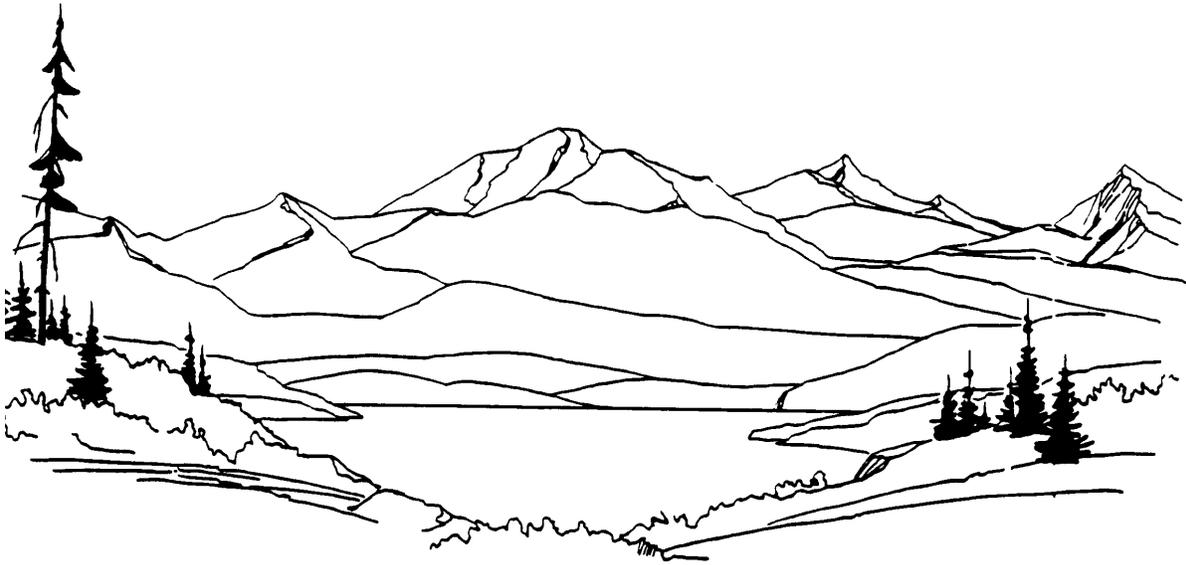


**STATE OF ALASKA  
DEPARTMENT OF NATURAL RESOURCES**

**DIVISION OF PARKS  
AND  
OUTDOOR RECREATION**



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

**OLD KASILOF LANDING SRS  
FACILITY HOST SITE  
PROJECT NUMBER 73032-2**

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: February 11, 2025

**Old Kasilof Landing SRS Facility Host Site, Project No. 73032-2**

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 4th day of March, 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: Kasilof, 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 construct a facility host site at the Old Kasilof Landing State Recreation Site, including: RV pad, amenities, wastewater holding tank, well house, plumbing and mechanical work, and various 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 June 15, 2026. 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: <b>Old Kasilof Landing SRS          Facility Host Site          Project No. 73032-2</b>	ATTN: <b>DNR, Division of Parks and Outdoor Recreation          550 W. 7th Avenue, Suite 1340          Anchorage, AK 99501</b>
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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:

Rangell Soriano, P.E.  
Email: [rangell.soriano@alaska.gov](mailto:rangell.soriano@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. 7<sup>th</sup> Ave., Suite 1340  
Anchorage AK 99501  
E-Mail: [rys.miranda@alaska.gov](mailto:rys.miranda@alaska.gov)  
Phone: (907) 269-8736

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](http://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-1qq9j9qk.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](http://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](http://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 7<sup>th</sup> Avenue, Suite 1340, Anchorage, AK:
  - a. Estimate of Quantity Computations.
  - b. Erosion Sediment Control Plan (ESCP) in the appendix.
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 D.
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.



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.



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\***

<u>Timetable</u>	<u>Goal **</u>
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**

<u>Timetable</u>	<u>Economic Area (EA)***</u>	<u>Goals **</u>
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**

**Old Kasilof Landing SRS Facility Host Site, Project No. 73032-2**

**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:

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4. Do you propose to rent any equipment for this work?  
 No  Yes If YES, describe type and quantity:

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5. Is your bid based on firm offers for all materials necessary for this project?  
 Yes  No If NO, please explain:

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**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:

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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

**Old Kasilof Landing SRS Facility Host Site, Project No. 73032-2**

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 February 11, 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 Kasilof, 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 June 15, 2026, 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).

<b>Addenda Number</b>	<b>Date Issued</b>	<b>Addenda Number</b>	<b>Date Issued</b>	<b>Addenda Number</b>	<b>Date Issued</b>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

**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: Old Kasilof Landing SRS Facility Host Site

Project Number: 73032-2

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 *****					
202.0001.0000	Removal of Structures and Obstructions	LS	ALL REQ'D	\$ [LUMP SUM]	\$
203.0005.000A	Borrow, Type A	CY	260	\$	\$
301.0001.00D1	Aggregate Base Course, Grading D-1	TON	80	\$	\$
401.0001.200B	Hot Mix Asphalt, Type II; Class B	TON	30	\$	\$
618.0002.0000	Seeding	LB	20	\$	\$
620.0001.000B	Topsoil, Class B	CYVM	4	\$	\$
622.2016.0000	Concrete Parking Bumper	EACH	2	\$	\$
622.2017.0000	Barrier Rocks	EACH	35	\$	\$
622.2105.0000	Well House	LS	ALL REQ'D	\$ [LUMP SUM]	\$
622.2106.0000	Waterline Pipe	LF	140	\$	\$

BID SCHEDULE  
Old Kasilof Landing SRS  
Facility Host Site  
Project No. 73032-2

Name of Bidding Firm \_\_\_\_\_

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** CONTINUE BASIC BID *****					
622.2107.0000	RV Hose Bib	EACH	1	\$	\$
622.2108.0000	RV Power Station Pedestal	EACH	1	\$	\$
626.2100.0000	Wastewater Holding Tank	LS	ALL REQ'D	\$ [LUMP SUM]	\$
622.2101.0000	Well Drilling	LF	200	\$	\$
622.2102.0000	Well Casing	LF	200	\$	\$
622.2103.0000	Well Drop Pipe	LF	200	\$	\$
622.2104.0000	Well Pump and Controls	LS	ALL REQ'D	\$ [LUMP SUM]	\$
630.0001.0003	Geotextile Separation, Class 3	SY	380	\$	\$
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	\$ 7,500.00	\$ 7,500.00
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	HOUR	5	\$	\$
643.0002.0000	Traffic Maintenance	LS	ALL REQ'D	\$ [LUMP SUM]	\$
647.0006.0000	Hydraulic Excavator 1 C.Y., 100 HP Min	HOUR	5	\$	\$
687.0001.0000	HDPE Innerduct	LF	270	\$	\$
687.0002.0000	Junction Box	EACH	4	\$	\$
688.0000.0001	Utility Support	CS	ALL REQ'D	\$ 20,000.00	\$ 20,000.00

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** CONTINUE BASIC BID *****					
688.1000.0000	Utility Support Price Adjustment	CS	ALL REQ'D	\$ 0.00	\$ 0.00
TOTAL BASIC BID					\$

No: \_\_\_\_\_ Expires \_\_\_\_\_  
Alaska Business License

No: \_\_\_\_\_ Expires \_\_\_\_\_  
Alaska Contractor's License

BID SCHEDULE  
Old Kasilof Landing SRS  
Facility Host Site  
Project No. 73032-2

Name of Bidding Firm \_\_\_\_\_



STATE OF ALASKA  
DEPARTMENT OF NATURAL RESOURCES

**CONSTRUCTION CONTRACT**

**Old Kasilof Landing SRS Facility Host Site, Project No. 73032-2**

**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: June 15, 2026 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

**Old Kasilof Landing SRS Facility Host Site, Project No. 73032-2**

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

**Old Kasilof Landing SRS Facility Host Site, Project No. 73032-2**

**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

**Old Kasilof Landing SRS Facility Host Site, Project No. 73032-2**

Project Name and Number

DATE BOND EXECUTED: \_\_\_\_\_

PRINCIPAL (Legal name and business address):

TYPE OF ORGANIZATION:

	<input type="checkbox"/> Individual	<input type="checkbox"/> Partnership
	<input type="checkbox"/> Joint Venture	<input type="checkbox"/> 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.

Corporate Seal

See Instructions on Reverse

**CORPORATE SURETY(IES)**

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

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

<b>Surety C</b>	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

**EEO-1 CERTIFICATION**  
Federal-Aid Contracts

**Old Kasilof Landing SRS Facility Host Site, Project No. 73032-2**  
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



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

**OLD KASILOF LANDING SRS**

**FACILITY HOST SITE**

**PROJECT NUMBER 73032-2**



**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.** Replace the second paragraph with the following: Material Reports and/or Soils Investigation Reports are not available for this project.

(01/01/01)PARKS-Special Provision

## **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

Add the following Subsection 105-1.011 Related Sections:

### **105-1.011 RELATED SECTIONS.**

Section 651, Control of Work – Supplemental Requirements

CR105.5-012816R1

### **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 1<sup>st</sup> sentence in the 3<sup>rd</sup> 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

Replace the BUY AMERICA PROVISION with the following:

**BUY AMERICA PROVISION.** On projects using federal funds the Contractor shall ensure all iron, steel, manufactured products, and construction materials incorporated into the project are produced in the United States as required by 2 CFR Part 184 Buy America Preferences for Infrastructure Projects and 23 CFR §635.410, Buy America requirements. The Contractor shall submit a completed Non-Domestic Minimal Use and 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.

SPECIAL PROVISIONS  
Old Kasilof Landing SRS  
Facility Host Site  
Project No. 73032-2

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 materials based on a certificate of compliance and Form 25D-62 Certificate of Buy America Act Compliance. Materials incorporated into the project on the basis of a certificate of compliance may be tested at any time, whether in place or not, and if they do not conform to Contract specifications, they may be rejected and ordered removed under the Subsection 105-1.11.

Manufactured products that are not predominantly steel or iron, or a combination of both, or construction materials are not subject to Buy America provisions. Declare manufactured products on Form 25D-62 regardless of their exemption.

Non-domestic products in excess of the minimal use and/or the de minimis amounts shall be replaced at no expense to the State. Failure to comply may also subject the Contractor to default and debarment.

The supplier 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 and 2 CFR Part 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 Buy America requirement.

Buy America does not apply to construction materials, steel products, and iron products, brought temporarily to the construction site and removed at or before the completion of the project. Further, it does not apply to construction materials, steel products, and iron products which remain in place at the Contractor's convenience. Buy America does not apply to iron ore, pig iron, and processed, pelletized and reduced iron ore.

The following materials are exempt from Build America, Buy America requirements per Section 70917(c) of P. L. 117-58:

1. cement and cementitious materials
2. aggregates such as stone, sand, or gravel
3. aggregate binding agents or additives

**De Minimis amount:**

Small amounts of non-domestic construction materials, are allowed provided the total value of the non-domestic products is no more than the lesser of \$1,000,000 or 5% of total material costs for the project including freight to the project location.

**The total material costs of the project include (Form 25D-60):**

1. Predominantly Iron and Steel products
2. Construction Materials
3. Manufactured Products

Do not include the cost of materials exempted per Section 70917(c) of P. L. 117-58, earth materials, processed aggregates, asphalt, concrete, fuel, lubricant, equipment repair parts, etc. in the total material costs of the project.

**PREDOMINANTLY STEEL OR IRON PRODUCTS.** Products and materials where the cost of the iron and steel, or a combination of both, exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or 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.

To be classified as domestic, all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

**Iron and Steel minimal use:**

All predominately steel and iron, or a combination of both, products incorporated into the work, shall be manufactured in the United States except that minor amounts of steel and iron products of foreign 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, 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.

**CONSTRUCTION MATERIALS.** The following list contains the categories of construction materials, and the requirements for domestic origin. Construction materials are an article, material, or supply that is:

1. **Non-ferrous metals.** All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.
2. **Plastic and Polymer-based products.** 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.
3. **Glass.** All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.
4. **Fiber Optic Cable.** All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States.

States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.

5. **Optical Fiber.** All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.
6. **Lumber.** All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.
7. **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.
8. **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 one construction material contains as inputs 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.

**MANUFACTURED PRODUCTS.** 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.

If an item is classified as an iron or steel product, a construction material, or an exempted material per Section 70917(c) of P. L. 117-58 then it is not a manufactured product. An article, material, or supply classified as a manufactured product may include components that are construction materials, iron or steel products, or an exempted material per Section 70917(c) of P. L. 117-58

HSP20.7A-23.1114

## **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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Replace Subsection 106-1.05 with the following:

**106-1.05 CERTIFICATES OF COMPLIANCE.** A certificate of compliance must meet one of the following:

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

Electronic submittals that are submitted by email from the Contractor's email account are considered signed by the Contractor.

The Contractor shall submit additional certificates of compliance or test data if required by the Contract or by the Engineer. The Engineer may refuse permission to incorporate materials or products into the project based on a certificate of compliance that does not meet the Contract requirements.

HSP20.7A-23.1114

**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 F, when there are draft permits.

CR107.2-070121

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.

CR107.5-120117R

**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.

CR107.3-051517

## **107-1.11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.**

Add the following:

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.

CR107.3-051517

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.

CR107.1-100118

**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).

HSM20.41-010122

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;

CR108.4-010120

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.

(03/01/24)PARKS-Special Provision

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**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	500,000	\$1,400
500,000	1,000,000	1,700
1,000,000	5,000,000	2,600
5,000,000	10,000,000	3,800
10,000,000	25,000,000	4,500
25,000,000	-----	6,600

HSM20.43-070122

**SECTION 109  
MEASUREMENT AND PAYMENT**

**109-1.01 GENERAL.**

Replace the 2<sup>nd</sup> 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.

