                             |                         | • <sup>2</sup> |        | • <sup>2</sup>            | • <sup>2</sup>            | • <sup>1</sup> |                | •                                | • <sup>2</sup>   | • <sup>2</sup>           |
| Determine the touchdown zone elevation (TDZE)   | 150/5300-18       | •                             |                         | •              |        | •                         | •                         |                |                | •                                | •  |                          |
| Determine and document the intersection point of all specially prepared hard surface (SPHS) runways       | 150/5300-18       | •                             |                         |                |        | •                         | •                         |                |                |                                  |  | •                        |
| Determine and document the horizontal extents of any Stopways   | 150/5300-18       | •                             |                         |                |        | •                         | •                         |                |                | •                                |  | •                        |
| Determine any Stopway profiles  | 150/5300-18       | •                             |                         |                |        | •                         | •                         |                |                | •                                |  | •                        |
| Determine if the runway has an associated clearway  | 150/5300-18       | •                             |                         |                |        | •                         | •                         |                |                |                                  |  |                          |
| Survey clearway to determine objects penetrating the slope  | 150/5300-18       | •                             |                         |                |        | •                         | •                         |                |                | •                                |  | •                        |
| Determine and document the taxiway intersection to threshold distance                                     | 150/5300-18       |                               |                         |                |        | •                         |                           |                |                |                                  |  |                          |
| Determine runway true azimuth   | 150/5300-18       | •                             |                         | •              |        | •                         | •                         |                |                | •                                |  | •                        |
| Determine or validate and document the position of navigational aids                                      | 150/5300-18       | •                             | •                       | •              | •      | •                         | •                         |                |                | •                                |  |                          |
| Determine or validate and document the position of runway abeam points of navigational aids               | 150/5300-18       | •                             |                         | •              | •      |                           | •                         |                |                | •                                |  |                          |
| Determine potential navigational aid screening objects  | 150/5300-18       |                               | •                       | •              | •      |                           |                           |                |                |                                  |  |                          |
| Collect and document VOR receiver checkpoint location and associated data                                 | 150/5300-18       |                               | •                       |                |        |                           |                           |                |                |                                  | •  |                          |
| Perform or validate and document an airport airspace analysis   | 150/5300-18       | •                             | •                       | •              | •      | •                         | •                         | • <sup>1</sup> |                | •                                |  |                          |
| Collect and document helicopter touchdown lift off area (TLOF)  | 150/5300-18       |                               |                         |                | •      | •                         | •                         | •              |                | •                                | •  | •                        |
| Collect and document helicopter final approach and takeoff area (FATO)                                    | 150/5300-18       |                               |                         |                | •      | •                         | •                         | •              |                | •                                | •  | •                        |
| Collect or validate and document airport planimetric data   | 150/5300-18       |                               |                         |                |        | •                         | •                         | •              | •              |                                  |  | •                        |
| Determine or validate the elevation of the Air Traffic Control Tower Cab Floor (if one is on the airport) | 150/5300-18       | •                             |                         |                |        | •                         | •                         | •              | •              |                                  |  | •                        |

<sup>1</sup> Only when runway construction is involved.

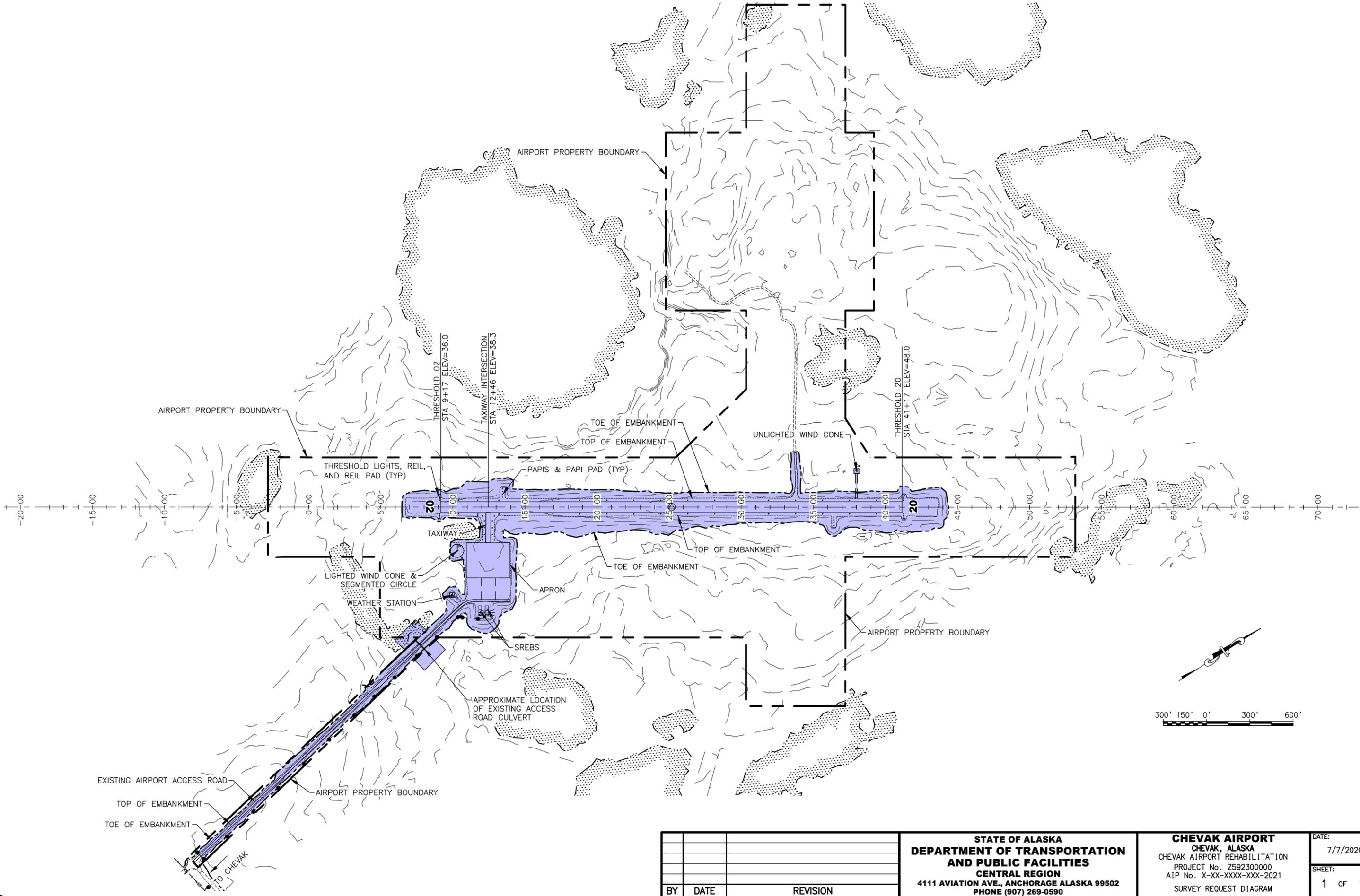
<sup>2</sup> All 14 CFR Part 139 airports require 10 foot stations. At all other airports the distance between stations is between 10 and 50 feet to meet local requirements

| Intended End Use of the Data ➤  | AC Reference   | Category II or III Operations | Navigational Aid Siting |           |        | Airport Layout Plan (ALP) | Airport Obstruction Chart | Construction |          | Instrument Procedure Development | Pavement Design, Construction, Rehabilitation or Roughness | Airport Mapping Database |
|---|----------------|-------------------------------|-------------------------|-----------|--------|---------------------------|---------------------------|--------------|----------|----------------------------------|--|--------------------------|
|   |                |                               | Non-Precision           | Precision | Visual |                           |                           | Airside      | Landside |                                  |  |                          |
| Required Tasks ▼  |                |                               |                         |           |        |                           |                           |              |          |                                  |  |                          |
| Perform or validate a topographic survey  | 150/5300-18    | • <sup>3</sup>                | •                       | •         |        | •                         |                           | •            | •        | • <sup>4</sup>                   |  |                          |
| Collect and document runway and taxiway lighting  | 150/5300-18    | •                             |                         |           |        | •                         |                           |              |          |                                  |  | •                        |
| Collect and document parking stand coordinates  | 150/5300-18    |                               |                         |           |        |                           |                           |              |          |                                  |  | •                        |
| Collect cultural and natural features of landmark value   | 150/5300-18    |                               |                         |           |        | •                         | •                         |              |          |                                  |  | •                        |
| Determine elevation of roadways at the intersecting point of the Runway Protection Zone (RPZ) or the runway centerline extended | 150/5300-18    | •                             |                         |           |        | •                         |                           |              |          |                                  |  |                          |
| Determine all Land Use to 65 DNL contour  | 150/5300-18    |                               |                         |           |        | •                         |                           |              |          |                                  |  |                          |
| Document features requiring digital photographs   | 150/5300-18    | •                             | •                       | •         | •      | •                         |                           | •            |          | •                                |  |                          |
| Document features requiring sketches  | 150/5300-18    | •                             | •                       | •         | •      | •                         |                           | •            |          | •                                |  | •                        |
| Collect position and type of runway markings  | 150/5300-18    | •                             |                         |           |        | •                         |                           |              |          |                                  |  | •                        |
| Collect position and type taxiway markings  | 150/5300-18    |                               |                         |           |        |                           |                           |              |          |                                  |  | •                        |
| Locate, collect, and document photo ID points   | 150/5300-17    |                               |                         |           |        |                           | •                         |              |          |                                  |  |                          |
| Identify collect, and document wetlands or environmentally sensitive areas  | 150/5300-18    |                               |                         |           |        | •                         |                           |              |          |                                  |  |                          |
| Collect imagery   | 150/5300-17    | •                             |                         |           |        | •                         | •                         |              |          | •                                |  | •                        |
| Provide a final Project Report  | 150/5300-16/18 | •                             | •                       | •         | •      | •                         | •                         | •            | •        | •                                | •  | •                        |

<sup>3</sup> Only required for the identified Category II and III special topographic survey

<sup>4</sup> For Cat II and III radar altimeter area or if specifically requested

Date Revises: 7/15/2020 8:22 AM  
 Layout Name: EXISTING LAYOUT  
 File Path and Name: \\dot.seo.alaska.gov\shared\AVI\_AVD\Projects\Chevak\Chevak Airport Rehab 53725\CAD\Exhibits\SUR\Request\53725-WK-Request.dwg  
 Designed By: RKB  
 Drawn By: RUB  
 Checked By: PC

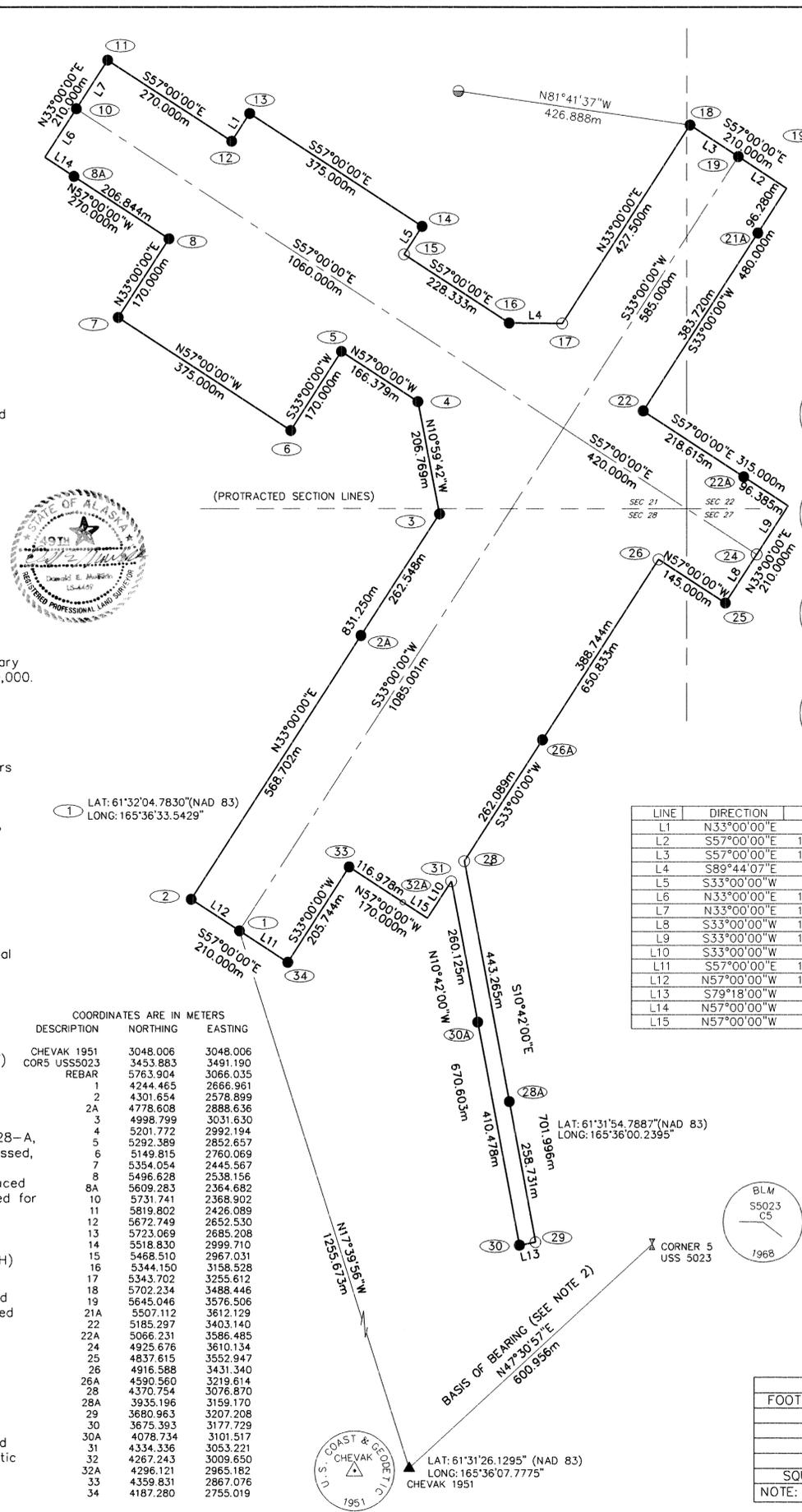
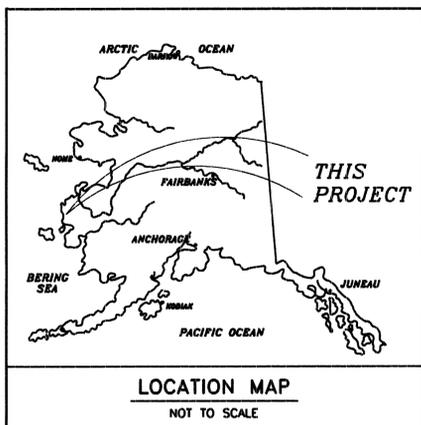


| BY | DATE | REVISION |
|----|------|----------|
|    |      |          |
|    |      |          |
|    |      |          |

**STATE OF ALASKA**  
**DEPARTMENT OF TRANSPORTATION**  
**AND PUBLIC FACILITIES**  
**CENTRAL REGION**  
 4111 AVIATION AVE., ANCHORAGE ALASKA 99502  
 PHONE (907) 269-0590

**CHEVAK AIRPORT**  
**CHEVAK, ALASKA**  
 CHEVAK AIRPORT REHABILITATION  
 PROJECT No. Z592300000  
 AIP No. X-XX-XXXX-XXX-2021  
 SURVEY REQUEST DIAGRAM

DATE: 7/7/2020  
 SHEET: 1 OF 1



**LEGEND:**

- ▲ FOUND 82MM BRONZE CAP ON 64MM PIPE
- ⊗ FOUND 16MM REBAR
- ⊗ FOUND 82MM BRASS CAP ON 64MM PIPE, CAP MARKED C5 55023, BLM, 1968.
- SET 82MM ALUM. CAP ON 64MM ALUM. FLANGED PIPE, SET WITH 80MM PROJECTING ABOVE GROUND UNLESS OTHERWISE NOTED
- SET 82MM ALUM. CAP ON 19MM ALUM. ROD IN 900MM SECTIONS, SET 200MM ABOVE GROUND UNLESS OTHERWISE NOTED
- ① DENOTES KEY FOR MONUMENT CAP DESCRIPTIONS
- WC WITNESS CORNER
- AG ABOVE GROUND
- AW ABOVE WATER

**MONUMENT CAP DESCRIPTIONS**  
SEE LEGEND FOR MONUMENT DESCRIPTIONS

**VICINITY MAP SCALE 1:63,360**  
SECTIONS 21, 22, 27 & 28 T17N R90W, S.M.  
USGS QUAD: HOOPER BAY (C-2) AK, 1953

**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 Record of Survey 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.

Donald E. Mullikin LS-4469 DATE 7/12/01



- The minimum closure of the tract boundary as field monumented, meets or exceeds 1:10,000.
- The Basis of Bearing for this survey is the bearing between triangulation station "Chevak 1951" and Corner 5, U.S. Survey No. 5023. This bearing is based upon the Department of Community and Regional Affairs Community mapping of Chevak prepared by R & M Consultants, Inc. in February 1994. The Basis of Bearing appears to be a true bearing based upon record data according to U.S. Survey No. 5023, Chevak Townsite. GPS measurements indicate a rotation of -0°01'05" from true geodetic to this basis of bearing.
- The bearings shown are local plane bearings as oriented to the basis of bearing, and distances shown are reduced to horizontal ground distances.
- Basis of Geodetic Coordinates:  
"CHEVAK 1951"  
Latitude: 61°31'26.12925" N  
Longitude: 165°36'07.77685" W  
NAD 83 Ak. Zone 8 (1986 ADJUSTMENT)  
Y=837,941.074  
X=521,168.443 Meters  
Converg. +0°20'59.0"  
Elevation 22 Meters, NGVD 29

① LAT: 61°32'04.7830" (NAD 83)  
LONG: 165°36'33.5429"

COORDINATES ARE IN METERS

| DESCRIPTION  | NORTHING | EASTING  |
|--------------|----------|----------|
| CHEVAK 1951  | 3048.006 | 3048.006 |
| COR5 USS5023 | 3453.883 | 3491.190 |
| REBAR 1      | 5763.904 | 3066.035 |
| 2            | 4244.465 | 2666.961 |
| 2A           | 4301.654 | 2578.899 |
| 3            | 4778.608 | 2888.636 |
| 4            | 4998.799 | 3031.630 |
| 5            | 5201.772 | 2992.194 |
| 6            | 5292.389 | 2852.657 |
| 7            | 5149.815 | 2760.069 |
| 8            | 5354.054 | 2445.567 |
| 8A           | 5496.628 | 2538.156 |
| 10           | 5609.283 | 2364.682 |
| 11           | 5731.741 | 2368.902 |
| 12           | 5819.802 | 2426.089 |
| 13           | 5672.749 | 2652.530 |
| 14           | 5723.069 | 2685.208 |
| 15           | 5518.830 | 2999.710 |
| 16           | 5468.510 | 2967.031 |
| 17           | 5344.150 | 3188.828 |
| 18           | 5343.702 | 3255.612 |
| 19           | 5702.234 | 3488.446 |
| 20           | 5645.046 | 3576.506 |
| 21A          | 5507.112 | 3612.129 |
| 22           | 5185.297 | 3403.140 |
| 22A          | 5066.231 | 3586.485 |
| 24           | 4925.676 | 3610.134 |
| 25           | 4837.615 | 3552.947 |
| 26           | 4916.588 | 3431.340 |
| 26A          | 4590.560 | 3219.614 |
| 28           | 4370.754 | 3076.870 |
| 28A          | 3935.196 | 3159.170 |
| 29           | 3650.963 | 3207.208 |
| 30           | 3675.393 | 3177.729 |
| 30A          | 4078.734 | 3101.517 |
| 31           | 4334.336 | 3053.221 |
| 32           | 4267.243 | 3009.650 |
| 32A          | 4296.121 | 2965.182 |
| 33           | 4359.831 | 2867.076 |
| 34           | 4187.280 | 2755.019 |

| LINE | DIRECTION   | DIST.    |
|------|-------------|----------|
| L1   | N33°00'00"E | 60.000m  |
| L2   | S57°00'00"E | 105.000m |
| L3   | S57°00'00"E | 105.000m |
| L4   | S89°44'07"E | 97.086m  |
| L5   | S33°00'00"W | 60.000m  |
| L6   | N33°00'00"E | 105.000m |
| L7   | N33°00'00"E | 105.000m |
| L8   | S33°00'00"W | 105.000m |
| L9   | S33°00'00"W | 105.000m |
| L10  | S33°00'00"W | 80.000m  |
| L11  | S57°00'00"E | 105.000m |
| L12  | N57°00'00"W | 105.000m |
| L13  | S79°18'00"W | 30.000m  |
| L14  | N57°00'00"W | 63.156m  |
| L15  | N57°00'00"W | 53.022m  |

MONUMENT CAP DESCRIPTIONS (1-34)

1 CARSONITE STAKE BEARS NORTHEAST, 0.3 M.

2 CARSONITE STAKE BEARS EAST, 0.3 M.

3 CARSONITE STAKE BEARS EAST, 0.3 M.

4 CARSONITE STAKE BEARS NORTHEAST, 0.3 M.

5 CARSONITE STAKE BEARS NORTH, 0.3 M.

6 CAP SET 2 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS NORTH, 0.3 M.

7 CAP SET WITH PUNCH MARK CARSONITE STAKE BEARS EAST, 0.3 M.

8 CAP SET 5 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS EAST, 0.3 M.

9 CAP SET 3 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS SOUTHWEST, 0.3 M.

10 CAP SET 3 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS SOUTHWEST, 0.3 M.

11 CAP SET 2 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS SOUTH, 0.3 M.

12 CAP SET 3 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS SOUTH, 0.3 M.

13 CAP SET 6 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS SOUTH, 0.3 M.

14 CAP SET 3 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS WEST, 0.3 M.

15 CAP SET 14 CM A.W. WITH PUNCH MARK & X CARSONITE STAKE BEARS WEST, 0.3 M.

16 CAP SET 4 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS SOUTH, 0.3 M.

17 CAP SET 26 CM A.G. WITH PUNCH MARK & X CARSONITE STAKE BEARS SOUTHWEST, 0.3 M.

18 CAP SET 5 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS SOUTH, 0.3 M.

19 CAP SET 3 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS SOUTHWEST, 0.3 M.

20 CAP SET 6 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS NORTHWEST, 0.3 M.

21A CAP SET 6 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS NORTHWEST, 0.3 M.

22 CAP SET 6 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS WEST, 0.3 M.

22A CAP SET 3 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS SOUTHWEST, 0.3 M.

