


CONTRACT SIGNATURE AND FUNDING OBLIGATION DOCUMENT

1. CONTRACT NUMBER: NAC010161	2. EFFECTIVE DATE: September 28, 2001
3. NAME, ADDRESS AND TELEPHONE NUMBER OF CONTRACTOR: <div style="text-align: center;"> <p>Chugach Alaska Corporation 560 East 34th Ave, Suite 300 Anchorage, Alaska 99503</p> <p>Tel: 907.261.0345 Fax: 907.561.6961</p> </div>	4. CONTRACT ISSUED BY: <div style="text-align: center;"> <p>DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT, BC-660 BLDG. 50, DENVER FEDERAL CENTER P.O.BOX 25047 DENVER, CO 80225-0047</p> <p>303.236.3534</p> </div>
5. TOTAL DOLLAR AMOUNT OBLIGATED FOR THIS CONTRACT : <div style="text-align: center; background-color: black; width: 100px; height: 15px; margin: 0 auto;"></div>	6. ACCOUNTING/APPROPRIATION DATA: <div style="text-align: center;"> <p>2001-AK-921-252R-1410BK</p> </div>
7. SERVICES TO BE PERFORMED: Cadastral Survey: Rectangular - Group No. 780, Chugach Alaska Corporation at Icy Bay; Group No. 784, comprised of work for the Tatitlek Corporation and: Group No. 790, Alaska Chugach Alaska Corporation.	8. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <div style="text-align: center;"> <p>PUBLIC LAW 93-638, AS AMENDED AND 25 U.S.C. 450 et seq.</p> </div>
9.A NAME AND TITLE OF INDIVIDUAL SIGNING THE CONTRACT FOR THE TRIBE (Typed): <div style="text-align: center;"> <p><u>Richard Rogers</u></p> <p><u>Vice-President, Lands</u></p> </div> 9.B. Taxpayer Identification Number: <div style="text-align: center;"> <p><u>92-0042150</u></p> </div>	10. TRIBAL SIGNATURE AND DATE SIGNED: <div style="text-align: center;">  <div style="display: flex; justify-content: space-around;"> (Signature) <u>11-07-01</u> (Date Signed) </div> </div>
11. NAME, MAILING ADDRESS, AND TELEPHONE NUMBER OF THE CONTRACTING OFFICER: <div style="text-align: center;"> <p>Donald B. Foote, Jr. BUREAU OF LAND MANAGEMENT NATIONAL BUSINESS CENTER, BC-660 BUILDING 50, DENVER FEDERAL CENTER P.O. BOX 25047 DENVER, CO 80225-0047 303. 236.3534</p> </div>	12. CONTRACTING OFFICER'S SIGNATURE AND DATE SIGNED: <div style="text-align: center;"> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="border-top: 1px solid black; width: 150px;"></div> <div style="border-top: 1px solid black; width: 150px;"></div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> (Signature) (Date Signed) </div> </div>



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

National Business Center
Denver Federal Center, Building 50
P.O. Box 25047
Denver, Colorado 80225-0047
<http://www.blm.gov>



In Reply
Refer To:

1510 (BC-663)

September 23, 2005

Rick Rogers
Vice President, Lands & Tourism
Chugach Alaska Corporation
560 East 34th Avenue, Suite 300
Anchorage, AK 99503

Subject: Agreement NAA050019
Chugach Alaska Historical Sites Cadastral Survey

Dear Mr. Rogers:

Enclosed for your files is a fully executed copy of the subject Agreement.

Should you have questions concerning this Agreement, please call me at (303) 236-3534.

Sincerely,




Donald B. Foote, Jr.
Contracting Officer

Enclosure

1 - Agreement NAA050019

cc: AK-921, Roger Blouch, COR

CONTRACT SIGNATURE AND FUNDING/OBLIGATION DOCUMENT

1. CONTRACT NUMBER: NAA050019	2. EFFECTIVE DATE: September 13, 2005
3. NAME, ADDRESS AND TELEPHONE NUMBER OF CONTRACTOR: Chugach Alaska Corporation 560 East 34 th Ave Anchorage, Alaska 99503 Tel: 907.563.8866 Fax: 907.563.8402	4. CONTRACT ISSUED BY: DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT, BC-660 BLDG. 50, DENVER FEDERAL CENTER P.O. BOX 25047 DENVER, CO 80225-0047 303. 236.3534
5. TOTAL DOLLAR AMOUNT OBLIGATED FOR THIS CONTRACT : [REDACTED]	6. ACCOUNTING/APPROPRIATION DATA: 2005.AK921.252i.1410BK
7. SERVICES TO BE PERFORMED: Cadastral Survey Contract – Survey work for Chugach Alaska Corporation in accordance with the attached statement of work and terms and conditions herein.	8. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: PUBLIC LAW 93-638, AS AMENDED AND 25 U.S.C. 450 et seq.
9A. NAME AND TITLE OF INDIVIDUAL SIGNING THE CONTRACT FOR THE TRIBE (Typed): Richard Rogers Vice President, Lands, Resources & Tourism	10. TRIBAL SIGNATURE AND DATE SIGNED:  9/21/2005 (Signature) (Date Signed)
9B. Taxpayer Identification Number: 92-0042150	
11. NAME, MAILING ADDRESS, AND TELEPHONE NUMBER OF THE CONTRACTING OFFICER: Donald B. Foote, Jr. BUREAU OF LAND MANAGEMENT NATIONAL BUSINESS CENTER, BC-660 BUILDING 50, DENVER FEDERAL CENTER P.O. BOX 25047 DENVER, CO 80225-0047 303. 236.3534	12. CONTRACTING OFFICER-S SIGNATURE AND DATE SIGNED:  9.23.05 (Signature) (Date Signed)

PUBLIC LAW 93-638 CONTRACT
BETWEEN THE
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
AND
Chugach Alaska Corporation
(AGREEMENT NUMBER NAA050019)

1.0 AUTHORITY AND PURPOSE.

1.1 AUTHORITY. This agreement, denoted a Self-Determination Contract (referred to in this agreement as the "Contract"), is entered into by the Department of the Interior, Bureau of Land Management (referred to in this agreement as the "BLM"), for and on behalf of the United States pursuant to title I of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450 et seq.) (referred to in this contract as the "Act") and by the authority of Chugach Alaska Corporation (referred to in this agreement as the "Tribe"). The provision of title I of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450 et seq.) are incorporated in this contract.

1.2 PURPOSE. To provide for the cadastral survey of Native Allotments under the Alaska Native Allotment Act of May 17, 1906, as amended, and/or Native land selections under the Alaska Native Claims Settlement Act of December 18, 1971, as amended, for the Tribe to assist in carrying out BLM's trust responsibility for the functions described in this Contract which have been carried out on behalf of the Tribe and/or Tribal Allottees by the BLM. Each provision of the Indian Self-Determination And Education Assistance Act (25 U.S.C. 450 et seq.) and each provision of this Contract shall be liberally construed for the benefit of the Tribe to provide the funding and to accomplish the following related functions, services, activities, and programs (or portions thereof), that are otherwise contractible under section 102(a) of the Act, including all related administrative functions, on behalf of the Federal Government to the Tribe.

BLM functions to be contracted shall consist of:

The performance of the cadastral survey of land boundary lines, the establishment of ties to the rectangular survey system and/or horizontal control, the establishment of ties between non contiguous lots within a survey, the location of existing improvements within a Survey, the establishment of corner monuments as indicated on the survey diagrams for each Survey, and the preparation of a "plat only" final plat of survey, or a final plat of survey with field notes, using the survey methods as outlined in the Tribal Contractor's technical proposal.

A detailed Statement of Work is incorporated into this contract as Attachment 2. This Statement of Work details the work items and specifications required to provide correct and complete accomplishment of the prescribed land survey activities.

2.0 TERMS, PROVISIONS, AND CONDITIONS.

- 2.1 TERM. Pursuant to section 105(c)(1) of the Act the term of this contract shall not exceed three years, or upon approval of and payment for all deliverables, whichever occurs first. The period of this Contract shall be determined on the basis of the Required Performance Schedule and the date of original execution of the contract. (See Item 2.2 below).
- 2.2 EFFECTIVE DATE. This Contract shall become effective upon the date of the approval and execution by the Tribe and the BLM.
- 2.3 PROGRAM STANDARDS. The Tribe agrees to administer the program, services, functions, and activities (or portions thereof) listed in subsection 1.2 of the Contract in conformity with the following standards:
 - 2.3.1 The detailed Statement of Work incorporated into this Contract as Attachment 2, contains the program and technical standards required for the complete and successful completion of this project activity.

- 2.4 **FUNDING AMOUNT.** Subject to the availability of appropriations, the BLM shall make available to the contractor the total amount specified in the contract budget agreement incorporated by reference in subsection 6.2. Such amount shall not be less than the applicable amount determined pursuant to section 106(a) of the Act.
- 2.5 **LIMITATION OF COSTS.** The Tribe shall not be obligated to continue performance if conditions change in such a manner that the amount of funds awarded under this Contract become obviously inadequate. If, at any time, the Tribe has reason to believe that the total amount required for the performance of this Contract would be greater than the amount of funds agreed to under this Contract, the Tribe shall provide reasonable notice to the BLM with supportive documentation. If the BLM does not take such action as may be necessary to increase the amount of funds awarded under this Contract, the Tribe may suspend performance of the Contract until such time as additional funds are awarded.
- 2.5.1 **VARIATION IN ESTIMATED QUANTITY.** If the quantity of a unit-priced item in this Contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 20 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 120 percent or below 80 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Tribe may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the Contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgement of the Contracting Officer, is justified.
- 2.6 **PAYMENT.**
- 2.6.1 **IN GENERAL.** Payments to the Tribe under this contract shall:
- 2.6.1.1 be made as expeditiously as practicable; and
- 2.6.1.2 be made in conformance with the agreed Contract Payment Schedule incorporated into this contract as Attachment 3.
- 2.6.1.3 **APPLICABILITY.** Chapter 39 of title 31, United States Code, shall apply to the payment of funds due under this Contract and the Contract budget agreement referred to in clause 2.4.
- 2.6.2 **CONTRACT PAYMENT SCHEDULE.** The contract payment schedule is hereby incorporated in its entirety in this Contract and attached to this Contract as Attachment 3.
- 2.7 **RECORDS AND MONITORING.**
- 2.7.1 **IN GENERAL.** Except for previously provided copies of tribal records that the BLM demonstrates are clearly required to be maintained as part of the record keeping system of the Department of the Interior, and those documents specified in subparagraph 2.7.2 of this contract, records of the Tribe shall not be considered Federal records for purposes of chapter 5 of title 5, United States Code.
- 2.7.2 **RECORD KEEPING SYSTEM.** Within 30 days of the effective date of this Contract, BLM will provide the Tribe with copies of the Survey Special Instructions, Master Title Plats, Project Map(s), and other supporting documents required for the successful completion of this project.
- The Tribe shall maintain a record keeping system and, upon reasonable advance request, provide reasonable access to such records to the BLM as set forth in the Statement of Work incorporated in this contract as Attachment 2.
- 2.7.3 **RESPONSIBILITIES OF CONTRACTOR.** The Tribe shall be responsible for managing the day-to-day operations conducted under this Contract and for monitoring activities conducted under this Contract to ensure compliance with the Contract and applicable Federal requirements. With respect to

monitoring activities during field operations, the BLM will conduct technical and procedural reviews and/or quality and quantity management reviews at the project site(s) on an on-going basis. During the preparation of plats and field notes, BLM will conduct technical and procedural reviews of the reporting documents as described in the Statement of Work incorporated into this contract as Attachment 2.

- 2.7.4. **CONTRACTUAL LIAISON.** To facilitate contractual liaison between the BLM and the Tribe's staff, the Tribe shall have and maintain an office within the State of Alaska during all phases of this contract.
- 2.7.5. **PRE-WORK CONFERENCE.** As soon as possible after contract award, a pre-work conference shall be held at the BLM Anchorage address set forth in the Statement of Work, incorporated into this contract as Attachment 2. The date and time shall be determined by the Program Official and the Tribe in consultation. Discussions relative to contractual obligations and clarification of technical requirements, as needed, will be addressed at this time. A Notice to Proceed will be issued at this time, or as soon as practicable thereafter.
- 2.8 **PROPERTY.** As provided for in the Federal property management regulations and Department of the Interior directives, the BLM will provide excess property items if such items were specifically identified and agreed to by the parties in the Tribe's cost proposal for this project.
 - 2.8.1 **GOVERNMENT FURNISHED SUPPLIES.** The BLM will provide, within three (3) calendar days following receipt of a written request, FOB Anchorage, Alaska (at no cost to the Tribe), the following equipment and materials:
 - 2.8.1.1. All necessary monuments, triangles, magnetic markers, bearing tree tags, and related monumentation supplies.
- 2.9 **AVAILABILITY OF FUNDS.** Notwithstanding any other provision of law, any funds provided under this Contract--
 - 2.9.1 shall remain available until expended; and
 - 2.9.2 with respect to such funds, no further--
 - 2.9.2.1 approval by the BLM, or
 - 2.9.2.2 justifying documentation from the Tribe,shall be required prior to the expenditure of such funds.
- 2.10 **TRANSPORTATION.** The Tribe will use tribal vehicles for all tasks associated with project completion. Costs for tribal vehicles are included in the contract budget agreement, which is incorporated into this Contract as Attachment 1.
- 2.11 **FEDERAL PROGRAM GUIDELINES, MANUALS, OR POLICY DIRECTIVES.** The Tribe agrees to abide by those standards listed in paragraph 2.3.
- 2.12 **DISPUTES.** The BLM and the Tribe will mutually resolve any disputes arising from the performance of this contract.
- 2.13 **ADMINISTRATIVE PROCEDURES OF CONTRACTOR.** Pursuant to the Indian Civil Rights Act of 1968 (25 U.S.C. 1301 et seq.), the laws, policies, and procedures of the Tribe shall provide for administrative due process (or the equivalent) with respect to programs, services, functions, and activities that are provided by the Tribe pursuant to this Contract.
- 2.14 **CONTRACT REQUIREMENTS.** The programs, services, or functions assumed by the Tribe under this contract may be subcontracted, at a minimum, as prescribed by Subpart F, 900.49.

3.0 OBLIGATION OF THE TRIBE.

- 3.1 **CONTRACT PERFORMANCE.** The Tribe shall perform the programs, services, functions, and activities as provided in the contract budget agreement under subsection 6.2 for this Contract and in Attachment 2 (the detailed Statement of Work).
- 3.1.1. **PERMITS AND RESPONSIBILITIES.** The Tribe shall be responsible for obtaining any necessary non-government licenses and permits, and for complying with any applicable Federal, State, and municipal laws, codes, and regulations in connection with the performance of this Contract. The BLM shall obtain any applicable Federal permits.
- 3.1.2. **KEY PERSONNEL.** The Field Supervisor, all Party Chiefs, and the Office Supervisor used in this Contract shall be as identified in the Tribe's technical proposal. Substitution of the Field Supervisor, Party Chiefs, and the Office Supervisor must be approved in writing by the BLM Contracting Officer prior to substitution.
- The Tribe shall maintain an adequate work force of qualified personnel to ensure completion of the contract within the required performance schedule which is incorporated into this contract as Attachment 4.
- 3.1.3. **REQUIRED LICENSING.** The Tribe shall have on staff a person licensed to practice professional land surveying in the State of Alaska.
- 3.2 **AMOUNT OF FUNDS.** The total amount of funds to be paid under this Contract pursuant to section 106(a) of the Act is determined in the contract budget agreement entered into between the BLM and the Tribe, which is incorporated into this Contract as Attachment 1.
- 3.3 **CONTRACTED PROGRAMS.** Subject to the availability of appropriated funds, the Tribe shall administer the programs, services, functions, and activities identified in this Contract and funded through the contract budget agreement under subsection 6.2.
- 3.4 **TRUST SERVICES FOR INDIVIDUAL INDIANS.**
- 3.4.1 **IN GENERAL.** To the extent that the contract budget agreement provides funding for the delivery of trust services to individual Indians that have been provided by the BLM, the Tribe shall maintain at least the same level of service as the BLM provided for such individual Indians, subject to the availability of appropriated funds for such services.
- 3.4.2 **TRUST SERVICES TO INDIVIDUAL INDIANS.** For the purposes of this paragraph only, the term "trust services for individual Indians" means only those services that pertain to the survey of lands being transferred to individual allottees through the Alaska Native Allotment Act and /or to the tribe(s) through the Alaska Native Claims Settlement Act.
- 3.5 **FAIR AND UNIFORM SERVICES.** The Tribe shall provide services under this Contract in a fair and uniform manner and shall provide access to an administrative or judicial body empowered to adjudicate or otherwise resolve complaints, claims, and grievance brought by program beneficiaries against the contractor arising out of the performance of the Contract.

4.0 OBLIGATION OF THE UNITED STATES.

- 4.1 **TRUST RESPONSIBILITY.**
- 4.1.1 **IN GENERAL.** The United States reaffirms the trust responsibility of the United States to the Tribe to protect and conserve the trust resources of the Tribe and the trust resources of individual Indians.
- 4.1.2 **CONSTRUCTION OF CONTRACT.** Nothing in this Contract may be construed to terminate, waive, modify, or reduce the trust responsibility of the United States to the Tribe or individual Indians. The United States shall act in good faith in upholding such trust responsibility.