CR109.4-010120

**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 Region.

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

CR109.2-110118

**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.

HSM20.3-113020R

**SECTION 120  
DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM**

**120-1.01 DESCRIPTION.**

In the first sentence of the second paragraph, replace "8.83 percent" with "8.28 percent".

**120-3.01 DETERMINATION OF COMPLIANCE.** Replace 2a. with the following:

2a. Written DBE Commitment. Complete Form 25A-326 for each DBE to be used on the project.

HSM20.21-123121

**SECTION 203  
EXCAVATION AND EMBANKMENT**

**203-3.04 COMPACTION WITH MOISTURE AND DENSITY CONTROL.**

In the second paragraph delete "and ATM 214".

HSM20.5-113020R

**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 of **Concrete Parking Bumpers, Striping Paint**, and 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. (02/04/26)PARKS-Special Provision

Add the following:

Materials which are designated to be salvaged and remain the property of the Division of Parks and Outdoor Recreation are the **Concrete Parking Bumper**. By arrangement with the Engineer, deliver salvaged materials to Alaska State Parks Headquarters at Morgan's Landing Campground. (02/04/26)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.

C202.1-20.0401

Replace Section 204 with the following:

**SECTION 204  
STRUCTURE EXCAVATION FOR CONDUITS AND MINOR STRUCTURES**

**204-1.01 DESCRIPTIONS.** Excavate and backfill for conduits (pipe culverts, structural plate pipe, pipe arches, storm drains, underdrains, and electrical conduits), headwalls, manholes, inlet boxes, and other minor structures.

Dewater ground water from work areas. Construct and maintain temporary water diversion when working in waterways, and for facilities or structures with active drainage.

Perform all pumping, bailing, draining, sheeting, bracing, and incidentals required for proper execution of the work.

**204-2.01 MATERIALS.** Use materials that conform to the following:

Selected Material	Subsection 703-2.07
Porous Backfill Material	Subsection 703-2.10

1. Structure Backfill and Bedding Material: Selected Material Type A.

Maximum Particle Size:

- a. Corrugated Steel and Aluminum Conduit: material passing the 3-inch sieve
- b. Precast Concrete Structures
  - (1) Conduit: materials passing the 1-inch sieve, except 2-inch when bedding thickness is greater than 6 inches
  - (2) Minor structures: material passing the 1-inch sieve
- c. Plastic Conduit: material passing the 2-inch sieve, except 3/4-inch for conduit between 8 inches and 15 inches and for conduit less than 8 inches 10% of the conduit diameter
- d. Electrical Conduit: material passing the 1-inch sieve
- e. Underdrain Conduit: uniform porous backfill material passing the 2-inch sieve and a minimum greater than the conduit perforations

2. Backfill Material: Selected Material Type C

In the roadbed structure use backfill material meeting the requirements of the roadbed structure, except use the structure backfill material and bedding as specified herein.

Use all suitable material from the project excavation for bedding, structure backfill, and backfill material before using material from another source.

**204-3.01 CONSTRUCTION REQUIREMENTS.** Clear and grub prior to starting excavation according to the requirements of Section 201.

Keep the work areas dewatered and divert water when working in a waterway or active drainage, Subsection 204-3.02.

Remove and dispose, Subsection 203-3.01, of unsuitable foundation material, including rock or other unyielding material, below the designed elevation as directed, except no less than 6 inches, and replace with approved material.

Place bedding material to a minimum thickness of 4 inches, except 6-inch minimum thickness for conduit over rock or unyielding material, and below electrical conduit, unless shown otherwise in the plans.

Place the bedding material to provide uniform support for conduit with the material in the middle one-third loosely placed and not compacted. Do not shape the bedding to the curvature of the round conduits. Shape the bedding for pipe arches, horizontal ellipse, and underpass shapes with spans exceeding 12 feet. Provide a minimum shaped width one-half the span of the pipe arch and underpass shapes and one-third the span of horizontal ellipse shape. Shape the bedding to the relatively flat bottom arc or fine-grade the foundation to a slight "V" shape.

Place minor precast concrete structures, other than conduits, on the 4-inch bedding/leveling course, of uniform stiffness and thickness with even compaction throughout.

Place the structure backfill over the bedding each side of the structure to 12 inches above the structure or the ground surface if less than 12 inches, except 6 inches above electrical conduit.

Place the structure backfill and backfill material in uniform layers not more than 6 inches deep. Do not create unbalanced loading with the placement of the structure backfill materials. When placing material against concrete, place the material according to the requirements of Section 550.

Compact the materials, each layer, without ponding or jetting to meet Subsection 203-3.04. In the haunch area, each side of the conduit, compact the material by firmly tamping into place.

Outside the roadbed structure, the Engineer may visually inspect and approve the excavation, bedding, structure backfill, backfill material, and compaction.

Support and protect existing conduits or utilities, not scheduled for removal or abandonment, when encountered in the excavation.

Remove all sheeting and bracing used in structure excavation upon completion of the work.

**204-3.02 DEWATERING AND WATER DIVERSION.** Submit a plan for work area dewatering and each waterway diversion, 14 days before related construction activities. Do not implement the plan without written approval. Include the permit requirements in the plan.

1. Do not exceed State of Alaska water quality standards.
2. Do not divert water from dewatering into a waterway.
3. Provide an approved disposal site for work area excess water. Maintain disposal site a minimum of 100 ft from waterway.
4. Prevent turbid water from directly entering waterways.
5. Do not divert water onto the roadway.
6. In addition to other equipment required to complete the temporary water diversion and dewatering work, maintain a minimum of two trash pumps with hoses at the site during diversion construction activities. Maintain the intake to prevent fish entrapment, entrainment, or injury with the use of perforated or slotted plate and woven wire with a mesh size not greater than 3/32 inch or a profile bar and wedgewire with openings not greater than 1/16 inch. Do not exceed passive approach velocity of 0.2 fps and active approach velocity of 0.4 fps.

Rewater to minimize sediment movement downstream of the site. Prior to rewatering, slowly wet the reconstructed waterway channel; wash the fines into the bed by using pumps, or by diverting a small portion of the waterway channel flow. Capture and pump the sediment and turbid water, from the downstream end of the channel to the upstream end of the channel, until fines are washed into the streambed and water runs clear. Attain the Engineers written approval before breaching the coffer/diversion dams. Slowly breach the coffer/diversion dams and rewater the waterway channel.

**204-4.01 METHOD OF MEASUREMENT.** Section 109. Use neat line method as follows:

Structure Excavation:

1. Masonry Structures (except conduit). Between vertical planes, 18 inches outside the base of the masonry sections for the depth required.

2. Conduit. Between parallel vertical planes located 18 inches outside the horizontal projection of the outside diameter of the conduit and to the depth shown on the Plans.

Structure excavation only measured below the limits of other classes of excavation. Structure's in embankment section, the natural ground line as cross-sectioned is the uppermost level of computation.

**204-5.01 BASIS OF PAYMENT.** The Contract price includes the placing and compacting of all backfill and bedding when the materials used are obtained from excavation, any clearing and grubbing required and not paid for under some other item, formation of any embankments made with surplus material from structure excavation, and disposal of all surplus or unsuitable excavation.

Culvert baffles, headwalls, temporary water diversion, dewatering and rewatering, and the removal of pavement are subsidiary to the conduit and minor structure Pay Items.

Additional excavation to provide for shoring, sheet piles, excavation shields or flattening the excavation slopes, is subsidiary.

When Item 204.0001.0003 Structure Excavation, does not appear in the bid schedule, structure excavation required to complete other items of work is subsidiary, except that excavation and disposal of unsuitable material required from below a plane 12 inches below the invert elevation of conduits and 12 inches below the bottom of structures is paid as extra work.

Any backfill or bedding material required whose source is other than project excavation is paid at the contract unit price for the materials being used, or as extra work if no unit price has been established.

Traffic control paid under Section 643 and Erosion, Sediment, and Pollution Control paid under Section 641.

CR204-070121

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

**205-3.05 COMPACTION.**

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

HSM20.5-113020R

**SECTION 301  
AGGREGATE BASE AND SURFACE COURSE**

**301-2.01 MATERIALS.**

Add the following after the first sentence:

Recycled Asphalt Material (RAM) may be substituted for aggregate base course, inch for inch, if the following conditions are met:

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:

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.

CR301.1-012407R

**301-3.01 PLACING.**

Add the following:

Place base course material, used for the sidewalk and pathway foundations, with equipment capable of providing a specified depth and uniform surface.

CR301.2-062116

Add No. 5 after the 5<sup>th</sup> paragraph:

5. within 50 feet of detector loops.

CR301.3-022015

### **301-3.03 SHAPING AND COMPACTION.**

In the second paragraph delete "and ATM 214".

HSM20.5-113020R

Add the following:

If recycled asphalt material is substituted for aggregate base course, 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.
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.

### **301-5.01 BASIS OF PAYMENT.**

Add the following:

Recycled asphalt material substituted for aggregate base course will be paid for as Item 301.0001.0000 Aggregate Base Course, at the unit price shown in the bid schedule for that Item.

CR301.1-012407R

Replace Section 401 with the following:

## **SECTION 401 HOT MIX ASPHALT**

**401-1.01 DESCRIPTION.** Construct one or more courses of plant-mixed, hot mix asphalt (HMA) pavement on the areas as shown on the plans.

### **MATERIALS**

**401-2.01 COMPOSITION OF MIXTURE - JOB MIX DESIGN.** Use an Alaska DOT&PF Type II, Class B approved Job Mix Design. The Job Mix Design must have been accepted within the calendar year of construction.

**401-2.02 ASPHALT BINDER.** Conform to Subsection 702-2.01. If binder performance grade is not specified, use PG 52-28.

**401-2.03 TACK COAT.** Special Tack Emulsion, STE-1 conforming to Subsection 702-2.03.

**401-2.04 PROCESS QUALITY CONTROL.** Sample and test materials for quality control of the asphalt concrete mixture according to Subsection 106-1.03.

Submit a paving and plant control plan at the pre-paving meeting to be held a minimum of 5 working days before initial paving operations. Address the sequence of operations and joint construction. Outline steps to assure product consistency, to minimize segregation, and to prevent premature cooling of the asphalt concrete mixture. Include a proposed quality control testing frequency for gradation, asphalt cement content, and compaction.

### **CONSTRUCTION REQUIREMENTS**

**401-3.01 WEATHER LIMITATIONS.** Do not place the hot mix asphalt on a wet surface, on an unstable/yielding roadbed, when the base material is frozen, or when weather conditions prevent proper handling or finishing of the mix. Do not place hot mix asphalt unless the roadway surface temperature is 40 °F or warmer.

**401-3.02 EQUIPMENT, GENERAL.** Use equipment in good working order and free of hot mix asphalt buildup. Make equipment available for inspection and demonstration of operation a minimum of 24 hours before placement of hot mix asphalt.

**401-3.03 ASPHALT MIXING PLANT.** Meet AASHTO M 156. Use an asphalt plant designed to dry aggregates, maintain accurate temperature control, and accurately proportion asphalt cement and aggregates. Calibrate the asphalt plant and furnish copies of the calibration data to the Engineer at least 4 hours before hot mix asphalt production.

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Provide a scalping screen at the asphalt plant to prevent oversize material or debris from being incorporated into the hot mix asphalt.

**401-3.04 HAULING EQUIPMENT.** Haul hot mix asphalt in trucks with tight, clean, smooth metal beds, thinly coated with a minimum amount of paraffin oil, lime water solution, or an approved manufactured asphalt release agent. Do not use petroleum fuel as an asphalt release agent.

During hot mix asphalt hauling activities, the hauling vehicle will have covers attached and available for use. Be prepared to demonstrate deployment of the covers when hauling material or empty. Illustrate the efficiency of deployment and how the materials are protected from the environment and the environment is protected from the materials. Cover the hot mix asphalt in the hauling vehicle(s) when directed by the Engineer.

**401-3.05 ASPHALT PAVERS.** Use self-propelled pavers equipped with a heated vibratory screed. Control grade and cross slope with automatic grade and slope control devices. Use an erected string line, a 30-foot minimum mobile stringline (ski) or other approved grade follower, to automatically actuate the paver screed control system. Use grade control either (a) both the high and low sides or (b) grade control on the high side and slope control on the low side.

Equip the paver with a receiving hopper having sufficient capacity for a uniform spreading operation and a distribution system to place the hot mix asphalt uniformly in front of the screed.

Use a screed assembly that produces a finished surface of the required smoothness, thickness, and texture without tearing, shoving, or displacing the hot mix asphalt.

Equip the paver with a means of preventing segregation of the coarse aggregate particles from the remainder of the hot mix asphalt when carried from the paver hopper back to the augers. Use means and methods approved by the paver manufacturer. Means and methods may consist of chains, deflector plates, or other similar devices or combination of devices. Provide a Certificate of Compliance that verifies the means and methods required to prevent segregation are being used.

**401-3.06 ROLLERS.** Use both steel-wheel (static or vibratory) and pneumatic-tire rollers. Avoid crushing or fracturing aggregate. Use rollers designed to compact hot mix asphalt mixtures and reverse without backlash.

Use fully skirted pneumatic-tire rollers having a minimum operating weight of 3,000 pounds per tire.

**401-3.07 PREPARATION OF EXISTING SURFACE.** Prepare existing surface in conformance with the Plans and Specifications. Clean existing paved surfaces of loose material.

Uniformly coat contact surfaces of curbing, gutters, sawcut pavement, cold joints, manholes, and other structures with tack coat material prior to placing the hot mix asphalt. Allow tack coat to break before placement of hot mix asphalt.

**401-3.08 PREPARATION OF ASPHALT.** Provide a continuous supply of asphalt cement to the asphalt mixing plant at a uniform temperature, within the allowable mixing temperature range.

**401-3.09 PREPARATION OF AGGREGATES.** Dry the aggregate so the moisture content of the hot mix asphalt does not exceed 0.5% (by total weight of mix), as determined by WAQTC FOP for AASHTO T 329.