23 CAP SET 13 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS NORTHWEST, 0.3 M.

24 CAP SET 10 CM A.G. CARSONITE STAKE BEARS NORTH, 0.3 M.

25 CAP SET 10 CM A.G. CARSONITE STAKE BEARS NORTH, 0.3 M.

26 CAP SET 13 CM A.W. WITH PUNCH MARK & X CARSONITE STAKE BEARS NORTH, 0.3 M.

26A CAP SET 5 CM A.W. WITH PUNCH MARK & X CARSONITE STAKE BEARS NORTHWEST, 0.3 M.

27 CAP SET 5 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS WEST, 0.3 M.

28 CARSONITE STAKE BEARS WEST, 0.3 M.

28A CAP SET 5 CM A.G. CARSONITE STAKE BEARS WEST, 0.3 M.

29 CARSONITE STAKE BEARS NORTHWEST, 0.3 M.

29A CAP SET 6 CM B.G. IN ATV TRAIL NORTH OF CEMETERY ROAD CARSONITE STAKE BEARS NORTHEAST, 0.3 M.

30 CAP SET 6 CM B.G. IN ATV TRAIL NORTH OF CEMETERY ROAD CARSONITE STAKE BEARS NORTHEAST, 0.3 M.

30A CAP SET 7 CM A.G. CARSONITE STAKE BEARS SOUTHWEST, 0.3 M.

31 CARSONITE STAKE BEARS NORTHEAST, 0.3 M.

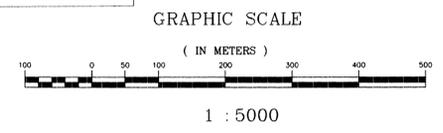
31A CAP SET 5 CM A.G. WITH PUNCH MARK CARSONITE STAKE BEARS NORTHEAST, 0.3 M.

32A CAP SET WITH PUNCH MARK ON WEST SIDE CARSONITE STAKE BEARS NORTH, 0.3 M.

33 CAP SET WITH PUNCH MARK ON WEST SIDE CARSONITE STAKE BEARS NORTH, 0.3 M.

34 CARSONITE STAKE BEARS NORTH, 0.3 M.

2002-2  
BETHEL REC DIST  
DATE JAN 15, 2002  
TIME 9:58 AM  
Requested by AS/DOT+PF  
Address



**METRIC CONVERSION FACTORS**  
1 METER = 39.37 INCHES

| FROM                    | TO                 | MULTIPLY BY  |
|-------------------------|--------------------|--------------|
| FOOT (U.S. SURVEY FOOT) | METER              | 0.304800610  |
| ACRE                    | HECTARE (H)        | 0.404687261  |
| SQUARE FEET             | SQUARE METERS (SM) | 0.092903412  |
| METER                   | FOOT               | 3.280833333  |
| HECTARE (H)             | ACRE               | 2.471043930  |
| SQUARE METERS (SM)      | SQUARE FEET        | 10.763867360 |

NOTE: HECTARE = 10,000 SQUARE METERS; 1 ACRE = 43,560 SQUARE FEET

**MULLIKIN SURVEYS**  
P.O. BOX 790  
HOMER, ALASKA 99603-0790  
(907) 235-8975

Note: This survey does not constitute a subdivision as defined by AS 40.15.900(5).

|   |   |
|---|---|
| DATE OF SURVEY<br>Beginning: OCTOBER 13, 1999<br>Ending: OCTOBER 27, 1999   | NAME AND ADDRESS:<br>Department of Transportation and Public Facilities (DOT&PF)<br>2301 Peffer Road<br>Fairbanks, Alaska 99709 |
| <b>RECORD OF SURVEY</b>   |   |
| of<br><b>CHEVAK AIRPORT BOUNDARY</b><br>within<br>SECTIONS 21, 22, 27, 28<br>TOWNSHIP 17 NORTH, RANGE 90 WEST<br>SEWARD MERIDIAN, ALASKA<br>BETHEL RECORDING DISTRICT |   |
| DRAWN BY:<br>TLM  | SCALE:<br>1:500   |
| CHECKED BY:<br>DEM  | FILE NO.:<br>CHEVAK.DWG   |



# United States Department of the Interior

2002-2  
KUSKOKWIM

BUREAU OF LAND MANAGEMENT  
Alaska State Office  
222 W. 7th Avenue, #13  
Anchorage, Alaska 99513-7599

9600 (927)  
ANCSA 14(c)  
GEORGETOWN

May 31, 2002

KUSKOKWIM RECORDING DISTRICT  
State of Alaska, Fourth Judicial District  
Box 426  
Bethel, Alaska 99559

Dear District Recorder:

The ANCSA 14(c) plat for Georgetown, Tracts A through R, consisting of four (4) original sheets, transmitted to you by this letter of compliance, portrays a Cadastral Survey conducted to fulfill statutory requirements mandated by the Alaska Native Claims Settlement Act (ANCSA), pursuant to Public Law 92-203 (Stat. 688, 702, 703), and satisfies the federal guidelines and requirements proclaimed for ANCSA 14(c) Surveys.

The plat represents surveyed parcels of land selected for ANCSA 14(c) reconveyances situated on portions of surface estate lands transferred from the United States of America by Patent No. 50-94-0005 and Interim Conveyance No. 728, both to The Kuskokwim Corporation.

ANCSA 14(c) Surveys have been authorized as federally mandated surveys, under the provisions of Section 13 of ANCSA, 43 U.S.C. Stat. 1612. The authority to execute all federal land surveys in Alaska is delegated by the Secretary of the Interior to the Director, Bureau of Land Management (BLM) and subsequently redelegated to the Deputy State Director for Cadastral Survey, Alaska State Office. Accordingly, BLM requests that this plat be filed with the KUSKOKWIM RECORDING DISTRICT to comply with the federal platting regulations and the agreements set forth between the Bureau of Land Management and the State Recording Authority.

Sincerely,

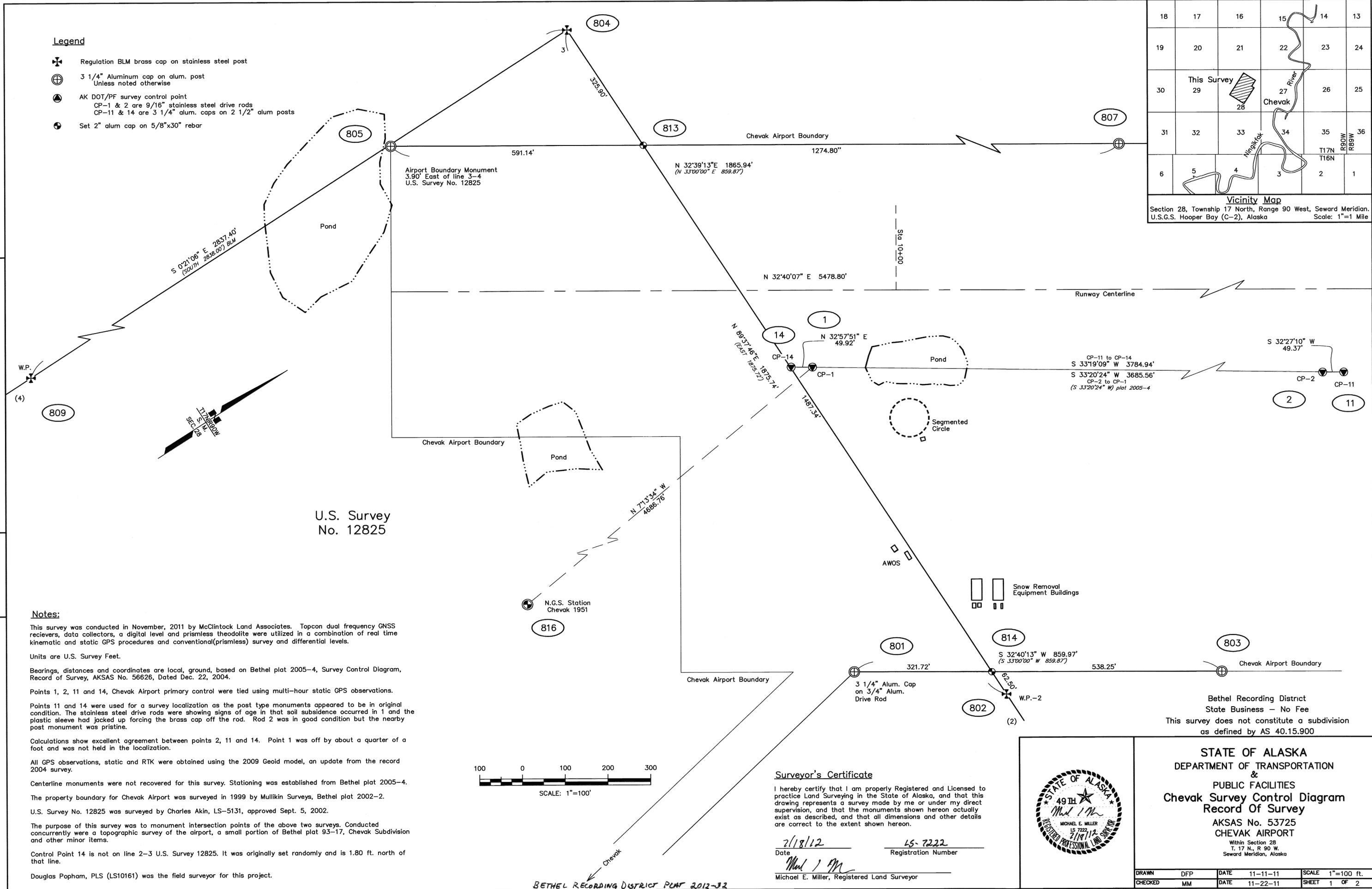
George P. Oviatt  
Deputy State Director  
for Cadastral Survey  
and Geomatics, Alaska

**Legend**

- ⊕ Regulation BLM brass cap on stainless steel post
- ⊕ 3 1/4" Aluminum cap on alum. post  
Unless noted otherwise
- ⊙ AK DOT/PF survey control point  
CP-1 & 2 are 9/16" stainless steel drive rods  
CP-11 & 14 are 3 1/4" alum. caps on 2 1/2" alum posts
- ⊙ Set 2" alum cap on 5/8"x30" rebar

|    |                   |    |                 |    |    |
|----|-------------------|----|-----------------|----|----|
| 18 | 17                | 16 | 15              | 14 | 13 |
| 19 | 20                | 21 | 22              | 23 | 24 |
| 30 | This Survey<br>29 | 28 | Chevak<br>River | 26 | 25 |
| 31 | 32                | 33 | 34              | 35 | 36 |
| 6  | 5                 | 4  | 3               | 2  | 1  |

**Vicinity Map**  
Section 28, Township 17 North, Range 90 West, Seward Meridian.  
U.S.G.S. Hooper Bay (C-2), Alaska Scale: 1"=1 Mile



U.S. Survey  
No. 12825

**Notes:**

This survey was conducted in November, 2011 by McClintock Land Associates. Topcon dual frequency GNSS receivers, data collectors, a digital level and prismless theodolite were utilized in a combination of real time kinematic and static GPS procedures and conventional(prismless) survey and differential levels.

Units are U.S. Survey Feet.

Bearings, distances and coordinates are local, ground, based on Bethel plat 2005-4, Survey Control Diagram, Record of Survey, AKSAS No. 56626, Dated Dec. 22, 2004.

Points 1, 2, 11 and 14, Chevak Airport primary control were tied using multi-hour static GPS observations.

Points 11 and 14 were used for a survey localization as the post type monuments appeared to be in original condition. The stainless steel drive rods were showing signs of age in that soil subsidence occurred in 1 and the plastic sleeve had jacked up forcing the brass cap off the rod. Rod 2 was in good condition but the nearby post monument was pristine.

Calculations show excellent agreement between points 2, 11 and 14. Point 1 was off by about a quarter of a foot and was not held in the localization.

All GPS observations, static and RTK were obtained using the 2009 Geoid model, an update from the record 2004 survey.

Centerline monuments were not recovered for this survey. Stationing was established from Bethel plat 2005-4.

The property boundary for Chevak Airport was surveyed in 1999 by Mullikin Surveys, Bethel plat 2002-2.

U.S. Survey No. 12825 was surveyed by Charles Akin, LS-5131, approved Sept. 5, 2002.

The purpose of this survey was to monument intersection points of the above two surveys. Conducted concurrently were a topographic survey of the airport, a small portion of Bethel plat 93-17, Chevak Subdivision and other minor items.

Control Point 14 is not on line 2-3 U.S. Survey 12825. It was originally set randomly and is 1.80 ft. north of that line.

Douglas Popham, PLS (LS10161) was the field surveyor for this project.



**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.

Date 2/18/12 Registration Number LS-7222  
 Michael E. Miller, Registered Land Surveyor



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

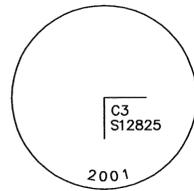
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
&  
PUBLIC FACILITIES  
**Chevak Survey Control Diagram  
Record Of Survey**  
AKSAS No. 53725  
CHEVAK AIRPORT  
Within Section 28  
T. 17 N., R 90 W.  
Seward Meridian, Alaska

|         |     |      |          |       |            |
|---------|-----|------|----------|-------|------------|
| DRAWN   | DFP | DATE | 11-11-11 | SCALE | 1"=100 ft. |
| CHECKED | MM  | DATE | 11-22-11 | SHEET | 1 OF 2     |

BETHEL RECORDING DISTRICT PLAT 2012-32



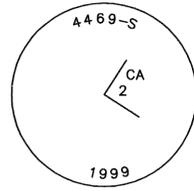
\*Pt. No. 1 CHEVAK 1\*  
 9/16"x40' stainless steel sectional rod with 2 1/2" brass cap in 6" PVC case with cover. Carsonite post bears SSE 1.0'. Cap has been forced off rod and is at bottom of case.



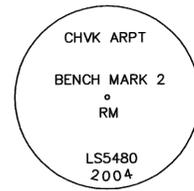
Pt. No. 804  
 Regulation BLM brass cap on 2 1/2" stainless steel post projecting 12 ins. above ground and leaning 45°. Frozen in place and unable to rehab.



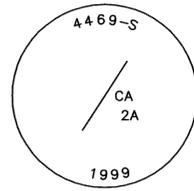
Pt. No. 2 CHEVAK 2  
 9/16"x36' stainless steel sectional rod with 2 1/2" brass cap in 6" PVC case with cover. Carsonite post bears W 1.0'. Good Condition.



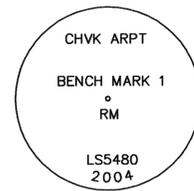
Pt. No. 805  
 3 1/4" aluminum cap on a 2 1/2" aluminum post, 0.1' above ground. Good Condition.



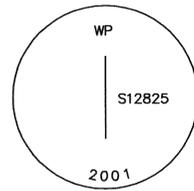
Pt. No. 11 CHEVAK RM 2  
 3 1/4" alcap on a 2 1/2" aluminum post, 0.3' above ground. Good Condition.



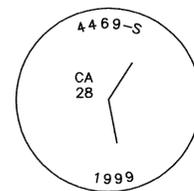
Pt. No. 807  
 3 1/4" aluminum cap on a 2 1/2" aluminum post, 0.3' above ground. Carsonite post 1.0' South. Good Condition.



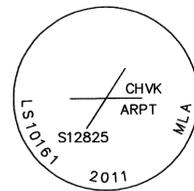
Pt. No. 14 CHEVAK RM 1  
 3 1/4" alcap on a 2 1/2" aluminum post, 0.3' above ground. Good Condition.



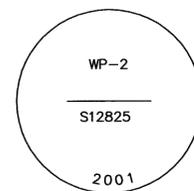
Pt. No. 809  
 Regulation BLM brass cap on 2 1/2" stainless steel post projecting 3 ins. above ground. Good Condition.



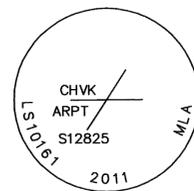
Pt. No. 801  
 3 1/4" aluminum cap on a 2 1/2" aluminum post, 0.3' above ground. Good Condition.



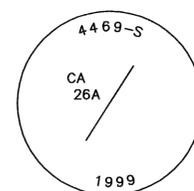
Pt. No. 813  
 Set 2" aluminum cap on 5/8"x30" rebar, flush with ground.



Pt. No. 802  
 Regulation BLM brass cap on 2 1/2" stainless steel post projecting 8 ins. above ground and bent nearly flat. Frozen in place and unable to rehab.



Pt. No. 814  
 Set 2" aluminum cap on 5/8"x30" rebar, flush with ground.



Pt. No. 803  
 3 1/4" aluminum cap on a 2 1/2" aluminum post, 0.3' above ground. Carsonite post 2' north. Good Condition.



Pt. No. 816 CHEVAK RM 1  
 3 1/4" brass cap on a 1 1/4" copper pipe, 0.3' above ground. Good Condition.

COORDINATE TABLE

| Point | Local Coordinates |             |               | Description                        | Source         |                 |
|-------|-------------------|-------------|---------------|------------------------------------|----------------|-----------------|
|       | Northing(ft)      | Easting(ft) | Elevation(ft) |                                    | H:             | V:              |
| 1     | 49999.7578        | 30000.1885  | 33.63         | Fd ROD: AKDOT GPS CHEVAK-1 2004    | H: Static GPS  | V: Diff. Levels |
| 2     | 53079.0001        | 32025.5894  | 37.58         | Fd BD/ROD: AKDOT GPS CHEVAK-2 2004 | H: Static GPS  | V: Plat 2005-4  |
| 11    | 53120.6610        | 32052.1000  | 35.16         | Fd AM: AKDOT GPS BENCHMARK-2 2004  | H: Plat 2005-4 | V: Diff. Levels |
| 14    | 49957.8740        | 29973.0200  | 32.67         | Fd AM: AKDOT GPS BENCHMARK-1 2004  | H: Plat 2005-4 | V: Diff. Levels |
| 801   | 49690.7967        | 30658.4922  | 17.51         | Fd AM[4469-S]:C28 Chevak Arpt      | H: Static GPS  | V: Static GPS   |
| 802   | 49962.0468        | 30894.6798  | 13.12         | Fd BC[BLM]: WP-2 S-12825           | H: Static GPS  | V: Static GPS   |
| 803   | 50414.7288        | 31122.7244  | 12.40         | Fd AM[4469-S]:C26A Chevak Arpt     | H: Static GPS  | V: Static GPS   |
| 804   | 49949.9017        | 29018.9832  | 6.31          | Fd BC[BLM]: C3 S-12825             | H: Static GPS  | V: Static GPS   |
| 805   | 49454.3099        | 29025.9261  | 12.61         | Fd AM[4469-S]:C2 Chevak Arpt       | H: Static GPS  | V: Static GPS   |
| 807   | 51025.3328        | 30032.7000  | 22.17         | Fd AM[4469-S]:C2A Chevak Arpt      | H: Static GPS  | V: Static GPS   |
| 809   | 47112.5617        | 29036.4004  | 22.26         | Fd BC[BLM]: WP3-4 S-12825          | H: Static GPS  | V: Static GPS   |
| 813   | 49952.0003        | 29344.8547  | 20.79         | Set Rbr/AC [10161-S]:              | H: Static GPS  | V: Static GPS   |
| 814   | 49961.6472        | 30832.1310  | 15.52         | Set Rbr/AC [10161-S]:              | H: Static GPS  | V: Static GPS   |
| 816   | 45350.4617        | 30589.5156  | 69.21         | Fd BC [NGS]: Station CHEVAK 1951   | H: Static GPS  | V: Static GPS   |

Horizontal and Vertical Control Statement:

Bearings, distances and coordinates are local, ground, based on Bethel plat 2005-4, Survey Control Diagram, Record of Survey, AKSAS No. 56626, Dated Dec. 22, 2004. The coordinates were achieved by performing a ground localization on record points 11 and 14 in the table above.

Elevations are based upon the localization above and are constrained to point 14. Elevations were obtained by the method shown in table.

Transformation Parameters

Conversion from State Plane, Zone 8, NAD 83 feet to local feet:

- Scale State Plane coordinates using 1.0000961492
- Translate resulting coordinates using -2,704,056.8519 N and -1,679,442.6297 E

Conversion from local feet to State Plane, Zone 8, NAD83 feet:

- Translate local coordinates using +2,704,056.8519 N and +1,679,442.6297 E
- Scale resulting coordinates using 0.9999038600

No rotation is involved.