- 4.2 PROGRAMS RETAINED. As specified in this Contract and the attached contract budget agreement, the United States hereby retains the programs, services, functions, and activities with respect to the Tribe(s) that are not specifically assumed by the Tribe in this Contract under subsection 6.2 and Attachment 1.

5.0 OTHER PROVISIONS.

- 5.1 DESIGNATED OFFICIALS. Not later than the effective date of this contract, a written designation of a senior official to serve as a representative for notices, proposed amendments to the Contract, and other purposes for this contract shall be submitted to both parties. The Deputy State Director for Alaska Cadastral Survey and Geomatics is to serve as BLM's Designated Management Official. A Contracting Officer with sufficient Warrant Authority is to serve as BLM's Awarding Official. The Section Chief, Contract Surveys Section, Branch of Field Surveys for Alaska Cadastral Survey and Geomatics is to serve as BLM's Program Official and Designated Agency Employee. The BLM Contracting Officer will designate Project Inspectors for the field and office portions of the project at the time of the Pre-Work Conference set forth in subsection 2.7.5.

5.2 CONTRACT MODIFICATIONS OR AMENDMENT.

- 5.2.1 IN GENERAL. Except as provided in subparagraph 5.2.2, no modification to this Contract shall take effect unless it is mutually agreed upon and is submitted in writing.

- 5.2.2 EXCEPTION. The addition of supplemental funds for programs, functions, and activities (or portions thereof) already included in the contract budget agreement under subsection 6.2 and the reduction of funds pursuant of section 106(b)(2) of the Act, shall not be subject to subparagraph 5.2.1.

- 5.3 OFFICIALS NOT TO BENEFIT. No Member of Congress, resident commissioner, or any BLM employee, shall be admitted to any share or part of any contract executed pursuant to this Contract, or to any benefit that may arise from such contract. This paragraph may not be construed to apply to any contract with a third party entered into under this Contract if such contract is made with a corporation for the general benefit of the corporation.

- 5.4 COVENANT AGAINST CONTINGENT FEES. The parties warrant that no person or selling agency has been employed or retained to solicit or secure any contract executed pursuant to this Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Tribe for the purpose of securing business.

6.0 ATTACHMENTS.

- 6.1 CONTRACT BUDGET AGREEMENT. The contract budget agreement is hereby incorporated in its entirety in this Contract and attached to this Contract as Attachment 1.
- 6.2 DETAILED STATEMENT OF WORK. The detailed Statement of Work referenced in paragraph 1.2 is hereby incorporated in its entirety in this Contract and attached to this Contract as Attachment 2.
- 6.3 CONTRACT PAYMENT SCHEDULE. The Contract Payment Schedule referenced in paragraph 2.6.1.2 is hereby incorporated in its entirety in this Contract and attached to this Contract as Attachment 3.
- 6.4 PERFORMANCE SCHEDULE. The Required Performance Schedule referenced in paragraph 3.1.2 is hereby incorporated in its entirety in this Contract and attached to this Contract as Attachment 4.

CHUGACH ALASKA HISTORICAL SITES
UNIT PRICES
CHUGACH ALASKA CORPORATION

9/8/2005

PRELIMINARY PAYMENT- 25% OF ESTIMATED FIELD QUANTITIES

		QUANTITY	UNIT	UNIT COST	TOTAL COST
U.S. SURVEY					
1A	CORNER TO BE POSITIONED	162	EA		
1B	MONUMENT TO BE SET	169	EA		
	ADD MARKS	0	EA		
	NEW ACCESSORIES	0	EA		
	REMONUMENTATION	0	EA		
1C	MEANDERS	1795	CH		
1D	MONUMENTS TO BE RECOVERED	10	CH		
1E	TIES	27	EA		
1F	U.S. SURVEY "PLAT ONLY" PLATS	25	EA		
1G	U.S. SURVEY "PLAT W/NOTES" PLATS	4	EA		

TOTAL U.S. SURVEY COST

CHUGACH 14 (h) 1 SURVEYS

1. Scope of Survey

A “cadastral survey” creates, marks, defines, retraces or reestablishes the boundaries and subdivisions of the Public Lands of the United States. An “original survey” creates and marks these boundaries for the first time, while a “resurvey” re-establishes or restores these boundaries by rerunning and remarking lines of an existing Official Survey. This contract includes 29 original U.S. Surveys.

1.1 Contract Components - The BLM Manual, all Special Instructions, and the Contractor’s Technical proposal are included as part of this contract, as detailed below.

1.1.1 BLM Manual and Special Instructions - The 1973 edition of the Manual of Instructions for the Survey of the Public Lands of the United States, usually referred to simply as the BLM Manual, details the specifications and procedures for executing cadastral surveys. “Special Instructions” (SI’s) explain the specific details of each U. S. Survey. Each SI includes a “Plan of Survey” which graphically depicts the planned survey. All survey work and documentation **must** conform to the BLM Manual and the SI. If there is a discrepancy between this Statement of Work (SOW) and the SI, the Contractor must **immediately** contact BLM to resolve the conflict.

1.1.2 Technical Proposal - The Contractor must submit a Technical Proposal detailing how it proposes to complete these surveys. It must include a Quality Control Plan, which must be implemented throughout the contract to prove that obtained results meet required accuracy. If the Contractor anticipates a deviation from the Technical Proposal, he **must inform BLM immediately**. The SOW and SI supercede any statement in the Contractor’s Technical Proposal.

1.2 U.S. Surveys Included in Project - This project includes the following U. S. Surveys:



Survey locations are shown on the location map labeled: “**CHUGACH HISTORICAL SITES**”.

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

1.2.1 Surveys Requiring a "Plat with Field Notes" - Surveys requiring a "plat with field notes" are identified in bold type above; all others require a "plat only" final plat.

1.2.2 Surveys Requiring Ties - All U. S. Surveys in this contract require a tie except the following: 11522 and 13693. This tie requirement **may supercede** the SI. Unless specifically exempted, **only one tie per survey** is authorized.

1.3 Estimated Work Units - To complete the surveys listed above, the Contractor must complete the following **estimated** work quantities:

- a. 162 Corner positions to be established
- b. 189 Corner monuments to be established
- c. 1795 Job of meanders (approximately 200 miles)
- d. 27 Ties to the rectangular survey system and/or horizontal control
- e. 10 Corners to recover
- f. 4 U.S. Survey plats with field notes to prepare
- g. 25 U.S. Survey "plat only" plats to prepare.

1.4 Project Materials and Resources - The Contractor must provide all labor, materials, equipment, transportation, subsistence (as defined below), and all other resources for the project, except for items specified in the "List of Attachments and Enclosures" as being provided by BLM. Corner monumenting materials are provided by the BLM.

1.4.1 Subsistence - Subsistence (meals and lodging) must be provided to all personnel employed during the field work portion of the project, unless the project area is within fifty (50) miles of a permanent office maintained by the Contractor at the time the technical proposal is submitted. In such case, subsistence is required for only those individuals not hired locally or who do not maintain a permanent residence within commuting distance of the project.

1.5 Digital Data Media and Formats - All digital files submitted by the Contractor to BLM must be on compact disk or another mutually agreed upon format. GPS data must be in RINEX or another mutually agreed upon format, and may be compressed using PKARC, PKZIP, or LZARC compression utilities. Text files must be in Microsoft Word or another mutually agreed upon format. The Contractor must submit one (1) digital copy of final survey plat and field notes for each U.S. Survey and of the overlay data for each Township.

1.6 Examination of Survey Information - The Contractor may examine the Project Location Map(s), and the SI, survey diagram and the land examiner's report(s) for each U. S. Survey at the following address:

BLM Anchorage Field Office
Div. of Cadastral Survey (AK-921)
6881 Abbott Loop Road
Anchorage, Alaska 99507-2599

1.7 BLM Personnel - BLM will assign a Contracting Officer, Contracting Officer's Representative, and Project Inspector(s) prior to the start of the project work.

1.7.1 Contracting Officer (CO) - The CO executes this contract on behalf of the government. The CO is the **only** individual authorized to change the terms and conditions of this contract.

1.7.2 Contracting Officer's Representative (COR) - The COR is assigned by the CO to perform various acts of contract administration, such as arranging for payments, making inspections, or determining quantities of work accomplished. The COR is also responsible for giving technical direction to the Contractor throughout contract performance, but does **not** have authority to change the terms and conditions of this contract.

1.7.3 Project Inspector (PI) - The PI is assigned by the CO to perform random, announced and/or unannounced government quality assurance of field and office work accomplished by the Contractor. The PI does **not** have authority to change the terms and conditions of this contract.

Any deviation from the proposed plan or methodology must be approved by the CO.

1.8 Contractor Personnel - The Contractor must designate a Project Supervisor, Field Supervisor, Office Supervisor, and Quality Control Supervisor in the Technical Proposal. An individual may have more than one assignment.

1.8.1 Project Supervisor - The Project Supervisor is the Contractor's representative for the overall management of this project. He is the point of contact for all contract management matters, and is the primary representative of the Contractor with the authority to negotiate with the CO to modify or amend the terms and conditions of this contract.

1.8.2 Field Supervisor - The Field Supervisor is in charge of the project in the field. He is the point of contact for the PI, and has the responsibility for all field project management and quality control. He must be at the field project site **at least eighty percent of the time**.

1.8.3 Office Supervisor - That member of the Contractor's office staff, designated in writing by the Contractor in the Technical Proposal, as the individual who is in charge of all plat and field note preparation. The Office Supervisor is the point of contact for the PI and has the responsibility for all office project management and quality control.

1.8.4 Quality Control Supervisor - The Quality Control Supervisor is responsible for implementation of the Contractor's Quality Control Plan, and has the authority to implement corrective procedures.

2. Field Survey Specifications and Procedures

The survey specifications in this section do not replace or supercede the BLM Manual. Rather, it is intended to clarify and summarize the required field survey process, and to detail how required work is paid for by the line items.

2.1 Basis of Bearing - Bearings are mean bearings and refer to the true meridian. They may be determined by the methods detailed below.

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

2.1.1 Acceptable Methods of Bearing Determination - The bearings for metes and bounds surveys (unless specified otherwise in the SI,) must be determined from astronomical observations, GPS observations, or using azimuths between verified published USC&GS, NGS, USGS or BLM horizontal control stations. Bearings determined by using relationships between approved or unapproved rectangular survey corners **are not acceptable**.

2.1.2 Azimuth Control using GPS - When using GPS to establish azimuth control, the distance between the two corners/stations used must be at least ten (10) chains. If the Contractor is able to show acceptable results are attainable through the implementation of their Quality Control Plan, the required minimum distance may be reduced **at the discretion of the PI**.

2.1.3 Solar Observation Methods - If solar observations are employed to determine basis of bearing, the Contractor must use the hour angle method verified by either an independent hour angle determination (observations at a different traverse point) or the altitude method.

2.2 Ties - A "tie" is a survey connection from an existing horizontal control station, corner of the Public Lands, or corner of a special survey, to a point whose position is to be determined.

2.2.1 Costs for Ties - The cost of recovering existing corners/stations necessary for a tie is included under the "tie" line item, and is **not** paid under the "corners recovered" line item. All costs of positioning the U.S. Survey corner tied to the existing corner/station are included in the "tie" pay item.

2.2.2 Ties to U. S. Surveys in Surveyed Townships - U. S. Surveys within an approved or unapproved surveyed township must be tied to a rectangular survey corner or a horizontal control station. Where possible, the tie must be to a corner in the township where the U. S. Survey is located, or to a horizontal control station listed in the Official Record of Survey of that township, or in the case of unapproved surveys, is verified as being used in the original survey field work.

2.2.3 Rectangular Corners within U. S. Surveys - Whenever one or more corners from an approved or unapproved rectangular survey fall within a U. S. Survey, **every rectangular Meander Corner (MC) and Witness Corner Meander Corner (WCMC)** within the U. S. Survey must be tied to a corner of the U. S. Survey. Rectangular corners which are not MC's or WCMC's do not need to be tied so long as one or more MC's or WCMC's have been tied. However, if none of the rectangular survey corners within the U. S. Survey is an MC or WCMC, then **one** rectangular corner must be tied to the U. S. Survey.

2.2.4 Ties to U. S. Surveys in Unsurveyed Townships - U.S. Surveys located in **unsurveyed** townships must be tied to an existing Rectangular Survey System corner within nine miles, if available. Otherwise, the tie must be made to a National Geodetic Survey control station.

2.2.5 Control Stations for Ties - All control stations for ties used **must** be positioned by appropriate control methodology. Temporary control points **must** be monumented in a manner to ensure stability for the duration of their use on this project. Published control stations found to disagree with the published coordinates by more than **two feet** relative

to other previously verified horizontal stations **are excluded from use** on this project. The Contractor may utilize these excluded monumented positions by assigning a temporary name or number and the corrected coordinates to these monuments. In any case, any discrepancy found **must not be adjusted into the published control network**.

2.2.6 Use of NAD 27 - The U. S. Survey corner coordinates must be based on the **protracted or record NAD 27** coordinates of the rectangular corner or control station, regardless of whether GPS or conventional methods are used to survey the tie.

2.2.7 Surveying Ties by Conventional Methods - When surveying ties by conventional methods (theodolite/EDM traverse), either of the following methods may be used: (1) a closed traverse, closing on either the starting or a different corner/station, or (2) an open traverse. If an open traverse is used, the following checks are required:

- a. A true azimuth must be determined on both the first and last traverse leg.
- b. Each traverse leg must be measured twice - once in feet unit and once in meters.
- c. Each traverse leg distance must be checked using an on-line offset, with the difference in electronic distances compared to the taped offset distance.

2.2.8 Ties between U. S. Survey Lots - Ties between non-contiguous lots of a survey are required, but are **not** included in the “tie” line item. Costs for these ties are covered in the “corners positioned” line item.

2.2.9 Damaged, Destroyed, or Missing Monuments - Where an existing corner or control station planned for use as a tie is missing or the found monument is damaged, follow these procedures:

- a. Where the found monument can be readily rehabilitated to the original record condition, do so.
- b. Where the found monument is damaged beyond repair, replace it with a new monument and mark as shown in the original record, adding the current date.
- c. Where the monument is missing and the position can be definitely determined using existing bearing objects, set a new monument and mark as in b., above.
- d. Where the position for the corner falls in a location unsuitable for remonumentation, go on to the next available corner location.
- e. Where no corner evidence is found, go on to the next available corner location.
- f. In any event, do not add to or change the condition of existing corner accessories.
- g. All work other than rehabilitation must be done with **prior** approval of the PI.

2.3 Survey Lines - Lines may be surveyed using any method and instrumentation that provides the required accuracy and a mathematically redundant field check.

2.3.1 Survey Line Measurement Units - All line lengths must be shown as true horizontal distance in **chains**, to the nearest link. Distances between monuments, and distances between witness corners and true points, must be surveyed in **whole** link increments.

2.3.2 Witness Point Requirement - A witness point (WP), or points, as appropriate, must be established on lines exceeding 45 chains in length, **measured from true end point to true end point**, in accordance with the guidelines set forth in Section 7-16 of the BLM Manual. All WP's established must be included in the true line traverse.

2.3.3 Line to Point of Beginning (POB) - The POB, as defined in the POB “location sheets” and in the SI, must be included in the true line traverse for each U. S. Survey. It

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

may be included by conventional open traverse using the checks shown in paragraph 2.2.7 or by GPS methods. A closed loop through the POB is not required.

2.3.4 Topographic Line Calls - Ties must be made to permanent structures and other items called for in the SI, **whether or not GPS methods are used**. (This is **not** a pay item; the costs are included in other line items.). Topographic line calls must also be made at public-use trail crossings, major water bodies including lakes over 50 acres, meanderable or navigable streams, and at other features which affect the placement of a corner monument.

2.3.5 Visual Check of Entire Line - Where lines are surveyed using GPS methods, the **entire parcel boundary line must be visually inspected** to check for required topographic line calls, and for the presence of meanderable or navigable water bodies. Additional monuments and/or a modified survey design may be required.

2.3.6 Clearing and Blazing of Survey Lines - Conventionally surveyed boundary lines must be cleared of brush and other growth. All stubs (twelve inches or less in diameter) must be cut down to not more than six (6) inches above ground level. In wooded areas, the cleared line must be cleared only to the minimum necessary to project the survey line. Live trees eighteen inches or more in diameter at breast height, must **not** be cut down without the **prior** approval of the PI. Any tree cut must be left so that it remains in a horizontal position with **no** potential for movement.

Trees, where available within 50 links of true line, must be blazed in accordance with Section 3-125 of the BLM Manual. Blazed trees must be intervisible and within 50 links of true line, so that the true line of survey may be readily identified and followed.

When GPS survey methods are used to survey parcel boundaries, the Contractor is **exempted** from clearing and blazing boundary lines.

2.4 Meanders - The Contractor may survey meanders using any method (or combination of methods) that produces accurate results, and conforms to the meanderability criteria detailed in the BLM Manual Sections 1-12, 3-115, 3-116, 3-120, 3-121, 3-122, 7-96 and 7-97.

