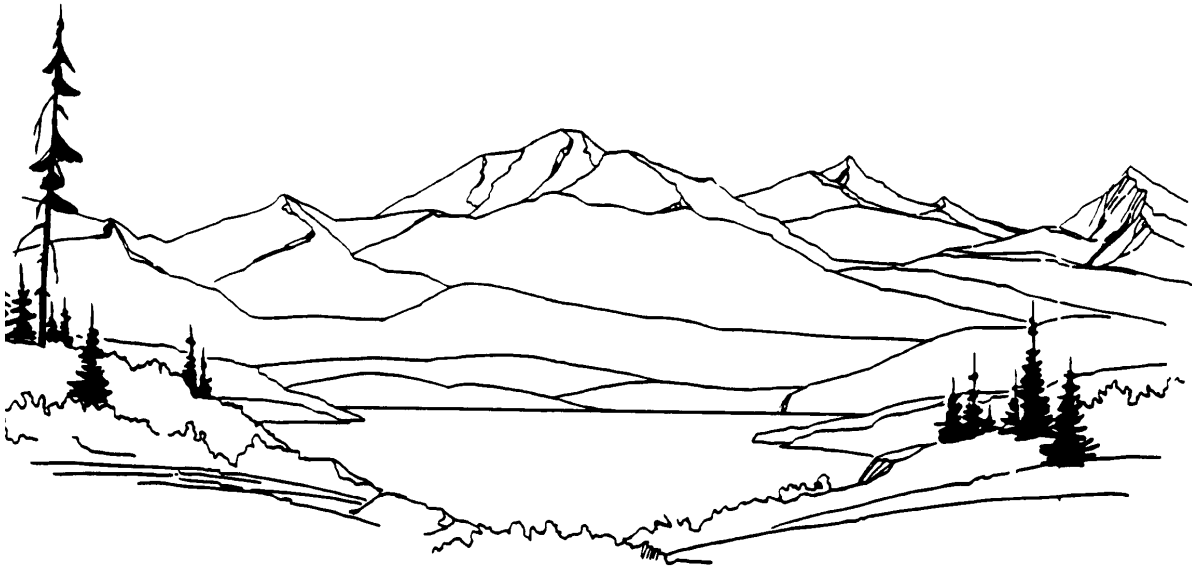


**STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES**

**DIVISION OF PARKS
AND
OUTDOOR RECREATION**



**PROPOSAL, CONTRACT, BOND
AND SPECIAL PROVISIONS**

**CSP: RABBIT VALLEY
TRAILHEAD IMPROVEMENTS
PROJECT NUMBER 73103-2**

COPY _____

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5. Federal Wage Rates

Federal wage rates can be obtained at <https://sam.gov/content/wage-determinations> for the State of Alaska. Use the federal wage rates that are in effect 10 days before Bid Opening. The Department will include a paper copy of the federal wage rates in the signed Contract.

6. State Wage Rates

State wage rates can be obtained at <http://www.labor.state.ak.us/lss/pamp600.htm>. Use the State wage rates that are in effect 10 days before Bid Opening. The Department will include a paper copy of the State wage rates in the signed Contract.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

INVITATION TO BID
for Construction Contract

Date: 8/11/2026

CSP: Rabbit Valley Trailhead Improvements, Project No. 73103-2

Project Name and Number

The Department invites bidders to submit bids for furnishing all labor, equipment, and materials and performing all work for the project described below. The Department will only consider bids received **before 2:00 PM local time (per the Department's time source) on the 2nd day of September, 2026**. On that date, the Department will assemble, open, and then publicly announce the timely-received bids at **550 W. 7th Avenue, Suite 1340; Anchorage, AK 99501, at 2:15 PM**, or as soon thereafter as practicable.

Location of Project: Anchorage, AK

Contracting Officer: Rys Miranda, P.E.

Issuing Office: DNR, Division of Parks and Outdoor Recreation

State Funded ☐

Federal Aid ☒

Description of Work:

This project will expand the existing corridor of Chugach State Park Rabbit Valley Trailhead to increase parking capacity. The work will include earthwork, concrete block retaining walls, and installation of other park facilities.

Project DBE Utilization Goal: ☐ Race-Neutral, Goal is 0% ☐ Race-Conscious, Goal is 0%

The Engineer's Estimate is: ☐ less than \$100,000 ☒ between \$1,000,000 and \$2,500,000
☐ between \$100,000 and \$250,000 ☐ between \$2,500,000 and \$5,000,000
☐ between \$250,000 and \$500,000 ☐ greater than \$5,000,000
☐ between \$500,000 and \$1,000,000

All work shall be completed in N/A Calendar Days, or by October 1st, 2027. The Department will identify interim completion dates, if any, in the Special Provisions.

The apparent successful bidder must furnish a payment bond in the amount of **100%** of the contract and a performance bond in the amount of **100%** of the contract as security conditioned for the full, complete and faithful performance of the contract. The apparent successful bidder must execute the said contract and bonds within fifteen calendar days, or such further time as may be allowed in writing by the Contracting Officer, after receiving notification of the acceptance of their bid.

Submission of Bidding Documents

Bidders may submit bidding documents ~~electronically via the Department's approved online bidding service~~, through the mail or hand delivered. For mailed or hand delivered bids ~~and for electronically submitted bids with a paper bid guaranty~~, documents shall be submitted in a sealed envelope marked as follows:

Bidding Documents for Project:
**CSP: Rabbit Valley
Trailhead Improvements
Project No. 73103-2**

ATTN:
**DNR, Division of Parks and Outdoor Recreation
550 W. 7th Avenue, Suite 1340
Anchorage, AK 99501**

It is incumbent upon the bidder to ensure its bid, any amendments, and/or withdrawal arrive, in its entirety, at the location and before the deadline stated above. A bidder sending a bid amendment or withdrawal via email or fax must transmit its documentation to the Department at this email address: [Contact Staff of Page 2] or fax number: (907) 269-8917.

To be responsive, a bid must include a bid guaranty equal to 5% of the amount bid. *(When calculating the bid amount for purposes of determining the 5% value of the bid guaranty, a bidder shall include its base bid amount, plus the amount bid for alternate and supplemental bid items, if any.)*

The Department hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this Invitation, Disadvantaged Business Enterprises will be afforded full opportunity to submit bids and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

NOTICE TO BIDDERS

The following data may assist a bidder in preparing its bid:

SEE SPECIAL NOTICE TO BIDDERS

A bidder may download project plans and specifications from: <http://dnr.alaska.gov/parks/designconstruct/bidcalresults.htm>.
For additional information contact:

Division of Parks and Outdoor Recreation
Design & Construction Section
Phone: (907) 269-8731

If a bidder has a question relating to design features, constructability, quantities, or other technical aspects of the project, it may direct its inquiry to the contact listed below.

A bidder requesting assistance in viewing the project site must make arrangements at least 48 hours in advance.

The point of contact for inquiries for this project is:

Katie Winter, P.E.
Email: katie.winter@alaska.gov
Phone: (907) 269-8736

A bidder may direct questions concerning bidding procedures and requirements to:

Rys Miranda, P.E.
Chief, Design & Construction
550 W. 7th Ave., Suite 1340
Anchorage AK 99501
E-Mail: rys.miranda@alaska.gov
Phone: (907) 269-6410

Other Information:

Bid results are available approximately 30 minutes after bid opening at
<http://dnr.alaska.gov/parks/designconstruct/bidcalresults.htm>

SPECIAL NOTICE TO BIDDERS

The Department hereby notifies bidders that information to assist in preparing bids is available.

1. Publications. The following are available from the Plans Room, download online, or as noted:
 - a. Standard Specifications for Highway Construction, 2020 Edition comb bound (\$25.00), download at: www.dot.state.ak.us/stwddes/dcsspecs/assets/pdf/hwyspecs/sshc2020.pdf, or order bound book from LuLu at: <https://www.lulu.com/en/us/shop/state-of-alaska-dept-of-transportation/2020-alaska-standard-specification-for-highway-construction/paperback/product-1gq9j9qk.html>.
 - b. Alaska Test Methods Manual (Lab & Field), May 19, 2025 Edition (\$25.00). Available online at: www.dot.state.ak.us/stwddes/desmaterials/mat_waqtc/testman.shtml.
 - c. Alaska Storm Water Pollution Prevention Plan Guide, March 2021. Available at: www.dot.state.ak.us/stwddes/desenviron/resources/stormwater.shtml.
2. Other Publications. These items are available upon request from the Department of Natural Resources, Division of Parks & Outdoor Recreation, Design & Construction Section at 550 West 7th Avenue, Suite 1340, Anchorage, AK:
 - a. Estimate of Quantity Computations.
 - b. Northern Geotechnical Engineering, Geotechnical Report # 7115-24
3. Materials Certification List (MCL). The MCL provides the Engineer with the appropriate approving authority. Contractor, submit certification for each material to the Engineer. The MCL is included in Appendix E.
4. Buy America Provision. Effective for Federal award obligations after October 23, 2023, meet the requirements at 2 CFR 184 for construction materials.

Iron products, steel products, and predominantly iron or steel manufactured products remain subject to the requirements of 23 CFR 635.410 and related FHWA Interpretations and waivers.

Manufactured products that are not predominantly iron or steel continue to be waived under FHWA's 1983 waiver of manufactured products.

On August 16, 2023, USDOT issued a waiver at 88 FR 55817 applicable to construction materials on FHWA funded projects.

HSP20-7A revises the specifications in 106-1.01 to incorporate these new requirements.

2 CFR 184: <https://www.federalregister.gov/documents/2023/08/23/2023-17724/guidance-for-grants-and-agreements>.

23 CFR 635.410: <https://www.govinfo.gov/content/pkg/CFR-2022-title23-vol1/xml/CFR-2022-title23-vol1-sec635-410.xml>.

5. Electronic Bidding. The Department is not able to receive bids electronically. All bidding documents must be submitted by mail or hand delivered. Documents shall be submitted in a sealed envelope.
6. Material Sources. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any federal-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g. a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify the Department prior to extracting material. The Department must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a subrecipient or their contractor commencing borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at closeout.
7. Cultural and Archaeological Survey for Material Sources. All material sources associated with this project must conform to AS 41.35.070 and have documented survey showing no adverse effects to historic, prehistoric, or archaeological resources. A list of qualified consultants approved to perform cultural/archaeological surveys can be found at: <http://dnr.alaska.gov/parks/oha/grant/contractorlistcurrent.pdf>.
8. Contract Price Adjustment(s). The Department will not provide cost escalation or de-escalation price adjustment for this contract, except for specific items described in the bid package at the time of bid opening.
9. Public Access Plan. Please refer to Section 643-1.04. Close coordination between the Contractor and the Department will be required to allow public access to the trailhead and trail entrances as practicable during construction. The Contractor shall develop and submit a Public Access Plan, in addition to a Traffic Control Plan, outlining construction phasing and public access coordination measures.
10. Limitation of Operations. Please refer to Section 652-1.04 of the Special Provisions. Only clearing work shall be allowed during the remainder of the 2026 construction season. The Contractor shall not perform any grubbing work during 2026.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

REQUIRED DOCUMENTS

Federal-Aid Contracts (Non-FHWA)

REQUIRED FOR BID. Bids will not be considered if the following documents are not completely filled out and submitted at the time of bidding:

1. **Bid Forms**
 - a. **Bid Form (Form 25D-09DNR)**
 - b. **Bid Schedule**
 - c. **Bid Attachments (as applicable)**
 - d. **Addenda Acknowledgement (as applicable)**
2. **Bid Bond (Form 25D-14DNR)**

REQUIRED FOR BID MODIFICATIONS. Any bid revisions must be submitted by the bidder prior to bid opening. Use the following form to modify Manual (paper) bids:

3. **Bid Modification (Form 25D-16DNR)**
-

REQUIRED AFTER NOTICE OF APPARENT LOW BIDDER. The apparent low bidder is required to complete and submit the following documents within 5 working days after receipt of written notification:

1. **Subcontractor List (Form 25D-5DNR)**
-

REQUIRED FOR AWARD. In order to be awarded the contract, the successful bidder must completely fill out and submit the following documents within the time specified in the intent to award letter:

1. **Construction Contract (Form 25D-10HDNR)**
2. **Payment Bond (Form 25D-12DNR)**
3. **Performance Bond (Form 25D-13DNR)**
4. **Contractor's Questionnaire (25D-08DNR)**
5. **Certificate of Insurance (from carrier)**
6. **EEO-1 Certification (Form 25A-304DNR)**
7. **Material Origin Certification (Form 25D-60DNR)**



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

FEDERAL EEO BID CONDITIONS

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT
SPECIFICATIONS (EXECUTIVE ORDER 11246). FOR ALL NON-EXEMPT FEDERAL AND FEDERALLY-
ASSISTED CONSTRUCTION CONTRACTS TO BE AWARDED IN THE STATE OF ALASKA

1. Definitions. As used in these specifications:
 - a. **“Covered area”** means the geographical area described in the solicitation from which this contract resulted;
 - b. **“Director”** means Director, Office of Federal Contract Compliance Programs (OFCCP), United States Department of Labor (DOL), or any persons to whom the Director delegates authority;
 - c. **“Employer”** identification number” means the Federal Social Security number used on the Employer’s Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. **“Minority”** includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race);
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaska Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the DOL in the covered area, either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades that have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or subcontractors toward a goal in an approved Plan does not excuse any covered Contractor’s or subcontractor’s failure to make good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7(a) through 7(p) of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

Covered construction contractors performing construction work in geographical areas where they do not have a federal or federally-assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any OFCCP office or from federal procurement contracting officers.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period of an approved training program and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligations to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the DOL. The Contractor shall provide notice of these programs to the sources compiled under 7(b) above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendent, general foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and dispositions of the subject matter.
 - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
 - i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are nonsegregated except that separate or single-used toilet, necessary changing facilities and necessary sleeping facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontractors from minority and female construction contractors and suppliers, including circulations of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations 7(a) through 7(p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any or more of its obligations under 7(a) through 7(p) of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.)
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any subcontract with any person or firm debarred from government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the OFCCP. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunities. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic apprentice, trainees, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that the existing records satisfy this requirement, Contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Programs).
16. The Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
17. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as set forth in item 20.

These goals as listed in item 20 are applicable to all the Contractor's construction work (whether or not it is federal or federally-assisted) performed in the covered area.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally and non-federally involved construction.

The hours on minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women

evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

18. The Contractor shall provide written notification to the Department, for all subcontracts documents as follows: the name, address and telephone number of subcontractors and their employer identification number; the estimated dollar amount of the subcontracts; estimated starting and completion dates of the subcontracts; and the geographical area in which the contract is to be performed.

This written notification shall be required for all construction subcontracts in excess of \$10,000 at any tier for construction work under the contract resulting from this project's solicitation.

19. As used in the Bid Notice, and in the contract resulting from this project's solicitation, the "covered area" is the State of Alaska.

20. Goal and Timetable

- a. The following goal and timetable for female utilization shall be included in all federal and federally-assisted construction contracts and subcontracts in excess of \$10,000. The goal is applicable to the Contractor's aggregate on-site construction work force whether or not part of that work force is performing work on a federal or federally assisted construction contract or subcontract.

ALASKA GOAL AND TIMETABLE FOR WOMEN*

Timetable

Goal **

Until Further Notice

6.9%

- b. The following goals and timetable for minority utilization shall be included in all federal or federally-assisted construction contracts and subcontracts in excess of \$10,000 to be performed in Alaska. The goals are applicable to the Contractor's aggregate on-site construction work force whether or not part of that work force is performing work on a federal or federally-assisted construction contract or subcontract.

ALASKA GOALS AND TIMETABLE FOR MINORITY UTILIZATION

Timetable

Economic Area (EA)***

Goals **

Until Further Notice

Anchorage SMSA Area

08.7%

Remainder of State

15.1%

* The goal and timetable for women listed above applies to Alaska as well as nationwide.

** The Director, from time to time, shall issue goals and timetables for minority and female utilization that shall be based on appropriate work force, demographic or other relevant data and which shall cover construction projects, or construction contracts performed in specific geographical areas. The goals shall be applicable to each construction trade in a covered Contractor's or subcontractor's entire work force which is working in the area covered by the goals and timetables, shall be published as notices in the FEDERAL REGISTER, and shall be inserted by the contracting officers and applicants, as applicable, in the Notice required by 41 CFR 60-4.2. Covered construction contractors performing construction work in geographical areas where they do not have a federal or federally-assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed.

***Refer to the Standard Metropolitan Statistical Areas (SMSA) and Economic Areas (EA), Office of Management and Budget, 1975.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

SUBCONTRACTOR LIST

CSP: Rabbit Valley Trailhead Improvements, Project No. 73103-2

Project Name and Number

The apparent low bidder shall complete this form and submit it so as to be received by the Contracting Officer prior to the close of business on the fifth working day after receipt of written notice from the Department.

An apparent low bidder who fails to submit a completed Subcontractor List form within the time allowed will be declared non-responsible and may be required to forfeit the bid security.

Scope of work must be clearly defined. If an item of work is to be performed by more than one firm, indicate the portion or percent of work to be done by each.

Check as applicable: ☐ All Work on the above-referenced project will be accomplished without subcontracts

Or

☐ List all first tier Subcontractors as follows:

FIRM NAME, ADDRESS, PHONE NO.	AK BUSINESS LICENSE NO., CONTRACTOR'S REGISTRATION NO.	SCOPE OF WORK TO BE PERFORMED

CONTINUE SUBCONTRACTOR INFORMATION ON REVERSE

For projects with federal-aid funding, I hereby certify Alaska Business Licenses and Contractor Registrations will be valid for all subcontractors prior to award of the subcontract. For projects without federal-aid funding (State funding only), I hereby certify the listed Alaska Business Licenses and Contractor Registrations were valid at the time bids were opened for this project.

Signature of Authorized Company Representative

Title

Company Name

Company Address (Street or PO Box, City, State, Zip)

Date

Phone Number

2. What percent of the total value of this contract do you intend to subcontract? _____ %

3. Do you propose to purchase any equipment for use on this project?

☐ No ☐ Yes If YES, describe type, quantity, and approximate cost:

4. Do you propose to rent any equipment for this work?

☐ No ☐ Yes If YES, describe type and quantity:

5. Is your bid based on firm offers for all materials necessary for this project?

☐ Yes ☐ No If NO, please explain:

C. EXPERIENCE

1. Have you had previous construction contracts or subcontracts with the State of Alaska?

☐ Yes ☐ No

Describe the most recent or current contract, its completion date, and scope of work:

2. List, as an attachment to this questionnaire, other construction projects you have completed, the dates of completion, scope of work, and total contract amount for each project completed in the past 12 months.

I hereby certify that the above statements are true and complete.

Name of Contractor

Name and Title of Person Signing

Signature

Date



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BID FORM

for

CSP: Rabbit Valley Trailhead Improvements, Project No. 73103-2

Project Name and Number

by

Company Name

Company Address (Street or PO Box, City, State, Zip)

**TO THE CONTRACTING OFFICER,
DEPARTMENT OF NATURAL RESOURCES:**

In compliance with your Invitation to Bid dated August 11th, 2026, the Undersigned proposes to furnish and deliver all the materials and do all the work and labor required in the construction of the above-referenced Project, located at or near Anchorage, Alaska, according to the plans and specifications and for the amount and prices named herein as indicated on the Bid Schedule consisting of 3 sheets, which is made a part of this Bid.

The Undersigned declares that he has carefully examined the contract requirements and that he has made a personal examination of the site of the work; that he understands that the quantities, where such are specified in the Bid Schedule or on the plans for this project, are approximate only and subject to increase or decrease, and that he is willing to perform increased or decreased quantities of work at unit prices bid under the conditions set forth in the Contract Documents.

The Undersigned hereby agrees to execute the said contract and bonds within fifteen calendar days, or such further time as may be allowed in writing by the Contracting Officer, after receiving notification of the acceptance of this bid, and it is hereby mutually understood and agreed that in case the Undersigned does not, the accompanying bid guarantee shall be forfeited to the State of Alaska, Department of Transportation and Public Facilities as liquidated damages, and the said Contracting officer may proceed to award the contract to others.

The Undersigned agrees to commence the work within 10 calendar days, and to complete the work within N/A calendar days, after the effective date of the Notice to Proceed, or by October 1, 2027, unless extended in writing by the Contracting Officer.

The Undersigned proposes to furnish Payment Bond in the amount of **100%** (of the contract) and Performance Bond in the amount of **100%** (of the contract), as surety conditioned for the full, complete and faithful performance of this contract.

The Undersigned acknowledges receipt of the following addenda to the drawings and/or specifications (give number and date of each).

Addenda Number	Date Issued	Addenda Number	Date Issued	Addenda Number	Date Issued

NON-COLLUSION DECLARATION

The Undersigned declares, under penalty of perjury under the laws of the United States, that neither he nor the firm, association, or corporation of which he is a member, has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this bid.

The Undersigned has read the foregoing and hereby agrees to the conditions stated therein by affixing his signature below:

Signature of Authorized Company Representative

Typed Name and Title

()

Phone Number

()

Fax Number

Email Address



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BID SCHEDULE

Project Name: CSP: Rabbit Valley Trailhead Improvements

Project Number: 73103-2

Before preparing this bid schedule, read carefully, Section 102 of the 2020 edition of the Standard Specifications for Highway Construction, and the following:

The Bidder shall insert, as called for, a unit price or lump sum price in figures opposite each pay item for which an estimated quantity appears in the bid schedule. A unit price or lump sum price is not to be entered or tendered for any pay item not appearing in the bid schedule. The estimated quantity of work for payment on a lump sum basis will be "All Required" (All Req'd) and as further specified in the contract.

Whenever a Contingent Sum is shown for any item in this schedule, such amount shall govern and be included in the bid total.

Conditioned or qualified bids will be considered non-responsive.

The bidder shall insert a unit bid price for each pay item listed below. Type or print legibly.

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** BASIC BID *****					
201.0001.0000	Clearing and Grubbing	ACRE	2.20	\$	\$
202.0001.0000	Removal of Structures and Obstructions	LS	ALL REQ'D	\$ [LUMP SUM]	\$
203.0003.0000	Unclassified Excavation	CY	10,500	\$	\$
203.0006.000A	Borrow, Type A	TON	6,100	\$	\$
301.0005.0RAM	Recycled Asphalt Material	TON	550	\$	\$
530.0001.0000	Modular Concrete Block Retaining Wall	SF	2,228	\$	\$
603.0001.0024	24-inch CSP	LF	150	\$	\$
603.0003.0024	End Section for 24-inch CSP	EA	4	\$	\$
603.2000.0001	Remote Thaw Wire	EA	3	\$	\$
611.0002.0001	Riprap, Class 1	TON	200	\$	\$

BID SCHEDULE
CSP Rabbit Valley
Trailhead Improvements
Project No. 73103-2

Name of Bidding Firm _____

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** CONTINUE BASIC BID *****					
615.0001.0000	Standard Sign	SF	14.5	\$	\$
618.0002.0000	Seeding	LB	162	\$	\$
620.0001.000B	Topsoil, Class B	SY	9,000	\$	\$
622.2005.00SE	Single Entrance Gate	EACH	1	\$	\$
622.2010.0000	Concrete Parking Bumper	EACH	58	\$	\$
622.2012.0000	Barrier Rock	EACH	15	\$	\$
622.2015.000D	Interpretive Panel, Type D	EACH	2	\$	\$
622.2017.0000	Orientation Kiosk	EACH	1	\$	\$
622.2035.0000	Bike Repair Station	EA	1	\$	\$
630.0001.0003	Geotextile Separation, Class 3	SY	750	\$	\$
630.0003.0001	Geotextile Reinforcement, Type 1	SY	520	\$	\$
640.0001.0000	Mobilization and Demobilization	LS	ALL REQ'D	\$ [LUMP SUM]	\$
641.0001.0000	Erosion, Sediment and Pollution Control Administration	LS	ALL REQ'D	\$ [LUMP SUM]	\$
641.0002.0000	Temporary Erosion, Sediment and Pollution Control	CS	ALL REQ'D	\$ 18,000.00	\$ 18,000.00
641.0006.0000	Withholding	CS	ALL REQ'D	\$ 0.00	\$ 0.00
642.0001.0000	Construction Surveying	LS	ALL REQ'D	\$ [LUMP SUM]	\$
642.0003.0000	Three Person Survey Party	HOURL	5	\$	\$
642.0005.0000	Set Secondary Monument	EACH	4	\$	\$
642.0014.0000	As-Built Survey	LS	ALL REQ'D	\$ [LUMP SUM]	\$

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
-----------------	----------------------	----------	----------	----------------	------------

***** CONTINUE BASIC BID *****

643.0002.0000	Traffic Maintenance	LS	ALL REQ'D	\$ [LUMP SUM]	\$
647.0006.0000	Hydraulic Excavator 1 C.Y., 100 HP Min	HOURL	20	\$	\$
654.2002.0000	Double Concrete Vaulted Toilet	EACH	1	\$	\$
TOTAL BASIC BID					\$

No: _____ Expires _____
Alaska Business License

No: _____ Expires _____
Alaska Contractor's License

BID SCHEDULE
CSP Rabbit Valley
Trailhead Improvements
Project No. 73103-2

Name of Bidding Firm _____



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

CONSTRUCTION CONTRACT

CSP: Rabbit Valley Trailhead Improvements, Project No. 73103-2

Project Name and Number

This CONTRACT, between the STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES, herein called the Department, acting by and through its Contracting Officer, and

Company Name

Company Address (Street or PO Box, City, State, Zip)

a/an ☐ Individual ☐ Partnership ☐ Joint Venture ☐ Sole Proprietorship ☐ Corporation incorporated under the laws of the State of _____, its successors and assigns, herein called the Contractor, is effective the date of the signature of the Contracting Officer on this document.

WITNESSETH: That the Contractor, for and in consideration of the payment or payments herein specified and agreed to by the Department, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work and labor required in the construction of the above-referenced project at the prices bid by the Contractor for the respective estimated quantities aggregating approximately the sum of

Dollars
(\$ _____), and such other items as are mentioned in the original Bid, which Bid and prices named, together with the Contract Documents are made a part of this Contract and accepted as such. *The Alaska Standard Specifications for Highway Construction*, 2020 Edition is incorporated by reference and made a part hereof as if set forth in full. *The Alaska Standard Specifications for Highway Construction* can be downloaded at <http://www.dot.state.ak.us/stwddes/dcsspecs/index.shtml>.

It is distinctly understood and agreed that no claim for additional work or materials, done or furnished by the Contractor and not specifically herein provided for, will be allowed by the Department, nor shall the Contractor do any work or furnish any material not covered by this Contract, unless such work is ordered in writing by the Department. In no event shall the Department be liable for any materials furnished or used, or for any work or labor done, unless the materials, work, or labor are required by the Contract or on written order furnished by the Department. Any such work or materials which may be done or furnished by the Contractor without written order first being given shall be at the Contractor's own risk, cost, and expense and the Contractor hereby covenants and agrees to make no claim for compensation for work or materials done or furnished without such written order.

The Contractor further covenants and agrees that all materials shall be furnished and delivered and all labor shall be done and performed, in every respect, to the satisfaction of the Department, on or before: October 1, 2027 or within N/A calendar days. It is expressly understood and agreed that in case of the failure on the part of the Contractor, for any reason, except with the written consent of the Department, to complete the furnishing and delivery of materials and the doing and performance of the work before the aforesaid date, the Department shall have the right to deduct from any money due or which may become due the Contractor, or if no money shall be due, the Department shall have the right to recover [SECTION 108-1.07] dollars (\$ [SECTION 108-1.07]) per day for each calendar day elapsing between the time stipulated for the completion and the actual date of completion in accordance with the terms hereof; such deduction to be made, or sum to be recovered, not as a penalty but as liquidated damages.

The bonds given by the Contractor in the sum of \$ [100% OF CONTRACT] Payment Bond, and \$ [100% OF CONTRACT] Performance Bond, to secure the proper compliance with the terms and provisions of this Contract, are submitted herewith and made a part hereof.

IN WITNESS WHEREOF, the parties hereto have executed this Contract and hereby agree to its terms and conditions.

CONTRACTOR

Company Name

Signature of Authorized Company Representative

Typed Name and Title

Date

(Corporate Seal)

**STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES**

Signature of Contracting Officer

Typed Name

Date



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

PAYMENT BOND

Bond No. _____

For

CSP: Rabbit Valley Trailhead Improvements, Project No. 73103-2

Project Name and Number

KNOW ALL WHO SHALL SEE THESE PRESENTS:

That _____
of _____ as Principal,
and _____
of _____ as Surety,
firmly bound and held unto the State of Alaska in the penal sum of _____ Dollars

(\$ _____) good and lawful money of the United States of America for the payment whereof, well and truly to be paid to the State of Alaska, we bind ourselves, our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has entered into a written contract with said State of Alaska, on the _____ of _____ A.D., 20____, for construction of the above-referenced project, said work to be done according to the terms of said contract.

Now, THEREFORE, the conditions of the foregoing obligation are such that if the said Principal shall comply with all requirements of law and pay, as they become due, all just claims for labor performed and materials and supplies furnished upon or for the work under said contract, whether said labor be performed and said materials and supplies be furnished under the original contract, any subcontract, or any and all duly authorized modifications thereto, then these presents shall become null and void; otherwise they shall remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands and seals at _____, _____ this _____ day of _____ A.D., 20____.

Principal: _____

Address: _____

By: _____

Contact Name: _____

Phone: () _____

Surety: _____

Address: _____

By: _____

Contact Name: _____

Phone: () _____

The offered bond has been checked for adequacy under the applicable statutes and regulations:

Alaska Department of Natural Resources Authorized Representative

Date

See Instructions on Reverse

INSTRUCTIONS

1. This form, for the protection of persons supplying labor and material, shall be used whenever a payment bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
2. The full legal name, business address, phone number, and point of contact of the Principal and Surety shall be typed on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be typed in words and in figures.
4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.
5. The bond shall be signed by authorized persons. Where such persons are signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

PERFORMANCE BOND

Bond No. _____

For

CSP: Rabbit Valley Trailhead Improvements, Project No. 73103-2

Project Name and Number

KNOW ALL WHO SHALL SEE THESE PRESENTS:

That _____
of _____ as Principal,
and _____
of _____ as Surety,
firmly bound and held unto the State of Alaska in the penal sum of _____ Dollars

(\$ _____) good and lawful money of the United States of America for the payment whereof,
well and truly to be paid to the State of Alaska, we bind ourselves, our heirs, successors, executors, administrators, and assigns,
jointly and severally, firmly by these presents.

WHEREAS, the said Principal has entered into a written contract with said State of Alaska, on the _____ of _____
A.D., 20____, for construction of the above-named project, said work to be done according to the terms of said contract.

Now, THEREFORE, the conditions of the foregoing obligation are such that if the said Principal shall well and truly perform and
complete all obligations and work under said contract and if the Principal shall reimburse upon demand of the Department of
Transportation and Public Facilities any sums paid him which exceed the final payment determined to be due upon completion of the
project, then these presents shall become null and void; otherwise they shall remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands and seals at _____,
_____ this _____ day of _____ A.D., 20____.

Principal: _____

Address: _____

By: _____

Contact Name: _____

Phone: () _____

Surety: _____

Address: _____

By: _____

Contact Name: _____

Phone: () _____

The offered bond has been checked for adequacy under the applicable statutes and regulations:

Alaska Department of Natural Resources Authorized Representative

Date

See Instructions on Reverse

INSTRUCTIONS

1. This form shall be used whenever a performance bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
2. The full legal name, business address, phone number, and point of contact of the Principal and Surety shall be typed on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be typed in words and in figures.
4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.
5. The bond shall be signed by authorized persons. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BID BOND

For

CSP: Rabbit Valley Trailhead Improvements, Project No. 73103-2

Project Name and Number

DATE BOND EXECUTED: _____

PRINCIPAL (Legal name and business address):

TYPE OF ORGANIZATION:

	☐ Individual	☐ Partnership
	☐ Joint Venture	☐ Corporation
STATE OF INCORPORATION:		

SURETY(IES) (Name and business address):

A.	B.	C.
PENAL SUM OF BOND:		DATE OF BID:

We, the PRINCIPAL and SURETY above named, are held and firmly bound to the State (State of Alaska), in the penal sum of the amount stated above, for the payment of which sum will be made, we bind ourselves and our legal representatives and successors, jointly and severally, by this instrument.

THE CONDITION OF THE FOREGOING OBLIGATION is that the Principal has submitted the accompanying bid in writing, date as shown above, on the above-referenced Project in accordance with contract documents filed in the office of the Contracting Officer, and under the Invitation for Bids therefor, and is required to furnish a bond in the amount stated above.

If the Principal's bid is accepted and he is offered the proposed contract for award, and if the Principal fails to enter into the contract, then the obligation to the State created by this bond shall be in full force and effect.

If the Principal enters into the contract, then the foregoing obligation is null and void.

PRINCIPAL

Signature(s)	1.	2.	3.
Name(s) & Title(s) (Typed)	1.	2.	3.

See Instructions on Reverse

Corporate
Seal

CORPORATE SURETY(IES)

Surety A	Name of Corporation	State of Incorporation	Liability Limit \$
Signature(s)	1.	2.	Corporate Seal
Name(s) & Titles (Typed)	1.	2.	

Surety B	Name of Corporation	State of Incorporation	Liability Limit \$
Signature(s)	1.	2.	Corporate Seal
Name(s) & Titles (Typed)	1.	2.	

Surety C	Name of Corporation	State of Incorporation	Liability Limit \$
Signature(s)	1.	2.	Corporate Seal
Name(s) & Titles (Typed)	1.	2.	

INSTRUCTIONS

1. This form shall be used whenever a bid bond is submitted.
2. Insert the full legal name and business address of the Principal in the space designated. If the Principal is a partnership or joint venture, the names of all principal parties must be included (e.g., "Smith Construction, Inc. and Jones Contracting, Inc. DBA Smith/Jones Builders, a joint venture"). If the Principal is a corporation, the name of the state in which incorporated shall be inserted in the space provided.
3. Insert the full legal name and business address of the Surety in the space designated. The Surety on the bond may be any corporation or partnership authorized to do business in Alaska as an insurer under AS 21.09. Individual sureties will not be accepted.
4. The penal amount of the bond may be shown either as an amount (in words and figures) or as a percent of the contract bid price (a not-to-exceed amount may be included).
5. The scheduled bid opening date shall be entered in the space marked Date of Bid.
6. The bond shall be executed by authorized representatives of the Principal and Surety. Corporations executing the bond shall also affix their corporate seal.
7. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
8. The states of incorporation and the limits of liability of each surety shall be indicated in the spaces provided.
9. The date that bond is executed must not be later than the bid opening date.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BID MODIFICATION

CSP: Rabbit Valley Trailhead Improvements, Project No. 73103-2

Project Name and Number

Modification Number: _____

Note: Use this form to modify Manual (paper) bids only.

- Group items and provide subtotals by bid schedule section.
- All revisions shall be made to the unadjusted bid amount(s).
- Changes to the adjusted bid amounts will be computed by the Department.

LINE NO.	ITEM NO.	PAY ITEM DESCRIPTION	REVISION TO UNIT BID PRICE +/-	REVISION TO BID AMOUNT +/-

TOTAL REVISION: \$ _____

Name of Bidding Firm

Responsible Party Signature

Date

This form may be duplicated if additional pages are needed.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

EEO-1 CERTIFICATION
Federal-Aid Contracts

CSP: Rabbit Valley Trailhead Improvements, Project No. 73103-2

Project Name and Number

This certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor [41 CFR 60-1.7 (b) (1)] and must be completed by the successful Bidder and each proposed Subcontractor participating in this contract.

PLEASE CHECK APPROPRIATE BOXES

The ☐ Bidder ☐ Proposed Subcontractor hereby CERTIFIES:

PART A Bidders and proposed Subcontractors with 50 or more year-round employees and a federal contract amounting to \$50,000 or more are required to submit one federal Standard Report Form 100 during each year that the two conditions exist (50 employees and a \$50,000 federal contract).

The company named below (Part C) is exempt from the requirements of submitting the Standard Report Form 100 this year.

☐ NO (go to PART B)

☐ YES (go to PART C)

Instructions and blank Standard Report Form 100's may be obtained from a local U.S. Department of Labor office, or by writing to:

The Joint Reporting Committee
P.O. Box 779
Norfolk, Virginia 23501

Telephone number: (757) 461-1213

PART B The company named below has submitted the Standard Report Form 100 this year.

☐ NO

☐ YES

Note: Bidders and proposed Subcontractors who have not filed the required Standard Report Form 100 and are not exempt from filing requirements will not be awarded this contract or subcontract until Form 100 has been filed for the current year ending June 30.

PART C

Signature of Authorized Company Representative	Title
Company Name	Company Address (Street or PO Box, City, State, Zip)
Date	Phone Number



MATERIAL ORIGIN CERTIFICATE

Federal-Aid Contracts

Project Name and Number: CSP: Rabbit Valley Trailhead Improvements, Project No. 73103-2

FOREIGN CONSTRUCTION MATERIALS AND PRODUCTS ¹	COUNTRY OF ORIGIN	COST ²

I certify under penalty of law that all construction materials, steel products, and iron products to be furnished for this project are manufactured in the United States, and comply with the requirements of Public Law No. 117-58, Sections 70901-52, 23 CFR 635.410, and Contract subsection 106-1.01, Buy America Provisions; except for those foreign construction materials and products that are listed on this page or on a separate and clearly identified attachment.³ The term “manufactured in the United States” is defined in Contract subsection 106-1.01, Buy America Provision.

I certify that I have knowledge that submitting false statements and/or information may result in civil and criminal penalties.

Authorized Corporate Signature

Date

Printed Name

Contractor's Company Name

Position Title

Form 25D-60 Instructions:

1. Enter "NONE" on the first line if there are no exceptions.
2. Invoice cost for foreign construction materials, steel products, and iron products as delivered to the project including freight.
3. When the Contractor becomes aware of a change from or error in a previously submitted Material Origin Certificate, the Contractor shall submit an updated Material Origin Certificate. The Department of Transportation and Public Facilities shall not accept or approve any Material Origin Certificate over the limit specified in the contract.
4. Attach additional complete form sheets if necessary to include more than one page of materials and products.

SPECIAL PROVISIONS

to the

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

2020 STANDARD SPECIFICATIONS for HIGHWAY CONSTRUCTION

CSP: RABBIT VALLEY

TRAILHEAD IMPROVEMENTS

PROJECT NUMBER 73103-2

SECTION 101 DEFINITIONS AND TERMS

101-1.03 DEFINITIONS.

DEPARTMENT. Replace with the following: The Alaska Department of Natural Resources, Division of Parks and Outdoor Recreation. (01/01/01)PARKS-Special Provision

ROADWAY. Replace with the following: The portion of a highway or facility including shoulders within the limits of construction. (03/01/24)PARKS-Special Provision

SECTION 102
BIDDING REQUIREMENTS AND CONDITIONS

102-1.04 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND WORK SITE. Add the following after the second paragraph: Material Reports and/or Soils Investigation Reports are found in Appendix D. (01/01/05)PARKS-Special Provision

**SECTION 103
AWARD AND EXECUTION OF CONTRACT**

103-1.01 INTENT OF CONTRACT.

Replace the second paragraph with the following:

The Contractor is responsible for the means, methods, techniques, sequence, and procedures of construction, safety, and quality control. This includes ensuring safety and overseeing the safety of all personnel and Subcontractors. In the event of a multi-employer site, the Contractor is the controlling employer responsible for coordinating site-wide safety efforts, ensuring compliance with applicable safety regulations, and mitigating potential hazards across all employees, Subcontractors or suppliers on the site, consistent with any applicable federal, state, and local laws, rules, regulations, and ordinances.