Heat the aggregate for hot mix asphalt to a temperature compatible with the mix requirements specified.

Adjust the burner on the dryer to avoid damage to the aggregate and to prevent the presence of unburned fuel on the aggregate. Hot mix asphalt containing soot or fuel is considered unacceptable and is subject to the requirements of Subsection 105.-1.11.

**401-3.10 MIXING.** Combine the aggregate, asphalt cement, and additives in the mixer in the amounts required by the Job Mix Design. Mix to obtain 98% coated particles when tested according to AASHTO T 195.

For batch plants, put the dry aggregate in motion before addition of asphalt cement.

**401-3.11 PLACING AND SPREADING.** Place the hot mix asphalt upon the approved surface, spread, strike off, and adjust surface irregularities. Use asphalt pavers to distribute hot mix asphalt, including leveling courses. The maximum compacted lift thickness allowed is 3 inches.

Use hand tools to spread, rake, and lute the hot mix asphalt in areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical.

Do not pave against new Portland cement concrete pads or curbing until it has cured for at least 72 hours.

**401-3.12 COMPACTION.** Thoroughly and uniformly compact the hot mix asphalt by rolling. In areas not accessible to large rollers, compact with mechanical tampers or trench rollers.

The target value for density is 96% of the maximum specific gravity (MSG), as determined by WAQTC FOP for AASHTO T 209.

Do not leave rollers or other equipment standing on hot mix asphalt that has not cooled sufficiently to prevent indentation.

**401-3.13 JOINTS.** Minimize the number of joints. Ensure that all joints have the same texture and smoothness as other sections of the course.

Remove to full depth improperly formed joints resulting in surface irregularities. Replace with new material, and thoroughly compacted.

Precut all pavement removal to a neat line with a power saw or by other approved method.

Form transverse joints by cutting back on the previous run to expose the full depth of the layer. Saw cut the joint, use a removable bulkhead, or other method approved by the Engineer.

**401-3.14 PATCHING DEFECTIVE AREAS.** Remove any hot mix asphalt that becomes contaminated with foreign material, is segregated, flushing, bleeding, or is in any way determined to be defective. Do not skin patch. Remove defective materials for the full thickness of the course. Cut the pavement so that all edges are vertical, the sides are parallel to the direction of traffic. Coat edges with a tack coat and allow to cure. Place and compact fresh hot mix asphalt to grade and smoothness requirements.

**401-4.01 METHOD OF MEASUREMENT.** Section 109 and the following:

Hot Mix Asphalt.

By weighing. No deduction will be made for the weight of asphalt cement or anti-stripping additive.

Job Mix Design, asphalt cement, anti-strip additive, tack coat, and other incidentals to complete the work under this Section will not be measured separately for payment but shall be considered subsidiary to the respective hot mix asphalt pay item.

**401-5.01 BASIS OF PAYMENT.**

Item 401.0001.200B Hot Mix Asphalt, Type II; Class B will be paid for by the ton in place completed and accepted. Job Mix Design, asphalt cement, anti-strip additive, tack coat, and other incidentals are subsidiary to this pay item.

Payment will be made under:

<b>PAY ITEM</b>		
<b>Item Number</b>	<b>Item Description</b>	<b>Unit</b>
401.0001.200B	Hot Mix Asphalt, Type II; Class B	Ton

(03/01/24)PARKS-Special Provision

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**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**

<b>Class of Concrete</b>	<b>Air Content</b>
A	6.0% ±0.5%
A-A	6.0% ±0.5%
P	3.50% minimum <sup>1</sup> and Super Air Meter (SAM) number ≤0.20 <sup>1</sup>
DS	Not required

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

HSM20.23-123121

**SECTION 550  
COMMERCIAL CONCRETE**

Replace Subsection 550-1.01 with the following:

**550-1.01 DESCRIPTION.** Furnish, place, finish, and cure Portland cement concrete for minor structures and incidental construction.

CR550.1-060121

**550-2.02 COMPOSITION OF MIXTURE – JOB MIX DESIGN.**

Replace Table 550-1 with the following:

**TABLE 550-1  
COMMERCIAL CONCRETE DESIGN REQUIREMENTS**

<b>Class</b>	<b>B-B</b>	<b>B</b>	<b>W</b>
Water-Cement Ratio, lbs/lbs, maximum	0.40	0.45	0.50
Total Air Content, %	5.5 – 6.5	5.5 – 6.5	4.0 – 6.5
Coarse Aggregate Gradation, AASHTO M43 <sup>a</sup>	No. 57 or 67	No. 57 or 67	No. 7, 8, 57, or 67
Compressive Strength, psi, minimum	5,000	4,000	3,000

a. Alternative sizes of coarse aggregate, as shown in AASHTO M 43, may be used when approved in writing.

HSM20.8-113020R

Add the following to the first paragraph of 1.Submittals.

Submit the JMD on Form 25D-203.

HSM20.25-123121

Add the following Subsection 550-2.03 Precast Concrete Products:

**550-2.03 PRECAST CONCRETE PRODUCTS.** Provide precast concrete products from an ATM 520 certified plant. Submit certification for each product.

**Minor and Incidental Structure Products**

1. Curb and gutter
2. Manhole sections
3. Headwall
4. Modular retaining wall units
5. Noise wall panels and posts
6. Portable barriers

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7. Utility structures
  - a. Cabinet base
    - (1) Load center base/foundation
    - (2) Controller base/foundation
  - b. Junction box
  - c. Similar structures
  
8. Water and waste water structures
  - a. Catch basin
  - b. Inlet box
  - c. Outlet box
  - d. Similar structures

**Major Structure Products**                      Section 501 Concrete for Structures

Major structure products include box culvert, mechanically stabilized earth, retaining walls, three-sided flat-topped culvert, three-sided arch culvert, and similar structures.

CR550.1-060121

**550-5.01 BASIS OF PAYMENT.**

Replace the first sentence with the following:

If items 550.0001.0000, 550.0002.0000, 550.0003.0000, 550.0004.0000, 550.0005.0000, or 550.0006.0000 do not appear in the Bid Schedule concrete is subsidiary to other items.

HSM20.8-113020R

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 <sup>c</sup> )
<b>Grass Seed Mix</b> <sup>a, b</sup>	Tufted Hairgrass (Nortran)	1.00 lbs.
	Red Fescue (Arctared)	0.80 lbs.
	Annual Rye (Iolium multiflorum)	0.20 lbs.
		Total = 2.00 lbs.
<b>Soil Stabilizer</b> <b>Slope ≤ 3:1</b>	Mulch	35 lbs.
	<b>Slope &gt;3:1</b>	Mulch with tackifier
<b>Fertilizer</b>	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 ft<sup>2</sup>.

**CONSTRUCTION REQUIREMENTS**

**618-3.01 SURFACE PREPARATION.** Remove ruts, holes, humps and other irregularities from the surface. Clear stones four inches 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.

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. 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 May 15 and August 15.

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

If the seed mix, fertilizer and stabilization material are not included in the Plans or Specifications, including their application rates, use the recommendations of the ADNR and the Revegetation Manual for Alaska.

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 (May 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 Item 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. Pay Item 618.0003.0000 Water for Seeding. Payment is for water applied for growth of vegetative groundcover through the establishment period.

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

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Replace Section 622 with the following:

## **SECTION 622 PARK FACILITIES**

**622-1.01 DESCRIPTION.** This work shall consist of furnishing and constructing the facility host site shown the attached plans. Work includes installation of power conductor downstream of the HEA meterbase, construction of an RV pad with a wastewater holding tank, RV hose bib, and RV power station pedestal.

The work shall consist of furnishing all materials, equipment, and labor to construct a water well, potable waterline pipe, pump system, and construction of a well house building. Installation of a well screen will be included if ordered by the Engineer.

**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. All materials used that that will contact portable water must be approved and certified for that use by NSF International, Underwriter Laboratories (UL), or an equivalent organization that evaluates products using NSF/ANSI Standard 61.

**622-2.02.A BACKFILL.** Selected Material, conforming to Subsection 703-2.07, and as approved by the Engineer. Aggregate base course, grading D-1 conforming to Section 301

**627-2.02.B SEWER ROCK.** Sewer rock shall conform to all applicable requirements of Section 703.

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

Concrete work shall conform to all requirements of the most recent edition of ACI 301, "Specifications for structural concrete for buildings" and ACI 318, "building code requirements for reinforced concrete". All structural concrete shall have a maximum slump of 4.5". Higher slumps (up to 9" total) shall be permitted so long as they are obtained by the addition of a chemical admixture conforming to ACI requirements.

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

Deformed bars shall be epoxy coated 60 KSI - ASTM A615 (GR60).

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Welded wire mesh reinforcement shall be #14 wire with 6" square spacing meeting ASTM 1064.

All bolts, anchor bolts, expansion bolts, etc., shall be hot dipped galvanized, and installed with heavy hex nut and steel plate washers where required.

**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 STRUCTURAL ALUMINUM.** Structural aluminum shall conform to the requirements of ANSI 6061-T6.

**622-2.07 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 PLYWOOD.** All plywood shall be APA rated sheathing with an exterior or exposure 1 durability classification and shall bear the stamp of an approved testing agency. Lay up roof sheathing with the face grain perpendicular to supports. Stagger joints. All edges shall be blocked.

**622-2.08 TREATED LUMBER.** Wood species conforms to Subsection 622-2.06.

Treatment shall be as follows:

1. Above Ground Applications. Preservative pressure treatment shall conform to Section 714. Pressure treat with preservative Ammonical Copper Quat - Type A,B,C, or D(ACQ-A,B,C, or D) or Copper Azole – Type A (CBA-A). Minimum retention shall be 0.40 pounds per cubic foot or to refusal. Treated materials shall be uniformly brown in color and nonincised. This type of treated lumber is commonly used for residential

decks for above ground applications. Incising may be used on 4x and thicker material to obtain minimum retention.

2. Ground Contact Applications. Preservative pressure treatment shall conform to Section 714. Pressure treat with preservative Ammonical Copper Quat - Type A,B,C, or D(ACQ-A,B,C, or D) or Copper Azole – Type A (CBA-A). Minimum retention shall be 0.60 pounds per cubic foot. Exposed treated materials shall be pigmented uniformly brown in color by manufacturer.

**622-2.09 RECYCLED PLASTIC LUMBER.** Recycled plastic lumber shall contain a minimum of 90% recycled HDPE. Recycled plastic lumber shall have a minimum flexural strength of 1355 psi and compressive strength of 1420 psi as determined by ASTM D6109, minimum specific gravity of 0.861 g/cc as determined by ASTM D6111, and a maximum thermal expansion of 0.000033 inch/inch/degree F as determined by ASTM D6341. The lumber shall also incorporate an ultraviolet stabilizer at the time of manufacturing. Color shall be as determined by the Engineer.

**622-2.10 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.

**622-2.10 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.

**622-2.11 STANDARD PARK 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.

**622-2.12 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, Sun-Proof Solid Alkyd/Oil Stain (77-1354) as manufactured by Pittsburgh Paint Company, 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.

**622-2.13 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.

**622-2.14 CONCRETE PARKING BUMPER.** Conform to Standard Drawing P-6, Parking Bumper.

**622-2.15 BARRIER ROCK.** Barrier rocks shall be 3 to 5 feet in diameter when measured in every direction.

**622-2.16 RV POWER STATION PEDESTAL.** Furnish the RV Power Station Pedestal as follows:

Manufacturer:  
EATON Electrical Inc.  
RV Park Hookups  
149 Warwick Court  
Williamsburg, VA 23185 USA

Model Name: **Newport Camp Mate Power Pedestal**

Specs: Heavy Resin Housing, 20A/125V GFCI Receptacle(s), NEMA 3R Rated

Receptacle(s): Single 50A Receptacle Minimum

Dimensions: 14.5" x 10.5" x 10.4"

Mounting Option: EATON Pedestal

**622-2.17 WATERLINE PIPE.**

1. Waterline pipe shall be 1-1/4 inch and 3/4 inch diameter DR 13.5 HDPE pipe manufactured in accordance with AWWA C-906 and ASTM F-714 with PE 4710 resin materials approved by NSF 61 potable water use. Pipe shall be marked in accordance with ASTM F-714.
2. Full length of direct buried waterline pipe shall be fully insulated with an appropriately sized and sealed slit foam clamshell, or sealed insulating pipe wrap as approved by the Engineer.
3. Backing rings shall be 316 stainless steel class 150, ANSI B16.5 dimensional standard.

4. Bolt kits shall be stainless steel
5. Fittings shall be made from the same material as the pipe and shall be molded or fabricated, and marked by the manufacturer of the pipe in accordance with ASTM D-3261 for butt fusion
6. Water system valves shall be ford model B88-455W-NL brass ball valve curb stop, 80 psi rated, w/ brass companion flanges
7. Faucets shall be Woodford model U34A yard hydrants. Automatic close handle, 7-foot bury depth.

#### **622-2.18 WELL HOUSE FRAMING.**

1. All framing shall be hem fir #2. Framing lumber shall comply with the latest edition of the grading rules of the WWPA or WCUB. All sawn lumber shall be stamped with the grade mark of the approved grading agency. All material shall be free of splits and shakes.
2. All ferrous metal (steel shapes, bolts, nuts, etc) shall be either hot dipped galvanized or stainless steel. Bolts and all-thread shall be A-325.
3. Nailing of framing shall conform to fastening table 2304.9.1 of the IBC and the plans.
4. All nails specified are common nail sizes. Nails may be galvanized. Common shank diameter is 0.113" for 6d; 0.131" for 8d; and 0.148" for 10d. Other nails having the same shank diameter may be substituted.

#### **622-2.19 WELL HOUSE DOOR.**

5. Exterior door shall be an insulated 3-hinge metal door and metal frame with minimum 18 gauge A40 galvanized steel sheathing or equal with interlocking edge seam.
6. Minimum 16 gauge inverted top and bottom caps, and minimum 10 gauge hinge and closer reinforcement.
7. Core shall be polystyrene or honeycomb.
8. Door shall include weather stripping and door sweep. Door shall be factory primed.
9. Frame shall be minimum 16 gauge welded steel frame with positive locking tabs for wood framed wall. Provide with insulation kit to framing or other approved insulation method.