2.4.1 Use of Meander Data for Parcel Design - Meanders of U. S. Surveys are surveyed to provide an accurate depiction of the ordinary high water mark so that an accurate acreage can be determined for parcels bordering on meanderable water bodies. Meanders must be run **before** parcel design, so that the surveyed meander data can be used in the design. **Note: Where parcel designs are not dependent on acreage, the meanders may be run at any time during the field survey procedure.**

2.4.2 Use of Record Meanders - Where record meanders and witness distances have been previously determined in an approved or unapproved rectangular survey, the PI may direct the Contractor to use that record data to design the survey and compute the acreage.

2.4.3 Witness Distance Check to WCMC's - **The Contractor must physically measure and record the witness distance between WCMC monuments and the true Meander Corner locations.**

2.5 Corner Positioning - Corner Positioning is the determination, on the ground, of the true position of a new corner. Any survey method which meets or exceeds closure

specifications may be used. Costs for corner positioning do **not** include the actual establishment of the corner monument and related accessories.

2.5.1 Corner Moves - Where the true monumented corner point is different than the temporary corner point, the corner move must be measured using a staff compass, theodolite or other similar surveying instrument. Corner moves measured with a hand held compass, compass with a needle length less than 3 inches in length or other similar method are **not** acceptable. Any move longer than ten links **must** be measured with a theodolite or other similar surveying instrument.

2.5.2 Witness Corner Positioning - As a check when positioning WC' s and WCMC' s, the calculated witness distances must be recorded in the field books along with the measured distance. All WC' s established must be included in the true line traverse.

2.5.3 Payment - All costs associated with the positioning of the corner which is tied to control are included in the tie pay item. Costs associated with the positioning of all other corners are included in the corner positioning pay item.

2.6 Corner Monumentation - All monuments must be set and marked in accordance with the BLM Manual. The **Contractor** has final responsibility for correctness of all corner and accessory markings.

2.6.1 Monument Type - Regulation monuments consisting of BLM standard stainless steel and/or iron posts with brass caps must be established at all corner points unless substitute monumentation is approved for **specific** corner points by the PI. The flanged portions of the post monuments must be perpendicular to the post upon final placement.

2.6.2 Substitute Monumentation - Substitute monumentation of any type requires prior written approval on a case-by-case basis. Nails of any type are not acceptable substitute monuments.

2.6.3 Monument Magnet - A clear magnetic marker must be buried, with black end cap down, beneath each monument.

2.6.4 Bearing Trees and Bearing Objects - Properly marked bearing trees or bearing objects, as set forth in the BLM Manual, must be referenced to each monument established or restored. The bearing to the nearest 1/4 degree and the horizontal distance to the nearest link must be recorded to all accessories. Bearings to all accessories must be measured using a staff compass, theodolite or other similar surveying instrument. Bearings measured with a hand held compass, compass with a needle length less than 3 inches in length or other similar method are **not** acceptable. Official BLM bearing tree tags must be affixed to all newly referenced bearing trees and all existing bearing trees associated with corner recovery. **The position of bearing objects in reference to the described corner must be within one link per chain (1:66) in distance and within one-half (1/2) degree of bearing, considered separately.**

2.6.5 Magnetic Accessory Markers - Where suitable bearing trees or bearing objects are not available, magnetic markers must be utilized to complete the required complement of accessories. They are color coded as follows:

Silver: Northeast Quadrant

Pink: Southeast Quadrant

Blue: Southwest Quadrant

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

Orange: Northwest Quadrant

The markers must be buried **vertically** with the black end cap **down**, to a minimum depth of twelve inches. Markers must be, at a minimum, buried fifteen links from the monument. The bearing (to the nearest 1/4 degree) and horizontal distance (to the nearest link) to the marker must be recorded.

2.6.6 Triangle Markers - Where no above ground accessories exist at **any** corner of a U. S. Survey lot, a fluorescent-colored aluminum triangular marker must be set at **one** corner of the lot, **preferably** a back corner on those lots fronting a water body. The triangular marker must be bolted to an aluminum drive rod, set to a minimum depth of eight feet or a maximum of fourteen feet. The triangular marker must be set a minimum of ten links from the corner, and must extend no more than one foot above the ground. The bearing to the nearest 1/4 degree and the horizontal distance to the nearest link must be recorded to all triangular markers. **Note: Where "jacking" or "frost heaving" of drive rod is likely due to Arctic Permafrost conditions, the aluminum drive rod may be set to a depth of approximately 3 feet (one rod length) and the triangular marker flush with the vegetative surface**

2.6.7 Monuments Set in Roads or Trails - Monuments located in roads or trails must be set with the top not less than six inches below the ground surface. If no bearing trees or other accessories are available, two properly marked reference monuments must be set outside the road or trail. Payment will be made at the "remonumentation" rate (or one-half of the full monument rate) for each monument set. The **full amount** of payment for any corner requiring three monuments and no other accessories is **one and one-half times the full monumentation rate**.

2.6.8 Corner Recovery - Recovery is defined as the identification of a monumented corner as authentic and in its original location. This requires an actual visit to the monument. The "corners recovered" line item includes determining a geographic coordinate for the corner (where required) and verifying or revising the description. Verifying the description includes measuring and recording bearing and distance to record accessories.

2.6.9 Corners Recovered in Retracement Surveys - Retracement surveys are made to determine the direction and length of lines and identify monuments and accessories of an existing Official Survey. Recovered corners are rehabilitated, but lost corners are not restored and lines through timber are not reblazed. Costs for these corner recoveries are **not** paid under the line item for corner recovery; all costs for these recoveries are included in the line item price for "chains of retracement". The contractor may perform retracement and/or dependent resurvey work under this contract **only with prior approval by the PI**.

No Retracement is scheduled for this project; therefore no line item price is included. If Retracement is required, the contractor must notify the COR immediately. **No** retracement work may be performed **prior** to a line item price agreement.

2.6.10 Corner Rehabilitation - Rehabilitation is defined as the reconditioning of a corner monument or its accessories to original conditions, but not the addition of new accessories, or the altering of the monument. When existing corners used in the survey need rehabilitation, the Contractor must perform this work. Costs of necessary rehabilitation work are included in the "corner recovery" line item.

2.6.11 Corner Restoration - Restoration is defined as the replacement of one or more lost corners or obliterated monuments from an Official Survey by approved methods. The Contractor may not restore corners **without prior approval of the PI**. Restoration work will be paid as a percentage of the “monuments established” line item.

2.6.12 Corner Remonumentation and Perpetuation - The Contractor **may not perform remonumentation** (the construction of a corner monument at an original monument's position as determined by measurement from original accessories) **or perpetuation** (establishment of new accessories or other evidence to preserve the corner location) of existing corners **without prior approval of the PI**.

2.7 Monument and Location Descriptions - A full and complete description of each corner monument set, restored, or recovered must be recorded in the field book, as explained below.

2.7.1 Descriptions of Set or Recovered Corners - A corner description must include the following:

- a. type and size of monument
- b. depth set or driven (not required for monuments recovered)
- c. extension above ground
- d. markings
- e. type, size, and location (by bearing and distance) and marking of corner accessories, and all distinctive topographic features within three chains (“Distinctive topographic features” are those which can be readily identified to the exclusion of others and can be used to specifically redefine the corner position.)
- f. pencil impression or photograph **clearly** showing the cap markings.
- g. list of any restoration work done
- h. coordinates of recovered corners/stations used for horizontal control, highlighting any position used that differs from published data.

2.7.2 Description of Meander Corners - For meander corners, the field books must contain all information included for other corner monuments, **plus** the following:

- a. direction of stream flow
- b. the bearing of the ordinary high water mark in both directions
- c. height of bank above ordinary high water.

2.7.3 Monument Location Description Statement - Where GPS methods are used for corner positioning and lines between corners are not physically run on the ground and described in the field notes, a location description statement must accompany the monument description in the final field notes or on the plat, as appropriate. This statement must include, but is not limited to: soil type, terrain, surrounding vegetation, and geological features. The format for and examples of these descriptive statements are provided at the Pre-Platting meeting or are available from the COR.

2.8 GPS Field Work - All GPS verified or established horizontal control must comply with the "Standards and Guidelines for Cadastral Surveys using Global Positioning System Methods Version 1.0, May 9, 2001"

BLM recognizes the dynamic nature of GPS surveying in the areas of real time positioning, quick ambiguity determination and "on the fly" initializing. BLM's specifications are not intended to hinder the integration of advancements which may be

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

beneficial, efficient, and accurate to our program, but rather, to guarantee the degree of confidence, reliability, and repeatability for verification that BLM considers necessary in the performance of Cadastral Surveys.

BLM encourages the presentation and discussion of these emerging technologies when considered a viable option in the performance of specific projects or portions of projects. In these instances, the BLM GPS specifications guide the formulation of procedures that assure the degree of confidence, reliability, and repeatability in the final product that BLM attains in the current standards. These procedures must closely reflect the approach that follows the professional standards and accepted procedures of the established surveying community, and BLM in particular.

2.8.1 GPS Corner Positioning Methods - All GPS positioning of corner locations must be determined by static and/or rapid-static methodology and comply with the "Standards and Guidelines for Cadastral Surveys using Global Positioning System Methods Version 1.0, May 9, 2001". Two base stations located at opposite ends of the survey area must operate continuously providing baseline calibration and corrector information. These base stations must also provide adequate satellite coverage capability.

2.8.2 Use of RTK - Real-time kinematic techniques (RTK) may be used to determine the initial position of a corner location and will provide a redundant check on its final position. RTK may be used to determine the final location of meander positions, improvements, topographic calls, and monument accessories other than bearing trees where there is no demonstrated problems with GPS signal blockage or potential for multipath errors. RTK may also be used for bearing tree location as long as redundant positioning is obtained by independent methods (staff compass and steel tape).

2.8.3 Static Positioning - At a minimum, one separate rapid-static session must be used to determine each corner monument's final position.

For U. S. Surveys not dependent on the record of an existing BLM survey, closure error must be not less than 1:2560 for latitude or departure considered separately, as determined in sec. 7.35 of the BLM Manual. (Minimum closure for rectangular surveys is 1:1,280.) Deficient stations must be re-observed or surveyed conventionally so that each line of a survey between monumented corner positions meets this accuracy requirement. Surveys dependent on the record of existing BLM surveys must meet closure limits as determined in Sections 3-124 of the BLM Manual.

2.9 Restrictions on ANCSA 14.h.1 Parcels - When an ANCSA 14.h.1 Historical Place survey is located along ocean, lake or river frontage, the following restrictions apply:

- a. Clearing of beach flora must be limited to the minimum necessary to make the required tie and for orienting the parcel to the true meridian, so as not to make the parcel visible from the water.
- b. Clearing from meander corners (MC' s) or witness corner meander corners (WCMC' s) to bearing trees or other accessories must **not exceed** the minimum required for line of sight at the time of survey.
- c. MC positions must not be flagged.
- d. Bearing tree blazes may **not** be painted, and bearing tree tags may **not** be affixed to bearing trees.
- e. Blazing of true line must begin far enough inland so that the clearing is **not** visible from the water.

3. Field Data and Reports

In the field, the Contractor must compile field books, U. S. Survey folders, and progress reports, as detailed below.

3.1 Field Books - The Contractor must record all field work data in bound field books (except for supplemental sheets, as explained below.) Field books must be composed of "Rite in the Rain" (or equivalent) paper. All data must be fully legible.

3.1.1 Cover Labeling - The survey and lot numbers and the name of the contracting firm must be marked on the outside cover in large-sized characters. No more than one U. S. Survey may be recorded in each field book. Books must be consecutively numbered.

3.1.2 Index - The field books must be properly indexed for each line surveyed and for each corner monument established. When survey orientation is determined by GPS station pairs, the redundant field measurement must be indexed and referenced in the field book of each U. S. Survey.

3.1.3 Sketch of Survey Lines - For each field note page reflecting a portion of a surveyed line, a sketch of that line portion must be drawn, showing designated computer numbers, traverse points, temporary corner points, and items of topography.

3.1.4 Supplemental Sheets - Some field data may be printed on supplemental sheets rather than being written by hand in the field book. This may include astronomical observations, or printouts of GPS or other electronically-collected data. These supplemental sheets must be initialed by the Party Chief or GPS Operator, referenced in the field book, kept with the field book, and considered as part of the field book.

3.2 U. S. Survey Folders - The Contractor must compile a folder for each U. S. survey containing all survey computations, preliminary and final field plots, and corner move sheets, as described below.

3.2.1 Meridian Bearing Determination Calculations - The folder must include a complete description of the procedure used to obtain the meridian bearing, together with all GPS or astronomical calculations.

3.2.2 Tie Computations - The folder must include all traverse computations tying the U. S. Survey to control stations or Public Land Survey System (PLSS) corners.

3.2.3 "Random Line" and "True Line" Computations - The folder must include all random line and true line computation and closure printouts, **in chains**. When surveying by "conventional" methods, unadjusted random line data must first be used to compute the traverse closure. The data is then compass-adjusted to achieve a mathematically perfect closure and is used to compute the lot acreage. Bearings must be calculated to at least the nearest minute, and distances **in chains** to the nearest whole link. The calculations must be available at all times for on-site inspection by BLM.

3.2.4 Preliminary Field Plot - The Contractor must prepare a preliminary field plot (or "design") for each U. S. Survey. The design must show all information pertinent to true

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

line and acreage determination, and **must** be submitted to the PI for review **prior** to surveying true line. The PI may, at his discretion, waive the review requirement on a survey-by-survey basis.

3.2.5 Final Field Plot - After completing field work the Contractor must prepare a final field plot for each U. S. Survey. The final field plot must show, **at a minimum**: U. S. Survey number, true line bearings and distances, witness distances, final acreage, monument locations, **geographic tie**, **azimuth source**, and topographic calls. The final field plot must be submitted to the PI for review **within three days** of field work completion.

3.2.6 Corner move sheets - The folder must include all corner move sheets (also known as "record" or "drop" sheets) showing the computed move from the preliminary corner position to the final position.

3.3 GPS Data -When using GPS, the Contractor must provide the COR and/or PI the following items:

- a. All raw GPS digital data in digital form
- b. All summary files.
- c. Processed data in digital form.
- d. Documentation of the GPS file naming convention.
- e. Adjustment calculations and loop closures, with a sketch labeled and referenced to the corresponding observations.
- f. All network diagrams labeled and referenced to corresponding observations.
- g. A report including the final adjusted NAD 27 position for each corner monument with the Error Ellipse for each position obtained using GPS methodology.

3.4 Progress Reports - The Contractor must submit to the PI a weekly Progress Report describing each days' work (or non-work). These reports must cover the period **beginning** on the day the Notice to Proceed is received by the Contractor and **ending** on the day of field demobilization.

3.4.1 Progress Report Contents - The progress report **must** include, but is not limited to, the following:

- a. Personnel information, including (1) names, (2) job titles, (3) hours worked, and (4) dates arriving or departing the job site.
- b. Production statistics, including (1) existing monuments recovered, (2) existing monuments restored or added to, (3) new monuments set (4) new monuments positioned, (5) meander chains completed, and (6) ties completed.
- c. All Government-furnished materials used, and whether adequate amounts are at the project site.
- d. All types of transportation and hours used each day to transport personnel and equipment to, from, and on the project site.
- e. Any survey time lost and reason why, including number of paid man-hours of lost time.
- f. Any other data pertinent to contract progress (or lack of progress).
- g. All verbal instructions received by the Contractor from the Contracting Officer, COR, the Review Staff, the Survey Preparation Staff and/or PI.
- h. All field and office quality control inspections, the findings of the inspections and copies of the documentation supporting the findings, and the personnel and number of man-hours spent on quality control inspections.

3.4.2 Digital file of Progress Reports - Before field demobilization, the Contractor must submit to the PI a digital file of all weekly progress reports in a mutually acceptable format.

4. Final Plats, Field Notes, and Additional Forms

After completion of field survey work, the Contractor must prepare and submit several final survey products for each U. S. Survey, including a final plat of survey, separate field notes (where required), and several additional forms.

4.1 Pre-platting Meeting - Before preparing the final survey products, BLM will hold a **mandatory** pre-platting meeting, to discuss current regulations, policies and guidelines, and answer Contractor questions. At the meeting, BLM will furnish sample plats, sample field notes, and other written guidelines (such as "Drafting Guidelines for U. S. Surveys"). Final survey products **must** be prepared according to these samples and guidelines. The Project Inspector, Policy Interpretation and Guidance Section (AK-925), will prepare a memo listing the samples provided.

If the Contractor encounters a platting or note-writing situation not represented by the provided samples, the Contractor should contact the BLM for further samples. Any BLM-mandated format changes to the Contractor's submitted plats not reflected in the samples may be corrected at the Contractor's discretion, unless new samples had been provided to the Contractor in a timely manner.

4.2 Final Plat Preparation - The final plat is the original drawing of each U. S. Survey prepared on reproducible material. A "Plat Only" plat contains the entire survey record and requires one or two sheets, but no field notes. Any U. S. Survey record that does not contain any dependent resurvey or retracement and can be placed on a single (one or two sheet) plat without appearing cluttered is prepared as a "Plat Only" survey. Otherwise, separate final field notes are prepared.

BLM's Policy Interpretation and Guidance Section will provide guidance for the preparation of final plats. Contents include, but are not necessarily limited to, the items discussed below.