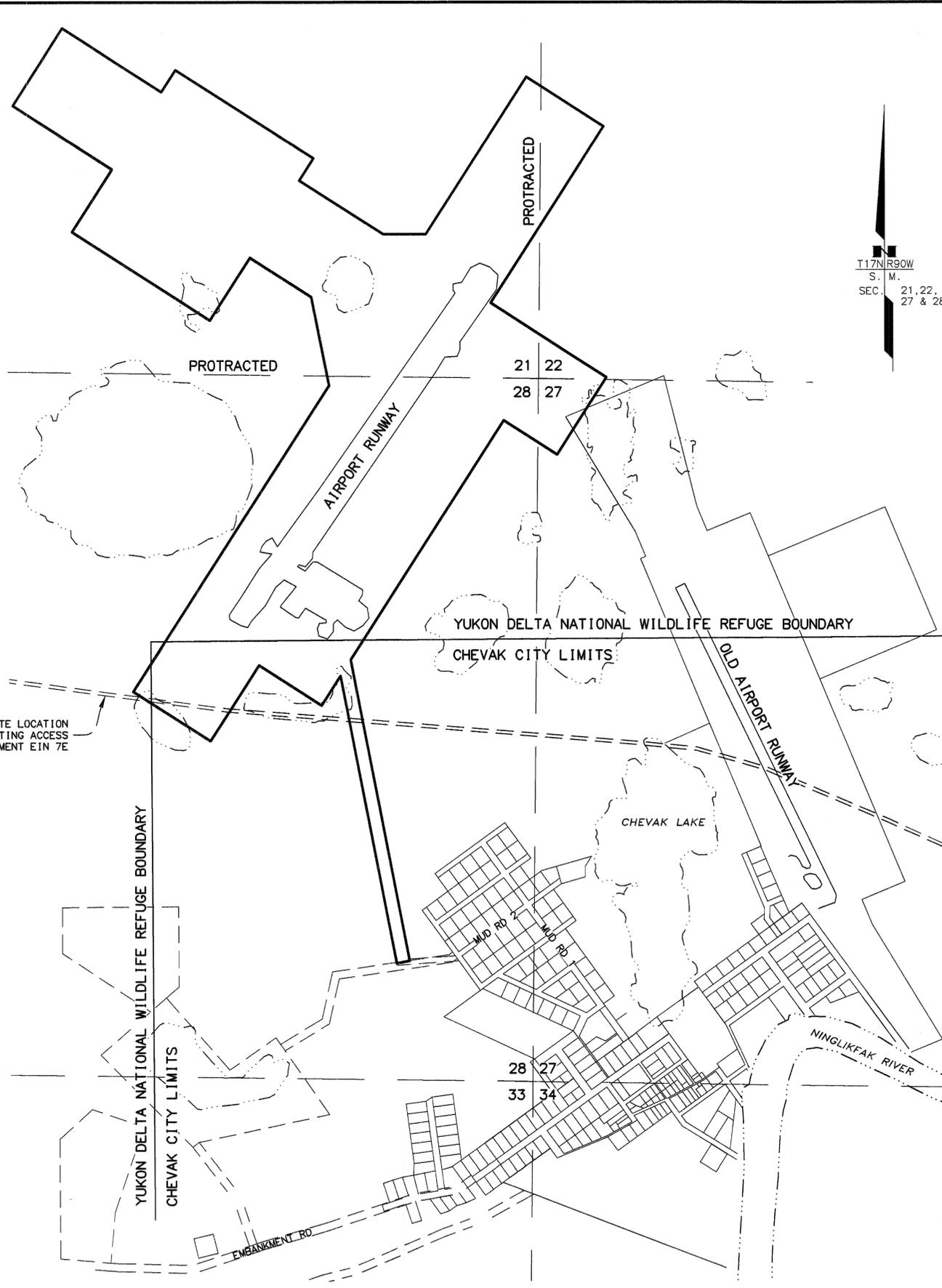
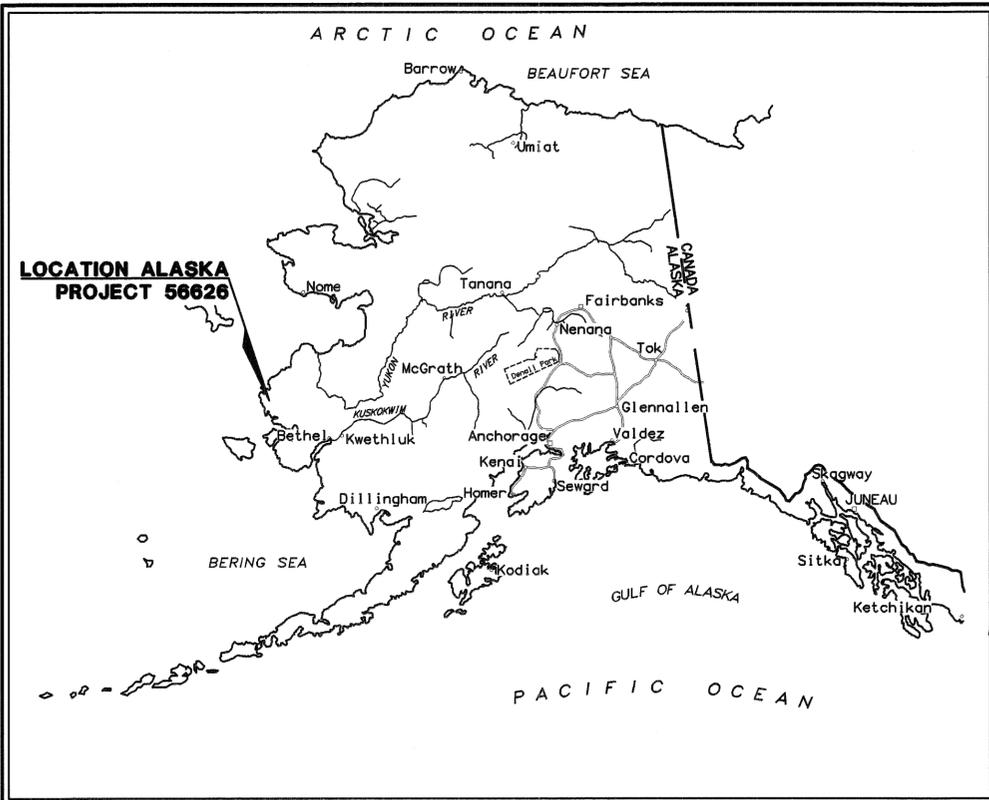
\*Drive rod has cap missing and sleeve is up 0.10 feet above rod. Soil in casing is down 18 inches. Monument was not used this survey.

2012-32  
 Plat #  
 BETHEL  
 Rec Dist  
 7/25 2012  
 Date  
 Time 1:19 P.M.

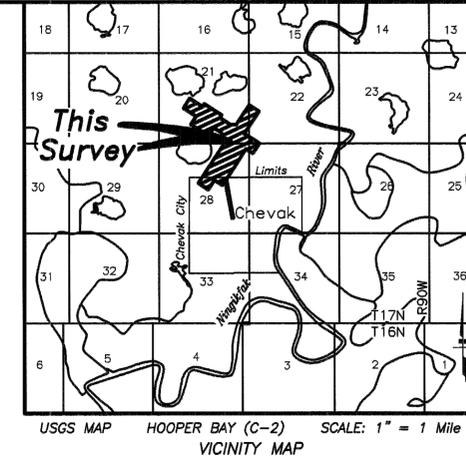


STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 &  
 PUBLIC FACILITIES  
 Survey Control Diagram  
 Record Of Survey  
 AKSAS No. 53725  
 CHEVAK AIRPORT  
 Within Section 28  
 T. 17 N., R. 90 W.  
 Seward Meridian, Alaska

|         |     |      |          |       |        |
|---------|-----|------|----------|-------|--------|
| DRAWN   | DFP | DATE | 11-11-11 | SCALE | N/A    |
| CHECKED | MM  | DATE | 11-22-11 | SHEET | 2 OF 2 |



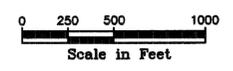
T17N R90W  
S. M.  
SEC. 21, 22,  
27 & 28



**STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
&  
PUBLIC FACILITIES**

**RIGHT OF WAY ACQUISITION PLAT  
ALASKA PROJECT  
CHEVAK AIRPORT  
RELOCATION STAGE II  
AKSAS NO. 56626  
A.I.P. 3-02-0468-001-2005**

APPROXIMATE LOCATION  
25' EXISTING ACCESS  
TRAIL EASEMENT E1N 7E



| SHEET INDEX |  |
|-------------|--|
| SHEET 1     | COVER SHEET  |
| SHEET 2     | ACQUISITION PLAT                                     |
| SHEET 3     | PROPERTY STATUS, HORIZONTAL CONTROL AND SURVEY NOTES |

**PLAT APPROVAL**  
THIS PLAT IS APPROVED BY THE COMMISSIONER OF THE DEPARTMENT OF NATURAL RESOURCES, OR THE COMMISSIONER'S DESIGNEE, IN ACCORDANCE WITH AS 40.15.  
*Small Jennings*  
COMMISSIONER  
DATE: Apr 14, 2016

**DEPARTMENT RIGHT-OF-WAY SURVEYOR'S CERTIFICATE**  
I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA AND THAT THIS PLAT WAS MADE BY ME OR UNDER MY SUPERVISION. THIS PLAT WAS BASED UPON THE MONUMENTS RECOVERED BY THE DEPARTMENT'S CONSULTANT SURVEYORS, SEE PLATS 2002-2, 2005-4, 2012-32.

DATE: 9 March 2016  
REGISTRATION NUMBER: AS-6109  
*P. Louise Hooyer*  
P. LOUISE HOOYER

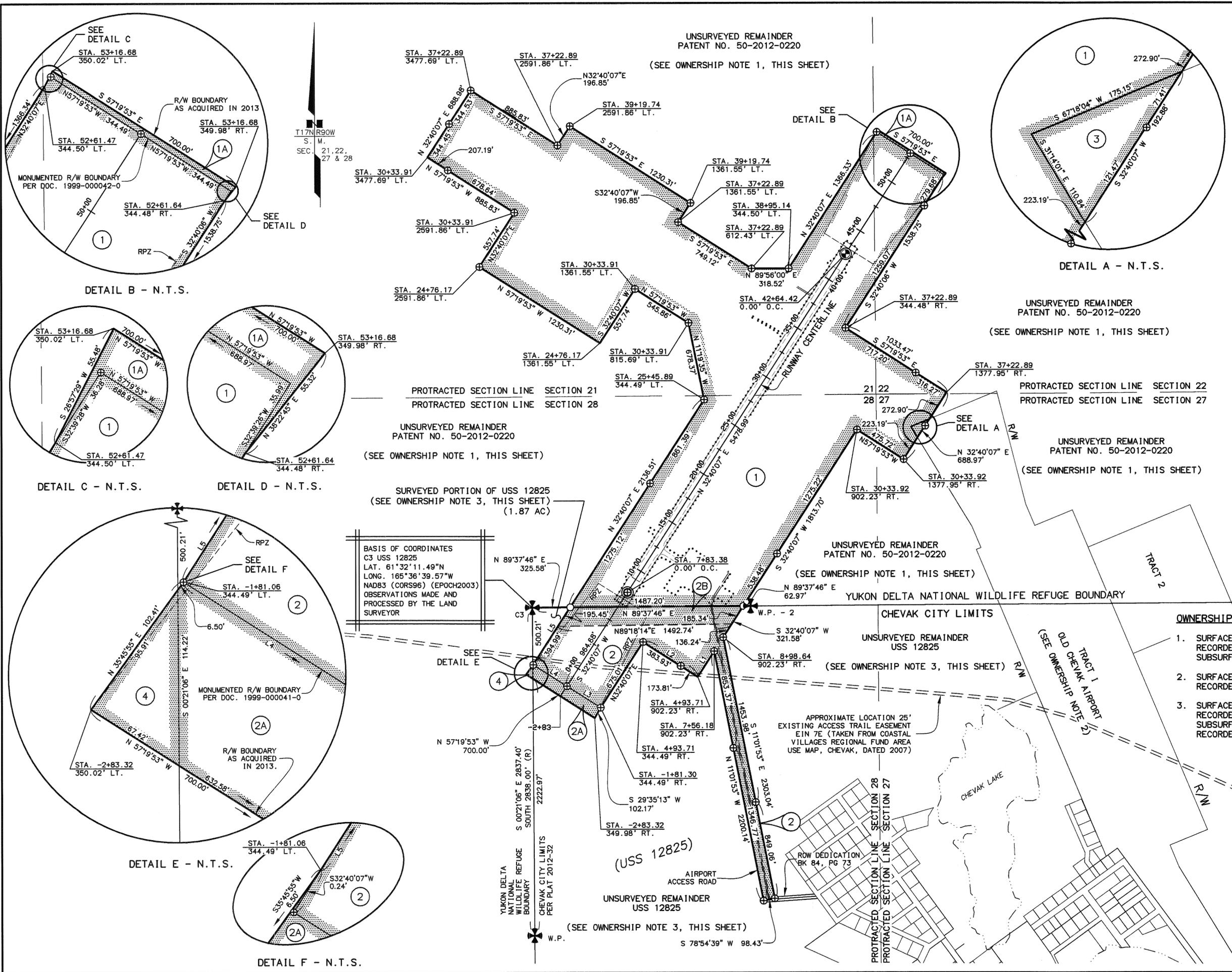


**DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES**  
APPROVED: MARCH 9, 2016  
Date  
*McNeill*  
REGIONAL CHIEF R/W AGENT

**TAX CERTIFICATE**  
THIS RIGHT-OF-WAY ACQUISITION IS NOT SUBJECT TO TAXATION, AT THE TIME OF FILING.

LOCATED WITHIN PROTRACTED SECTIONS 21, 22, 27 AND 28, T17N, R90W, SEWARD MERIDIAN

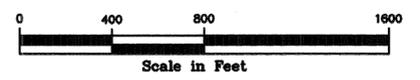
**BETHEL RECORDING DISTRICT  
STATE BUSINESS-NO FEE**



- LEGEND**
- RIGHT-OF-WAY (R/W) ACQUIRED
  - RIGHT-OF-WAY (R/W) FEE OWNERSHIP
  - EXISTING PROPERTY LINE
  - EASEMENT
  - SECTION LINE
  - EDGE OF GRAVEL SURFACE
  - FILL DAYLIGHT
  - EDGE OF WATER
  - RUNWAY PROTECTION ZONE (RPZ) LINE
  - PARCEL NUMBER
  - GLO - BLM GOVERNMENT MONUMENT RECOVERED
  - PRIMARY CENTERLINE MONUMENT, SET PER PLAT 2005-4
  - PRIMARY MONUMENT (BRASS/AL CAP) SET PER PLAT 2002-2
  - SET 2" ALUMINUM CAP ON 5/8" X 30" REBAR
  - RECORD PER U.S. SURVEY NO. 12825, ALASKA

| LINE TABLE |         |               |
|------------|---------|---------------|
| LINE #     | LENGTH  | DIRECTION     |
| L1         | 262.47' | S 32°40'07" W |
| L2         | 557.74' | N 57°19'53" W |
| L3         | 344.49' | S 57°19'53" E |
| L4         | 344.49' | S 57°19'53" E |
| L5         | 590.44' | N 32°40'07" E |

- OWNERSHIP NOTES:**
- SURFACE: CHEVAK COMPANY. PATENT 50-2012-0220, RECORDED DOCUMENT 2012-001094-0. SUBSURFACE: U.S. FISH & WILDLIFE SERVICE.
  - SURFACE: CHEVAK COMPANY COMMISSIONER'S QUITCLAIM DEED, RECORDED DOCUMENT 2009-000553-0.
  - SURFACE: CHEVAK COMPANY. PATENT 50-2012-0220, RECORDED DOCUMENT 2012-001094-0. SUBSURFACE: CALISTA CORPORATION. PATENT 50-2012-0179, RECORDED DOCUMENT 2012-000743-0.



|      |           |    |
|------|-----------|----|
| DATE | REVISIONS | BY |
|      |           |    |

**STATE OF ALASKA**  
 DEPARTMENT OF TRANSPORTATION  
 &  
 PUBLIC FACILITIES  
 RIGHT OF WAY ACQUISITION PLAT  
 AIP NO. 3-02-0468-001-2005  
 AKSAS 56626

**CHEVAK AIRPORT RELOCATION STAGE II**  
 LOCATED WITHIN: PROTRACTED SECTIONS 21, 22, 27, & 28,  
 TOWNSHIP 17 NORTH, RANGE 90 WEST, SEWARD MERIDIAN, ALASKA

|              |            |       |            |       |           |
|--------------|------------|-------|------------|-------|-----------|
| DRAWN        | GS/DF/JF   | DATE  | MARCH 2016 | SCALE | 1" = 400' |
| DNR FILE NO. | PA20150053 | SHEET | 2          | OF    | 3         |

| PROPERTY STATUS |                           |                                |                         |                       |                                   |        |                               |                        |                        |
|-----------------|---------------------------|--------------------------------|-------------------------|-----------------------|-----------------------------------|--------|-------------------------------|------------------------|------------------------|
| PARCEL NO.      | INTEREST TO BE ACQUIRED   | GRANTOR                        | GRANTEE                 | LARGER PARCEL AREA    | NET TAKE                          | REMAIN | RECORDED DOCUMENT NUMBER      | RECORDED DOCUMENT DATE | ACQUIRED UNDER AIP NO. |
| 1               | FEE / SURFACE (INCORRECT) | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | LARGE                 | 194.93 AC (78.888 Ha) (INCORRECT) | LARGE  | 1999-000042-0 (INCORRECT)     | 01/07/1999             | 3-02-0052-01           |
|                 | FEE / SURFACE (CORRECTED) | CHEVAK COMPANY                 |                         | LARGE                 | 189.48 AC (CORRECTED)             |        | 2015-000994-0 (CORRECTED)     | 10/05/2015             | 3-02-0468-001-2005     |
|                 | SUBSURFACE                | UNITED STATES OF AMERICA/USFWS |                         | LARGE                 | 189.48 AC                         |        | SUBSURFACE NOT ACQUIRED       |                        |                        |
| 1A              | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | LARGE                 | 13,386 S.F.                       | LARGE  | 2015-000992-0                 | 10/05/2015             | 3-02-0468-001-2005     |
|                 | SUBSURFACE                | UNITED STATES OF AMERICA/USFWS |                         |                       |                                   |        | SUBSURFACE NOT ACQUIRED       |                        |                        |
| 2               | FEE / SURFACE (INCORRECT) | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | 652.6 AC<br>USS 12825 | 19.50 AC (7.892 Ha) (INCORRECT)   | LARGE  | 1999-000041-0 (INCORRECT)     | 01/07/1999             | 3-02-0052-01           |
|                 | FEE / SURFACE (CORRECTED) | CHEVAK COMPANY                 |                         |                       | 24.95 AC (CORRECTED)              |        | 2015-000995-0 (CORRECTED)     | 10/05/2015             | 3-02-0468-001-2005     |
|                 | FEE / SUBSURFACE *        | CALISTA CORP.                  |                         |                       | 19.50 AC (7.892 Ha)               |        | 1999-000040-0                 | 01/07/1999             | 3-02-0052-01           |
| 2A              | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | 652.6 AC<br>USS 12825 | 67,624 S.F.                       | LARGE  | 2015-000990-0                 | 10/05/2015             | 3-02-0468-001-2005     |
|                 | FEE / SUBSURFACE          | CALISTA CORP.                  |                         |                       | 67,624 S.F.                       |        | 2015-000991-0                 | 10/05/2015             | 3-02-0468-001-2005     |
| 2B              | FEE / SUBSURFACE *        | CALISTA CORP.                  |                         | 652.6 AC<br>USS 12825 | 5.449 AC                          | LARGE  | 2015-000690-0                 | 10/05/2015             | 3-02-0468-001-2005     |
| 3               | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | 86.74 AC              | 9,599 S.F.                        | LARGE  | 1983-000355-0 & 2009-000553-0 | 04/30/2009             | 3-02-0468-001-2005     |
|                 | SUBSURFACE                | UNITED STATES OF AMERICA/USFWS |                         |                       |                                   |        | SUBSURFACE NOT ACQUIRED       |                        |                        |
| 4               | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | LARGE                 | 3,229 S.F.                        | LARGE  | 2015-000993-0                 | 10/05/2015             | 3-02-0468-001-2005     |
|                 | SUBSURFACE                | UNITED STATES OF AMERICA/USFWS |                         |                       |                                   |        | SUBSURFACE NOT ACQUIRED       |                        |                        |

\* SEE GENERAL NOTE 6.

**GENERAL NOTES:**

- THESE PLANS MAY BE USED FOR THE ESTABLISHMENT OF RIGHT-OF-WAY LIMITS ONLY. THESE DRAWINGS SHOULD NOT BE USED AS A BASIS FOR ESTABLISHING ADJOINING PROPERTY LINES AND CORNERS.
- ALL DOCUMENTS NOTED IN THIS PLAN SET AND REFERENCED BY INSTRUMENT NUMBER ARE RECORDED IN THE BETHEL RECORDING DISTRICT (B.R.D.), UNLESS OTHERWISE NOTED.
- SOMETIME AFTER 2002, IT WAS DISCOVERED BY AKDOT & PF AVIATION DESIGN THAT THE RUNWAY PROTECTION ZONES (RPZs) WERE OF INSUFFICIENT LENGTH. THIS ACQUISITION MAP REFLECTS THE CORRECT RPZs AS OF JULY 11, 2013.
- THIS RIGHT OF WAY ACQUISITION MAP, PREPARED IN JULY OF 2013, REFLECTS THE ADDITIONAL PROPERTY ACQUISITIONS REQUIRED FOR THE REVISED RPZs; PARCELS 1A, 2A, AND 4.
- IN 2012, IT WAS DISCOVERED THAT THE 1999 RECORDED SOUTH BOUNDARY OF PARCEL 1, DOC. NO. 1999-000042-0, DID NOT COINCIDE WITH THE CHEVAK CITY LIMITS FIELD SURVEY AS REFLECTED IN THE RECORD OF SURVEY, PLAT 2012-32. THIS RIGHT OF WAY ACQUISITION PLAT SHOWS THE CORRECTED SURFACE AND SUBSURFACE DIMENSIONS FOR PARCEL 1.
- IN 2012, IT WAS DISCOVERED THAT THE 1999 RECORDED NORTH BOUNDARY OF PARCEL 2, SUBSURFACE: DOC. NO. 1999-000040-0, SURFACE: DOC. NO. 1999-000041-0, DID NOT COINCIDE WITH THE CHEVAK CITY LIMITS FIELD SURVEY AS REFLECTED IN THE RECORD OF SURVEY, PLAT 2012-32. THIS RIGHT OF WAY ACQUISITION PLAT ADDS THE CORRECTED SUBSURFACE DIMENSIONS AS DEPICTED BY PARCEL 2B. THE SURFACE TO PARCEL 2B WILL BE INCLUDED WITHIN THE CORRECTED PARCEL 2, AND WAS INCLUDED WITHIN THE PREVIOUS INCORRECT PARCELS 1 & 2.
- PARCEL 4 WAS ADDED IN 2012 AS A RESULT OF THE BOUNDARY CHANGE DUE TO THE REVISED RPZ LENGTHS.
- ALL DIMENSIONS AND COORDINATES ARE IN U.S. SURVEY FEET.
- RIGHT OF WAY STATION AND OFFSETS ARE TO COMPUTED POSITIONS.
- THE RIGHT-OF-WAY ACQUISITION HAS BEEN COMPLETED.
- THE AIRPORT CONSTRUCTION FOR THIS PROJECT HAS BEEN COMPLETED.