10. Hinges shall be heavy duty 5-knuckle, ball bearing hinges with steel non-removable pin.

Door shall include commercial grade lockset; heavy duty galvanized steel 3"x12" push plate on interior; and 3"x12" pull plate with handle, and kick plate on exterior. Door shall include heavy duty galvanized steel hasp for paddle lock on exterior.

## **CONSTRUCTION REQUIREMENTS**

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

**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.

Mechanically vibrate all concrete when placed, except that slabs on grade need to be vibrated only around perimeter and at pipe penetrations. No expansion joints allowed in concrete structures, unless noted on plans.

**622-3.04 WELDING.** Conform to Structural Welding Code AWS D1.1 when welding all steel structures.

Perform Quality Control inspection necessary to ensure the materials and workmanship meets the requirements of the Contract documents. Use a CWI for welding inspection.

Correct deficiencies in materials and workmanship revealed by Quality Control and Quality Assurance inspections without additional compensation.

Furnish completed Quality Control inspection documents to the Engineer and to the Quality Assurance representative designated by the State (when designated).

**622-3.05 STRUCTURAL STEEL.** Add the following:

Reinforcing bar spacing shown are maximum on centers. Securely tie all bars in location before placing concrete.

All dowels, anchor bolts, rebar, etc. shall be securely held in forms before placing concrete.

Steel lap splices in concrete: stagger alternate splices a minimum of one lap length  
Min. bar lap splice length: #4 = 25", #5 = 31", #6 = 37"

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**622-3.06 STRUCTURAL ALUMINUM.** Welding to conform to American Welding Society D1.2. Piecemealing of aluminum components will not be accepted for payment. Metal components shall be continuous through the full length of each component to the extent possible in order to minimize the number of welds.

**622-3.07 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.

**622-3.08 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.

**622-3.09 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.
2. Concrete Parking Bumper.
  - a. Concrete. Sealer
3. RV Hose Bib.
  - a. Wood. Semi-Transparent Oil Stain
  - b. Concrete. Sealer
4. Manhole Drain.
  - a. Metal. Primer and Enamel Paint  
Cast Iron Manhole Cover. None
5. Well House.
  - a. Exposed interior lumber. Clear Oil Stain
  - b. White FRP Panel. None
  - c. T1-11 siding. Solid Oil Stain

- d. Exterior trim. Prime and acrylic enamel semi-gloss paint color match Soild Oil Stain
- e. Door. Prime and acrylic enamel semi-gloss paint color match Soild Oil Stain
- f. Prime exposed well casing with zinc-rich primer.
- g. Well casing and cap. Zinc-rich primer & 2-coats of "Pro Industrial DTM Acrylic Primer/Finish" tinted blue color, or approved equal
- h. Metal. Primer and Enamel Paint
- i. Metal Roof & Flashing. Manufacture applied finish

6. Single Entrance Gate.

- a. Metal. Primer and Heavy Duty Aluminum Enamel Paint

**622-3.10 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.

Place seat rocks with 18 to 24 inch seat height and a minimum of 20 percent of the height of rock set below ground level.

**622-3.11 CONCRETE PARKING BUMPER.** Construct in accordance with Standard Drawing P-6, Parking Bumper.

**622-3.12 REMOVEABLE BARRIER POST.** Conform to Standard Drawing P-5, Barrier Rail Barrier Post Removeable Barrier Post. Replace 1-foot of backfill with a full depth 3'-6" concrete pour. Concrete shall be flush with final surface.

**622-3.13 ELECTRICAL WORK.** Wire all cabinets with conductors sized to handle the amperage drawn under full cabinet use. Make wiring neat in cabinets by cabling wires together with self-clinching nylon ties. Terminate all spare conductors on terminal blocks. Attach all conductors, including spares, to terminal blocks with "spade" type terminal lugs. Furnish additional terminal blocks if enough locations are unavailable in existing terminal blocks. Do not splice conductors within cabinets, poles, signal heads, and luminaires.

Pull conductors into conduit only after junction boxes are set to grade, crushed rock, sumps are installed, grout is placed around the conduit, and grounding bushings have been installed on all conduits.

1. Pull conductors by hand or by approved commercially built cable-pulling equipment. Do not pull cable by any other unapproved means. Equip the cable pulling device with a force limiting circuit and force gauge if directed by Engineer.
2. Use wire-pulling lubricant when placing the cables and conductors in conduit. Do not allow the tension of the wire or cable to exceed the manufacturer's recommended allowable tension for the conductor cable.

3. When adding new conductors to a conduit with existing conductors, remove all conductors and clean the conduit with a mandrel or brush. Pull both old and new conductors through as a unit. In a new installation, pull all conductors through the conduit as a unit.

**622-3.14 RV HOSE BIB.** Construct in accordance with the Plans, Sheet 7– Details. Final location and orientation will be verified by the Engineer.

**622-3.15 RV POWER STATION PEDESTAL.** Mount and install the power station pedestal in accordance with the manufacturer’s instructions and recommendations. Final location and orientation will be verified by the Engineer.

**622-3.16 WASTEWATER HOLDING TANK.** Construct in accordance with the Plans, Sheet 6 – Wastewater Holding Tank. See Section 626 for more information.

**622-3.17 WATERLINE PIPE.**

1. Handle pipe and fittings to insure delivery in a sound undamaged condition.
2. Joints between pipe sections and fittings shall be butt fused with a fusion machine in accordance with pipe and machine manufacturers’ recommendations for the pipe and fittings being joined. Fusion personnel shall be certified in the use of machine and butt-welding process.
3. Inspect the pipe for defects before fusion and installation. Defective, damaged or unsound pipe will be rejected.
4. Sections of pipe shall be joined in continuous length on the jobsite above ground before placement into trench after pipe bedding installed in accordance with earthwork section.
5. Pipe shall be joined to valves and other materials with a flange assembly consisting of a molded polyethylene stub end, backing ring, connected with bolts. A full-face gasket suitable for domestic water use shall be provided between flange faces.
6. On each day of pipe fusion, the first fuse shall be a trial fusion. The trial fuse shall be completed, and test straps shall be cut out. Test straps shall be 30 times the wall thickness or 12-inch minimum in length. Test after strap cools to ambient temperature by bending the test strap until the ends of the strap touch. If the test fuse fails, a new test shall be made. Butt fusion of pipe for installation shall not be completed until test fuses have passed the bent strap test.
7. Pipe shall be installed to within 0.1-feet of grade shown on the plans unless approved by the engineer.

8. Install pipe with a minimum bend radius or 25-feet if not noted on plans.
9. Install copper or aluminum trace wire with pipe in a continuous run with water pipe from well building to faucet #1. Leave 6' tail at building exterior and within faucet valve box. Tag wire shall read: "Water Locate Wire".
10. Backfill pipe to the springline in accordance with earthworks section prior to pressure testing of line.
11. Backfill pipe in accordance with earthworks section after successful completion of cleaning and testing.

#### **622-3.18 WATERLINE PIPE TESTING, CLEANING & DISINFECTION.**

12. Water piping shall be flushed and disinfected with chlorine in accordance with AWWA c651 after backfill compacted to the springline. Discharge flushing and disinfection water to a controlled area to limit erosion. Discharge into open water is not allowed.
13. Pressure test pipe in accordance with manufacturers' recommendations. Waterline pipe shall be tested at a minimum of 90 psi with water as the test media. Air testing is not allowed.

**622-3.19 WELL HOUSE FRAMING.** All wood in contact with concrete shall be pressure treated lumber. Anchor bolts shall be galvanized. Minimum anchor bolt size is 5/8"x10" with no less than 7" embedment in concrete and spaced no more than 32" O.C. Anchor bolts are required in all bearing, shear, and exterior walls.

**622-3.20 WELL HOUSE FLOOR DRAIN.** Floor drain shall be 4-inch diameter assembly with flashing collar, cast iron grate, sediment bucket, and no-hub base connection. Floor drain shall be cast into concrete floor slab.

**622-3.21 WELL HOUSE INTERIOR FINISH.** Interior wall and ceiling finish shall be FRP panel glued to wall sheathing in accordance with manufacturers requirements, color to be white. Supply manufacturers standard trim between and end of all sheets.

**622-3.22 WELL HOUSE METAL ROOFING.** Metal roofing shall be same manufacturer, model and color as existing orientation kiosk roofing. Provide manufacturers standard eave and gable trim in same color.

**622-3.23 WELL HOUSE RIGID INSULATION.** Insulation shall be extruded polystyrene (XPS) insulation meeting ASTM 578, with a minimum density of 2.2 pounds per cubic foot.

Insulation board shall be 2-inch thick, 2-foot x 8-foot sheets.

**622-3.24 WELL HOUSE SITE PROTECTION AND RESTORATION.** Protect all structures, trees, shrubbery, etc., during the progress of the work; Remove from the site all cuttings, drillings, debris and unused materials; and upon completion of the work, restore the site as nearly as possible to its original condition. Water pumped from the well shall be directed to a designated place where it will be possible to dispose of it without erosion or other damage to property or creation of a nuisance. A settling trench or silt collection device may be required to be installed prior to drilling, developing, or testing the well. Remove from the site all cuttings, drillings, debris and unused materials. Upon completion of the work, restore the site as nearly as possible to its original condition. Any site restoration work as directed by the Engineer shall be subsidiary to Item 622.2105.0000 Well House.

**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.

Item 622.2106.0000 Waterline Pipe will be measured by end-to-end, in place, parallel to the centerline of the item, as measured and accepted by the Engineer.

Item 622.2107.0000 RV Hose Bib will be measured by each actual number of facilities completed and accepted by the Engineer.

Item 622.2108.0000 RV Power Station Pedestal will be measured by each actual number of facilities completed and accepted by the Engineer.

**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.

All work required to survey, clearing, grubbing, furnish earthwork materials, foundation forms, concrete, reinforcement, furnish building materials, manhole drains, electrical, plumbing, electrical appliances, plumbing appliances, mule tape within HDPE innerduct, electrical service downstream of the HEA meterbase to serve the Well House, and all Well House infrastructure as shown on the Plans is subsidiary to item 622.2105.0000 Well House.

All work required to furnish and construct for the RV Hose Bib is subsidiary to item 622.2108.0000 RV Hose Bib.

All work required to survey, furnish materials, earthwork materials, electrical work, mule tape within HDPE innerduct, and electrical service downstream of the HEA meterbase to

serve the RV Power Station Pedestal, required for the RV Power Station Pedestal is subsidiary to item 622.2108.0000 RV Power Station Pedestal.

Payment will be made under:

**PAY ITEM**

<b>Item Number</b>	<b>Item Description</b>	<b>Unit</b>
622.2016.0000	Concrete Parking Bumper	Each
622.2017.0000	Barrier Rock	Each
622.2105.0000	Well House	Lump Sum
622.2106.0000	Waterline Pipe	Linear Foot
622.2107.0000	RV Hose Bib	Each
622.2108.0000	RV Power Station Pedestal	Each

(03/01/2024)PARKS-Special Provision

Replace Section 626 with the following:

## **SECTION 626 WASTEWATER HOLDING TANK**

**626-1.01 DESCRIPTION.** Furnishing all materials, equipment, and labor necessary to construct a Wastewater Holding Tank.

### **MATERIALS**

**626-2.01 BACKFILL.** Selected Material, Type A conforming to Section 703-2.07.

**626-2.02 DRAIN HATCH.** Shall be OPW 269-0085 Sanitary Tank Hatch as manufactured by OPW; phone 1-800-422-2525, or approved equal.

**626-2.03 HIGH DENSITY POLYETHYLENE PIPE (HDPE).** HDPE pipe shall be used to provide wastewater conduit from the wash down basin drain hatch to the holding tank. HDPE pipe and fittings shall be high-density PE3408/PE4710 meeting ASTM F714, AWWA C906, and SDR 11.

**626-2.04 HOLDING TANK.** Uniform Plumbing Code (current adopted edition) requirements. Fabricate with 3/16 inch steel in conformance with holding tank detail on the Plans. Coat tank inside and outside with an approved bituminous sealant. Alternative tank design may be used upon approval from the Project Engineer.

**626-2.05 MANHOLE COVER.** Fabricate using 3/16 inch steel and coat with same bituminous sealant used on holding tank. Cover must firmly attached to manhole flange and provide a watertight fit.

**626-2.06 HOLDING TANK INSPECTION/CLEANOUT PIPE.** Schedule 40 PVC pipe.

**626-2.07 HOLDING TANK INSPECTION/CLEANOUT PIPE CAP.** Lockable cap, Clay and Bailey Fillcap 232 Series as manufactured by Clay and Bailey Mfg. Co., Kansas City, MI, or approved equal.

**626-2.08 LIQUID LEVEL APPARATUS.** Manufactured by Anchorage Tank & Welding, Inc., or approved equal.

**626-2.09 LIQUID LEVEL ALARM.** Orenco Systems, Inc. AMSENTI II-W Liquid Level Alarm or approved equal. Liquid level alarm shall be battery powered and have NEMA 4X rated enclosure.

**626-2.10 REINFORCING STEEL.** Shall be grade 60.

**626-2.11 CONCRETE.** Class A Concrete conforming to Section 501.

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**626-2.12 PIPE FITTINGS.** Manufactured by Fernco, Nibco, or other approved manufacturer. Use fittings suited for burial and fasten with T-316 stainless steel clamps.

**626-2.13 STANDARD 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. Provide one padlock for every lockable pipe cap and drain hatch.