4.2.1 Survey Lines and Corners - The final plat must show the true mean bearings (to the nearest minute) and true distances (from true point to true point, to the nearest link) of all lines surveyed. **Certain situations may require the final plat to show bearings to the nearest second and distances to the nearest one-tenth (1/10) of a link.** A symbol must mark the position of each monumented corner. Where witness corners are shown on the plat, the bearings and distances must be given from the true corner point to the witness corner monument.

4.2.2 Ties and Closing Corners - The final plat must show the true mean bearing and distance of all ties. Ties must be shown **from** a monumented corner of the U. S. Survey **to** another monumented U. S. Survey corner, horizontal control station or rectangular survey corner. If the tie is over 80 chains in length, the bearing must be shown to the nearest second.

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

Where closing corners are established on rectangular survey lines, U. S. Survey lines or U. S. Mineral survey lines, a bearing (to the nearest minute) and distance (to the nearest link) field survey tie to the nearest monumented corner, **both left and right**, must be shown.

4.2.3 Declination - The mean magnetic declination, along with any local variation must be shown.

4.2.4 Seal and Signature - The seal and signature of the Registered Professional Alaska Land Surveyor assuming responsibility for the technical accuracy of the work must be shown.

4.2.5 Title Block Information - The layout of the title block must conform to the examples provided by the PI. The following information must be shown in the title block on the final plat:

- a. What was surveyed.
- b. Who executed the survey.
- c. The methods used to execute the survey.
- d. The contract number and date.
- e. The date of the Special Instructions and their approval date.
- f. The date of the Notice to Proceed.
- g. The issue date and the approval date of any Supplemental or Amended Special Instructions.
- h. The starting and completion dates of the survey
- i. The geographic position of a corner of the rectangular survey (usually the southeast corner of the township) or U. S. Survey, and how the position was determined
- j. How the azimuth was determined
- k. The relation of bearings to the true meridian.
- l. Standard verbiage regarding submerged lands.
- m. Approval and signature blocks.

4.2.6 Digital File of Final Plat - The Contractor **must** also create a **digital** file of each plat drawing in a "ACAD.DWG" or ".DXF" format. Any files submitted in "ACAD.DWG" format **must** be saved in **AutoCAD Version 14 or lower**. **Note: The processing of the final plat onto the 7 mil mylar, unless specifically otherwise pre-arranged, is accomplished by the BLM.**

4.3 Final Field Note Preparation - The final field notes are the complete record of a U. S. Survey (or township), compiled from the field books and other calculated information. The following additional information must be included in the final field notes, or in the title block section of "plat only" final plats:

- a. A statement of title block information, similar to the information **also** shown on the final plat. (This must be on the first page of the field notes.)
- b. A statement that the survey was executed in conformance with the Manual of Instructions for the Survey of the Public Lands of the United States, 1973.
- c. The history of surveys, including concurrent surveys.
- d. A description of each corner monument established and its accessories, listed in order of their quadrant (NE, SE, SW, NW).
- e. A description of each **permanent** improvement, including the true bearing and distance from the nearest U. S. Survey monument, the dimensions of the

improvements and the bearing of the long side. (A permanent improvement is defined as any man-made structure not easily removed or displaced.)
f. A list of meander lines ran showing bearings to the nearest minute and distances to the nearest link.

4.3.1 Production of Final Field Notes Copies - The field notes must be typewritten and free of typographical errors. For final review, the Contractor must print an original copy of the field notes, along with **one duplicate copy**. Both must be printed, double sided, **using "laser jet" techniques** on a minimum of twenty pound twenty-five percent cotton rag bond paper in the eight and one-half inch by eleven inch (8-1/2" x 11") size. The printer must be maintained so the image is **properly fused** at the time of reproduction. Any sign of smudging is an indication that the image is not properly fused to the paper. BLM will then return of all field notes for the Contractor to resubmit in acceptable form.

The Contractor must create a **digital** file of each final set of field notes.

4.4 Additional Forms - Along with the final plats and field notes, the Contractor must prepare and submit several additional forms.

4.4.1 Quality Control and Review Checklist - The Contractor must include a "Quality Control and Checklist" for each U. S. Survey.

4.4.2 Township Graphic Overlays - The Contractor must compile and submit, for critical review, a graphic overlay for each township containing new U. S. Surveys. The overlays must be prepared **prior to leaving the field** in order to graphically detect geographic position blunders, and to verify agreement of hydrography and topography with record information and existing orthophotography.

Each township overlay must show the following:

- a) The protracted township boundaries and interior section lines according to the Official BLM Protraction Diagram, at a scale of one inch to eighty chains (1:63,360). The section numbers must **not** be labeled.
- b) Each U. S. Survey with its true orientation and location within the township according to the geographic coordinates (as declared in the field note record and/or on the official plat of survey).
- c) A "X" indicating the location of the geographic coordinate position of each survey (as declared in the Official Record of Survey).
- d) The adjoining tiers of sections from any adjoining township invaded by a U. S. Survey, so that the entire survey may be shown.
- e) A label reflecting proper township(s) and range(s), U. S. Geological Survey Quadrangle Map(s) name, contract number, north arrow and scale bar.

The overlay must be constructed on three mil Mylar at a scale of one inch equals eighty chains.

The Contractor must also deliver a digital file of the township overlay data in a mutually agreed upon format.

4.4.4 Letter of Transmittal - For each delivery of field notes and plats submitted to BLM, the Contractor must prepare and submit a Letter of Transmittal, listing the individual U. S. Surveys included. For each U. S. survey on the list, the Letter of Transmittal must

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

state (1) the commencement and completion dates of field survey, (2) the preparation dates of the draft field notes and plats, and (3) preparation dates of the final field notes and plats.

4.4.5 Final Progress Report - The Contractor must prepare, and submit for critical review, a progress report, listing the final field quantities for contract pay items, and any instructions or data documenting unusual situations.

4.5 Review Process - The Contractor must prepare and submit the survey materials detailed above according to the review process below. At **any** step in the review process, if materials are missing, incomplete, or improperly completed, BLM may stop the review process and return all materials to the Contractor to resubmit in acceptable form. This may necessitate renegotiating the contract performance schedule dates. This may delay the review and acceptance process, and delay contract progress payments.

4.5.1 Preliminary Review - The Contractor must prepare and submit to BLM a small **sample** of preliminary plats and preliminary field notes. This sample should consist of no more than two plats with field notes, and not more than three "plat only" plats. The Contractor should provide as broad a sampling of surveys as possible. After preliminary review by BLM to ensure proper format and content, the samples are returned to the Contractor.

4.5.2 Critical Review - The Contractor must then prepare and deliver the following to BLM for critical review:

- a. A preliminary plat for each U. S. Survey, including **two** hard copies and a digital copy
- b. A clean set of typed preliminary field notes for each U. S. survey requiring separate field notes
- c. Certificates of Transcript, Survey, and Approval for each survey requiring field notes
- d. all field data
- e. A final progress report
- f. All township graphic overlays, including mylar and digital copies
- g. Quality control and review checklists
- h. A letter of transmittal

In critical review, the Review Staff examines all field survey data, preliminary field notes and plats, to ensure that they comply with BLM and legal requirements. The Review Staff then prepares a letter outlining any required editing and/or corrections, and returns to the Contractor **one** copy of each edited plat, the edited field notes, and all field data. The Contractor must then apply the corrections to create the final plat and field notes.

4.5.3 Final Review - After applying all corrections from the critical review, the Contractor must submit all materials in final form and signature for final review. The Review Staff examines all of the materials to ensure all required editing and/or corrections noted during the Critical Review are made. Final review materials include the following:

- a. All preliminary plat and field notes (with red line critical review edits)
- b. All final plats, including digital copies
- c. All final field notes, including hard and digital copies
- d. All required Certificates.
- d. All **original** field data (**copies are not acceptable**).

e. A letter of transmittal.

4.6 Final Acceptance and Payment - Upon completion of final review, with the certainty that no further editing and/or corrections are required of the Contractor, the BLM executes final acceptance of each U.S. Survey.

Final Payment is based on the application of the unit prices to the final amount of pay items actually accomplished.

Payment Schedule: Chugach Alaska Historical Sites

In full consideration of the Tribe's performance hereunder, The Bureau Of Land Management (BLM) shall pay the Tribe in installments, upon the Tribe's billing and the BLM's acceptance, as follows:

Progress Payments of 25% of the field work items, upon completion of each 25% as determined from the Tribe's "Progress Reports" and the Project Inspector's verification. Should the Tribe's estimated units of work increase/decrease substantially during the field work portion of this contract, a contract modification shall be issued to reflect such increase or decrease. Therefore, the Tribe should base their 25% request for payment on the contract's revised estimated units of work.

The Tribe may invoice for the first 25% progress payment upon final signature of the contract.

Each progress payment thereafter will be made upon successful completion of each 25% of the field work items, with 100% of the field work monies being invoiced upon successful completion of 75% of the field work items.

50% of the fixed price amount of notes and plats upon submission of notes and plats for critical review.

Remaining 50% of the fixed amount of notes and plats and adjustments for the final field work line item quantities after final acceptance of all deliverables and return of all nonexpendable government furnished property.

Payment for perpetuation of existing monuments, if any, will be made according to the following scheduled allowances based upon percentages of the unit price amount for a regulation monument (in no case will the amount paid for perpetuation of any one monument exceed the unit price amount for a regulation monument).

Percentages for extra corner monument work:

- 10% for changing/adding marks on monument caps
- 50% for remonumentation of the monument only
- 25% for taking new bearing objects or setting a triangle
- 100% for obliteration of existing corner monument and accessories

Performance Schedule: Chugach Alaska Historical Sites

Anticipated Award Date:	September 29, 2005
Commencement of Field Work:	June 1, 2006
Completion Of Fieldwork:	August 31, 2006
Pre-Platting Meeting:	September 28, 2006
Delivery of Sample Notes and Plats For BLM's Preliminary Review:	October 12, 2006
Sample Notes and Plats, with BLM Comments, Returned to Contractor:	November 2, 2006
Delivery of all Reports, Data, Notes, and Plats for BLM's Critical Review:	December 14, 2006
Reports, Data, Notes and Plats Returned to Contractor for Correction:	February 22, 2007
Delivery of all Reports, Data, Notes, And Plats in Final Form (this shall Include a signed statement by the Contractor that all required Corrections have been completed):	March 22, 2007
Final Acceptance:	April 12, 2007
Close Of Contract	September 28, 2007

CONTRACT SIGNATURE AND OBLIGATION DOCUMENT


1. CONTRACT NUMBER: **L13AV00002**

3. NAME, ADDRESS AND TELEPHONE
NUMBER OF CONTRACTOR:

Chugach Alaska Corporation
3800 Centerpoint Drive, Ste 700
Anchorage, AK 99503-4116

Tel: 907-563-8866
Fax: 907-563-8402

5. TOTAL DOLLAR AMOUNT OBLIGATED FOR
THIS CONTRACT:



7. SERVICES TO BE PERFORMED:

Cadastral Survey for Chugach Alaska Historical
Sites 2013 in accordance with the attached
statement of work and term and conditions
herein.

9.A. NAME AND TITLE OF INDIVIDUAL
SIGNING THE CONTRACT FOR THE TRIBE
(Typed)



John F.C. Johnson
Vice President, Cultural Resources

9.B. TAXPAYER IDENTIFICATION NUMBER:

92-0042150

9.C. DUNS NUMBER: 071844021

11. NAME, MAILING ADDRESS, AND
TELEPHONE NUMBER OF THE CONTRACTING
OFFICER:
Tina Hamalak
BUREAU OF LAND MANAGEMENT
NATIONAL OPERATIONS CENTER
BUILDING 50, DENVER FEDERAL
CENTER, OC-662
P.O. BOX 80225-0047
Denver, CO 80225-0047
Tel: 303-236-4676
Fax: 303 236-9473

2. EFFECTIVE DATE: June 17, 2013	
4. CONTRACT ISSUED BY:	
DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT, OC-660 BLDG. 50, DENVER FEDERAL CENTER P.O. BOX 25047 DENVER, CO 80225-0047	
303-236-4676	
6. ACCOUNTING/APPROPRIATION DATA:	
LLAk942100/L14100000.BK0000 Project/WBS: LX.SS.001L0022	
8. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:	
PUBLIC LAW 93-638, AS AMENDED AND 25 U.S.C. 450 ET SEQ.	
10. TRIBAL SIGNATURE AND DATE SIGNED:	
 _____ (Signature)	 _____ (Date Signed)
12. CONTRACTING OFFICER'S SIGNATURE AND DATE SIGNED:	
_____ (Signature)	_____ (Date Signed)

Attachment I

Chugach Alaska Historical Sites 2013

L13AV00002

UNIT PRICES

June 5, 2013

Contractor: Chugach Alaska Corporation

Preliminary payment 50% of estimated field quantities

		Quantity	Unit	Unit Cost	Total Cost
U.S. Surveys					
1A	Chains of Cadastal Survey (meanders)	1482	chs.		
1B	Monument Positioning	206	ea.		
1C	Monument to be set	206	ea.		
1D	Monument to be Recovered/Perpetuate/Rehab	53	ea.		
1E	U.S. Survey Final Records including uplift report	1	job		
				Total Item A	

ATTACHMENT 2

STATEMENT OF WORK (SOW)

5/29/2013

NOTE: Any discrepancies that may arise between the provisions of this SOW and those of the Special Instructions and the survey diagrams must be brought to the attention of the Project Inspector, the Contracting Officer's Representative, or the Contracting Officer for resolution. For purposes of this contract, it is assumed that the SOW and the Special Instructions supersede any provision contained with the contractor's technical approach.

1. Cadastral Survey: Rectangular

- a. **The Contractor must perform the cadastral survey of the horizontal control, exterior township boundary lines, certain interior subdivisional lines, retracement of certain existing boundary lines, recovery of certain existing previously monumented land corners, meanders of certain water bodies, and establishment of corner monuments as delineated on the Plans of Surveys titled:**

and the preparation of final township plats of survey with field notes using the survey methods as outlined in the Technical Proposal and the accompanying Special Instructions for the above Group Surveys.

- b. The Contractor must provide all labor, materials, equipment, transportation, subsistence, and other resources necessary to perform all work set forth in this statement of work and Special Instructions except for those items which are to be furnished by the Bureau of Land Management (BLM).

- c. Execution of Item 1 includes the following estimated units of work:

_____ Primary Control Network (Job)
_____ Existing Corners to Recover
_____ Corners to be Positioned
_____ Corners to be Monumented
_____ Job Meanders (See Item 5.f.)
_____ Rectangular Survey Plats w/Field Notes* (See Item 4)

*The plat for an individual Township may consist of more than one (1) sheet.

ATTACHMENT 2

2. Cadastral Survey: U.S. Surveys

- a. The Contractor must perform the cadastral survey of the boundary lines, the recovery of certain existing previously monumented land corners, the location of all existing improvements within a survey, establish corner monuments as indicated on the survey diagrams for each Survey, and prepare a "plat only" final plat of survey, or a final plat of survey with field notes (surveys requiring field notes are denoted with an asterisk below), using the survey methods as outlined in the Contractor's technical proposal for the following U.S. Surveys:



- b. The Contractor must provide all labor, materials, equipment, transportation, subsistence, and all other resources necessary to perform all work set forth in the SOW and Special Instructions except for those items which are furnished by the Bureau of Land Management (BLM).

- c. Execution of Item 2 includes the following estimated units of work:

<u>53</u>	Corners to be recovered
<u>206</u>	Corners to be positioned
<u>206</u>	Corner monuments to be established
<u>1482</u>	Chains Meanders (See Item 5.f.)
<u>1</u>	Job U.S. Survey Final Records and uplift report

ATTACHMENT 2

The Special Instructions, survey diagram and the land examiner's report(s) for each U. S. Survey are available for examination at the following address:

Bureau of Land Management
Div. of Cadastral Survey, Branch of Field Surveys
222 W. 7th Ave. Stop 13
Anchorage, Alaska 99513

The following surveys require ties to either an existing Rectangular Survey System corner or a National Geodetic Control station:

None

NOTE: The tie requirements shown above may supersede the Special Instructions.

There are no known U.S. Mineral Surveys that require work within the project area. If any evidence of U.S. Mineral Surveys or U.S. Surveys other than that shown on the Plans of Survey or listed above is encountered, it must be brought to the immediate attention of the Contracting Officer's Representative.

NOTE: The Pay Items for this project includes a WEATHER DAY CONTINGENCY.

The Field Supervisor must notify, and be in agreement with, the Project Inspector for each occurrence, at the time of occurrence. If agreement is not obtained at the time of occurrence, NO weather contingency will be paid.

- A. The weather day contingency begins on the 4th day (cumulative) of no boat operations/no work days.
- B. A no work day (for boat operations) is in effect on days when the surf height exceeds 3 feet at the survey site.
- C. In order to receive the full amount of the pay item, the above conditions must be present for 7 hours or more in which work cannot be performed in the 10 hour workday. If there are between three (3) to five (5) hours of work performed during the 10 hour workday 50% will be paid for partial days wherein work was started, but due to deteriorating conditions, must be stopped; OR, where the workday is delayed due to poor weather, then due to improving conditions, work can be resumed. NO contingency will be paid for any day when there is more than five (5) hours of work performed, based on a 10 hour workday. NO contingency will be paid for any day when the daily production rate quantity is met. NO contingency will be paid for any day when transport between work

ATTACHMENT 2

sites is accomplished. The Field Supervisor must notify, and be in agreement with the Project Inspector for each occurrence, at the time of occurrence. This includes the three (3) day (cumulative) period,

- D. If a weather day contingency is used on this job, it will be only for boat rental, fuel, and subsistence. It will not exceed [REDACTED] per day.