**SURVEY NOTES:**

- NO NEW SURVEY INFORMATION HAS BEEN ADDED TO THIS PLAT. SURVEY RECOVERED CORNER DATA WAS TAKEN FROM RECORD OF SURVEY PLATS PER PLAT 2002-2, 2005-4, AND 2012-32. MONUMENTS AS REFLECTED IN PLATS 2002-2 WERE VERIFIED AND ACCEPTED BY AK DOT&PF SURVEY SECTION IN 2008.
- THE AIRPORT RIGHT OF WAY BOUNDARY WAS MONUMENTED IN 2001 & 2002. THAT BOUNDARY IS REFLECTED IN THE RECORD OF SURVEY, PLAT 2002-2. THE 2002 MONUMENTED BOUNDARY REFLECTS PROPERTIES ACQUIRED AT THAT TIME.
- THE BASIS OF BEARINGS ON THIS RIGHT OF WAY ACQUISITION PLAT CONFORMS TO THE RECORD OF SURVEY PLAT 2012-32.
- ALL BEARINGS SHOWN ARE TRUE BEARINGS AS ORIENTED TO THE BASIS OF BEARINGS, AND DISTANCES SHOWN ARE REDUCED TO HORIZONTAL FIELD DISTANCES.
- EXISTING RIGHT OF WAY BOUNDARY MONUMENTS WERE SET AND ARE DESCRIBED IN THE RECORD OF SURVEY OF THE CHEVAK AIRPORT BOUNDARY, PLAT 2002-2. METRIC DISTANCES HAVE BEEN CONVERTED BY MULTIPLYING PLAT DIMENSIONS BY 3937/1200 TO OBTAIN HORIZONTAL FEET.
- SEE PLAT 2005-4, FOR ADDITIONAL SURVEY CONTROL MONUMENTATION.

| MONUMENT TABLE                 |            |            |          |             |
|--------------------------------|------------|------------|----------|-------------|
| MONUMENT TYPE : LOCATION       | NORTHING   | EASTING    | STATION  | OFFSET      |
| PPM Fd Al. Mon[4469S]: C29 CA  | 47431.4961 | 31099.1407 |          |             |
| PPM Set Al. Mon[DOT]: C30 CA   | 47411.4411 | 31002.6354 |          |             |
| Fd BC: W.P. Survey 12825       | 47112.5620 | 29036.3990 |          |             |
| PPM Fd Al. Mon[4469S]: C28A CA | 48263.7811 | 30936.2040 | -1+52.65 | 1906.64' RT |
| PPM Fd Al. Mon[4469S]: C34 CA  | 49082.9798 | 29605.8001 | -1+81.17 | 344.51' RT  |
| PPM Fd Al. Mon[4469S]: C1 CA   | 49268.8057 | 29315.6662 | -1+81.34 | 0.00' LT    |
| PPM Fd Al. Mon[4469S]: C2 CA   | 49454.6876 | 29025.6254 | -1+81.43 | 344.52' LT  |
| PPM Fd Al. Mon[4469S]: C30A CA | 48733.4542 | 30744.8046 | 1+39.41  | 1492.00' RT |
| Fd BC: C3 Survey 12825         | 49949.9070 | 29018.9840 | 2+31.87  | 617.42' LT  |
| Set 2" Al cap: SW Cor Parcel 1 | 49952.0152 | 29344.8724 | 4+09.55  | 344.22' LT  |
| PPM Fd Al. Mon[4469S]: C33 CA  | 49651.1565 | 29969.9822 | 4+93.71  | 344.39' RT  |
| PPM Fd Al. Mon[4469S]: C32A CA | 49443.9876 | 30293.3342 | 4+93.85  | 728.42' RT  |
| PPM Fd Al. Mon[4469S]: C31 CA  | 49571.0978 | 30581.1919 | 7+56.23  | 902.13' RT  |
| PPM Set Al. Mon[DOT]: R/W C/L  | 50080.9048 | 29836.4293 | 7+83.38  | 0.00' RT    |
| PPM Fd Al. Mon[4469S]: C28 CA  | 49691.0243 | 30658.2233 | 8+98.77  | 902.24' RT  |
| Set 2" Al cap: SE Cor Parcel 1 | 49961.6366 | 30832.1731 | 12+20.46 | 902.60' RT  |
| Fd BC: W.P.-2 Survey 12825     | 49962.0410 | 30894.6810 | 12+54.55 | 955.00' RT  |
| PPM Fd Al. Mon[4469S]: C2A CA  | 51025.5266 | 30032.6772 | 16+84.50 | 344.68' LT  |
| PPM Fd Al. Mon[4469S]: C26A CA | 50414.8889 | 31122.4420 | 17+58.70 | 902.30' RT  |
| PPM Fd Al. Mon[4469S]: C7 CA   | 52905.0853 | 28568.4644 | 24+76.38 | 2591.82' LT |
| PPM Fd Al. Mon[4469S]: C3 CA   | 51750.8023 | 30497.8739 | 25+46.15 | 344.57' LT  |

**MONUMENT TABLE LEGEND**

|     |                           |
|-----|---------------------------|
| FD  | FOUND                     |
| BC  | BRASS CAP MONUMENT        |
| Al  | ALUMINUM                  |
| CA  | CHEVAK AIRPORT            |
| Mon | MONUMENT                  |
| Cor | CORNER                    |
| PPM | PRIMARY PROPERTY MONUMENT |

| MONUMENT TABLE                   |            |            |          |             |
|----------------------------------|------------|------------|----------|-------------|
| MONUMENT TYPE : LOCATION         | NORTHING   | EASTING    | STATION  | OFFSET      |
| PPM Fd Al. Mon[4469S]: C4 CA     | 52415.6502 | 30364.5101 | 30+33.83 | 815.71' LT  |
| PPM Fd Al. Mon[4469S]: C8 CA     | 53374.4324 | 28869.3633 | 30+33.89 | 2591.86' LT |
| PPM Fd Al. Mon[4469S]: WC C8A CA | 53740.7666 | 28298.0864 | 30+33.91 | 3270.50' LT |
| PPM Fd Al. Mon[4469S]: C5 CA     | 52710.4066 | 29905.0469 | 30+33.95 | 1361.59' LT |
| PPM Fd Al. Mon[4469S]: C25 CA    | 51231.6994 | 32211.3216 | 30+34.05 | 1378.02' RT |
| PPM Fd Al. Mon[4469S]: C26 CA    | 51488.5641 | 31810.9031 | 30+34.14 | 902.30' RT  |
| PPM Fd Al. Mon[4469S]: C10 CA    | 54142.6773 | 28309.4125 | 33+78.36 | 3477.91' LT |
| PPM Fd Al. Mon[4469S]: C24 CA    | 51521.4513 | 32397.7306 | 33+78.58 | 1378.54' RT |
| PPM Fd Al. Mon[4469S]: C11 CA    | 54432.4231 | 28495.6304 | 37+22.78 | 3477.55' LT |
| PPM Set Al. Mon [DOT]: C12 CA    | 53954.3292 | 29241.2211 | 37+22.78 | 2591.84' LT |
| PPM Fd Al. Mon[4469S]: C16 CA    | 52886.0355 | 30907.3503 | 37+22.82 | 612.64' LT  |
| PPM Fd Al. Mon[4469S]: C15 CA    | 53290.4063 | 30276.9377 | 37+22.94 | 1361.60' LT |
| PPM Fd Al. Mon[4469S]: C22 CA    | 52369.4888 | 31713.2257 | 37+22.98 | 344.57' RT  |
| PPM Fd Al. Mon[4469S]: WC C22A C | 51982.4006 | 32316.8988 | 37+22.98 | 1061.69' RT |
| PPM Fd Al. Mon[4469S]: C17 CA    | 52886.5965 | 31225.9609 | 38+95.27 | 344.74' LT  |
| PPM Fd Al. Mon[4469S]: C14 CA    | 53455.9823 | 30383.1949 | 39+19.68 | 1361.53' LT |
| PPM Fd Al. Mon[4469S]: C13 CA    | 54121.1142 | 29347.3603 | 39+20.47 | 2592.52' LT |
| PPM Set Al. Mon[DOT]: R/W C/L    | 53011.2725 | 31715.4170 | 42+64.42 | 0.00' LT    |
| PPM Fd Al. Mon[4469S]: WC C21A C | 53429.3927 | 32392.6711 | 49+81.97 | 344.42' RT  |
| PPM Fd Al. Mon[4469S]: C18 CA    | 54067.1590 | 31983.2437 | 52+97.84 | 344.49' LT  |
| PPM Fd Al. Mon[4469S]: C19 CA    | 53881.1831 | 32273.2746 | 52+97.84 | 0.00' RT    |

2016-4  
Plat #  
Bethel  
Rec Dist  
Date 4.22.2016  
Time 12:04 P.M.

|   |            |                 |
|---|------------|-----------------|
| DATE  | REVISIONS  | BY              |
| <b>STATE OF ALASKA</b><br>DEPARTMENT OF TRANSPORTATION<br>&<br>PUBLIC FACILITIES<br>RIGHT OF WAY ACQUISITION PLAT<br>AIP NO. 3-02-0468-001-2005<br>AKSAS 56626<br><b>CHEVAK AIRPORT RELOCATION STAGE 11</b><br>LOCATED WITHIN: PROTRACTED SECTIONS 21, 22, 27, & 28,<br>TOWNSHIP 17 NORTH, RANGE 90 WEST, SEWARD MERIDIAN, ALASKA |            |                 |
| DRAWN   | GS/DF/JF   | DATE MARCH 2016 |
| DNR FILE NO.  | PA20150053 | SHEET 3 OF 3    |



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Alaskan Region Airports Division

222 W. 7<sup>th</sup> Avenue, #14  
Anchorage, Alaska 99513-7587  
Tel. (907) 271-5438 / Fax (907) 271-2851

April 24, 2015

Jessica Wuttke  
ADOT&PF Central Region  
P.O. Box 196900  
Anchorage, AK 99513-7587

Dear Ms. Wuttke:

**Chevak Airport  
Chevak, Alaska  
As-Built Airport Layout Plan (February/2015)**

We have completed our review of the Chevak Airport As-Built Airport Layout Plan (ALP) dated February, 2015, and find it acceptable for documenting the existing conditions of the airport.

This ALP approval is conditioned on acknowledgement that any future development on airport property requiring Federal environmental approval must receive such written approval from FAA prior to the subject development. This ALP approval is also conditioned on acceptance of the plan under local land use laws. We encourage appropriate agencies to adopt land use and height restrictive zoning based on the plan.

Approval of the plan does not indicate that the United States will participate in the cost of any development proposed. AIP funding requires evidence of eligibility and justification at the time a funding request is ripe for consideration. When construction of any proposed structure or development indicated on the plan is undertaken, such construction requires normal 45-day advance notification to FAA for review in accordance with applicable Federal Aviation Regulations (i.e., Parts 77, 157, 152, etc.). More notice is generally beneficial to ensure that all statutory, regulatory, technical and operational issues can be addressed in a timely manner.

Please attach this letter to the enclosed ALP and retain it in your files for future use

Sincerely,

A handwritten signature in black ink, appearing to read "Pat Zettler".

Pat Zettler, P.E., Lead Engineer  
Airports Division





















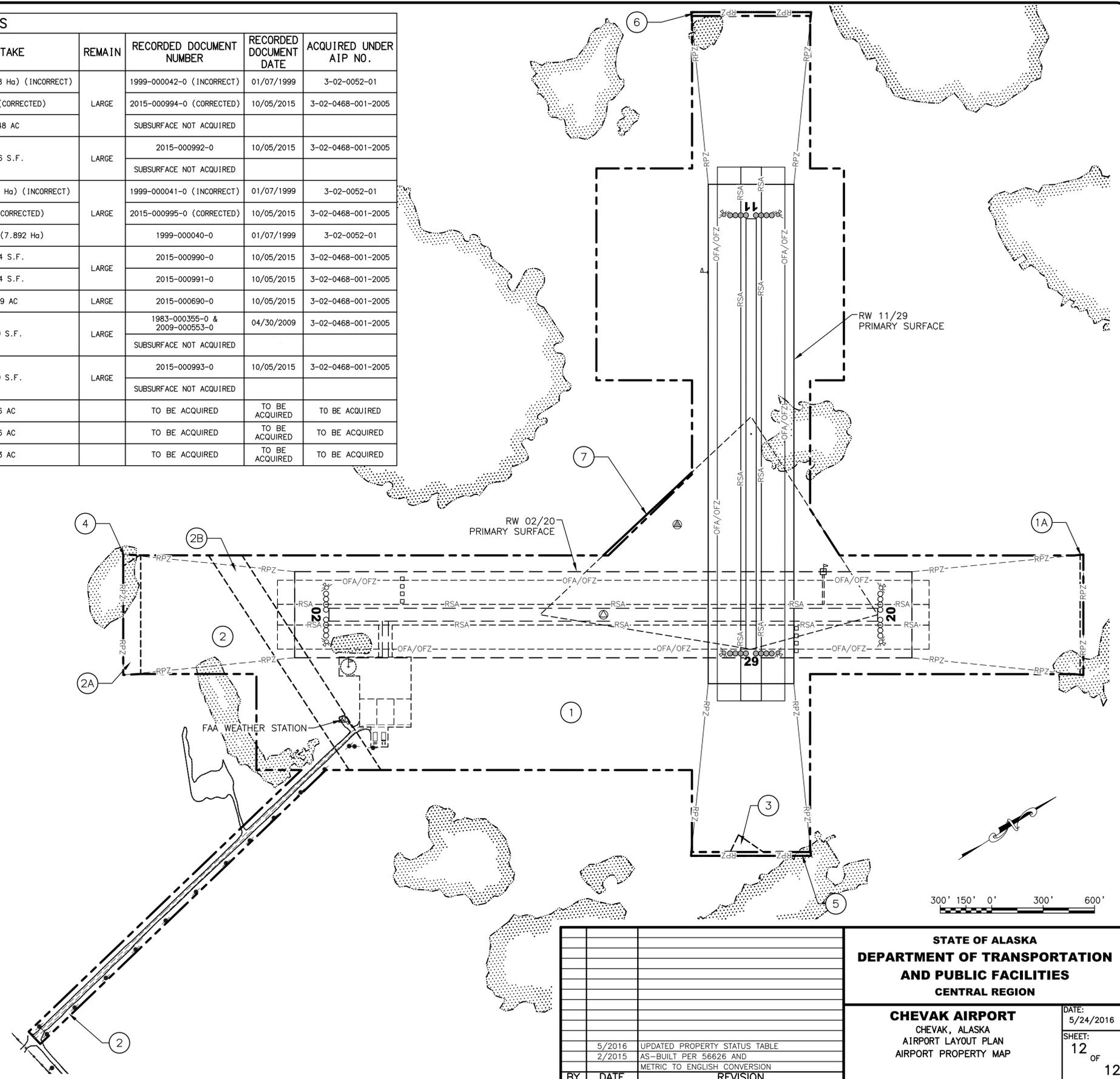


Date Plotted: 5/24/2016, 11:06 AM  
 Layout Name: PROPERTY  
 File Name: W:\Projects\Chevak\ALP\Chevak\_ALP\_2016\Report\_Layout\Plan\CAD\Chevak\_ALP\_2016\_Property\_Updated\Property\_Map.dwg

| PROPERTY STATUS |                           |                                |                         |                       |                                   |        |                               |                        |                        |
|-----------------|---------------------------|--------------------------------|-------------------------|-----------------------|-----------------------------------|--------|-------------------------------|------------------------|------------------------|
| PARCEL NO.      | INTEREST TO BE ACQUIRED   | GRANTOR                        | GRANTEE                 | LARGER PARCEL AREA    | NET TAKE                          | REMAIN | RECORDED DOCUMENT NUMBER      | RECORDED DOCUMENT DATE | ACQUIRED UNDER AIP NO. |
| 1               | FEE / SURFACE (INCORRECT) | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | LARGE                 | 194.93 AC (78.888 Ha) (INCORRECT) | LARGE  | 1999-000042-0 (INCORRECT)     | 01/07/1999             | 3-02-0052-01           |
|                 | FEE / SURFACE (CORRECTED) | CHEVAK COMPANY                 |                         | LARGE                 | 189.48 AC (CORRECTED)             |        | 2015-000994-0 (CORRECTED)     | 10/05/2015             | 3-02-0468-001-2005     |
|                 | SUBSURFACE                | UNITED STATES OF AMERICA/USFWS |                         | LARGE                 | 189.48 AC                         |        | SUBSURFACE NOT ACQUIRED       |                        |                        |
| 1A              | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | LARGE                 | 13,386 S.F.                       | LARGE  | 2015-000992-0                 | 10/05/2015             | 3-02-0468-001-2005     |
|                 | SUBSURFACE                | UNITED STATES OF AMERICA/USFWS |                         |                       |                                   |        | SUBSURFACE NOT ACQUIRED       |                        |                        |
| 2               | FEE / SURFACE (INCORRECT) | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | 652.6 AC<br>USS 12825 | 19.50 AC (7.892 Ha) (INCORRECT)   | LARGE  | 1999-000041-0 (INCORRECT)     | 01/07/1999             | 3-02-0052-01           |
|                 | FEE / SURFACE (CORRECTED) | CHEVAK COMPANY                 |                         |                       | 24.95 AC (CORRECTED)              |        | 2015-000995-0 (CORRECTED)     | 10/05/2015             | 3-02-0468-001-2005     |
|                 | FEE / SUBSURFACE *        | CALISTA CORP.                  |                         |                       | 19.50 AC (7.892 Ha)               |        | 1999-000040-0                 | 01/07/1999             | 3-02-0052-01           |
| 2A              | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | 652.6 AC<br>USS 12825 | 67,624 S.F.                       | LARGE  | 2015-000990-0                 | 10/05/2015             | 3-02-0468-001-2005     |
|                 | FEE / SUBSURFACE          | CALISTA CORP.                  |                         |                       | 67,624 S.F.                       |        | 2015-000991-0                 | 10/05/2015             | 3-02-0468-001-2005     |
| 2B              | FEE / SUBSURFACE *        | CALISTA CORP.                  |                         | 652.6 AC<br>USS 12825 | 5.449 AC                          | LARGE  | 2015-000690-0                 | 10/05/2015             | 3-02-0468-001-2005     |
| 3               | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | 86.74 AC              | 9,599 S.F.                        | LARGE  | 1983-000355-0 & 2009-000553-0 | 04/30/2009             | 3-02-0468-001-2005     |
|                 | SUBSURFACE                | UNITED STATES OF AMERICA/USFWS |                         |                       |                                   |        | SUBSURFACE NOT ACQUIRED       |                        |                        |
| 4               | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF | LARGE                 | 3,229 S.F.                        | LARGE  | 2015-000993-0                 | 10/05/2015             | 3-02-0468-001-2005     |
|                 | SUBSURFACE                | UNITED STATES OF AMERICA/USFWS |                         |                       |                                   |        | SUBSURFACE NOT ACQUIRED       |                        |                        |
| 5               | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF |                       | 0.36 AC                           |        | TO BE ACQUIRED                | TO BE ACQUIRED         | TO BE ACQUIRED         |
| 6               | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF |                       | 0.36 AC                           |        | TO BE ACQUIRED                | TO BE ACQUIRED         | TO BE ACQUIRED         |
| 7               | FEE / SURFACE             | CHEVAK COMPANY                 | STATE OF ALASKA, DOT/PF |                       | 0.23 AC                           |        | TO BE ACQUIRED                | TO BE ACQUIRED         | TO BE ACQUIRED         |

NOTES:

- BETHEL RECORDING DISTRICT
- IN 2012, IT WAS DISCOVERED THAT THE 1999 RECORDED NORTH BOUNDARY OF PARCEL 2, SUBSURFACE: BK 82 PG 431-435, SURFACE : BK 82 PG 436-441, DID NOT COINCIDE WITH THE CHEVAK CITY LIMITS FIELD SURVEY AS REFLECTED IN THE RECORD OF SURVEY PLAT 2012-32. EXHIBIT A OF THE AIRPORT PROPERTY PLAN ADDS THE CORRECTED SUBSURFACE DIMENSIONS AS DEPICTED BY PARCEL 2B. THE SURFACE TO PARCEL 2B WILL BE INCLUDED WITHIN THE CORRECT PARCEL 2, AND WAS INCLUDED WITHIN THE PREVIOUS INCORRECT PARCELS 1 & 2.



|  |   |  |
|--|---|--|
| <b>STATE OF ALASKA<br/>DEPARTMENT OF TRANSPORTATION<br/>AND PUBLIC FACILITIES<br/>CENTRAL REGION</b> |   |  |
| <b>CHEVAK AIRPORT</b><br>CHEVAK, ALASKA<br>AIRPORT LAYOUT PLAN<br>AIRPORT PROPERTY MAP               |   | DATE:<br>5/24/2016<br><br>SHEET:<br>12<br>OF<br>12 |
| 5/2016<br>2/2015<br>BY: DATE   | UPDATED PROPERTY STATUS TABLE<br>AS-BUILT PER 56626 AND<br>METRIC TO ENGLISH CONVERSION | REVISION   |

# EXHIBIT B-2

# SURVEY REQUEST



|   |                  |                        |                                   |
|---|------------------|------------------------|-----------------------------------|
| <b>Project Name:</b> Scammon Bay Airport Improvements             |                  |                        |                                   |
| <b>From:</b> (Section, Design Group)                              | Aviation Design  | <b>Date Submitted:</b> | 7/15/2020                         |
| <b>Request Initiated by:</b>                                      | Jenelle Brinkman | <b>Phone:</b>          | 269-0606                          |
| <b>State/Federal/AIP Project #:</b> CFAPT00691/3-02-0255-003-2023 |                  |                        |                                   |
| <b>Desired Completion Date:</b>                                   | Summer/Fall 2020 | <b>Activity Code:</b>  | <b>P</b> <b>Phase Code:</b> T0200 |

**Project Scope & Survey Limits:** See attached exhibit

*(Please contact Right of Way Engineering prior to filling this out, as their requirements may directly affect the survey effort required. Include their response)*

For each area the following information is needed: Alignment data or physical location of line (exist CL, top bluff, etc.); Desired contour interval; Distance or physical limits left and/or right from line desired. Please provide an attachment for each alignment.

**Scope of overall project:**

This project proposes to increase the elevation of the Runway, Taxiway, Apron and Access Road to minimize impact of frequent flooding. The runway will be shifted away from Kun River. Acquire ultimate property per 2019 FAA approved ALP. Install erosion protection to protect airport embankments. Install erosion controls on both ends of runway cross culvert. Apply dust palliative to finished surface. Replace Existing Runway and Taxiway lighting. Install Airport Signage. Replace existing rotating beacon and locate on a tip-down pole. Replace supplemental unlighted wind cone. Replace electrical utility service poles and raise existing electrical lines to meet minimum required clearances. Construct new electrical enclosure building. New single bay SREB in conjunction with a facilities project. An ALP update will be accomplished as part of the project.

**Scope of survey work requested:**

Design-level airfield survey of ground features including grade breaks, edge of embankments, ditch lines, runway thresholds, runway and taxiway profiles, airfield lighting, structures (SREB, distribution lines) and any other ground features contained within the area shown in the attached survey extents exhibit. Cross sections in the RW 28 approach for use in updating the ultimate ALP conditions. ROW Boundary survey for acquisition of Parcel 4 and future acquisition for the ultimate relocation of the apron, taxiway, and access road away from the Kun River. The attached survey diagram shows the project limits as currently scoped, some survey request items are outside of these limits. Please tie to 2012 survey. See below for the details of the survey scope request not shown on the survey diagram. See FAA Airport Design AC 150/5300-13A and FAA General Guidance and Specifications for Submission of Aeronautical Surveys to NGS AC 150/5300-18B for more information on surveying features on the airfield. See selected supporting features in attached Table 2-1.