HSM20.53-25.0610

SECTION 105 CONTROL OF WORK

105-1.02 PLANS AND WORKING DRAWINGS. Add the following to the first paragraph:
Full size plan sheets are 11" by 17". Plans are not available in CAD digital format.
(01/01/01) PARKS-Special Provision

105-1.05 COOPERATION BY CONTRACTOR.

Replace the second paragraph with the following:

Either the Contractor's Superintendent or an acting Superintendent with authority to represent and act for the Contractor shall be available on-site, or within a reasonable distance to ensure timely response and oversight of the project whenever work is occurring. The Contractor shall employ, as its agent, a competent superintendent thoroughly experienced in the work being performed and capable of reading and thoroughly understanding the Plans and Specifications.

The Contractor shall be responsible for maintaining a safe work environment, ensuring compliance with all applicable safety regulations, and overseeing the safety of all work being performed. The Superintendent shall have the Contractor's authority to stop work and implement immediate corrective action if safety concerns arise, or if the work is not being performed in accordance with the Contract documents.

The Contractor shall provide 24-hour contact information for the Superintendent. The Contractor shall ensure that the superintendent is available at all times to receive and execute Directives and other instructions from the Engineer, to supervise personnel and to coordinate the work of subcontractors. The Contractor shall give the superintendent full authority to supply the resources required. The Contractor shall furnish superintendence regardless of the amount of work sublet.

HSM20.52-25.0610

105-1.13 MAINTENANCE DURING CONSTRUCTION.

Replace the first sentence of the first paragraph with the following: The Contractor shall maintain the entire area located within the project limits from the date construction begins until the Contractor receives a letter of substantial completion. (03/09/17) PARKS-Special Provision

105-1.15 PROJECT COMPLETION.

Replace the 1st sentence in the 3rd paragraph with the following:

When all physical work and cleanup provided for under the Contract is found to be complete, except for work specified for Period of Establishment, the Engineer will issue a letter of project completion.

CR105.6-23.0601

SECTION 106 CONTROL OF MATERIALS

106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS.

Add the following:

PROHIBITION ON CERTAIN TELECOMMUNICATION AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT. On projects using federal funds, the Contractor shall comply with the requirements of 2 CFR 200.216, Prohibition on certain telecommunication and video surveillance services or equipment, including any future amendments thereto that are applicable to the project.

By submitting a bid or by execution of the contract, the Contractor certifies that it has not entered into a contract nor extended or renewed a contract to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system produced by:

- Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
- Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
- Any entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

The Contractor further certifies that it has complied with the requirements of 2 CFR 200.216 and that it will continue to do so throughout the term of the Contract.

HSM20.20-21.1231

106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS.

Replace the fourth paragraph of 106-1.01 with the following:

The Contractor shall submit a certificate of compliance according to Subsection 106-1.05 for each item listed on the Material Certification List. The Engineer may authorize the use of articles, materials, or supplies based on a certificate of compliance Form 25D-62 Certificate of Domestic Materials Compliance. Materials incorporated into the project on the basis of a certificate of compliance may be tested or verified at any time, whether in place or not, and if they do not conform to Contract specifications, they may be rejected

SPECIAL PROVISIONS
CSP: RABBIT VALLEY
TRAILHEAD IMPROVEMENTS
PROJECT NO. 73103-2

and ordered removed under the Subsection 105-1.11.

Replace the BUY AMERICA PROVISION with the following:

DOMESTIC MATERIALS PREFERENCE PROVISION. On projects using federal-aid funds the Contractor shall ensure all Iron and Steel Products, Manufactured Products, and Construction Materials, incorporated into the project are produced in the United States as required by 23 CFR 635.410-Buy America requirements (Iron, Steel, and Manufactured Products), and 2 CFR 184-Buy America Preferences for Infrastructure Projects (Construction Materials).

Domestic material requirements apply when articles, materials, or supplies are permanently incorporated into the work. Domestic material requirements do not apply to articles, materials, or supplies: (i) brought temporarily to the construction site and removed at or before the completion of the project, e.g., tools, construction equipment, Jersey barriers; or (ii) used by the Contractor to facilitate construction that are left in place upon completion of the work and are not required to be permanently installed as part of the contract requirements.

An article, material, or supply shall only be classified as an iron or steel product, a manufactured product, a construction material, or other material. An article, material, or supply shall not be considered to fall into multiple categories.† The classification of an article, material, or supply as falling into one of the categories listed must be made based on its status at the time it is brought to the work site for incorporation into the project. The work site is the location of the project at which the articles, material, or supply will be incorporated.

†As addressed in paragraph 3) below, 23 CFR 635.410(c)(2) creates an exception to the single category requirement regarding precast concrete products (Precast Concrete) and intelligent transportation systems (ITS) and other electronic hardware systems cabinets and other enclosure.

DOMESTIC MATERIAL CATEGORIES:

1) IRON AND STEEL PRODUCTS (23 CFR 635.410). Defined as articles, materials, or supplies that consist wholly or predominantly of iron and steel or a combination of both. To be classified as domestic, all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

If the cost of iron and steel content of an article, material, or supply exceeds 50 percent of the total cost of all components, the iron and steel must meet the domestic materials requirements of the Iron and Steel Products of this provision. The remaining components are then exempt from any domestic procurement requirement.

The cost of iron or steel is the cost of the iron and steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product, or a good faith estimate of the cost of iron or steel components. Buy America

requirements do not apply to iron ore, pig iron, and processed, pelletized and reduced iron ore.

Iron and Steel Minimal Use:

All wholly or predominantly iron and steel, or a combination of both, products incorporated into the work, shall be manufactured in the United States. Minimal amounts of iron and steel products of foreign or unknown manufacture may be used, provided the aggregate cost of such does not exceed one tenth of one percent (0.001) of the total contract amount (established at award), or \$2,500, whichever is greater. For the purposes of this paragraph, the cost is the value of the products as they are delivered to the project, including shipping.

2) CONSTRUCTION MATERIALS (2 CFR 184). Defined as the articles, materials, or supplies that consist of only one of the items listed. Each material has a specific standard to be considered in compliance with domestic materials requirements. The items are:

- a. Non-ferrous metals. All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.
- b. Plastic and Polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiberoptic cables). All manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.
- c. Glass (including optic glass). All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.
- d. Fiber Optic Cable (including drop cable). All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-bases products, or any others.
- e. Optical Fiber. All manufacturing process, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.
- f. Lumber. All manufacturing processes, from initial debarking through treatment and planning, occurred in the United States.
- g. Drywall. All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.
- h. Engineered Wood. All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.

If a Construction Material contains, as minor additions, other Construction Materials, it remains classified as a Construction Material for the purposes of this section. Minor additions of articles, materials, supplies, or binding agents to a Construction Material do

not change the categorization of the construction material.

3) MANUFACTURED PRODUCTS (23 CFR 635.410). Defined as articles, materials, or supplies, that have been processed into a specific form and shape or combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies. Manufactured products are acceptable under this provision if the product was manufactured in the United States. For the purposes of this provision, "manufactured in the United States" means that the final assembly of the product occurred in the United States.

For Precast Concrete and ITS and other electronic hardware systems cabinets and other enclosures that are classified as manufactured products, the components that are predominantly steel or iron or a combination of both must comply with the domestic materials requirements of the Iron and Steel Products in paragraph 1) above.

Declare all manufactured products on Form 25D-62 regardless of their exemption.

4) OTHER MATERIALS. Defined as articles, materials, or supplies that do not meet the definition of Iron and Steel Products, Manufactured Products, or Construction Materials. These materials do not have any requirements for domestic sourcing. This includes the following items that are specifically categorized as other (excluded) materials per BABA Section 70917(c) of the Infrastructure Investment and Jobs Act of 2021.

1. Cement and cementitious materials;
2. Aggregates such as stone, sand, or gravel; or
3. Aggregate binding agents or additives

The Contractor shall submit a completed Non-Compliant Minimal Use & De Minimis Register, Form 25D-60, prior to award of the Contract. When the Contractor becomes aware of a change from or error in a previously submitted Form 25D-60, the Contractor shall submit an updated Form 25D-60 prior to incorporating the non-compliant item on the subject federal-aid Project, (as defined by the NEPA decision).

The Contractor shall submit a completed Certificate of Domestic Materials Compliance Form 25D-62 for all materials incorporated into the project. The Department will not allow installation of, nor pay for, products that must comply with Domestic Materials requirements until the Contractor has submitted acceptable Forms 25D-60 and 25D-62.

Non-compliant Iron and Steel Products, Manufactured Products, and Construction Materials in Excess of the minimal use and/or the de minimis amounts are prohibited and shall be immediately replaced at no expense to the State. Failure to comply may also subject the Contractor to default, suspension, or debarment.

The entity certifying Form 25D-62 may be the manufacturer, fabricator, vendor, or supplier; provided they have sufficient control and knowledge of the manufacturing

process to accept responsibility and certify full and complete conformance with 23 CFR 635.410, 2 CFR 200.322, and 2 CFR 184. The Prime Contractor shall also certify Form 25D-62. Provide additional certifications and backup documentation to signed Form 25D-62 when required by the Engineer. False statements may result in criminal penalties prescribed under AS 36.30.687 and Title 18 US Code Section 1001 and 1020.

The United States, Mexico, Canada Agreement (USMCA) does not apply to the Domestic Materials requirements.

De Minimis Waiver:

Notwithstanding the domestic materials requirements outlined in this section regarding Manufactured Products and Construction Materials, US DOT has adopted a limited, non-domestic content waiver regarding articles, materials, and supplies used in the project. As applicable here, US DOT has determined that it is in the public interest to waive domestic materials requirement for Manufactured Products and Construction Materials for which:

The total value of the non-compliant products is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project. In applying the waiver:

1. "Total value of non-compliant products" does not include the value of those products subject to a separate Buy America Waiver.
2. "Total applicable project cost" (as defined by the NEPA finding, determination, or decision and referenced in Form 25D-60) include the cost of materials used in the project that are subject to a domestic preference requirement, including materials that are within the scope of an existing waiver.

("Total value of non - compliant products" (Construction Materials + Manufactured Products))

$$\frac{\text{("Total value of non - compliant products" (Construction Materials + Manufactured Products))}}{\text{("Total applicable project costs" (Iron + Steel + Manufactured Products + Construction Materials))}} \times 100$$

HSP20.7B-25.1030

106-1.02 MATERIAL SOURCES.

Add the following under 5. Rights, Permits and Plan Approvals for Material Sources.

- c. Provide proof to the Engineer that all material sources associated with this project have been surveyed for historical and cultural resources by a qualified surveyor and approved by the Alaska Office of History and Archaeology (OHA) or State Historic Preservation Officer (SHPO).

(01/29/21) PARKS-Special Provision

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106-1.05 CERTIFICATES OF COMPLIANCE.

Replace the first four paragraphs of 106-1.05 with the following:

A certificate of compliance must meet one of the following:

1. If by manufacturer's certification, the certificate must include the project name and federal project number, the quantity represented, the signature of the manufacturer, and must include information that clearly demonstrates the material or assembly complies with all Contract requirements including for domestic materials preference.
2. If by Contractor's summary sheet, the summary sheet must include the project name and federal project number, the quantity represented, the signature of the contractor, and must include attached documentation that clearly demonstrates the material or assembly fully complies with all Contract requirements including for domestic materials preference.

HSP20.7B-25.1030

SECTION 107
LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107-1.02 PERMITS, LICENSES, AND TAXES.

The Department will: Add No. 3:

3. See Appendix A for all Department-secured permits.

(03/01/24)PARKS-Special Provision

The Contractor shall:

Replace No. 1. With the following:

1. Acquire all permits and licenses required to complete the project that are not acquired by the Department.
 - a. Complete all draft permits. Draft permits are included in Appendix A, when there are draft permits.

C107.2-21.0701

Add No. 10:

10. Provide a wetland specialist able to conduct wetlands determinations and delineations according to the Corps of Engineers 1987 Wetland Delineation Manual, and the Regional Supplement to the Corps of Engineers Wetland Delineations Manual (Alaska Region, Version 2.0, September 2007). The wetland specialist shall conduct the determination and delineations of sites outside the project limits or not previously permitted, impacted by the Contractor's operations. These delineations will be subject to Corps of Engineers approval.

C107.5-17.1201-1

Add No. 11:

11. A Municipality of Anchorage (MOA) Right-of-Way Use permit may be required. Contractor shall verify permit requirements. If a Right-of-Way Use permit is required the Municipality will require a copy of the approved Traffic Control Plan and a copy of the Notice to Proceed from the Contractor.

CR107.6-120117R

107-1.06 SANITARY, HEALTH, AND SAFETY PROVISIONS.

Replace the fourth paragraph with the following:

The Contractor is responsible for ensuring all workers are adequately protected. The Contractor shall have a safety and health management program that complies with AKOSH requirements, and includes:

1. A Site Specific Safety Plan(s) (SSSP) prior to the commencement of work. This plan must outline the safety measures and procedures to be followed on-site, ensuring compliance with all applicable federal, state, and local safety regulations.
2. The SSSP shall be accessible to all contractor personnel and subcontractors, and provided to the Department upon request.
3. A hazard analysis prior to the commencement of work. It must specifically focus on the job functions and the hazards associated with performing them. The contractor is responsible for ensuring that all necessary personnel are informed of and follow the hazard analysis guidelines.
4. New employee training and periodic worker training regarding safety and health.
5. Regular safety meetings with written documentation of attendance, safety topics discussed, worker safety complaints, and corrective actions taken; and
6. The Contractor shall implement a comprehensive Safety Program to oversee site safety, including the development and maintenance of the SSSP, hazard analysis, employee training, and safety meetings. The program must ensure compliance with safety regulations and promote a proactive safety culture. For specific tasks, refer to Subsection 108-1.03.

HSM20.49-25.0610

107-1.07 ARCHAEOLOGICAL OR HISTORICAL DISCOVERIES.

Replace the 1st sentence including numbers 1, 2, and 3, with:

When operation encounters historic or prehistoric artifacts, burials, remains of dwelling sites, paleontological remains, (shell heaps, land or sea mammal bones or tusks, or other items of historical significance), cease operations immediately and notify the Engineer.

C107.3-17.0515

107-1.11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.

Add the following:

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Non-municipal Water Source. If water is required for a construction purpose from a nonmunicipal water source, obtain a Temporary Water Use Permit from the Water Resource Manager, and provide a copy to the Engineer. The Water Resource Manager is with the Department of Natural Resources in Anchorage and may be contacted at (907) 269-8645.

C107.3-17.0515

Add the following:

Eagles. Eagles are protected under 16 U.S.C. 668-668c Protection of Bald and Golden Eagles, that prohibits “takes” of eagles, their eggs, nests, or any part of the bird. The Act defines “taking” as “to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.”

Maintain a Primary Zone of minimum 330-feet as an undisturbed habitat buffer around nesting eagles. If topography or vegetation does not provide an adequate screen or separation, extend the buffer to 1320-feet, or a sufficient distance to screen the nest from human activities. The actual distance will depend on site conditions and the individual eagle’s tolerance for human activity. Within the Secondary Zone, between 330-feet and 660-feet from a nest tree, no obtrusive facilities, or major habitat modifications shall occur. If nesting occurs in sparse stands of trees, treeless areas, or where activities would occur within line-of-site of the nest, extend the buffer up to 2640-feet. No blasting, logging and other noisy, disturbing activities should occur during the nesting period (February 1 – August 31) within the primary or secondary zones.

Do not disturb a nesting eagle. Notify the Engineer when an active eagle nest is within the primary or secondary zones.

C107.1-18.1001

**SECTION 108
PROSECUTION AND PROGRESS**

108-1.01 SUBCONTRACTING OF CONTRACT.

In item 1g. replace AS 45.45.101(a) with AS 45.45.010(a).

In item 2f. replace AS 45.45.101(a) with AS 45.45.010(a).

HSM20.41-22.0101

Replace Subsection 108-1.01 1h. with the following:

1h. Other required items listed in Form 25D-042 are included in the subcontracts;

Replace Subsection 108-1.01 2g. with the following:

2g. Other required items listed in Form 25D-042, are included in the lower tier subcontracts;

C108.4-20.0101

Add the following Subsection 108-1.011 Related Sections:

108-1.011 RELATED SECTIONS.

Section 652, Prosecution and Progress – Supplemental Requirements

CR108.3-012816R

108-1.03 PROSECUTION AND PROGRESS. Replace the last sentence of the first paragraph with the following: Submit the following at the Preconstruction Conference:

Replace item 1. with the following:

1. A Critical Path Method (CPM) Schedule is required, in a format acceptable to the Engineer, showing the order the work will be carried out and the contemplated dates the Contractor and subcontractors will start and finish each of the salient features of the work, including scheduled periods of shutdown. Indicate anticipated periods of multiple shift work in the CPM Schedule. Revise the proposed CPM Schedule promptly. Promptly submit a revised CPM Schedule if there are substantial changes to the schedule, or upon request of the Engineer.

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Replace item 9. with the following: The Contractor shall provide a letter designating a

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Safety Officer, and designating that person's responsibilities and authority. The Safety Officer is responsible for the Safety Program. The Safety Officer must be familiar with the project plans, specifications, and proposed operations and have the necessary experience and training to assess and address safety elements associated with the project.

Add the following:

10. The Contractor shall implement a comprehensive Safety Program for the Project to ensure all safety measures are met throughout the duration of the project and that the program complies with all applicable federal, state, and local safety regulations.

Requirements. The Safety Program shall include the development, implementation, and ongoing maintenance of the Site-Specific Safety Plan (SSSP), along with the preparation and regular updating of hazard analyses to identify and mitigate risks associated with specific construction activities. It shall ensure that the site complies with project-specific safety requirements, OSHA/AKOSH regulations, and oversees the appropriate use of personal protective equipment (PPE) on-site.

The program will involve routine safety inspections to identify hazards, site-specific safety orientations, and ensure all personnel and Subcontractors receive the necessary training in accordance with AKOSH/OSHA standards. It will also establish procedures for investigating incidents, injuries, and near misses, with corrective actions implemented as needed. Detailed records, such as safety meeting minutes, training logs, incident reports, safety audits, and inspections shall be maintained. Safety reports shall be submitted to the project manager, engineers, or clients as requested.

The Safety Program shall have clear procedures for halting work and implementing immediate corrective actions if safety concerns arise, or if the work is not being conducted in compliance with the Contract documents, safety standards, or applicable federal, state, and local laws.

HSM20.50-25.0610

108-1.07 FAILURE TO COMPLETE ON TIME.

Replace Table 108-1 with the following:

**Table 108-1
DAILY CHARGE FOR LIQUIDATED DAMAGES
FOR EACH CALENDAR DAY OF DELAY**

Original Contract Amount		Daily Charge
From More Than	To and Including	
\$ 0	1,000,000	\$1,500
1,000,000	5,000,000	2,900
5,000,000	25,000,000	5,500
25,000,000	-----	6,900

HSM20.43A-24.0701-1

SECTION 109 MEASUREMENT AND PAYMENT

109-1.01 GENERAL. Replace the 2nd paragraph with the following:

When more than one type of material or work is specified for a pay item, the proposal line number, and the description are used to differentiate the material or work.

C109.4-20.0101

109-1.02 MEASUREMENT OF QUANTITIES. Add the following:

14. Hour. Measured items by the hour shall be full payment for the work described in the contract including labor, equipment, and operating costs of the equipment. Items to be measured by the hour will be recorded to the nearest quarter-hour by the Engineer. The measurement shall start when the required equipment & operator, surveyor, or survey party begins work at the specified location as directed by the Engineer. The measurement will stop when the required work is accomplished, when the equipment fails, when directed to stop work by the Engineer, or when the operator stops work. Times will be reconciled with the Contractor on a daily basis.

(02/23/15)PARKS-Special Provision

109-1.05 COMPENSATION FOR EXTRA WORK ON TIME AND MATERIALS BASIS.

Under Item 3. Equipment, Item a. add the following to the second paragraph:

The rental rate area adjustment factors for this project shall be as specified on the adjustment maps for the Alaska – South.

Provide a printed copy of the current EquipmentWatch rate sheet for each piece of equipment utilized on time and materials work.

C109.2-18.1101

109-1.08 FINAL PAYMENT. Add the following after the fifth paragraph:

On federally funded projects, if DOLWD Wage and Hour Administration notifies the Department of a pending prevailing wage investigation, and that the investigation is preventing the closing out of the project, the Contractor may place the notified amount in escrow under Wage and Hour for the exclusive purpose of satisfying unpaid prevailing wages. Upon receipt of notice from Wage and Hour that the Contractor has satisfactorily transferred the necessary funds into escrow, the Department will proceed to issue final payment.

HSM20.3-20.1130-1

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SECTION 120
DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM

120-1.01 DESCRIPTION.

In the first sentence of the second paragraph, replace “8.83 percent” with “9.39 percent”.

HSM20.21A-24.0415

120-3.01 DETERMINATION OF COMPLIANCE.

2. Phase II – Award.

- a. Written DBE Commitment. Delete in its entirety and substitute the following:
Complete Form 25A-326 for each DBE to be used on the project.

HSM20.21A-24.0415

SECTION 201 CLEARING AND GRUBBING

201-3.01 GENERAL. Add the following:

Perform the work necessary to preserve and/or restore land monuments and property corners from damage. Restore land monuments and/or property corners that are disturbed according to Section 642. An undisturbed area five feet in diameter may be left around existing monuments and property corners.

Grubbing material shall be salvaged and reused as vegetative matting. Phase work so that the salvaged vegetative matting can be placed on exposed slopes as soon as practicable. The addition of topsoil may be required if the vegetative mat does not meet or exceed 4-inches of depth. The Engineer will determine if additional topsoil is required to meet 4-inches of depth.

C201.3-13.0423

Add the following:

Clearing is not permitted within the migratory bird window of May 1 to July 15; except as permitted by Federal, State and local laws when approved by the Engineer.

C201.1-14.0101

201-3.03 GRUBBING. Add the following: Grubbed material shall be reused on site as vegetative matting and, if required, topsoil. The Contractor has the option to screen organic soil obtained from grubbing to meet the gradation for topsoil as specified under Section 726, or as approved by the Engineer. The screened material may be used for topsoil onsite.

(03/25/26)PARKS-Special Provision

201-3.06 DISPOSAL. Replace paragraphs three and four with the following: Unusable clearing and grubbing material from any operations shall be disposed of by transporting to locations outside the park controlled lands. Burning will not be permitted in other areas close to the park to cause, as determined by the Engineer, a fire danger to the park resources. Burning will not be permitted on private lands without the written approval of the property owner. The approval of the Engineer shall be required on a day to day basis when burning is within a two mile radius of the park lands. Constant care by competent watchmen with immediate access to adequate firefighting equipment shall be required during burning operations. Full compliance with applicable laws and municipal ordinances are the Contractor's responsibility.

(03/25/26)PARKS-Special Provision

201-5.01 BASIS OF PAYMENT. Add the following:

Placing and maintaining material used as vegetative matting will be paid for as topsoil under Section 620.

The work required to preserve and restore land monuments and property corners is subsidiary to 201 Pay Items.

Material from screening and tub grinding incorporated into the project as topsoil will be paid for as topsoil under Section 620. Screening and tub grinding operations shall be subsidiary to Section 620 items.

Material not incorporated into the project and is disposed of offsite shall be subsidiary to clearing and grubbing items.

(05/06/11) PARKS-Special Provision

SECTION 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

202-1.01 DESCRIPTION. Replace the first sentence with the following: This work shall consist of, but not be limited to, the removal and or relocation of: **parking fee pay-station kiosk (LUKE), pay-station sign, barrier rocks, signage, signpost bases, metal bollard**, structures and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the contract.

All barrier rocks on project site shall be relocated. Barrier rock relocation is considered subsidiary to Item 202.0001.0000 Removal of Structures and Obstructions

Add the following:

202-1.02 RELOCATE PARKING FEE PAY-STATION KIOSK: Existing fee paystation kiosk (LUKE), footings, sign posts, and fee-station sign shall be relocated and reinstalled in-kind.

Materials which are designated to be salvaged and remain the property of the Division of Parks and Outdoor Recreation are the **parking fee pay-station kiosk (LUKE), pay-station sign**. By arrangement with the Engineer, these facilities shall be relocated and reinstalled near the Flattop Sunnyside trail entrance.

(03/01/26)PARKS-Special Provision

Add the following Subsection 202-3.06 Salvage and Disposal of Construction and Demolition Materials:

202-3.06 SALVAGE AND DISPOSAL OF CONSTRUCTION AND DEMOLITION MATERIALS. Unless otherwise noted, remove, handle, salvage, transport, store, and dispose waste materials according to the Occupational, Safety, and Health Administration (OSHA), Environmental Protection Agency (EPA), Alaska Department of Environmental Conservation (ADEC), and other Federal, State and local government agency's statutes, rules and regulations.

Use disposal sites outside the project limits unless directed otherwise, in writing, by the Engineer. Obtain written consent from the private or public property owner for such disposal and a waiver of all claims against the State for any damage to such land which may result, together with all permits required by law for such disposal. Furnish a copy of such permission, waiver of claims, and permits to the Engineer before commencing work. Grade disposal areas to drain.

**SECTION 203
EXCAVATION AND EMBANKMENT**

203-3.04 COMPACTION WITH MOISTURE AND DENSITY CONTROL.

In the second paragraph delete "and ATM 214".

HSM20.5-20.1130-1

**SECTION 205
EXCAVATION AND FILL FOR MAJOR STRUCTURES**

205-3.05 COMPACTION.

1. Compaction with Moisture and Density Control. 2nd paragraph delete: "and ATM 214".

HSM20.5-20.1130-1

**SECTION 301
AGGREGATE BASE AND SURFACE COURSE**

301-2.01 MATERIALS.

Add the following after the first sentence:

Recycled Asphalt Material (RAM) shall meet the following:

1. RAM shall be crushed or processed to 100 percent by weight passing the 1.5-inch sieve and 95-100 percent by weight passing the 1-inch sieve.
2. The gradation of the extracted aggregate shall meet the following:

**TABLE 301-2.01-1
EXTRACTED AGGREGATE GRADATION**

Sieve	Percent Passing by Weight
1-inch	100
3/4-inch	70 – 100
3/8-inch	42 – 90
No. 4	28 – 78
No. 16	11 – 54
No. 50	5 – 34
No. 100	3 – 22
No. 200	2 - 12

3. The asphalt content shall be 2.5 – 5.0 percent by weight of the RAM.

301-3.03 SHAPING AND COMPACTION.

In the second paragraph delete "and ATM 214".

HSM20.5-20.1130-2

Add the following:

The following conditions shall be met:

1. Density acceptance will be determined by control strip method ATM 412. Use a test strip with a vibratory compactor with a minimum dynamic force of 40,000 pounds. The optimum density will be determined by the Engineer using a nuclear densometer gauge to monitor the test strip. Adequate water shall be added to aid compaction.

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2. After the appropriate coverage with the vibratory compactor, a minimum of 6 passes with a pneumatic tire roller shall be completed. Tires shall be inflated to 80 psi ($\pm$ 5 psi) and the roller shall have a minimum operating weight per tire of 3,000 pounds.

C301.1-07.0124-1

301-5.01 BASIS OF PAYMENT.

Add the following:

Recycled asphalt material will be paid for as Item 301.0005.0RAM Recycled Asphalt Material, at the unit price shown in the bid schedule for that Item.

Payment will be made under:

PAY ITEM		
Item Number	Item Description	Unit
301.0005.0RAM	Recycled Asphalt Material	Ton

(03/01/26)PARKS-Special Provision

**SECTION 501
CONCRETE FOR STRUCTURES**

501-2.02 COMPOSITION OF MIXTURE – JOB MIX DESIGN.

Replace Table 501-4 with the following:

**TABLE 501-4
AIR CONTENT REQUIREMENTS**

Class of Concrete	Air Content
A	6.0% $\pm$ 0.5%
A-A	6.0% $\pm$ 0.5%
P	3.50% minimum ¹ and Super Air Meter (SAM) number $\leq$ 0.20 ¹
DS	Not required

¹Not required for web and bottom flange of precast, prestressed decked bulb-tee girders.

HSM20.23-21.1231

Add the following Section:

SECTION 530 MODULAR CONCRETE BLOCK RETAINING WALL

530-1.01 DESCRIPTION. This work consists of furnishing and installing concrete block retaining walls in conformance with the plans.

This work shall include, but not limited to excavation as required, compaction of embankment, furnishing and installing leveling pad, furnishing and installing concrete block members, furnishing and installing geotextile separation fabric, furnishing and installing porous backfill, and furnishing and installing the 8-inch perforated drain pipe with drain rock and filter fabric.

530-1.02 SUBMITTALS. Submit resumes, references, location of previous similar work and other pertinent documentation to demonstrate to the satisfaction of the Engineer that the worker in direct charge of constructing retaining walls has expertise and experience in retaining wall construction.

MATERIALS

530-2.01 GENERAL. Materials shall conform to the following:

Class A Concrete	Section 501
Precast and Cast in Place Concrete	Section 501
Structural Steel	AASHTO M 270
Pipe and Perforated Pipe	ASTM F 405, F 606
Geotextile for Drainage	Section 729
Porous Backfill	Subsection 703-2.10

530-2.02 ANTI-GRAFFITI PROTECTION. Use a two-step anti-graffiti protection system designed specifically for this use. The system shall consist of a single component clear acrylic base coat covered by a clear urethane finish coat. This material is not a sealer of vapor barrier and no discoloration is allowed.

530-2.03 STRUCTURE BACKFILL. Meet Subsection 703-2.07, Selected Material Type A. Use materials with a sodium sulfate soundness loss less than 30 percent after four cycles as determined by AASHTO T 104 and free of shale or other particles of low durability.

When using backfill material with 80 percent passing the $\frac{3}{4}$ inch sieve, the minimum angle of internal friction on the portion of the material finer than the No. 10 sieve must be 34 degrees as tested by AASHTO T 236.

530-2.04 CONCRETE BLOCK MEMBERS. Meet Subsection 511-2.01 and finish the concrete block member with a quarried rock architectural finish, as approved by the Engineer.

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The modular blocks are required to have features designed to interlock the blocks together. The interlock feature shall be shaped and arranged in a manner that will tie the blocks together when dry stacked in all the orientations they will be placed as shown on drawings.

Full size concrete blocks shall weigh a minimum of 2,400 lbs. and shall have a consistent dimension of at least 24" x 24" x 48" long. Blocks shall be of interlocking design. Full size concrete blocks shall have a minimum of 2 round columnar or conical keyways to provide shear capacity and allow for built-in interlock.

Blocks shall be manufactured with a quarried rock architectural finish. The color of the units shall be concrete brown, or approved by the Engineer.

Each block shall be furnished with a lifting eye located in the center of the block relative to the center of mass.

The Engineer may reject any damaged blocks that arrive on the project site. Damaged blocks will not be paid for.

CONSTRUCTION REQUIREMENTS

530-3.01 EXCAVATION. Excavation shall conform to Section 205 and to the limits and construction stages shown in the plans.

530-3.02 BASE LEVELING PAD. Leveling pad shall be placed to the lines and grades as shown in the plans. Leveling pad shall be prepared to ensure full contact to the base surface of the concrete blocks and be compacted, conforming to Section 203.

530-3.03 CONCRETE BLOCK WALL INSTALLATION. Install the wall in accordance with the manufacturer's specifications and as shown on the Plans. Before placing blocks, make sure the top and bottom surfaces of the respective blocks are clean. The blocks shall be installed in short segments in order to minimize the length of open cut into the existing hillside. First course of blocks shall be placed on the leveling pad. Alignment and level of the first course shall be checked by the Engineer prior to further courses being installed. The first course is the most important to ensure acceptable installation.

530-3.04 PIPE INSTALLATION. Place pipe in location shown on plans. Use coupling bands for 8 inch diameter pipe. Join pipe end sections securely with the appropriate coupling fittings. Pipe to be installed in lengths no greater than 100 feet. Daylight pipe to outfall in the downslope of the trail, matching alignment and grade of ditch. Geotextile to be placed outside of the porous backfill. After pipe installation has been inspected, place porous backfill material to the height as shown on plans. Fill area above the porous backfill with specified material.

530-3.05 BACKFILL PLACEMENT. The porous backfill material shall be placed behind the wall above drain pipe system once the wall is built two blocks high and in two block lifts until maximum wall height is reached. Selected material type A placed behind the wall shall be installed according to Section 203.

530-3.06 ANTI-GRAFFITI PROTECTION. The two-step anti-graffiti protection system shall be applied to the exposed facing of the concrete block wall per the manufacturers recommendation. Apply appropriate masking as required. Apply the system to concrete surfaces to a minimum of one-foot below grade.

530-4.01 METHOD OF MEASUREMENT. Concrete Block Wall shall be measured by the number of square feet of vertical surface area of completed wall in place. The vertical limits for measurement are from the bottom of the bottom course of blocks to the top of the top course of blocks. The horizontal limits for the measurement are from the end of each block to the end of each block. Payment shall be considered full compensation for all labor, materials, and equipment to install concrete block wall, leveling pad, excavation, structure backfill, compaction, porous drainage rock backfill, perforated pipe, geotextile separation fabric, geotextile reinforcement fabric, filter fabric, and miscellaneous items necessary to complete the work.

530-5.01 BASIS OF PAYMENT. The accepted quantity, determined as proved above, will be paid for at the contract price per unit of measurement for the pay item listed below.

Payment will be made under:

Pay Item		Pay Unit
530.0001.0000	Modular Concrete Block Retaining Wall	Square Foot

(01/26/21)PARKS-Special Provision

Replace Section 603 with the following:

SECTION 603 CULVERTS AND STORM DRAINS

603-1.01 DESCRIPTION. Construct or reconstruct culvert and storm drain pipe. Install culvert marker posts, and strap plastic culvert ends.

603-1.02 REFERENCES.

ASTM D3953 Standard Specification for Strapping, Flat Steel and Seals
ASTM D4675 Standard Guide for Selection and Use of Flat Strapping Materials

603-2.01 MATERIALS. Use materials that conform to the following:

Bedding and Backfill	Subsection 204-2.01
Joint Mortar	Subsection 705-2.04
Flexible Watertight Gaskets	Subsection 705-2.05
Non-reinforced Concrete Pipe	Subsection 706-2.01
Reinforced Concrete Pipe	Subsection 706-2.02
Corrugated High Density Polyethylene (HDPE) Pipe	Subsection 706-2.07
Corrugated Steel Pipe and Pipe Arches	Subsection 707-2.01
Corrugated Aluminum Pipe	Subsection 707-2.03
Galvanize	Subsection 716-2.07
Culvert Marker Posts (Flexible Delineator Posts)	Subsection 730-2.05

Item 603.0001.0024, Pipe, listed in the bid schedule, furnish either Corrugated Steel Pipe (CSP), Corrugated Aluminum Pipe, Reinforced Concrete Pipe, or Corrugated Dual Wall HDPE (plastic) Pipe. Select pipe for each installation that meets or exceeds the requirements shown on the Plans for height of cover.

Steel and Plastic Pipe: match the coupling band material and end section material to the pipe material.

Separate dissimilar materials with an electrical insulating material. The insulating material must be at least 1/16 inch thick and approved by the Engineer.

Culvert marker post is 6-foot tall by 2.5 inches wide with reinforcing ribs, capable of a 9-inch minimum bending radius, and blue with no marking.

Culvert marker Strap and Seals according to ASTM D3953. .625 inch x .02 inch, dry Type 1 regular-duty (magnetic, ferritic), galvanized Finish B (hot-dipped Grade 2 moderate coating, .18 oz./ft² surface or .0002 inch thick minimum. Push type seals, Style III (overlap), regular duty, galvanized Finish B (hot-dipped coating) by 1.75-inch minimum length and matched to strapping width.

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CONSTRUCTION REQUIREMENTS

603-3.01. GENERAL. Excavate, bed, and backfill according to the requirements of Subsections 204-2.01 and 204-3.01, and the Plans.

Dewater ground water from work areas; construct and maintain temporary water diversion when working in waterways, and for facilities or structures with active drainage according to Section 204.

603-3.02. LAYING PIPE. Begin the pipe laying at the downstream end of the pipe. Keep the lower segment of the pipe in contact with the bedding throughout its full length. Place bell or groove ends of rigid pipe and outside circumferential laps of flexible pipe facing upstream.

Lay paved or partially lined pipe so that the longitudinal centerline of the paved segment coincides with the flow line. Install elliptical conduit and circular conduit reinforced with other than a full circular cage or cages so the orientation of a vertical plane through the longitudinal axis of the conduit does not vary more than 5 degrees from the design orientation.

Repair damaged metallic coating on metal pipe according to AASHTO M36.

603-3.03 JOINING PIPE. Joints shall provide circumferential and longitudinal strength to preserve the pipe alignment, prevent separation of pipe sections, and provide a watertight joint between new sections of pipe and joints between new and existing sections of pipe of similar and dissimilar materials. Include a continuous gasket (seal) in all joints. Construct the watertight joint capable of passing a laboratory hydrostatic pressure and vacuum test of at least 4 psi for 10 minutes.

1. Rigid Pipe. Use either bell and spigot or tongue and groove joints. Join pipe sections with the ends fully entered and the inner surfaces reasonably flush and even.

Use one or more of the following joint materials, or any other if approved:

- a. Portland cement mortar
- b. Portland cement grout
- c. Rubber gaskets
- d. Coupling bands
- e. Preformed plastic sealing compound

Make mortar joints using an excess of mortar to form a bead around the outside of the pipe.

For grouted joints, use molds or runners to retain the poured grout. Install rubber ring gaskets to form a flexible, watertight seal.

When using portland cement mixtures, protect the completed joints against rapid drying using suitable covering material.

2. Metal Pipe. Join metal pipe firmly using one of the types of coupling bands shown on the Plans and as described below. Provide coupling bands that are no more than two nominal sheet thickness lighter than pipe being joined and in no case thinner than the minimum sheet thickness of the material. The minimum sheet thickness is 0.048 inches for aluminum and 0.052 inches for steel. Include a gasket each side of the gap.
 - a. Annular, Spiral, Semi-Corrugated, and Rod and Lug Bands. Provide standard bands as described by ASTM A760 and ASTM B745. Join the pipe so the gap between the pipes is in the center of the band and is no wider than one corrugation width.
 - b. Dimple and Bias Bands. Use these bands only where it is not possible to use other bands, such as on field-cut pipe ends or joining new pipe to existing pipe. Join the pipe so the gap between the pipes is in the center of the band and is not wider than 2 inches.
3. Plastic Pipe. Use push-on or mechanical joints. Ensure that the plastic pipe couplings' corrugation matches the pipe corrugation and that their width is not less than one-half the nominal pipe diameter.

Furnish all bolted connections on coupling bands with cut washers placed between the nut and the angle bracket or use nuts with integral washers.

Take up any pipe that is out of alignment, unduly settled, or damaged and re-lay or replace it.

603-3.04 CULVERT MARKER.

1. Marker Post. Install a culvert marker on the approach side of storm drain outfalls 30 inches and smaller, field inlets not in paved parking lots, all end sections to cross culverts, or as directed. Drive to maintain forty-two inches of post above the ground after driving, and
2. Marker Strap. In addition to marker posts, install marker strap around the plastic pipe ends.

Position the strap in the valley of the first annular ring from the top end of the culvert. From the vertical centerline of the culvert, at the top, overlap the strap and extend the ends to approximately 30 degrees each side of the centerline. Place the strap loosely

without twists in the valley, without compressing the pipe, and tight enough to keep the strap from moving out of the valley without deforming the pipe or pipe corrugation. Seal the strap at three locations, one at each of the ends, and one at the top of the culvert. Extend the strap ends beyond the end seals approximately 1/2-inch. Double crimp the seal, two pairs of crimps minimum each seal.

Repair the strap galvanizing where abraded and at cut ends according to ASTM A780. Prepare the surface with power tools per SSPC-SP11, hand tools per SSPC-SP2, and as required by the paint manufacturer. Apply paint containing zinc dust to the prepared surfaces and allow enough time for curing as required by the manufacturer's printed instructions.