3. Reports, Data, and Meetings

The following reports and data must be prepared and submitted in accordance with instructions contained or referenced herein.

- a. **Meridian Bearings.** A complete description of the procedure used to obtain the bearing referenced in Item 5 (Specifications), together with all calculations, must be furnished to BLM.
- b. **Calculations.** All original and amended calculations of astronomical observations, closures of tracts based upon traverses shown on the random plat, true line calculations for each parcel, in chains, and individual corner move sheets must be maintained and adequately indexed. The final random line calculations for each individual lot of survey must be computed with the field data used to close the lot (to the point of beginning for each individual lot). Only the final true line data (nearest minute and link) may be compass adjusted to a mathematically perfect closure to determine the area encompassed by the survey. The calculations must be available for on-site inspection by the BLM at all times and must be submitted with the Contractor's plats and field notes for review.
- c. **Random Plat.** A random plat (field sketch) must be maintained in the field on a daily up-date basis showing all information regarding field traverses run and ties made from which field closures are computed. The random plat must show all control points used or established and the field angles and distances between them. These control points must include, but not be limited to, those used for azimuth or those used to establish geographic coordinates for a monumented position. The random plat must be cross-referenced to the field books, reflecting the book and page number of each line surveyed or each monument set. The random plat must be available for daily on-site inspection by the BLM, if desired, and must be delivered to the BLM upon completion of the contract effort. The requirements for the random plat include the following:
 1. **Final Field Plot: Rectangular Surveys.** The required plot scale is 1 inch = 40 chains or 1:31,680 for this contract to conform with existing BLM plats. A final field plot must be prepared for each Township upon completion of fieldwork. The final field plot must show at a minimum: township and range designation, true line bearings and distances, witness distances, monument locations, horizontal control, ties to existing surveys, any retracement or dependent resurvey, corner recoveries made, ground or airborne survey system compiled meanders, and any conventionally surveyed topographic calls. The

ATTACHMENT 2

final field plot must be submitted to the project inspector for review within three days of completion of fieldwork.

2. Preliminary Field Plot: U.S. Surveys. A preliminary field plot must be prepared for each U.S. Survey upon completion of azimuth and meander line determination. The preliminary field plot must show all information pertinent to the design of true line and acreage determination and must be submitted to the project inspector for review prior to surveying true line or placement of monuments. The requirement for review prior to surveying true line may be waived on a survey by survey basis at the project inspector's discretion.
3. Final Field Plot: U.S. Surveys. A final field plot must be prepared for each U.S. Survey upon completion of fieldwork on the Survey. The final field plot must show at a minimum: U.S. Survey number, true line bearings and distances, witness distances, final acreage, monument locations, geographic tie, azimuth source, improvements, and topographic calls. The final field plot must be submitted to the project inspector for review within three days of completion of fieldwork on that survey.

d. Field Books. All ground fieldwork must be recorded in bound field books ("Rite in the Rain" paper or equivalent) in a fully legible manner. This data must include, but not be limited to: true mean bearings and distances in chains of all lines run, including calls to all topographic and cultural items with a description of each unless specified otherwise in the Special Instructions; a complete description of recovered and established corner monuments together with a drawing and legible pencil impression (rubbing) or photograph clearly showing the markings on the monument caps; and a full description of all corner accessories including type, size, location, and marks or scribing placed thereon.

1. The field books must be properly indexed for each line surveyed and for each corner monument established, and must be cross referenced to the random plat, reflecting the book and page number of each line surveyed or each monument set. They must have the survey and lot number or group and township and range numbers assigned to the survey, the name of the contracting firm marked on the outside cover in large-sized characters, and be consecutively numbered.
2. In the field books, give a complete description of each corner monument established, including type and size of monument, how deep set or driven, and how marked. If there are corner accessories, describe the type of accessory, size, location by bearing and distance, and how the accessory is marked. Calls to all distinctive topographical features within three (3) chains of the monument must be shown.
 - a. If the corner is a meander corner, show the above information plus the direction of stream flow, the bearing of the ordinary high water mark in both directions, and height of bank above ordinary high water. All calculated witness distances must be field checked and the calculated

ATTACHMENT 2

distance and measured distance must be recorded in the field book. Meander corners must be flagged in a temporary manner so as to make the corner location visible from the water unless the parcel is an ANCSA 14.h.1 parcel (See Item 5.d.2.b.).

- b. For each page of field notes reflecting a portion of a surveyed line, prepare a corresponding page with a sketch of that portion of line depicting: designated computer numbers, traverse points, temporary corner points, and items of topography.
 - c. Whenever corners of a prior survey are recovered, include a complete description of the corner. This description must include the above information, as well as any perpetuation work done.
 - d. Include a description of each horizontal control station used, including the geographic position. Particular attention must be given to those geographic positions that differ from published data.
 - e. Where the orientation of a survey is determined by GPS station pairs, the redundant field measurement must be indexed and referenced in the field book of each so oriented U. S. Survey, along with the verifying results.
 - f. Include a computer or calculator generated print out of unadjusted U. S. Survey field stakeout data and traverse closure.
3. The BLM recognizes that some of the field data may be electronically collected and printed out on supplemental sheets rather than being written by hand in the field book. In addition, monument data is frequently recorded in 'monument record sheets', 'move sheets', or 'drop sheets'. If used, these supplemental sheets must be initialed by the Party Chief or GPS Operator, referenced in the field book, kept with the field book, and are considered part of the field book.
- e. Progress Reports.** Beginning on the day the Notice to Proceed is received by the Contractor and ending on the date of field demobilization, a progress report describing each days' work or non work must be submitted weekly to the Project Inspector. A progress report must be prepared and submitted when the field notes and plats are transmitted for critical and final reviews. The progress report must include, but is not limited to:
- 1. Names and job titles of personnel arriving or departing job site.
 - 2. Names of personnel and number of hours each worked.
 - 3. Existing control checked by survey.
 - 4. Number and location of additional control points set and ties made.

ATTACHMENT 2

5. Number and location of temporary corners set.
 6. Number and location of monuments set.
 7. Existing corner monuments recovered and/or perpetuated.
 8. Distance and location of true line, meanders and/or retracement completed.
 9. All Government-furnished materials used and whether adequate amounts are at the project site.
 10. All types of transportation and hours used each day to transport men and equipment to, from, and on the project site.
 11. Any survey time lost and reason why, including number of paid man-hours of lost time.
 12. Any other data pertinent to contract progress or lack thereof.
 13. All verbal instructions received by the Contractor from the Contracting Officer, the Contracting Officer's Representative, the Review Staff, the Survey Preparation Staff and/or Project Inspectors.
 14. All field and office quality control inspections, the findings of the inspections and copies of the documentation supporting the findings, and the personnel and number of man hours expended for quality control inspections.
 15. A digital submittal of all weekly reports must be submitted to the project inspector with the ending weekly report prior to field demobilization. The digital submittal must be ASCII format on a mutually agreed upon media.
- f. Final Quantities Spreadsheet.** The Contractor must prepare and submit a final quantities summation identifying completed pay item quantities. Definitions of individual pay items are included under Item 7. A BLM spreadsheet used for this purpose will be provided at the Pre-Work Conference for this project. If a spreadsheet is created by the contractor, it must include all categories used in the BLM's spreadsheet and cross reference any unique corner identifiers with the corresponding BLM identifiers from the Plan Of Survey. The spreadsheet must be submitted with the plats and field notes for review
- g. Meetings.** Field Supervisor and Project Inspector daily meetings during the field survey project work, the Contractor and assigned Project Inspector will meet daily at a mutually agreed upon time. If a Project Inspector is not physically in the field then the Contractor will call the Project Inspector daily at a mutually agreed upon time. This may require a satellite phone such as the Iridium. The Project Inspector will be the initial point of contact for the contractor regarding

ATTACHMENT 2

technical issues. Discussion will include but is not limited to:

1. Monuments set
2. Monuments recovered and/or perpetuated
3. Lost time due to weather, equipment, and aircraft issues
4. Survey issues
5. Any other data pertinent to contract progress or lack thereof

4. Field Notes and Plats

- a. Final Plat of Survey:** The Contractor must prepare a final plat of survey of each township and each U. S. Survey listed in Items 1 and 2. THE CONTRACTOR MUST PREPARE THE FINAL PLAT OF SURVEY IN ACCORDANCE WITH SAMPLE PLATS AND OTHER WRITTEN GUIDELINES FURNISHED BY THE BLM. (i.e. "Drafting Guidelines for Rectangular Surveys" and/or "Drafting Guidelines for U. S. Surveys"). Plat memorandums must be prepared in accordance with the "Survey Examination and Distribution Handbook"). Each final survey plat prepared by the contractor must have the seal and signature of the Registered Professional Alaska Land Surveyor on staff assuming responsibility for the technical accuracy of the work.

All BLM furnished samples provided to the Contractor at the Pre-platting Meeting (i.e. U. S. Survey field notes, plats and/or "plat only" plats and/or Rectangular survey field notes and plats) will be recorded in a memorandum prepared by the Project Inspector, Survey Policy Interpretation and Guidance Section (AK 925) and a copy provided to the Contractor. If needed, the Contractor must contact the BLM for further samples to properly format a platting or note writing situation not represented by the recorded samples.

1. A small sample of preliminary plats must be prepared and submitted for a preliminary review to insure proper format and content only and then returned to the Contractor. The Contractor must then prepare, certify, and deliver to the BLM copies of all preliminary plats of survey for critical review. If the first few of these subsequent preliminary plats submitted do not reflect the correct format and content, no further review is performed and all plats are returned to the Contractor for resubmission in acceptable form. This may require the renegotiation of the required performance schedule dates, resulting in the delay of the review and acceptance process with subsequent delays in contract progress payments. After review one (1) copy is returned to the Contractor for correction of the preliminary plat and field notes. Note: The processing of the final plat onto archive quality media is accomplished by the BLM. All materials including the red lined preliminary plat and final plat are then submitted to the BLM for final acceptance.

ATTACHMENT 2

2. Rectangular survey plats must be constructed as defined in the Manual of Instructions for the Survey of the Public Lands of the United States, 2009, sections 9-37 through 9-87, and as directed by BLM.
 3. Where required, the anticipated method for determining Rectangular Meander Survey data from approved surveys where the meander lines are depicted on the plat, but not listed in the record is to digitize the meander line utilizing the existing approved plat. A listing of all meander lines run for Rectangular Surveys showing bearings to the nearest minute and distances to the nearest link must be incorporated in tabular form within the field notes.
 4. A digital submittal of each set of field notes must be delivered to the BLM in a Microsoft Word or mutually agreed upon format, this digital file may be submitted on a CD or mutually agreed upon media.
 5. The Contractor must deliver for each platted township a digital file in a mutually agreed upon AutoCAD format. All extraneous Blocks, Layers, Linetypes and Styles must be purged. The font styles must be monoler.shx, dot.shx, monodot.shx, and ler.shx as appropriate. Individual U.S. Survey lots must be fully illustrated. When a U.S. Survey straddles a township line, the U.S. Survey must be depicted in its entirety. The digital files must be delivered on a CD or mutually agreed upon media.
- b. Field Notes - Rectangular and U. S. Surveys** - The Contractor must prepare a final set of typed field notes for each township and each U.S. Survey requiring field notes. The field notes must be prepared free of typographic errors and in conformance with the latest available sample field notes (provided by the BLM) and other written guidelines. The page template must have a format appearance as near as possible to BLM form 9600-10a. A small sample of preliminary field notes must be submitted for a preliminary review for format and content only and then returned to the Contractor. The Contractor then prepares and delivers to the BLM, for review and editing, a clean set of typed field notes of lines surveyed or resurveyed for each of the required surveys. If these subsequent sets of field notes do not reflect the correct format and content, no further review is performed and all notes are returned to the Contractor for resubmission in acceptable form. This may require the renegotiation of the required performance schedule dates, resulting in the delay of the review and acceptance process with subsequent delays in contract progress payments. Once the critical review has been completed the edited field notes are returned to the Contractor for correction and submission in final form. The final field notes must consist of an original and one duplicate and shall be certified by the Contractor on the Certificate of Survey. Both the original and the duplicate sets of notes must be printed, double sided, using "Laser Jet" techniques on a minimum of twenty pound twenty-five percent cotton rag bond paper in the eight and one-half inch by eleven inch (8 1/2" X 11") size. The printer must be maintained so the image is properly fused at the time of production. Any sign of smudging means the image has not

ATTACHMENT 2

properly fused to the paper and all field notes are returned to the Contractor for resubmission in acceptable form.

- c. **Note Format.** Where GPS or other methods are used to place Original Rectangular Corner locations on the ground and actual line is not run on the ground using conventional methods, the note style used may be the "Monument Jacket" format. Where line is physically run on the ground between corner locations and where dependent resurvey and/or retracement is required, the field notes must be prepared in a "Running Note" format using the examples furnished at the pre-platting meeting. The anticipated style for all of the townships included in this project is the "Running Note" format. When Field Notes are required for U. S. Surveys, the "Running Note" format will be used.
- d. **The Contractor must include a "Quality Control and Review Checklist" for each U. S. Survey and each township surveyed.** Missing or incomplete checklists may result in no further review being performed. All notes and plats are returned to the Contractor for resubmission in acceptable form. This may require the renegotiation of the required performance schedule dates, resulting in the delay of the review and acceptance process with subsequent delays in contract progress payments.
- e. **The Contractor must prepare a Letter of Transmittal, listing individual U. S. Surveys and townships, for each delivery of field notes and plats to the BLM for review and/or acceptance.** The Letter of Transmittal accompanying the field notes and plats in final form must list, by individual U. S. Survey and township, the following:
 - 1. Commencement and completion dates of field survey.
 - 2. Preparation dates of the draft field notes and plats.
 - 3. Preparation dates of the final field notes and plats

A missing or incomplete Letter of Transmittal results in no further review being performed. All notes and plats are returned to the Contractor for resubmission in acceptable form. This may require the renegotiation of the required performance schedule dates, resulting in the delay of the review and acceptance process with subsequent delays in contract progress payments.

5. Specifications

- a. **The Manual of Instructions for the Survey of the Public Lands of the United States, 2009, hereinafter referred to as the BLM Manual, the PLANS OF SURVEY LISTED IN ITEM NO. 1, and the U.S. SURVEYS LISTED IN ITEM NO. 2, along with the accompanying Special Instructions are hereby**

ATTACHMENT 2

incorporated and made a part of this contract. All survey work and documentation thereof must be made in conformance with the general practices and requirements as set forth herein, except to the extent that the written provisions of the SOW may contain conflicting requirements or instructions, in which case the conflict must be immediately brought to the attention of the Project Inspector, the Contracting Officer's Representative, or the Contracting Officer for resolution.

b. The Bureau of Land Management Land Surveyors (Project Inspectors) assigned to this project determine the extent of any additional corner recovery, retracement and/or dependent resurvey to be performed under this contract.

c. Minimum standards for Basis of Bearing and Coordinates are:

1. The bearings for metes and bounds surveys, unless specified otherwise in the Special Instructions, must be determined from astronomical observations, GPS observations, or using azimuths between verified stations published by NGS, or BLM horizontal control stations and must refer to the true meridian. If solar observations are employed to determine basis of bearing, the Contractor must use the hour angle method verified by either an independent hour angle determination (observations at a different traverse point) or another mutually agreed upon method. In any case, bearings determined by using relationships between approved or unapproved rectangular survey corners are not acceptable.
2. The basis of geographic coordinates for rectangular survey, unless specified otherwise in the Special Instructions, must be determined by using verified stations published by the NGS, BLM horizontal control stations, or BLM approved rectangular corners and must refer to the true meridian.
3. All other control stations intended for use on the rectangular survey portion of this project must be positioned by appropriate control methodology. Temporary control points must be monumented in a manner to ensure stability for the duration of their use on this project. Any published control stations found to disagree with the published coordinates by more than two (2) feet relative to other previously verified horizontal control stations must be excluded from use on this project. The Contractor may utilize these excluded monumented positions by assigning a temporary name or number and the corrected coordinates to these monuments. In any case, no found discrepancy may be balanced out in any published control network.
4. Where a staff compass is used to determine bearings for corner moves or bearing objects, the declination set off in the instrument must match that shown on the plat. Quad map declination is not acceptable. Declination must be observed or obtained from published magnetic models.

d. Minimum Standards for Surveying Line are:

ATTACHMENT 2

1. All lengths of lines must be shown as their true horizontal equivalents in the chain unit carried out to the nearest link. Distances between monuments as well as distances between witness corners and true points must be surveyed in even link increments.
2. The following specifications must be adhered to for those boundary lines to be surveyed on the ground, which generally include, but are not limited to all metes and bounds surveys. When GPS methods are utilized, only sections 2.b.1, 2.b.2., and 2.e. as listed below apply.
 - a. The lines must be cleared of brush and other growth. All stumps (twelve (12) inches or less in diameter) must be cut so as to extend not more than six (6) inches above ground level.
 - b. The width of the cleared line must be kept to the minimum necessary for the projection of survey line through wooded areas.
 1. When an ANCSA 14.h.1 Historical Place survey is located along ocean, lake or river frontage, clearing of beach flora must be limited to the minimum necessary to make the required tie and for orienting the parcel to the true meridian, so as not to make the parcel visible from the water.
 2. When an ANCSA 14.h.1 Historical Place survey is located along ocean, lake or river frontage, paths must not be cleared from meander corners or witness corner meander corners to bearing trees or other accessories, nor may bearing tree blazes be painted or bearing tree tags affixed to these trees. Blazing of true line must begin far enough inland so as not to make the parcel visible from the water.
 - c. Live trees, eighteen (18) inches or more in diameter at breast height, may not be cut down without the prior approval of the Project Inspector. Any tree cut down must be left in such a manner so that it remains in a horizontal position or parallel to the ground surface, with zero potential for movement.
 - d. Trees must be blazed in accordance with Sections 3-218 and 3-219 of the BLM Manual.
 - e. Distances along the surveyed line must be measured to major water bodies including lakes over 50 acres, meanderable or navigable streams and other features that affect the placement of a corner monument. Line calls must be made at public use trail crossings. Where specifically called for in the Special Instructions, ties must be made to permanent structures and other items.