### **CONSTRUCTION REQUIREMENTS**

**626-3.01 SITE WORK.** Excavation and backfill shall conform to Subsection 204-3.01 and the details on the plans. Excavate to a depth of 12 inches below bottom of tank and backfill with material conforming to 626-2.01. For bedding and backfill, to a depth of 12 inches below bottom of tank to 12 inches above top of tank, material shall also pass the 3 inch sieve. Utilize native material for the remainder of the backfill.

**626-3.02 GENERAL.** Install wastewater system flow lines, excavation, bedding, and backfill accurately to the planned line and grade and keep clean of all foreign matter. Install all piping and connections with suitable fittings, couplings, connectors, and adapters per the plans, specification, and manufacturers' recommendations.

**626-3.03 HOLDING TANK INSTALLATION.** Furnish and install a holding tank and related appurtenances in accordance with the plans and specifications. Repair scrapes, dents, or any other type of tank or coating damage prior to installation. Install inspection/clean out pipe caps flush with the finish ground surface. Place and compact holding tank bedding and backfill in accordance with Subsection 204-3.01. Testing requirements shall conform to Subsection 106-1.03.

**626-3.04 LIQUID LEVEL ALARM.** Install alarm and the liquid level apparatus in accordance with manufacturer's recommendations and the details on the Plans. Attach alarm to the side of the apparatus using approved tamper proof one-way screws. Provide one 9-volt battery for the alarm.

**626-3.05 CONCRETE BASIN.** Install in accordance with the plans. Provide tight fit at junction of drain hatch, pipe and concrete. Apply hard trowel finish to concrete.

**626-4.01 METHOD OF MEASUREMENT.** Wastewater System is a lump sum item and will not be measured directly for payment. System components and items necessary to complete an operational system will be considered subsidiary to this item and will not be measured separately for payment. This item will be considered complete when it is operational. Excavation and backfill of the holding tank will be a subsidiary obligation.

**626-5.01 BASIS OF PAYMENT.** Wastewater System will be paid for at the contract lump sum price.

Payment will be made under:

**PAY ITEM**

<b>Item Number</b>	<b>Item Description</b>	<b>Unit</b>
626.2100.0000	Wastewater Holding Tank	Lump Sum

(03/01/24)PARKS-Special Provision

Replace Section 627 with the following:

## **SECTION 627 WATER WELL**

**627-1.01 DESCRIPTION.** The work shall consist of furnishing all materials, equipment, and labor to construct a water well. Installation of a well screen will be included if ordered by the Engineer.

### **MATERIALS**

**627-2.01 GENERAL.** All materials shall be new and conform to the details shown on the Plans or Specifications. All materials used that that will contact portable water must be approved and certified for that use by NSF International, Underwriter Laboratories (UL), or an equivalent organization that evaluates products using NSF/ANSI Standard 61.

**627-2.02 BACKFILL.** Selected material, Type A conforming to Subsection 703-2.07.

Aggregate base course, grading D-1 conforming to Section 301.

**627-2.04 SEWER ROCK.** Sewer rock shall conform to all applicable requirements of Section 703.

**627-2.05 CONCRETE.** 5-Sack and 6-Sack Concrete conforming to Section 501.

**627-2.06 TREATED TIMBER.** Wood species conforms to Subsection 650-2.06.

Treatment shall be as follows:

1. Above Ground Applications. Preservative pressure treatment shall conform to Section 714. Pressure treat with preservative Ammonical Copper Quat - Type A,B,C, or D(ACQ-A,B,C, or D) or Copper Azole – Type A (CBA-A). Minimum retention shall be 0.40 pounds per cubic foot or to refusal. Treated materials shall be uniformly brown in color and nonincised. This type of treated lumber is commonly used for residential decks for above ground applications. Incising may be used on 4x and thicker material to obtain minimum retention.
2. Ground Contact Applications. Preservative pressure treatment shall conform to Section 714. Pressure treat with preservative Ammonical Copper Quat - Type A,B,C, or D(ACQ-A,B,C, or D) or Copper Azole – Type A (CBA-A). Minimum retention shall be 0.60 pounds per cubic foot. Exposed treated materials shall be pigmented uniformly brown in color by manufacturer. Conform to Section 713 and Section 714.

**627-2.07 PAINT.** Unless otherwise specified, use the following paint types and colors, or approved equals:

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1. Semi-Transparent Oil Stain. Exterior alkyd based stain, color to match solid oil stain "Russet". Stains for pressure treated wood shall be recommended by manufacturer for use on pressure treated wood.
2. Enamel Paint. Exterior alkyd base gloss enamel. Color to match solid oil stain color.
3. 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).
4. Below Ground Wood Preservative. Preservative with active ingredient of minimum 16 percent copper naphthenate (equivalent to minimum 2 percent metallic copper).

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

#### **622-2.07 WATER WELL.**

1. Water well work shall consist of furnishing all materials, equipment, and labor to provide a fully functional water well and pressurized water system.
2. All materials shall be new and NSF approved for domestic water.
3. Well casing shall be minimum 6-inch diameter schedule 40 steel well pipe conforming to ASTM A53 (Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless); and AWWA-C206 (Standard for Field Welding of Steel Water Pipe). Metal well casing cap shall be cast iron or aluminum with set screws and a watertight seal.
4. The well screen shall be stainless steel wire wound telescope size screen with an assumed slot opening size of 0.080 inches, and Figure K packer for the upper fitting. Well screen shall fit within the well casing, with length required to provide an efficient well at a future flow rate of 22 GPM, and sieve size as required for materials found in drilling. Gravel pack shall be installed if required to stabilize the formation and provide a fully functional well. Well screen shall be a Johnson Screens (St. Paul, MN. 800-833-9473) Model 304SS 6T or approved equal.
5. Well pump shall be 240V, single phase, 15 GPM minimum capacity with a total design head (TDH) of 140 feet residual head, plus depth from top of casing to top of water drawdown in well.
6. Well control box shall be NEMA 3R and include capacitor start, resettable overload relay, pressure switch relay, and ground lugs.
7. Water pressure tank shall be Amtrol model WELL-X-TROLL WX-406C-125-R.

8. Provide tank connection with tank tee, pressure switch, and pressure gauge.
9. All well drop piping shall be minimum 1-1/4" diameter galvanized unless noted otherwise.
10. All valves to be minimum class 125 brass threaded ball, check and gate valves.
11. Hose bibs shall be class 125 bronze with threaded hose connection.

**627-2.08 DROP PIPE.** Drop pipe shall be one and one quarter inch galvanized steel pipe with screw type galvanized couplings conforming to ASTM A53. The drop pipe shall be installed in 10 foot or longer sections.

### **CONSTRUCTION REQUIREMENTS**

**627-3.01 GENERAL.** The water well will be located approximately as shown on the Plans. Minor location adjustments to conform to existing topographic conditions may dictate a more desirable placement.

Wells shall be drilled, developed, cased and tested as specified. The depth of the well is estimated. The presence of water at the anticipated depth cannot be guaranteed. Depth information is offered merely for the purpose of assisting the Contractor in preparing their bid. The Contractor shall investigate all local conditions which might affect his work. The exact depth will depend on adequate yield.

If a satisfactory water supply has not been encountered by a depth of 225 feet, the Engineer may direct the drilling to stop. The Department will then decide if the casing shall be abandoned or left in place with a permanent airtight cap. Method and compensation for extra work involved in sealing a dry hole will be established by Change Order.

Choice of method of drilling shall be made by the Contractor.

**627-3.02 WATER WELL.** Depth of water is estimated between 60 and 200 feet. Presence of water at the anticipated depth cannot be guaranteed. Depth information is offered only to assist the contractor in preparing their bid. The contractor shall investigate all local conditions which might affect this work. The exact depth will depend on adequate yield and separation from surface water influence.

1. If a satisfactory water supply has not been encountered by a depth of 225 feet, the engineer may direct the drilling to stop. Allow 10 days for the Department to decide if the casing shall be abandoned or left in place with a permanent airtight cap. Method and compensation for extra work involved in sealing a dry hole will be established by Change Order.
2. Choice of method of drilling shall be made by the Contractor.

3. Water well shall be located approximately as shown on the drawings. Minor location adjustments to conform to existing conditions upon approval by the Engineer.
4. Drill the well and install the casing plumb in order to permit the operation of the well pump without interference or damage to the down hole pump assembly or the casing. The completed casing shall be continuous and watertight. Water well shall be drilled, cased, sealed, developed and disinfected in accordance with the latest version of AWWA standard A100 water wells and these specifications and drawings.
5. Well casing welds shall be full penetration welds in accordance with the latest American Welding Society Standards by experienced welder holding valid certificates. Coat welding joints with cold galvanizing.
6. All well drilling fluids shall be NSF approved for domestic drinking water.
7. Well shall be grouted with watertight cement grout, sealing clay, bentonite, or an equivalent material, continuous from the existing grade down a minimum of 12-feet. Grouted section shall be reamed to a minimum of 4-inches greater than casing O.D. Durable clean spacers shall be provided to maintain casing plumb in center of hole. Place grout to prevent surface water and other impurities from entering the well by infiltration along the bore and casing. Grout shall be placed from the bottom of the section to the surface in a continuous manner.
8. Submit proposed grouting materials and placement plan for approval by the engineer.
9. Allow grout to set for 3-days, or as required by approved plan before continuing work that may cause grout damage.
10. Contractor shall submit the well log and representative samples of the water bearing formation materials and water to the engineer with proposed screen materials for approval.
11. Prepare exposed well casing by blasting or grinding to a SP-6 finish, and clean to remove all dust, water and oils. Prime exposed well casing with zinc-rich primer. Paint exposed well casing and cap with 2-coats "Pro Industrial DTM Acrylic Primer/Finish" tinted blue color, or approved equal

**627-3.03 BORING LOG.** Keep an accurate log of all materials passed through and the depths at which changes in formation occur, as well as other information as may be required. The log of the well shall show all material penetrated. The log shall also contain full descriptive notes of everything found by the drill and of all difficulties or unusual conditions met in drillings. All water-bearing strata shall be described in detail as to

whether the material is loose or compact, its color and, if gravel, whether it is worn or angular. The presence of clay must be noted. Upon completion of the well, one copy of the log, and results of the yield test shall be delivered to the Engineer for transmittal to the Department in accordance with AS 41.08.

**627-3.04 PROTECTING WATER SUPPLY.** At all times during the progress of the work, protect the well in such a manner as to prevent either tampering with the well or the entrance of foreign matter into it until the well is sealed with well cap. Provide a temporary cap, satisfactory to the Engineer, until the hand pump is finally set. Take the necessary precautions, as directed, to prevent contaminated water or water having undesirable physical or chemical characteristics from entering the water bearing stratum.

In the event that the well becomes contaminated due to the neglect of the Contractor, they shall, at their own expense, perform such work as may be necessary to correct the situation.

**627-3.05 WATER WELL TESTING.** Upon completion of the bore, or as directed, determine the yield by pumping in accordance with Appendix E of the latest version of AWWA standard A100 - water wells. Pumping capacity of the potential aquifer shall be sufficient to produce a sustained yield of 5 gallons per minute. The Department will decide if an acceptable sustained yield has been achieved from yield (draw down/recovery) test results.

Test pump the well for a minimum of four hours using a submersible pump and flow meter to measure water production. Furnish the Engineer a copy of the record of the yield test (draw down/recovery test) for the well including the following information:

1. Static water level.
2. Maximum sustained yield.
3. Draw down for maximum sustained yield.
4. Well depth.
5. Recovery time from sustained yield draw down to static water level.

In the event of an unsuccessful yield test, allow 10 days for the Department to evaluate the geologic and hydrologic well data and determine an alternate course of action.

After a satisfactory yield has been obtained, proceed with development and disinfection. Then collect water samples and deliver them to an approved testing laboratory for required testing for public water systems. The required tests for a Class B public water system are Nitrate and Total Coliform Bacteria tests. All testing shall conform to current regulations set forth State of Alaska Department of Environmental Conservation Drinking Water Regulations 18 AAC 80. Furnish two copies of the laboratory analysis to the Engineer for submittal to the Alaska Department of Environmental Conservation. The Contractor shall bear all costs of samples and analysis.

Contractor shall submit the proposed well pump to the Engineer for approval after satisfactory yield has been determined.

**627-3.06 DEVELOPING.** Develop the well by high velocity jetting of air or water to extract fines from water bearing formation that may be drawn into the casing during operation. Well shall be flushed of sediment from the full depth of the well. Conduct the development to give the maximum practical yield of water per foot of draw down and to extract from the water-bearing formation the practical maximum quantity of such fine materials as may, during the life of the well, be drawn into the casing when the well is pumped under maximum conditions of draw down. At the conclusion of the development, clear the well of all accumulations of sediment to the full depth of the well. All equipment and material furnished and installed by the Contractor for developing the well shall remain their property and shall be removed by them upon completion of the work.

**627-3.07 GROUTING.** Install at least 10 feet continuous grouting or bentonite within the first 20 feet below the ground surface. Ream the section to be grouted to not less than a diameter of 4 inches greater than the casing O.D. Center the casing in this section and hold it in place with sufficient spacers to maintain true alignment. Grout the area around the casing. Grout shall consist of 1 part Portland Cement and 3 parts sand mixed with only sufficient water to form a workable mix. An Engineer approved bentonite mixture may be substituted for the grout mixture. Place the grout in such a manner that surface water and other impurities will be prevented from entering the well by infiltration along the bore and casing. The method of grouting shall be pre-approved and shall include forcing grout from bottom of grout space toward ground surface. Grouting operation shall be continuous. Spacers shall be of a durable material and shall be clean and suitable as concrete aggregate.

**627-3.08 WELL SCREEN.** Final determination of the need for a well screen and the screen criteria will depend upon thickness and uniformity of water bearing strata, analysis of aquifer samples, and requirements of the well. The Engineer will determine if a well screen is required. It will be the Contractor's responsibility to obtain representative samples of sands and water in the aquifer and submit them, with a copy of the drilling log to the Engineer. Take the sand sample after a satisfactory yield has been obtained.