603-3.05 REMOTE THAW WIRE. Construct in accordance with DOT&PF Standard Drawing D-14.10.

603-4.01 METHOD OF MEASUREMENT. Section 109, and as follows:

1. Culvert Pipe. The length of pipe, measured in place, along the invert.
2. Pipes for Storm Drains. The length of pipe, measured in place, along the invert, from center to center of structures. The length through the inlets, catch basins, and manholes is included in the measured length.

603-5.01 BASIS OF PAYMENT. Branch connections and elbows are subsidiary to the pipe unless included as a separate Pay Item.

Coupling bands, seals (gaskets), and other items necessary for the proper joining of the sections are subsidiary.

Culvert markers are subsidiary to the pipe.

Additional construction cost to retrofit existing culvert with remote thaw wire is considered subsidiary to Item 603.2000.0001 Remote Thaw Wire.

Excavation, bedding, and backfill paid under Section 204.

PAY ITEM

Item Number	Item Description	Unit
603.0001.0024	24-Inch CSP	LF
603.0003.0024	End Section for 24-Inch CSP	Each
603.2000.0001	Remote Thaw Wire	Each

C603-25.0201

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SECTION 611

RIPRAP

611-2.01 MATERIALS. Replace the first paragraph with the following:

Evenly graded stones that are hard, angular, and have no more than 50 percent wear at 500 revolutions as determined by AASHTO T 96. Apparent specific gravity will be determined by ATM 308. Use stones with breadth and thickness at least 1/3 of its length. Do not use round boulders or cobbles on slopes steeper than 3:1.

C611.1-19.0201

Replace Section 615 with the following:

SECTION 615 STANDARD SIGNS

615-1.01 DESCRIPTION. Furnish and install standard signs and delineators. Remove and relocate or remove and dispose of existing signs and markers, as specified.

615-2.01 MATERIALS. Use materials that conform to the following Subsections:

Sheet Aluminum	730-2.01
High Density Overlaid Plywood	730-2.02
Retroreflective Sheeting, ASTM D4956	730-2.03
Sign Posts	730-2.04
Delineator Posts	730-2.05
Acrylic Prismatic Reflectors	730-2.06
Sign Support Fasteners	730-2.07

1. Shop Drawings. Submit shop drawings, for all signs that must meet the ASDS letter width and spacing charts for variable width legends (such as D-series and I-3 signs), and which require custom shop drawings specific to the project. Submit 4 sets of collated shop drawings prepared according to Subsection 105-1.02. Show the following on each sign drawing:
 - a. Dimensions of all horizontal and vertical characters and spaces
 - b. Overall dimensions
 - c. Sign material and sheeting material type
 - d. Panel thickness
 - e. Legend and letter series
 - f. Whether the sign will be framed
2. Sign Fabrication. Use ASTM D4956 Type IV retroreflective sheeting (for lettering, symbols, borders, and background) on sheet aluminum panels for all signs except the following:
 - a. Orange Background Signs. Use Type IX or XI fluorescent orange reflective sheeting placed on sheet aluminum panels, except:
 - (1) For temporary installations, the reflective sheeting place on aluminum, plastic, or plywood sheet panels.
 - (2) For flexible signs, (Roll-Up Signs) use fluorescent reflective sheeting Type VI or better (based on durability and reflectivity, as determined by the Engineer). Roll-Up Sign – 3M Series RS 24, Reflexite Marathon Orange, or approved equal.

- b. Railroad Crossbucks and Vertical Crossbuck Supports: Use white ASTM D4956 Type VIII or Type IX or XI retroreflective sheeting for background of sign and all strips.
- c. Non-Illuminated Overhead Signs with White Legends on Green Backgrounds: Use ASTM D4956 Type IX or XI retroreflective sheeting for legends and background. Create the legend in one of the following ways:
 - (1) Cut border and legend from white ASTM D4956 Type IX or XI retroreflective sheeting and adhere them to a green ASTM D4956 Type IX background, or
 - (2) Cut stencil of border and legend out of green transparent acrylic film and use transparent adhesive to overlay the film on a white ASTM D4956 Type IX or XI retroreflective background.
- d. Fluorescent Yellow-Green School Area Signs: Use ASTM D4956 Type VIII, Type IX or XI retroreflective sheeting for background.

Use a manufacturer-recommended clear coat on all screened signs.

Use sign layouts (including characters, symbols, corner radii, and borders) that conform to the ASDS.

- 3. Sign Posts and Bases. Use sign posts and bases of the types specified. The structural aspects of design and materials for sign supports must comply with the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals. Do not splice sign posts.

Foundation Concrete:

- a. Non-structural and Non-steel-reinforced Sign Foundations. Use Class W concrete, or commercially available pre-mixed sacked concrete with a minimum compressive strength of 3,000 psi. When sacked concrete is used, acceptance will be based on manufacturer Certificates of Compliance and the compressive strength test results of the specimens prepared according to ATM 506.
- b. Steel-reinforced Roadside Sign Foundations. Use Class B concrete meeting the requirements of Section 550, except:

Overhead Sign Support Foundations. Use Class A concrete meeting the requirements of Section 501.

- 4. Delineators. Use delineator assemblies that conform to the requirements shown on the Plans. Fabricate flexible delineators using ASTM 4956 Type III, IV, V, IX or XI retroreflective sheeting.

5. Reflective Sheeting Warranty. Supply manufacturer's warranty for reflective sheeting, including retention of fluorescent yellow-green (measured in accordance with ASTM E2301) for ten years according to the following criteria:
 - a. Minimum Fluorescent Luminance Factor Y_F : 20%
 - b. Minimum Total Luminance Factor Y_T : 35%

The warranty shall stipulate that: If the sheeting fails to meet the minimum fluorescence values within the first 7 years from the date of fabrication of the sign, the manufacturer shall, at the manufacturer's expense, restore the sign surface to its original effectiveness. If the reflective sheeting fails to meet the minimum fluorescence values within the 8th through 10th year from the date of fabrication, the manufacturer shall, at the manufacturer's expense, provide enough new replacement sign sheeting to the Department to restore the sign surface to its original effectiveness.

CONSTRUCTION REQUIREMENTS.

615-3.01 GENERAL.

1. Place posts in excavated holes to the depth shown on the Alaska Standard Plans.
2. Backfill the space around the posts and foundations placed in holes to finish ground with selected earth or sand, free of rocks or deleterious material. Place backfill in layers approximately 6 to 12 inches thick and thoroughly compact it.
3. Dispose of surplus excavated material neatly along the adjacent roadway as directed.
4. Install flexible delineator posts according to the manufacturer's recommendations.
5. Attach sign panels to posts, electroliers, traffic signal standards, bridge rails, piers, and abutments using the types and sizes of fastening hardware shown on the Plans.
6. If using existing signs and mileposts that are removed and relocated, ensure they conform to the details shown on the Plans or as directed.
7. Sign Salvage:

Notify the Engineer 5 working days prior to beginning sign salvage activities. The Engineer will physically identify those signs to salvage.

Sign(s) identified for salvage in the Plans Sign Summary table, the sign is the property of the Agency identified, and if not identified is the property of the Contractor.

Salvage sign includes the sign panels, posts, foundation sleeves, and hardware.

Deliver salvaged sign(s) to the Agency maintenance facility(s) identified in the Plans Sign Summary table at the address identified herein.

Agency Salvaged Signs.

Protect all items from damage during salvaging and delivery. For each sign so designated, disconnect sign post from panel and group the panels together. Group posts together with the foundation sleeves and their hardware. Do not deliver salvaged materials until approved by the Engineer. Replace any items damaged by you at no additional cost to the Department.

Dispose of foundations from salvaged existing signs in a manner approved of by the Engineer (remove and dispose, abandoned in place, or otherwise). If abandoned in place, remove the tops of the foundations, reinforcing steel, anchor bolts, and conduits to a depth of not less than 12 inches below roadway subgrade or unimproved ground, whichever applies.

Dispose of sign salvage not wanted by the Contractor, not used in the project, and not accepted by the Local Maintenance and Operations Station, off sight and as required by Federal, State, and Municipal environmental regulations.

All signs, the sign panels, posts, hardware, foundation sleeves, and foundations at a single installation are considered as one unit.

8. All materials and finished signs are subject to inspection and acceptance in place.
 - a. Surfaces exposed to weathering must be free of defects in the coating that impair serviceability or detract from general appearance or color match.
 - b. Finished signs must be clean and have no chatter marks, burrs, sharp edges, loose rivets, delaminated reflective sheeting, or aluminum marks. Do not make repairs to the face sheet.
9. Install the various breakaway assemblies according to the manufacturer's written instructions. Meet MASH crashworthiness requirement for breakaway hardware, unless approved otherwise by the Engineer.
10. Secure the anchors in templates and install them according to the manufacturer's written instructions.
11. Finish the foundation according to these tolerances:
 - a. Do not use more than two shims per coupling.
 - b. Do not use more than three shims to plumb each post.

Remove and replace all foundations requiring more than three shims to plumb a post without extra compensation.

12. Construct the top of any foundation located on a slope so that the finished slope passes through the top center of the foundation. Grade the area 24 inches up and down slope of the foundation edge so that no portion of the foundation projects above the surrounding slope and water will drain away from the foundation.
13. Attach a label to the back of all standard signs in the lower right corner. Make the label at least 15 square inches and show the year the sign was purchased from the manufacturer. Show the last two digits of the year in clear and bold numbers. Make the label from ASTM D4956 Type I or brighter retroreflective sheeting. Use background and legend colors meeting Table 615-1.

**TABLE 615-1
DECAL COLORS**

YEAR	BACKGROUND COLOR	LEGEND COLOR
XXX1	Yellow	Black
XXX2	Red	White
XXX3	Blue	White
XXX4	Green	White
XXX5	Brown	White
XXX6	Orange	Black
XXX7	Black	White
XXX8	White	Black
XXX9	Purple	White
XXX0	Strong Yellow-Green	Black
Central values and tolerance limits for each color, as referenced in the MUTCD, are available from the Federal Highway Administration, (HHS-30), 400 7 th St. SW, Washington, D.C. 20590		

615-3.02 SIGN PLACEMENT AND INSTALLATION. The location and type of installation will be as shown on the Plans. Sign locations are approximate and subject to field adjustment by the Engineer.

Do not allow the top of the embedded steel tube to extend more than 2 inches above the surrounding ground and concrete foundation.

On all signs, install 2-inch diameter wind washers, colored to match the sign face, between the fastener head and the sign. Use rust-resistant washers fabricated from a material equal in strength to the sign blank.

Mount signs on mast arms level.

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Bring existing signs that are to remain, into conformance with Standard Drawing S-05. Keep existing signs in service until they are no longer needed.

615-4.01 METHOD OF MEASUREMENT.

Standard Signs and Object Markers. By the total area of legend-bearing sign panel erected in place. No deductions in quantity for corner rounding will be made. Nominal dimensions for sign sizes indicated on the Plans will be used to calculate sign pay quantities. Octagons and round signs will be measured as rectangles. Only one side of each double-faced sign will be measured for payment.

Removal and Relocation. By each, complete in place.

Delineators. By each, complete in place. A single delineator consists of one post equipped with three reflectors.

Salvage Sign. By each complete sign delivered in acceptable condition.

615-5.01 BASIS OF PAYMENT. Sign posts, bases, and mounting hardware are subsidiary.

Salvage Sign. Each complete sign includes the sign panels, posts, hardware, and foundations sleeves at a single installation.

PAY ITEM		
Item Number	Item Description	Unit
615.0001.0000	Standard Sign	SF

C615-24.1001

Replace Section 618 with the following:

SECTION 618 SEEDING

618-1.01 DESCRIPTION. Establish a healthy living perennial stand of grass or other vegetative living groundcover by seeding. Maintain the living cover for the term of the Contract.

618-2.01 MATERIALS. Use materials that conform to the following:

Water	Subsection 712-2.01
Seed	Section 724 (Grass Seed)
Fertilizer	Section 725
Topsoil	Section 726
Soil Stabilization	Section 619
Soil Stabilization Material	Section 727

**TABLE 618-1
GRASS SEED MIX, SOIL STABILIZER, AND FERTILIZER APPLICATION RATES**

Materials	Ingredients	Application Rate (per MSF ^c)
Grass Seed Mix ^{a, b}	Nortran – Tufted Hairgrass	0.60 lbs.
	Boreal – Red Fescue	0.50 lbs.
	Wainwright - Slender Wheatgrass	0.40 lbs.
	Gruening Alpine Bluegrass	0.40 lbs.
	Annual Ryegrass	0.10 lbs.
		Total: 2.00 lbs.
Soil Stabilizer		
Slope ≤ 3:1	Mulch	46 lbs.
Slope >3:1	Mulch with tackifier	45-58 lbs.
Fertilizer	20-20-10	12 lbs.

- a. Do not remove the tags from seed bags.
- b. Submit an alternate seed mix when the specified seed is not commercially available. Provide a letter confirming the specified seed is not available. Include an agronomist certified seed mix design, including application rate, suited to the project site.
- c. MSF = 1000 ft².

CONSTRUCTION REQUIREMENTS

618-3.01 SURFACE PREPARATION. Remove ruts, holes, humps and other irregularities from the surface. Clear stones one inch in diameter and larger, weeds, plant growth, sticks, stumps, and other debris that will interfere with the application of stabilization material, topsoil, the seeding operation, growth of vegetative groundcover, and subsequent maintenance of the cover.

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Smooth the slopes for a uniform appearance and round the top and bottom of the slopes to facilitate tracking or raking. Do not disrupt drainage flow lines.

Evenly place stabilization material and/or topsoil when specified.

Prepare the surface material by grooving the material in a uniform pattern that is perpendicular to the fall of the slope.

In areas receiving vegetated mat treatment, scarify the finished topsoil surface by manual ranking or other approved methods immediately before seed application. Perform scarification without disturbing transplanted vegetative mat or existing vegetation designated to remain.

Use one or more of the following grooving methods with associated equipment before the application of seed:

1. Manual raking with landscaping rake;
2. Mechanical track walking with track equipment; or
3. Mechanical raking with a scarifying slope board. Form one-inch wide grooves spaced no more than six inches apart.

618-3.02 SEEDING SEASON. Seed disturbed areas after permanent cessation of ground disturbing activities in that area, within the period specified in the Alaska Department of Environmental Conservation (ADEC) Alaska Pollutant Discharge Elimination System (APDES) Construction General Permit (CGP) for Alaska, Section 4.5 Soil Stabilization, and Section 641 Erosion, Sediment, and Pollution Control.

Do not seed during windy conditions, when climatic conditions or ground conditions would hinder placement or proper growth.

Seed between June 1 and August 15.

618-3.03 APPLICATION. Seed, seeding, reseeding includes the application of seed, fertilizer, and stabilization material.

Application of seed to be applied only after topsoil application and installation of vegetated mat has been completed.

Do not seed areas of bedrock and plant beds.

Use any of the following methods:

1. Hydraulic Method

Apply seed and stabilization material in one application when using the hydraulic method. Apply fertilizer with the hydraulic method. Include the fertilizer with the seed and stabilization material or apply separately.

- a. Furnish and place a slurry made of seed, fertilizer, water, and other materials.
- b. Use hydraulic seeding equipment that will maintain a continuous agitation and apply a homogeneous mixture through a spray nozzle. The pump must produce enough pressure to maintain a continuous, nonfluctuating spray that will reach the extremities of the seeding area with the pump unit located on the roadbed. Provide enough hose to reach areas not practical to seed from the nozzle unit situated on the roadbed.
- c. If mulch material is required, it may be added to the water slurry in the hydraulic seeder after adding the proportionate amounts of seed and fertilizer. Add seed to the slurry mixture no more than 30 minutes before application.
- d. Mix the slurry and apply it evenly.

2. Dry Methods

- a. Use mechanical spreaders, seed drills, landscape seeders, aircraft, cultipacker seeders, fertilizer spreaders, or other approved mechanical spreading equipment.
- b. Spread fertilizer separately at the specified rate.

618-3.04 MAINTENANCE. Maintenance includes but is not limited to the following:

1. Protecting seeded areas against traffic by approved warning signs or barricades and against erosion.
2. Repairing surfaces gullied or otherwise damaged following seeding. Fill erosion gullies 4 inches deep and greater filling the gully to surrounding grade including the portions less than 4 inches deep. Apply and prepare the stabilization material and or topsoil for seeding. Seed repaired area. Refer to Subsections 618-3.01 & 3.03.
3. Reseeding areas not showing evidence of satisfactory growth within 3 weeks of seeding and after repairs are complete. Reseed bare patches of soil more than 10 square feet in area. Contact ADNR for advice or corrective measures, when seeded areas are not showing evidence of satisfactory growth.

4. Watering seeded areas for healthy growth of vegetative cover. Adjust the amount of water when directed.

618-3.05 ACCEPTANCE. The vegetative ground cover will be inspected considering each station and each side of the road a separate area. Acceptance of the ground cover requires a minimum of 75% cover density in the inspection area, gullies repaired and reseeded, and no bare patches of soil more than 10 square feet in area.

Repair/reseed areas that are not accepted.

618-3.06 PERIOD OF ESTABLISHMENT. Establishment period, for each seeded area, extends one complete growing season (June 1 to August 15) after the planting year, acceptance, and final inspection beginning from the date of Project completion, Subsection 105-1.15.

Employ all possible means to preserve/maintain the new vegetative groundcover in a healthy and vigorous condition to ensure successful establishment. Maintain the vegetative cover, according to Subsection 618-3.04, to not less than the requirements for acceptance, Subsection 618-3.05.

618-4.01 METHOD OF MEASUREMENT. Section 109 and as follows:

Seeding by the Acre. By the area of ground surface acceptably seeded and maintained.

Seeding by the Pound. By the weight of dry seed acceptably seeded and maintained.

Water for Seeding. If weighed, a conversion factor of 8.34 pounds per gallon will be used to convert weights to gallons.

MGAL equals 1000 gallons.

618-5.01 BASIS OF PAYMENT.

1. Pay Items 618.0002.0000 Seeding. Payment is for healthy established vegetative groundcover through the establishment period.
 - a. The initial surface preparation, seed, fertilizer, mulch when applied hydraulically, their application, and the water for hydraulic application are subsidiary.
 - b. Maintenance fill, stabilization material, topsoil, surface preparation, seed, fertilizer, mulch when applied hydraulically, and the water required for hydraulic application are subsidiary.

2. If Pay Item 618.0003.0000 Water for Seeding, is not included in the bid schedule, water applied for growth of vegetative groundcover through the establishment period is subsidiary.

Except for maintenance, stabilization material is paid under Section 619 and topsoil under Section 620.

PAY ITEM		
Item Number	Item Description	Unit
618.0002.0000	Seeding	LB

CR618-23.0601

SECTION 620 TOPSOIL

620-2.01 MATERIALS. Add the following:

Vegetative Mat. A 1 foot by 1 foot minimum live transplant consisting of various native plant material. Vegetative mat shall include an intact root system with natural soil at least 8-inches thick. Vegetative mat shall consist of living native plant material and the surrounding sod, harvested from the clearing and grubbing limits within the project limits. Transplanting shall be under the supervision of an approved plant material professional, or professional landscape architect, provided by the Contractor.

620-3.01 PLACING. Add the following:

It is advantageous to phase construction work so that vegetative matting can be salvaged and immediately be placed on an exposed slope within the project area.

Placing vegetative mat shall consist of preparing an area with compost and/or topsoil as required and transplanting the vegetative mat. The mat shall be placed so to provide a smooth finished surface. Place mat to an elevation that approximates the elevation of the surrounding vegetation as directed by the Engineer. Place vegetative mat in plugs and fill the voids with compost and/or topsoil in compliance with Section 620.

Vegetative mat may be watered to provide easier handling from the existing source. Vegetative mat shall be kept moist from the time it is dug until it is planted. Care shall be exercised to retain as much soil as possible in the natural state around the roots during digging, hauling, and placing. Vegetative mat shall be watered within one hour of planting. Subsequent watering shall be required until final acceptance of the Project.

Final placement of vegetative matting and compost shall be in a checker-board pattern.

Following preparation of topsoil and placement of vegetative mat, no equipment traffic, vehicle tracking, or material staging is permitted within prepared restoration areas except as required for seeding operations.

620-3.02 MAINTENANCE AND REPAIR. Add the following:

Maintenance of the vegetative mat shall begin immediately after each mat has been installed. It shall continue through completion of the project and for one complete growing season.

620-5.01 BASIS OF PAYMENT. Add the following:

Placing and maintaining material used as vegetative matting will be paid for as topsoil under Section 620.

Vegetative mat repair, maintenance, and replacement are subsidiary.

Replace Section 622 with the following:

SECTION 622 PARK FACILITIES

622-1.01 DESCRIPTION. This work shall consist of furnishing, constructing and placing park facilities in conformance with the plans and Special Provisions.

622-1.02 APPLICABLE ACCESSIBILITY STANDARD. Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities.

622-1.03 SUBMITTALS AND SUBSTITUTIONS. Conform to Subsection 106-1.01.

MATERIALS

622-2.01 GENERAL. All materials shall be new and conform to the details shown on the plans or as specified.

622-2.02 BACKFILL. Selected Material, Type A conforming to Subsection 703-2.07.

622-2.03 CONCRETE. Class A Concrete conforming to Section 501.

622-2.04 STRUCTURAL STEEL. Structural steel shall conform to the requirements of ASTM Specification A36 (Standard Specification for Carbon Structural Steel).

622-2.05 GALVANIZING. Conform to AASHTO M111/ASTM A123 (Standard Specification for Zinc [Hot-Dip Galvanized] Coatings on Iron and Steel Products), or AASHTO M232/ASTM A153 (Standard Specification for Zinc Coating [Hot-Dip] on Iron and Steel Hardware). Repair damaged galvanizing by using low melting point zinc repair rods in conformance with ASTM A780 (Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings).

622-2.06 LUMBER. Conform to Section 713. Wood species shall be Douglas Fir or Hem-fir unless otherwise specified.

1. Dimensional. Dimensional lumber and timbers are shown on the plans in nominal dimensions, i.e.; 2x4, indicating surfaced four sides (S4S) or planed material. Use classification for light framing shall be Construction Grade. Use classification for structural joists and planks shall be No. 2 Grade or Better. Manufacturing classification shall be Dressed (Surfaced) Lumber. Size classification shall be Nominal Size Designations of Boards, Dimension, and Timbers.
2. Rough Cut. Unless otherwise indicated, rough cut lumber and timbers are shown on the plans in actual dimensions, i.e.; 2"x4", indicating rough cut material. Use classification shall be Structural Lumber, No. 2 Grade or Better. Manufacturing classification shall be Rough Lumber. Size classification shall be Rough Dry Sizes.

622-2.07 METAL ROOFING. Exposed fastener metal roof system with panel base metal steel conforming to ASTM A446, Grade 80, (80,000 psi minimum tensile strength) with a protective coating of zinc-aluminum alloy conforming to ASTM A924/ASTM A792, 45 percent zinc and 55 percent aluminum by weight applied to a thickness of 1.9 mils. Alternate coatings proposed for substitution will not be accepted. Exterior paint finish to be a 0.8 mil Acrylic Emulsion finish coat over a 0.2 mil baked-on acrylic primer. Exterior color to match Denali Green by IMSA Building Products Inc., or approved equal. Interior paint finish to be a 0.25 mil off-white backer over a 0.15 mil baked-on acrylic primer.

1. Roof Panels. Minimum 29 gauge, 36 inch net width panel with 9 inch on center roll-formed profile pattern consisting of three evenly spaced ribs, one tall rib followed by two shorter ribs.
2. Gable Trim and Universal Ridge. Shall be approximately 6 inches wide.
3. Closure Strips. Polyethylene foam type to fit panel profile or 1 inch by 1 inch universal closures.
4. Sidelap Mastics. Closed cell neoprene butyl.
5. Fasteners. Metal to wood fasteners as recommended by the manufacturer. Fastener length should assure penetration of at least one inch into the wood. Fastener heads shall be pre-painted the same color as roof panels.

622-2.08 FASTENERS. Commercial quality and type of nails and screws as required to securely hold all members in place in accordance with National Design Specifications (NDS). Nails shall be hot dipped galvanized. All other fasteners shall be corrosion resistant. Fasteners in pressure treated wood shall be hot dipped galvanized. Nails and wood screws below grade in pressure treated wood shall be stainless steel.

622-2.09 STANDARD PARK PADLOCK. Master Lock 175D with 5/16 inch shackle diameter, 1 inch vertical clearance, 1 inch horizontal clearance, and 2 inch case width. Four-digit, resettable combination lock with combination change key. Initial combination shall be set to 2042.

622-2.10 PAINT. Unless otherwise specified, use the following paint types and colors, or approved equals:

1. Solid Oil Stain. Exterior oil/alkyd flat finish stain, color "Russet". DF7XX as manufactured by Fuller O'Brien / Devoe Products, Behr Plus 10 Solid Stain, Rural Manor II Solid Color Stain (714401x) as manufactured by Rodda Paint Co., or approved equivalent. Submit color samples of proposed substitutions for approval.

2. Semi-Transparent Oil Stain. Exterior alkyd based stain, color Sherwin Williams “SW 3507 Riverwood”, Behr Superdeck “#1907 Canyon Brown”, or PPG Architectural Finishes Olympic “Russet”.
3. Clear Oil Stain. Non-pigmented penetrating exterior alkyd base stain formulated for water repellency.
4. Metal Primer Paint. As recommended by enamel paint manufacturer.
5. Enamel Paint. Exterior alkyd base gloss enamel. Color to match solid oil stain color.
6. Concrete Sealer. Clear acrylic copolymer conforming to AASHTO M148/ASTM C309 (Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete, for Type 1 Compounds).
7. Above Ground Wood Preservative. Brown preservative with active ingredient of minimum 9.08 percent copper naphthenate (equivalent to minimum 1 percent metallic copper). Color to be approved by Engineer.
8. Below Ground Wood Preservative. Preservative with active ingredient of minimum 16 percent copper naphthenate (equivalent to minimum 2 percent metallic copper).
9. End Cut Preservative for Treated Wood. Brown preservative with active ingredient of minimum 10 percent copper naphthenate (equivalent to minimum 1 percent metallic copper). Color to match preservative pressure treatment color.

Paint that has been frozen or is out of date shall be replaced at no additional cost to the Department.

622-2.11 SIGNS. Fabricate sign panels to the dimensions shown on Plans. Metal sign panels shall be 0.125 inch thick alloy 6061-T6, 5052-H36, or 5052-H38 aluminum. Wood sign panels shall be medium density overlay (MDO) plywood. Signs shall have Type II (medium intensity) reflective sheeting background with color as specified. White high intensity sheeting for symbols, letters, and borders shall match 3M Scotchlite Reflective Sheeting #3290. Brown medium intensity sheeting for background shall match 3M Scotchlite Reflective Sheeting #3279.

622-2.12 SINGLE ENTRANCE GATE. Conform to Standard Drawing G-1, Single Entrance Gate. High intensity reflective sheeting for gates shall match 3M Scotchlite Reflective Sheeting #3820 and have alternating red and white 4 inch wide stripes sloping downward at an angle of 45 degrees. Provide one standard Park padlock for each gate.

622-2.13 CONCRETE PARKING BUMPER. Conform to Standard Drawing P-6, Parking Bumper.

622-2.14 BIKE REPAIR STATION. Furnish the Bike Repair Station as follows, or approved equal:

DERO Bike Rack Co.
5522 Lakeland Ave. N.
Minneapolis, MN 55429
(888) 337-6729
www.dero.com

Model Name: **Fixit Plus – Public Bike Repair Station**

Finish: Sepia Brown (RAL 8014) Powder Coat

Specs: Single bike capacity; Air Kit Prime attached to Fixit; Add Tool Kit

The bike repair station shall be mounted on a minimum 16-inch diameter concrete sonotube buried to a minimum depth of 36-inches.

622-2.15 BARRIER ROCK/SEAT ROCK. Barrier rocks shall be 3 to 5 feet in diameter when measured in every direction. Seat rocks are barrier rocks that have one relatively flat surface and can be used for a seat when installed in the ground. Seat rocks shall be selected by the Engineer from the Contractor's rock source.

622-2.16 ORIENTATION KIOSK. Conform to Standard Drawing S-10D, Orientation Kiosk. Interpretive panel frame and bulletin board frame shall be surfaced four sides clear cedar. Metal Roof shall conform to subsection 622-2.09.

Column bases shall be corrosion resistant and embedded in wet concrete for subsequent connection of wood post to concrete footing. Size column base to dimension of post. Posts shall have commercially fabricated column bases inset a maximum of ½ inch. If commercial bases cannot meet the ½ inch requirement, custom fabricate full dimension column bases. Stirrup shall be provided with holes for two galvanized bolts with washers. Similar to Simpson CB88.

Post Size	Base Plate Gage & Dimension	Stirrup Material	Post Bolts	Allowable Uplift Load
8 X 8	7 ga & 7-1/2" X 7-1/2"	3 ga x 3" strap	2 each ¾"	6,650 pounds

Column caps to connect front posts to front horizontal beam shall be corrosion resistant. Size column cap to dimension of the timbers. If commercial column caps cannot meet the timber dimensions, custom fabricate full dimension column caps. Install with manufacturer recommended fasteners. Similar to Simpson BC8.

Beam Size / Post Size	Beam Flange Gage & Dimension	Post Flange Gage & Dimension	Allowable Uplift Load	Allowable Lateral Load
8 X 8 / 8 X 8	18 ga & 7-1/2" X 7-1/2"	18 ga & 7-1/2" X 7-1/2"	1,800 pounds	2,000 pounds

Face mount hangers to connect the side horizontal beam to the front posts shall be corrosion resistant. Size hangers to dimension of the timbers. If commercial hangers cannot meet the timber dimensions, custom fabricate full dimension hangers. Hangers shall have concealed flanges. Install with manufacturer recommended fasteners to achieve the allowable uplift load specified below. Similar to Simpson HUC88.

Beam Size / Post Size	Beam Flange Gage & Dimension	Post Flange Gage & Height	Allowable Uplift Load
8 X 8 / 8 X 8	14 ga & 7-1/2" X 2-1/2"	14 ga & 6-5/8"	1,285 pounds

Corner bracket to connect the side horizontal beams to the rear posts and rear horizontal beam shall be custom fabricated as shown on the Standard drawing.

Hurricane tie to secure roof trusses to horizontal front and rear beams shall be 18 gauge steel and corrosion resistant. Install with manufacturer recommended fasteners to achieve 320 pounds minimum uplift load and 105 pounds minimum lateral load. Similar to Simpson H3.

622-2.17 INTERPRETIVE SIGN, TYPE D. Conform to Standard Drawing S-11D, Interpretive Sign, Type D. Aluminum for back plate to conform to alloy 6061-T6, 5052-H36, or 5052-H38. Provide one pin-in-head torx machine bolt driver per sign. Column bases shall be corrosion resistant and embedded in wet concrete for subsequent connection of wood post to concrete footing. Size column base to dimension of post. Rough cut posts shall have commercially fabricated column bases inset a maximum of 1/2 inch. If commercial bases can't meet the 1/2 inch requirement, custom fabricate full dimension column bases. Stirrup shall be provided with holes for two galvanized bolts with washers. Similar to Simpson CB66R.

Post Size	Base Plate Gage & Dimension	Stirrup Material	Post Bolts	Allowable Uplift Load
6" X 6"	7 ga & 6" X 6"	7 ga x 3" strap	2 each 5/8"	4,200 pounds

CONSTRUCTION REQUIREMENTS

622-3.01 GENERAL. The locations shown on the drawings for park facilities placement are approximate. The Engineer will field locate park facilities at the time of construction.

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622-3.02 EXCAVATION AND BACKFILL. Conform to the requirements of Section 204 and the details on the plans.

622-3.03 CONCRETE. Conform to the requirements of Section 501 and the details on the plans.

622-3.04 STRUCTURAL STEEL. Welding to conform to American Welding Society D1.1.

622-3.05 WOOD. Competent carpenters shall be employed and all framing shall be true and exact. Unless otherwise specified, nails and spikes shall be hand driven with just sufficient force to set the heads flush with the surface of wood. Power nail guns may be used if the pressure may be adjusted to drive the nail flush with the face of the lumber. All non-removable shipping, storage, weathering and erection marks on fabricated lumber shall be hidden from view in the completed work. Use of damaged lumber shall not be allowed. Store on-site lumber above the ground and protected from damage and weathering.

Holes for round drift-bolts and dowels shall be bored with a bit 1/16 inch smaller in diameter than that of the bolt or dowel used. Holes for machine and carriage bolts shall be bored with a bit of the same diameter as that of the bolt. Holes for lag screws shall be bored with a bit not larger than the body of the screw at the root of the thread.

Unless otherwise specified, USS flat washers shall be used in contact with all bolt heads and nuts that would otherwise be in contact with wood.

622-3.06 METAL ROOFING. Store sheets and other roofing components above the ground and keep dry. Metal roofing shall not come into contact with lead, aluminum, copper, alkalines, fertilizers, or acids. Panels shall be clean and unmarked during and after erection.

Place roofing felt over 2x6 T&G. Lap felt 4 inches minimum at sides and top and 10 inches at ridge.

Position first roof panel at gable end away from prevailing wind and check for alignment with building structure. Panels shall overhang sheathing at eave, as shown on the drawing, as a drip edge. Sidelap mastic shall be installed continuously along edge of panels. Do not place fasteners through the sidelap mastic. Install wood-metal screws at 24 inches on center at major ribs and stitch screws at 12 inches on center at sidelaps.

Align roof panels correctly prior to ridge cap installation. Install closure strips under ridge cap and fasten through cap, closure strips, and roofing at each major rib.

Install closure strip under panel prior to flashing installation. Fasten at 12 inches on center with stitch screws.

Apply gable trim to both roof ends. Fasten at top and sides at 24 inches on center.

622-3.07 PAINT. Deliver in sealed containers with labels legible and intact. Remove dirt, grease, oil and other construction debris prior to painting. Ensure that surfaces to be painted are even, smooth, sound, clean, dry, and free from defects affecting proper application. Metal surfaces to receive paint shall be corrosion free. Apply per manufacturer's recommendations. Apply paint material evenly without runs, sags, or other defects. Work each coat into the material being coated at an average rate of coverage recommended by the manufacturer. Cover surfaces completely to provide uniform color and appearance. Remove all paint, stain, or other finish material where it has spilled or spattered.

1. General. Unless otherwise specified, schedule finishes as follows:

a. Non-Treated Wood, Surfaced. Finish surfaces not scheduled to receive stain or clear oil stain with wood preservative.

b. Non-Treated Wood, Rough Cut. Saturate below and above ground surfaces not scheduled to receive stain with wood preservative.

c. Treated Wood, Hidden. Dado cuts, cut ends, drilled holes and field cuts in wood materials shall be brush coated to saturation with end cut preservative.

d. Treated Wood, Exposed. Saturate cut surfaces with scheduled finish. Finish surfaces not scheduled to receive stain with wood preservative.

e. Concrete and Masonry. Seal exposed surfaces.

f. Metal. Prime and paint exposed metal surfaces as required. Finish is not required for fasteners that are galvanized or corrosion resistant.

1. Single Entrance Gate.

a. Metal. Primer and Heavy Duty Aluminum Enamel Paint

2. Concrete Parking Bumper.

a. Concrete. Sealer

3. Orientation Kiosk.

a. Interp/Bulletin Board Frame and Exposed T&G Wood. Clear Oil Stain

b. Other Wood. Semi-Transparent Oil Stain

c. Metal. Primer and Enamel Paint

d. Bulletin Board Sound Board. Off White Flat Latex Paint

4. Interpretive Sign, Type D.

a. Wood. Solid Oil Stain

b. Back Plate. Aluminum, No Finish Required

c. Other Metal. Primer and Enamel Paint

622-3.08 SINGLE ENTRANCE GATE. Construct in accordance with Standard Drawing G-1, Single Entrance Gate.

622-3.09 CONCRETE PARKING BUMPER. Construct in accordance with Standard Drawing P-6, Parking Bumper.

622-3.10 BIKE REPAIR STATION. Install bike repair station a minimum of 36-inches from any wall or obstacle. Bike repair station shall be installed onto 16-inch diameter sonotube via four concrete/masonry wedge anchors. Anchor threads shall be peened.

622-3.11 BARRIER ROCK/SEAT ROCK. Place barrier rocks 4 feet apart, edge to edge, with approximately 20 percent of the height of each rock set below ground level. When finish surface is pavement or concrete, place barrier rocks prior to paving or pouring operations. Cutting pavement to place barrier rocks and then patching is not acceptable.

622-3.12 ORIENTATION KIOSK. Construct in accordance with Standard Drawing S-10D, Orientation Kiosk.

622-3.13 INTERPRETIVE SIGN, TYPE D. Construct in accordance with Standard Drawing S-11C, Interpretive Sign, Type D.

622-4.01 METHOD OF MEASUREMENT. Park facilities with the unit measure each will be measured by the actual number of facilities completed and accepted.

Excavation and embankment for park facilities outside the limits shown on the plans will be measured for payment only if directed by the Engineer. Excavation and backfill required for items paid for under this Section will not be measured for payment.

Seat rocks at Orientation Kiosk will be subsidiary to that item and will not be measured separately for payment.

All work to relocate fee payment station is paid for and subsidiary to Item 202.0001.0000 Removal of Structures and Obstructions.

622-5.01 BASIS OF PAYMENT. The accepted quantity of park facilities will be paid for at the contract unit price per unit of measurement for the type specified completed in place, and listed below excluding all clearing, grubbing, topsoil and crushed aggregate base course, which shall be paid for separately at contract unit prices.

ADA Accessible models of a park facility item will be compensated at the same unit price as the standard model.

Payment will be made under:

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PAY ITEM

Item Number	Item Description	Unit
622.2005.00SE	Single Entrance Gate	Each
622.2010.0000	Concrete Parking Bumper	Each
622.2012.0000	Barrier Rock	Each
622.2015.0000	Interpretive Sign, Type D	Each
622.2017.0000	Orientation Kiosk	Each
622.2035.0000	Bike Repair Station	Each

(01/30/26)PARKS-Special Provision

Replace Section 641 with the following:

**SECTION 641
EROSION, SEDIMENT, AND POLLUTION CONTROL**

641-1.01 DESCRIPTION. Provide project administration and Work relating to control of erosion, sedimentation, and discharge of pollutants, according to this Section and applicable local, state, and federal requirements, including the Alaska Pollution Discharge Elimination System (APDES) Construction General Permit (CGP). The state APDES program is administered by the Department of Environmental Conservation (DEC). Section 301(a) of the Clean Water Act (CWA) and 18 AAC 83.015 provide that the discharge of pollutants to water of the U.S. is unlawful except as allowed by the CGP.

641-1.02 DEFINITIONS.

These definitions apply only to Section 641.

ACTIVE TREATMENT SYSTEM (ATS) OPERATOR. CGP Appendix C.

ALASKA CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (AK-CESCL). A person who has completed training, testing, and other requirements of, and is currently certified as, an AK-CESCL from an AK-CESCL Training Program (a program developed under a Memorandum of Understanding between the Department and others). The Department recognizes AK-CESCLs as “qualified personnel” required by the CGP. An AK-CESCL must be recertified every three years. (See Qualified Person)

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC). The state agency authorized by EPA to administer the Clean Water Act’s National Pollutant Discharge Elimination System.

ALASKA GENERAL PERMIT FOR EXCAVATION, DEWATERING (Excavation Dewatering Permit). Permit authorizing excavation dewatering discharges from Construction Activities.

ALASKA MULTI-SECTOR GENERAL PERMIT (MSGP). Permit authorizing storm water discharges associated with Industrial Activity.

ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM (APDES). A system administered by DEC that issues and tracks permits for storm water discharges.