ATTACHMENT 2

3. Lines surveyed in the field may be executed utilizing any survey method and instrumentation that provides the required accuracy and a mathematically redundant field check.
4. Where used, conventional traverses must employ one of the following techniques to produce an adequate level of redundancy:
 - a. The traverse must begin and end at the same station and provide the required accuracy and a mathematically redundant field check.
 - b. The traverse must begin and end at interdependent control points and/or rectangular corners.

e. Minimum Standards for Monumentation are:

1. All monuments must be set in accordance with the BLM Manual. If the true monumented corner point is different than the temporary corner point, the corner move must be measured using a staff compass, theodolite or other similar surveying instrument. Corner moves measured with a hand held compass, compass with needle less than 3" in length, or other similar method are not acceptable. Any move longer than fifty (50) links for Rectangular Network corners or ten (10) links for U. S. or Mineral Survey corners must be measured with a theodolite or other similar surveying instrument. Monuments located in roads or trails must be set with the tops not less than six (6) inches below the surface of the ground with two, properly marked reference monuments set outside the road or trail. Any witness corner or witness point established must be included in the true line traverse to verify the monumented position. A clear magnetic marker, with black end cap down, must be buried beneath each monument. The flanged portions of the post monuments must be perpendicular to the post upon final placement.
2. Regulation monuments consisting of BLM Standard Stainless Steel and/or Iron Posts with Brass Caps must be established at all corner points unless substitute monumentation is approved for specific corner points by the BLM.
3. Monuments must be marked as indicated in Chapter 4 of the BLM Manual. The Contractor has final responsibility for correctness of all corner markings.
4. Properly marked bearing trees or bearing objects, as set forth in the BLM Manual, must be referenced to each monument established or restored. The bearing to the nearest 1/4-degree and the horizontal distance to the nearest link must be recorded to all accessories. Bearings to all accessories must be measured using a staff compass, theodolite or other similar surveying instrument. Bearings measured with a hand held compass, compass with needle less than 3" in length, or other similar methods are not acceptable. Official BLM bearing tree tags must be affixed to all newly referenced bearing trees and all existing bearing trees associated with corner recovery,

ATTACHMENT 2

unless the parcel is an ANCSA 14.h.1 parcel (See Item 5.d.2.b.2.). Where suitable bearing trees or bearing objects are not available, other corner accessories, as described in the BLM Manual, must be established. Where suitable materials are not available the following corner accessories must be used:

- a. Where no above ground accessories are available at any corner of a U. S. Survey lot, a fluorescent colored aluminum triangular marker must be set at one corner of the lot, preferably a back corner on those lots fronting a water body. The triangular marker must be bolted to an aluminum drive rod and set to a minimum depth of seven (7) feet or a maximum of thirteen (13) feet. The triangular marker must be set a minimum of ten (10) links from the corner and extend no more than one (1) foot above the ground. The bearing to the nearest 1/4-degree and the horizontal distance to the nearest link must be recorded to all triangular markers.

- b. Where a full complement of accessories is not available at a corner, magnetic markers must be utilized to complete the required complement. They are color coded as follows:

Clear: Under the monument (posts); along side the monument (drive rods)

Metallic Silver: Northeast Quadrant

Pink: Southeast Quadrant

Blue: Southwest Quadrant

Orange: Northwest Quadrant

The marker must be buried vertically with the black end cap down. They must be buried to a minimum depth of twelve (12) inches with the bearing to the nearest 1/4-degree and the horizontal distance to the nearest link recorded. These magnetic markers must be buried, at a minimum, fifteen (15) links distant from the monument.

5. A full and complete description of each corner monument established, restored, or perpetuated, including depth set, markings on cap, corner accessories taken, and all distinctive topographic features within three (3) chains must be recorded and indexed in the field books and shown on the official record. Distinctive topographical features are defined as those that can be readily identified to the exclusion of others and can be used to specifically redefine the corner position.
 - a. A full and complete description of each corner monument recovered, including extension above ground, markings on cap, and all remaining original corner accessories must be recorded in the field books as actually found.
 - b. Existing corners used during the execution of this survey must be rehabilitated. The Contractor, when determined necessary by the Project Inspector, may perform perpetuation and/or remonumentation of existing

ATTACHMENT 2

corners. Any necessary perpetuation of existing corners is paid as a percentage of the line item for establishing monuments as outlined in the Contract Payment Schedule.

- c. When GPS methods are utilized for corner positioning and lines between corners are not physically run on the ground and described in the Field Notes, a location description statement must accompany the monument description in the final field notes. This statement must include, but is not limited to; soil type, terrain, surrounding vegetation, and geologic features. The format for and examples of these descriptive statements are provided at the Pre-Platting meeting or are available from the Contracting Officer's Representative.
6. A fluorescent colored aluminum triangular marker, or other appropriate above ground accessory must be set at each corner of the rectangular survey unless the corner was established using conventional ground methods. The triangular marker, when set, must be bolted to an aluminum drive rod that is set to a minimum depth of seven (7) feet or a maximum of thirteen (13) feet. The triangular marker must be set a minimum of ten (10) links from the corner and extend no more than (1) foot above the ground. The bearing to the nearest 1/4-degree and the horizontal distance to the nearest link must be recorded to all triangular markers. Bearings to all triangles must be measured using a staff compass, theodolite or other similar surveying instrument. Bearings measured with a hand held compass or other similar methods are not acceptable. Any triangular marker not established must be at the discretion of the BLM project inspector. Under certain conditions, the BLM may choose to provide markers other than the triangular marker discussed above. Note: Where "jacking" or "frost heaving" of drive rod is likely due to Arctic Permafrost conditions, the aluminum drive rod may be set to a nominal depth of 3 feet (one rod length) and the triangular marker flush with the vegetative surface.

f. Minimum Standards for Surveying Meanders are:

1. Meanders may be run using any combination of survey methods necessary to return an accurate depiction of the actual ordinary high water mark for the purpose of determining final acreage. U. S. Surveys within an approved or unapproved surveyed township must be compatible with the record rectangular meanders for determining the final acreage of the entitlement.
2. Photogrammetric methods may be used to determine rectangular survey meander line, utilizing existing new photography acquired under this contract.

The Contractor must use conventional stereometric data collection techniques in conformance with the specifications listed below.

ATTACHMENT 2

- a. An average of fifteen (15) map control points per model must originally be selected. There must be a minimum of eight (8) map control points remaining per model after the final block adjustment is made.
- b. A root mean square error (RMSE) of not more than thirty (30) feet must exist on remaining control points and tie points.
- c. When setting models to absolute orientation, no pass point may have a residual error of more than thirty (30) feet.
- d. The Contractor's photogrammetrist is required to meet with BLM photo-interpreters, prior to performing interpretive work. This mandatory meeting is to ensure the photogrammetrist's interpretation of the ordinary high water mark is consistent with current BLM policy.

Upon completion of the meandering effort, a copy of the digital file depicting the meander line data prepared for the Contractor must be provided to the Bureau of Land Management in a mutually agreed upon format.

3. All meander lines must conform to the criteria for meanderability as determined in Sections 1-16, 3-158 through 3 207, and Section 8, when applicable, of the BLM Manual.
4. All islands, islets and rocks above the ordinary high water mark or mean high tide line within the projected sections of the project to be meandered, must be surveyed and identified on the surveyor's sketch maps by geographical position at the approximate center of each island or rock. No monuments may be set on any surveyed section line that intersects these islands or rocks except as depicted on the Plans of Survey. No Auxiliary Meander Corners may be set on islands except as directed in writing by the Project Inspector.
5. The following items address meandering tidal waters:
 - a. Tidally influenced streams less than fifty (50) links wide will not be meandered. Meandered tide water streams fifty (50) links and wider will be shown on the plat as a double line stream.
 - b. Tidally influenced lakes less than two (2) acres in surface area will not be segregated. Sloughs connecting to meandered tide water lakes will not be meandered if less than fifty (50) links in width. The plat or field notes should clearly indicate a tidal connection to meandered tide water lakes or tidally influenced lakes.
6. Any possible addition of waters to be meandered will require approval of the Anchorage office staff and/or the Contract Inspector. If such deviation is necessary, or modification of the Special Instructions is required, a report, complete with appropriate photography, will be filed detailing the field determination as required by the Modification of Instructions clause of the

ATTACHMENT 2

Special Instructions.

7. The addition of meandered waters not called for in the Special Instructions may divide an allotment or rectangular lot into multiple lots. Meander corners will be established on all survey lines that cross lakes and/or rivers that are meandered. These meander corners will not be monumented. The plat and field notes should clearly state that these additional meander corners are established on line between the appropriate controlling corners.
8. At the interface between newly collected meander data and the meanders of an approved or unapproved federal survey record, only the meander corners identified in the Special Instructions and/or on the Plan of Survey will be recovered. Where the Special Instructions or the Plan of Survey do not clearly indicate which existing meander corners are to be recovered or the required corners are lost, the project inspector must be notified. In addition, any discrepancies between the newly collected survey data and the existing meander record must be brought to the attention of the project inspector.

g. Minimum Standards and Limitation of Use for GPS Technology are:

1. Any deviation from a planned GPS network must be submitted to the COR for approval before commencement of fieldwork. The Contractor's use of GPS technology on this project is limited to the following:
 - a. Verification, extension or densification of control.
 - b. Positioning of Original Cadastral Survey Corners; Retracement of Official Cadastral Survey Lines and the dependent resurvey of Official Cadastral Survey Lines. The amount of flora cut at each monumented position is limited to the normal landing zone established for either a Hughes 500 or a Bell Jet Ranger helicopter operations. This means a circular area with a maximum radius of twenty-five (25) feet, unless ground conditions require a larger clearing for insuring safe helicopter operations. In any case, no large clearings are allowed for the purpose of providing acceptable horizon visibility for GPS operations, unless approval for specific corner positions is obtained from the BLM Project Inspector prior to the clearing of any flora.
 - c. Establishment of azimuth control for U. S. Surveys or Rectangular Corner Positions provided the instrument station and Azimuth mark are at least ten (10) chains distant. If the Contractor is able to show acceptable results are attainable through the implementation of their quality control plan, the requirement for a ten (10) chain minimum separation between instrument station and azimuth mark may be reduced to a five (5) chain minimum separation at the project inspector's discretion.

ATTACHMENT 2

2. All GPS verified or established control must comply with the standards specified in the Special Instructions for the surveys listed in items 1 and 2 above. If the Contractor is able to show acceptable results are attainable through the implementation of their quality control plan, alternative observation schemes may be approved at the project inspector's discretion.
3. Software used in processing GPS data must be capable of resolving the integer ambiguities. Results of all GPS baseline processing, network adjustment, network diagrams and other supportive information must be made available to the BLM project inspector within one (1) day after completion of the observations.
4. The Contractor must provide the Contracting Officer's Representative and / or the Project Inspector the following items in a mutually agreed upon format:
 - a. All raw GPS data in digital form.
 - b. Processed data in digital form.
 - c. Loop closures and point error estimates with a sketch labeled and referenced to the corresponding observations.
 - d. All network diagrams labeled and referenced to corresponding observations.
 - e. Derivation of NAD 1927 coordinates must be documented.
 - f. Adjustment calculations must be documented.
5. BLM recognizes the dynamic nature of GPS surveying in the areas of real time positioning, quick ambiguity determination and "on the fly" initializing. BLM's specifications are not intended to hinder the integration of advancements, which may be beneficial, efficient, and accurate to our program, but rather, to guarantee the degree of confidence, reliability, and repeatability for verification that BLM considers necessary in the performance of Cadastral Surveys.

BLM encourages the presentation and discussion of these emerging technologies when considered a viable option in the performance of specific projects or portions of projects. In these instances the BLM GPS specifications must guide the formulation of procedures that maintain the degree of confidence, reliability, and repeatability in the final product that BLM attains in the current standards. These procedures must closely reflect the approach that follows the professional standards and accepted procedures of the established surveying community, and BLM in particular.

ATTACHMENT 2

6. The following items govern the Contractor's use of GPS technology on this project.

All GPS positioning of corner locations must be determined by static and/or rapid-static methodology. Two base stations located at opposite ends of the survey area must operate continuously providing baseline calibration and corrector information. These base stations must also provide adequate satellite coverage capability. Additional receivers may rove throughout the project area utilizing a combination of real-time kinematic and rapid-static techniques to determine corner positions on individual parcels as follows:

Real-time kinematic techniques (RTK) may be used to determine the initial position of the corner location and will provide a redundant check on its final position. RTK may be used to determine the final location of meander positions and topographic calls. RTK may also be used for bearing tree location as long as redundant positioning is obtained by independent methods (staff compass and steel tape).

Each corner position must be verified by one of the following methods.

1. One separate rapid-static session may be used to determine each corner monument's final position.
2. Two RTK shots from separate base stations may be used to determine each corner monuments final position.
3. A single base station can be used, providing a RTK check shot is taken on a known point to verify the base stations position. If this is done two RTK shots with independent initializations 15 minutes apart can be used to determine each corner monument's final position.
4. A combination of RTK and conventional survey methods can be used to determine a corner final position, 2 RTK points can be set with each position verified by the above described methods then a conventional survey instrument is set up on one point and the other point is backsighted. Then a conventional traverse is run into the corner position. The traverse must be run back out and closed on the backsighted RTK point. The traverse must close within 1:4000.

h. Minimum Standards for Quality Control are:

1. The Contractor is required to implement and maintain a Quality Control Plan throughout the performance of this contract. The Contractor must designate a Quality Control Supervisor who is responsible for the implementation of

ATTACHMENT 2

the quality control plan and possesses the authority to effect any necessary corrective procedures. The Contractor must complete a Quality Control Checklist for each U. S. Survey and each township surveyed. Any deviation from the proposed plan or methodology is subject to approval of the Contracting Officer or the Contracting Officer's Representative.

i. Minimum Standards for Surveying Precision are:

1. Metes-and-bounds surveys to be completed on this project not dependent on the record of an existing BLM survey must have a closure of not less than one part in 4000 in either latitude or departure, considered separately, without any adjustment, as determined in sec. 3-215 of the BLM Manual. Those surveys dependent on the record of existing BLM surveys must meet closure limits as determined in Section 3-215 of the BLM Manual. Mineral and U.S. Surveys retraced or dependently resurveyed are controlled by the closure limits that were in effect at the time of original survey.
2. Rectangular survey completed on this project not dependent on the record of an existing BLM survey must have a closure of not less than one part in 4000 in either latitude or departure, considered separately, without any adjustment. Those surveys dependent on the record of existing BLM surveys must meet closure limits as determined in Section 3-215 of the BLM Manual.
3. All areas returned on the final plat of rectangular survey must meet a limit of closure for public land surveys as specified in Section 3-215 of the BLM Manual.

Upon completion of the project, all original project field data, including aerial photographic negatives, must be submitted to BLM. Copies of these materials are not acceptable.

6. General Definitions

- a. **BLM:** The Bureau of Land Management, U.S. Department of the Interior.
- b. **BLM Manual:** The 2009 edition of the Manual of Surveying Instructions for the Survey of the Public Lands of the United States.
- c. **Blank Survey Line:** Those lines where bearings and distances are shown, for information purposes only, across areas not then subject to survey.
- d. **Cadastral Survey:** A survey which creates, marks, defines, retraces or reestablishes the boundaries and subdivisions of the Public Lands of the United States.
- e. **Contracting Officer:** (CO) The person executing this contract on behalf of the government and any other officer or civilian employee who is a properly

ATTACHMENT 2

designated Contracting Officer. The Contracting Officer is the only individual authorized to modify or amend the terms and conditions of this contract.