Install the well screen by holding the well screen in place with the drill steel while pulling the casing up to expose the screen to the water-bearing strata.

The well screen shall have an additional 5 foot length of 5 inch pipe attached to the upper end. The well screen shall be installed in 5 foot segments. If the well screen slot size opening is required to be other than 0.080 inches, as directed by the Engineer, any incurred costs are subsidiary to Item 622.2104.0000 Well Pump and Controls

Final length of screen shall be as directed by the Engineer. Diameter shall be the largest size which may be installed in the casing.

Screen shall have adequate strength to resist external force after installation and to resist damage during installation. Screen shall have no change of alignment after installation.

Provide fittings, that are the same material as the screen, as necessary to seal the top of screen tightly to casing and to close bottom of screen. The packer, provided at top of screen, shall have 12 inches minimum overlap of casing and screen.

**627-3.09 ABANDONMENT OF WELL.** If the Department decides to abandon a well, the well shall be permanently abandoned in accordance with regulatory standards established by the Alaska Department of Environmental Conservation. Method and compensation for abandoning a water well will be established by Change Order.

If the Contractor, due to his operations, should abandon drilling at one location in favor of another, or should fail to complete a satisfactory well bore as specified or required he shall plug the abandoned bore as specified above at no cost to the Department and without compensation for drilling operations performed at the abandoned site. Salvaged materials shall remain the Contractor's property.

**627-3.10 DROP PIPE AND PUMP ROD.** Drop pipe and pump rod shall be installed as detailed on the Plans or approved by the Engineer.

**627-3.11 WELL AND SUBMERSIBLE PUMP DISINFECTION.** After well pump has been installed follow the procedure:

1. Pump the well until the well water is clear.
2. Disinfect with household bleach, i.e., Clorox, Purex, etc., which contains 5% to 6% sodium hypochlorite. Pour one half liter of this disinfectant into a large bucket of water and pour this solution into the well casing. Repeat this procedure with the remaining bleach until a ratio of one pint disinfectant per 100 gallons of well water is obtained (one pint disinfectant per 68 lineal feet of water column).
3. Mix the chlorinated well water by pumping water until a chlorine odor can be detected at the outflow. Remove the pump and let the system disinfect overnight.
4. Flush the chlorine from the well by pumping until the chlorine odor cannot be detected at the outflow. Remove the pump handle and wait for at least one week before sampling the well for bacteriological contamination as per ADEC's recommendations. If the sample does not meet ADEC's requirements, repeat the disinfection and sample process until satisfactory results are obtained.

**627-4.01 METHOD OF MEASUREMENT.**

Item 627.2101.0000 Well Drilling will be measured by the actual length of well drilled from the ground surface to the bottom of the drilled hole, as measured and accepted by the Engineer.

Item 627.2102.0000 Well Casing will be measured by the actual length of casing furnished and installed in the well hole. The drive shoes will be considered subsidiary to the casing and will not be measured as part of the casing length.

Item 627.2103.0000 Well Drop Pipe will be measured by the actual length of drop pipe and pump rod installed as measured and accepted by the Engineer.

Item 627.2104.0000 Well Pump and Controls will be measured by each actual number of facilities completed and accepted by the Engineer. Work shall include water testing, pump assembly, developing, yield testing, temporary well pad construction, grouting, disinfection, the development work completed.

**627-5.01 BASIS OF PAYMENT.**

Drilling will be paid for at the contract unit price per linear foot of drilled hole. Related work such as drilling logs and the cleanup of the drilling operation will be subsidiary to item 627.2101.0000 Well Drilling.

All work required for permitting, achieving approval, reporting, and abiding by all DEC and EPA regulatory items for the drilling of the water well will be considered subsidiary to item 627.2101.0000 Well Drilling.

Casing will be paid for at the contract unit price per linear foot of casing installed and accepted. Furnishing and installing well cap and drive shoes will be considered subsidiary to item 627.2102.0000 Well Casing.

All work to appropriately size, procure, furnish, install, test, and clean the well pump, well screen, well controls, pump rod, submersible wire to pump is considered subsidiary to item 627.2104.0000 Well Pump and Controls.

All water well work not covered by other water well items necessary and required for a completed operational well are considered subsidiary to item 627.2104.0000 Well Pump and Controls.

Payment will be made under:

**PAY ITEM**

<b>Item Number</b>	<b>Item Description</b>	<b>Unit</b>
627.2101.0000	Well Drilling	Linear Foot
627.2102.0000	Well Casing	Linear Foot
627.2103.0000	Well Drop Pipe	Linear Foot
627.2104.0000	Well Pump and Controls	Lump Sum

(03/01/24)PARKS-Special Provision

SPECIAL PROVISIONS  
 Old Kasilof Landing SRS  
 Facility Host Site  
 Project No. 73032-2

Replace Section 641 with the following:

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

**641-1.01 DESCRIPTION.** Plan, provide, inspect, and maintain control of erosion, sedimentation, water pollution, and hazardous materials contamination.

**641-1.02 DEFINITIONS.** These definitions apply only to Section 641.

**Alaska Department of Environmental Conservation (ADEC).** The state agency authorized by EPA to administer the Clean Water Act's National Pollutant Discharge Elimination System.

**Alaska Pollutant Discharge Elimination System (APDES).** A system administered by ADEC that issues and tracks permits for storm water discharges.

**Best Management Practices (BMPs).** Temporary or permanent structural and non-structural devices, schedules of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or minimize the discharge of pollutants to waters of the United States. BMPs also include, but are not limited to, treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from material storage.

**Clean Water Act (CWA).** Federal Water Pollution Control Amendments of 1972, as amended (33 U.S.C. 1251 et seq.).

**Construction Activity.** Physical activity by the Contractor, Subcontractor or utility company; that may result in erosion, sedimentation, or a discharge of pollutants into storm water. Construction Activity includes soil disturbing activities (e.g. clearing, grubbing, grading, excavating); and construction materials or equipment storage or maintenance (e.g. material piles, borrow area, concrete truck chute washdown, fueling); and other industrial storm water directly related to the construction process (e.g. concrete or asphalt batch plants).

**Environmental Protection Agency (EPA).** A federal agency charged to protect human health and the environment.

**Erosion and Sediment Control Plan (ESCP).** The Department's project specific document that illustrates measures to control erosion and sediment on the project.

**Final Stabilization.** Final stabilization occurs when soil disturbing activities at the site have been completed and one of the following methods, as identified in the contract, has been completed: (a) establish a uniform and evenly distributed perennial vegetative cover with a density of 70 percent of the native background vegetative cover, or (b) construct

non-erodible permanent stabilization measures (such as riprap, gabions, geotextiles, pavement, and crushed aggregate base course) where vegetative cover is not required.

**Haul Route.** Existing or newly constructed road where construction materials are transported and where disposition of sediments or erodible materials may result from the material hauling activity or from the Contractor's activity to construct or maintain the road.

**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 ESCP.

**Multi-Sector General Permit (MSGP).** The Alaska Pollutant Discharge Elimination System General Permit for storm water discharges associated with industrial activity.

**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, sewage, garbage, sewage sludge, chemical wastes, biological materials, wrecked or discarded equipment, rock, sand, cellar dirt and industrial or municipal waste.

**Project Area.** The physical area provided by the Department for Construction. The Project Area includes the area of the facility under construction, project staging and equipment areas, and material and disposal sites; when those areas, routes and sites, are provided by the Department by the Contract and are directly related to the Contract. Support Activities including 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 Area.

**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.

**Subcontractor Spill Response Coordinator.** The subcontractor's representative with authority and responsibility for coordinating the subcontractor's activities in compliance with the HMCP and SPCC Plan.

**Superintendent.** The Superintendent has responsibility and authority for the overall operation of the Project and for Contractor furnished sites and facilities directly related to the Project.

**Temporary Stabilization.** The protection of exposed soils (disturbed land) from wind and water erosion during the construction process until final stabilization occurs.

**641-1.04 SUBMITTALS.** Submit two copies each of the SPCC ,HMCP, and amended ESCP, if applicable, to the Engineer for approval. Sign submittals. Deliver these documents to the Engineer.

The Department will review the submittals within 14 calendar days. Submittals will be returned to the Contractor as either requiring modification, or as approved by the Department.

The final ESCP, approved HMCP, and submitted SPCC Plan become the basis of the work required for the project's erosion, sediment, and pollution controls.

**641-2.01 EROSION SEDIMENT CONTROL PLAN (ESCP) REQUIREMENTS.** The Department will develop the project's base ESCP and include it as an appendix in the Special Provisions. The Contractor shall prepare any amendments to the ESCP based on scheduling, equipment, and use of alternative BMPs. The ESCP must include both erosion control and sediment control measures. The plan must address first preventing erosion, then minimizing erosion, and finally trapping sediment before it leaves the project site. The plan must address site specific controls and management plan for the construction site. The plan must also incorporate the requirements of the project permits.

The Contractor is responsible for amending the ESCP to include site specific control and management plan for material sites, waste disposal sites, haul routes, and other affected areas, public or private.

Specify the line of authority and designate a field representative for implementing ESCP compliance.

**641-2.02 HAZARDOUS MATERIAL CONTROL PLAN (HMCP) REQUIREMENTS.** Prepare the HMCP for 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 ESCP. Compile Material Safety Data Sheets in one location and reference that location in the HMCP.

Designate a Contractor's Spill Response Field Representative with 24 hour contact information. Designate a Subcontractor Spill Response Coordinator for each subcontractor. The Superintendent and Contractor's Spill Response Field Representative must have 24 hour contact information for each Subcontractor Spill Response Coordinator and the Utility Spill Response Coordinator.

List and give the location and estimated quantities of hazardous materials (Including materials or substances listed in 40 CFR 117 and 302, and petroleum products) to be used or stored on the Project. Hazardous materials must be stored in covered storage areas. Include secondary containment for all hazardous material storage areas.

Identify the locations where fueling and maintenance activities will take place, describe the activities, and list controls to prevent the accidental spillage of petroleum products and other hazardous materials. Controls include placing absorbent pads or other suitable containment under fill ports while fueling, and under equipment during maintenance or repairs.

Use secondary containment under all stationary equipment (equipment that does not have a seat for driving) that contains petroleum products. Use secondary containment under pumps, compressors, and generators.

List the types and approximate quantities of response equipment and cleanup materials available on the Project. Include a list and location map of cleanup materials, at each different work site and readily available off site (materials sources, material processing sites, disposal sites, staging areas, etc). Spill response materials must be stored in sufficient quantity at each work location, appropriate to the hazards associated with that site.

Describe procedures for containment and cleanup of hazardous materials. Describe a plan for the prevention, containment, cleanup, and disposal of soil and water contaminated by spills. Describe a plan for dealing with contaminated soil and water encountered during construction. Clean up of spills or contaminated surfaces must be initiated immediately and completed as soon as practicable.

Describe methods of disposing of waste petroleum products and other hazardous materials generated by the Project, including routine maintenance. Identify haul methods and final disposal areas. Assure final disposal areas are permitted for hazardous material disposal.

Describe methods of complying with the requirements of AS 46.04.010-900, Oil and Hazardous Substances Pollution Control, and 18 AAC 75. Include contact information for reporting hazardous materials and petroleum product spills to the Project Engineer and reporting to federal, state and local agencies.

**641-2.03 SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN (SPCC) REQUIREMENTS.** Prepare and implement an SPCC Plan when required by 40 CFR 112; when both of the following conditions are present on the Project:

- a. Oil or petroleum products from a spill may reach navigable waters (as defined in 40 CFR 112); and
- b. 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 ESCP.

**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 temporary seed mixture specified by special provision, or use annual rye grass if no temporary seed mix is specified.
- Use soil stabilization material as specified in Section 727.
- Use silt fences as specified in Section 729.
- Use straw that is certified as free of noxious weed by the United States Department of Agriculture, Natural Resources Conservation Service, Local Soil and Water Conservative District. Alaska Weed Free Forage Certification Program must be used when available. Hay may not be substituted for straw.
- Use a rain gauge.

**641-3.01 CONSTRUCTION REQUIREMENTS.** Comply with the requirements of the CWA.

1. Starting Construction.

- Do not begin Construction Activity until authorized by the Engineer  
Post notices on the outside wall of the project office, and at publicly accessible locations near the beginning and end of the Project. Protect postings from the weather and locate so the public can read them without obstructing construction activities (for example, at an existing pullout). Include the following information in each of the postings:
  - Name and phone number of Contractor  
Keep the updated ESCP, HMCP and SPCC at the on-site project office. If there isn't an on-site project office, keep the information at a location suitable to the Engineer.

Ensure all subcontractors and utility companies operating within the Project understand and comply with the ESCP.

Install sediment controls in accordance with the ESCP and before beginning Construction Activity that may result in land disturbance.

2. During Construction.

Comply with requirements of the HMCP and SPCC, and all state and federal regulations that pertain to the handling, storage, cleanup, and disposal of petroleum products or other hazardous substances. Contain, clean up, and dispose of discharges of petroleum products and other hazardous materials. Perform fueling operations in a safe and environmentally responsible manner. Place absorbent pads under fill ports while fueling,

and under equipment during maintenance or repairs. Install secondary containment under all stationary equipment that contains petroleum products.

Comply with the requirements of 18 AAC 75 and AS 46, Oil and Hazardous Substances Pollution Control. Report petroleum product spills as required by federal, state and local law, and as described in the HMCP and SPCC.

Comply with the requirements of the ESCP. Implement temporary and permanent erosion and sediment control measures identified in the ESCP. Keep the ESCP current. If storm water discharges threaten water quality, take immediate action. Comply with the requirements of 18 AAC 70 State of Alaska Water Quality Standards, AS 41.14.870 Protection of Fish and Game, Section 404 of the CWA, and all other applicable federal, state, and local statutes and regulations.

Coordinate with subcontractors and utility companies doing work in the project area so BMPs, and temporary and permanent stabilization are installed, maintained, and protected from damage.