BEST MANAGEMENT PRACTICES (BMPS). CGP Appendix C.

CLEAN WATER ACT (CWA). Federal Water Pollution Control Amendments of 1972, as amended (33 U.S.C. 1251 et seq.).

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CONSTRUCTION ACTIVITY. Ground disturbing activity by the Contractor, Subcontractor or utility company; that may result in erosion, sedimentation, or a discharge of pollutants into storm water. CGP Appendix C.

CONSTRUCTION GENERAL PERMIT (CGP). The permit authorizing storm water discharges from Construction Activities, issued and enforced by Alaska DEC. It authorizes storm water discharges providing permit conditions and water quality standards are met.

U.S. ARMY CORPS OF ENGINEERS PERMIT (COE Permit). U.S. Army Corps of Engineers Permit for construction in waters of the U.S. may be issued under Section 10 of the Rivers and Harbors Act of 1899, or Section 404 of the Clean Water Act.

ELECTRONIC NOTICE OF INTENT (ENOI). CGP Appendix C.

ELECTRONIC NOTICE OF TERMINATION (ENOT). CGP Appendix C.

ENVIRONMENTAL PROTECTION AGENCY (EPA). The federal agency charged to protect human health and the environment.

ERODIBLE STOCKPILE. Any material storage area or stockpile consisting of mineral aggregate, organic material, or a combination thereof, with greater than 5 percent passing the #200 sieve, and any material storage where wind or water transports sediments or other pollutants from the stockpile. Erodible Stockpile also includes any material storage area or stockpile where the Engineer determines there is potential for wind or water transport of sediments or other pollutants away from the stockpile.

EROSION AND SEDIMENT CONTROL PLAN (ESCP). The Department's project specific document that illustrates measures to control erosion and sediment on the project. The ESCP provides bidders with the basis for cost estimating and guidance for developing an acceptable Storm Water Pollutant Prevention Plan (SWPPP).

FINAL STABILIZATION. CGP Appendix C, "Stabilization".

HAZARDOUS MATERIAL CONTROL PLAN (HMCP). The Contractor's detailed project specific plan for prevention of pollution from storage, use, transfer, containment, cleanup, and disposal of hazardous material (including, but are not limited to, petroleum products related to construction activities and equipment). The HMCP is included as an appendix to the SWPPP.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT. A DEC storm water discharge permit issued to certain local governments and other public bodies, for operation of storm water conveyances and drainage systems. CGP Appendix C.

OPERATOR(S). The party(s) responsible to obtain CGP permit coverage. CGP Appendix C.

1. Contractor – the Contractor is an Operator inside and outside the Project Zone.
2. Department – the Department is an Operator inside the Project Zone.

POLLUTANT. Any substance or item meeting the definition of pollutant contained in 40 CFR § 122.2. A partial listing from this definition includes: dredged spoil, solid waste, sediment, sewage, garbage, sewage sludge, chemical wastes, biological materials, wrecked or discarded equipment, rock, sand, cellar dirt and industrial or municipal waste.

PROJECT ZONE. The physical area provided by the Department for Construction. The Project Zone includes the area of highway or facility under construction, project staging and equipment areas, and material and disposal sites; when those areas, routes and sites, are provided by the Contract.

Material sites, material processing sites, disposal sites, haul routes, staging and equipment storage areas; that are furnished by the Contractor or a commercial operator, are not included in the Project Zone.

QUALIFIED PERSON. CGP Appendix C and Section 641-1.04.

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN (SPCC PLAN). The Contractor's detailed plan for petroleum spill prevention and control measures that meet the requirements of 40 CFR 112.

SPILL RESPONSE FIELD REPRESENTATIVE. The Contractor's representative with authority and responsibility for managing, implementing, and executing the HMCP and SPCC Plan.

STORM EVENT. CGP Appendix C.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP). The Contractor's plan for compliance with the CGP for construction activities inside the Project zone, CGP Appendix C and Section 641.

STORM WATER POLLUTION PREVENTION PLAN TWO (SWPPP2). The Contractor's plan for compliance with the CGP and MSGP for construction activities outside the Project Zone.

SUPERINTENDENT. The Contractor's duly authorized representative with authority and responsibility for the overall operation of the Project and Contractor furnished sites and facilities.

SWPPP AMENDMENT. A modification to the SWPPP. CGP Part 5.0.

SWPPP MANAGER. The Contractor's Qualified Person with authority and responsibility. CGP Appendix C.

SWPPP PREPARER. The Contractor's Qualified Person with authority and responsibility. CGP Appendix C.

TEMPORARY STABILIZATION. CGP Appendix C, "Stabilization".

641-1.02.01 REFERENCE.

A list of websites and documents referenced herein, including SWPPP preparation documents and construction forms, are available at the Alaska State Parks Storm Water web page and Construction Forms webpage.

DEC Permit information is available at the DEC Division of Water webpage.

641-1.03 PLAN AND PERMIT SUBMITTALS.

For plans listed in Subsection 108-1.03.5 (SWPPP, HMCP, and SPCC), use the Contractor submission and Department review deadlines identified in this subsection. Partial and incomplete submittals will not be accepted for review. Any submittal that is re-submitted or revised after submission, but before the review is completed, will restart the submittal review timeline. No additional Contract time or additional compensation will be allowed due to delays caused by partial or incomplete submittals, or required re-submittals.

1. Storm Water Pollution Prevention Plan. Submit one electronic copy (single PDF file) and one hard copy of the SWPPP to the Engineer for approval. Deliver these documents to the Engineer at least 21 days before beginning Construction Activity. Organize the SWPPP and related documents for submittal according to the requirements of Subsection 641-2.01.2.

The Department will review the SWPPP submittals within 14 days after they are received. Submittals will be returned to the Contractor, and marked as either "rejected" with reasons listed or as "approved" by the Department. When the submittal is rejected, the Contractor must revise and resubmit the SWPPP. The 14-day review period will restart when the contractor submits an electronic copy and one hard copy of the revised SWPPP to the Engineer for approval.

After the SWPPP is approved and certified by the Department using Form 25D-109, the Contractor must certify the approved SWPPP using Form 25D-111. See Subsection 641-1.03.4 for further SWPPP submittal requirements.

Submit the final SWPPP. Transmit an electronic copy (single pdf file) of the final SWPPP to the Engineer when the Contractor's eNOT is filed, or within 30 days of the Department's eNOT being filed, whichever is sooner. Include all SWPPP documents.

2. Hazardous Material Control Plan. The HMCP Template is available at the AK State Parks Construction Forms webpage. The HMCP submittal, review timeline, and signature requirements are the same as the SWPPP.
3. Spill Prevention, Control, and Countermeasure Plan. When a SPCC Plan is required under Subsection 641-2.03, submit an electronic copy and one hard copy of the SPCC Plan to the Engineer. Deliver these documents to the Engineer at least 21 days before beginning Construction Activity. The Department reserves the right to review the SPCC Plan and require modifications.
4. CGP Coverage. The Contractor is responsible for permitting of Contractor and subcontractor Construction Activities related to the Project. Do not use the SWPPP for Construction Activities outside the Project Zone where the Department is not an operator. For Construction Activities outside the Project Zone, the Contractor must use a SWPPP2. Department approval is not required for a SWPPP2.

After the Department certifies the SWPPP and prior to beginning Construction Activity, submit an eNOI with the required fee to DEC for coverage under the CGP. Submit a copy of the signed eNOI and DEC's written acknowledgement (by letter or other document), to the Engineer as soon as practicable and no later than three days after filing eNOI or receiving a written response.

Do not begin Construction Activity until the conditions listed in Subsection 641-3.01.1 are completed.

The Department will submit an eNOI to DEC for Construction Activities inside the Project Zone. The Engineer will provide the Contractor with a copy of the Department's eNOI and DEC's written acknowledgment (by letter or other document), for inclusion in the SWPPP.

Before Construction Activities occur, transmit to the Engineer an electronic copy and one hard copy of the approved and certified SWPPP, with signed Delegations of Signature Authorities on Forms 25D-107 and 25D-108, SWPPP Certifications on Forms 25D-111 and 25D-109, both permittee's signed eNOIs and DEC's written acknowledgement.

5. DEC SWPPP Review. When CGP Part 2.1.3, or 2.1.4 requires DEC SWPPP review:
 - a. Transmit a copy of the Department-approved SWPPP to DEC using delivery receipt confirmation;
 - b. Transmit a copy of the delivery receipt confirmation to the Engineer within seven days of receiving the confirmation; and
 - c. Retain a copy of delivery receipt confirmation in the SWPPP.
6. Local Government SWPPP Review. When local government or the CGP Part 2.1.4, requires local government review:

- a. Transmit a copy of the Department-approved SWPPP and other information as required to local government, with the required fee. Use delivery receipt confirmation;
 - b. Transmit a copy of the delivery receipt confirmation to the Engineer within seven days of receiving the confirmation;
 - c. Transmit a copy of any comments by the local government to the Engineer within seven days of receipt;
 - d. Amend the SWPPP as necessary to address local government comments and transmit SWPPP Amendments to the Engineer within seven days of receipt of the comments;
 - e. Include a copy of local government SWPPP review letter in the SWPPP; and
 - f. File a notification with local government that the project is ending.
7. Modifying Contractor's eNOI. When required by the CGP Part 2.7, modify your eNOI to update or correct information within 30 calendar days of the change. Reasons for modification are in the CGP Part 2.7.1. The Contractor must submit an eNOT instead of an eNOI modification when the operator has changed. The new operator must file an eNOI to obtain permit coverage.

641-1.04 PERSONNEL QUALIFICATIONS.

Provide documentation in the SWPPP that the individuals serving in these positions meet the personnel qualifications. The Department accepts the following certificates as equivalent to AK-CESCL: Certified Professional in Erosion and Sediment Control (CPESC), or Certified Inspector in Sediment, and Erosion Control Certified (CISEC). These equivalent certificates are included in the CGP Appendix C and repeated below.

TABLE 641-1.04 PERSONNEL QUALIFICATIONS

Personnel Title	Required Qualifications
SWPPP Preparer	1. Current certification as a Certified Professional in Erosion and Sediment Control (CPESC); or 2. Current certification as AK-CESCL, and at least two years' experience in erosion and sediment control as a SWPPP Manager or SWPPP writer, or equivalent; or 3. Professional Engineer registered in the State of Alaska with current certification as AK-CESCL.
Superintendent	Current AK-CESCL, or substitute training from CGP Appendix C, Qualified Person Table 4
SWPPP Manager	Current AK-CESCL or substitute training from CGP Appendix C, Qualified Person Table 4.

Personnel Title	Required Qualifications
Active Treatment System Operator	Current AK-CESCL or substitute training from CGP Appendix C, Qualified Person Table 4. ATS operator should possess a recognized certification, or professional standing, or who by extensive knowledge, training, and experience has successfully demonstrated the ability to meet the ATS requirement.

641-1.05 SIGNATURE/CERTIFICATION REQUIREMENTS AND DELEGATIONS.

1. eNOI and eNOT. The eNOI, eNOT, and eNOI Modifications must be signed and certified by a responsible corporate officer according to CGP Appendix A, Part 1.12. Signature and certification authority for the eNOI and eNOT cannot be delegated.
2. Delegation of Signature Authority for Other SWPPP Documents and Reports. Use Form 25D-108 to delegate signature authority and certification authority to the Superintendent position, according to CGP Appendix A, Part 1.12.3, for the SWPPP, Inspection Reports and other reports required by the CGP. The Superintendent position is responsible for signing and certifying the SWPPP, Inspection Reports, and other reports required by the CGP, except the eNOI, eNOI Modifications, and eNOT. The Engineer will provide the Department's delegation on Form 25D-107, which the Contractor must include in the SWPPP.
3. Subcontractor Certification. Subcontractors must certify on Form 25D-105, that they have read and will abide by the CGP and the conditions of the project SWPPP.
4. Signatures and Initials. Certify or initial the CGP documents and SWPPP forms, wherever a signature or initial is required.

641-1.06 RESPONSIBILITY FOR STORM WATER PERMIT COVERAGE.

107-1.02 includes the requirements to obtain permits, and to provide permit documents to the Engineer.

1. The Department and the Contractor are jointly responsible for permitting and permit compliance within the Project Zone.
2. The Contractor is responsible for permitting and permit compliance for all construction support activity in the Project Zone and outside the Project Zone. The Contractor has sole responsibility for compliance with DEC, COE, and other applicable federal, state, and local requirements, and for securing all necessary clearances, rights, and permits. The Contractor is responsible for protection, care, and upkeep of all work, and all associated off-site zones.

3. The Contractor is responsible for obtaining an Excavation Dewatering Permit (AKG002000) if construction activities are within 1,500 feet of a DEC-identified contaminated site or groundwater plume.
4. An entity that owns or operates, a commercial plant (as defined in Subsection 108-1.01.4) or material source or disposal site outside the Project Zone, is responsible for permitting and permit compliance. The Contractor has sole responsibility to verify that the entity has appropriate permit coverage.
5. The Department is not responsible for permitting or permit compliance, and is not liable for fines resulting from noncompliance with permit conditions:
 - a. For areas outside the Project Zone;
 - b. For Construction Activity and Support Activities outside the Project Zone; and
 - c. For commercial plants, commercial material sources, and commercial disposal sites.

641-1.07 UTILITY.

Relocation Coverage. A Utility company is not an Operator when utility relocation is performed concurrently with the Project, as outlined in Section 105-1.06. The Department maintains operational control over the Utility's plans and specifications for coordination with project construction elements, and the Contractor has day-to-day control over the various utility construction activities that occur in support of the Project. A Utility company is considered a subcontractor for concurrent relocation.

After the Contractor has an active NOI for the Project, a Utility Company performing advance relocation work under a separate SWPPP no longer has Operator status and files the NOT for the Utility Company's SWPPP covering only the completed utility work. Remaining utility relocation work is included in and performed under the Project SWPPP.

641-2.01 STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS.

1. SWPPP Preparer and Pre-Construction Site Visit.
Use a SWPPP Preparer to develop the SWPPP according to the CGP, DEC and Department SWPPP Template. Subsection 641-1.02.01 provides directions to templates.

The SWPPP Preparer must conduct a pre-construction inspection at the Project site before construction activity begins. If the SWPPP Preparer is not a Contractor employee, the SWPPP Preparer must visit the site accompanied by the Contractor. Give the Department at least seven days advance notice of the site visit, so that the Department may participate.

Document the SWPPP Preparer's pre-construction inspection in the SWPPP on Form 25D-106, SWPPP Pre-Construction Site Visit, include the names of attendees and the date.

2. Developing the SWPPP.

- a. Meet all CGP requirements.
- b. Use the Department's ESCP, Environmental commitments, and other Contract documents as a starting point for developing the SWPPP.
- c. Develop the SWPPP with sections and appendices according to the DEC CGP SWPPP Template and DOT&PF SWPPP Template. Include the information required by the Contract and described in the CGP Part 5.0. Use the forms available at the DOT&PF Construction Forms website.
- d. Compile the SWPPP in three ring binders with tabbed and labeled dividers for each appendix. Submit the SWPPP according to Subsection 641-1.03.

3. SWPPP Considerations and Contents.

- a. The SWPPP must provide erosion and sediment control measures for all Construction Activity within the Project Zone.

Construction activity outside the Project Zone must have permit coverage. Document permit compliance according to SWPPP2 requirements.

- b. The SWPPP must consider the activities of the Contractor and all subcontractors and utility companies performing work in the Project Zone. Describe the roles and responsibilities of the Contractor, subcontractors, utility companies, and the Department with regard to implementation of the SWPPP. Include the utility companies and other operators performing Construction Activity.
Identify areas:

- (1) Over which each operator has operational control; and
- (2) Where the Department and Contractor are co-operators.

- c. For work outside the Project Zone the SWPPP must identify the entity that has storm water permit coverage, the operator, and areas that are:

- (1) Dedicated to the Project and where the Department is not an operator; and
- (2) Not dedicated to the project, but used for the project.

- d. If the project discharges to a Tier III, Outstanding Natural Resource Water, comply with the CGP Part 2.1.6. Submittal deadlines apply prior to filing an eNOI and

beginning construction activities. As of the issuance of the CGP 2021, no Tier III, Outstanding Natural Resource Water is designated in the State of Alaska.

- e. There are special requirements in the CGP Part 3.2, for storm water discharges into an impaired water body. Monitoring of storm water discharges may be required. The Contractor is responsible for monitoring and reporting inside and outside the project zone.
- f. Describe the sequence and timing of activities that disturb soils and BMP implementation and removal. Phase earth-disturbing activities to minimize unstabilized areas, and to achieve temporary or final stabilization. Whenever practicable incorporate final stabilization work into excavation, embankment, and grading activities. Include drawings showing each phase of the project with the BMPs implemented in the Phase.
- g. Delineate the site according to the CGP Part 4.2.1.
- h. Minimize the amount of soil exposed and preserve natural topsoil on site, unless infeasible according to the CGP Part 4.2.2.
- i. Describe methods and time limits, to initiate temporary or final soil stabilization. Comply with stabilization requirements in the CGP Part 4.5.
- j. If construction will cease during winter months, describe all requirements for winter shutdown according to the CGP Part 4.12.
- k. Plans for ATS must meet with the requirements in the CGP Part 2.1.5 and 4.6.
- l. Design all temporary BMPs to accommodate a two year 24-hour storm event. Describe and document all installed control measures in the SWPPP according to the CGP Part 5.3.6. Include a citation from a published BMP Manual, publication, or manufacturers specification used as a source, or include a statement "No BMP Manual was used for this design". If using out of state BMPs, follow the instructions in the DOT&PF SWPPP Guide.
- m. Provide a legible site map or set of maps in the SWPPP, showing the entire site and identifying boundaries of the property where construction and earth-disturbing activities will occur. Include all elements described in the CGP Part 5.3.5 and the DEC CGP SWPPP Template Section 5.0.
- n. Identify the inspection frequency in the SWPPP according to the CGP Part 6.1; except, inspect once every seven calendar days regardless of the precipitation amount.
- o. Linear Project Inspections, described in CGP Part 6.5, are not applicable to this Contract.

- p. The SWPPP must cite and incorporate applicable requirements of the Project permits, environmental commitments, COE permit, and commitments related to historic preservation. Make additional consultations or obtain permits as necessary for Contractor specific activities that were not included in the Department's permitting and consultation.
- q. The SWPPP is a dynamic document. Keep the SWPPP current by noting installation, modification, and removal of BMPs, and by using amendments, SWPPP amendment logs, Inspection Reports, corrective action logs, records of land disturbance and stabilization, and any other records necessary to document storm water pollution prevention activities and to satisfy the requirements of the CGP and this specification. See Subsection 641-3.03 for more information.

4. Recording Personnel and Contact Information in the SWPPP.

Identify the SWPPP Manager as the Storm Water Lead and Storm Water Inspector positions in the SWPPP. Document the SWPPP Manager's responsibilities in Section 2.0 Storm Water Contacts, of the SWPPP Template and:

- a. Identify that the SWPPP Manager does not have authority to sign inspection reports (unless the SWPPP Manager is also the designated project Superintendent).
- b. Identify that the SWPPP Manager cannot prepare the SWPPP unless the SWPPP Manager meets the Contract requirements for the SWPPP Preparer.

Include in the SWPPP proof of AK-CESCL, or equivalent certifications for the Superintendent and SWPPP Manager, and for any acting Superintendent and acting SWPPP Managers. If the Superintendent or SWPPP Manager is replaced, permanently or temporarily, by an acting Superintendent or acting SWPPP Manager; record in the SWPPP, on Form 25D-127, the names of the replacement personnel, and date of replacement. For temporary personnel, record their beginning and ending dates.

Provide 24-hour contact information for the Superintendent and SWPPP Manager. The Superintendent and SWPPP Manager must have 24-hour contact information for all Subcontractor SWPPP Coordinators and Utility SWPPP Coordinators.

Include in the SWPPP, proof of AK-CESCL or equivalent certifications of ATS operators. Record names of ATS operators and their beginning and ending dates, on Form 25D-127.

The Department will provide proof of AK-CESCL, or equivalent certifications for the Department's Project Engineer, Storm Water Inspectors, and Monitoring Person, and names and dates they are acting in that position. Include Department's staff

certifications in SWPPP Appendix E. Include the Department's staff names, dates acting, and assignments in Section 2.0 of the SWPPP and on Form 25D-127.

641-2.02 HAZARDOUS MATERIAL CONTROL PLAN (HMCP) REQUIREMENTS.

Prepare the HMCP using the Department template for the prevention of pollution from storage, use, containment, cleanup, and disposal of all hazardous material, including petroleum products related to construction activities and equipment. Include the HMCP as an appendix to the SWPPP. Compile Material Safety Data Sheets in one location and reference that location in the HMCP.

641-2.03 SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN (SPCC Plan) REQUIREMENTS.

Prepare and implement an SPCC Plan, required by 40 CFR 112; when both of the following conditions are present on the project:

1. Oil or petroleum products from a spill may reach navigable waters (defined in 40 CFR 112), and
2. Total above ground storage capacity for oil and any petroleum products is greater than 1,320 gallons (not including onboard tanks for fuel or hydraulic fluid used primarily to power the movement of a motor vehicle or ancillary onboard oil-filled operational equipment, and not including containers with a storage capacity of less than 55 gallons).

Reference the SPCC Plan in the HMCP and SWPPP.

641-2.04 RESPONSIBILITY AND AUTHORITY OF THE SUPERINTENDENT AND SWPPP MANAGER.

The Superintendent shall certify the SWPPP, Inspection Reports, and other reports required by the CGP, except the eNOI and eNOT. The Superintendent may not delegate the task or responsibility of certifying these documents.

The Superintendent may assign certain duties to the SWPPP Manager.

1. Ensuring Contractor's and subcontractor's compliance with the SWPPP and CGP;
2. Ensuring the control of erosion, sedimentation, or discharge of pollutants;
3. Directing and overseeing installation, maintenance, and removal of BMPs;
4. Performing Inspections; and
5. Updating the SWPPP including adding amendments and forms.

When Bid Item 641.0007.0000 is part of the Contract, the SWPPP Manager must be a different person than the Superintendent, be available at all times to administer SWPPP

requirements, and be physically present within the Project Zone or the project office, when construction activities are occurring.

The Superintendent and SWPPP Manager shall be knowledgeable in the requirements of Section 641, the SWPPP, CGP, BMPs, HMCP, SPCC Plan, environmental permits, and environmental commitments.

The Superintendent and SWPPP Manager shall have the Contractor's complete authority and be responsible for suspending construction activities that do not conform to the SWPPP or CGP.

641-2.05 MATERIALS.

Use materials suitable to withstand hydraulic, wind, and soil forces, and to control erosion and trap sediments according to the requirements of the CGP and the Specifications.

Use the seed mixture specified in the Contract or as directed by the Engineer.

Use soil stabilization material as specified in Section 727.

Use silt fences as specified in Section 729.

Use straw and straw products certified weed free of prohibited and restricted noxious weed seed and quarantined pests, according to Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34). When straw or straw products certified according to 11 AAC 34 are not available, use non-certified products manufactured within Alaska before certified products manufactured in another state, country, or territory. Non-certified straw or straw products manufactured in another state, country, or territory shall not be used. Grass, legumes, or any other herbaceous plants produced as hay, shall not be substituted for straw, or straw products.

641-3.01 CONSTRUCTION REQUIREMENTS.

Comply with the SWPPP and the requirements of the CGP Part 5.0.

1. Before Construction.

The following actions must be completed before Construction Activity begins:

- a. The SWPPP Preparer must visit the Project. Document the visit on SWPPP Form 25D-106. The SWPPP must be developed, or amended with the findings from the visit.
- b. The SWPPP must be approved by the Engineer on Form 25D-109.
- c. The Contractor must be authorized to begin work by the Engineer.

- d. The Project must have an eNOI for the Department and for the Contractor.
- e. The Department approved SWPPP must be submitted to DEC and Local Governments per CGP Part 2.1.2, Part 2.1.4, and Part 2.4.1.
- f. The Contractor has transmitted to the Engineer an electronic copy, and at least one hardcopy of the approved SWPPP.
- g. The Delegation of Authority, Forms 25D-108 and 25D-107, for both the Contractor and Engineer are signed.
- h. Main entrance signage must meet the requirements of CGP Part 5.10.2.
Post notices on the outside wall of the Contractor's project office, and near the main entrances of the construction project. Protect postings from the weather. Locate postings so the public can safely read them without obstructing construction activities or the traveling public (for example, at an existing pullout). Do not use retroreflective signs for the SWPPP posting. Do not locate SWPPP signs in locations where the signs may be confused with traffic control signs or devices. Update the notices if the listed information changes.
- i. Track precipitation according to CGP Part 7.3.9. Submit the method to track precipitation to the Engineer for approval.

2. During Construction.

- a. Delineate The Site. Comply with the CGP Part 4.2.1.
- b. BMPs. Install BMPs according to the SWPPP prior to the initiation of ground disturbance.
- c. Document subcontractors. Provide a copy of the SWPPP and the CGP to all subcontractors and utility companies before they begin soil-disturbing activities. Verify they understand and comply with the SWPPP and CGP.
 - (1) Document all subcontractors and utility companies that may work on the site, according to the CGP Part 5.3.1, and SWPPP Section 1.2.
 - (2) Require subcontractors and utility companies to sign the SWPPP Subcontractor Certification, Form 25D-105. Include Form 25D-105 in the SWPPP Appendix E.
 - (3) Inform subcontractors and utility companies, in a timely manner, of SWPPP amendments that affect them. Coordinate with subcontractors and utility companies to protect BMPs, including temporary and final stabilization from damage.

- (4) Notify the Engineer immediately if the actions of any utility company or subcontractor do not comply with the SWPPP and the CGP.
- d. Provide Training. Provide ongoing training to all employees, subcontractors, and utility companies according to the CGP Part 4.14.
 - (1) Provide training no less than once a month during construction activity;
 - (2) Document training in the SWPPP Training Log on Form 25D-125. Include the training record in the SWPPP Appendix I.
- e. Protection and Restoration. Comply with Subsection 107-1.11.
- f. Good Housekeeping Measures. Comply with the SWPPP and CGP Part 4.8.
- g. Control Measures. Comply with the SWPPP and CGP Part 5.3.6.
 - (1) Maintain BMPs.
 - (2) Comply with requirements of the HMCP and SPCC Plan, and all local, state, and federal regulations that pertain to the handling, storage, containment, cleanup, and disposal of petroleum products or other hazardous materials.
 - (3) Keep the SWPPP and HMCP current, Subsection 641-2.01.3, SWPPP Considerations and Contents.
- 3. Winter Construction.
If winter construction activity occurs, the project must have BMPs in place, Part 4.12.2. Inspections can be reduced to once per month if the project meets the CGP Part 6.2.4.
- 4. Storm Water Discharge Pollutant Reporting Requirements.
If an incident of non-compliance occurs, that may endanger health or the environment, a report must be made, CGP Appendix A, Part 3.4.

A permit non-compliance is any type of pollutant, such as turbidity or petroleum that enters storm water runoff and flows into a receiving water body, MS4, or wetland that is connected to waters of the U.S.

- a. Report the incident to the Engineer immediately;
- b. Report to DEC orally within 24 hours after the permittee becomes aware of the incident; and
- c. Report to DEC in writing within five days after the permittee becomes aware of the circumstances. To report in writing, complete the written noncompliance report on

Form 25D-143, and file the written report with DEC. Coordinate the report with the Engineer. Include in the report:

- (1) A description of the noncompliance and its causes;
- (2) The exact dates and times of noncompliance;
- (3) If not yet corrected the anticipated time the project will be brought back into compliance; and
- (4) The corrective action taken or planned to reduce, eliminate and prevent reoccurrence.

d. Report an incident of noncompliance with COE Permits to the Engineer immediately. The Engineer will notify the COE.

5. Hazardous Materials Reporting Requirements.

Report any release of a hazardous substance immediately to the Engineer, as soon as the person has knowledge of the discharge.

Report spills of petroleum products or other hazardous materials to the Engineer and other agencies as required by law, and according to the CGP Part 9.3.

a. To water.

Any amount of hazardous material released must be reported immediately to the Engineer, DEC, and the Coast Guard.

b. To land.

Any release of a petroleum product, must be reported as soon as the person has knowledge of the discharge, CGP Part 9.3.2.

(1) Release in excess of 55 gallons,

(2) Release in excess of 10 gallons but less than 55 gallons, must be reported to the DEC within 48 hours after the person has knowledge of the discharge, and

(3) Release in excess of 1 gallon to 10 gallons, must be recorded, logged, and provided to the DEC on a monthly basis.

c. Use the HMCP and SPCC Plan for contact information to report spills to regulatory agencies.

d. Implement measures to prevent the reoccurrence of and to respond to the release of hazardous materials.

- e. Prior to disposal of contaminated material, submit a Contaminated Media Transport and Treatment Disposal Approval Form to the DEC Division of Spill Prevention and Response. Dispose as approved by the DEC.

6. Maintenance of BMPs and Corrective Action.

Implement maintenance and corrective action as required by the CGP Part 4.13 and Part 8.0, SWPPP, and manufacturer's specifications, whichever is more restrictive.

- a. Implement corrective actions. Comply with the CGP Part 8.0 and the SWPPP.
- b. Corrective Action deadlines and documentation.

(1) Complete Corrective actions according to the CGP Part 8.2.

(2) Document corrective actions in the Corrective Action Log, Form 25D-112, according to the SWPPP, CGP Part 5.9.2, and Part 8.3.

If a different BMP is installed to correct the condition leading to the corrective action, a SWPPP Amendment must be completed.

(3) Document the conditions, in the Corrective Action Log, for corrective actions not completed according to the CGP 8.2. Notify the Engineer, and implement the corrective action as soon as possible.

The Engineer may assign a new complete-by date using a Delayed Action Item Report, Form 25D-113 (DAIR Form), if the Contractor is unable to complete the corrective action within the required timeframe. The DAIR Form can only be authorized and completed by the Engineer.

7. Stabilization.

- a. All Soil stabilization requirements must be met in accordance with CGP Part 4.5 and the SWPPP.
- b. When temporary or permanent seeding is required, provide a working hydro seeding equipment located within 100 miles of the project by road; with 1,000 gallon or more tank capacity, paddle agitation of tank, and the capability to reach the seed areas with an uniform mixture of water, seed, mulch and tackifier. If the project is located in an isolated community, the hydro-seeder must be located at the project.
- c. Apply temporary seed and stabilization measures after preparing the surface to reduce erosion potential and to facilitate germination and growth of vegetative cover according to Section 618 and 619.

- d. Apply permanent seed and other stabilization measures after land-disturbing activity has permanently ceased. Comply with the CGP, SWPPP, and the Contract Sections 618, 619, 724, and 727.
- e. Incorporate final or temporary stabilization immediately after installing culverts or other drainage structures to satisfy the CGP Part 4.5, SWPPP and Engineer. Stabilize under any bridge and in areas upstream and downstream of culverts, drainages and areas disturbed by related construction activities after installation, or before deactivating stream bypass or diversion.
- f. Stabilization before Fall Freeze-up, and Spring Thaw.
Stabilize Construction Activities within the Project Zone with BMPs prior to the anticipated date of fall freeze-up, according to the SWPPP and CGP Part 4.12. Exceptions to stabilization prior to anticipated date of fall freeze-up include:
 - (1) Where temporary stabilization activities are precluded by snow cover or frozen ground conditions prior to the anticipated date of fall freeze-up, stabilization measures must be initiated as soon as practicable following the actual spring thaw.
 - (2) When winter construction activity is authorized by the Engineer and conducted according to the Contract.

8. Ending CGP Coverage.

- a. The Engineer will determine the date that the following conditions for ending CGP coverage have been met within the Project Zone:
 - (1) Land disturbing activities have ceased;
 - (2) Final Stabilization has been achieved on all portions of the Project Zone, including Department furnished material sources, disposal sites, staging areas, equipment areas, etc., according to the CGP Part 4.5.2; and
 - (3) Temporary BMPs have been removed.
- b. After the Engineer has determined the conditions for submitting an eNOT have been met according to the CGP Part 10.2, the Department will:
 - (1) Send written notice to the Contractor with the date that the conditions were met;
 - (2) Submit an eNOT to DEC within 30 days, and
 - (3) Provide a copy of the eNOT and DEC's acknowledgement letter to the Contractor.

- c. If the Contractor's CGP eNOI acreage includes Support Activities and any other areas where the Department is not an Operator, the Contractor may not be able to file an eNOT at the same time as the Department.
 - d. The Contractor must submit a copy of each signed eNOT and DEC's acknowledgement letter to the Department within three days of filing the eNOT or receiving a written response. Insert the eNOT and DEC acknowledgement letter in the SWPPP Appendix Q.
 - e. The Contractor is responsible for coordinating local government inspections of work and ending permit coverage with local governments. See Subsection 641-1.03.6 for more information.
9. Ending Inspections, BMP maintenance, and SWPPP Updates in the Project Zone.
The Contractor is responsible for continuing inspections, BMP maintenance, and SWPPP updates until permit coverage is ended.
10. Transmit final SWPPP.
Transmit one electronic copy of the final SWPPP to the Engineer according to Subsection 641-1.03.1.

641-3.02 SWPPP DOCUMENTS, LOCATION ON-SITE, AVAILABILITY, AND RECORD RETENTION.

The SWPPP and related documents maintained by the Contractor are the Record for demonstrating compliance with the CGP. Copies of SWPPP documents transmitted to the Engineer under the requirements of this specification are informational and do not relieve the Contractor's responsibility to maintain complete records as required by the CGP and this specification.

Keep the SWPPP, HMCP, and SPCC Plan at the on-site project office. If there is not an on-site project office, keep the documents at a locally available location that meets CGP requirements and is approved by the Engineer. Records may be moved to another office for record retention after the eNOTs are filed. Records may be moved to another office during winter shutdown. Update on-site postings if records are relocated during winter shutdown. Provide the Department with copies of all Records. Retain Records including a copy of the SWPPP, for at least three years after the date of eNOT according to the CGP Part 9.4.

The SWPPP and related documents must be made available for review and copy, to the Department and other regulatory agencies that request them. See CGP Parts 5.10, 6.6 and 9.5.

641-3.03 SWPPP INSPECTIONS, AMENDMENTS, REPORTS, AND LOGS.

Perform Inspections, prepare Inspection Reports, and prepare SWPPP Amendments in compliance with the SWPPP and the CGP using Department forms from the DOT&PF Construction Forms website.

1. Inspection during Construction.

Conduct Inspections according to the schedule and requirements of the SWPPP and CGP Part 6.0, except inspect once every seven calendar days regardless of the precipitation amount, Subsection 641-2.01.3.n.

Inspections required by the CGP and SWPPP must be performed by the Contractor's SWPPP Manager and the Department's Storm Water Inspector jointly, unless approved by the Engineer, when:

- a. One of the inspectors is not on site, access is only by air, and weather delayed or canceled flights;
- b. One of the inspectors is sick;
- c. The project is on a reduced frequency inspection schedule with no staff on site, the only access to the site is by air, and it is economical to send only one inspector; or
- d. When the Engineer determines a safety concern that makes joint inspection impracticable.

When this is the case, the Operator who conducts the Inspection must provide a copy of the Inspection Report to the other Operator within three days of the Inspection date and document the date of the report transmittal in Appendix K.

2. Inspection Reports.

Use only the Department SWPPP Construction Site Inspection Report, Form 25D-100, to record Inspections. Changes or revisions to Form 25D-100 are not permitted, except for adding or deleting data fields that list: Location of Discharge Points and Site Specific BMPs. Complete all fields in the Inspection Report; do not leave any field blank.

The Superintendent or SWPPP Manager must review and correct all errors within three days of the date of inspection.

Inspection Reports must be signed by the person described in the CGP Appendix A, Part 1.12 or by a duly authorized representative of that person. Only the Superintendent can certify the Inspection Form.

Insert a Complete-by-Date for each corrective action listed that complies with the CGP Part 8.2.

Provide a copy of the completed, unsigned Inspection Report to the Engineer by the end of the next business day following the inspection.

The Engineer may coordinate with the Superintendent to review and correct any errors or omissions before the Superintendent signs the report. Corrections are limited to adding missing information or correcting entries to match field notes and conditions present at the time the Inspection was performed. The signed and certified Inspection Report must be provided to the Engineer on the same day the Superintendent signed the form.

The Engineer will sign and certify the Inspection Report and will return the original to the Contractor within three working days if compliant with the CGP and SWPPP.

If the Inspection Report is not compliant with the CGP or SWPPP, the Engineer may make corrections after the Superintendent has signed and certified the Inspection Report. The Engineer will initial and date each correction. If the Engineer makes corrections, the Superintendent must recertify the Inspection Report by entering a new signature and date in the white space below the original signature and date lines. Send a copy of the recertified Inspection Report to the Engineer on the day it is recertified. When an Inspection Report, certified by both the Superintendent and Engineer, requires corrections:

- a. Document the corrections in an addendum memo addressing only the omitted or erroneous portions.
- b. Superintendent and Engineer sign and certify the updated Inspection Report and the addendum memo.
- c. File the corrected Inspection Report and addendum memo in Appendix K and update the amendment log.

The issuance of an addendum memo does not relieve the Contractor of liquidated damages that may have been incurred as a result of the error on the original certified inspection report.

3. Items and Areas to Inspect.

Conduct inspections of all areas required by the CGP Part 6.4 and SWPPP.

4. Reduced Inspection Frequencies.

Conduct Inspections according to the inspection schedule indicated in the approved SWPPP. Any change in inspection frequency must be approved by the Engineer, and beginning and ending dates documented as an amendment to the SWPPP.

The frequency of inspections may be reduced according to the CGP Part 6.2.1 if the site is stabilized and the reduced frequency is approved by the Engineer. At actively

staffed sites, inspect within two business days of the end of a storm event that results in a discharge from the site.

5. Winter Shutdown Inspections.

Conduct winter shutdown inspection 14 calendar days after the anticipated fall freeze-up date and conditions under the CGP Parts 4.12. and 6.2.3, and the SWPPP are met. The Engineer may approve suspension of inspections and waive requirements for updating the Grading and Stabilization Activities Log and Daily Record of Rainfall, Form 25D-115, during winter shutdown.

Inspections must resume on a regular frequency or reduced inspection frequency identified in the SWPPP, at least 21 days before anticipated spring thaw, CGP Part 6.2.3. Resume updating the Daily Record of Rainfall Form at the start of the 21-day spring thaw inspection.

6. Inspection before Project Completion.

Conduct Inspection to ensure Final Stabilization is complete throughout the Project, and temporary BMPs that are required to be removed are removed. Temporary BMPs that are biodegradable and are specifically designed and installed with the intent of remaining in place until they degrade, may remain in place after project completion if approved by the Engineer.

7. SWPPP Amendments and SWPPP Amendment Log.

The SWPPP Amendment Log, Form 25D-114, must be filled out by an individual who holds a current AK-CESCL, or equivalent certification. The Superintendent or the SWPPP Manager must sign and date amendments to the SWPPP and updates to the SWPPP Amendment Log.

SWPPP Amendments must be approved by the Engineer.

Amendments must occur:

- a. Whenever there is a change in design, construction operation, or maintenance at the construction site that has or could cause erosion, sedimentation or the discharge of pollutants that has not been previously addressed in the SWPPP;
- b. If an Inspection identifies that any portion of the SWPPP is ineffective in preventing erosion, sedimentation, or the discharge of pollutants;
- c. Whenever an Inspection identifies a problem that requires additional or modified BMPs or a BMP not shown in the original SWPPP is added;
- d. If the Inspection frequency is modified (note beginning and ending dates);
- e. When there is a change in personnel who are named in the SWPPP, according to Subsection 641-2.01;

- f. When an inspection is not conducted jointly;
- g. When an eNOI modification is filed;
- h. When a Noncompliance Report is filed with the DEC.