- f. **Contracting Officer's Representative:** (COR) The person assigned by the Contracting Officer who performs various acts of contract administration, such as arranging for payments, making inspections, determining quantities of work accomplished, etc. The Contracting Officer's Representative is also responsible for giving technical direction to the Contractor throughout contract performance, but does not have authority to modify or amend the terms and conditions of this contract.
- g. **Critical Review:** A comprehensive examination of all field survey data and preliminary field notes and plats by Branch of Policy Interpretation and Guidance personnel (hereinafter referred to as the Review Staff). This review ensures that the survey data, plat and field note records comply with the requirements of law and the regulations of the BLM. A letter outlining any required editing and/or corrections and the edited copies of the field notes and plats are returned to the Contractor for submission in final form.
- h. **Field Books:** The bound field note books ("Rite in the Rain" paper or equivalent) in which the complete record of all field work performed is recorded and properly indexed. The Field Books must be cross-referenced to the random plat, reflecting the book and page number of each line surveyed or each monument set. (See Item 3.d)
- i. **Field Notes:** The complete, final, typewritten record, in one (1) original set and one (1) duplicate set, of each township and/or U. S. Survey compiled from the field books and other calculated information.(See Item 4)
- j. **Field Supervisor:** That member of the Contractor's field party, designated in writing by the Contractor in the Technical Proposal, as the individual who is in charge of the project in the field. The Field Supervisor is the point of contact for the BLM Project Inspectors and has the responsibility for all project coordination, oversight, and quality control. The Field Supervisor must be at the project site at least eighty percent (80%) of the time.
- k. **Final Plat:** The original inked drawing(s), of each township and/or U. S. Survey, prepared on reproducible material (See Item 4).
- l. **Final Review:** An examination by the Review Staff of the field notes and plats in final form to ensure all required editing and/or corrections noted during the Critical Review were made. Final Payment is made to the Contractor upon completion of the review, providing no further editing and/or corrections are required.
- m. **Office Supervisor:** That member of the Contractor's office staff, designated in writing by the Contractor in the Technical Proposal, as the individual who is in charge of all plat and field note preparation. The Office Supervisor is the point of

ATTACHMENT 2

contact for the BLM Project Inspector and is responsible for all office coordination and quality control.

- n. **Original Survey:** A cadastral survey which creates and marks boundaries of the Public Lands of the United States for the first time.
- o. **Perpetuation of Corners:** The replacement of the corner monument, and/or the establishment of new accessories or other evidence, which preserves the location of a corner. Any changes to the markings of a monument cap are included under this definition. Corners must not be perpetuated without the prior approval of the project inspector.
- p. **Pre-platting Meeting:** A mandatory meeting with the Review Staff for providing current field note and plat samples. All BLM furnished samples provided to the Contractor at the Pre-platting Meeting (i.e. Rectangular notes and plats, U. S. Survey notes and plats and/or "plat only" plats) are recorded in a memorandum prepared by the Chief of Survey Policy Interpretation and Guidance Section (AK-925) and a copy provided to the Contractor. Current regulations, policies and guidelines are discussed and all Contractor questions addressed by the Review Staff.
- q. **Preliminary Review:** An initial examination by the Review Staff of not more than: two township plats with corresponding field notes, two U. S. Survey plats with corresponding field notes, and not more than three Plat Only surveys, to ensure the correct format as shown on the provided samples and guidelines were followed. The Contractor must provide as broad a sampling of surveys as possible. A complete comprehensive examination of all field notes and plats occurs during the Critical Review.
- r. **Project Inspector:** The person(s) assigned by the Contracting Officer to perform random, announced and/or unannounced government quality assurance of field and office work accomplished by the Contractor. The project inspector does not have authority to modify or amend the terms and conditions of this contract.
- s. **Project Supervisor:** That member of the Contractor's firm designated in writing by the Contractor in the Technical Proposal, as the point of contact for the Contracting Officer and/or the Contracting Officer's Representative for all contract matters. The Project Supervisor is the primary representative of the Contractor with the authority to negotiate with the Contracting Officer to modify or amend the terms and conditions of this contract. The Project Supervisor is the Contractor's representative for the overall management of this project.
- t. **Properly Fused:** The result of the photocopying process produces an image, which has been correctly melted or united to the paper. Indications of smudging or image degradation means the image is not properly fused to the paper.
- u. **Quality Control Supervisor:** The member of the Contractor's firm designated in writing by the Contractor in the Technical Proposal, who is responsible for the

ATTACHMENT 2

implementation of the Contractor's Quality Control Plan and possesses the authority to effect any necessary corrective procedures.

- v. **Random Plat:** A field sketch plat, maintained in the field on a daily basis, showing all survey related data including the actual field traverse (bearings and distances) from which the field closure is calculated. The Random Plat is cross-referenced to the field books, reflecting the book and page number of each line surveyed or each monument set. (See Item 3.c)
- w. **Rehabilitation:** The reconditioning of a corner monument or its accessories to original conditions, but not the addition of new accessories or any altering of the record.
- x. **Restoration:** The recovery of one or more lines and/or corner positions of an existing Official Survey; or the replacement of one or more lost corners or obliterated monuments by approved methods.
- y. **Resurvey:** The re-establishment or restoration of land boundaries and subdivisions by rerunning and remarking lines represented in the field note record and on the plat of an existing Official Survey.
- z. **Retracement:** A survey made to ascertain the direction and length of lines and identify monuments and accessories of an existing Official Survey. Recovered corners are rehabilitated, but lost corners are not restored and lines through timber are not reblazed.
- aa. **Road and Road Reference Monuments:** Any monument established to mark or reference the angle point or boundary of a surveyed parcel, which falls in the middle of a road or trail. Each monument set is considered a separate pay item. Where no bearing trees or other accessories are available and/or required, payment is made at the "remonumentation" rate (or one-half of the full monument rate) for each monument set. The full amount of payment for any such point which requires 3 monuments and no other accessories is one and one-half times the full monumentation rate. Substitute monumentation of any type requires prior written approval on a case-by-case basis. Nails of any type are not acceptable substitute monuments.
- bb. **Special Instructions and Survey Diagrams:** The specific details of the Group Surveys and U. S. Surveys referenced in Items 1 and 2, executed as written in the Special Instructions and shown on diagrams attached to the Special Instructions depicting lines and corner points to be established and monumented.
- cc. **Subsistence:** Meals and lodging provided to all personnel employed during the field work portion of the project unless the project area is within fifty (50) miles of a permanent office maintained by the Contractor at the time the technical proposal is submitted. In such case, subsistence is only required for those individuals not hired locally or who do not maintain a permanent residence within commuting distance of the project.

ATTACHMENT 2

- dd. **Tie:** A survey connection from an existing horizontal control station, corner of the Public Lands, or corner of a special survey, to another such point whose position is desired to be referenced.

7. Pay Item Definitions

- a. **Add Marks:** The addition of any marks stamped on a monument cap as necessary, including a new date. Any and all marks added to a monument constitute one Pay Item. New marks are only added to recovered corners where the record is being changed by the addition of new corner accessories or by new corner designations.
- b. **Corner Positioned:** The determination, on the ground, of the true position of a corner to be established. Any acceptable survey method may be utilized, provided it meets or exceeds the required specifications for accuracy.
- c. **Corner Recovery:** The identification of a monumented corner as authentic and in its original location. A corner recovery includes a corner position, the rehabilitation of the corner and the verification or revision of its description. This is accomplished by an actual visit to the monument. The technical effort at the site of the corner recovery location includes, but is not limited to, a full description of the monument, all of the accessories, witness distances, and other pertinent information. The term rehabilitation, as used in this definition, means the reconditioning of a corner monument or its accessories to original conditions, but not the addition of new accessories or any altering of the record. As a Pay Item, no more than one "Recovery" will be applied to any individual corner.
- d. **Meanders:** The survey of a permanent natural body of water at the line of ordinary high water or the line of mean high tide. This Pay Item is often paid in a lump sum for the project or a portion of the project, in which case the quantity unit is expressed as "1 JOB", otherwise the unit is expressed in chains. In the case of ANCSA 14(c) projects, the unit is expressed in feet.
- e. **Monument Set (Secondary):** The physical act of setting a less than regulation monument at an established corner position. Secondary monuments are typically set at corners of lower order associated with Townsite surveys and ANCSA 14(c) surveys and do not incorporate accessories. A rebar, 5/8 inch. diameter, 24 to 36 inches long with an aluminum cap attached is the current standard. The unit cost associated with this pay item includes monument and site preparation (marking the cap and clearing brush at the site), and a complete written description of the

ATTACHMENT 2

work performed.

- f. **Monument Set (Primary):** The physical act of setting a regulation monument or acceptable equivalent (Section 4-7 to 4-15, Manual of Surveying Instructions, 2009) at an established corner position. The unit cost associated with this pay item includes monument and site preparation (marking the cap, flanging the base of the post and clearing brush at the site), the establishment and measurement of accessories to the corner, the establishment of memorials and a complete written description of the work performed.
- g. **Monument Set and Positioned:** A combination of the two previously described Pay Items.
- h. **New Accessories:** This pay item pertains only to corner recoveries where new accessories are necessary. Where suitable bearing trees or bearing objects are not available, other acceptable corner accessories must be established. Under certain circumstances a contract will require the use of triangles and magnets as accessories. Each accessory, including the triangle, is a Pay Item. For example, if the contractor sets a triangle and 2 magnets, he or she would be eligible for the payment of 3 accessories.
- i. **Plat Only:** This Pay Item represents a drawing (plat) where all the survey data can be adequately described and laid out on one or two plat sheets and field notes are not needed. The term "plat" (singularly) refers to all sheets of a particular survey and typically constitutes one pay item. Allowances are sometimes made for complex plats which require multiple sheets. 14(c) surveys are frequently treated as a hybrid of this definition where each plat sheet is counted as one Pay Item. This method of accounting was implemented to address the multiple sheets and complex drafting situations that are almost always associated with these surveys.
- j. **Plat w/Notes:** This Pay Item represents the combination of a drawing (plat) and the field notes which together embody the official survey. The term "plat" (singularly) refers to all sheets of a particular survey and typically constitutes one pay item. Allowances are sometimes made for complex plats which require multiple sheets.
- k. **Primary Control Network:** The establishment of a survey network used to control all subsequent cadastral measurements. The quantity unit is expressed as "1 JOB".
- l. **Remonumentation:** This Pay Item pertains only to the construction of a new monument at the position of an original corner. If new accessories are

ATTACHMENT 2

established at a remonumented corner, each new accessory is a separate Pay Item. Corners must not be remonumented without the prior approval of the project inspector.

- M. Corner Recovery/ Rehabilitation/ Perpetuation/Remonumentation:** Corner Recovery means the identification of a monumented corner as authentic and in its original location. A corner recovery includes a corner position, any necessary rehabilitation, perpetuation, remonumentation, and the verification or revision of its description. This is accomplished by an actual visit to the monument. The technical effort at the site of the corner recovery location includes, but is not limited to, a full description of the monument, all of the accessories, witness distances, and other pertinent information. Rehabilitation means straightening, firming, rebuilding rock collars, redefining pits or mounds, etc., around the monument. Perpetuate means the establishment of new accessories, bearing trees or other evidence, which preserves the location of a corner. Any changes to the markings of a monument cap are included under this definition. Remonumentation means the replacement of the corner monument, in its' original position, with a new standard monument or approved substitute. As a Pay Item, no more than one "Recovery" will be applied to any individual corner. The cost of rehabilitation, perpetuation, or remonumentation, is included in the total cost of "recovering" the monument.

ATTACHMENT 3

Payment Schedule: Chugach Alaska Historical Sites 2013

Contract Number: L13AV00002

In full consideration of the Tribe's performance hereunder, The Bureau Of Land Management (BLM) shall pay the Tribe in installments, upon the Tribe's billing and the BLM's acceptance, as follows:

50% of the Estimated Field Quantities upon Signature of Contract.

50% of the Estimated Field Quantities upon successful completion of Field Work.

50% of the fixed price amount of notes and plats after records are submitted for critical review.

Remaining 50% of the Estimated Field Quantities and adjustments for the final field work line item quantities after final acceptance of all deliverables and return of all nonexpendable government furnished property.

Payment for perpetuation, rehabilitation of existing monuments is included in the price of a corner recovery.

ATTACHMENT 4

Performance Schedule: **Chugach Alaska Historical Sites 2013**

Contract Number: **L13AV00002**

Anticipated Award Date:	June 17, 2013
Commencement of Field Work:	June 17, 2013
Completion of Fieldwork:	August 31, 2013
Pre-Platting Meeting:	September 28, 2013
Delivery of Sample Notes and Plats For BLM's Preliminary Review:	October 12, 2013
Sample Notes and Plats, with BLM Comments, Returned to Contractor:	November 2, 2013
Delivery of all Reports, Data, Notes, and Plats for BLM's Critical Review:	December 14, 2013
Reports, Data, Notes and Plats Returned to Contractor for Correction:	February 22, 2014
Delivery of all Reports, Data, Notes, And Plats in Final Form (this shall Include a signed statement by the Contractor that all required Corrections have been completed):	March 22, 2014
Final Acceptance:	April 12, 2014
Close of Contract	September 28, 2014

PUBLIC LAW 93-638 AGREEMENT
BETWEEN THE
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
AND
CHUGACH ALASKA CORPORATION
(AGREEMENT NUMBER L13AV00002)

1.0 AUTHORITY AND PURPOSE.

1.1 AUTHORITY. This agreement, denoted a Self-Determination Agreement, is entered into by the Department of the Interior, Bureau of Land Management (referred to in this agreement as the "BLM"), for and on behalf of the United States pursuant to title I of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450 et seq.) (referred to in this Agreement as the "Act") and by the authority of CHUGACH ALASKA CORPORATION (referred to in this agreement as the "Tribe"). The provision of title I of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450 et seq.) are incorporated in this Agreement.

1.2 PURPOSE. To provide for the cadastral survey of Native Allotments under the Alaska Native Allotment Act of May 17, 1906, as amended, and/or Native land selections under the Alaska Native Claims Settlement Act of December 18, 1971, as amended, for the Tribe to assist in carrying out BLM's trust responsibility for the functions described in this Agreement which have been carried out on behalf of the Tribe and/or Tribal Allottees by the BLM. Each provision of the Indian Self-Determination And Education Assistance Act (25 U.S.C. 450 et seq.) and each provision of this Agreement shall be liberally construed for the benefit of the Tribe to provide the funding and to accomplish the following related functions, services, activities, and programs (or portions thereof), that are otherwise agreeable under section 102(a) of the Act, including all related administrative functions, on behalf of the Federal Government to the Tribe.

BLM functions to be agreed to shall consist of:

The performance of the cadastral survey of land boundary lines, the establishment of ties to the rectangular survey system and/or horizontal control, the establishment of ties between non contiguous lots within a survey, the location of existing improvements within a Survey, the establishment of corner monuments as indicated on the survey diagrams for each Survey, and the preparation of a "plat only" final plat of survey, or a final plat of survey with field notes, using the survey methods as outlined in the Tribal Agreement's technical proposal.

A detailed Statement of Work is incorporated as Attachment 2. This Statement of Work details the work items and specifications required to provide correct and complete accomplishment of the prescribed land survey activities.