### 3. Maintenance of BMPs.

Maintain temporary and permanent erosion and sediment control measures in effective operating condition. Remove sediment and debris from sediment traps, silt fences, and sediment ponds before sediment or debris accumulates to 50% of the BMP's design capacity.

Implement corrective actions as soon as possible, and before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation must be documented in the ESCP and alternative BMPs must be implemented as soon as possible.

### 4. Stabilization.

Stabilization may be accomplished using temporary or permanent measures. Initiate stabilization of disturbed soils, erodible stockpiles, disposal sites, and of erodible aggregate layers so that all of the following conditions are satisfied:

- a. As soon as practicable;
- b. As soon as necessary to avoid erosion, sedimentation, or the discharge of pollutants; and
- c. As identified in the ESCP.

Land may be disturbed and stabilized multiple times during a project. Coordinate work to minimize the amount of disturbed soil at any one time. Do not disturb more soil than you can stabilize with the resources available.

Temporarily stabilize from wind and water erosion portions of disturbed soils, portions of stockpiles, and portions of disposal sites, that are not in active construction. Temporary stabilization measures may require a combination of measures including but not limited

to vegetative cover, mulch, stabilizing emulsions, blankets, mats, soil binders, non-erodible cover, dust palliatives, or other approved methods.

#### Temporary or Permanent Seeding.

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.

Before applying temporary or permanent seeding, prepare the surface to be seeded to reduce erosion potential and to facilitate germination and growth of vegetative cover. Apply seed and maintain seeded areas. Reseed areas where growth of temporary vegetative cover is inadequate to stabilize disturbed ground.

Apply permanent seed according to Sections 618 and 724, within the time periods allowed by the CGP and the Contract, at locations where seeding is indicated on the plans and after land-disturbing activity is permanently ceased.

#### Stream By Pass.

When installing a culvert or other drainage structure where stream bypass is not used, install temporary or permanent stabilization concurrently or immediately after placing the culvert or drainage structure in a manner that complies with the ESCP, applicable project permits and prevents discharge of pollutants.

Install temporary and permanent stabilization:

- a. At the culvert or drainage structure inlet and outlet; and
- b. In the areas upstream and downstream that may be disturbed by the process of installing the culvert, culvert end walls, culvert end sections, or drainage structure.

Before deactivating a stream bypass or stream diversion used for construction of a bridge, culvert, or drainage structure, install permanent stabilization:

- a. At the inlet and outlet of the culvert, drainage structure, or bridge;
- b. In the area upstream and downstream of the culvert, drainage structure, or bridge, that is disturbed during installation or construction of the culvert, drainage structure, or bridge; and
- c. Under the bridge.

**641-3.04 FAILURE TO PERFORM WORK.** The Project Engineer has authority to suspend work and withhold monies, for an incident that may endanger health or the environment. If the suspension is to protect workers, the public, or the environment from imminent harm, the Project Engineer may orally order the suspension of work. Following

an oral order of suspension, the Project Engineer will promptly give written notice of suspension. In other circumstances, the Project Engineer will give the Contractor written notice of suspension before suspension of work. A notice of suspension will state the defects or reasons for a suspension, the corrective actions required to stop suspension, and the time allowed to complete corrective actions.

1. If the Contractor fails to take the corrective action within the specified time, the Project Engineer may:
  - a. Suspend the work until corrective action is completed;
  - b. Withhold monies due the Contractor until corrective action is completed;
  - c. Assess damages or equitable adjustments against the Contract Amount; and
  - d. Employ others to perform the corrective action and deduct the cost from the Contract amount.
  
2. Reasons for the Project Engineer to take action under this section include, but are not limited to, the Contractor's failure to:
  - a. Obtain appropriate permits before Construction Activities occur;
  - b. Maintain effective BMPs to control erosion, sedimentation, and pollution in accordance with the ESCP and applicable local, state, and federal requirements;
  - c. Perform duties according to the requirements of this Section 641; or
  - d. Meet requirements of permits, laws, and regulations related to erosion, sediment, or pollution control.

No additional Contract time or additional compensation will be allowed due to delays caused by the Project Engineer's suspension of work under this subsection.

**641-4.01 METHOD OF MEASUREMENT.** Section 109.

**641-5.01 BASIS OF PAYMENT.** See Subsection 641-3.04 Failure to Perform Work, for additional work and payment requirements.

The total value of this Contract will be adjusted as specified herein. Withholding will be determined by the Department and assessed under Pay Item 641.0006.0000 Withholding, as follows:

1. Fines and Penalties: A Price adjustment equal to any penalties and fines levied against the Department by local, state, or federal agencies for pollutant violations, including violations of the CWA, except when due to Department negligence. An amount equal to the anticipated penalties and fines for the violation or violations, excluding any due to negligence by the Department, will be withheld until the actual cost of the penalties and fines is known. Anticipated penalties and fines will be determined by the Project Engineer. The Contractor is also responsible for the payment of penalties and fines levied against the Contractor.

2. Failure to perform Corrective Action. By each 24 hour period following 24 hours after written notice by the Project Engineer, per occurrence, a price adjustment of \$750 will be assessed where the Contractor:
- fails to initiate corrective action to respond to a deficiency noted by the Project Engineer.

The same deficiency remaining uncorrected will be considered an additional occurrence for each additional 24 hour period, without requiring additional written notice by the Project Engineer.

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, ESCP and HMCP and SPCC Plan preparation and agency fees.

Work required by the HMCP and SPCC Plan including hazardous material storage, containment, removal, cleanup and disposal, are subsidiary to Pay Item 641.0001.0000 Erosion, Sediment and Pollution Control Administration.

Item 641.0005.0000 Temporary Erosion Sediment and Pollution Control by Directive. 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 Project 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. Withholding according to Section 641-3.04, equal to any penalties and fines levied against the Department by local, state, or federal agencies for pollutant violations, including violations of the CWA and any other Permit, except when due to the Department's sole negligence. The Contractor is also responsible for the payment of any and all penalties and fines levied against the Department or Contractor by entities (including agencies) other than the Department.

The Department will not release performance bonds until penalties and fines, 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 Area 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:

- a. Dewatering;
- b. Shoring;
- c. Bailing;
- d. Permanent seeding;
- e. Installation and removal of temporary work pads;
- f. Temporary accesses;
- g. Temporary drainage pipes and structures;
- h. Diversion channels;
- i. Settling impoundment; and
- j. 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 Project Engineer, or for the Contractor's convenience, are at the Contractor's expense.

Payment will be made under:

<b>PAY ITEM</b>		
<b>Item Number</b>	<b>Item Description</b>	<b>Unit</b>
641.0001.0000	Erosion, Sediment and Pollution Control Administration	LS
641.0005.0000	Temporary Erosion, Sediment and Pollution Control by Directive	CS
641.0006.0000	Withholding	CS

(03/01/24)PARKS-Special Provision

**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 Department 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

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.

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.

**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.

All closures must be coordinated through the Project Engineer. Please give the Project Engineer 2 weeks notice prior to any roadway or facility 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.

Payment will be made under:

**PAY ITEM**

Item Number	Item Description	Unit
643.0002.0000	Traffic Maintenance	LS

(03/01/24)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

Replace Section 647 with the following:

## **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.** 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**

<b>Item Number</b>	<b>Item Description</b>	<b>Unit</b>
647.2002.0000	Hydraulic Excavator 1 C.Y., 100 HP Min	HOUR

CR647-110316R

Replace Section 651 with the following:

**SECTION 651  
CONTROL OF WORK – SUPPLEMENTAL REQUIREMENTS**

**651-1.01 DESCRIPTION.** Supplemental requirements for Section 105, Control of Work.

**651-1.02 RELATED SECTIONS.** Section 105, Control of Work

**651-1.03 UTILITIES.** Request locates from the utilities having facilities in the area. Use the Alaska Digline, Inc. "Locate Call Center" for the following utilities.

**ALASKA DIGLINE, INC.**

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Locate Call Centers:

Anchorage	278-3121
Statewide	(800) 478-3121

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Call Centers will notify the following:

- Aircraft Service International Group (ASIG)
- Alaska Communications Systems (ACS)
- Alaska Fiber Star (WCI)
- Alaska Native Medical Center (ANMC)
- Alaska Railroad Corporation (ARRC)
- Anchorage School District (ASD)
- Anchorage Water & Wastewater Utility (AWWU)
- Arctic Slope Telephone Assoc. (ASTAC)
- AT & T Alascom (AT&T)
- Chevron-Union Oil of California (UNOCAL)
- Chugach Electric Association (CEA)
- City of Homer (HPW)
- City of Valdez Public Works (COV)
- City of Wasilla (CWPW)
- ConocoPhillips Alaska, Inc. (CPA)
- Cook Inlet Pipeline Co. (CIPC)
- Copper Valley Electric Assoc. (CVE)
- Copper Valley Telephone Coop. (CVTC)
- Doyon Utilities, LLC. (DOYON)
- ENSTAR Natural Gas (ENS)
- Fairbanks Natural Gas (FNG)
- Flint Hills Resources (FHR)
- GCI Communication Corp.
- Homer Electric Association (HEA)
- Kodiak Electric Association (KEA)
- Marathon Oil Company (MOC)
- Marathon Pipe Line LLC. (MARATHN)

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## **ALASKA DIGLINE, INC.**

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### Locate Call Centers:

Anchorage	278-3121
Statewide	(800) 478-3121

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Matanuska Electric Association (MEA)  
Matanuska Telephone Association (MTA)  
Municipality of Anchorage Signal & Street Maint.  
Municipal Light & Power (ML&P)  
Northern Utility services (NUS)  
State of AK, DOT/PF Anchorage Street Lights  
(DOT)  
Ted Stevens International Airport (TSAIA)  
Telalaska Inc. (Interior Phone, Eyecom TV & Mukluk  
Telecom)  
Tesoro Alaska (TESORO)  
United Utilities, Inc. (UNITED)  
XTO Energy (XTO)

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State Facility Utilities: before beginning work, contact the Central Region Maintenance & Operations Office at (907) 269-0760 to obtain the District Superintendent's phone number where the project is located, and request locates.

Call the following utilities and agencies directly:

1. HEA (Homer Electric Association)

Name of Contact	James Cress
Title	Engineer
Address	3977 Lake Street, Homer, Alaska 99603-7680
Cell Phone	(907) 398-1485
Desk Phone	(907) 283-2336
Email	<a href="mailto:jamesc@homerelectric.com">jamesc@homerelectric.com</a>

Name of Contact	Karla Appelhans
Title	Engineering Services Representative
Address	280 Airport Way, Kenai, Alaska 99611-5280
Cell Phone	(907) 283-5831
Desk Phone	(907) 283-2310
Email	<a href="mailto:kappelhans@homerelectric.com">kappelhans@homerelectric.com</a>

Name of Contact	Chris Edgar
Title	Engineering Services Supervisor
Address	3977 Lake Street, Homer, Alaska 99603-7680
Cell Phone	(907) 398-7831

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Desk Phone (907) 283-2350  
Email [cedgar@homerelectric.com](mailto:cedgar@homerelectric.com)

### Utility Work by Others.

Utility work by others will occur concurrently with construction of this project. The Contractor shall give the Utility, through the Engineer, 15 calendar days advance written notice regarding the dates when the utility owner is required to begin and end operations.

Utility work is not anticipated for this project, however; if utility work is added to the project the Contractor shall give the Utility, through the Engineer, 15 calendar days advance written notice regarding the dates when the utility owner is required to begin and end operations.

For utility work by others, the Contractor shall:

1. include utility work on the Construction Phasing Plan and Progress Schedule;
2. provide erosion, sediment, and pollution control including the stabilization of areas disturbed during utility work. Identify all utility companies performing ground disturbing activity in the Storm Water pollution Prevention Plan (SWPPP). Refer to Section 641 for further information;
3. provide clearing and grubbing. Payment will be made under Section 201, Clearing and Grubbing;
4. provide traffic control and flagging. Payment will be made under Section 643, Traffic Maintenance;
5. provide Right-of-Way and/or Construction Surveying before utility relocation. Include:
  - Control for utility relocation - either ROW or Centerline staking with Station information.
  - Slope staking.
  - Proposed structures, not including utilities to be relocated by others.

Payment will be made as follows:

- a. Subsidiary to Pay Item 642.0001.0000 Construction Surveying, if the Contractor is required to provide the surveying as part of the Contract and/or,
- b. Under Pay Item 642.0003.0000 Three Person Survey Party, if the Construction or Right of Way staking required by the utility is either in advance of the 2 week work plan, or not required by the Contract.

The utility shall give the Contractor, through the Engineer, 15 calendar days advance written notice for required staking.

6. remove and replace pavement. Payment will be made under Section 202, Removal of Structures and Obstructions; Section 401, Hot Mix Asphalt and Surface Treatments; Section 408, Hot Mix Asphalt and Surface Treatments, Type V, and according to project typical section.
7. remove and replace sidewalk and curb and gutter. Payment will be made under Section 202, Removal of Structures and Obstructions, Section 608, Sidewalks, and Section 609, Curbing.
8. provide bedding and backfill material, and excavation, according to Section 204, Structure Excavation for Conduits and Minor Structures, and the project typical sections.
9. coordinate with the utility owner(s) and provide potholing services at the locations identified or as directed by the Engineer. Payment will be made under Section 682, Utility Potholing.

Work done by utility owner(s) as follows: See Section 688 for coordination requirements.

CR651-23.0601

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 1<sup>st</sup> 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: "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.** In Subsection 108-1.07:

- Add: "for each calendar day that the work remains incomplete after the expiration of the interim completion date(s) as set forth in Subsection 651-1.05 Interim Completion, the liquidated damages per day given in the table below shall be deducted from any monies due the Contractor."