Place all correspondence with the DEC, EPA or MS4s in Appendix Q.

Amend the SWPPP as soon as practicable after any change or modification, but in no case, later than seven days following identification of the need for an amendment. All SWPPP Amendments must have an amendment number, be dated, and signed.

Keep the SWPPP Amendment Log current. Prior to a scheduled Inspection or submittal of an inspection, submit to the Engineer a copy of the pages of the Amendment Log that contain new entries since the last submittal. Include copies of any documents amending the SWPPP.

Keep the SWPPP Amendment Log in appendix M.

8. Site Maps.

Maintain site maps in accordance with CGP Part 5.3.5 and the SWPPP Template 5.0. It is acceptable to have separate site maps for BMPs, grading and stabilization activities.

9. Corrective Action Log.

The Superintendent and SWPPP Manager are the only persons authorized to make entries on the SWPPP Corrective Action Log, Form 25D-112.

The Corrective Action Log must document corrective actions required by the conditions listed in the CGP Part 8.0. Document the need for corrective action within 24 hours of either:

- a. Identification during an inspection, or
- b. Discovery by the Department's or Contractor's staff, a subcontractor, or a regulatory agency inspector.
- c. If a corrective action is discovered outside of an inspection, update the log with the date of discovery, the proposed corrective action, and the date the corrective action was completed.

Keep the Corrective Action Log current and submit a copy to the Engineer prior to performing each scheduled SWPPP Inspection.

Keep the Corrective Action Log in Appendix J.

10. Grading and Stabilization Activities Log.

The Superintendent and SWPPP Manager are the only persons authorized to date and initial entries on the SWPPP Grading and Stabilization Activities Log, Form 25D-110. Use the SWPPP Grading and Stabilization Activities Log, to record land disturbance and stabilization activities.

Keep the Grading and Stabilization Activities Log current and submit a copy to the Engineer prior to performing each scheduled SWPPP Inspection. Keep the Grading and Stabilization Activities Log organized and completed to demonstrate compliance with the CGP Part 4.5.

Keep the Grading and Stabilization Activities Log in Appendix G.

11. Daily Record of Rainfall.

Use SWPPP Daily Record of Rainfall, Form 25D-115, to comply with CGP Part 7.3.9. Submit a copy to the Engineer with each completed Inspection Report. Keep the Daily Record of Rainfall current in Appendix N.

12. Staff Tracking Log.

Use the SWPPP Project Staff Tracking, Form 25D-127, to identify project staff that are required to be AK-CESCL certified or an equivalent qualification, CGP Appendix C. Complete this form to document the positions of Superintendent, SWPPP Manager, Engineer, DOT&PF Storm Water Inspector, and when these positions have changed personnel, either permanently or temporarily. Update the SWPPP Project Staff Tracking Form within 24 hours of any changes in personnel, qualifications, or other staffing items related to administration of the CGP or Section 641.

641-3.04 FAILURE TO PERFORM WORK.

The Engineer has authority to suspend work and withhold monies for an incident of non-compliance with the CGP, or the SWPPP, that may endanger health or the environment or for failure to perform work related to Section 641.

Non-compliance.

1. Incidents of Non-compliance. Failure to:

- a. Obtain appropriate permits before Construction Activities occur;
- b. Perform SWPPP Administration;
- c. Perform timely Inspections;

- d. Update the SWPPP;
 - e. Transmit updated SWPPP, Inspection Reports, and other updated SWPPP forms to the Engineer;
 - f. Maintain effective BMPs to control erosion, sedimentation, and pollution in accordance with the SWPPP, the CGP, and applicable local, state, and federal requirements;
 - g. Perform duties according to the requirements of Section 641;
 - h. Meet requirements of the CGP, SWPPP, or other permits, laws, and regulations related to erosion, sediment, or pollution control; or
 - i. Any other requirements established or included in the Contract.
2. **Notice of non-compliance**, either oral or written will include:
- a. Reason/defects
 - b. Corrective actions required
 - c. Time allowed for completing the corrective action
3. **Levels of Non-compliance and Response** correspond with harm to the workers, the public or the environment and whether the harm is:
- a. **Not-imminent**, the Engineer will either orally or in writing, or both, provide notice to the Contractor indicating the incident of non-compliance.
Contractor's that take corrective action and complete the action to the satisfaction of the Engineer, within the time specified, may return to the status of compliance, and avoid elevating the response to imminent.
 - b. **Imminent**, the Engineer will orally provide notice to the Contractor of non-compliance and promptly provide written notice to suspend work until corrective action is completed.

Additional actions, taken against the Contract whether the level of non-compliance is Not-imminent or Imminent, may include:

- a. Withholding monies until corrective action is completed
- b. Assessing damages or equitable adjustments
- c. Employing others to perform the corrective action and deduct the cost

No additional Contract time or additional compensation is allowed due to delays caused by the Engineer's suspension of work.

641-3.05 ACCESS TO WORK.

The Project, including any related off-site areas or support activities, must be made available for inspection, or sampling and monitoring, by the Department and other regulatory agencies. CGP Part 6.6.

641-4.01 METHOD OF MEASUREMENT.

See Section 109 and as follows:

Item 641.0002.0000, measured as specified in the Directive authorizing the work.

Item 641.0006.0000, measured as specified in Table 641-2 Version C.

641-5.01 BASIS OF PAYMENT.

1. BMP Values. Table 641-1 BMP Values – Reserved.
2. Erosion, Sediment, and Pollution Control - Liquidated Damages. Liquidated Damages assessed according to Table 641-2 are not an adjustment to the Contract amount. These damages charges are related to Contract performance but are billed by the Department to the Contractor, independent of the Contract amount. An amount equal to the Liquidated Damages may be withheld, for unsatisfactory performance, from payment due under the Contract until the Contractor remits payment for billed Liquidated Damages.

TABLE 641-2- VERSION C
EROSION, SEDIMENT AND POLLUTION CONTROL – LIQUIDATED DAMAGES

Code	Specification Section Number and Description	Deductible Amount in Dollars	Cumulative Deductible Amounts in Dollars
A	641-1.05 Failure to have a qualified (AK-CESCL or equivalent) SWPPP Manager	Calculated in Code B or F	
B	Failure to meet SWPPP requirements of: (1) 641-2.01.1 Name of SWPPP Preparer (2) Not Applicable (3) 641-3.03.8 Sign and Date SWPPP amendments by qualified person. (4) 641-3.02 Records maintained at project and made available for review	\$750 per omission	
C	Not Applicable.		

Code	Specification Section Number and Description	Deductible Amount in Dollars	Cumulative Deductible Amounts in Dollars
D	641-3.03.5 Failure to stabilize a Project prior to fall freeze-up.	\$5,000 per Project per year	
E	641-2.01.1. Failure to conduct pre-construction inspections before Construction Activities on all projects greater than 1 acre.	\$2,000 per Project	
F*	641-3.03. Failure to conduct and record CGP Inspections 641-3.03.1 Personnel conducting Inspections and Frequency 641-3.03.2 Inspection Reports, use Form 25D-100, completed with all required information	\$750 per Inspection	Additional \$750 for every additional 7 day period without completing the required inspection.
G	641-3.01.4 Corrective action, failure to timely accomplish BMP maintenance and/or repairs. In effect until BMP maintenance and/or repairs is completed.	\$500 per Project per day	
H	641-3.01.3 Failure to provide to the Engineer and DEC a timely oral noncompliance report of violations or for a deficient oral noncompliance report	\$750 for the first day the report is late or deficient	Additional \$750 for every 14 day period without the required information
I	641-3.01.3 Failure to provide to the Engineer and DEC a timely written noncompliance report, use Form 25D-143, of violations or for a deficient written noncompliance report	\$750 for the first day the report is late or deficient	Additional \$750 for every 14 day period without the required information
J	641-3.04 Failure to comply with the requirements of the CGP, approved SWPPP, and Section 641, except as listed above	\$750 per occurrence for the first day of noncompliance	Additional \$750 for every day the deficiency remains uncorrected

***CODE F.** Liquidated Damages according to Code F will not be billed for typographic errors and minor data entry errors, except the liquidated damages will be assessed for these errors when:

- the Contractor has previously been notified and subsequent inspection reports repeat the same or similar error,
- multiple inspection reports are submitted after the submission due date and the same or similar errors are repeated on multiple overdue reports,
- an error in recording the inspector's AK-CESCL certification date results in an inspector performing the inspection during a period when their certification was lapsed or was otherwise invalid

See Subsection 641-3.04 Failure to Perform Work, for additional work and payment requirements.

Item 641.0001.0000 Erosion, Sediment and Pollution Control Administration. At the Contract lump sum price for administration of all work under this Section. Includes, but is not limited to, SWPPP and HMCP and SPCC Plan preparation, agency fees for SWPPP reviews, SWPPP amendments, pre-construction Inspections, Inspections, monitoring, reporting, and recordkeeping or copying Records related to the SWPPP and required by the CGP, and Record retention.

Item 641.0002.0000 Temporary Erosion, Sediment and Pollution Control. At the contingent sum prices specified in the Directive using time and materials to authorize the work, for all labor, supervision, materials, equipment, and incidentals to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs. Prices for this item will be by time and materials according to Subsection 109-1.05, or by mutual agreement between the Engineer and Contractor. All additional Erosion, Sediment, and Pollution Control Administration necessary due to this item will not be paid for separately but will be subsidiary to other bid items.

Item 641.0006.0000 Withholding. The Engineer may withhold an amount equal to Liquidated Damages, assessed according to Section 641, from payment due the Contractor. Liquidated Damages for violations of the Contract, CWA, and CGP are determined by the Engineer according to Table 641-2. The Engineer may withhold payment due the Contractors until the Contractor pays the Liquidated Damages to the Department. The Department will not release performance bonds until Liquidated Damages assessed according to Section 641 are paid to the Department, and all requirements according to Subsection 103-1.05 are satisfied.

Subsidiary Items. Temporary erosion, sediment, and pollution control measures that are required outside the Project Zone are subsidiary. Work required by the HMCP and SPCC Plan including hazardous material storage, containment, removal, cleanup and disposal, are subsidiary to Item 641.0001.0000 Erosion, Sediment and Pollution Control Administration.

Work under other pay items. Work that is paid for directly or indirectly under other pay items will not be measured and paid for under Section 641. This work includes but is not limited to:

1. Dewatering;
2. Shoring;
3. Bailing;
4. Permanent seeding;
5. Installation and removal of temporary work pads;
6. Temporary accesses;
7. Temporary drainage pipes and structures;
8. Diversion channels;

9. Settling impoundment; and
10. Filtration.

Permanent erosion, sediment, and pollution control measures will be measured and paid for under other Contract items, when shown on the bid schedule.

Work at the Contractor's Expense. Temporary erosion, sediment, and pollution control measures that are required due to carelessness, negligence, or failure to install temporary or permanent controls as scheduled or ordered by the Engineer, or for the Contractor's convenience, are at the Contractor's expense.

Payment will be made under:

PAY ITEM

Item Number	Item Description	Unit
641.0001.0000	Erosion, Sediment and Pollution Control Administration	LS
641.00052.0000	Temporary Erosion, Sediment and Pollution Control	CS
641.0006.0000	Withholding	CS

CR641-123121R

SECTION 642 CONSTRUCTION SURVEYING AND MONUMENTS

642-3.02 CROSS-SECTION SURVEYS Add the following:

Original ground, post-grubbing, post-excavation, and aggregate cross sections shall be taken at identical stations so that no interpolation of data is needed to calculate end areas.

Where an exact placement is not shown on the plans, the Engineer will be responsible for field locating the structures, signs, and mounds. The Contractor shall provide the Engineer with sufficient horizontal and vertical control to enable the Engineer to field locate these facilities. The Contractor shall be responsible for all surveying required to construct the field located item.

(05/02/11)PARKS-Special Provision

Add the following:

642-3.06 AS-BUILT SURVEY. Perform as-built survey work with OPUS Solution in conformance with the State of Alaska, Department of Natural Resources, Division of Parks and Outdoor Recreation As-Built Survey Instructions found in Appendix B.

(03/01/24)PARKS-Special Provision

642-4.01 METHOD OF MEASUREMENT.

Add the following:

Item 642.0014.0000 As-Built Survey. As-Built Survey will not be measured separately for payment. Final acceptance of as-built drawings and OPUS Solution report will constitute method of measurement.

(03/01/24)PARKS-Special Provision

642-5.01 BASIS OF PAYMENT.

Add the following:

Item 642.0014.0000 As-Built Survey. Lump sum payment for Item 642.0014.0000 shall be full compensation for all fieldwork, research, office work, and incidentals necessary to produce as-built drawings, signed and sealed, in conformance with these specifications and accepted by the Division of Mining, Land and Water Survey Section with OPUS Solution report.

Payment will be made under:

PAY ITEM

Item Number	Item Description	Unit
642.0005.0000	Set Secondary Monument	EA
642.0014.0000	As-Built Survey	LS

(03/01/24) PARKS-Special Provision

Replace Section 643 with the following:

SECTION 643 TRAFFIC MAINTENANCE

643-1.01 DESCRIPTION. Protect and control traffic during the contract. Furnish, erect, maintain, replace, clean, move and remove the traffic control devices required to ensure the safety of the park users and general public. Perform all administrative responsibilities necessary to implement the work.

643-1.02 DEFINITIONS.

Alaska Traffic Manual (ATM). The Manual on Uniform Traffic Control Devices (MUTCD) along with Alaska Supplement.

Traffic. The movement of the park users and general public through and around the project site. Traffic may consist of vehicles, pedestrians, and bicyclists.

Traffic Control Plan (TCP). A drawing or drawings indicating the method or scheme for safely guiding and protecting traffic and workers in a traffic control zone. The TCP depicts the traffic control devices and their placement and times of use.

Public Access Plan (PAP). A drawing or drawings indicating the method or scheme for safely guiding and protecting pedestrian traffic through the project site; allowing public access to trail entrances. The PAP shall take into account all expected phases of construction and expected areas of site closure. The PAP shall depict the traffic control devices and their placement and times of use. The approved PAP shall be made publicly available, and will be used for Alaska State Park public notices.

Traffic Control Zone. A portion of the project that affects traffic and requires traffic control to safely guide and protect traffic and workers.

643-1.03 TRAFFIC CONTROL PLAN. Create and implement an approved TCP before beginning work within the project limits.

The TCP includes, but is not limited to, signs, barricades, traffic cones, plastic safety fence, and all other items required to direct traffic through or around the traffic control zone according to these Specifications and the ATM. Address in the TCPs placement of traffic control devices, including location, spacing, size, mounting height and type. Include code designation, size, and legend per the ATM and Alaska Sign Design Specifications (ASDS).

Submit new or modified TCPs to the Engineer for approval. Allow 1 week for the Engineer to review any TCP or each subsequent correction. You may change an approved TCP during construction provided you allow 48 hours for review and the Engineer approves the changes.

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643-1.04 PUBLIC ACCESS PLAN. Create and implement an approved PAP before beginning work within the project limits, and update the PAP during construction. The purpose of the PAP is to foster effective coordination between the Contractor and the Department, ensuring public safety and reasonable access to trail entrances for the recreating public during construction operations, and shall be used in public notices issued by the Department.

The PAP includes, but is not limited to, signage, barricades, location(s) of staged materials, hazardous location(s), expected areas of closure, durations of closures, and all other items required to direct pedestrian traffic through or around the project site according to these Specifications and the ATM. Address in the PAP the project construction phasing and steps taken to ensure public access to trail entrances as practicable.

Submit new or modified PAPs to the Engineer for approval. Allow 1 week for the Engineer to review any PAP or each subsequent correction. You may change an approved PAP during construction provided you allow 48 hours for review and the Engineer approves the changes.

643-2.01 MATERIALS. Provide traffic control devices meeting the following requirements:

1. Signs. Use signs, including sign supports, that conform to Section 615, the ATM, and ASDS.
2. Barricades and Vertical Panels. Use barricades and vertical panel supports that conform to the ATM. Use Type III Barricades at least 8 feet long. Use reflective sheeting that meet AASHTO M 268 Type II or III.
3. Warning Lights. Use Type A (low intensity flashing), Type B (high intensity flashing) or Type C (steady beam) warning lights that conform to the ATM.
4. Drums. Use plastic drums that conform to the requirements of the ATM. Use reflective sheeting that meets AASHTO M 268 Type II or III.
5. Traffic Cones and Tubular Markers. Use reflectorized traffic cones and tubular markers that conform to the requirements of the ATM. Use traffic cones and tubular markers at least 28 inches high. Use reflective sheeting that meets AASHTO M 268 Type II or III.
6. Plastic Safety Fence. Use 4 foot high construction orange fence manufactured by one of the following companies, or an approved equal:
 - a. "Safety Fence" by Jackson Safety, Inc., Manufacturing and Distribution Center, 5801 Safety Drive NE, Belmont, Michigan, 49306. Phone (800) 428-8185.

- b. "Flexible Safety Fencing" by Carsonite Composites, LLC, 19845 U.S. Highway 76, Newberry, South Carolina, 29108. Phone (800) 648-7916.
- c. "Reflective Fencing" by Plastic Safety Systems, Inc., 2444 Baldwin Road, Cleveland, Ohio 44104. Phone (800) 662-6338.

643-3.01 GENERAL CONSTRUCTION REQUIREMENTS. Keep the work, and portions of the project affected by the work, in good condition to accommodate traffic safely. Provide and maintain traffic control devices and services inside and outside the project limits, day and night, to guide traffic safely.

The Contractor shall develop and submit a Public Access Plan (PAP) and a Traffic Control Plan (TCP) to the Engineer prior to any construction activities.

All closures must be included in the Public Access Plan and Traffic Control Plan and coordinated through the Project Engineer. The Contractor shall give the Project Engineer 2 weeks notice prior to any closures.

Immediately notify the Engineer of any traffic related accident that occurs within the project limits as soon as you, an employee, or a subcontractor becomes aware of the accident.

643-3.02 TRAFFIC CONTROL DEVICES. Before starting construction, erect permanent and temporary traffic control devices required by the approved TCPs. Use traffic control devices only when they are needed.

Use only one type of traffic control device in a continuous line of delineating devices.

Keep signs, drums, barricades, and other devices clean at all times. Immediately replace any devices provided under this Section that are lost, stolen, destroyed, inoperable or deemed unacceptable while used on the project.

Use only traffic control devices that meet the requirements of the "Acceptable" category in the American Traffic Safety Services Association (ATSSA) "Quality Guidelines for Temporary Traffic Control Devices".

643-3.03 AUTHORITY OF THE ENGINEER. When existing conditions adversely affect the public's safety or convenience, the Contractor will receive an oral notice. A written notice will follow the oral notice according to Subsection 105-1.01, Authority of the Engineer. The notice will state the defects, the corrective actions required, and the time required to complete such actions. If you fail to take corrective actions within the specified time, the Engineer will immediately close down the offending operations until you correct the defects. The Engineer may require outside forces to correct unsafe conditions. The cost of work by outside forces will be deducted from any monies due under the terms of this Contract.

643-4.01 METHOD OF MEASUREMENT. Item 643.0002.0000 Traffic Maintenance is a lump sum item and will not be measured directly for payment. The approved schedule of values and Engineer's approval shall constitute method of measurement.

643-5.01 BASIS OF PAYMENT. Item 643.0002.0000 Traffic Maintenance will be paid for at the contract lump sum price. Payment shall be full compensation for all the labor, equipment, material, and incidentals necessary to complete the work under this Section.

All work required to furnish a Public Access Plan shall be subsidiary to Item 643.0002.0000 Traffic Maintenance.

Payment will be made under:

PAY ITEM

Item Number	Item Description	Unit
643.0002.0000	Traffic Maintenance	LS

(01/30/26)PARKS-Special Provision

SECTION 646 CPM SCHEDULING

Replace Subsection 646-2.01 with the following:

646-2.01 SUBMITTAL OF SCHEDULE.

Submit a detailed initial CPM Schedule at the preconstruction conference for the Engineer's acceptance as set forth below.

The construction schedule for the entire Project shall not exceed the specified contract time. Allow the Engineer 14 days to review the initial CPM Schedule. Revise promptly. The finalized CPM Schedule must be completed and accepted before beginning work on the Project.

646-3.01 REQUIREMENTS AND USE OF SCHEDULE.

Replace the first sentence of No. 2 Schedule Updates. with the following:

Hold job site progress meetings with the Engineer for the purpose of updating the CPM Schedule. Meet with the Engineer monthly or as deemed necessary by the Engineer.

CR646.1-23.0501

Add the following Section:

SECTION 647 EQUIPMENT RENTAL

647-1.01 DESCRIPTION. This item consists of furnishing construction equipment, operated, fueled, and maintained, on a rental basis for use in construction of extra or unanticipated work at the direction of the Engineer. Construction equipment is defined as that equipment actually used for performing the items of work specified and shall not include support equipment such as, but not limited to, hand tools, power tools, electric power generators, welders, small air compressors and other shop equipment needed for maintenance of the construction equipment.

The work is to be accomplished under the direction of the Engineer, and the Contractor's operations shall at all times be in accordance with the Engineer's instructions. These instructions by the Engineer shall be to the Contractor's supervisory personnel only, not to the operators or laborers. In no case shall these instructions by the Engineer be construed as making the Department liable for the Contractor's responsibility to prosecute the work in the safest and most expeditious manner.

647-2.01 EQUIPMENT FURNISHED. In the performance of this work, the Contractor shall furnish, operate, maintain, service, and repair equipment of the numbers, kinds, sizes, and capacities set forth on the Bid Schedule or as directed by the Engineer. The operation of equipment shall be by skilled, experienced operators familiar with the equipment.

The kinds, sizes, capacities, and other requirements set forth shall be understood to be minimum requirements. The number of pieces of equipment to be furnished and used shall be, as the Engineer considers necessary for economical and expeditious performance of the work. The equipment shall be used only at such times and places as the Engineer may direct.

Equipment shall be in first class working condition and capable of full output and production. The minimum ratings of various types of equipment shall be as manufactured and based on manufacturer's specifications. Alterations will not be considered acceptable in achieving the minimum rating. Equipment shall be replaced at any time when, in the opinion of the Engineer, their condition is below that normal for efficient output and production.

Equipment shall be fully operated, which shall be understood to include the operators, oilers, tenders, fuel, oil, air hose, lubrication, repairs, maintenance, insurance, and incidental items and expenses.

647-2.02 EQUIPMENT OPERATORS AND SUPERVISION PERSONNEL. Equipment operators shall be competent and experienced and shall be capable of operating the

equipment to its capacity. Personnel furnished by the Contractor shall be, and shall remain during the work hereunder, employees solely of the Contractor.

The Contractor shall furnish, without direct compensation, a job superintendent or Contractor's representative together with such other personnel as are needed for Union, State, or Federal requirements and in servicing, maintaining, repairing and caring for the equipment, tools, supplies, and materials provided by the Contractor and involved in the performance of the work. Also, the Contractor shall furnish, without direct compensation, such transportation as may be appropriate for the personnel.

647-3.01 CONSTRUCTION REQUIREMENTS. The performance of the work shall be according to the instructions of the Engineer, and with recognized standards and efficient methods. The Contractor shall furnish equipment, tools, labor, and materials in the kinds, number, and at times directed by the Engineer and shall begin, continue, and stop any of the several operations involved in the work only as directed by the Engineer. Normally, the work is to be done when weather conditions are reasonably favorable, 6 days per week, Mondays through Saturdays, except holidays.

The Engineer will begin recording time for payment each shift when the equipment begins work on the project. The serial number and brief description of each item of equipment listing in the bid schedule and the number of hours, or fractions thereof to the nearest one quarter hour, during which equipment is actively engaged in construction of the project shall be recorded by the Engineer. Each day's activity will be recorded on a separate sheet or sheets, which shall be verified and signed by the Contractor's representative at the end of each shift, and a copy will be provided to the Contractor's representative.

647-4.01 METHOD OF MEASUREMENT. See Section 109. Hourly Rental Rate: Includes the equipment rate plus the operating costs including: furnishing, travel time, operating, maintaining/servicing and repairing the equipment along with the costs incidental to the equipment and its' operation.

647-5.01 BASIS OF PAYMENT. Payment is for the time that fully operational equipment is engaged in the performance of the work directed by the Engineer. Time not paid for includes: idle periods, maintaining/servicing and repairing the equipment, making change-overs of equipment parts, and time to travel to and from the project. Payment will only be for time supported by certified payroll. Furnishing and operating equipment that is heavier, has larger capacity, or greater power than specified will not entitle the Contractor to extra compensation.

PAY ITEM

Item Number	Item Description	Unit
647.0006.0000	Hydraulic Excavator, 1 C.Y., 100 HP Min.	HR

C647-16.1103-2

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Replace Section 652 with the following:

**SECTION 652
PROSECUTION AND PROGRESS – SUPPLEMENTAL REQUIREMENTS**

652-1.01 DESCRIPTION. Supplemental requirements for Section 108. Prosecution and Progress.

652-1.02 RELATED SECTIONS. Section 108, Prosecution and Progress.

652-1.03 PROSECUTION AND PROGRESS. In Subsection 108-1.03:

- Replace the last sentence in the 1st paragraph with: "Submit the following at the Preconstruction Conference:"
- Replace No. 1 with: "A Critical Path Method (CPM) Schedule is required, in a format acceptable to the Engineer, showing the order the work will be carried out, and the contemplated dates the Contractor, subcontractors, and utilities will start and finish each of the salient features of the work, including scheduled periods of shutdown. Indicate anticipated hours of operations and periods of multiple shift work. Revise the proposed schedule promptly. Promptly submit a revised CPM Schedule if there are substantial changes to the schedule, or upon request of the Engineer."

652-1.04 LIMITATION OF OPERATIONS. In Subsection 108-1.04:

- Add: "The Department will not permit any ground disturbing activities to commence during the 2026 construction season. The Department will allow the Contractor to perform clearing work during Fall 2026, in accordance with Section 201. Grubbing activities, and other ground disturbing activities, will not be allowed until Spring 2027, per Section 201.
- Add: "Limit ground disturbed by construction activities and not permanently stabilized between all roadways combined, at any specific time, to a maximum of 11,000 feet parallel to the roadway(s), unless additional length is approved. Stabilize disturbed ground according to Section 641 Erosion, Sediment, and Pollution Control."

652-1.05 FAILURE TO COMPLETE ON TIME. See Subsection 108-1.07.

Add the following Section:

SECTION 654 VAULTED TOILET

654-1.01 DESCRIPTION. Provide all labor, materials, and equipment and services necessary to furnish and install accessible pre-manufactured concrete toilet and vaults finished and complete with all accessories and incorporating Sweet Smelling Technology.

Concrete Vaulted Toilet shall be the following or approved equivalent:

Double Unit

Manufacturer: CXT Precast Products

Style: Double Rocky Mountain with Chase Area (Alaska State Parks Model)

Roof Texture & Color: Simulated Cedar Shakes in Granite Rock

Upper Exterior Wall Texture & Color: Horizontal Lap in Sand Beige

Lower Exterior Wall Texture & Color: Simulated Flagstone in Natural Grey

Other: - Marine Package

- 654-2.05 Signs shall comply
- Deadbolt shall be Schlage Model B660P
- Exterior Doors and Trim shall be brown in color.
- Supply padlocks for each toilet paper roll and manhole cover, complying with 654-2.06.

The Contractor shall obtain the necessary City and/or Borough permits for the construction and installation of the concrete toilet.

If Concrete Vaulted Toilet is the approved equivalent, the toilet shall comply with the remainder of this section.

654-1.02 CODES AND STANDARDS.

1. ACI 211.1 - Standard Practice for selecting Proportions for Normal, Heavyweight and Mass Concrete.
2. ADA - Americans with Disabilities Act
3. ASTM C 33 - Specification for Concrete Aggregates
4. ASTM C 39 - Test Method for Compressive Strength of Cylindrical Concrete Specimens
5. WAQTC FOP for AASHTO T119 - Test Method for Slump of Hydraulic Cement Concrete
6. ASTM C 150 - Specification for Portland Cement
7. ASTM C 192 - Method of Making and Curing Test Specimens in the Laboratory
8. PCI MINL 116 - Quality Control for Plants and Production of Precast Prestressed Concrete Products

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654-1.03 DESIGN AND PERMIT REQUIREMENTS. Units must meet or exceed “Sweet Smelling Technology” (SST) as developed by Briar Cook of the U.S. Forest Service. Vault Clean-outs must be lockable and outside the toilet enclosure.

Units shall also meet 120mph wind loading, 250 lbs/sq.ft. snow loading and seismic zone 4 earthquake requirements in accordance with the current version of the IBC.

The Contractor shall obtain the necessary City and/or Borough permits for the construction and installation of the concrete toilet.

654-1.04 SUBMITTALS. Submittals are required for the following:

Shop Drawings: Shop drawings must be stamped by a professional engineer and shall include plans, elevations and a section of the pre-manufactured units. Include dimensions for sizes and locations of walls, floor, roof, vaults, vent pipes, wall vents, doors, windows, signs and accessories. Indicate reinforcement types, sizes and spacing. Provide details showing anchors or method of attachment for doors, windows, vents, vent risers and accessories.

Product Data: Provide manufacturer's product data for all doors, frames, hardware, toilet accessories, signs, manholes, risers and sealants. Submit data on all parts and accessories indicating manufacturer, supplier, model or part number and finish.

Samples: Submit two 8-1/2 inch x 11 inch samples each of the wood texture and simulated shake roof, clearly displaying texture and color for approval by the Engineer.

Quality Control:

Test Reports: Submit concrete test results.

Contract Closeout:

Operations and Maintenance Data: Submit information for repairs, replacement of parts and accessories.

Warranty:

1. Submit Manufacturer's warranty against leakage from the vault for 7 years.
2. Submit Manufacturer's warranty against materials and labor on the building for 1 year.

654-1.05 QUALITY ASSURANCE.

Manufacturer Qualifications:

1. Shall have three years minimum experience producing toilets of similar design.
2. Must be ISO 9001 certified
3. Plant must be PCI certified

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Regulatory Requirements: Conform to ADA for accessibility requirements.

654-1.06 DELIVERY, STORAGE, AND HANDLING.

Acceptance at Site: Deliver one pre-fabricated concrete vaulted outhouse to the project site. The Contractor shall be responsible for repairing and/or replacing any damaged work or products.

Storage and Protection: Store all pre-fabricated items in the designated location at the project Site. The items shall be protected from any damage. Do not stack or lean items against trees, equipment, or each another.

Handling: Protect all pick points or lifting lug locations with wooden or plastic plugs, metal covers, or their equivalent to protect the threads and exclude foreign matter or ice while in storage or in transit. Pre-fabricated toilet units shall only be lifted with cables or nylon chokers or straps and spreader bars in accordance with the manufacturers printed lifting/rigging instructions. Do not lift without spreader bars.

MATERIALS

654-2.01 GENERAL. All material shall be new and conform to the manufacturer's plans. Toilet must meet ADA requirements.

654-2.02 MANUFACTURERS.

Toilets and Vaults: CXT Incorporated, Precast Products Division, 3808 N. Sullivan Road, Building 7 Spokane WA. 99216. Phone: (800) 696-5766 and Fax: (509) 928-8270 or approved equal.

Vault Liner:	"Lustran ABS" by Bayer Corporation—Polymers Division or approved equal
Vents/Louvers:	Anemostat or approved equal
Doors and Frames:	Amweld, Ceco, Curries, Fenestra, Republic, Steelcraft

Hardware:

Hinges (Butts):	Lawrence; McKinney; Hager
Locks/Pull Plates /Strikes:	IlcoUnican; Hager Companies; Schlage; Best
Closers:	LCN; Norton; Sargent
Door Stops:	Hager Companies; Glynn Johnson; Rixson; Quality
Door Silencers:	Quality; Glynn Johnson; Ives
Weatherstripping:	Pemko; Reese; Zero; 3M

Paint: Dunn Edwards, Dupont, Fuller O'Brien, Preservative Paint, Sherwin Williams, United Coatings.

Accessories:

Toilet Risers:	Romtec, Inc., Roseburg, Oregon or approved equal
Grab Bars:	ASI, Bobrick, McKinney/Parker, Seachrome
Toilet Paper Dispenser:	Romtec, Inc., Aslin or approved equal
Double Coat Hook:	TSM, ASI, Bobrick, Ives
Signs:	Screen Tek, Inc.; Letters Unlimited or approved equal

654-2.03 MANUFACTURED UNITS: Pre-fabricated concrete toilet structure shall be provided by the Contractor. The Contractor shall provide the necessary equipment and materials to install the vaulted structures.

Toilets: Toilets shall be "Rocky Mountain" by CXT Precast Products or approved equal meeting these specifications. Both vaults shall be accessible. Texture shall "horizontal lap with simulated flagstone" on walls and "cedar shake" texture on roof as produced by CXT Precast Products or approved equal. Provide colors for board, stone, and roof.

Vaults: One piece, 4 inch thick steel reinforced concrete, 1,000 gallon capacity each with bottoms sloped to cleanout and with one piece vault liner cast in place.

Vault Liners: One sheet black ABS/752 virgin plastic. Initial sheet thickness shall be a minimum of 0.375 inch with a final stamped thickness of a minimum of 0.060 inch. The vault liner shall have molded dovetail embeds to attach the liner to the concrete walls of the vault. The vault liner shall have two J-rails to attach the liner to the bottom of the vault. Vaults with the ABS liner shall be warranted against leaks for a period of seven years into or out of the vault itself.

Concrete - General: The concrete mix design shall be designed to ACI 211.1 to produce concrete of good workability.

Concrete shall contain a minimum of 610 pounds of cement per cubic yard. Cement shall be a low alkali type I or III conforming to ASTM C150. Coarse aggregates used in the concrete mix design shall conform to ASTM C33 with the designated size of coarse aggregate #67. Minimum water/cement ratio shall not exceed 0.45. Slump shall not exceed 4 inches.

Air-entraining admixtures shall not be used without approval of the Engineer.

Colored Concrete: The following items shall contain colored concrete:

Toilet building roof panels; building walls; screen panels.

Color additives will conform to ASTM C979.

The same brand and type of color additive shall be used throughout the manufacturing process. All ingredients shall be weighed and the mixing operation shall be adequate to ensure uniform dispersion of the color. Wall panel color and roof color shall be Sand Beige and Granite Rock, respectively, as identified by CXT Precast Products, Inc. or approved equivalent.

Cold Weather Concrete: Concrete shall not be placed if ambient temperature is expected to be below 35° F. during the curing period unless heat is readily available to maintain the surface temperature of the concrete to at least 45° F. Materials containing frost or lumps of frozen materials shall not be used.

Hot Weather Concrete: The temperature of the concrete shall not exceed 80° F at the time of placement and when the ambient reaches 90° F, the concrete shall be protected with moist covering.

Concrete Reinforcement: All reinforcing steel will conform to ASTM A615. All welded wire fabric will conform to ASTM A185. All reinforcement will be new, free of dirt, oil, paint, grease, loose mill scale and loose or thick rust when placed.

Full lengths of reinforcing steel shall be used when possible. When splices are necessary on long runs, splices shall be alternated from opposite sides of the component for adjacent steel bars. Lap bars #4 or smaller a minimum of 12 inches. Lap bars larger than #4 a minimum of 24 bar diameters.

Steel reinforcement shall be centered in the cross-sectional area of the walls and shall have at least 1 inch of cover on the under surface of the floor and roof. The maximum allowable variation for center to center spacing of reinforcing steel shall be 1/2 inch.

Reinforcing bars shall be bent cold. No bars partially embedded in concrete shall be field bent unless approved by the Engineer.

Sealers and Curing Compounds: Curing compounds, if used, shall be colorless. Weather-proofing sealer for exterior of building shall be a clear water repellent penetrating sealer.

Caulking, Adhesive and Grout: All caulking shall remain flexible and non-sag at temperatures from 50° to 140° Fahrenheit. Interior joints shall be caulked with a paintable rubber-based caulk. Exterior joints will be caulked with a tripolymer sealant caulk which compliments the exterior color.

Epoxy concrete adhesive will be two-component, rigid, non-sag gel adhesive for bonding to dry or damp surfaces, moisture insensitive. Color shall compliment surrounding concrete as nearly as possible.

Grout shall be water-proof and resistant to alkali and freeze-thaw cycles. It shall be painted to match the color of surrounding concrete as nearly as possible.

Cement base coating shall be formulated with a very fine aggregate system and a built in bonding agent.

Caulking between vault and toilet floor to be 1 inch x 1 inch Butyl tape designed specifically to bond precast concrete to precast concrete

Steel Doors and Frames: Doors shall be 3 feet x 6 feet 8 inches, flush panel type, 1-3/4 inches thick, minimum 18 gauge prime-coated steel panels, minimum 12 gauge internal bracing channels, 14 gauge edge reinforcement, rigid foam plastic core, SDI grade II, model 2. Hinge reinforcement shall be 10 gauge minimum.

Door frames shall be welded type, single rabbet, minimum 16 gauge prime-coated steel, width to suit wall thickness, SDI grade II. Hinge reinforcement shall be 10 gauge minimum.

Doors and door frames shall be reinforced to accept butts, deadlock and strike.

Doors and frames shall be factory treated with a three stage iron phosphate and given one shop coat of synthetic resin, rust-inhibitive alkyd enamel primer.

Hardware: finish shall be BHMA 630 (Satin Stainless Steel)/US32D.

Hinges (Butts): Three per door. Hinges shall be ANSI 156.1, BHMA 5112, full mortise, ball bearing design with a stainless steel non-removable pin, stainless steel, 4-1/2 inches x 4-1/2 inches.

Strikes: Mortised ANSI strikes with strike boxes.

Handle: Cylindrical lockset, ADA compliant, lever style, passage latch, ANSI/BHMA A156.2 Grade 1 certified, and UL 10C 3-Hour rated. Handle shall be furnished by the building manufacturer as part of the building package. Assembly shall be unkeyed and independent from the deadbolt.

Deadbolt: Heavy duty single cylinder deadbolt with 2-3/4 inch backset, ANSI 156.5 Grade 1, US26D, U.L. Listed. Deadbolt shall be Schlage Model B660P or approved equal. Deadbolt shall be keyed to accept Schlage Series C, No. 56349. Provide two keys per deadbolt.

Trim: Series 1000, Grade 2.

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Closers: shall be ANSI 156.4, BHMA C02022, Grade 1, similar to LCN 4041 (5 lb. closing force), heavy duty parallel arm, Cush mount, metal cover or approved equal accepted by the Contracting Officer. Closers shall be equipped with extreme temperature fluid and capable of adjustments for latches, closing speed and back check intensity. Closers shall have a corrosion protective coating on all metal surfaces.

Door Stop: Door stop shall be ANSI 156.16, BHMA LO2252, cast brass; rubber, 1-3/4 inch diameter bumper, convex pad, 1 inch projection, base thickness of 1/8 inch.

Wall Stop: Wall stop shall be ANSI 156.16, BHMA LO2252, brass; rubber, 2-7/16 inch diameter bumper, convex pad, 13/16 inch projection.

Door Silencers: Door silencers shall be BHMA LO3011. Three (3) rubber door silencers shall be provided on latch side of frame.

Door Sweep: Provide door sweep at the bottom of door. Polypropylene pile, adjustable brush type, 1/4 inch x 1-1/2 inches, Pemko 18062 CP or approved equal.

Wall Louvers: Louvers shall be 12 inches x 12 inches, fixed, inverted split Y, non-vision, 18 gauge cold rolled steel with a factory prime coat equal to FDLS series. One in each restroom.

Windows and Frames: Window frames shall be constructed from steel. Window glazing shall be 1/4 inch thick translucent LEXAN polycarbonate with a pebble finish.

Vault Cleanout Covers: Plate for vault cleanout cover shall be 1/4 inch thick, diamond plate steel. Lid shall be hinged and configured so that it can be locked with a padlock. Shall be raised, wet-rated hatch. Provide a neoprene gasket around the entire perimeter of lid for an airtight seal.