2.0 TERMS, PROVISIONS, AND CONDITIONS.

- 2.1 TERM. Pursuant to section 105(c)(1) of the Act the term of this Agreement shall not exceed three years, or upon approval of and payment for all deliverables, whichever occurs first. The period of this Agreement shall be determined on the basis of the Required Performance Schedule and the date of original execution of the Agreement. (See Item 2.2 below).
- 2.2 EFFECTIVE DATE. This Agreement shall become effective upon the date of the approval and execution by the Tribe and the BLM.
- 2.3 PROGRAM STANDARDS. The Tribe agrees to administer the program, services, functions, and activities (or portions thereof) listed in subsection 1.2 of the Agreement in conformity with the following standards:

- 2.3.1 The detailed Statement of Work incorporated into this Agreement as Attachment 2, contains the program and technical standards required for the complete and successful completion of this project activity.
- 2.4 FUNDING AMOUNT. Subject to the availability of appropriations, the BLM shall make available to the Tribe the total amount specified in the Agreement budget incorporated by reference in subsection 6.2. Such amount shall not be less than the applicable amount determined pursuant to section 106(a) of the Act.
- 2.5 LIMITATION OF COSTS. The Tribe shall not be obligated to continue performance if conditions change in such a manner that the amount of funds awarded under this Agreement become obviously inadequate. If, at any time, the Tribe has reason to believe that the total amount required for the performance of this Agreement would be greater than the amount of funds agreed to under this Agreement, the Tribe shall provide reasonable notice to the BLM with supportive documentation. If the BLM does not take such action as may be necessary to increase the amount of funds awarded under this Agreement, the Tribe may suspend performance of the Agreement until such time as additional funds are awarded.
- 2.5.1 VARIATION IN ESTIMATED QUANTITY. If the quantity of a unit-priced item in this Agreement is an estimated quantity and the actual quantity of the unit-priced item varies more than 20 percent above or below the estimated quantity, an equitable adjustment in the Agreement price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 120 percent or below 80 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Tribe may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the Agreement. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgment of the Contracting Officer, is justified.
- 2.6 PAYMENT.
- 2.6.1 IN GENERAL. Payments to the Tribe under this Agreement shall:
- 2.6.1.1 be made as expeditiously as practicable;
- 2.6.1.2 be made in conformance with the agreed Agreement Payment Schedule incorporated into this Agreement as Attachment 3.
- 2.6.1.3 APPLICABILITY. Chapter 39 of title 31, United States Code, shall apply to the payment of funds due under this Agreement and the Agreement budget agreement referred to in clause 2.4.
- 2.6.2 AGREEMENT PAYMENT SCHEDULE. The Agreement payment schedule is hereby incorporated in its entirety as Attachment 3.
- 2.7 RECORDS AND MONITORING.
- 2.7.1 IN GENERAL. Except for previously provided copies of tribal records that the BLM demonstrates are clearly required to be maintained as part of the record keeping system of the Department of the Interior, and those documents specified in subparagraph 2.7.2 of this Agreement, records of the Tribe shall not be considered Federal records for purposes of chapter 5 of title 5, United States Code

- 2.7.2 **RECORD KEEPING SYSTEM.** Within 30 days of the effective date of this Agreement, BLM will provide the Tribe with copies of the Survey Special Instructions, Master Title Plats, Project Map(s), and other supporting documents required for the successful completion of this project.
- The Tribe shall maintain a record keeping system and, upon reasonable advance request, provide reasonable access to such records to the BLM as set forth in the Statement of Work incorporated in this Agreement as Attachment 2.
- 2.7.3 **RESPONSIBILITIES OF CONTRACTOR.** The Tribe shall be responsible for managing the day-to-day operations conducted under this Agreement and for monitoring activities conducted under this Agreement to ensure compliance with the Agreement and applicable Federal requirements. With respect to monitoring activities during field operations, the BLM will conduct technical and procedural reviews and/or quality and quantity management reviews at the project site(s) on an on-going basis. During the preparation of plats and field notes, BLM will conduct technical and procedural reviews of the reporting documents as described in the Statement of Work incorporated into this Agreement as Attachment 2.
- 2.7.4 **CONTRACTUAL LIAISON.** To facilitate liaison between the BLM and the Tribe's staff, the Tribe shall have and maintain an office within the State of Alaska during all phases of this Agreement.
- 2.7.5 **PRE-WORK CONFERENCE.** As soon as possible after Agreement award, a pre-work conference shall be held at the BLM Anchorage address set forth in the Statement of Work, incorporated as Attachment 2. The date and time shall be determined by the Program Official and the Tribe in consultation. Discussions relative to Agreement obligations and clarification of technical requirements, as needed, will be addressed at this time. A Notice to Proceed will be issued at this time or as soon as practicable thereafter.
- 2.8 **PROPERTY.** As provided for in the Federal property management regulations and Department of the Interior directives, the BLM will provide excess property items if such items were specifically identified and agreed to by the parties in the Tribe's cost proposal for this project.
- 2.8.1 **GOVERNMENT FURNISHED SUPPLIES.** The BLM will provide, within three (3) calendar days following receipt of a written request, FOB Anchorage, Alaska (at no cost to the Tribe), the following equipment and materials:
- 2.8.1.1 All necessary monuments, triangles, magnetic markers, bearing tree tags, and related monumentation supplies.
- 2.9 **AVAILABILITY OF FUNDS.** Notwithstanding any other provision of law, any funds provided under this Agreement—
- 2.9.1 shall remain available until expended; and
- 2.9.2 with respect to such funds, no further—
- 2.9.2.1 approval by the BLM, or
- 2.9.2.2 justifying documentation from the Tribe, shall be required prior to the expenditure of such funds.
- 2.9 **TRANSPORTATION.** The Tribe will use tribal vehicles for all tasks associated with project completion. Costs for tribal vehicles are included in the Agreement budget incorporated as Attachment 1.
- 2.10 **FEDERAL PROGRAM GUIDELINES, MANUALS, OR POLICY DIRECTIVES.** The Tribe agrees to abide by those standards listed in paragraph 2.3.

- 2.11 DISPUTES. The BLM and the Tribe will mutually resolve any disputes arising from the performance of this Agreement.
- 2.12 ADMINISTRATIVE PROCEDURES OF CONTRACTOR. Pursuant to the Indian Civil Rights Act of 1968 (25 U.S.C. 1301 et seq.), the laws, policies, and procedures of the Tribe shall provide for administrative due process (or the equivalent) with respect to programs, services, functions, and activities that are provided by the Tribe pursuant to this Agreement.
- 2.13 AGREEMENT REQUIREMENTS. The programs, services, or functions assumed by the Tribe under this Agreement may be subcontracted, at a minimum, as prescribed by Subpart F, 900.49.

3.0 OBLIGATION OF THE TRIBE.

- 3.1 AGREEMENT PERFORMANCE. The Tribe shall perform the programs, services, functions, and activities as provided in the Agreement budget under subsection 6.2 and in Attachment 2 (the detailed Statement of Work).
 - 3.1.1 PERMITS AND RESPONSIBILITIES. The Tribe shall be responsible for obtaining any necessary non-government licenses and permits, and for complying with any applicable Federal, State, and municipal laws, codes, and regulations in connection with the performance of this Agreement. The BLM shall obtain any applicable Federal permits.
 - 3.1.2 KEY PERSONNEL. The Field Supervisor, all Party Chiefs, and the Office Supervisor used in this Agreement shall be as identified in the Tribe's technical proposal. Substitution of the Field Supervisor, Party Chiefs, and the Office Supervisor must be approved in writing by the BLM Contracting Officer prior to substitution.

The Tribe shall maintain an adequate work force of qualified personnel to ensure completion of the Agreement within the required performance schedule which is incorporated into this Agreement as Attachment 4.
 - 3.1.3 REQUIRED LICENSING. The Tribe shall have on staff a person licensed to practice professional land surveying in the State of Alaska.
- 3.2 AMOUNT OF FUNDS. The total amount of funds to be paid under this Agreement pursuant to section 106(a) of the Act is determined in the budget agreement entered into between the BLM and the Tribe, which is incorporated as Attachment 1.
- 3.3 CONTRACTED PROGRAMS. Subject to the availability of appropriated funds, the Tribe shall administer the programs, services, functions, and activities identified in this Agreement and funded through the Agreement budget under subsection 6.2.
- 3.4 TRUST SERVICES FOR INDIVIDUAL INDIANS.
 - 3.4.1 IN GENERAL. To the extent that the Agreement budget provides funding for the delivery of trust services to individual Indians that have been provided by the BLM, the Tribe shall maintain at least the same level of service as the BLM provided for such individual Indians, subject to the availability of appropriated funds for such services.
 - 3.4.2 TRUST SERVICES TO INDIVIDUAL INDIANS. For the purposes of this paragraph only, the term "trust services for individual Indians" means only those services that pertain to the survey of lands being transferred to individual allottees through the Alaska Native Allotment Act and for to the tribe(s) through the Alaska Native Claims Settlement Act.
- 3.5 FAIR AND UNIFORM SERVICES. The Tribe shall provide services under this Agreement in a fair and uniform manner and shall provide access to an administrative or judicial body empowered to adjudicate or otherwise resolve complaints, claims, and grievance brought by program beneficiaries against the contractor arising out of the performance of the Agreement.

4.0 OBLIGATION OF THE UNITED STATES.

4.1 TRUST RESPONSIBILITY.

- 4.1.1 IN GENERAL. The United States reaffirms the trust responsibility of the United States to the Tribe to protect and conserve the trust resources of the Tribe and the trust resources of individual Indians.
- 4.1.2 CONSTRUCTION OF AGREEMENT. Nothing in this Agreement may be construed to terminate, waive, modify, or reduce the trust responsibility of the United States to the Tribe or individual Indians. The United States shall act in good faith in upholding such trust responsibility.

- 4.2 PROGRAMS RETAINED. As specified in this Agreement and the attached Agreement budget agreement, the United States hereby retains the programs, services, functions, and activities with respect to the Tribe(s) that are not specifically assumed by the Tribe in this Agreement under subsection 6.2 and Attachment 1.

5.0 OTHER PROVISIONS.

- 5.1 DESIGNATED OFFICIALS. Not later than the effective date of this Agreement, a written designation of a senior official to serve as a representative for notices, proposed amendments to the Agreement, and other purposes for this Agreement shall be submitted to both parties. The Deputy State Director for Alaska Cadastral Survey and Geomatics is to serve as BLM's Designated Management Official. A Contracting Officer with sufficient Warrant Authority is to serve as BLM's Awarding Official. The Section Chief, Contract Surveys Section, Branch of Field Surveys for Alaska Cadastral Survey and Geomatics is to serve as BLM's Program Official and Designated Agency Employee. The BLM Contracting Officer will designate Project Inspectors for the field and office portions of the project at the time of the Pre-Work Conference set forth in subsection 2.7.5.
- 5.2 AGREEMENT MODIFICATIONS OR AMENDMENT.
 - 5.2.1 IN GENERAL. Except as provided in subparagraph 5.2.2, no modification to this Agreement shall take effect unless it is mutually agreed upon and is submitted in writing.
 - 5.2.2 EXCEPTION. The addition of supplemental funds for programs, functions, and activities (or portions thereof) already included in the Agreement budget agreement under subsection 6.2 and the reduction of funds pursuant of section 106(b)(2) of the Act, shall not be subject to subparagraph 5.2.1.
- 5.3 OFFICIALS NOT TO BENEFIT. No Member of Congress, resident commissioner, or any BLM employee, shall be admitted to any share or part of any Agreement executed pursuant to this Agreement, or to any benefit that may arise from such Agreement. This paragraph may not be construed to apply to any Agreement with a third party entered into under this Agreement if such Agreement is made with a corporation for the general benefit of the corporation.
- 5.4 COVENANT AGAINST CONTINGENT FEES. The parties warrant that no person or selling agency has been employed or retained to solicit or secure any Agreement executed pursuant to this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Tribe for the purpose of securing business.

6.0 AUDIT REQUIREMENTS.

- 6.1 Non-Federal entities that expend [REDACTED] or more during a year in Federal awards shall have a single or program-specific audit conducted for that year in accordance with the Single Audit Act Amendments of 1996 (31 U.S.C. 7501-7507) and revised OMB Circular A-133, which is available at http://www.whitehouse.gov/omb/grants/grants_circulars.html.

Federal awards are defined as Federal financial assistance and Federal cost-reimbursement contracts that non-Federal entities receive directly from Federal awarding agencies or indirectly from pass-through entities. They do not include procurement contracts, under grants or contracts, used to buy goods or services from vendors. Non-Federal entities that expend less than \$500,000 for a fiscal year in Federal awards are exempt from Federal audit requirements for that year, except as noted in A-133,

§_215(a), but records must be available for review or audit by appropriate officials of the Federal agency, pass-through entity, and General Accounting Office (GAO).

Audits shall be made by an independent auditor in accordance with generally accepted government auditing standards covering financial audits. Additional audit requirements applicable to this agreement are found at 43 CFR 12.66 or 2 CFR, Subpart C 215.26, as applicable. General guidance on the single audit process is included in a pamphlet titled, "Highlights of the Single Audit Process" which is available on the internet at <http://www.dot.gov/ost/m60/grant/sincontact.html>. Additional information on single audits is available from the Federal Audit Clearinghouse at <http://harvester.census.gov/sac/>.

7.0 ATTACHMENTS.

- 7.1 AGREEMENT BUDGET. The Agreement budget is hereby incorporated in its entirety as Attachment 1.
- 7.2 DETAILED STATEMENT OF WORK. The detailed Statement of Work referenced in paragraph 1.2 is hereby incorporated in its entirety as Attachment 2.
- 7.3 AGREEMENT PAYMENT SCHEDULE. The Agreement Payment Schedule referenced in paragraph 2.6.1.2 is hereby incorporated in its entirety as Attachment 3.
- 7.4 Performance Schedule referenced in paragraph 3.1.2 is hereby incorporated in its entirety as Attachment 4.

Grant and Cooperative Agreement

CHOOSE ONE:

- ☒ COOPERATIVE AGREEMENT
☐ GRANT

CHOOSE ONE:

☐ EDUCATION☐ FACILITIES☐ RESEARCH☐ SDCR☐ TRAINING

1. GRANT/COOPERATIVE AGREEMENT NUMBER
L18AV00003

2. SUPPLEMENT NUMBER
0001

3. EFFECTIVE DATE
09/24/2019

4. COMPLETION DATE

5. ISSUED TO
NAME/ADDRESS OF RECIPIENT (No., Street, City/County, State, Zip)
CHUGACH ALASKA CORPORATION
Attn: David Phillips
3800 CENTERPOINT DR STE 1200
ANCHORAGE AK 99503-5825

6. ISSUED BY BLM AK ST OFC BUS&FISCAL BR (AK952)
Mailing Address: 222 W 7TH AVENUE, #13
ANCHORAGE AK 99513

7. TAXPAYER IDENTIFICATION NO. (TIN)

9. PRINCIPAL INVESTIGATOR/ORGANIZATION'S PROJECT OR
PROGRAM MGR. (Name & Phone)
David Phillips - 907-261-0345
Rebecca Myren - 907-261-0387

8. COMMERCIAL & GOVERNMENT ENTITY (CAGE) NO.
44VJ9

10. RESEARCH, PROJECT OR PROGRAM TITLE
BLM AK 93-638 Cadastral Survey with Chugach Alaska Corporation

11. PURPOSE
6/28/18 - Cadastral Survey work in Prince William Sound and lower Copper River, Alaska

12. PERIOD OF PERFORMANCE (Approximately)
07/02/2018 through 09/30/2023

13A.	AWARD HISTORY	13B.	FUNDING HISTORY
PREVIOUS		PREVIOUS	
THIS ACTION		THIS ACTION	
CASH SHARE		TOTAL	
NON-CASH SHARE			
RECIPIENT SHARE			
TOTAL			

14. ACCOUNTING AND APPROPRIATION DATA
01

PURCHASE REQUEST NO.	JOB ORDER NO.	AMOUNT	STATUS
0020189352			

15. POINTS OF CONTACT

	NAME	MAIL STOP	TELEPHONE	E-MAIL ADDRESS
TECHNICAL OFFICER	Nathan Erickson		907-271-5770	n05erick@blm.gov
NEGOTIATOR				
ADMINISTRATOR				
PAYMENTS				

16. THIS AWARD IS MADE UNDER THE AUTHORITY OF:
P.L. 93 638, Indian Self Determination And Education Assistance Act.

17. APPLICABLE STATEMENT(S), IF CHECKED:

- ☐ NO CHANGE IS MADE TO EXISTING PROVISIONS
☐ FDP TERMS AND CONDITIONS AND THE AGENCY-SPECIFIC REQUIREMENTS APPLY TO THIS GRANT

18. APPLICABLE ENCLOSURE(S), IF CHECKED:

- ☐ PROVISIONS ☐ SPECIAL CONDITIONS
☐ REQUIRED PUBLICATIONS AND REPORTS

UNITED STATES OF AMERICA

COOPERATIVE AGREEMENT RECIPIENT

CONTRACTING/GRANT OFFICER
Patrick Euler

DATE
Digitally signed by PATRICK
EULER
Date: 2019.09.24 19:25:57
+08'00'

AUTHORIZED REPRESENTATIVE


DATE
9/30/2019

Grant and Cooperative Agreement

ITEM NO (A)	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	ESTIMATED COST	
				UNIT PRICE (E)	AMOUNT (F)
	<p>CFDA Number: 15.241</p> <p>DUNS Number: 071844021</p> <p>Indian Self Determination Act, Public Law 93-638, agreement for Cadastral Survey of Chugach Alaska Corporation.</p> <p>The work on the following surveys will begin the summer of 2018-</p> <p>Group Nos. 711, 1249, 1251 and USS Nos. 14471, 1483, 14491 to 14494.</p> <p>Legacy Doc #: BLM</p> <p>LIST OF CHANGES:</p> <p>Reason for Amendment: Amendment</p> <p>Total Amount for this Amendment: [REDACTED]</p> <p>New Total Obligated Amount for this Award: [REDACTED]</p> <p>Agreements Officer changed from Betty Conlon</p> <p>to Patrick Euler</p> <p>Funding added for additional recoveries per line items 20 thru 50.</p> <p>All other terms and conditions remain unchanged</p> <p>Delivery: 12/31/2020</p> <p>Delivery Location Code: 0004276174</p> <p>BLM-AK ALASKA STATE OFFICE*</p> <p>222 W. 7TH AVENUE #13</p> <p>ANCHORAGE AK 99513 US</p> <p>Account Assignm: K G/L Account: 6100.411C0</p> <p>Business Area: L000 Commitment Item: 411C00 Cost</p> <p>Continued ...</p>				

Grant and Cooperative Agreement

ITEM NO (A)	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	ESTIMATED COST	
				UNIT PRICE (E)	AMOUNT (F)
	Center: LLA942100 Functional Area: L14100000.BK0000 Fund: 19XL1109AF Fund Center: LLA942100 Project/WBS: LX.SS.001L0017 PR Acct Assign: 01 Period of Performance: 07/02/2018 to 09/30/2023				
00020	USS extra recoveries Obligated Amount: [REDACTED]				[REDACTED]
00030	USS extra sets Obligated Amount: [REDACTED]				[REDACTED]
00040	Rectangular extra recoveries Obligated Amount: [REDACTED]				[REDACTED]
00050	Rectangular extra recoveries Obligated Amount: [REDACTED]				[REDACTED]