**Locate: (Fill empty slots if desired & Check all that apply)**

| Improvements             |                                     | Drainage    |                                     | Utilities     |                                     | Right of way/Monuments |                                     | Other |  |
|--------------------------|-------------------------------------|-------------|-------------------------------------|---------------|-------------------------------------|------------------------|-------------------------------------|-------|--|
| Edge Pvmnt., Curbs, etc. |                                     | Culverts    | <input checked="" type="checkbox"/> | Above Ground  | <input checked="" type="checkbox"/> | Front Corners Only     |                                     |       |  |
| Structures               | <input checked="" type="checkbox"/> | Ditches     | <input checked="" type="checkbox"/> | O'head X-ings | <input checked="" type="checkbox"/> | Front & Back Corners   |                                     |       |  |
| Sewer/Septic System      |                                     | Storm Drain | <input checked="" type="checkbox"/> | Inverts       | <input checked="" type="checkbox"/> | Monuments in Roadway   | <input checked="" type="checkbox"/> |       |  |
| Bridge Site Survey       |                                     |             |                                     |               |                                     | Encroachments          |                                     |       |  |
|                          |                                     |             |                                     |               |                                     |                        |                                     |       |  |

**Vertical Control**

Are there any elevation-critical features needing to be located?  Yes  No

If Yes, which datum are these features to be referenced to? (MSL, MLLW, MHW, Project, Geoid\_\_, etc...)

Assume we will need MLLW, MHW/OHW, and MHHW surveyed.

**Monuments in the road**

Are there survey monuments in the roadway (from as-builts)?  Yes  No

**Construction Schedule**

When is construction anticipated to occur? Summer 2023

Completed by \_\_\_\_\_ Date Completed \_\_\_\_\_

Notes: \_\_\_\_\_

### **Detailed Survey Scope Request:**

(Some of the items below and in Table 2.1 may be outside the limits shown on the survey diagram)

1. GRID SPACING:
  - a. 50 ft grid (or typical grid interval) for hatched areas within the survey limits in the attached figures, including:
    - i. Edge of existing runway (37.5' each side of centerline)
    - ii. Edge of existing runway safety area (RSA) (75' each side of centerline)
    - iii. Existing runway centerline profile at 50' intervals.
    - iv. All runway edge and threshold lights and taxiway edge lights
    - v. Edge and crown of existing airport access road
    - vi. Unpaved
2. UTILITIES
  - a. Above and below ground utilities within survey limits
  - b. Capture all above ground utility clearances on access road and apron
  - c. Capture tallest point on the utilities poles on the airport property
  - d. FAA underground power and telco lines back to the transformer or telco junction box
3. RUNWAY CULVERT
  - a. Culvert size, location, inverts on both ends
  - b. Survey all sides of inlet and outlet of culvert based on water flow:
    - i. Water that flows with more than minimal velocity that establishes a stream, survey limits are 300 feet upstream of the culvert and 300 feet downstream of the culvert
    - ii. Water that flows primarily between ponds and is not determined by the ground elevations, survey limits should include data that defines the water surface elevation and slope for 50 feet both sides of the culvert
  - c. Elevation of corrosion line or waterline on the culvert, if visible
  - d. Photos taken during surveying of the culvert are requested
4. PACS and SACS
  - a. Elevation (NAVD 88 and NAD 83)
  - b. Latitude
  - c. Longitude
5. WIND CONE & SEGMENTED CIRCLE
  - a. Ground at center of wind cone support assembly
  - b. Ground at 4 corners of each wind cone foundation pad
  - c. Highest point on total wind cone assembly
  - d. Each end of each panel on the segmented circle
6. NAVAID Shelters & Buildings (All)  
(Not all FAA NAVAID Shelters & Buildings may be shown on survey diagram)
  - a. Ground at corner closest to runway
  - b. Ground at 4 corners of each foundation pad
  - c. Top 4 corners
  - d. NAVAID Vertical Control: NAVD88 and all NAVAIDs tied to it
7. Shelters & Buildings (All)
  - a. Ground at corner closest to runway
  - b. Ground at 4 corners of each foundation pad
  - c. Top 4 corners
  - d. Tallest height at the side closest to the runway
8. MONUMENTS
  - a. Monuments in runway and taxiway
9. Weather Station
  - a. Ground at center of support assembly

Completed by \_\_\_\_\_ Date Completed \_\_\_\_\_  
Notes: \_\_\_\_\_

- b. Ground at 4 corners of each foundation pad
- c. Highest point on total assembly

10. KUN RIVER

- a. Edge of Property/OHW along river, survey 25' either side of this line between the adjacent airport property boundaries
- b. Obtain MLLW, MHHW, MHW, and OHW

11. SEWAGE LAGOON

- a. Pick up closet point to the runway.

12. FREIGHT STORAGE ALONG ACCESS ROAD

- a. Tallest height of the storage

13. ALP UPDATE

- a. See attached Table 2.1
- b. RW 28 Approach: Perform 2,000' wide cross sections at 500' intervals for 3,000' starting from Station 45+00. Note any high terrain points within the area.
- c. Survey the top of any towers and/or antennas near the village that may be a potential obstruction

*(This section for Survey Section use)*

Survey Assigned to:

Estimated Completion Date:

**Project History:**

N/A

**Hz/Vert Control:AK West Coast**

Recover/Set control (2015-4 Bethel Recording District) this project will be completed in the AK West Coast LDP. Control should be able to survive through construction.

**ROW/Monument Ties:**

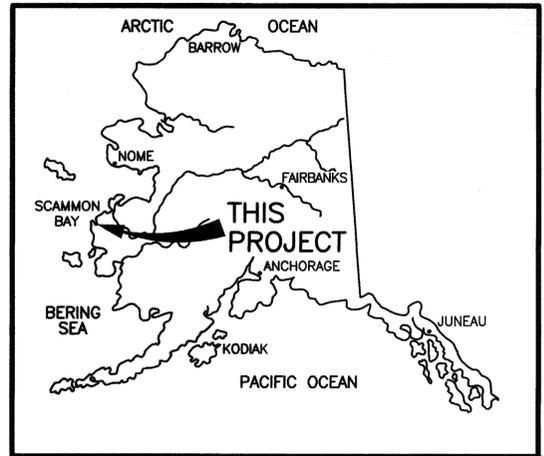
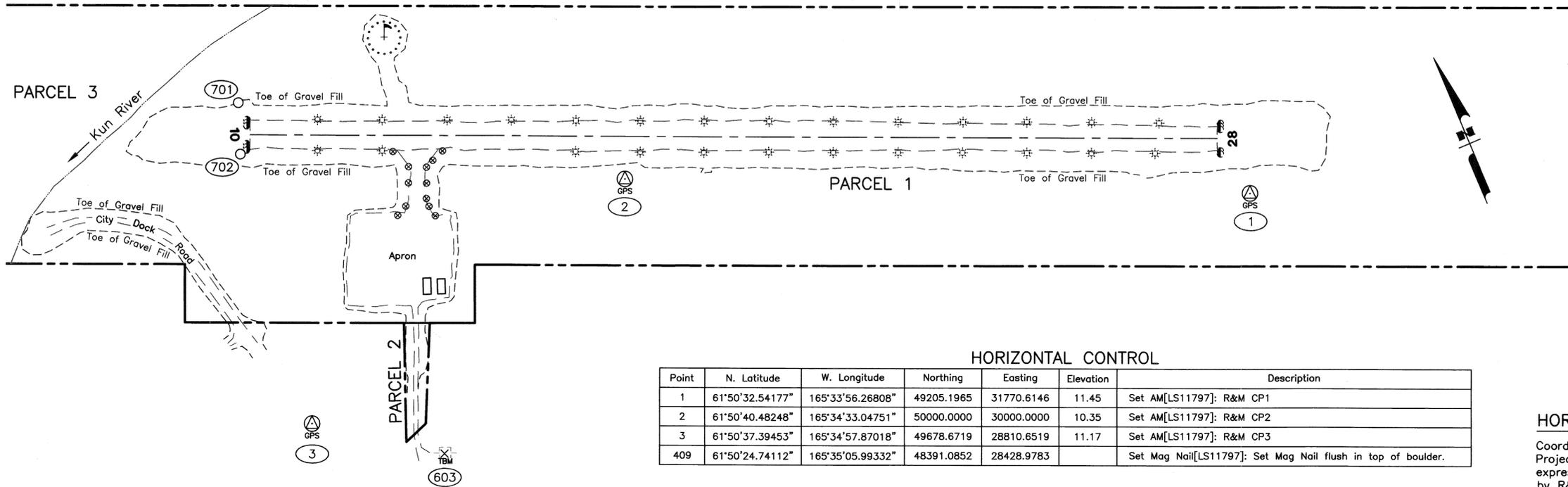
ROW Surveying and mapping for the project will be needed to produce a right of way acquisition plat (RWAP) to acquire Parcel 4 (see property plan).

**TIN/Topo:**

The design survey should follow the survey request keeping in mind that the Department's Aviation Design Section will be updating the ALP 11-5-2019 from this survey as well as producing a design for rehab.

Completed by \_\_\_\_\_ Date Completed \_\_\_\_\_

Notes: \_\_\_\_\_



LOCATION MAP  
NOT TO SCALE

HORIZONTAL CONTROL

| Point | N. Latitude     | W. Longitude     | Northing   | Easting    | Elevation | Description  |
|-------|-----------------|------------------|------------|------------|-----------|--|
| 1     | 61°50'32.54177" | 165°33'56.26808" | 49205.1965 | 31770.6146 | 11.45     | Set AM[LS11797]: R&M CP1                                     |
| 2     | 61°50'40.48248" | 165°34'33.04751" | 50000.0000 | 30000.0000 | 10.35     | Set AM[LS11797]: R&M CP2                                     |
| 3     | 61°50'37.39453" | 165°34'57.87018" | 49678.6719 | 28810.6519 | 11.17     | Set AM[LS11797]: R&M CP3                                     |
| 409   | 61°50'24.74112" | 165°35'05.99332" | 48391.0852 | 28428.9783 |           | Set Mag Nail[LS11797]: Set Mag Nail flush in top of boulder. |

VERTICAL CONTROL

| Point | N. Latitude   | W. Longitude   | Northing | Easting | Elevation | Description  |
|-------|---------------|----------------|----------|---------|-----------|--|
| 601   | 61°50'29.535" | 165°34'57.224" | 48880    | 28846   | 56.00     | Set TBM[R&M]: Filed "X" in N Flange Bolt of Fire Hydrant at Inx. Hillside St/Main St       |
| 602   | 61°50'29.319" | 165°34'53.127" | 48860    | 29043   | 56.69     | Set TBM[R&M]: Filed "X" in N Flange Bolt of Fire Hydrant N of old school road              |
| 603   | 61°50'34.962" | 165°34'50.764" | 49433    | 29153   | 27.30     | Set TBM[R&M]: Mag Nail in N Face of Wood Utility Pole at Inx. Front St/Johnson Rd          |
| 604   | 61°50'31.597" | 165°34'54.502" | 49090    | 28976   | 40.87     | Set TBM[R&M]: Mag Nail in W Face of Wood Utility Pole at Inx. Kun St/Willow St/Hillside St |

RECOVERED MONUMENTS

| Point | N. Latitude     | W. Longitude     | Northing   | Easting    | Description  |
|-------|-----------------|------------------|------------|------------|--|
| 701   | 61°50'47.26992" | 165°34'54.07915" | 50682.7946 | 28986.1510 | Fd Rbr: Rebar  |
| 702   | 61°50'45.80392" | 165°34'55.26403" | 50533.5412 | 28930.2439 | Fd Rbr/AC: Aluminum Cap on Rebar                               |
| 705   | 61°50'30.32459" | 165°34'52.44958" | 48962.3168 | 29075.4477 | Fd BC: SBTS C19 USS 5050 / LOT 5 LOT 3 USS 4099                |
| 706   | 61°50'30.64440" | 165°34'46.67257" | 48996.5871 | 29352.5301 | Fd Rbr/AC[6923-S]: L1 L2 Blk9 USS 5050 / L1 L3 Blk 16 USS 4099 |

LEGEND

- GPS Control Point
- Primary Property Corner
- Misc Property Corner
- Survey Control Point
- Temporary Benchmark
- Survey Point Number
- Runway Light
- Taxiway Light
- Runway Threshold Light
- Wood Utility Pole
- Wind Cone
- Segmented Circle
- SREB Building
- Airport Boundary

NOTES

- The field survey was performed by R&M Consultants, Inc. (R&M) between January 25, 2015 and February 5, 2015. Field survey information is located in R&M Field Book No. 2193.02.
- All dimensions and coordinates shown hereon are in U. S. Survey Feet unless otherwise noted. Distances shown are reduced to horizontal ground distances.
- All elevations on control points and benchmarks need to be field verified before use.

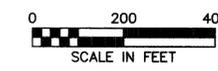
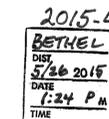
VERTICAL CONTROL STATEMENT

The Vertical Datum is NAVD88 (Geoid12A) based on two 7-8 hour static GPS observations that were sent to the NGS OPUS utility for processing. The NAVD88 (Geoid12A) orthometric height of Point No. 2 was established as the mean of the processing results. The Basis of Vertical Control is Point No. 2, a 3 1/4" Aluminum Cap on a 2 1/4" x 30" Aluminum Post, flared at the bottom and set 1' below ground, NAVD88 (GEOID12A) orthometric height = 10.35'. Project Elevations are based on differential level loops run from Point No. 2 through all project control points.

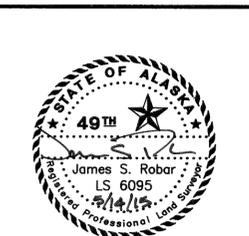
SURVEYOR'S CERTIFICATE

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.

James S. Robar LS-6095  
Date May 14, 2015



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  
Survey Control Diagram  
Record of Survey  
AKSAS Project No. 58357  
Scammon Bay Airport:  
Permanent Flood Repair  
Located within: Sections 3, 10, 11, T20N, R90W, Seward Meridian Alaska

|         |     |      |           |       |           |
|---------|-----|------|-----------|-------|-----------|
| DRAWN   | KJR | DATE | 3/20/2015 | SCALE | 1" = 200' |
| CHECKED | JSR | DATE | 3/20/2015 | SHEET | 1 OF 1    |

1

Set 3 1/4" Aluminum Monument 1' below ground, 0.5' North of orange carsonite post.

2

Set 3 1/4" Aluminum Monument 1' below ground, 0.5' North of orange carsonite post.

3

Set 3 1/4" Aluminum Monument 1' below ground, 0.5' North of orange carsonite post.

702

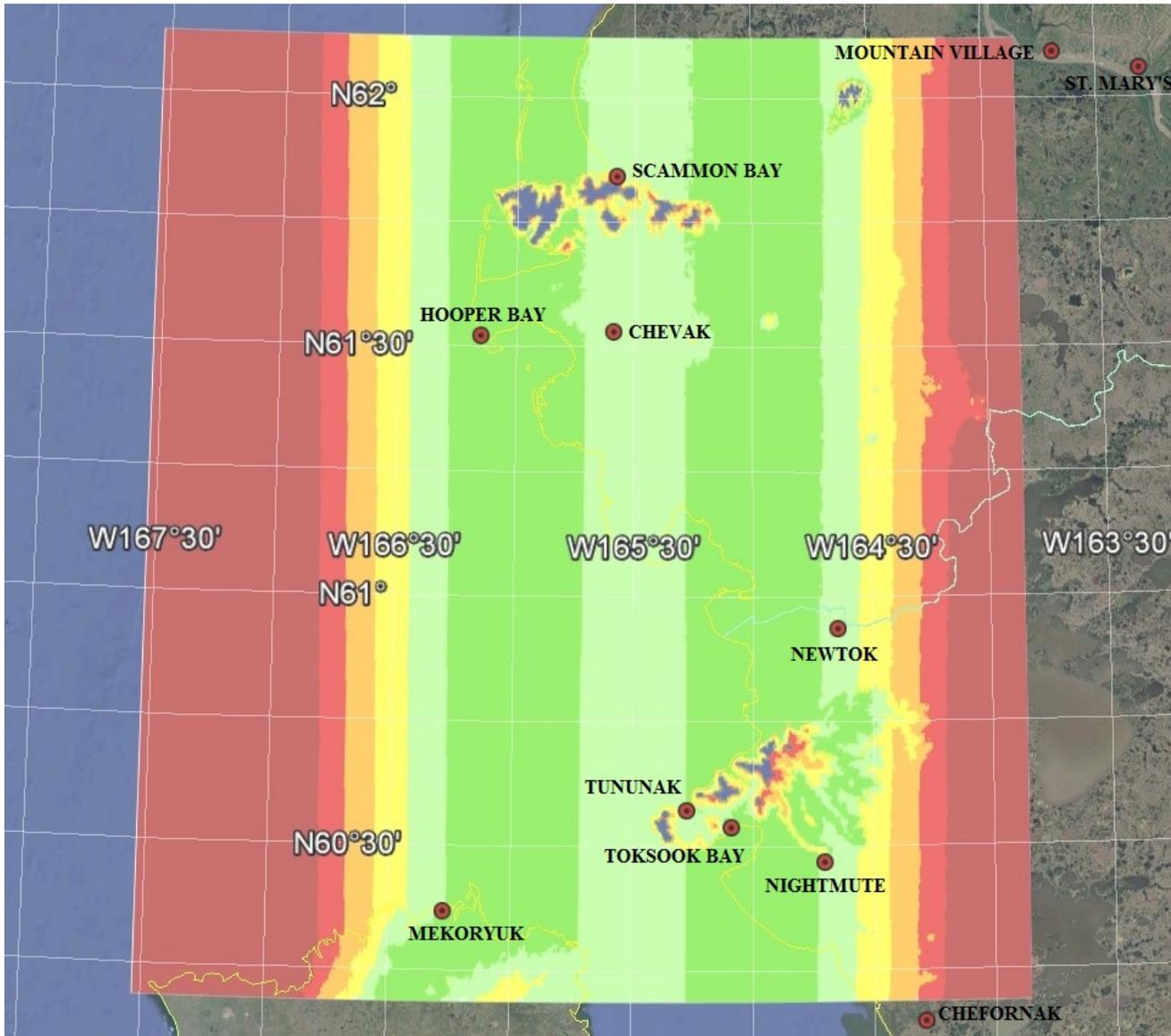
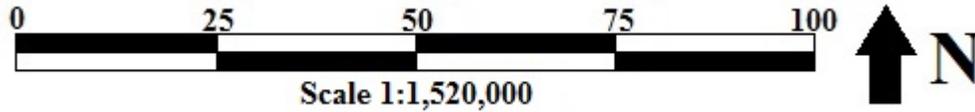
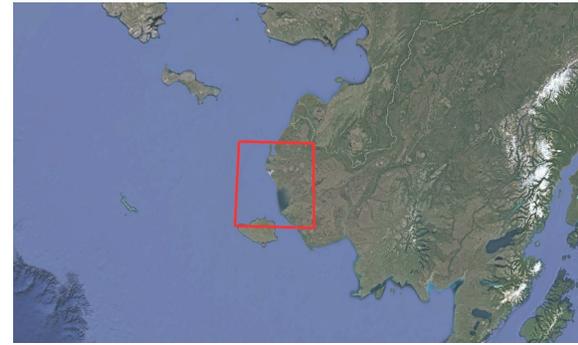
Found 1 1/2" ALCAP flush with ground in poor condition.

705

Found 2" Brass Cap Monument flush with ground in good condition.

706

Found 2" ALCAP 0.2' below ground in good condition.