Paint: All paints and materials shall conform to all Federal specifications. Paints shall not contain more than .06 percent by weight of lead. Color shall be as selected from manufacturer's standard palette by the Engineer.

Types of paints for toilets:

Interior Stain - "Canyon Tone Stain" by United Coatings or approved equal. Stain shall be single-component, water-based, and quick setting. Color shall be white. Inside stain shall be sealed with "Monocryl 50" clear acrylic semi-gloss, water-repellent sealer by United Coatings or approved equal.

Floor Paint - "Armorseal Floor-plex 7100" by The Sherwin-Williams Company or approved equal. Shall be glossy, two component, water based epoxy floor coating capable of withstanding heavy traffic. Color shall be gray.

Floor Anti-Slip Additive - "SharkGrip" by H&C Beautiful Concrete Protection or approved equal.

Trim Paint - "Direct-To-Metal Enamel" by The Sherwin-Williams Company or approved equal. Enamel shall be a semi-gloss high-build alkyd coating with rust-inhibitive properties. Color shall be white.

Exterior Walls and Roof - Water repellent penetrating stain in the same color as the walls and/or roof followed by a clear acrylic anti-graffiti sealer.

Exterior slab shall be clear sealer

654-2.04 ACCESSORIES:

Toilet Risers: Toilet riser shall be cross-linked polyurethane. Toilet risers shall have a heavy duty seat and lid, and constructed with high-impact polystyrene. Risers shall be mounted at an 18 inch height from floor to top of seat. All mounting materials shall consist of stainless steel hardware.

Grab bars: Grab bars shall be 18 gauge, type 304 stainless steel with 1-1/2 inch clearance. Grab bars shall each be able to withstand 300 pound top loading. Grab bars shall be either two separate bars with supports each end, one 36 inches (914 mm) and the other 42 inches long or a single "L" shaped bar with 3 supports and one leg 54 inches long and the other 36 inches – 42 inches long.

Toilet Paper Dispenser (Two per Toilet Riser): Dispenser shall be constructed of 1/4 inch thick, 304 type stainless steel with a satin finish. Dispenser shall be capable of holding two standard rolls of toilet paper; 18 inch x 2 inch, "restricted" type and have a heavy duty locking feature. Toilet paper dispenser mechanical attachment system shall withstand 300 pound top loading.

Double Coat Hook: Coat hooks shall be constructed of stainless steel and have tamper-proof mounting screws.

Vent Riser: Shall be 12 inch I.D., unpainted, black, polyethylene vent pipe.

654-2.05 SIGNS.

1. General

Layout details of custom signs not shown shall conform to the Alaska Sign Design Specifications.

Base Material:	Solid color, alloy 6061-T6 aluminum
Base Color:	Brown
Total Thickness:	0.080 inch
Size:	Uniform for all signs, large enough to accommodate text and pictograms, 6 x 9 inches minimum
Edges:	Rounded

2. Raised Character Size and Style: Solid color, metal, character adhered to or integral with base material –

Character Color:	White
Background Color:	Brown
Sign Material:	Reflective sheeting shall be Type II (medium intensity)
Character Thickness:	1/32 inch
Height:	12 inch x 12 inch
Edges:	Square
Character Font:	Helvetica
Character Case:	Upper and lower
Braille:	Grade II
Text:	See Below



3. Raised Pictogram Size and Style: Solid color, metal, character adhered to or integral with base material –

Character Color:	White
Background Color:	Brown
Character Thickness:	1/32 inch
Size:	6 inch minimum Square
Edges:	Rounded
Character Font:	International Symbol
Mounting Hardware:	Mechanical, tamper resistant
Braille:	Grade II
Text:	"Toilet"
Pictograms:	Men & Women ("Unisex") and accessibility

654-2.06 PADLOCK. Master Lock No. 1 with 5/16 inch shackle diameter, 15/16 inch vertical clearance, 3/4 inch horizontal clearance, 1-3/4 inch case width, and keyed alike to a key number provided by the Engineer specific to the Park area. Provide two keys with each padlock.

654-2.07 BEDDING. Bedding material for the concrete vaulted toilet shall be aggregate base course, grading D-1, and shall meet all the requirements of Section 301.

FABRICATION AND CONSTRUCTION

654-3.01 SITE WORK. Excavation and backfill shall conform to Subsection 204-3.01 and the details on the plans. Finish ground profile to slope away from the building except for areas that abut adjacent sidewalk or parking areas. Place aggregate base course extending a minimum 1 foot from all sides of the concrete floor at up to the floor finish grade except for areas that abut adjacent sidewalk or parking areas.

654-3.02 MIXING AND DELIVERY OF CONCRETE. Mixing and delivery of concrete will be in accordance with ASTM C94, section 10.6 through 10.9 with the following additions:

1. Aggregate and water will be adjusted to compensate for differences in the saturated surface-dry condition.
2. Concrete will be discharged as soon as possible after mixing is complete. This time will not exceed 30 minutes.

654-3.03 PLACING AND CONSOLIDATING CONCRETE. Concrete will be consolidated by the use of mechanical vibrators. Vibration will be sufficient to accomplish compaction but not to the point that segregation occurs.

654-3.04 FINISHING CONCRETE. Interior floor and exterior slabs will be floated and troweled. A light broom finish will be applied to the exterior slab.

All exterior top portions of the building walls and exterior screen walls will be a board & batt siding texture. The bottom section of the walls will be a flagstone textured stone finish in a natural grey color.

All exterior surfaces of the roof panels will be cast to simulate a cedar shake roof. The underside of the overhang will have a smooth finish.

654-3.05 CRACKS AND PATCHING. Cracks in concrete components which are judged to affect the structural integrity of the building will be rejected. Small holes, depressions and air voids will be patched with a suitable concrete material. The patch will match the finish and texture of the surrounding surface. Patching will not be allowed on defective areas if the structural integrity of the building is affected.

654-3.06 CURING AND HARDENING CONCRETE. Concrete surfaces will not be allowed to dry out from exposure to hot, dry weather during initial curing period.

654-3.07 STRUCTURAL JOINTS. Wall components will be joined together with two welded plate pairs at each joint. Each weld plate will be 6 inches long and located one pair in the top quarter and one pair in the bottom quarter of the seam. Weld plates will be anchored into the concrete panel and welded together with a continuous weld. The inside seams will be a paintable caulk. The outside seams will use a caulk in a coordinating building color or clear. Walls and roof will be joined with weld plates, 3 inch x 6 inch, at each building corner. The joint between the floor slab and walls will be joined with a grout mixture on the inside, a matched colored caulk on the outside and two weld plates 6 inches long per wall.

654-3.08 PAINTING/STAINING. An appropriate curing time will be allowed before paint is applied to concrete. Some applications may require acid etching. A 30% solution of hydrochloric acid will be used, flushed with water and allowed to thoroughly air dry. Painting will not be done outside in cold, frosty or damp weather. Painting will not be done outside in winter unless the temperature is 50 degrees F. or higher. Painting will not be done in dusty areas.

654-3.09. TESTING. The following tests will be performed on concrete used in the manufacture of toilets. Testing will only be performed by qualified individuals who have been certified ACI Technician Grade 1. Sampling will be in accordance with ASTM C172.

1. The slump of the concrete will be performed on the first batch of concrete in accordance with ASTM C143. This slump will be in the 3-4 inch range. Slump may be increased using chemical admixtures provided that the concrete maintains same or lower water to cement ratio and does not exhibit segregation. Slump will never exceed 9 inches.
2. The air content of the concrete will be checked per ASTM C231 on the first batch of concrete. The air content will be in the range of 5.5% +/- 1%.
3. The compressive strength of the cylinders will be tested to ASTM C39. We will make one (1) cylinder for release, one (1) for 7 days and one (1) for 28 days. The release

must be a minimum strength of 2500 psi, the 7-day must be a minimum of 4500 psi and the 28-day must be a minimum of 5000 psi.

4. A copy of all test reports will be available to the customer as soon as 28-day test results are available.

654-3.10 EXCAVATION AND ELEVATION. Excavate for the installation of the toilet vault to a depth that will allow the structure site to be free draining after installation is completed. Allow for a 2 inch leveling course beneath the toilet vault. Stockpile topsoil in a separate pile at sites.

No excavation will be left open more than seven days unless otherwise approved by the Engineer. All excavations left open overnight will be fenced with wire mesh or plastic mesh fence secured to steel posts all around the excavation.

654-3.11 BEDDING, BACKFILL AND COMPACTION. Backfill and compaction shall conform to the requirements of Section 203 and Section 301. Rocks larger than six inches in maximum dimension shall not be placed within six inches of the exterior vault walls.

654-3.12 FINISH GRADING. Final grade shall be flush with the top of the front slab. Grade backfill away from the structure at maximum slope of five percent unless otherwise approved by the Engineer.

654-3.13 VAULT TOILET RISER. Polyurethane caulk will be applied between toilet riser flange and concrete floor before the toilet riser is installed.

654-3.14 EXHAUST PIPE INSTALLATION. After exhaust pipe is installed, seal around pipe at top and underside of roof with polyurethane caulk. Seal around pipe at top of floor slab will be accomplished by using polyurethane caulk.

654-3.15 SIGNS. Position signs level, 60 inches above finished floor (AFF) to the center and on the deadbolt side of the door.

654-3.16 GRAB BARS. Mount grab bars at 33-36 inches above finished floor.

654-3.17 TOILET PAPER DISPENSERS. Mount toilet paper dispensers at 19 inches minimum above finished floor to center for accessible units and 16 inches minimum above finished floor to center for standard units. Mount toilet paper dispensers at 36 inches maximum from rear wall.

654-3.18 COAT HOOKS. Mount coat hooks at 54 inches maximum above finished floor in accessible units.

654-4.01 METHOD OF MEASUREMENT. Measurement will be the actual number of pre-manufactured vaulted toilets completed and accepted. Excavation, embankment, and leveling course required for Concrete Vaulted Toilet construction are considered subsidiary to this item and will not be measured separately for payment.

Work required in preparing and acquiring the necessary City and Borough permits for the construction and installation of the concrete vaulted toilet and paying the applicable fees will be considered subsidiary to Concrete Vaulted Toilet.

654-5.01 BASIS OF PAYMENT. The accepted quantity of pre-manufactured vaulted toilets will be paid for the contract unit price for each Concrete Vaulted Toilet completed and in conformance with the plans and specifications.

Payment will be made under:

PAY ITEM		
Item Number	Item Description	Unit
654.2002.0000	Double Concrete Vaulted Toilet	Each

(01/30/26)PARKS-Special Provision

SECTION 703 AGGREGATES

703-2.07 SELECTED MATERIAL.

Replace 1. Type A with the following:

1. Type A. Aggregate containing no muck, frozen material, roots, sod or other deleterious matter and with a plasticity index not greater than 6 as tested by ATM 204 and ATM 205. Meet the following gradation as tested by ATM 304:

<u>Sieve</u>	<u>Percent Passing by Weight</u>
No. 4	20-55%
No. 200	0-6%, determined on the minus 3-inch portion of the sample

C703.1-22.0501

703-2.10 POROUS BACKFILL MATERIAL.

Add the following to the end of the paragraph:

Use Gradation A unless otherwise specified.

HSM20.33-21.1231

703-2.13 STRUCTURAL FILL. Replace Table 703-12 with the following:

**TABLE 703-12
AGGREGATE GRADATION FOR STRUCTURAL FILL**

SIEVE	PERCENT PASSING BY WEIGHT
3-inch	100
3/4-inch	75-100
No. 4	20-55
No. 200	0-6

Replace Subsection 703-2.16 with the following:

703-2.16 RECYCLED ASPHALT PAVEMENT (RAP). RAP shall be free of contamination and deleterious materials. RAP maximum particle size shall not exceed 1.5-inch.

C703.1-22.0501

**SECTION 706
CONCRETE AND PLASTIC PIPE**

Replace Subsection 706-2.07 with the following:

706-2.07 CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) PIPE FOR CULVERTS, STORM DRAINS, AND UNDERDRAINS. Meet the following:

Corrugated Pipe and Fittings (non-pressurized)

AASHTO M 294 and 252

Type S

Perforations

- | | |
|---------------------------------|---------|
| 1. Underdrains | Class 2 |
| 2. Underdrains and Storm Drains | Class 1 |

Joints

Subsection 705-2.05.3.

Polyethylene Pipe Manufacturer

1. Participate in the National Transportation Product Evaluation Program (NTPEP) work plan for HDPE thermoplastic pipe and listed on the NTPEP audit website displaying NTPEP compliance.
2. Conduct and maintain a quality control program under the NTPEP.
3. Provide a manufacturer's certificate of compliance identifying production lots for all materials.

Provide corrugated polyethylene pipe and fittings manufactured from high-density polyethylene (HDPE) virgin compounds. May use clean, reworked polyethylene materials from the manufacturer's own production.

Do not install pipe that is more than two years from the date of manufacture.

C706.1-19.0501

Replace Section 724 with the following:

SECTION 724 SEED

724-2.01 DESCRIPTION. Grass seed to provide a living vegetative cover.

724-2.02 MATERIALS. Provide seed mix as specified in the Special Provisions. Provide seed collected or harvested within 2 years of the targeted seeding date. Provide all seed in pure live seed (PLS) unless otherwise directed.

Furnish seed true of genus and species. Meet applicable requirements of the State of Alaska *Seed Regulations*, Alaska Administrative Code, Title 11, Chapter 34, (11 AAC 34), and the Federal Seed Act, 7 CFR Part 201.

The Engineer will review requests for genus, species, or cultivar substitutions(s). The Contractor shall submit a proposed seed mix accompanied by approval from the Alaska Plant Materials Center, and confirmation the vendor can provide the requested mix in quantities adequate for the project.

1. Prohibited and Restricted Noxious Weeds and Quarantined Pests. Furnish seed certified to be free of prohibited noxious weeds or quarantined pests, and certified to contain no more than the maximum allowable tolerances for restricted noxious weeds, according to 11 ACC 34.
 - a. Seed found to contain prohibited noxious weeds or quarantined pests will be rejected, according to 11 AAC 34.020(a) and 11 AAC 34.105 through 34.180, respectively.
 - b. Seed found to contain restricted noxious weed seed in excess of the maximum allowable tolerance per pound will be rejected, according to 11 AAC 34.020(b).

Prohibited and restricted noxious weeds are listed in 11 AAC 34.020, and can be viewed at the following URL: <http://plants.alaska.gov/invasives/noxious-weeds.htm>.

2. Labeling. Ensure each bag or container of individual seed species is labeled to meet requirements of 11 AAC 34.010. Do not remove labels from bags or containers.
3. Certification. Certify seed is free of prohibited noxious weeds and restricted noxious weeds are within allowable tolerances. Furnish to the Engineer a statement signed by the vendor identifying the lot number or lot numbers, certifying each lot of seed has been tested within the preceding nine months, by a recognized seed testing laboratory, a member of the Association of Official Seed Certifying Agency (AOSCA), or the Alaska Plant Materials Center.

Seed will be rejected if:

- a. Contains prohibited noxious weeds;
- b. Contains restricted noxious weeds above maximum allowable tolerances;
- c. Not certified as tested within the preceding nine months;
- d. Wet, moldy, or otherwise damaged in transit or storage; or
- e. Containers do not have labels or the labels have been removed.

Seed may be rejected for:

- a. Discrepancies in the lot numbers listed on the statement to the lot numbers indicated on the labels of the seed containers.

The Contractor shall immediately remove rejected seed from the project premises. If seed is rejected for containing prohibited noxious weeds or for exceeding maximum allowable tolerances of restricted noxious weeds, dispose of rejected seed according to 11 AAC 34.075(g).

C724-20.1130

Replace Section 726 with the following:

SECTION 726 TOPSOIL

726-2.01 TOPSOIL. Furnish topsoil that is representative of the existing, natural organic blanket of the project area, and free of prohibited and restricted noxious weeds (Prohibited and Restricted Noxious Weeds 11AAC 34.020 <http://plants.alaska.gov/invasives/noxious-weeds.htm>). Perform a quality test, as defined by ATM 203, on the soil to determine the organic content of the soil. Supply the results to the Engineer.

Soil with an organic content of 5 percent or more may be reused and spread on the finished slopes where topsoil is noted on the plans. Remove roots, stumps, unnatural material, and rocks greater than 1 inch in diameter from the organic material before it is graded onto the finished slope.

Soil with an organic content of less than 5 percent cannot be used as topsoil for the project. In this case, furnish topsoil consisting of a natural friable surface soil without admixtures of undesirable subsoil, refuse or foreign materials having an organic content of 5 percent or more, as determined by ATM 203. The material shall be reasonably free from roots, clods, hard clay, rocks greater than 3 inches in diameter, noxious weeds, tall grass, brush, sticks, stubble or other litter, and shall be free draining and nontoxic. Notify the Engineer of the topsoil source location at least 30 calendar days before delivery of topsoil to the project from the identified location. The Engineer will inspect the topsoil and its sources before approval will be granted for its use.

**TABLE 726-1
LIMESTONE REQUIREMENTS**

Soil pH	Limestone, tons/acre
Above 6.0	0
5.0-6.0	1.5
Below 5.0	3.0

C726-20.0101-1

SECTION 730 SIGN MATERIALS

730-2.04 SIGN POSTS.

Add No. 7:

7. Structural Tubing and W-Shape Beams.

- a. Structural tubing shall conform to ASTM A500, Grade B, or ASTM A501. The tubing shall be square and of the dimensions called for in the Plans with 0.2 inch thick walls. 0.4 inch diameter holes shall be drilled as required to permit mounting of the sign.
- b. W-shape beams shall conform to ASTM A36.
- c. Structural tubing and W-shape beams shall be hot dip galvanized according to 1.b. of this subsection. Damaged and abraded tubes and beams shall be repaired according to 1.c. of this subsection.

C730.1-04.0622

Replace Subsection 730-2.05 with the following:

730-2.05 FLEXIBLE DELINEATOR POSTS. Durable fiberglass composite, polymer, or plastic material meeting the dimensions and colors shown on the Plans. Resistant to ultraviolet light, ozone and hydrocarbon damage and remain flexible at a temperature of minus 40 °F. Provide posts with reflectors that are capable of self-erecting and remaining serviceable after 5 head-on impacts at 55 mph and 10 impacts at 35 mph with an automobile at an air temperature of plus 40 °F.

Terminal Markers - Flexible (marker). The marker includes the pole/post/rod (pole), reflective and retroreflective sheeting and mounting hardware.

Provide durable markers: resistant to impact from (snow and vehicle), vandals, ultraviolet light, moisture, ozone, and hydrocarbons.

When the pole is loaded, the marker shall bend/flex, remain flexible and oriented as installed continuing to function as designed without permanent displacement along the length of the member. Provide the flexibility in the primary vertical element, a connecting device between the vertical element and connection to the support member (spring or other) or a combination.

Provide a connection sufficient to transfer the loads from the pole to the supporting member without reducing the strength, flexibility, or durability of either. The connection shall not negatively influence the performance of the guardrail. Provide approval of the

connection from the marker manufacturer and support member manufacturer (if proprietary).

- Design Loads:
 - Impact load from snow thrown by snowplows
 - Weight of snow covering the pole (snow thrown from snowplows)
 - Wind loads (100 mph, 3 sec gust)
- Service Temperature Range: -40° F to +140° F.
- Pole:
 1. Material:
 - Steel, or
 - Stainless Steel, or
 - Other Poles:
 - (a) Continuous glass fiber and marble reinforced thermosetting composite, or
 - (b) Engineered plastic alloy, or
 - (c) Fiberglass Reinforced Polyester (FRP)
 - (d) High-Impact Polyolefins
 2. Dimensions
 - Top of Pole: 60 inches to 84 inches above top of guardrail
 - Width/Diameter: minimum = 1 1/4 inches, maximum = 2 inches (steel/stainless steel not be greater than 5/8 inch diameter)
 - Thickness: as required by design
 3. Visibility:
 - Daytime: Pole - color orange
 - a. Steel and Stainless Steel Poles: Applied permanent finish.
 - b. Other Poles: Color pigment ultraviolet stabilized and solid through the cross section from end to end.
 - Nighttime: Added retroreflective sheeting - color white
 - a. Approximately 12 square inches visible from the traveled way before and after the marker. Applied to a flag attached to the pole or as banding applied directly to the pole. (A flag is required when using steel/stainless steel poles.)
 - b. Place top edge of flag/banding 1 inch from top of pole.
 - (1) Flag: Single retroreflective sheet each face

(2) Banding: Two bands completely around marker, 4 inches between bands

- Hardware and Fasteners:
 - Steel, and/or
 - Stainless Steel, or
 - Aluminum alloy (hardware only)

Manufacturers of flexible markers (snowpoles):

Manufacturer	Model	Type	Contact
Nordic Fiberglass, Inc.	FF2	Steel Pole w/ Flag	Ph: (218) 745-5095
PEXCO	Model 3639	High-Impact Polyolefins	Ph: (404) 564-8560
New Century Northwest, LLC	NCN2549	Engineered Plastic Alloy	Ph: (541) 485-5566
Carsonite Composites, LLC	SNFB	Continuous glass fiber and marble reinforced thermosetting composite	Ph: (800) 648-7916

Submit manufacturer's specifications to the Engineer for review and approval before ordering terminal markers.

C730.2-17.1222

APPENDIX A

PERMITS

PERMIT DESCRIPTION	ISSUE DATE	EXPIRE DATE
SOA Office of History & Archaeology A.S. 41.35.070 - Historic Properties Review	6/15/2026	N/A

APPENDIX B

SURVEY REQUIREMENTS

1. Alaska DNR Parks and Outdoor Recreation; As-Built Survey Instructions
2. Alaska Construction Surveying Requirements (US Customary Units)

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF PARKS AND OUTDOOR RECREATION

AS-BUILT SURVEY INSTRUCTIONS



SEPTEMBER 2017

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LIST OF ABBREVIATIONS

AAC	Alaska Administrative Code
ADL	Alaska Division of Lands
ADNR or DNR	Alaska Department of Natural Resources
AS	Alaska Statute
ASLS	Alaska State Land Survey
ASP	Alaska State Plane
DMLW	Division of Mining, Land and Water
DMLW-SS	Division of Mining, Land and Water, Survey Section
DPOR	Division of Parks and Outdoor Recreation
EPF	Engineering Plat File
GIS	Geographic Information System
GNSS	Global Navigation Satellite System
LAS	Land Administration System
MHW	Mean High Water
MLW	Mean Low Water
MLLW	Mean Low Low Water
NAD	North American Datum
NAVD	North American Vertical Datum
OHW	Ordinary High Water
OPUS	Online Positioning User Service
PPM	Parts Per Million
ROS	Record of Survey

A. OVERVIEW

These instructions define general survey and platting criteria on Department of Natural Resources, Division of Parks and Outdoor Recreation (DPOR) managed land for as-built surveys. These instructions provide procedures for surveys of post-construction conditions and graphical representation of the affected real property, improvements, and easement locations to produce clear and complete final as-built Record of Survey (ROS) plat.

1. Goals of the As-Built Survey Include the Following:

- a. **Location.** The plat will be of sufficient detail to allow a surveyor to locate the installed or constructed improvements relative to the boundaries of the DPOR managed parcel including riparian and fixed and limited boundaries.
- b. **State Mapping.** As-built plats and files will be used to position the improvements and easements in the State GIS database to facilitate effective land management.
- c. **Protection of Rights.** Accurate and thorough ROSs are the basis for the unique and accurate legal descriptions of the land being utilized for DPOR facilities. Those ROSs will also aid in future DPOR projects.

These instructions include survey and drafting standards, typical notes, and certifications. The survey standards include general, upland¹, tideland², shore³, and submerged land⁴ subsections. Contractors are urged to confer with Department of Natural Resources, Division of Mining, Land and Water, Survey Section (DMLW-SS)⁵.

B. DELIVERABLES

The required deliverables are:

1. **Final Record of Survey Plat.** Sealed hardcopies and electronic copies conforming to the requirements listed herein.

¹ Uplands shall be all lands above mean high water or ordinary high water.

² Tidelands shall be all land that is periodically covered by tidal water between the elevations of mean high water and mean low water [AS 38.05.365(23)].

³ Shorelands shall be land belonging to the State which is covered by non-tidal water that is navigable under the laws of the United States up to ordinary high water as modified by accretion, erosion, and reliction [AS 38.05.965(20)].

⁴ Submerged land shall be all land lying seaward from the line of mean low tide [AS 38.05.365].

⁵ Alaska Department of Natural Resources, Division of Mining, Land and Water, Survey Section contacts: Eric Simons (907) 269-8524 and Stanley Brown (907) 269-8521; 550 West 7th Avenue, Suite 650; Anchorage, AK 99501.

2. OPUS Solution Report. Hardcopies of the OPUS Solution Report. OPUS Shared Solutions are preferred.

C. COMPREHENSIVE SURVEY REQUIREMENTS

1. General. Contact the DMLW-SS staff to obtain an Engineering Plat File (EPF) number specific to this project. DMLW-SS staff are also available for consultation and contractors are encouraged to contact them to discuss these standards and how they relate specifically to this project.
2. Standards.
 - a. General. Land surveys affecting legal real property rights of the State of Alaska, the adjoining land owner, or both shall be performed in accordance with applicable laws, regulations, rules of procedure, acceptable professional practices, and AS 34.65.020. They shall be performed under direct supervision of a Professional Land Surveyor licensed to practice in the State of Alaska. All survey work must be accomplished with equipment and procedures sufficient to ensure at least the degree of accuracy prescribed in these instructions. DMLW-SS shall track the survey on the LAS system, assign an EPF number, and notify the contractor of the LAS File type, number, and legal description for the plat title block.
 - b. Measurements. As-built surveys are generally metes and bounds or positional type surveys of install or constructed improvements on DPOR lands relative to legal boundaries, monuments, other improvements, and natural features. The survey and plat shall represent the project's post-construction location and condition.
 - 1) Metes and Bounds: Conventional type surveys are designated as Class III Surveys under 11 AAC 53.110.
 - 2) Positional and Radial Type Surveys on Tidelands and/or Uplands: The allowable relative positional accuracy on these lands shall be better than ± 0.26 feet + 200 ppm⁶.
 - 3) Distances: Distances on the as-built plats shall be horizontal ground distances. Use Alaska State Plane NAD 83 (ASP). Distances may be shown in tabular form. Show average scale factor for each sheet if ASP distances are used for more accurate acreage computation based on horizontal ground distances.
 - 4) Bearing: All bearings on the as-built plats shall be ASP bearings relative to the Basis of Bearing. Bearings shall be shown to the nearest second.
 - 5) Area: Total area of the improvements in as-built shall be shown.

⁶ National Society of Professional Land Surveyors, NSPS Classification and Accuracy Standards for Property Surveys, Section C, approved March 12, 2002. <http://www.nspsmo.org/>

3. Control Monumentation.

- a. Overall Concept. A control network of reliable control monuments with accurate geographic positions based on OPUS generated coordinates will be used as overall control of the survey. Intermediate monuments will be found and/or set and tied geographically. Water meander line points and as-built survey points will be tied to the control network. All data will comply with specified standards.
- b. Site Control. All projects shall have reliable control monuments of record or newly established primary reference monuments on or near the improvements with good quality geographic coordinates shown. If project design drawings are available, monuments from the survey control sheet should be used.
 - 1) Project Control Monuments. Control will be one record monument with NAD 83 geographic coordinates and ASP coordinates derived and shown located in the vicinity of the project. Additionally, a new OPUS Solution is required for this position.
 - 2) Local Control Monument. Three monuments within the project site and near the improvements will need to be recovered or set. OPUS Solutions are required for those monuments. Those monuments will be used for future projects and should be located where they are unlikely to be disturbed. The local control monuments are to be 5/8 inch rebar with a 2-1/2 inch aluminum cap provided by DPOR.
 - 3) Lacking Reliable Monuments. Set primary monuments per 11 AAC 53.190 and 11 AAC 53.200.
- c. Vertical Control to Establish Mean High Water and Ordinary High Water.
 - 1) Basis of Elevation. Elevation information will be shown in the drawings only on the control points and to referenced bench marks or vertical control on all projects, unless otherwise specified.
 - 2) Vertical Reference Ties. Include an explanation in one of the notes or on graphics of how mean high water (MHW) and ordinary high water (OHW) meander were determined or established.
- d. Basis of Coordinates. All project geodetic coordinates will be based on geodetic positions of the control monuments.

4. Items to be Surveyed and Mapped.

a. Boundaries.

- 1) **Property Boundaries.** DPOR park unit boundaries which are crossed by the improvements, or border on, or lie within 100 feet of the improvements must be tied and shown. Survey of at least two reliable monuments and accessories are required to define a boundary location. Rubbings, photos, or a sketch of the monument markings, type, and condition will be noted in the field books and on the plats.
 - 2) **Other Record Easements.** Identify, and survey if necessary, other easements which abut or cross the project limits and show them on the as-built plats. State section line easements are not required to be shown unless specified.
 - 3) **Survey of MHW and OHW.** Lines of MHW and OHW shall be surveyed and mapped as specified herein. Generally acceptable methods to locate the and map MHW, MLLW, and OHW are addressed in the DMLW-SS website under Alaska tideland surveys, link to 2002 Survey Conference Alaska Tideland Surveys, “Who, What, When, Where, How and Why” pursuant to 11 AAC 53.120.
 - a) **MHW or OHW on Navigable Waters in areas of Manmade Fill** (when applicable). Determine and map as best as possible, the pre-construction MHW or OHW meander line prior to placement of the fill (this requires a unique line type for the fixed and limiting boundary) on navigable waters shall be mapped to a distance of 50 feet beyond the project area or the Parks Unit boundary. In the fill area, the post-construction MHW or OHW with current toe and top of fill will be surveyed and shown. Best available evidence may include a timely land survey showing current OHW and/or MHW prior to the installation of the fill; water edges or levels in the plan and profile view; engineering and planning mapping or data which indicated water levels and profiles of conditions existing when the fill was planned for prior to placement; and aerial photos which would help located the OHW line at the time.
 - b) **MHW or OHW in Navigable Waters in Areas of Avulsion.** Determine and map as best as possible the current meander and if possible the record meander line. The survey shall be to standards as stated for uplands.
- b. **Project Improvements, Improvement Centerline, and Centerline Marker.** Structures, pads, and appurtenances shall be located and mapped to include toe and fill, top edge of fill, structure perimeter, intake structures, and utilities.

c. Pre-Existing Improvements and Natural Features.

- 1) Major Natural Features and Pre-Existing Improvements within 50 Feet of Project Improvements. Other existing improvements such as buildings, roads, trails, manholes, utilities, etc. and major natural features such as water bodies, cliffs, etc. within 50 feet of the improvements under the project will be tied and shown on the as-built plat.
 - 2) Features within 300 Feet of Centerline. Pre-existing improvements and major natural features beyond 50 feet but less than 300 feet from centerline of the project and on state land shall be mapped on the as-built plat using aerial photography or mapping grade tools.
 - 3) Shorelines. Shorelines shall be shown adjacent to the submerged lands segments and land masses and waterbodies labeled.
- d. Typical Cross Section of Linear Improvements. A typical section of roads, driveways, etc. showing width, depth, different materials used, etc.
- e. Typical Cross Section of Rip Rap Areas. A typical section of the erosion control area showing approximate width, length, depth of the erosion control fill and material used.
- f. Pre-Construction Survey on Projects that Fill-In Tidelands or Shore Lands. Wherever possible, MHW or OHW will be surveyed prior to placement of the fill. This meander line will be to a minimum of two new or record upland monuments. Note the methods by which the OHW elevation and position was determined. The meanders of the MHW or OHW just prior to placement of the fill will become fixed and limiting boundary lines in the area of the fill.

D. DRAFTING REQUIREMENTS AND STANDARDS

1. Medium and Format. Submit the final as-built plats on stable Mylar or equivalent film that does not exceed 24 x 36 inches' sheet size in the "Record of Survey" format. Samples can be obtained from DMLW-SS. Project name, "Record of Survey of Project No. XXXXX-X" and "EPF 20XXXXXX" must be at least 0.25 inch tall. Scanned copies in PDF format of the final as-built plats, signed and sealed, shall also be submitted either on disc or portable drive.
2. Content Format. Provided as-built plat samples are the format guide. The title block, vicinity map, legend, notes, surveyor's seal, and graphics shall be shown substantially as indicated. Individual firm or company logos, title block, certificates, notes, north arrow, etc. are acceptable if in a reasonably similar format as the sample drawing. Submit the final as-built plats with original stamps and signatures. The final as-built plat must be neat, orderly, easily read, and complete.
3. Recordation. DPOR will record the completed plats. The plat will need to meet standards set forth by 11 AAC 06.040 (Prerequisites for Recording Documents).

4. Line Work. All line work on the as-built drawing must be of professional quality in black drafting ink and of such width and contrast as to clearly convey all information.
5. Text (Lettering) Clarity and Minimum Size. All lettering on the plats must be of professional quality in black drafting ink and of such size and contrast to clearly depict all information. No lettering shall be smaller than 0.8 inch high.
6. Drawing Scale. The plat must be in an appropriate engineering scale preferably one inch representing 40 feet and/or one inch representing 100 feet. If the 40 and 100 scales are impractical then use standard civil scales in multiples of 10 feet per inch.. Details shall be shown to scale and on the sheet to which they apply.
7. Vicinity Map. A vicinity map is required. It shall be at whatever scale is necessary to show the entire project and clearly indicate section, township, range, and geographic information. The vicinity map should be on the first sheet and on others as needed. If multiple sheets are required, the vicinity map shall indicate the coverage by each sheet. The vicinity map will generally be oriented to north.
8. Multiple Sheets in a Set. If more than one sheet is required to clearly show the project, the vicinity map, legend, notes, surveyor's certificate, approved title block, and any other required certificates shall appear on the first sheet. All other sheets shall also show ADL number, scale, and sheet number/total number of sheets, location by section, township, and range, match lines and stations, and project scale.
9. Sheet Match Lines. Match lines at the left and right margins of each sheet will be shown at common centerline stations.
10. Control Diagram. Larger view control diagram may be beneficial and necessary.
11. Boundary Lines and Bearing and Distance Labels. All surveyed legal boundaries, including aliquot part boundaries adjacent to, surrounding, and or crossing the project shall be shown with recorded and measured⁷ bearings and distances and tied to the improvement. The extent of this provision can be abbreviated in areas congested with legal boundaries with written permission.
 - a. Boundary Line Type and Weight. All surveyed lines of record shall be shown with a solid line type. All non-surveyed lines, tie lines, and easement lines shall be contrasting line types and scales.
 - b. Boundary Line Label Specifics. Record bearings and measured bearings of the boundaries will be labeled on the boundary line itself or referenced and shown in a table. The measured distances shall be horizontal ground distances unless specified otherwise.

⁷ Measured shall mean the distance and/or bearing between two found and surveyed monuments.

- c. Line Status. Except for the ties and centerline information itself, all bearings and distances shall be labeled (R) for record, (M) for measured, or (C) for computed⁸.
- d. Section Lines and Section Line Easements. Surveyed and protracted section lines will be shown. Section line easements will not be shown unless otherwise specified. Surveyed section lines shall be solid line types. Protracted, unsurveyed section lines and easement boundaries shall be dashed lines.
- e. Riparian Park Unit Boundaries (where applicable): Upland boundaries will be the identified meander line of MHW or OHW. If applicable the meander line prior to fill will be a fixed and limiting boundary described by bearings and distances tied to control. Seaward boundary will be the line described by bearing and distances tied to control which generally encompass the toe of fill.

12. Monuments.

- a. Monument Markings. Exact markings on all found⁹ or recovered and set monuments and their accessories must be shown on the plat. If particular monumented corners were not surveyed during the filed survey, record monuments must be indicated with a unique symbol. No markings of any kind shall be added to any recovered survey monuments or existing bearing trees.
- b. Monument Type and Dimensions. The monument type, material, diameter, and length of rod and cap shall be noted.
- c. Control Monument Notations. The control monuments will be shown. NAD 83 Lat, Long, NAVD 88 Elevation, and ASP coordinates/zone shall be shown in a table directly next to the cap. The inverse between any two upland/tideland control monuments will be labeled in mean geodetic bearings, horizontal ground distance.

13. Improvement Mapping. Survey and map in an accurate and scalable manner: the tops and toes of fill, structures, drainage features, and improvement appurtenances such as junction boxes, elbows, ports, etc. All project improvements will be dimensioned and labeled. All elevation critical improvements (e.g, culvert inverts, septic line inverts, manhole inverts, etc.) shall have elevation information.

14. Acreage. Show approximate acreage on state lands.

15. Topographic, Natural, and Pre-Existing Improvement Feature Depiction. Pre-existing improvements (e.g., roads, buildings, utilities, etc.) and major topographic features (e.g., bodies of water, drainage features, cliffs, etc.) shall be located and labeled on the as-built drawing if they lie within 50 feet of the project improvements. Current meander lines of

⁸ Computed shall mean a position, bearing, or distance on a point or between two points which have not been surveyed in the execution of these instructions.

⁹ Found shall mean a recovered and surveyed monument.

water bodies which border or lie within 50 feet of the project improvements will be mapped out to 50 feet from the project improvements. Major features and pre-existing improvements within 300 feet of the project improvements, and within state land, will be mapped for general location only.

16. Land Ownership Labels. Ownership of adjoining land within 100 feet of the project area shall be labeled (e.g., federal, state, private, native corporation, etc.) and with the legal parcel identification (e.g., lot, block, subdivision designation, U.S. survey number, ASLS, section, aliquot part, etc.).
17. Encroachments. Encroachments onto the park unit shall be tied in the same manner as other improvements.
18. North Arrow. A north arrow is required on each sheet, to include the magnetic declination and source and date of declination.
19. Graphic Scale. A graphic scale in inches and U.S. Survey feet is required on each as-built sheet. The foot scale must be identical to that used in the survey portion of the plat. Two equations must also be shown: $1 \text{ meter} = 3.280833 \text{ U.S. Survey Feet}$ and $1 \text{ U.S. Acre} = 0.4047 \text{ hectare}$.
20. Graphics Orientation. The graphics of plats shall be generally oriented with north towards the top of the sheet, unless impractical.

21. Title Block Requirements. The recommended Record of Survey title block is as follows:

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINING, LAND AND WATER ANCHORAGE, ALASKA	SURVEYOR: [INSERT SURVEY CO.] [INSERT ADDRESS] [INSERT PHONE NO.]
RECORD OF SURVEY	
Doc Title: RS – [INSERT PROJECT NAME SHOWN ON CONTRACT DOCUMENTS]*	
1. PROJECT No. [INSERT PROJECT NO. SHOWN ON CONTRACT DOCS] 2. DIVISION OF PARKS AND OUTDOOR RECREATION 3. [INSERT PARK UNIT] 4. [INSERT PROJECT TITLE SHOWN ON CONTRACT DOCUMENTS] 5. ADL [INSERT ADL NUMBER] 6. AS-BUILT SURVEY	
LOCATED WITHIN: [INSERT SECTION, TOWNSHIP, RANGE, MERIDIAN INFO], ALASKA	
[INSERT RECORDING DISTRICT] RECORDING DISTRICT, ALASKA	
SHEET _____ OF _____ DNR APPROVAL	
DATES OF SURVEY: _____	
BEGIN: _____	
END: _____	
STATEWIDE PLATTING SUPERVISOR DATE	
DRAWN DATE: _____ DRAWN BY: _____ SCALE: _____ DNR FILE No.: EPF 20[XXXXXX]	

*Note that **[INSERT PROJECT NAME SHOWN ON CONTRACT DOCUMENTS]** is limited to 40 characters

22. As-Built Plat Submittal Process. Upon completion of preliminary as-built plats, submit two full-sized paper copies of each sheet, along with supporting documents, to DMLW-SS for review and a third courtesy set to the Project Engineer. The roll or folded package should state “As-Built Drawings” on the outside of the submittal. Reviews will be completed by DMLW-SS and returned with red-lined documents, a check list, and review letter with required changes.