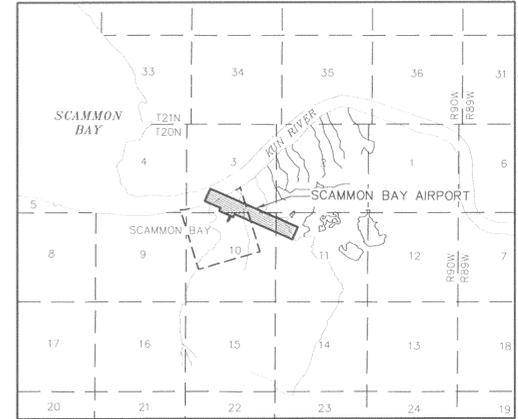


- +/- (0 - 10) ppm = +/- (0 - 0.05) ft/mile
- +/- (10 - 20) ppm = +/- (0.05 - 0.11) ft/mile
- +/- (20 - 30) ppm = +/- (0.11 - 0.16) ft/mile
- +/- (30 - 40) ppm = +/- (0.16 - 0.21) ft/mile
- +/- (40 - 50) ppm = +/- (0.21 - 0.26) ft/mile
- > +50 ppm => +0.26 ft/mile
- < -50 ppm =< -0.26 ft/mile

Prepared by:  
 State of Alaska DOT&PF: Central Region  
 PO Box 196900  
 Anchorage, AK 99519  
 (907) 269-0700

| PARCEL | AREA         | GRANTOR / GRANTEE                                       | INTEREST  | Book / Page          | DATE ACQUIRED           | A.D.A. No. |
|--------|--------------|---|---|----------------------|-------------------------|------------|
| 1      | 87 Ac. +/-   | Calista Corp / SOA DOT/PF<br>Askinuk Corp. / SOA DOT/PF | QCD, Subsurface Estate<br>Warranty Deed, Surface Estate | 55 / 382<br>55 / 387 | 3/13/1991<br>12/19/1990 |            |
| 2      | 0.55 Ac. +/- | Calista Corp / SOA DOT/PF<br>Askinuk Corp. / SOA DOT/PF | QCD, Subsurface Estate<br>Warranty Deed, Surface Estate | 55 / 382<br>55 / 387 | 3/13/1991<br>12/19/1990 |            |
| 3      | 15.3 Ac. +/- | SOA DNR / SOA DOT/PF                                    | Avigation & Hazard Esmt                                 | 55 / 30              | 2/26/1991               |            |
| 4      | 18.4 Ac. +/- | Calista Corp / SOA DOT/PF<br>Askinuk Corp. / SOA DOT/PF | Subsurface Estate<br>Surface Estate                     |                      | To Be Acquired          |            |

SOA DOT/PF = State of Alaska Dept. of Transportation and Public Facilities  
SOA DNR = State of Alaska Dept. of Natural Resources



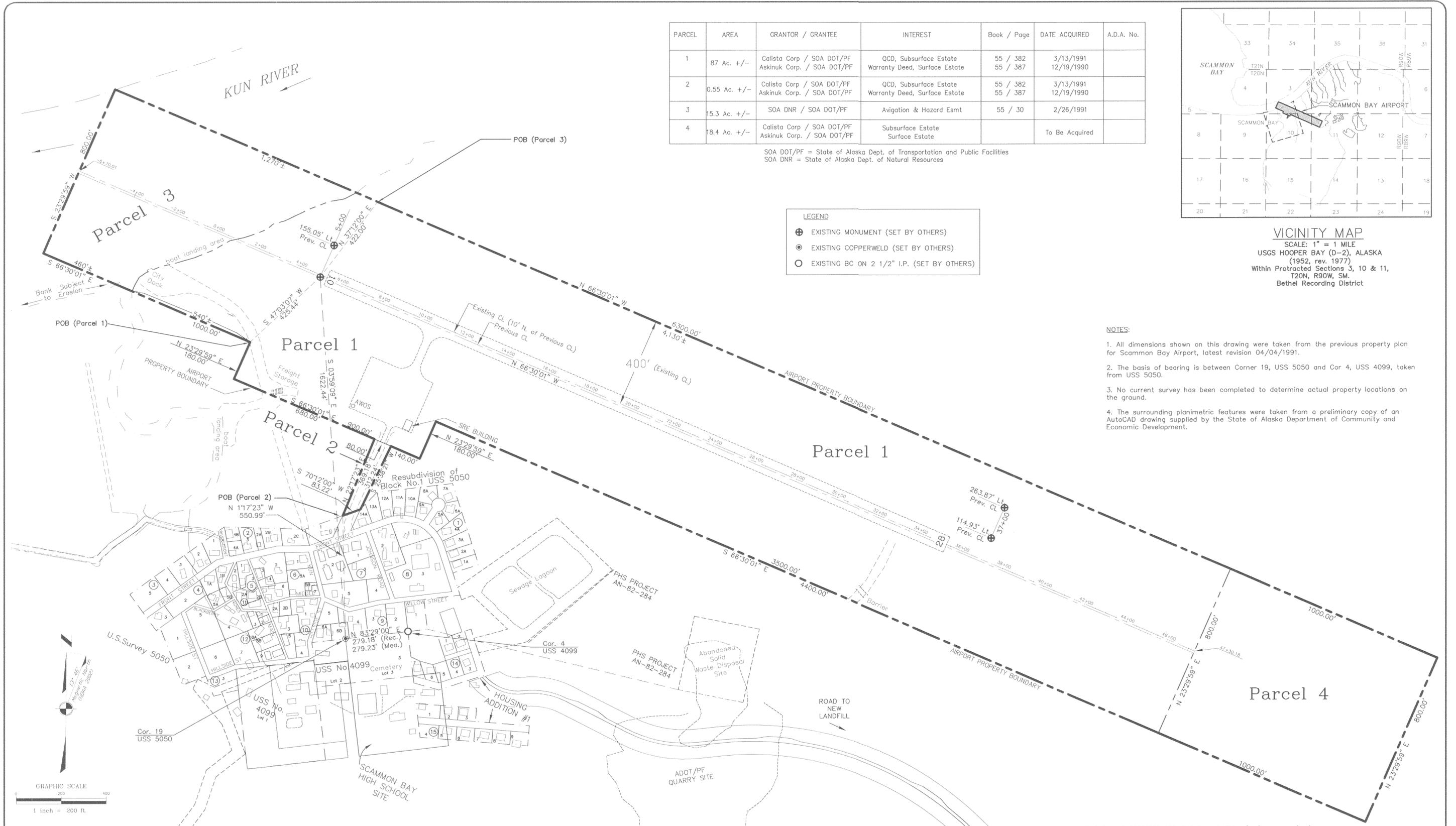
**VICINITY MAP**  
SCALE: 1" = 1 MILE  
USGS HOOPER BAY (D-2), ALASKA  
(1952, rev. 1977)  
Within Protracted Sections 3, 10 & 11,  
T20N, R90W, SM,  
Bethel Recording District

**LEGEND**

- ⊕ EXISTING MONUMENT (SET BY OTHERS)
- ⊙ EXISTING COPPERWELD (SET BY OTHERS)
- EXISTING BC ON 2 1/2" I.P. (SET BY OTHERS)

**NOTES:**

- All dimensions shown on this drawing were taken from the previous property plan for Scammon Bay Airport, latest revision 04/04/1991.
- The basis of bearing is between Corner 19, USS 5050 and Cor 4, USS 4099, taken from USS 5050.
- No current survey has been completed to determine actual property locations on the ground.
- The surrounding planimetric features were taken from a preliminary copy of an AutoCAD drawing supplied by the State of Alaska Department of Community and Economic Development.



W:\cadd\data\scammonbay\row\prop\_plan.dwg 1/5/2004 1:09:14 PM AST

THIS PLAN SUPERSEDES PREVIOUS PLAN DATED 1/25/90, REV. 4/04/1991

FILE:  
DATE:

|  |      |           |
|--|------|-----------|
| AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL<br>SUBJECT TO ALP APPROVAL LETTER DATED 2/2/04<br>By: <i>John T. Smith</i> DATE: 2/2/04<br>FAA AIRPORTS DIVISION<br>ALASKAN REGION, AAL-801<br>F.A.A. AIRSPACE REVIEW NUMBER: 03-00-AAL-18NRA |      |           |
| 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: *Harvey M. Douthit*  
HARVEY M. DOUTHIT, P.E. PROJECT MANAGER

**SCAMMON BAY AIRPORT**  
AIRPORT PROPERTY PLAN

SHEET  
7 OF  
8



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Alaskan Region Airports Division

222 W. 7<sup>th</sup> Avenue, #14  
Anchorage, Alaska 99513-7587  
Tel. (907) 271-5438 / Fax (907) 271-2851

November 5, 2019

Jourde Mitchell  
ADOT&PF Aviation Design  
4111 Aviation Ave  
Anchorage, AK 99519-6900

Dear Ms. Mitchell:

**Scammon Bay Airport**

**Scammon Bay, Alaska**

**As-Built Airport Layout Plan (26 July 2019)  
(Original ALP Airspace #2003-AAL-18-NRA)**

We have completed our review of the Scammon Bay Airport As-Built Airport Layout Plan (ALP) dated July, 2019, and find it acceptable for documenting the existing conditions of the airport.

Please retain this letter in your files for future reference.

Sincerely,

Pat Zettler, P.E., Lead Engineer  
Airports Division

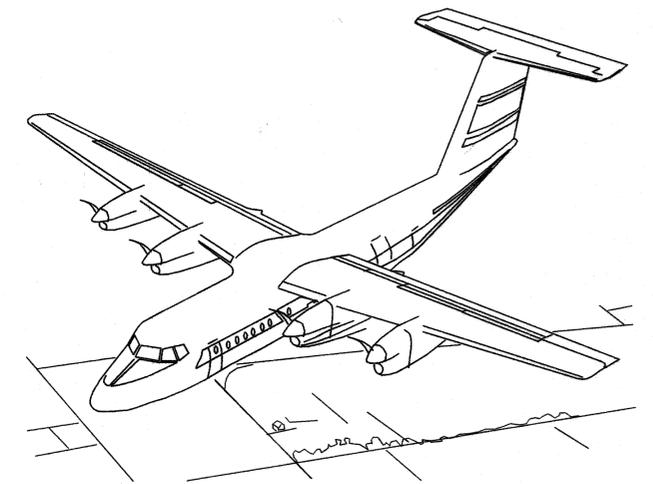
# AIRPORT LAYOUT PLAN FOR SCAMMON BAY AIRPORT

**2004**

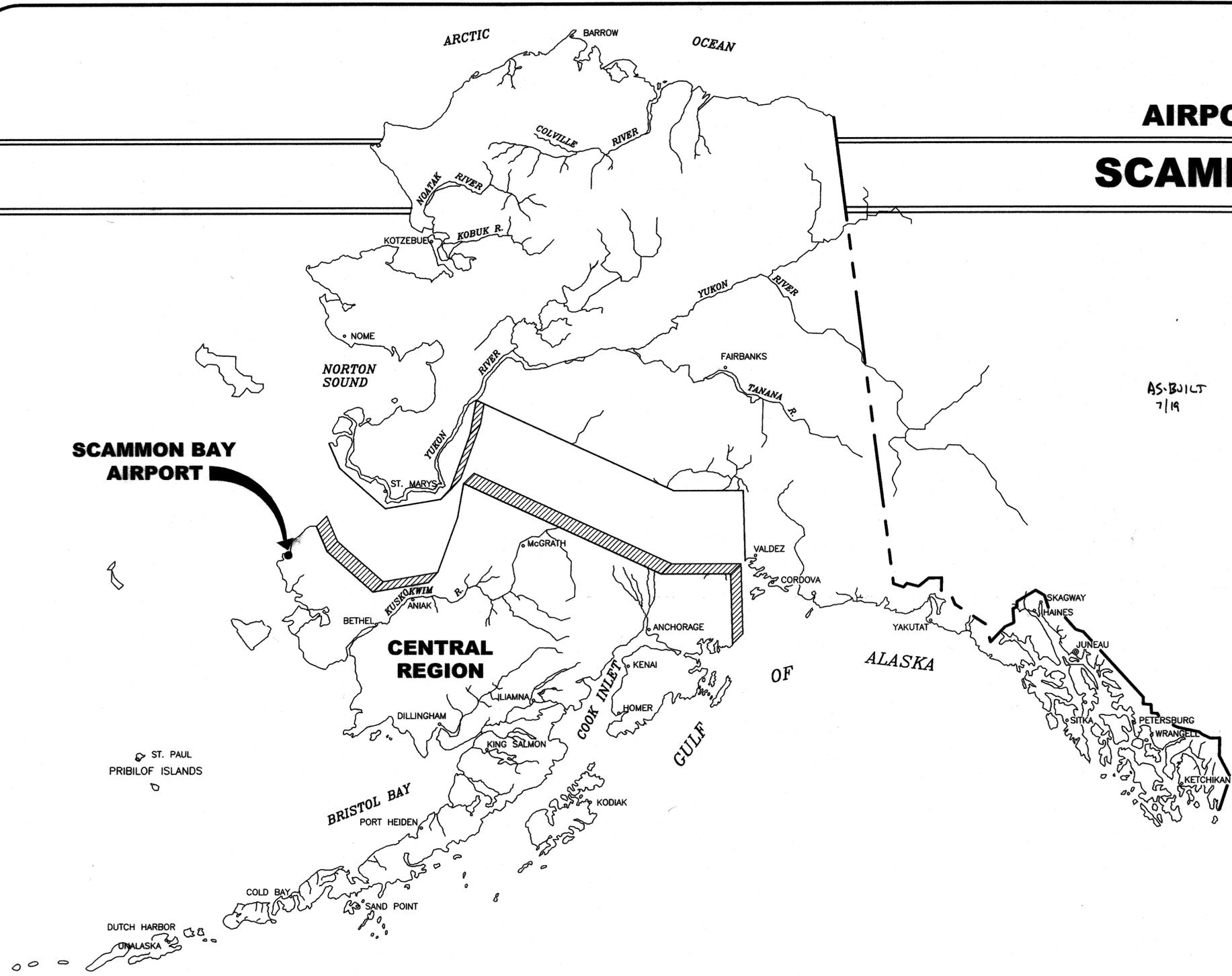
## DRAWING INDEX

- 1 - COVER SHEET AND INDEX
- 2 - VICINITY MAP AND DATA TABLES
- 3 - EXISTING LAYOUT PLAN
- 4 - PLAN AND PROFILE
- 5 - INNER PORTION OF THE APPROACH SURFACE
- 6 - AIRPORT AIRSPACE
- 7 - PROPERTY PLAN
- 8 - NARRATIVE REPORT

AS-BUILT  
7/19



**SCAMMON BAY AIRPORT**



Cover Sheet & index 1/8

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

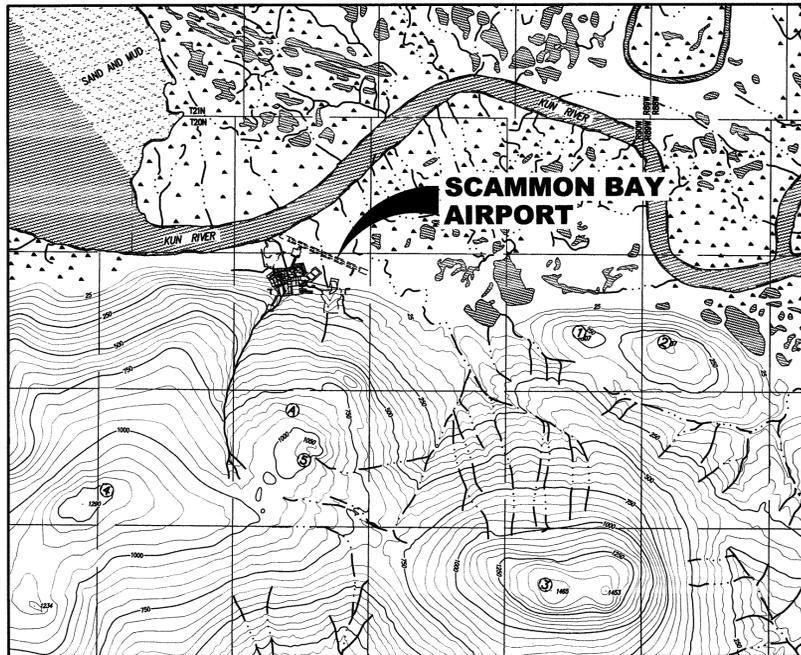
**CONCUR** *Gordon C. Keith* **DATE** 1/10/04  
**GORDON C. KEITH, P.E.** **DIRECTOR OF CONSTRUCTION AND OPERATIONS**  
**APPROVED** *Robert A. Campbell* **DATE** 1/8/01  
**ROBERT A. CAMPBELL, P.E.** **REGIONAL PRECONSTRUCTION ENGINEER**

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL  
 SUBJECT TO ALP APPROVAL LETTER DATED 2/2/04  
 By: *J. J. [Signature]* DATE: 2/2/04  
 F.A.A. AIRSPACE REVIEW NUMBER:  
 03-AAL-18NRA  
 AS-BUILT SHTS 2-6 ACCEPTED 11/5/19 *[Signature]* P.A.L.-621

**SCAMMON BAY AIRPORT  
AIRPORT LAYOUT PLAN**

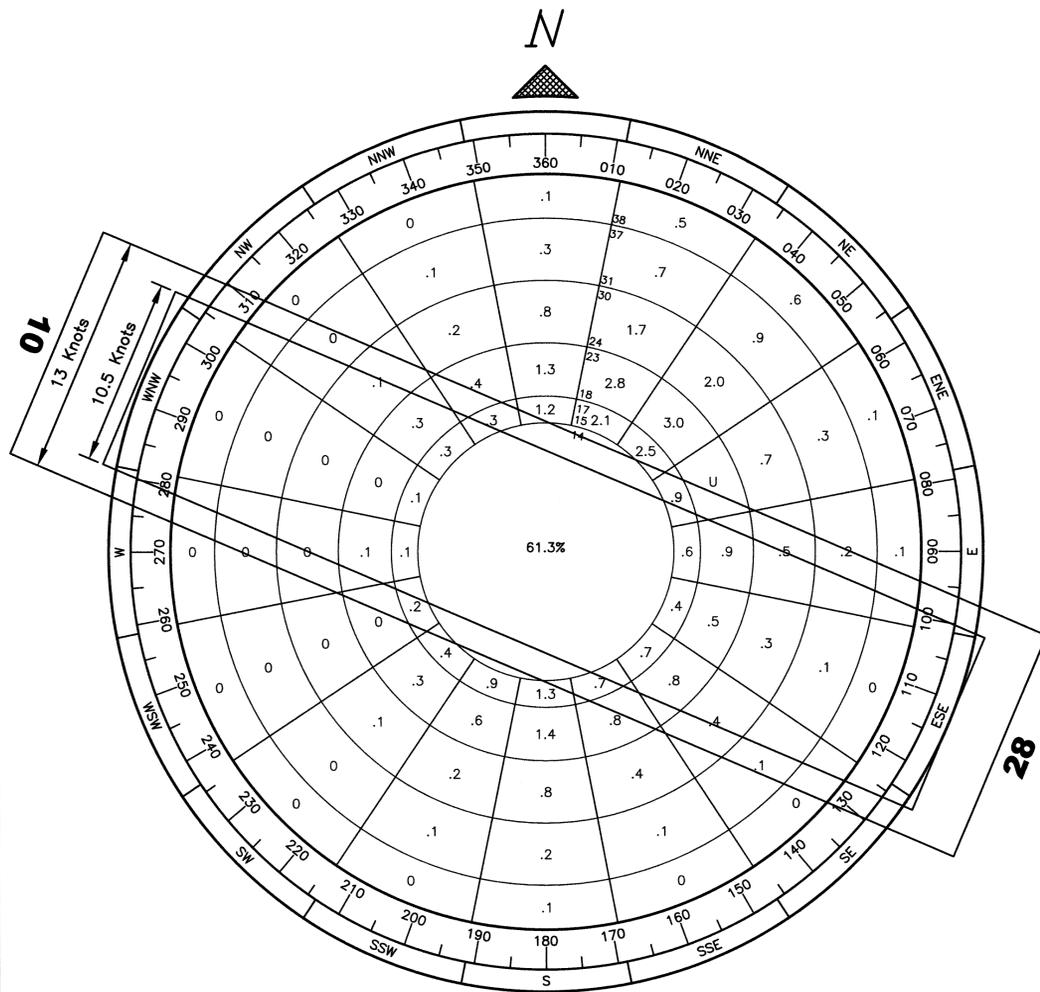
**SHEET 1 OF 8**

File and Date of Last Revision:  
 W:\cad\data\scammonbay\ALP\SCAM\_ALP.DWG 1/5/2004 12:59:15 PM AST



**VICINITY MAP**

T 20, R 89 W, SEC. 3, 10, & 11  
SEWARD MERIDIAN  
U.S.G.S. HOOPER BAY (D-2), ALASKA



**WIND DATA**

WIND COVERAGE: SPEED R/W 10/28  
10.5 KNOTS 67.60%  
13 KNOTS 70.91%

SOURCE: DATA PROCESSING DIVISION ETAC/U.S.A.F.  
AIR WEATHER SERVICE/MAC

STATION: CAPE ROMANZOF, ALASKA, A.F.S.

PERIOD: 1953 - 1970

NOTE: IN THE SPRING OF 2002, FAA INSTALLED AN AWOS AT SCAMMON BAY AIRPORT. CURRENTLY IT IS AVAILABLE FOR CALL IN INFORMATION. FAA EXPECTS TO START RECORDING DATA BY JUNE 2004.

| NON-STANDARD CONDITIONS            |          |          |                 |
|------------------------------------|----------|----------|-----------------|
| ITEM                               | EXISTING | STANDARD | ULTIMATE (B-II) |
| ULTIMATE R/W WIDTH (WIND COVERAGE) |          | 75'      | 100'            |

| APPENDIX 2 OBSTRUCTION TABLE |             |                   |                       |             |
|------------------------------|-------------|-------------------|-----------------------|-------------|
| RUNWAY                       | OBSTRUCTION | SURFACE ELEVATION | OBSTRUCTION ELEVATION | DISPOSITION |
|                              |             |                   |                       |             |

**RUNWAY DATA**

| ITEM                                | RUNWAY 10/28                                 |                                   |
|-------------------------------------|--|-----------------------------------|
|                                     | EXISTING                                     | ULTIMATE                          |
| EFFECTIVE GRADE                     | 0.18%  | 0.18%                             |
| % WIND COVERAGE                     | 10.5 KNOTS<br>13 KNOTS<br>16 KNOTS           | 67.60%<br>70.91%<br>78.25%        |
| INSTRUMENT RUNWAY                   | NPI  | NPI                               |
| RUNWAY SURFACE                      | GRAVEL                                       | GRAVEL                            |
| PAVEMENT STRENGTH                   | N/A  | N/A                               |
| APPROACH SURFACES                   | 20:1   | 34:1                              |
| VISIBILITY MINIMUM                  | > 1 mile                                     | 1 mile                            |
| RUNWAY LIGHTING                     | MIRL   | MIRL                              |
| RUNWAY MARKING                      | NONE   | NONE                              |
| RUNWAY NAVIGATION AIDS              | NONE   | PAPI, REIL                        |
| RUNWAY TYPE                         | UTILITY                                      | >UTILITY                          |
| AIRCRAFT APPROACH CATEGORY          | A  | B                                 |
| AIRCRAFT DESIGN GROUP               | II   | II                                |
| RUNWAY DIMENSION                    | 75' x 3000'                                  | 100' x 4000'                      |
| RUNWAY SAFETY AREA DIMENSION        | 150' x 3600'                                 | 150' x 4600'                      |
| RUNWAY OBJECT FREE AREA DIMENSION   | 500' x 3600'                                 | 500' x 4600'                      |
| RUNWAY OBSTACLE FREE ZONE DIMENSION | 250' x 3400'                                 | 250' x 4400'                      |
| RUNWAY PROTECTION ZONE DIMENSIONS   | INNER<br>OUTER<br>LENGTH                     | 250'<br>450'<br>1000'             |
| GEODEIC POSITIONS (N.A.D. 83)       |  |                                   |
| THRESHOLD 10                        | LAT. 61°50'46.22" N<br>LONG. 165°34'54.18" W | 61°50'46.22" N<br>165°34'54.18" W |
| THRESHOLD 28                        | LAT. 61°50'34.47" N<br>LONG. 165°33'56.82" W | 61°50'30.55" N<br>165°33'37.70" W |

**TAXIWAY DATA**

| ITEM                      | EXISTING | ULTIMATE |
|---------------------------|----------|----------|
| TAXIWAY WIDTH             | 35'      | 35'      |
| TAXIWAY SAFETY AREA WIDTH | 80'      | 80'      |
| TAXIWAY OBJECT FREE AREA  | 131'     | 131'     |

**AIRPORT DATA**

| ITEM  | EXISTING   | ULTIMATE   |
|---|--|--|
| AIRPORT ELEVATION (M.S.L.)                        | 22.0'  | 22.0'  |
| AIRPORT REFERENCE POINT (A.R.P.)                  | LAT. 61°50'40.35" N<br>LONG. 165°34'25.50" W       | 61°50'38.39" N<br>165°34'15.94" W                  |
| TAXIWAY LIGHTING                                  | MIRL   | MIRL   |
| RAMP LIGHTING                                     | NONE   | NONE   |
| MEAN MAX. TEMPERATURE, HOTTEST MONTH (HOOPER BAY) | 56°F   | 56°F   |
| MAGNETIC DECLINATION, YEAR                        | 13°46'E, 2002                                      |  |
| AIRPORT REFERENCE CODE                            | A-II (S)   | B-II   |
| AIRPORT AND TERMINAL NAVIGATION AIDS              | NONE   | NONE   |
| AIRPORT NAVIGATION AIDS                           | ROT. BEACON<br>GPS<br>LT. WIND CONE<br>SEG. CIRCLE | ROT. BEACON<br>GPS<br>LT. WIND CONE<br>SEG. CIRCLE |