E. TYPICAL NOTES

1. Use the following notes as applicable to the specific project. Insert queued information relevant to the specific project.
 - a. History. “This Record of Survey represents a post-construction survey of **[INSERT PROJECT NAME AND NUMBER SHOWN ON CONTRACT DRAWINGS]**, which were completed in **[INSERT YEAR OF COMPLETION]**. The improvements include **[INSERT LIST OF IMPROVEMENTS UNDER THE PROJECT]**.”

- b. Post-Construction Statement. “This as-built represents a post-construction survey of **[INSERT PROJECT NAME AND NUMBER SHOWN ON CONTRACT DRAWINGS]**. It is intended to depict the location portion of the improvements as it pertains to state land is not to be presumed to plat or dedicate those portions pertaining to non-state lands. This as-built is not intended to be used to re-establish property boundaries. Except as indicated, no encroachments within the vicinity of the project area exist with the park unit.”
- c. Record of Survey Note. “This survey does not constitute a subdivision as defined by AS 40.15.900(5)(A).”
- d. The Basis of Coordinates. “The basis of coordinates is **[DESCRIBE MONUMENT AND CORNER REPRESENTED]** as shown, more exactly on sheet **[INSERT SHEET NUMBER]** of these drawings, positional data derived from **[INSERT WHERE DERIVED FROM]** as indicated.”

Show in the graphics the geodetic position of the monument, associated ASP position, NAD 83, and epoch of data.

- e. Basis of Bearing Based on Record Bearing Between Two Monuments. “All bearings are **[INSERT TRUE MEAN OR GRID – SPECIFY ASP, LOCAL, OR OTHER GRID IF GRID]** bearings as oriented to the Basis of Bearing.”

Indicate on the drawing the bearing between two found monuments of record and source of record used as the basis of bearing for depiction of the data.

- f. GNSS Survey.
 - a) Other than ASP, the use of grid bearings that are based on the bearings as shown on the project design drawing’s survey control sheet may be approved by DMLW-SS. Notes from the survey control sheet should be verified and at a minimum contain the data in item b):
 - b) How to convert the shown grid data to ASP data: (Consider the order in which this data was originally changed to non-ASP grid values and reverse)
 - i. Values to add or subtract from each coordinate set to translate to ASP values.
 - ii. Angle and direction or rotation to rotate the data to ASP values in position.
 - iii. Note the scale factor to use to bring the data to ASP values.
- g. Distances. “All distances are reduced to horizontal ground distances unless otherwise noted” or “All distances are Alaska State Plane Zone **[INSERT ZONE]**, NAD **[INSERT NAD DESIGNATION]** distances with scale factor shown to reduce to horizontal ground distances.”

- h. Meander Lines. "The natural meander of the ordinary high water line form the true bounds of **[INSERT PROJECT NAME AND NUMBER SHOWN ON CONTRACT DRAWINGS]** and the **[INSERT WATER BODY]** as shown.
- i. Method(s) Used to Establish Ordinary High Water. "Ordinary high water on all public and navigable waters shown was determine by **[INSERT METHOD]**."
- j. Easement Sidelines. "Easement sidelines are extended or shortened to meet at angle points and terminate at boundaries with non-state lands."
- k. Conventional Closure. "The error of closure of this survey does not exceed 1:5000."
- l. Positional Accuracy. "All survey data produced by this as-built survey is no less accurate than ± 0.26 feet + 200 PPMA relative to any and all other points in this upland and tideland survey segment located within **[INSERT SECTION, TOWNSHIP, RANGE, MERIDIAN]**."
- m. All Parcels. "All parcels of land owned by the State of Alaska, located within 50.00 feet of, or bisected by a surveyed or protracted section line, are subject to a fifty-foot (50') easement, each side of the section line, which is reserved to the State of Alaska for public highways under AS 19.10.010.

F. CERTIFICATES

Certificates should be shown substantially as follows with headings capitalized and underlined.

1. Surveyor Certificate.

SURVEYOR'S CERTIFICATE

I hereby certify that I am properly registered and licensed to practice land surveying in the State of Alaska, that this plat represents a survey made by me or under my direct supervision, that the monuments shown hereon actually exist as described, and that all dimensions and other details are correct.

Date: _____

Registration Number: _____

[SURVEYOR'S SEAL]

[SIGNATURE IN BLACK INK]
Registered Land Surveyor



Alaska Department of Transportation and Public Facilities

Alaska Construction Surveying Requirements (US Customary Units)

Alaska Construction Surveying Requirements (US Customary Units)

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1. Survey accuracy requirements

Third order survey

- ✓ Use a 1/5000 horizontal closure.
- ✓ Use an angle closure of $30\sqrt{N}$ seconds, where N equals the number of angles in the traverse.
- ✓ An Alaska-registered professional land surveyor must perform or supervise replacement of survey monuments (property, USGS, USC&GS, BLM, etc.) or establishment of monuments (including centerline).
- ✓ All monument work must comply with AS 34.65.040 and meet standards in the latest version of the Alaska Society of Professional Land Surveyors' *Standards of Practice Manual*.
- ✓ The allowable vertical error for misclosure is $e = 0.05\sqrt{M}$ e = maximum misclosure in feet, M = length of the level circuit in miles.

Table 1—Survey accuracy requirements (in feet)

	Stationing	HI	Closure	Horizontal Angle	Distance To center line	Grade
Additional cross sections	1.0	0.01	0.04	**	0.1	0.1
Benches		0.01	0.02			
Blue tops***	1.0	0.01	0.04		0.1	0.02
Bridges	*	0.01	0.02			0.01
Centerline	*			*		
Clearing & Grubbing	1.0				1.0	
Culverts	1.0	0.01	0.04	**	0.1	0.1
Curb & gutter	1.0	0.01	0.02		0.1	0.02
Grade stakes	1.0				0.1	0.1
Guardrail	1.0				0.1	
Manholes, catch basins & inlets	1.0	0.01	0.02		0.1	0.02
Monuments	*			*		
Red tops***	1.0	0.01	0.02		0.1	0.05
Riprap	1.0	0.1	0.04		1.0	0.1
Signs	1.0				0.1	
Slope stakes & RP's	1.0	0.01	0.04	**	0.1	0.1
Under drains & sewer	1.0	0.01	0.02		0.1	0.02

* Third order survey

**Right angle prism or transit angles from center line

*** Use blue tops for top of base course and red tops for the bottom of base course.

1. Survey frequency requirements

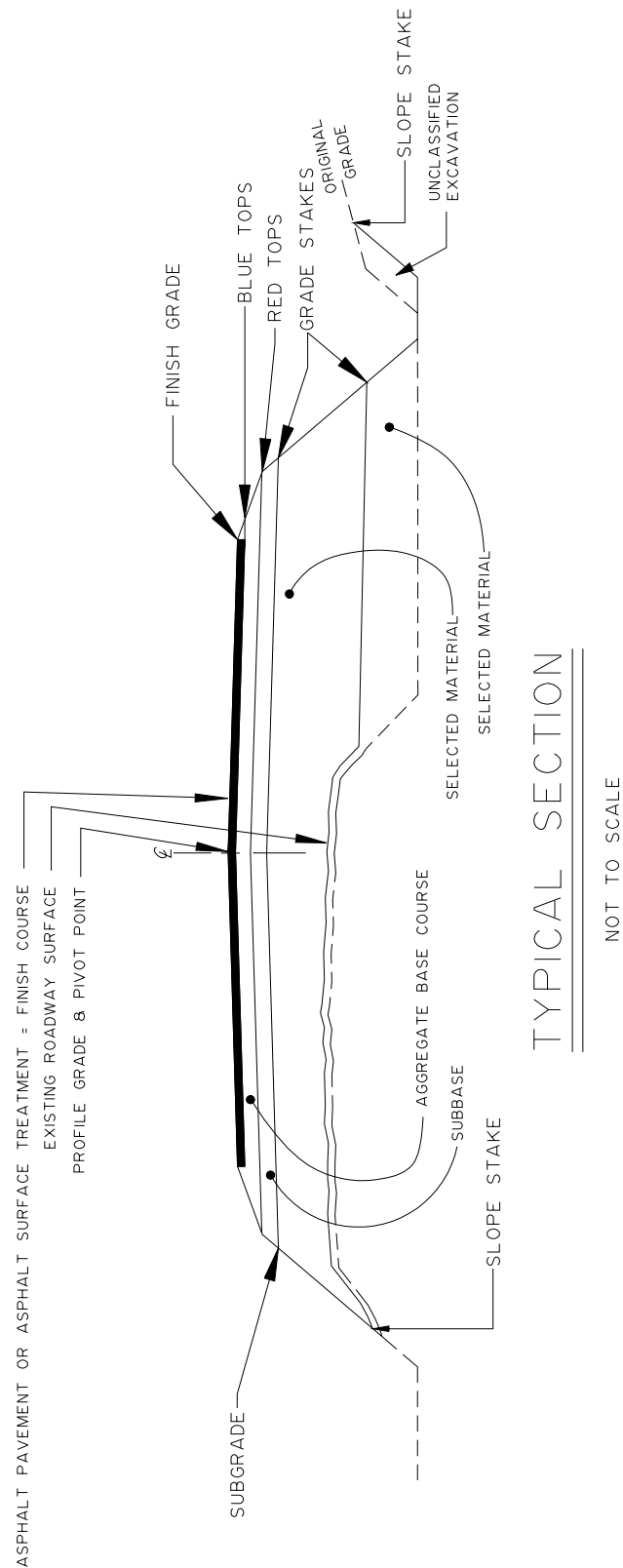
Table 2—Survey frequency requirements (in feet)

	Tangents	Curves	Interchange ramps	Stake each per plan	See special instructions on sample notes
Additional cross sections	*	*	*		
Bench marks					X
Blue tops	100	100**	25		X
Blue tops within 100 feet both sides of railroad track crossings and bridge approaches	25	25	25		X
Bridges				X	X
Center line	100	100**	25		
Clearing	100	100**	25		X
Culverts				X	X
Curb and gutter	25	25	25		
Grade stakes	100	100**	50		
Guardrail	25	25	25		
Manholes, catch basins & inlets				X	
Monuments				X	
Red tops	100	100**	25		X
Riprap	50	50	50		
Signs				X	
Slope stake / cross sections	100	100**	25		X
Under drains and sewers	50	25	25		

* Establish additional cross sections and slope stakes at all breaks in topography and where structures begin and end.

**Curves shall be staked on 50-foot stations if the curve is greater than six degrees.

2. Typical Section Drawing



3. Survey point materials requirements

- ✓ These are minimum requirements; larger sizes may be necessary.
- ✓ Use only stakes with planed sides.

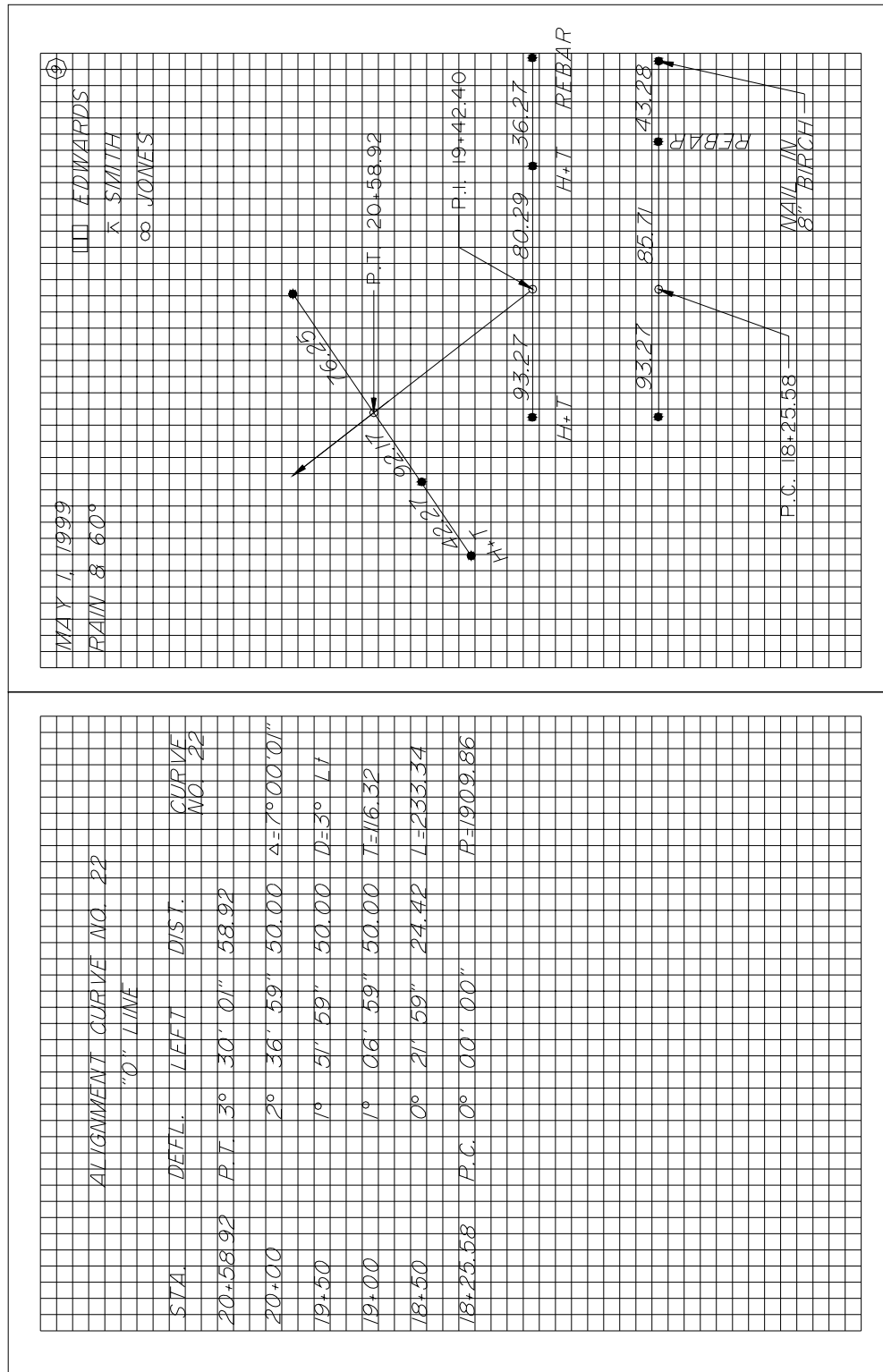
Table 3—Survey point materials requirements

	24" lath or whiskers	2" x 2" x 8" hub	2" x 2" x 12" hub	1" x 2" x 18" stake	1" x 2" x 24" stake	48" lath	Hub and tack	40d nail	60d nail	1/2" x 24" rebar
Benchmarks									X	
Blue tops	X	X								
Centerline P.C., P.T., P.O.T.			X	X			X *			X *
Centerline reference points			X	X			X *			X *
Centerline station				X				X		
Clearing						X				
Culvert stake			X		X	X				
Culvert stake references			X		X	X				
Curb and gutter			X		X		X			
Guardrail								X		
Major structures			X	X *	X *	X	X *			X *
Red tops	X	X								
Signs						X				
Slope stake					X	X				
Slope stake references			X		X	X				

* Optional depending on conditions, and to be determined by the Project Engineer.

4. Typical alignment notes

- ✓ The Chief of Parties must prepare the alignment book before actual staking.
- ✓ Don't use swing ties for reference points.
- ✓ Use three point right angle ties, two to the right and one left, or vice versa.
- ✓ Reference P.C., P.I., P.T., and P.O.T.



5. Typical clearing notes

- ✓ Exclude areas not needing clearing.
- ✓ Draw a diagram as required to show unusual or confusing areas.

[illegible]

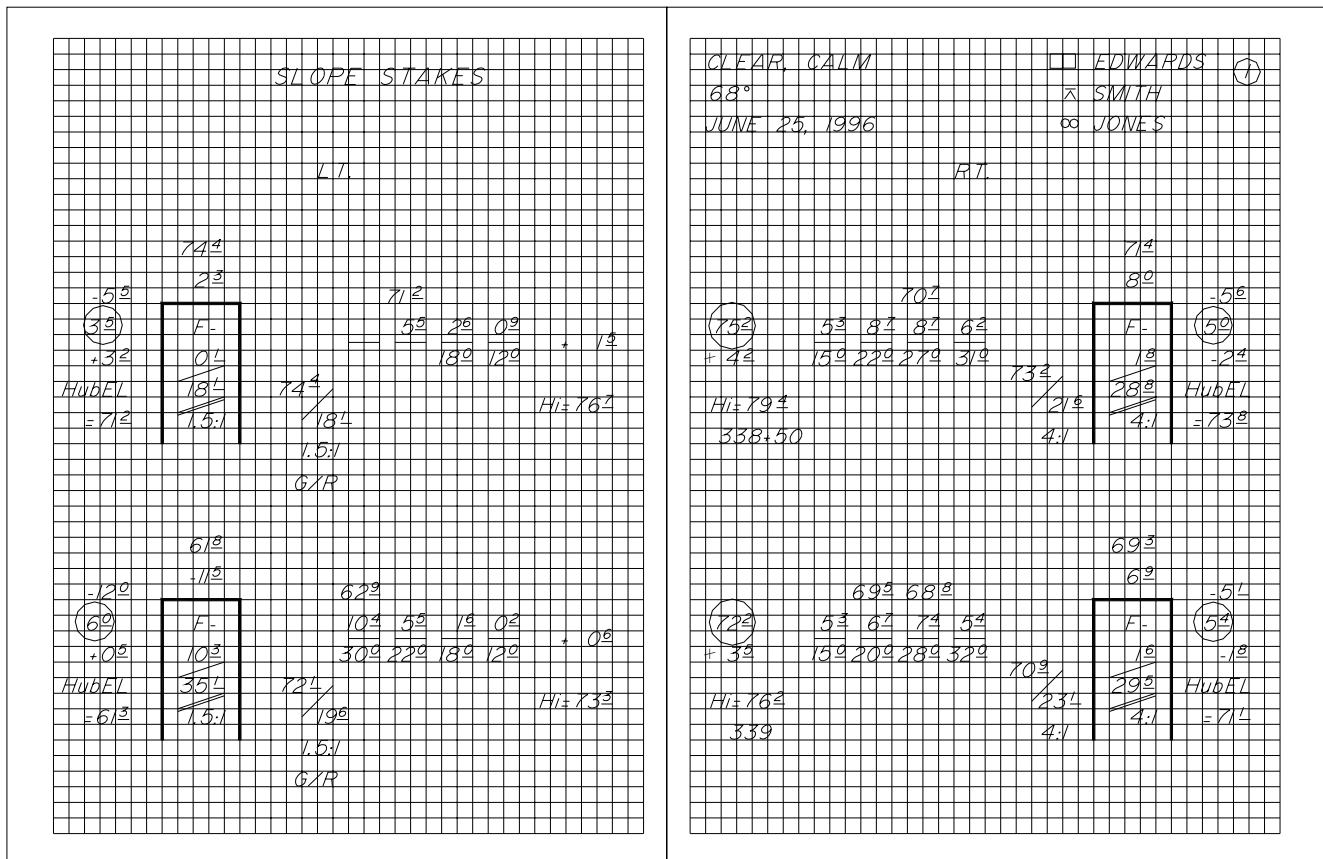
6. Typical level notes

- ✓ Balance back sights and foresights.
- ✓ Establish all benchmarks and take the centerline profile before doing any staking involving elevations.
- ✓ Don't set benchmarks in utility poles.
- ✓ Don't use side shots on benchmarks.
- ✓ Use the turn through method when establishing benchmarks.
- ✓ Re-check benchmarks after each major freeze/thaw cycle and/or any environmental event that may change the benchmark elevation.
- ✓ Do not use double rodding.
- ✓ Run separate level loops between all benchmarks.
- ✓ Set benchmarks in trees of at least six-inch diameter, unless approved by the Project Engineer.
- ✓ Correct errors in benchmark elevations so they will not affect the elevations of succeeding benchmarks.
- ✓ Consult with the Project Engineer before placing benchmarks in areas of permafrost or other unstable ground.
- ✓ Establish benchmarks at intervals and locations consistent with good engineering practice, and generally not more than 1000 feet.
- ✓ Completely describe benchmarks when establishing or re-establishing their elevation. Give centerline stationing, offset, benchmark projection, and observable benchmark characteristics. When checking into or out of benchmarks, note the book and page number that contains the most recent elevation establishment for that benchmark.
- ✓ Write the station on the top twelve inches facing centerline, with numerals a minimum of one inch in height.

STA.	BS+	HI	FS-		ELEV.	45°± CLEAR WARM CALM			⌘ □	EDWARDS
						WILD 413579	3-23-90		+	SMITH
TBM #101										
6+72					161.309	Nail in base of 12" Spruce				
						85' 10" LT.	6+72			
	3.877	165.186								
6+00			1.95		163.24					
6+25			2.32		162.87					
6+50			2.96		162.23					
T.P.			3.246		161.940					
	1.103	163.043								
6+75			2.31		160.73					
7+00			2.56		160.48					
T.P.			2.823		160.220					
	2.332	162.552								
						Nail in base of 18" stump				
TBM #102			1.143		161.409	60' 4" RT	7+21	Elev.	161.413	

7. Typical slope stake notes

- ✓ Enter the station, elevations, shoulder distance or ditch distances, and slope in the slope stake book before staking begins.
- ✓ In areas where slides or overbreak are anticipated, extend the sections beyond the construction limits.
- ✓ Slope-stake each section that is cross-sectioned.
- ✓ Final re-cross sections are required where there are overbreaks, undercuts, etc. Re-cross section book and page numbers shall be noted on the original cross-section and slope staking page for the relevant stations.
- ✓ Include at least the following information on the stake: (1) where to begin the cut or fill (2) the slope ratio (3) the depth of cut or height of fill and (4) the station.
- ✓ Use a hand level only for one turn up or down from the instrument.
- ✓ Clearly note hand level turns.
- ✓ Use a reference point that is 10-20 feet beyond the slope stake.
- ✓ The reference point must show the cut or fill to the slope stake and must include the slope stake information.
- ✓ Slope stake all abrupt changes in typical sections.
- ✓ Position all laths to face centerline.

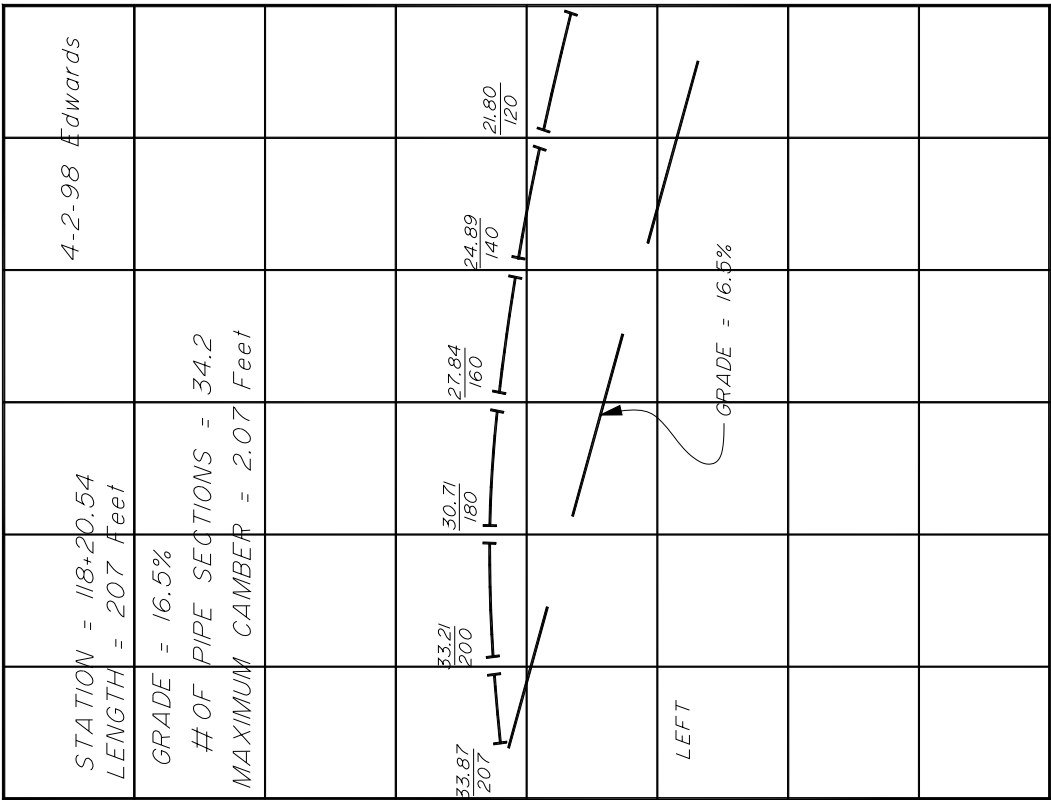
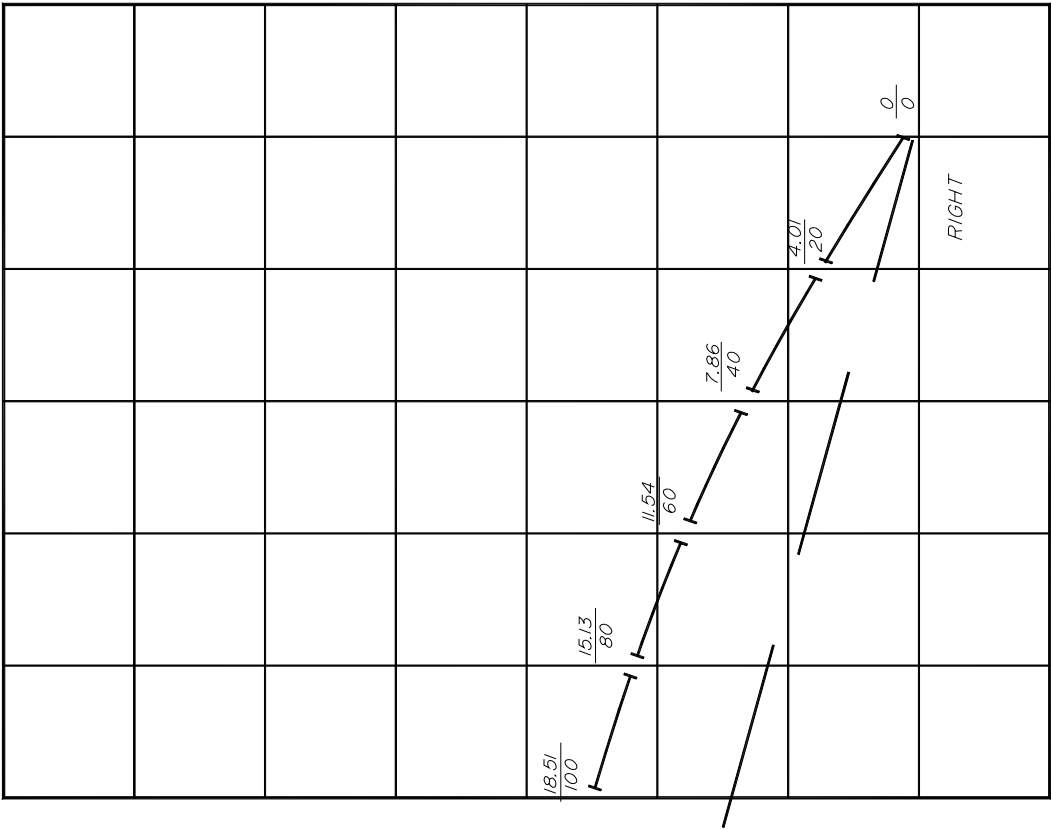


8. Typical culvert notes

- ✓ Show at least the following information on culvert stakes
 - station
 - size
 - length
 - type of pipe (e.g., 24" x 80' CMP)
 - cut or fill from top of hub to inlet & outlet
 - skew angle
 - horizontal distance from hub to end of pipe
 - gradient of pipe
 - drop of pipe
- ✓ Ensure that all culverts have a minimum camber equal to 1% of the length of the pipe, unless the Project Engineer directs otherwise.
- ✓ Develop a culvert camber diagram showing each section of pipe and its elevation and offset.

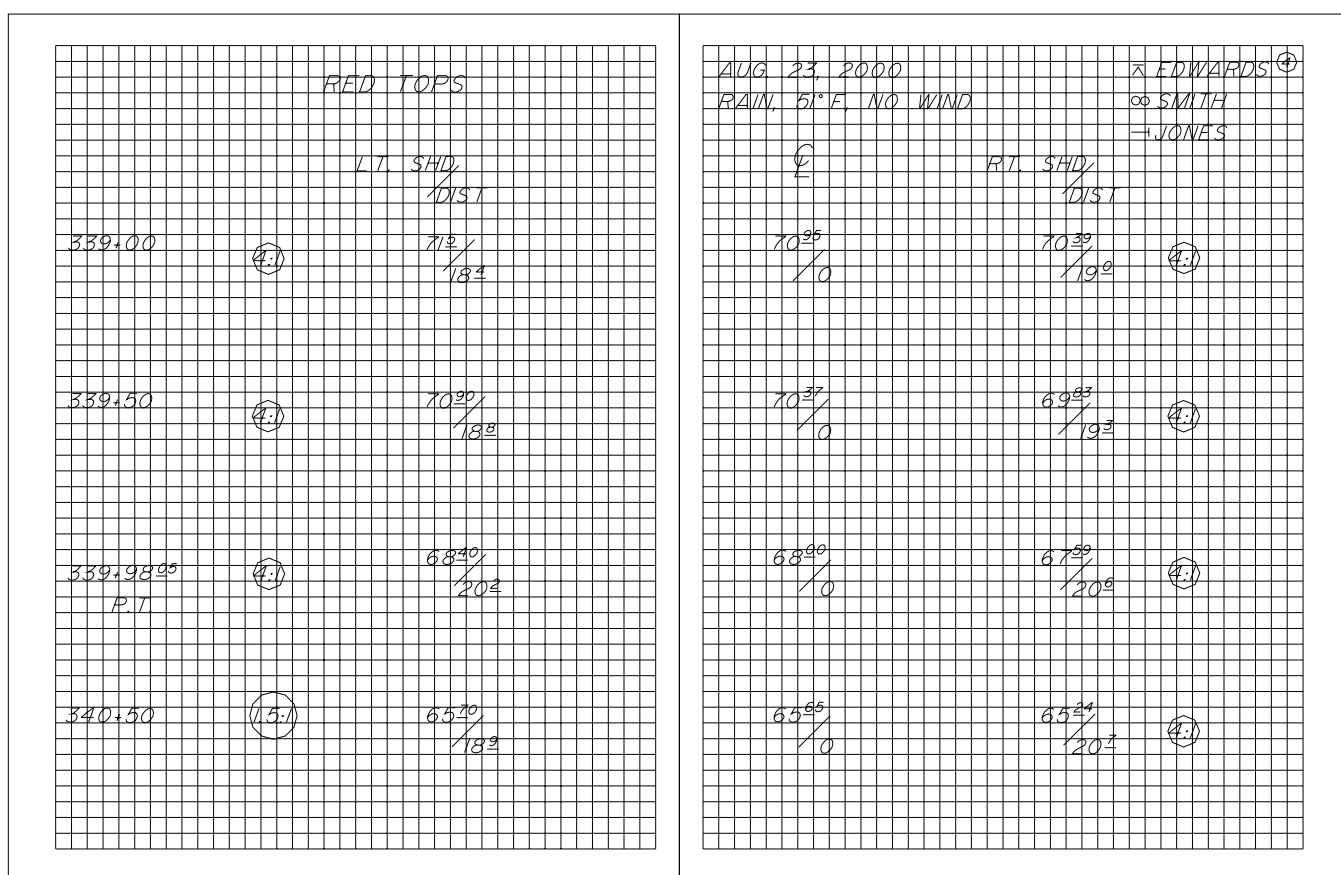
[illegible]

9. Typical culvert camber diagram



10. Typical blue or red tops and grade stake notes

- ✓ Place blue and red tops at each break in typical section and on centerline.
- ✓ Use blue tops for top of base course.
- ✓ Use red tops for the bottom of the base course.
- ✓ Evenly space red/blue tops at and between crown section break points with a maximum spacing of 25 feet between red/blue tops.
- ✓ Establish horizontal control from centerline references and vertical control from benchmarks.
- ✓ Place blue tops at the same interval as slope stakes.
- ✓ Stake all curve transitions.



APPENDIX C

EROSION AND SEDIMENT CONTROL PLAN (ESCP)

The Department of Natural Resources (DNR) Division of Parks and Outdoor Recreation (DPOR) has created this Erosion and Sediment Control Plan (ESCP). This ESCP shall be amended by the Contractor to incorporate the projects material source sites, HMCP, SPCC, and any other modification the contractor determines is necessary.

The Contractor shall use the attached ESCP to meet Alaska Department of Environmental Conservation requirements for construction.

SITE DESCRIPTION:

1. SITE FUNCTION: CHUGACH STATE PARK RABBIT VALLEY TRAILHEAD
2. THIS PROJECT INCLUDES CLEARING, GRUBBING, EARTHWORK (EXCAVATION AND EMBANKMENT CONSTRUCTION), INSTALLATION OF PARK FACILITIES.
3. PROJECT AREA: 2.4 ACRES
4. PROJECT DISTURBED AREA: 2.3 ACRES
5. PERCENT IMPERVIOUS AREA BEFORE CONSTRUCTION: 0%
7. PERCENT IMPERVIOUS AREA AFTER CONSTRUCTION: 1%
8. RUNOFF COEFFICIENT BEFORE CONSTRUCTION: 0.55
9. RUNOFF COEFFICIENT AFTER CONSTRUCTION: 0.56
10. MATERIAL SITES: BORROW, TYPE A MATERIAL AND OTHERS WILL BE OBTAINED FROM CONTRACTOR FURNISHED SITES.
11. EXISTING SOILS CONSIST OF SURFICIAL LAYER OF ORGANICS OVERTOP SILTY SAND AND SILTY GRAVEL WITH COBBLES

ENVIRONMENTAL INFORMATION:

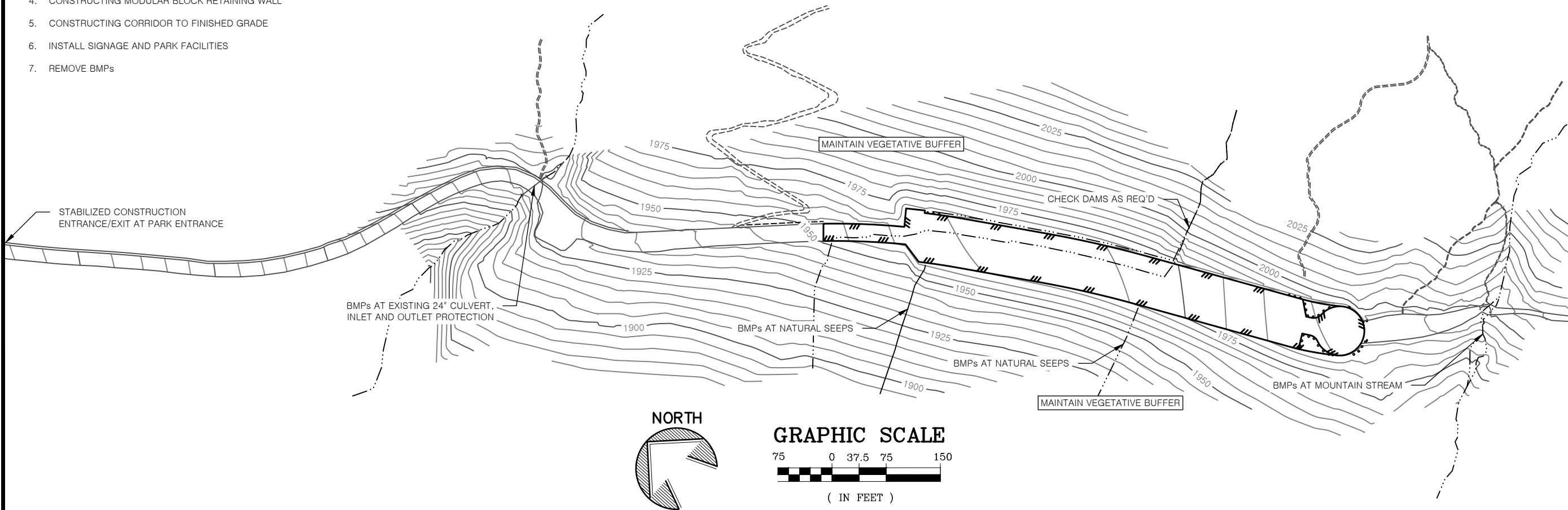
1. RECEIVING WATER BODIES: RABBIT CREEK
2. IMPAIRED WATER BODIES: NONE
3. TOTAL MAXIMUM DAILY LOAD (TMDL) WATERS: N/A
4. THREATENED AND ENDANGERED SPECIES (ESA): NONE
5. HISTORIC IMPACTS: NONE KNOWN
6. MIGRATORY BIRD TREATY ACT: CLEARING AND GRUBBING ACTIVITIES BETWEEN MAY 1ST AND JULY 15 MAY INTERFERE WITH MIGRATORY BIRDS. REFER TO THE U.S. FISH AND WILDLIFE SERVICE FOR DETAILS.
7. CONTACT THE PROJECT ENGINEER WITH ADDITIONAL QUESTIONS/CONCERNS REGARDING ENVIRONMENTAL MATTERS.

EXPECTED CONSTRUCTION SEQUENCE:

1. INSTALL BMPs
2. CLEARING AND GRUBBING
3. EXCAVATING, GRADING, COMPACTING, HAULING, AND STOCKPILING MATERIAL
4. CONSTRUCTING MODULAR BLOCK RETAINING WALL
5. CONSTRUCTING CORRIDOR TO FINISHED GRADE
6. INSTALL SIGNAGE AND PARK FACILITIES
7. REMOVE BMPs

EROSION AND SEDIMENT CONTROL PLAN (ESCP) NOTES:

1. THE ESCP IS A GENERAL PLAN FOR GUIDING THE DEVELOPMENT OF THE CONTRACTOR'S EROSION SEDIMENT CONTORL PLAN (ESCP). THE CONTRACTOR IS EXPECTED TO PROVIDE ADDITIONAL DETAILS AND BEST MANAGEMENT PRACTICES (BMPs) BASED ON THE CONTRACTOR'S ACTUAL SCHEDULE AND CONSTRUCTION METHODS, AND ARE REQUIRED TO COMPLY WITH SECTION 641 OF THE SPECIFICATIONS.
2. SEDIMENT CONTROL MEASURES AND TEMPORARY EROSION CONTROL FEATURES SHALL BE BASED ON BMPs AS CONTAINED IN THE DOT&PF'S MANUAL "CONTRACTOR GUIDANCE FOR PREPARING AND EXECUTING STORMWATER POLLUTION PREVENTION PLANS."
3. THE CONTRACTOR SHALL PROVIDE INLET AND OUTLET PROTECTION FOR ANY DRAINAGE DITCHES, CULVERTS, AND STORM DRAINS THAT MAY BE IMPACTED BY STORMWATER FROM PROJECT ACTIVITIES
4. THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF DISTURBED AREA OPEN TO EROSION AT ANY ONE TIME.
5. EROSION AND SEDIMENT CONTROL BMPs SHALL BE INSTALLED WITHIN 1 DAYS IN AREAS WHERE EARTHWORK DISTURBANCE HAS TEMPORARILY OR PERMANENTLY CEASED.
6. ALL DISTURBED GROUND CAPABLE OF SUPPORTING VEGETATION SHALL BE REVEGETATED ACCORDING TO SECTION 621 FOR FINAL STABILIZATION. FINAL STABILIZED AREAS NOT REVEGETATED SHALL BE 100% COVERED BY ROCK, ASPHALT, CONCRETE, OR OTHER PERMANENT NON-ERODABLE MATERIAL.
7. TEMPORARY PERIMETER CONTROL BMPs SHALL BE INSTALLED BEFORE ANY UP-GRADIENT SOIL DISTURBANCE OCCURS.
8. PROVIDE PERIMETER CONTROLS IN AREAS NOT SHOWN ON THE PLANS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE PROJECT AREA.
9. RETAIN A VEGETATIVE BUFFER STRIP IN UPLAND AREAS WHEREVER POSSIBLE. VEGETATIVE BUFFER STRIPS MAY BE USED IN LIEU OF SILT FENCE OR OTHER TEMPORARY DEVICES PROVIDED THEY ARE OF SUFFICIENT WIDTH FOR THE CATCHMENT AREA.
10. AVOID CONDITIONS WHICH PROMOTE CONCENTRATED FLOWS. INSTALL VELOCITY CONTROL BMPs WHEN CONCENTRATED FLOWS OCCUR.
11. SLOPE PROTECTION MAY INCLUDE SLOPE ROUGHENING, TACKIFYING, EROSION CONTROL BLANKETS, SEEDING, ROCK LINING, OR OTHER METHODS AS APPROVED BY THE PROJECT ENGINEER.
12. ALL STOCKPILES OF ERODIBLE MATERIALS SHALL HAVE PERIMETER CONTROL IN PLACE. ERODIBLE MATERIALS SHALL NOT BE STOCKPILED WITHIN 100 FEET OF ORDINARY HIGH WATER.