**LEGEND**

| ITEM                             | EXISTING  | ULTIMATE  |
|----------------------------------|-----------|-----------|
| PROPERTY LINE                    | ---       | ---       |
| BUILDING RESTRICTION LINE        | ---       | ---       |
| AIRPORT REFERENCE POINT (A.R.P.) | ⊙         | ⊙         |
| WIND CONE AND SEGMENTED CIRCLE   | ⊙         | ⊙         |
| CONTOURS                         | ---100--- | ---100--- |
| ROADWAYS                         | ---       | ---       |
| BUILDINGS                        | ■         | ■         |
| ROTATING BEACON                  | ⊙         | ⊙         |
| SHORELINE                        | ~         | ~         |
| MONUMENT                         | ⊙         | ⊙         |
| THRESHOLD LIGHTS                 | ⊙         | ⊙         |
| FENCE                            | -x-x-x-   | -x-x-x-   |

W:\cad\data\scammonbay\ALP\SCAM\_ALP.DWG 1/5/2004 12:59:15 PM AST

|       |  |
|-------|--|
| FILE: | AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL<br>SUBJECT TO ALP APPROVAL LETTER DATED |
| DATE: | 7/2019   |
|       | ASBUILT TO CURRENT CONDITIONS POST AKSAS 58357                                   |
|       | BY _____ DATE _____ REVISIONS _____  |
|       | By: _____ DATE: _____<br>FAA, AIRPORTS DIVISION<br>ALASKAN REGION, AAL-601       |
|       | F.A.A. AIRSPACE REVIEW NUMBER: 03-AAL-18NRA                                      |

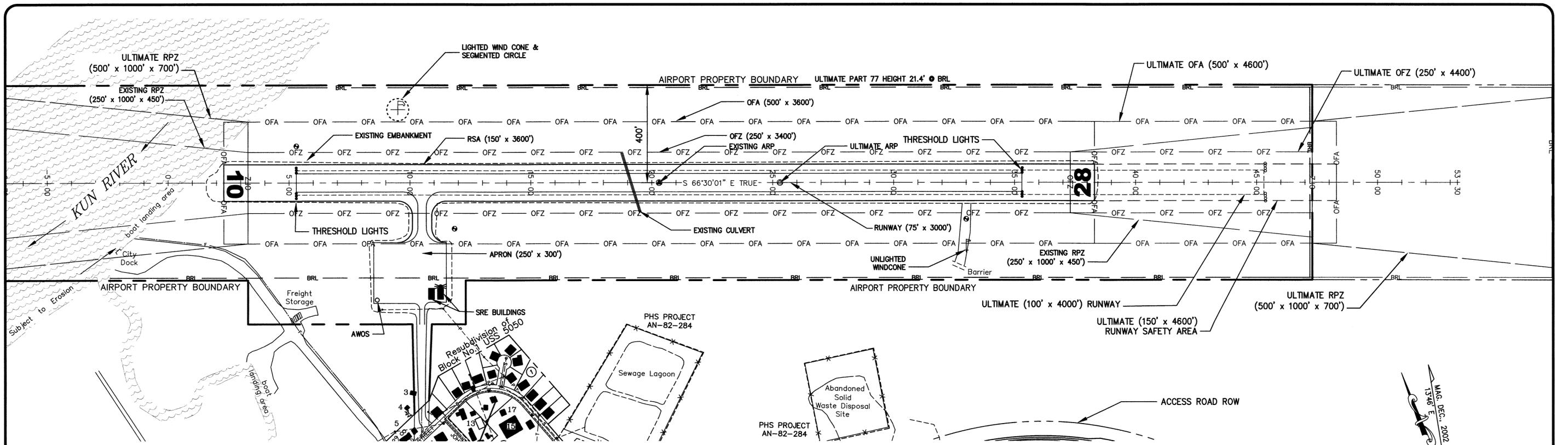
|  |
|--|
| STATE OF ALASKA<br><b>DEPARTMENT OF TRANSPORTATION<br/>AND PUBLIC FACILITIES</b><br>CENTRAL REGION |
| APPROVED: _____<br>STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF                                      |
| APPROVED: _____<br>HARVEY M. DOUTHIT, P.E. PROJECT MANAGER   |

|               |
|---------------|
| DATE 01/05/04 |
| DESIGN JMR    |
| DRAWN MGT     |
| CHECKED TJS   |

|   |
|---|
| <b>SCAMMON BAY AIRPORT</b>                          |
| AIRPORT LAYOUT PLAN<br>VICINITY MAP AND DATA TABLES |

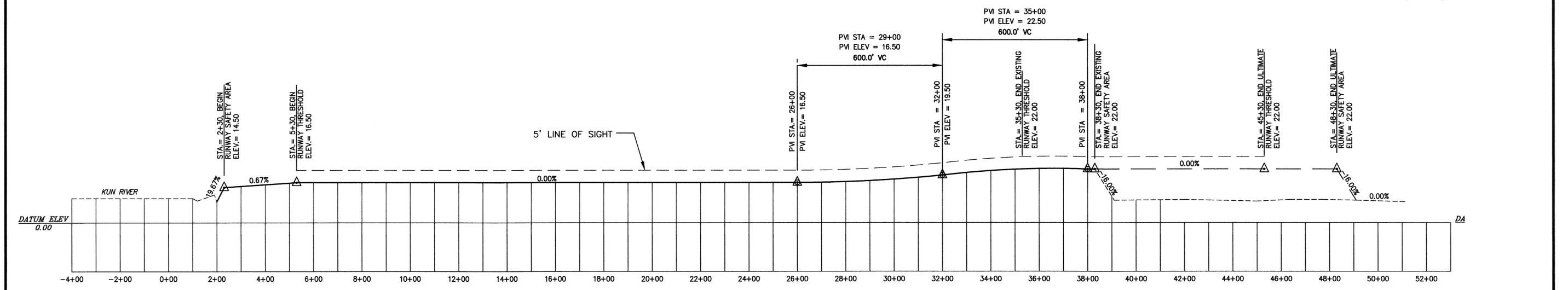
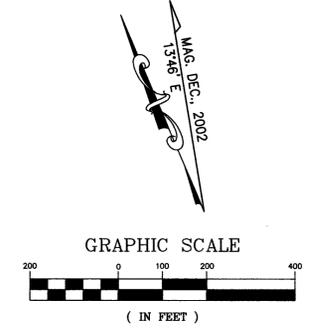
|       |
|-------|
| SHEET |
| 2     |
| OF    |
| 8     |





PLAN

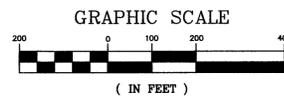
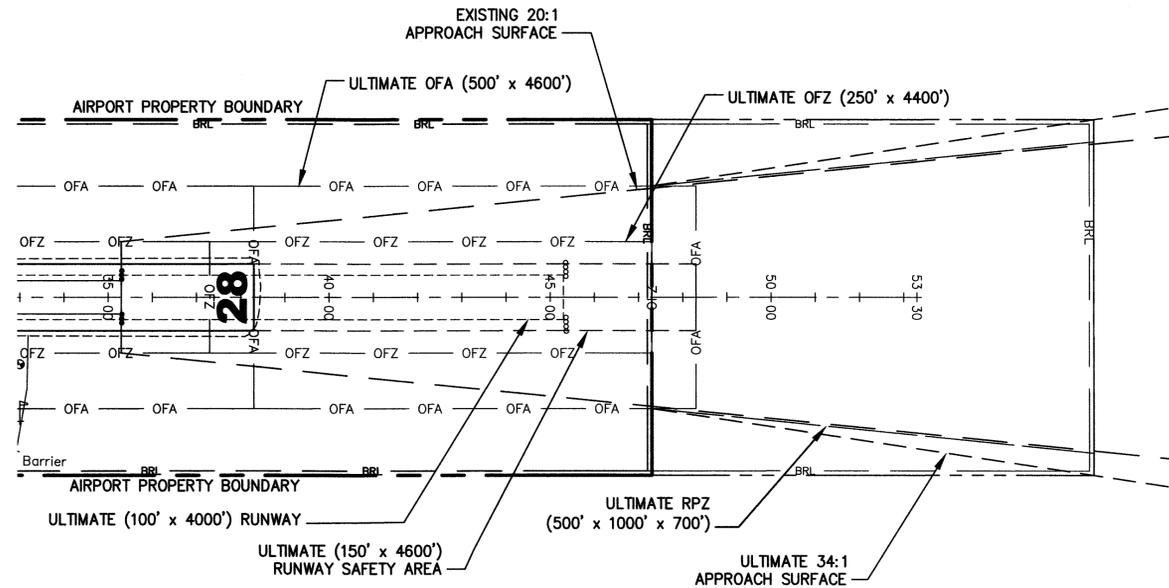
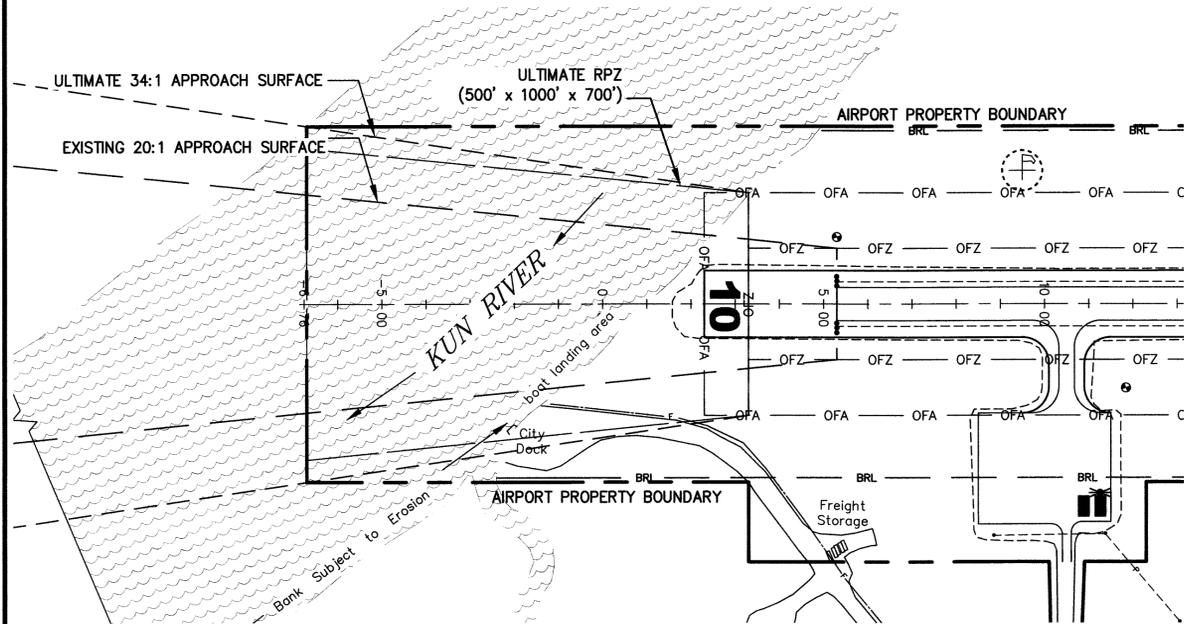
NOTE: NO OFZ OBJECT PENETRATIONS.



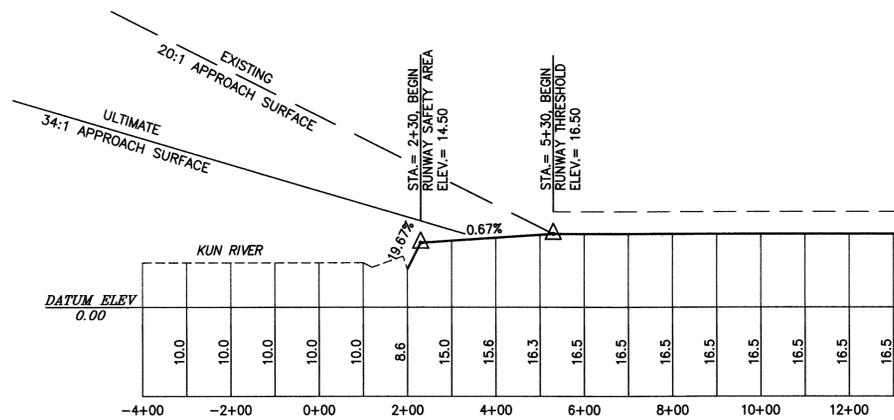
PROFILE

W:\cad\data\scammonbay\ALP\SCAM\_ALP.DWG 1/5/2004 12:59:15 PM AST

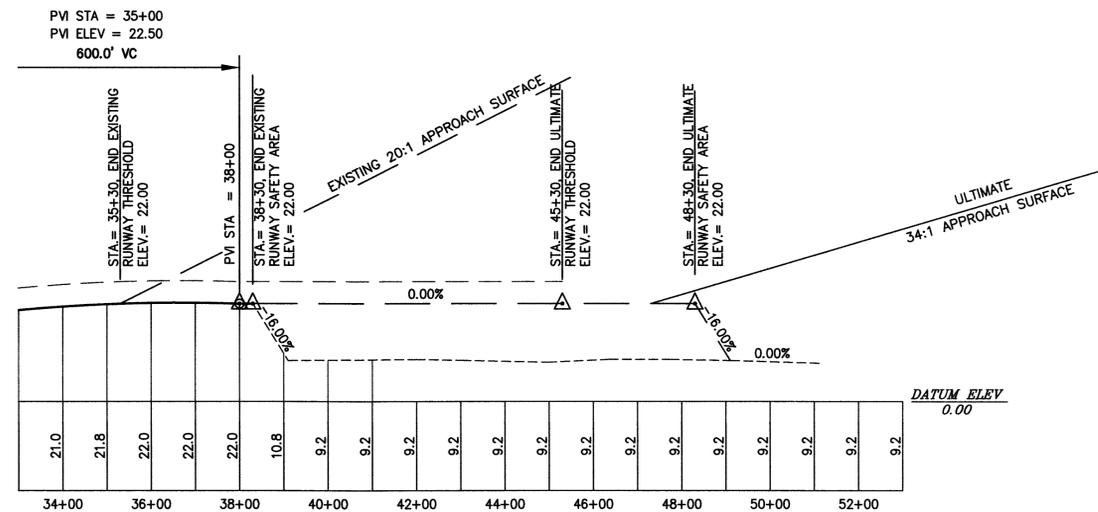
|                |   |  |  |   |  |                       |
|----------------|---|--|--|---|--|-----------------------|
| FILE:<br>DATE: | AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL<br>SUBJECT TO ALP APPROVAL LETTER DATED  | 7/2019 ASBULT TO CURRENT CONDITIONS POST AKSAS 58357 | STATE OF ALASKA<br><b>DEPARTMENT OF TRANSPORTATION<br/>AND PUBLIC FACILITIES</b><br>CENTRAL REGION | DATE <u>01/05/04</u><br>DESIGN <u>JMR</u><br>DRAWN <u>MGT</u><br>CHECKED <u>TJS</u> | <b>SCAMMON BAY AIRPORT</b><br><br>AIRPORT LAYOUT PLAN<br>RUNWAY PLAN AND PROFILE | SHEET<br>4<br>OF<br>8 |
|                | BY: _____ DATE: _____<br>F.A.A. AIRPORTS DIVISION<br>ALASKAN REGION, AAL-601<br>F.A.A. AIRSPACE REVIEW NUMBER: 03-AAL-18NRA | BY: _____ DATE: _____ REVISIONS: _____               | APPROVED: _____ DESIGN SECTION CHIEF<br>APPROVED: _____ PROJECT MANAGER                            |   |  |                       |



**RUNWAY 10**



**RUNWAY 28**



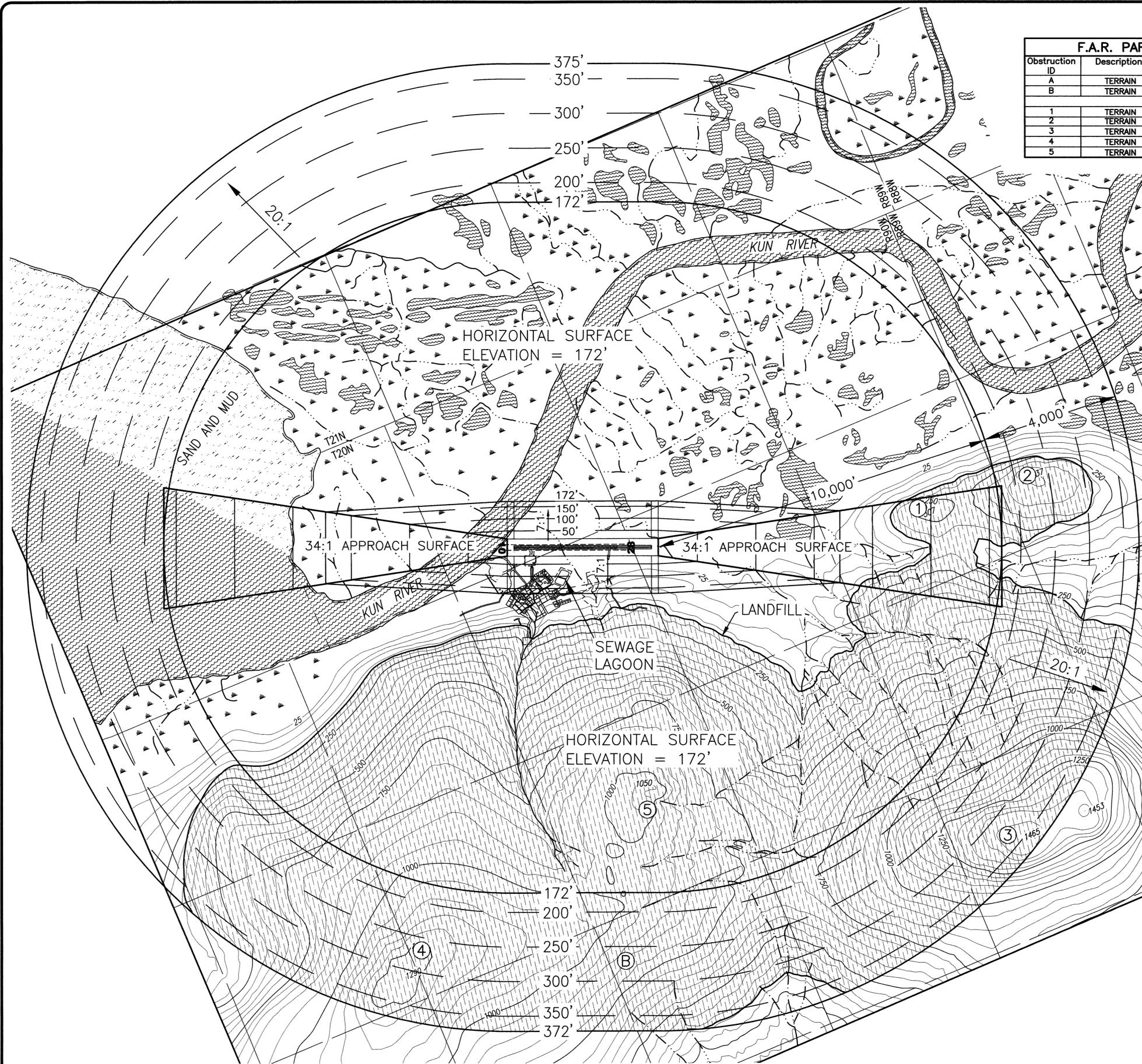
**NOTES:**

1. NO THRESHOLD SITING SURFACE OBJECT PENETRATIONS - SEE NARRATIVE SHT. 8
2. OBSTRUCTION CLEARANCE SLOPE RW 10 > 50:1, RW 28 26:1 - SEE SHEET 6

W:\cad\data\scammonbay\ALP\SCAM\_ALP.DWG 1/5/2004 12:59:15 PM AST

|                |   |  |   |   |  |                                     |
|----------------|---|--|---|---|--|-------------------------------------|
| FILE:<br>DATE: | AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL<br>SUBJECT TO ALP APPROVAL LETTER DATED _____  | 7/2019 ASBULT TO CURRENT CONDITIONS POST AKSAS 58357 | STATE OF ALASKA<br><b>DEPARTMENT OF TRANSPORTATION<br/>         AND PUBLIC FACILITIES</b><br>CENTRAL REGION | DATE <u>01/05/04</u>  | <b>SCAMMON BAY AIRPORT</b><br><br>AIRPORT LAYOUT PLAN<br>INNER PORTION OF THE APPROACH SURFACE | SHEET<br><b>5</b><br>OF<br><b>8</b> |
|                | By: _____ DATE: _____<br>FAA, AIRPORTS DIVISION<br>ALASKAN REGION, AAL-801<br><br>F.A.A. AIRSPACE REVIEW NUMBER: 03-AAL-18NRA | BY DATE REVISIONS                                    |   | APPROVED:<br>STEPHEN M. RYAN, P.E. _____ DESIGN SECTION CHIEF<br><br>APPROVED:<br>HARVEY M. DOUTHIT, P.E. _____ PROJECT MANAGER |  |                                     |

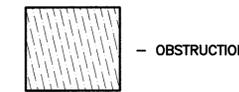
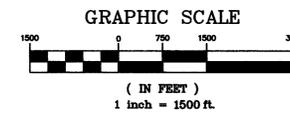
Date Plotted: 07/05/04  
 Plot Ratio and Layout: 1"=1, layout=  
 File: W:\oad\data\acrommonby\ALP\SCAM\_ALP.DWG - 1/5/2004 - 12:59:15 PM AST  
 Designed By: BH  
 Checked By: TJS  
 Drawn By: MGT



| F.A.R. PART 77 IMAGINARY SURFACE OBSTRUCTION TABLE |             |                       |                    |                           |                            |             |       |
|--|-------------|-----------------------|--------------------|---------------------------|----------------------------|-------------|-------|
| Obstruction ID                                     | Description | Obstruction Elevation | Surface Penetrated | Part 77 Surface Elevation | Max. Amount of Penetration | Disposition | Stage |
| A  | TERRAIN     | 172'-1050'            | HORIZONTAL         | 172'                      | 880'                       | NONE        | N/A   |
| B  | TERRAIN     | 172'-1465'            | CONICAL            | 172' - 372'               | 1135'                      | NONE        | N/A   |
| 1  | TERRAIN     | 307'                  | HORIZONTAL         | 172'                      | 135'                       | NONE        | N/A   |
| 2  | TERRAIN     | 437'                  | CONICAL            | 172' - 372'               | 215'                       | NONE        | N/A   |
| 3  | TERRAIN     | 1465'                 | CONICAL            | 172' - 372'               | 1135'                      | NONE        | N/A   |
| 4  | TERRAIN     | 1290'                 | CONICAL            | 172' - 372'               | 990'                       | NONE        | N/A   |
| 5  | TERRAIN     | 1050'                 | HORIZONTAL         | 172'                      | 880'                       | NONE        | N/A   |

NOTES:

- OBSTRUCTION ELEVATIONS ARE ESTIMATED FROM USGS MAPPING.
- ULTIMATE AIRPORT ELEVATION IS 22.0'
- USGS QUADRANGLE MAPS HOOPER BAY D-2 ALONG WITH YEAR 1997 PHOTO-BASED MAPPING WERE USED FOR THE BASE MAP.



F.A.A. AIRSPACE REVIEW NUMBER:  
03-AAL-18NRA

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL  
SUBJECT TO ALP APPROVAL LETTER DATED \_\_\_\_\_

By: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FAA, AIRPORTS DIVISION  
 ALASKAN REGION, AAL-601

| DATE     | DESIGN | DRAWN | CHECKED | BY | DATE | REVISIONS |
|----------|--------|-------|---------|----|------|-----------|
| 01/05/04 | JMR    | MGT   | TJS     |    |      |           |
| 7/2019   |        |       |         |    |      |           |

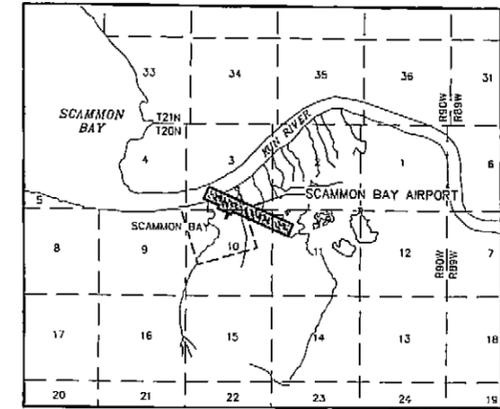
DATE 01/05/04  
 DESIGN JMR  
 DRAWN MGT  
 CHECKED TJS

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 CENTRAL REGION  
 AIRPORT LAYOUT PLAN  
 AIRPORT AIRSPACE  
 APPROVED: STEPHEN M. RYAN, P.E.  
 APPROVED: HARVEY M. DOUGHTY, P.E.  
 DESIGN SECTION CHIEF  
 PROJECT MANAGER

AIRPORT LAYOUT PLAN  
 AIRPORT AIRSPACE  
 SHEET 6 OF 8

| PARCEL | AREA         | GRANTOR / GRANTEE  | INTEREST  | Book / Page          | DATE ACQUIRED           | A.D.A. No. |
|--------|--------------|--|---|----------------------|-------------------------|------------|
| 1      | 87 Ac. +/-   | Callisto Corp / SOA DOT/PF<br>Askinuk Corp. / SOA DOT/PF | QCD, Subsurface Estate<br>Warranty Deed, Surface Estate | 55 / 382<br>55 / 387 | 3/13/1991<br>12/19/1990 |            |
| 2      | 0.55 Ac. +/- | Callisto Corp / SOA DOT/PF<br>Askinuk Corp. / SOA DOT/PF | QCD, Subsurface Estate<br>Warranty Deed, Surface Estate | 55 / 382<br>55 / 387 | 3/13/1991<br>12/19/1990 |            |
| 3      | 15.3 Ac. +/- | SOA DNR / SOA DOT/PF                                     | Avigation & Hazard Esmt                                 | 55 / 30              | 2/26/1991               |            |
| 4      | 18.4 Ac. +/- | Callisto Corp / SOA DOT/PF<br>Askinuk Corp. / SOA DOT/PF | Subsurface Estate<br>Surface Estate                     |                      | To Be Acquired          |            |

SOA DOT/PF = State of Alaska Dept. of Transportation and Public Facilities  
SOA DNR = State of Alaska Dept. of Natural Resources

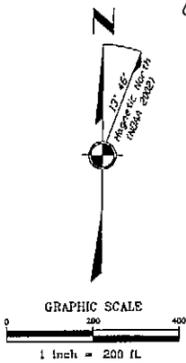
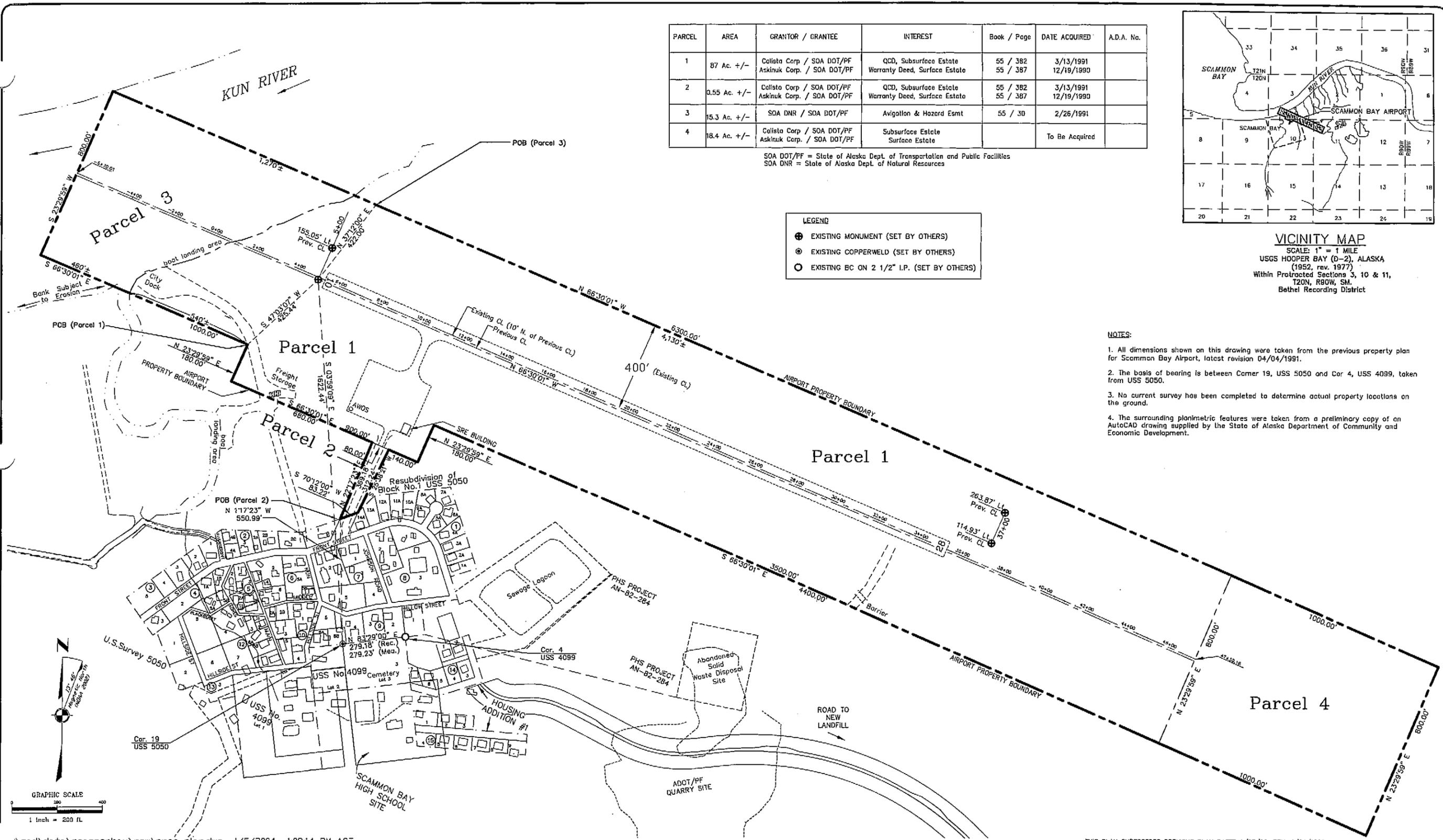


**VICINITY MAP**  
SCALE: 1" = 1 MILE  
USGS HOOPER BAY (D-2), ALASKA  
(1952, rev. 1977)  
Within Protracted Sections 3, 10 & 11,  
T20N, R80W, SM,  
Bethel Recording District

- LEGEND**
- ⊕ EXISTING MONUMENT (SET BY OTHERS)
  - ⊙ EXISTING COPPERWELD (SET BY OTHERS)
  - EXISTING BC ON 2 1/2" I.P. (SET BY OTHERS)

**NOTES:**

- All dimensions shown on this drawing were taken from the previous property plan for Scammon Bay Airport, latest revision 04/04/1991.
- The basis of bearing is between Corner 19, USS 5050 and Cor 4, USS 4099, taken from USS 5050.
- No current survey has been completed to determine actual property locations on the ground.
- The surrounding planimetric features were taken from a preliminary copy of an AutoCAD drawing supplied by the State of Alaska Department of Community and Economic Development.



\\acad\data\scammonbay\row\prop\_plan.dwg 1/5/2004 1:09:14 PM AST

THIS PLAN SUPERSEDES PREVIOUS PLAN DATED 1/25/90, REV. 4/04/1991

|   |                                     |  |   |   |                                     |
|---|-------------------------------------|--|---|---|-------------------------------------|
| AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL<br>SUBJECT TO ALP APPROVAL LETTER DATED <u>2/2/04</u><br>BY: <u>[Signature]</u> DATE: <u>2/2/04</u><br>FAA AIRPORTS DIVISION<br>ALASKAN REGION, AAL-601<br>F.A.A. AIRSPACE REVIEW NUMBER: <u>03</u> -AAL-18NRA | BY _____ DATE _____ REVISIONS _____ | STATE OF ALASKA<br><b>DEPARTMENT OF TRANSPORTATION<br/>         AND PUBLIC FACILITIES</b><br>CENTRAL REGION<br>APPROVED: <u>[Signature]</u> DESIGN SECTION CHIEF<br>APPROVED: <u>[Signature]</u> PROJECT MANAGER | DATE <u>02/05/03</u><br>DESIGN _____<br>DRAWN <u>PLH</u><br>CHECKED _____ | <b>SCAMMON BAY AIRPORT</b><br><br>AIRPORT PROPERTY PLAN | SHEET<br><u>7</u><br>OF<br><u>8</u> |
|   | FILE: _____ DATE: _____             |  |   |   |                                     |

**SCAMMON BAY AIRPORT  
NARRATIVE REPORT**

**A. Purpose**

This narrative report is included with the Airport Layout Plan (ALP) for Scammon Bay in accordance with Federal Aviation Administration (FAA) Airport Design Advisory Circular (AC) 150/5300-13, Change 6, Appendix 7. The rationale for improvements to the Scammon Bay is outlined in this narrative report.

**B. Introduction**

This Airport Layout Plan supersedes the Scammon Bay ALP approved by the FAA on February 8, 1991.

Scammon Bay is located on the south bank of the Kun River, one mile from the Bering Sea. It lies to the North of the 2,500-foot Askinuk Mountains on the Yukon-Kuskokwim Delta. It lies approximately 61° 50' N Latitude, 165° 35' W Longitude (Sec. 10, T020N, R090W, Seward Meridian). The community is incorporated as a second class city with a mayor-council form of government.

The 2001 U.S. census documents a population of 465 persons at Scammon Bay.

|                     |          |
|---------------------|----------|
| Population History: | 1940 88  |
|                     | 1950 103 |
|                     | 1960 226 |
|                     | 1970 166 |
|                     | 1980 250 |
|                     | 1990 343 |
|                     | 2000 465 |

Scammon Bay is a Yup'ik Eskimo community that relies on fishing and subsistence activities. Most residents travel to the Black River each summer for fish camp, 50 miles to the north. Employment is focused on commercial fishing. Fire fighting for BLM, construction projects and handicrafts also provide seasonal income. Subsistence activities provide fish, beluga whale, walrus, seal, birds and berries.

**C. Airport Usage and Forecasts**

The Alaska Aviation System Plan (AASP) has designated this airport as a Community Class Airport, which is defined as the primary access to a small rural community of at least 25 permanent year-round residents without reliable alternate year round access.

Since there is no tower at the Scammon Bay Airport, estimates of aircraft are based on the fleet of current users and current schedules and the Airport Master Record (FAA Form 5010). The FAA Form 5010 reports the following data for annual operations:

|              |       |
|--------------|-------|
| Air Taxi     | 1,000 |
| GA Local     | 0     |
| GA Itinerant | 300   |
| Military     | 0     |
| Total        | 1,300 |

The FAA reports 2,500 enplanements at Scammon Bay for 2001.

A survey conducted by the current operators report the following data for annual operations:

|               |
|---------------|
| Air Taxi 3216 |
| Charters 265  |

The current operators report 10,275 enplanements at Scammon Bay for 2001.

See Table 1 for operators and aircraft using the Scammon Bay airport at this time.

Currently, Tanana Air operates a daily flight five days a week to Scammon Bay. Bell Air, Larry's Flying Service, and Flight Alaska, operate daily flights six days a week to Scammon Bay. Arctic Transportation Service and Arctic Circle Air operate daily flights three days a week to Scammon Bay. Era Aviation operates two daily flights six days a week to Scammon Bay. Hageland Air and Grant Air operate two daily flights six days a week and one daily flight one day a week. All Air Services deliver mail to Scammon Bay, except Yukon Aviation and Craig Air. Grant Air holds the medical contract. All Air Services fly to and from Bethel. Penn Air, Northern Air Cargo, and Evergreen International do not currently conduct any operations at the Scammon Bay airport nor do any of these operators plan to in the future. There are no aircraft based at Scammon Bay.

See Table 2, for the forecast of future operations according to the survey conducted by the current operators. The projected future aircraft operations are based on current conditions for 5, 10, and 20 years into the future. These estimates are based on population forecasts, forecasts of current activity levels along with phone surveys of the carriers. The growth used for the Scammon Bay Airport is estimated at 3% a year (1.03<sup>n</sup> where n equals the number of years). These parameters were considered to be a better predictor of the future activity than combining traditional forecasting parameters of the future operations with future aircraft.

**D. Staged Development**

Near-Term Development (0-5 years)

A grant was issued in 2003 to construct a one bay snow removal equipment building, its estimated cost is \$650,000.

Mid-Term Development (6-10 years)

There is no mid-term development plan for Scammon Bay Airport.

Long-Term Development (11-20 years)

To increase the existing runway dimensions to 100 feet by 4,000 feet. It is estimated to cost \$2,300,000 million in 2002 dollars.

**E. Design Rationale**

1. Airport Reference Code (ARC)

The existing Airport Reference Code is A-II. There are a category A-I, A-II, and B-I aircraft operating on a regular basis at this facility and occasional use by B-II aircraft. There is occasional use by aircraft above A-II, but does not justify a higher ARC.

The most demanding aircraft to use the airport on a regular basis is the Piper Navajo. The Piper Navajo, a category B group I aircraft having an approach speed of 100 knots, wingspan of 40.7 feet, and a maximum take off weight of 6200 lbs. The Yukon Kuskokwim Transportation Plan assumes that the future demands of the community will require the use of a Dash 8, which is a category A group III aircraft.

2. Wind Coverage

Currently, there is no wind data available for Scammon Bay. The wind data collected at Cape Romanzof, located 50 miles southwest from Scammon Bay, was used to perform wind coverage analysis. The existing runway 10-28 alignment provides 70.91% coverage for 13-knot crosswind component and 67.60% coverage for 10.5-knot crosswind component.

In 2001 FAA installed an AWOS at the Scammon Bay Airport. Currently, the system is operational for call up, but is not recording. FAA intends to start recording data by June 2004.

The crosswind runway will not be analyzed until wind data for Scammon Bay is available.

3. Runway and Taxiway

The existing runway length is 3,000 feet. The existing runway and taxiway width is designed to accommodate Group II aircraft.

The 2002 Yukon-Kuskokwim Delta Transportation Plan recommends that the Scammon Bay airport runway dimensions be increased to 4,000 feet by 100 feet in the long-term development plans.

4. Apron

The existing Apron is 250 feet by 300 feet and is setback 250 feet from the runway. The apron design meets the recommended standards. Currently the apron contains an AWOS and one snow removal building with a rotating beacon. There will be a second snow removal building constructed next to the existing building in 2003. Currently aircraft tie-downs are not available.

**F. Property Status**

The existing Scammon Bay Airport is operated by DOT & PF and is located on approximately 117 acres of land. A property plan has been included as part of this ALP.

**G. Hazards to Navigation**

The sewage lagoon in Scammon Bay is approximately 580 feet away from the runway. The solid waste disposal site is approximately 3,900 feet away from the existing runway & 3,200 feet from the ultimate runway. Both of sites are less than the recommended 5,000 feet. Correspondence with DEC shows there are no plans to relocate the sewage lagoon. A letter of non-objection was received by DEC for the solid waste disposal site from FAA on November 17, 1997. A wildlife hazard assessment will be requested prior to increasing runway dimensions.

**H. Appendix 2 Obstructions**

According to the information DOT & PF has there are no threshold siting surface object penetrations for runway 10/28. The Scammon Bay Airport meets the requirements for straight in night operations, although no surveys were performed to verify this.

Appendix 2 section e of paragraph 5 of the Airport Design AC is for approach end of runways expected to support instrument straight-in night operations. Requirements are that no object should penetrate a surface that starts 200 feet out from the threshold and slopes upward from the starting point at a slope of 20(horizontal) to 1(vertical). Additionally the surface extends laterally 400 feet on either side of the centerline.

**I. Community Involvement**

A copy of the Airport Layout Plan was sent to the community on February 10, 2003 for their review, comments were received November 2, 2003.

**J. Modifications to Standards**

The runway length is 3,000 feet. The recommended standard length for a community class runway is 3,300 feet.

**K. Encroachments in Part 77 Surfaces**

There are terrain obstructions on the south & west of the airport. The terrain penetrates the horizontal and conical surfaces to a maximum height of 1135 feet. The obstructions will not be removed.

**L. Future Land Development**

Property will be acquired on the east end of the runway for the 1,000-foot runway expansion.

| OPERATOR                      | AIRCRAFT             | DESIGN GROUP |
|-------------------------------|----------------------|--------------|
| Bell Air                      | Piper Cherokee       | A-I          |
| Alaska Central Express        | Cessna 207           | A-I          |
|                               | Beech Airliner 1900  | B-II         |
| Tanana Air                    | Piper Saratoga       | A-I          |
| Craig Air                     | Cessna 172           | A-I          |
|                               | Cessna 182           | A-I          |
| Yukon Aviation                | Cessna 207           | A-I          |
|                               | Cessna 172           | A-I          |
| Grant Air                     | Cessna 207           | A-I          |
|                               | Piper Navajo         | B-I          |
|                               | Cessna 208           | A-II         |
| Larry's Flying Service        | Beech King Air       | B-II         |
|                               | Cessna 207           | A-I          |
|                               | Cessna 172           | B-II         |
|                               | Piper Saratoga       | A-I          |
| Arctic Transportation Service | Piper Navajo         | B-I          |
|                               | Cessna 207           | A-I          |
|                               | Cessna 402           | B-II         |
| Arctic Circle Air             | Casa 212             | A-II         |
|                               | Cessna 206           | A-I          |
|                               | Cessna 207           | A-I          |
|                               | Cessna 208           | A-II         |
| Flight Alaska                 | SC-7 Short Sky Van   | A-II         |
|                               | Cessna 207           | A-I          |
|                               | Piper Navajo         | B-I          |
| Village Aviation              | Casa 212             | A-II         |
|                               | Cessna 206           | A-I          |
|                               | Cessna 207           | A-I          |
| Hageland Aviation             | Cessna Grand Caravan | A-II         |
|                               | Cessna F-406         | B-II         |
| Era Aviation                  | DHC-6 Twin Otter     | A-II         |

| ITEM                            | Forecast of Future Operations |           |            |             |
|---------------------------------|-------------------------------|-----------|------------|-------------|
|                                 | Present                       | 0 - 5 yrs | 6 - 10 yrs | 11 - 20 yrs |
| Total Annual Operations         | 3480                          | 4034      | 4676       | 6285        |
| Annual Enplanements             | 10275                         | 11911     | 13608      | 18557       |
| Annual Scheduled Operations     | 3215                          | 3727      | 4320       | 5806        |
| Annual Non-Scheduled Operations | 265                           | 307       | 356        | 478         |

W:\data\scammonbay\ALP\SCAM\_ALP.DWG 1/5/2004 12:59:15 PM AST

|   |                                     |   |   |   |                       |
|---|-------------------------------------|---|---|---|-----------------------|
| AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL<br>SUBJECT TO ALP APPROVAL LETTER DATED <u>2/2/04</u><br><br>By: <u>[Signature]</u> DATE: <u>2/2/04</u><br>FAA AIRPORTS DIVISION<br>ALASKAN REGION, AAL-801<br><br>F.A.A. AIRSPACE REVIEW NUMBER: 03-AAL-18NRA | BY _____ DATE _____ REVISIONS _____ | STATE OF ALASKA<br><b>DEPARTMENT OF TRANSPORTATION<br/>AND PUBLIC FACILITIES</b><br>CENTRAL REGION<br>APPROVED: <u>[Signature]</u> DESIGN SECTION CHIEF<br>STEPHEN M. RYAN, PE<br>APPROVED: <u>[Signature]</u> PROJECT MANAGER<br>HARVEY M. DOUTHIT, PE | DATE <u>01/05/04</u><br>DESIGN <u>JMR</u><br>DRAWN <u>MGT</u><br>CHECKED <u>TJS</u> | <b>SCAMMON BAY AIRPORT</b><br><br>AIRPORT LAYOUT PLAN<br>NARRATIVE REPORT | SHEET<br>8<br>OF<br>8 |
|   | FILE:<br>DATE:                      |   |   |   |                       |

## **Exhibit B-3 Schedule**

### **Chevak**

---

Tentative Schedule:

Fieldwork – Fall 2020, Completed four (4) weeks from NTP

Draft Survey Deliverables – Fall 2020, eight (8) weeks from NTP

Final Survey Deliverables – Winter 2020, twelve (12) weeks from NTP

### **Scammon Bay**

---

Tentative Schedule:

Fieldwork – Fall 2020, Completed four (4) weeks from NTP

Draft Survey Deliverables – Fall 2020, eight (8) weeks from NTP

Final Survey Deliverables – Winter 2020, twelve (12) weeks from NTP