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731

CSP: RABBIT VALLEY
TRAILHEAD IMPROVEMENTS
PROJECT No. 73103-2

EROSION SEDIMENT CONTROL PLAN



PREPARED: DKM
DRAWN: DKM
REVIEWED: D&C
DATE: AUG 7, 2026

SHEET

1

OF 1 SHEETS

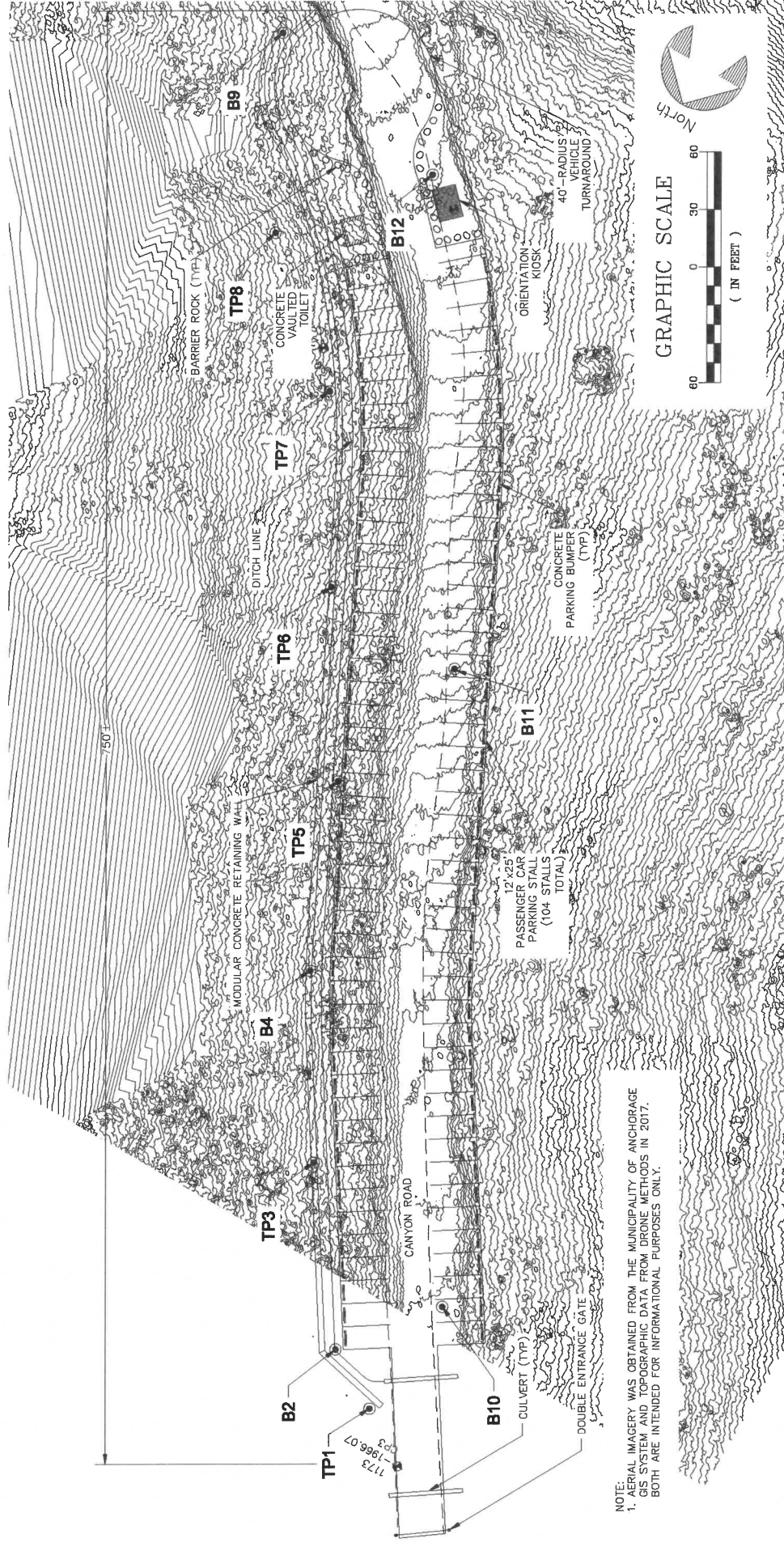
APPENDIX D

SPECIAL REPORTS

1. GEOTECHNICAL INVESTIGATION LOGS

Excerpts from Geotechnical Report (No. 7115-24) Rabbit Valley Trailhead Improvements, Anchorage, Alaska, prepared by Northern Geotechnical Engineering, INC. Terra Fima Testing

Note that this report does not serve as substitution for the requirements of Subsection 102-1.04. Contractors are highly encouraged to conduct an examination of the work site as per Subsection 102-1.04 Examination of Plans, Specifications, Special Provisions, and Work Site.



NOTE:
1. AERIAL IMAGERY WAS OBTAINED FROM THE MUNICIPALITY OF ANCHORAGE
2. GIS SYSTEM AND TOPOGRAPHIC DATA FROM DRONE METHODS IN 2017.
BOTH ARE INTENDED FOR INFORMATIONAL PURPOSES ONLY.

GRAPHIC SCALE





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and Terra Firma Testing
11301 Olive Lane
Anchorage, AK 99515

EXPLORATION TP1

PAGE 1 OF 1

NGE-TFT PROJECT NAME: <u>Rabbit Valley Trailhead</u>	NGE-TFT PROJECT NUMBER: <u>7115-24</u>
PROJECT LOCATION: <u>Canyon Road, Anchorage, AK</u>	EXPLORATION CONTRACTOR: <u>Ground Breakers, LLC</u>
EXPLORATION EQUIPMENT: <u>CAT 306</u>	EXPLORATION METHOD: <u>Test Pit Excavation</u>
SAMPLING METHOD: <u>Grab Sample</u>	LOGGED BY: <u>A. Fortt</u>
DATE/TIME STARTED: <u>10/17/2024 @ 2:00:00 PM</u>	DATE/TIME COMPLETED: <u>10/17/2024 @ 2:15:00 PM</u>
EXPLORATION LOCATION: <u>Coords: N2587281, E1697021</u>	GROUND ELEVATION: <u>Approx. 1973 ft</u>
▼ GROUNDWATER (ATD): <u>N/E</u>	▼ GROUNDWATER (I): <u>N/E</u>
EXPLORATION COMPLETION: <u>Backfilled with spoils.</u>	WEATHER CONDITIONS: <u>Sunny, 30-39°F</u>

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N ₁) ₆₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
1973.0	0			ORGANICS (OH), very soft, dark brown, moist									
				SILTY GRAVEL WITH SAND (GM), medium dense, brown, moist, few boulders and cobbles, subangular particles									
1968.0	5												

Bottom of test pit at 7.0 ft bgs.

S1
MC = 9.3%
50.8% gravel,
31.9% sand,
17.3% silt

Refusal.



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EXPLORATION B2

PAGE 1 OF 1

NGE-TFT PROJECT NAME: <u>Rabbit Valley Trailhead</u>	NGE-TFT PROJECT NUMBER: <u>7115-24</u>
PROJECT LOCATION: <u>Canyon Road, Anchorage, AK</u>	EXPLORATION CONTRACTOR: <u>Discovery Drilling, Inc.</u>
EXPLORATION EQUIPMENT: <u>Geoprobe 7822DT</u>	EXPLORATION METHOD: <u>Hollow Stem Auger</u>
SAMPLING METHOD: <u>MPT w/ 340lb autohammer</u>	LOGGED BY: <u>A. Fortt</u>
DATE/TIME STARTED: <u>10/18/2024 @ 9:30:00 AM</u>	DATE/TIME COMPLETED: <u>10/18/2024 @ 12:25:00 PM</u>
EXPLORATION LOCATION: <u>Coords: N2587263, E1697052</u>	GROUND ELEVATION: <u>Approx. 1980 ft</u>
GROUNDWATER (ATD): <u>N/E</u>	GROUNDWATER (I): <u>N/E</u>
EXPLORATION COMPLETION: <u>Backfilled with cuttings</u>	WEATHER CONDITIONS: <u>Sunny, 28-36°F</u>

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N ₁) ₆₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
1980.0	0			ORGANICS very soft, dark brown, moist		S1	0	1 0 0	N/A		S1		No recovery.
				SILTY GRAVEL WITH SAND (GM) , medium dense to loose, light brown, moist, few boulders and cobbles, subangular particles		S2	18	8 7 8	12		S2	S2 MC = 9.4% 46.0% gravel, 37.3% sand, 16.7% silt P0.02 = 11.4% FC = F2	
1975.0	5					S3	18	7 7 5	10		S3	S3 MC = 8.3% 40.7% gravel, 44.1% sand, 15.2% silt P0.02 = 10.3% FC = F2	
				SILTY SAND WITH GRAVEL (SM) , loose to medium dense, brown, moist, few boulders and cobbles, subangular particles		S4	18	3 4 6	8		S4	S4 MC = 11.2% 27.8% gravel, 49.1% sand, 23.1% silt	
1970.0	10					S5	19	5 10 6	13		S5	S5 MC = 10.8% 38.4% gravel, 42.9% sand, 18.7% silt	
				SILTY GRAVEL WITH SAND (GM) , dense, light brown, moist, few boulders and cobbles, subangular particles		S6	14	10 17 23	37		S6	S6 MC = 8.3% 47.3% gravel, 40.1% sand, 12.6% silt	
1965.0	15												
						S7	14	26 50 3"	N/A		S7	S7 MC = 8.2% 50.5% gravel, 33.6% sand, 15.9% silt	
1960.0	20			Bottom of borehole at 20.7 ft bgs.									

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.



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Anchorage, AK 99515

EXPLORATION TP3

PAGE 1 OF 1

NGE-TFT PROJECT NAME:	Rabbit Valley Trailhead	NGE-TFT PROJECT NUMBER:	7115-24
PROJECT LOCATION:	Canyon Road, Anchorage, AK	EXPLORATION CONTRACTOR:	Ground Breakers, LLC
EXPLORATION EQUIPMENT:	CAT 306	EXPLORATION METHOD:	Test Pit Excavation
SAMPLING METHOD:	Grab Sample	LOGGED BY:	A. Fortt
DATE/TIME STARTED:	10/17/2024 @ 2:25:00 PM	DATE/TIME COMPLETED:	10/17/2024 @ 2:40:00 PM
EXPLORATION LOCATION:	Coords: N2587184, E1697111	GROUND ELEVATION:	Approx. 1984 ft
▽ GROUNDWATER (ATD):	N/E	▽ GROUNDWATER (I):	N/E
EXPLORATION COMPLETION:	Backfilled with spoils.	WEATHER CONDITIONS:	Sunny, 30-39°F

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N ₁) ₆₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
1984.0	0			ORGANICS (OH), very soft, dark brown									
				POORLY GRADED GRAVEL (GP), medium dense, brown, moist, few boulders and cobbles, subangular particles									
1979.0	5					S1	N/A	N/A	N/A		S1	S1 MC = 3.5% 81.7% gravel, 13.8% sand, 4.5% silt	
Bottom of test pit at 5.0 ft bgs.													



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Anchorage, AK 99515

EXPLORATION B4

PAGE 1 OF 1

NGE-TFT PROJECT NAME: Rabbit Valley Trailhead

NGE-TFT PROJECT NUMBER: 7115-24

PROJECT LOCATION: Canyon Road, Anchorage, AK

EXPLORATION CONTRACTOR: Discovery Drilling, Inc.

EXPLORATION EQUIPMENT: Geoprobe 7822DT

EXPLORATION METHOD: Hollow Stem Auger

SAMPLING METHOD: MPT w/ 340lb autohammer

LOGGED BY: A. Fortt

DATE/TIME STARTED: 10/18/2024 @ 1:45:00 PM

DATE/TIME COMPLETED: 10/18/2024 @ 2:50:00 PM

EXPLORATION LOCATION: Coords: N2587098, E1697163

GROUND ELEVATION: Approx. 1986 ft

▽ GROUNDWATER (ATD): Approx. 20.0 ft / Elev 1966.0 ft

▽ GROUNDWATER (I): N/A

EXPLORATION COMPLETION: Backfilled with cuttings

WEATHER CONDITIONS: Sunny, 28-36°F

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS (N ₆₀)	SAMPLE INT. COLLECT (N ₆₀)	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
1986.0	0			ORGANICS very soft, dark brown, moist	S1	13	0 0 1	N/A	S1	S1 MC = 62.1%	
					S2	15	7 7 22	24	S2	S2 MC = 11.4% 47.9% gravel, 36.5% sand, 15.6% silt PO.02 = 10.2% FC = F2	
1981.0	5			SILTY GRAVEL WITH SAND (GM) , medium dense, light brown, moist, few boulders and cobbles, subangular particles	S3	15	17 22 23	37	S3	S3 MC = 9.5%	
					S4	18	17 14 12	21	S4	S4 MC = 6.3%	
1976.0	10			SILTY SAND WITH GRAVEL (SM) , medium dense to dense, light brown, moist, few boulders and cobbles, subangular particles	S5	15	10 5 9	12	S5	S5 MC = 8.9% 40.2% gravel, 42.5% sand, 17.3% silt	
1971.0	15				S6	0	50 /0"	N/A	S6		Refusal, no recovery.
1966.0	20			SILTY GRAVEL WITH SAND (GM) , brown, wet Bottom of borehole at 20.6 ft bgs.	S7	7	30 /0"	N/A	S7	S7 MC = 11.8%	

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.



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EXPLORATION TP5

PAGE 1 OF 1

NGE-TFT PROJECT NAME:	Rabbit Valley Trailhead	NGE-TFT PROJECT NUMBER:	7115-24
PROJECT LOCATION:	Canyon Road, Anchorage, AK	EXPLORATION CONTRACTOR:	Ground Breakers, LLC
EXPLORATION EQUIPMENT:	CAT 306	EXPLORATION METHOD:	Test Pit Excavation
SAMPLING METHOD:	Grab Sample	LOGGED BY:	A. Fortt
DATE/TIME STARTED:	10/17/2024 @ 1:20:00 PM	DATE/TIME COMPLETED:	10/17/2024 @ 1:35:00 PM
EXPLORATION LOCATION:	Coords: N2587005, E1697200	GROUND ELEVATION:	Approx. 1987 ft
▼ GROUNDWATER (ATD):	N/E	▼ GROUNDWATER (I):	N/E
EXPLORATION COMPLETION:	Backfilled with spoils.	WEATHER CONDITIONS:	Sunny, 30-39°F

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N ₁) ₆₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
1987.0	0			ORGANICS (OH), very soft, dark brown									
				POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), medium dense, light brown, moist, few boulders and cobbles, subangular particles									
				Bottom of test pit at 4.0 ft bgs.		S1	N/A	N/A	N/A		S1	S1 MC = 14.5% 63.5% gravel, 24.6% sand, 11.9% silt P0.02 = 7.0% FC = F1	



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Anchorage, AK 99515

EXPLORATION TP6

PAGE 1 OF 1

NGE-TFT PROJECT NAME: <u>Rabbit Valley Trailhead</u>	NGE-TFT PROJECT NUMBER: <u>7115-24</u>
PROJECT LOCATION: <u>Canyon Road, Anchorage, AK</u>	EXPLORATION CONTRACTOR: <u>Ground Breakers, LLC</u>
EXPLORATION EQUIPMENT: <u>CAT 306</u>	EXPLORATION METHOD: <u>Test Pit Excavation</u>
SAMPLING METHOD: <u>Grab Sample</u>	LOGGED BY: <u>A. Fortt</u>
DATE/TIME STARTED: <u>10/17/2024 @ 1:00:00 PM</u>	DATE/TIME COMPLETED: <u>10/17/2024 @ 1:15:00 PM</u>
EXPLORATION LOCATION: <u>Coords: N2586919, E1697254</u>	GROUND ELEVATION: <u>Approx. 1999 ft</u>
▼ GROUNDWATER (ATD): <u>N/E</u>	▼ GROUNDWATER (I): <u>N/E</u>
EXPLORATION COMPLETION: <u>Backfilled with spoils.</u>	WEATHER CONDITIONS: <u>Sunny, 30-39°F</u>

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N ₁) ₆₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
1999.0	0												
				ORGANICS (OH), very soft, dark brown									
				POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), medium dense, light brown, moist, few boulders and cobbles, subangular particles									
1994.0	5				✓	S1	N/A	N/A	N/A	■	S1	S1 MC = 7.8% 55.2% gravel, 33.0% sand, 11.8% silt P0.02 = 7.2% FC = F1	
Bottom of test pit at 5.0 ft bgs.													



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EXPLORATION TP7

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NGE-TFT PROJECT NAME: <u>Rabbit Valley Trailhead</u>	NGE-TFT PROJECT NUMBER: <u>7115-24</u>
PROJECT LOCATION: <u>Canyon Road, Anchorage, AK</u>	EXPLORATION CONTRACTOR: <u>Ground Breakers, LLC</u>
EXPLORATION EQUIPMENT: <u>CAT 306</u>	EXPLORATION METHOD: <u>Test Pit Excavation</u>
SAMPLING METHOD: <u>Grab Sample</u>	LOGGED BY: <u>A. Fortt</u>
DATE/TIME STARTED: <u>10/17/2024 @ 12:00:00 PM</u>	DATE/TIME COMPLETED: <u>10/17/2024 @ 12:15:00 PM</u>
EXPLORATION LOCATION: <u>Coords: N2586831, E1697306</u>	GROUND ELEVATION: <u>Approx. 2007 ft</u>
▽ GROUNDWATER (ATD): <u>N/E</u>	▽ GROUNDWATER (I): <u>N/E</u>
EXPLORATION COMPLETION: <u>Backfilled with spoils.</u>	WEATHER CONDITIONS: <u>Sunny, 30-39°F</u>

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N ₁) ₆₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
2007.0	0			ORGANICS (OH) , very soft, dark brown									
				WELL GRADED GRAVEL WITH SILT AND SAND (GW-GM), medium dense, brown, moist, few boulders and cobbles, subangular particles									
2002.0	5					S1	N/A	N/A	N/A		S1	S1 MC = 5.9% 58.9% gravel, 31.6% sand, 9.5% silt	
Bottom of test pit at 6.0 ft bgs.													



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EXPLORATION TP8

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NGE-TFT PROJECT NAME: <u>Rabbit Valley Trailhead</u>	NGE-TFT PROJECT NUMBER: <u>7115-24</u>
PROJECT LOCATION: <u>Canyon Road, Anchorage, AK</u>	EXPLORATION CONTRACTOR: <u>Ground Breakers, LLC</u>
EXPLORATION EQUIPMENT: <u>CAT 306</u>	EXPLORATION METHOD: <u>Test Pit Excavation</u>
SAMPLING METHOD: <u>Grab Sample</u>	LOGGED BY: <u>A. Fortt</u>
DATE/TIME STARTED: <u>10/17/2024 @ 12:30:00 PM</u>	DATE/TIME COMPLETED: <u>10/17/2024 @ 12:45:00 PM</u>
EXPLORATION LOCATION: <u>Coords: N2586774, E1697372</u>	GROUND ELEVATION: <u>Approx. 2012 ft</u>
▽ GROUNDWATER (ATD): <u>N/E</u>	▽ GROUNDWATER (I): <u>N/E</u>
EXPLORATION COMPLETION: <u>Backfilled with spoils.</u>	WEATHER CONDITIONS: <u>Sunny, 30-39°F</u>

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N ₁) ₆₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
2012.0	0			ORGANICS (OH) , very soft, dark brown									
				POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), medium dense, brown, moist, few boulders and cobbles, subangular particles									
2007.0	5												

Bottom of test pit at 6.0 ft bgs.

S1
MC = 8.3%
59.9% gravel,
31.1% sand,
9.0% silt



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EXPLORATION B9

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NGE-TFT PROJECT NAME: Rabbit Valley Trailhead	NGE-TFT PROJECT NUMBER: 7115-24
PROJECT LOCATION: Canyon Road, Anchorage, AK	EXPLORATION CONTRACTOR: Discovery Drilling, Inc.
EXPLORATION EQUIPMENT: Geoprobe 7822DT	EXPLORATION METHOD: Hollow Stem Auger
SAMPLING METHOD: MPT w/ 340lb autohammer	LOGGED BY: A. Fortt
DATE/TIME STARTED: 10/18/2024 @ 3:16:00 PM	DATE/TIME COMPLETED: 10/18/2024 @ 4:00:00 PM
EXPLORATION LOCATION: Coords: N2586682, E1697421	GROUND ELEVATION: Approx. 2010 ft
GROUNDWATER (ATD): N/E	GROUNDWATER (I): N/E
EXPLORATION COMPLETION: Backfilled with cuttings	WEATHER CONDITIONS: Sunny, 28-36°F

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N) ₁₀₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
2010.0	0			ORGANICS very soft, dark brown, moist	X	S1	14	1 0 1	N/A		S1	S1 MC = 78.4%	
				POORLY GRADED GRAVEL (GP), dense, brown, moist, few boulders and cobbles, subangular particles	X	S2	14	15 10 13	38		S2	S2 MC = 7.0% 56.0% gravel, 32.4% sand, 11.6% silt P0.02 = 7.8% FC = F1	
2005.0	5				X	S3	14	18 18 30	63		S3	S3 MC = 9.9%	
				SILTY SAND WITH GRAVEL (SM), dense, light brown, moist, few boulders and cobbles, subangular particles	X	S4	10	19 50 2"	N/A		S4	S4 MC = 8.3% 26.8% gravel, 58.5% sand, 14.7% silt	
2000.0	10				X	S5	10	27 50 4"	N/A		S5	S5 MC = 34.4%	
1995.0	15				X	S6	14	12 10 16	24		S6	S6 MC = 6.3%	

Bottom of borehole at 16.5 ft bgs.



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EXPLORATION B10

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NGE-TFT PROJECT NAME: Rabbit Valley Trailhead	NGE-TFT PROJECT NUMBER: 7115-24
PROJECT LOCATION: Canyon Road, Anchorage, AK	EXPLORATION CONTRACTOR: Discovery Drilling, Inc.
EXPLORATION EQUIPMENT: Geoprobe 7822DT	EXPLORATION METHOD: Hollow Stem Auger
SAMPLING METHOD: MPT w/ 340lb autohammer	LOGGED BY: A. Fortt
DATE/TIME STARTED: 10/17/2024 @ 3:17:00 PM	DATE/TIME COMPLETED: 10/17/2024 @ 4:00:00 PM
EXPLORATION LOCATION: Coords: N2587216, E1697015	GROUND ELEVATION: Approx. 1965 ft
▽ GROUNDWATER (ATD): Approx. 7.5 ft / Elev 1957.5 ft	▽ GROUNDWATER (I): N/A
EXPLORATION COMPLETION: Backfilled with cuttings	WEATHER CONDITIONS: Sunny, 30-39°F

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS (N) ₆₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
1965.0	0			ASPHALT	S1	9	15 3 2	4	S1	S1 MC = 7.8% 34.8% gravel, 48.1% sand, 17.1% silt P0.02 = 11.1% FC = F2	
				SILTY SAND WITH GRAVEL (SM), loose, gray, moist, subangular gravel up to 1" in diameter							
				ORGANICS (OH), very soft, dark brown, moist	S2	18	1 1 2	2	S2A S2B	S2A MC = 28.6% 27.5% gravel, 39.6% sand, 32.9% silt P0.02 = 17.4% FC = F3	
1960.0	5			SILTY SAND WITH GRAVEL (SM), loose, light brown, moist, few boulders and cobbles	S3	13	5 5 7	10	S3	S2B MC = 139.4% 4.0% gravel, 32.2% sand, 63.8% silt OC = 46.5%	
				Wet	S4	18	4 6 5	9	S4	S3 MC = 12.5% 24.4% gravel, 52.4% sand, 23.2% silt P0.02 = 17.1% FC = F3	
1955.0	10				S5	18	3 3 7	8	S5	S4 MC = 9.9%	
1950.0	15				S6	18	11 28 50 4"	N/A	S6	S5 MC = 10.6%	
				Bottom of borehole at 16.3 ft bgs.						S6 MC = 36.4%	Drilling refusal at 16.3 ft bgs.



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EXPLORATION B11

PAGE 1 OF 1

NGE-TFT PROJECT NAME: <u>Rabbit Valley Trailhead</u>	NGE-TFT PROJECT NUMBER: <u>7115-24</u>
PROJECT LOCATION: <u>Canyon Road, Anchorage, AK</u>	EXPLORATION CONTRACTOR: <u>Discovery Drilling, Inc.</u>
EXPLORATION EQUIPMENT: <u>Geoprobe 7822DT</u>	EXPLORATION METHOD: <u>Hollow Stem Auger</u>
SAMPLING METHOD: <u>MPT w/ 340lb autohammer</u>	LOGGED BY: <u>A. Fortt</u>
DATE/TIME STARTED: <u>10/17/2024 @ 12:41:00 PM</u>	DATE/TIME COMPLETED: <u>10/17/2024 @ 3:01:00 PM</u>
EXPLORATION LOCATION: <u>Coords: N2586924, E1697177</u>	GROUND ELEVATION: <u>Approx. 1978 ft</u>
▼ GROUNDWATER (ATD): <u>N/E</u>	▼ GROUNDWATER (I): <u>N/E</u>
EXPLORATION COMPLETION: <u>Backfilled with cuttings</u>	WEATHER CONDITIONS: <u>Sunny, 30-39°F</u>

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N ₁) ₆₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
1978.0	0			ASPHALT		S1	10	13 6 2	13		S1	S1 MC = 2.6% 47.3% gravel, 48.8% sand, 3.9% silt	
				SAND WITH GRAVEL (SP) , medium dense, gray, moist, subangular gravel up to 1" in diameter									
				SILTY SAND WITH GRAVEL (SM) , loose, light brown, moist, few boulders and cobbles, subangular particles		S2	2	13 5 2	6		S2	S2 MC = 25.2% 36.0% gravel, 38.0% sand, 26.0% silt P _{0.02} = 15.1% FC = F3	
1973.0	5			POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM) , dense to medium dense, light brown, moist, few boulders and cobbles, subangular particles		S3	17	9 13 14	38		S3		
						S4	2	25 40 5"	N/A		S4	S3 MC = 7.7% S4 MC = 2.5%	
1968.0	10					S5	12	15 13 12	25		S5	S5 MC = 5.0% 61.2% gravel, 30.0% sand, 8.8% silt	
1963.0	15					S6	12	25 50 5"	N/A		S6	S6 MC = 5.5% 63.0% gravel, 27.3% sand, 9.7% silt	
Bottom of borehole at 16.5 ft bgs.													



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EXPLORATION B12

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NGE-TFT PROJECT NAME: <u>Rabbit Valley Trailhead</u>	NGE-TFT PROJECT NUMBER: <u>7115-24</u>
PROJECT LOCATION: <u>Canyon Road, Anchorage, AK</u>	EXPLORATION CONTRACTOR: <u>Discovery Drilling, Inc.</u>
EXPLORATION EQUIPMENT: <u>Geoprobe 7822DT</u>	EXPLORATION METHOD: <u>Hollow Stem Auger</u>
SAMPLING METHOD: <u>MPT w/ 340lb autohammer</u>	LOGGED BY: <u>A. Fortt</u>
DATE/TIME STARTED: <u>10/17/2024 @ 10:16:00 AM</u>	DATE/TIME COMPLETED: <u>10/17/2024 @ 12:11:00 PM</u>
EXPLORATION LOCATION: <u>Coords: N2586707, E1697316</u>	GROUND ELEVATION: <u>Approx. 1993 ft</u>
▽ GROUNDWATER (ATD): <u>N/E</u>	▽ GROUNDWATER (I): <u>N/E</u>
EXPLORATION COMPLETION: <u>Backfilled with cuttings</u>	WEATHER CONDITIONS: <u>Sunny, 30-39°F</u>

ELEVATION (ft)	DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N ₁) ₆₀	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES
1993.0	0			ASPHALT		S1	10	8 13 5	N/A		S1	S1 MC = 2.8% 42.9% gravel, 49.7% sand, 7.4% silt PP = 30 tsf	
				WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM), medium dense, gray, moist, subangular gravel particles up to 1" in diameter									
				SILTY SAND WITH GRAVEL (SM), and rootlets, loose, brown, moist, few boulders and cobbles, subangular particles		S2	10	1 0 3	N/A		S2	S2 MC = 25.7% 35.5% gravel, 36.4% sand, 28.1% silt P0.02 = 14.4% FC = F2 PP = 2 tsf	
1988.0	5			SILTY GRAVEL WITH SAND (GM), medium dense, brown, moist, few boulders and cobbles, subangular particles		S3	17	3 6 21	N/A		S3	S3 MC = 18.8% 55.6% gravel, 29.8% sand, 14.6% silt P0.02 = 6.8% FC = F1 PP = 38 tsf	
				WELL GRADED GRAVEL WITH SILT AND SAND (GW-GM), medium dense, brown, moist, few boulders and cobbles, subangular particles		S4	16	27 19 16	N/A		S4	S4 MC = 4.8% 49.9% gravel, 43.3% sand, 6.8% silt PP = 39 tsf	
1983.0	10					S5	6	32 /0"	N/A		S5	S5 MC = 5.5%	

Bottom of borehole at 18.5 ft bgs.



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EXPLORATION LEGEND

CLIENT Alaska Dept. of Natural Resources

NGE-TFT PROJECT NAME Rabbit Valley Trailhead

NGE-TFT PROJECT NUMBER 7115-24

PROJECT LOCATION Canyon Road, Anchorage, AK

LITHOLOGIC SYMBOLS (Unified Soil Classification System)



ASPHALT: Asphalt



GM: USCS Silty Gravel



GP: USCS Poorly-graded Gravel



GP-GM: USCS Poorly-graded Gravel
with Silt



GW-GM: USCS Well-graded Gravel with
Silt



OH: USCS High Plasticity Organic silt or
clay



SM: USCS Silty Sand



SPG: Gravelly Sand



SW-SM: USCS Well-graded Sand with
Silt

SAMPLER SYMBOLS



Grab Sample



Modified Penetration Test

WELL CONSTRUCTION SYMBOLS

ABBREVIATIONS

LL - LIQUID LIMIT (%)
PI - PLASTIC INDEX (%)
MC - MOISTURE CONTENT (%)
DD - DRY DENSITY (PCF)
NP - NON PLASTIC
P200 - PERCENT PASSING NO. 200 SIEVE
P0.02- PERCENT PASSING 0.02mm SIEVE
PP - POCKET PENETROMETER (tons/ft²)
S/U - CASING STICK-UP

▽ Water Level at Time
Drilling, or as Shown

▽ Water Level After 24
Hours, or as Shown

TV - TORVANE
PID - PHOTOIONIZATION DETECTOR
UC - UNCONFINED COMPRESSION
ppm - PARTS PER MILLION
N/E - NOT ENCOUNTERED
N/R - NOT REPRESENTATIVE
N/A - NOT APPLICABLE
I_{s(60)} - POINT LOAD INDEX
S_c - UNCONFINED COMPRESSIVE STRENGTH



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SOIL CLASSIFICATION CHART

CLIENT Alaska Dept. of Natural Resources

PROJECT NAME Rabbit Valley Trailhead

NGE-TFT PROJECT NUMBER 7115-24

PROJECT LOCATION Canyon Road, Anchorage, AK

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS.
DIAGONAL LINES INDICATE UNKNOWN DEPTH OF SOIL TRANSITION.



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EXPLORATION LOG KEY

CLIENT Alaska Dept. of Natural Resources

PROJECT NAME Rabbit Valley Trailhead

NGE-TFT PROJECT NUMBER 7115-24

PROJECT LOCATION Canyon Road, Anchorage, AK

SAMPLER SYMBOLS



SPT w/ 140# Hammer
30" Drop and 2.0" O.D. Sampler



Modified SPT w/ 340# Hammer
30" Drop and 3.0 O.D. Sampler



Grab Sample



Shelby Tube Sample



Rock Core Sample



Direct Push Sample



No Recovery

N/E

Not Encountered

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No. 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No. 4 (4.5 mm)
Sand	No. 4 (4.5 mm) to No. 200
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074 mm)

COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
Trace	1-5%
Few	5-10%
Little	10-20%
Some	20-35%
And	35-50%

WELL SYMBOLS



1" Slotted Pipe
Backfilled with Silica Sand



1" PVC Pipe
Backfilled with Auger Cuttings



1" PVC Pipe
with Bentonite Seal



Capped Riser

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch
DAMP	Some perceptible moisture; below optimum
MOIST	No visible water; near optimum moisture content
WET	Visible free water, usually soil is below water table

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
DENSITY	N (BLOWS/FT)	APPROXIMATE RELATIVE DENSITY (%)	CONSISTENCY	N (BLOWS/FT)	APPROXIMATE UNDRAINED SHEAR STRENGTH (PSF)
VERY LOOSE	0-4	0-15	VERY SOFT	0-1	< 250
LOOSE	5-10	15-35	SOFT	2-4	250-500
MEDIUM DENSE	11-25	35-65	MEDIUM STIFF	5-8	500-1000
DENSE	26-50	65-85	STIFF	9-15	1000-2000
VERY DENSE	> 50	85-100	VERY STIFF	16-30	2000-4000
			HARD	> 30	> 4000



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EXPLORATION LOG KEY

CLIENT Alaska Dept. of Natural Resources

PROJECT NAME Rabbit Valley Trailhead

NGE-TFT PROJECT NUMBER 7115-24

PROJECT LOCATION Canyon Road, Anchorage, AK

FROST DESIGN SOIL CLASSIFICATION

FROST GROUP (USACOE)	FROST GROUP (M.O.A.)	SOIL TYPE	% FINER THAN 0.02mm BY MASS	TYPICAL SOIL TYPES UNDER UNIFIED SOIL CLASSIFICATION SYSTEM
NFS*	NFS*	(A) GRAVELS CRUSHED STONE CRUSHED ROCK	0 - 1.5	GW, GP
		(B) SANDS	0 - 3	SW, SP
PFS*	NFS*	(A) GRAVELS CRUSHED STONE CRUSHED ROCK	1.5 - 3	GW, GP
	F2	(B) SANDS	3 - 10	SW, SP
S1	F1	GRAVELLY SOILS	3 - 6	GW, GP, GW-GM, GP-GM
S2	F2	SANDY SOILS	3 - 6	SW, SP, SW-SM, SP-SM
F1	F1	GRAVELLY SOILS	6 - 10	GM, GW-GM, GP-GM
F2	F2	(A) GRAVELLY SOILS	10 - 20	GM, GW-GM, GP-GM
		(B) SANDS	6 - 15	SM, SW-SM, SP-SM
F3	F3	(A) GRAVELLY SOILS	Over 20	GM, GC
		(B) SANDS, EXCEPT VERY FINE SILTY SANDS	Over 15	SM, SC
		(C) CLAYS, PI>12	-----	CL, CH
F4	F4	(A) ALL SILTS	-----	ML, MH
		(B) VERY FINE SILTY SANDS	Over 15	SM
		(C) CLAYS, PI<12	-----	CL, CL-ML
		(D) VARVED CLAYS AND OTHER FINE GRAINED, BANDED SEDIMENTS	-----	CL & ML; CL, ML, & SM; CL, CH, & ML; CL, CH, ML, & SM
*Non-frost susceptible				
*Possibly frost susceptible, but requires lab testing to determine frost design soils classification.				

ICE CLASSIFICATION SYSTEM

GROUP	ICE VISIBILITY	DESCRIPTION		SYMBOL	
N	SEGREGATED ICE NOT VISIBLE BY EYE	POORLY BONDED OR FRIABLE		Nf	
		WELL BONDED	NO EXCESS ICE	Nb	Nbn
			EXCESS MICROSCOPIC ICE		Nbe
V	SEGREGATED ICE IS VISIBLE BY EYE AND IS ONE INCH OR LESS IN THICKNESS	INDIVIDUAL ICE CRYSTALS OR INCLUSIONS		Vx	
		ICE COATINGS ON PARTICLES		Vc	
		RANDOM OR IRREGULARLY ORIENTED ICE		Vr	
		STRATIFIED OR DISTINCTLY ORIENTED ICE		Vs	
		UNIFORMLY DISTRIBUTED ICE		Vu	
ICE	ICE IS GREATER THAN ONE INCH IN THICKNESS	ICE WITH SOILS INCLUSIONS		ICE + Soil Type	
		ICE WITHOUT SOILS INCLUSIONS		ICE	

APPENDIX E

MASTER MATERIAL CERTIFICATION

LIST (MCL)

MATERIALS CERTIFICATION LIST

Specifications	Construction			Design			Statewide	Manufacturer/ Remarks
	Approved Products List	Project Engineer	QA/Materials Engineer	Design Engineer	Bridge Engineer	Traffic Engineer	State Materials Engineer	

Project Name and Number CSP: RABBIT VALLEY TRAILHEAD IMPROVEMENTS, PROJECT No. 73103-2

Project Engineer Signature D. Merriner

203 BORROW, TYPE A

Borrow, Type A

203.0005.000A							
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301 AGGREGATE BASE AND SURFACE COURSE

Recycled Asphalt Material

301.0001.0RAM							
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530 RETAINING WALL

Modular Concrete Block Retaining Wall

8-inch perforated HDPE pipe

Anti-graffiti Protection

530.0001.0000							
Section 530-2.01							
Section 530-2.02							

603 24 INCH CSP

24 Inch CSP

End Sections for 24 Inch CSP

Remote Thaw Wire

603.0001.0024							
603.0003.0024							
603.2000.0001							

611 RIPRAP, CLASS I

Riprap, Class I

611.0002.0001							
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615 STANDARD SIGNS

Standard Sign

615.0001.0000							
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618 SEEDING

Seed Mix

618.0002.0000							
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620 TOPSOIL, CLASS B

Topsoil, Class B

620.0001.000B							
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622 PARK FACILITIES

Single Entrance Gate

Concrete Parking Bumper

Barrier Rock

622.2005.00SE							
622.2010.0000							
622.2012.0000							

Interperetive Panel, Type D
Orientation Kiosk
Bike Repair Station

Specifications	Construction			Design			Statewide	Manufacturer/ Remarks
	Approved Products List	Project Engineer	QA/Materials Engineer	Design Engineer	Bridge Engineer	Traffic Engineer	State Materials Engineer	
622.2015.000D								
622.2017.0000								
622.2035.0000								