**TABLE 652-1  
INTERIM COMPLETION  
DAILY CHARGE FOR LIQUIDATED DAMAGES  
FOR EACH CALENDAR DAY OF DELAY**

Completion Date	Daily Charge
Interim Completion Date	25% of Contract

CR652-23.0501

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Replace Section 688 with the following:

## **SECTION 688 UTILITY SUPPORT**

**688-1.01 DESCRIPTION.** Coordinate the project work with all utility work by others in accordance with subsection 105-1.06 and these Specifications. Utility work by others includes all installation, service connections and disconnections. The Contractor shall perform utility support work including scheduling work by others; erosion, sediment, and pollution control; excavation, backfill, surveying, and traffic maintenance. After utility work by others is complete the Contractor shall commence remaining contract work.

### **CONTACTS, NOTIFICATIONS, AND SCHEDULING**

**688-1.02 UTILITY NOTIFICATION AND CONTACT INFORMATION.** The Contractor shall work through the Engineer to establish initial contact and coordination with each utility to develop a utility installation schedule.

Contact information for the Utilities:

HEA (Homer Electric Association)

Name of Contact	James Cress
Title	Engineer
Address	3977 Lake Street, Homer, Alaska 99603-7680
Cell Phone	(907) 398-1485
Desk Phone	(907) 283-2336
Email	<a href="mailto:jamesc@homerelectric.com">jamesc@homerelectric.com</a>

Name of Contact	Karla Appelhans
Title	Engineering Services Representative
Address	280 Airport Way, Kenai, Alaska 99611-5280
Cell Phone	(907) 283-5831
Desk Phone	(907) 283-2310
Email	<a href="mailto:kappelhans@homerelectric.com">kappelhans@homerelectric.com</a>

Name of Contact	Chris Edgar
Title	Engineering Services Supervisor
Address	3977 Lake Street, Homer, Alaska 99603-7680
Cell Phone	(907) 398-7831
Desk Phone	(907) 283-2350
Email	<a href="mailto:cedgar@homerelectric.com">cedgar@homerelectric.com</a>

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### **688-1.03 SCHEDULING AND COORDINATING THE UTILITY WORK BY OTHERS.**

Prior to commencing Utility related ground breaking activities the Contractor shall develop a detailed schedule for the complete installation of all utility work. The Contractor shall develop and maintain the schedule based on information provided by the Utilities. Develop and furnish a project schedule identifying utility support work in accordance with subsections 105-1.06 and 108-1.03. The schedule shall be incorporated into the CPM schedule and updated as required.

The Contractor shall work with the Engineer and Utilities to develop two week look ahead schedules. The Contractor's Superintendent, or Engineer approved designee, shall be the singular point of contact for coordinating scheduling with the Engineer. Two week look ahead schedules shall be submitted to the Engineer on a weekly basis and in sufficient detail to plan any supplemental needs for traffic maintenance, Storm water management, surveying support, and/or other activities authorized by the Engineer through directive.

The Contractor shall ensure that support work and coordination with the Utilities is performed in a manner that limits utility outages and outage durations. The Contractor shall expect longer utility outages will be scheduled during non-peak hours and anticipate performing support activities during these times which may include night and weekend work.

Each Utility has determined the timeframes that their utility relocation work is anticipated to take place, see section 651 Control of Work – Supplemental Requirements for these timeframes. These general work timeframes are subject to change.

**688.2.03 PHASING UTILITY AND REMAINING CONTRACT WORK.** Once utility relocation work is complete the Contractor shall submit a request for approval to commence the remaining contract work to the Engineer, in writing. If the utility work is complete, the Department will issue a Notice to Proceed (NTP) for the remaining contract work.

Prior to utility work being complete for the entire project work area, the Contractor may submit written request to the Engineer for specific segments of the work area to be evaluated for a limited release allowing commencement of remaining contract work in a specifically approved location. If the requested work area will not impact the ongoing utility relocation, the Department may issue a Limited Notice to Proceed (LNTP) for the location requested.

## **CONSTRUCTION REQUIREMENTS**

**688.3.01 WORK BY THE UTILITIES.** The Utilities will perform installation of permanent utilities and removal or abandonment of utilities that are decommissioned in accordance with the Utility Agreements and dispositions completed between the Department and each Utility.

**688-3.02 WORK BY THE CONTRACTOR SUPPORTING THE UTILITIES.** The Contractor shall perform support work to facilitate Utilities performing their work. The Contractor's Superintendent, or designee approved by the Engineer, shall be onsite at all times utility work by others is occurring.

**688-4.01 METHOD OF MEASUREMENT.** Utility support will be measured in accordance with the directive authorizing the work.

**688-5.01 BASIS OF PAYMENT.** The Contractor shall provide all work necessary to support installation of permanent utilities by others. Payment for utility support work by the Contractor shall be paid on a Time and Material Basis in accordance with subsection 109-1.05 and the directive that authorizes the work.

Erosion, Sediment, and Pollution Control work in support of Utilities will be paid for under Section 641.

Surveying in support of Utilities will be paid for under item 642.0003.0000 Three Person Survey Party.

Traffic Maintenance in support of Utilities will be paid for under Section 643.

Utility Support Price Adjustment. The total value of this contract will be adjusted by \$1,500 per calendar day for failure to provide the utility support or scheduling of utility work.

Payment shall be made under:

<b>PAY ITEM</b>		
<b>Item Number</b>	<b>Item Description</b>	<b>Unit</b>
688.0000.0001	Utility Support	CS
688.1000.0000	Utility Support Price Adjustment	CS

(01/04/24)PARKS-Special Provision

**SECTION 702  
ASPHALT MATERIALS**

Replace Subsection 701-2.01 with the following:

**702-2.01 ASPHALT BINDER.** Meet AASHTO M 320 or M 332 for the specified Performance Grade, except as indicated in Table 702-2.01-1 Exceptions to Performance-Graded Binder Specifications.

**TABLE 702-2.01-1  
EXCEPTIONS TO PERFORMANCE GRADED ASPHALT BINDER SPECIFICATIONS**

Performance Grade	AASHTO Specification	Viscosity AASHTO T 316	MSCR, AASHTO T 350			PAV, Dynamic Shear AASHTO T 315	Direct Tension AASHTO T 314
			$J_{NR3.2}$ kPa <sup>-1</sup>	$J_{NR}$ Diff	% Recovery <sup>3</sup> 2		
PG 52-28	M 320	None	—	—	—	None	Delete
PG 52-34 E	M 332	None	None	Delete	60 min.	None	Delete
PG 58-28 E	M 332	None	None	Delete	60 min.	None	Delete
PG 58-34 V	M 332	None	None	Delete	60 min.	None	Delete
PG 64-28 E	M332	None	None	Delete	60 min.	None	Delete
PG 52-40 E	M 332	None	None	Delete	75 min.	None	Delete
PG 58-34 E	M 332	None	0.25 max.	Delete	85 min.	None	Delete
PG 64-40 E	M 332	1 Pa•s max.	0.10 max.	Delete	95 min.	5000 max. @ 4°C	Delete

None indicates no exceptions from the listed test. Delete indicates this property is not required from the listed test.

Use asphalt binders without re-refined engine oil bottoms (REOB)/vacuum tower extenders (VTAE) as a modifier. REOB/VTAE are materials as defined in the Asphalt Institute document IS-235. Furnish a certificate of compliance according to Subsection 106-1.05.1 certifying that REOB/VTAE were not used as a modifier of asphalt binder.

HSM20.44-23.0801

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**702-2.03 EMULSIFIED ASPHALT.**

Replace item 1. with the following:

1. Cationic Emulsified Asphalt. Meet AASHTO M 208, except CRS-2P meet AASHTO M316.

HSM20.32-21.1231

**702-2.07 WARM MIX ASPHALT (WMA).** Add the following to Table 702-3:

<b>WMA Technology</b>	<b>Process Types</b>	<b>WMA Supplier</b>
AD-here ULTRA 1	Chemical Additive	Arkema – Road Science
Cecabase RT	Chemical Additive	Arkema – Road Science

HSM20.44-23.0801

**SECTION 703  
AGGREGATES**

**703-2.03 AGGREGATE FOR BASE AND SURFACE COURSE.**

In Table 703-1 replace the line for Degradation Value with the following:

**TABLE 703-1  
AGGREGATE QUALITY PROPERTIES FOR BASE AND SURFACE COURSE**

PROPERTY	BASE COURSE	SURFACE COURSE	TEST METHOD
<b>Micro-Deval</b>	15%, max.	15%, max.	AASHTO T 327

HSM20.40-050122

Replace Subsection 703-2.04 with the following:

**703-2.04 AGGREGATE FOR HOT MIX ASPHALT.** Process and crush aggregate that is free from clay balls, organic matter, other deleterious material, and not coated with dirt or other finely divided mineral matter. Aggregate used must consist of sound, tough, durable rock of uniform quality.

Remove all natural fines passing a No. 4 sieve before crushing aggregates for Type IV, and VH mixes.

Coarse Aggregate. Aggregate retained on the No. 4 Sieve.

Meet Table 703-3 requirements:

**TABLE 703-3  
COARSE AGGREGATE QUALITY FOR HMA**

Description	Specification	Type II, Class A	Type I; Type II, Class B; Type III	Type IV	Type VH
<b>LA Wear, % max.</b>	AASHTO T 96	45	45	45	45
<b>Micro-Deval, % max.</b>	AASHTO T 327	18	18	18	18
<b>Sodium Sulfate Loss, % max. (5 cycles)</b>	AASHTO T 104	9	9	9	9
<b>Fracture, % min.</b>	ATM 305	90, 2 face	80, 1 face	90, 2 face	98, 2 face

<b>Flat-Elongated Pieces, % max.</b>	ATM 306				
<b>1:5</b>		8	8	8	8
<b>Absorption, % max.</b>	ATM 308	2.0	2.0	2.0	2.0
<b>Nordic Abrasion, % max.</b>	ATM 312	-	-	-	8 <sup>a</sup>

a. Hard Aggregate that meets the Nordic Abrasion values specified may be obtained from, but not limited to, the following sources:

- MS 52-068-2, located at MP 217 on the Parks Highway near Cantwell
- Alaska Lime Co, Jim Caswell, located at MP 216.5 on the Parks Highway near Cantwell
- CalPortland plants located in Dupont Washington
- Jack Cewe Ltd located in Coquitlam British Columbia, Canada

Fine Aggregate. Aggregate passing the No. 4 sieve.

Aggregate shall meet the quality requirements of AASHTO M 29, including S1.1, Sulfate Soundness.

Aggregate for Type II, Class A mix shall not contain more than 10% natural fines (blend sand and mineral filler) added to the crushed aggregate, and shall not exhibit rut depth larger than 1/4-inch, as determined by ATM 419.

Fine aggregate for Type IV and VH mixes:

- do not blend back natural sand
- shall be non-plastic as determined by ATM 205
- shall have a minimum uncompacted void content (Fine Aggregate Angularity) determined by AASHTO T 304, Method A, of 45%

**TABLE 703-4**  
**BROAD BAND GRADATIONS FOR HOT MIX ASPHALT AGGREGATE**  
Percent Passing by Weight

SIEVE	GRADATION				
	Type I	Type II	Type III	Type IV	Type VH
<b>1 inch</b>	100	-	-	-	-
<b>3/4 inch</b>	80-90	100	-	-	100
<b>1/2 inch</b>	60-84	77-99	100	100	65-90
<b>3/8 inch</b>	48-78	68-88	80-90	80-95	55-80
<b>No. 4</b>	28-63	48-68	44-81	55-70	40-60

<b>No. 8</b>	14-55	33-53	26-70	35-50	≤ 45
<b>No. 16</b>	9-44	20-40	16-59	20-40	≤ 35
<b>No. 30</b>	6-34	14-30	9-49	15-30	≤ 25
<b>No. 50</b>	5-24	9-21	6-36	10-24	≤ 20
<b>No. 100</b>	4-16	6-16	4-22	5-15	≤ 12
<b>No. 200</b>	4-7	3-6	4-7	4-7	4-7

CR703.1-050122

**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

CR703.1-050122

**703-2.13 STRUCTURAL FILL.** Replace Table 703-12 with the following:

**TABLE 703-12  
AGGREGATE GRADATION FOR STRUCTURAL FILL**

<b>SIEVE</b>	<b>PERCENT PASSING BY WEIGHT</b>
3-inch	100
3/4-inch	75-100
No. 4	20-55
No. 200	0-6

CR703.1-050122

**SECTION 712  
MISCELLANEOUS**

**712-2.08 GLASS BEADS.**

Replace the 2<sup>nd</sup> sentence with the following:

Glass Beads shall contain no more than 200 ppm of lead or 200 ppm of arsenic when tested in accordance with EPA testing methods 3052, 6020B, or 6020C.

HSM20.35-123121

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:

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- 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).

CR724-113020

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 3 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**

<b>Soil pH</b>	<b>Limestone, tons/acre</b>
Above 6.0	0
5.0-6.0	1.5
Below 5.0	3.0

CR726-20.0101R

Replace Section 727 with the following:

## **SECTION 727 SOIL STABILIZATION MATERIAL**

**727-2.00 GENERAL.** Free of restricted and prohibited noxious weeds (11 AAC 34), seeds, chemical printing ink, germination and growth inhibitors, herbicide residue, chlorine bleach, (except where specified: rock, metal, plastics) and other deleterious materials and not harmful to plants, animals and aquatic life. Wood cellulose "paper" fiber, wood chips, sawdust, and hay are not permitted as stand-alone stabilization materials.

**727-2.01 MULCH.** Flexible blanket/covering, temporary degradable (bio/photo) form of erosion control. Use one of the following:

**Dry Erosion Control, Stabilization Products.** Hand applied or spread with mulch blower equipment.

1. Straw. Use straw, in an air-dried condition, from oats, wheat, rye, barley, or other approved grain crops that are free from noxious weeds, seeds, mold, or other materials detrimental to plant life. Straw material shall be certified weed-free straw using North American Invasive Species Management Association (NAISMA) Standards. In-lieu of certified weed-free straw provide documentation that the material is steam or heat treated to kill seeds or provide U.S. or state's department of agriculture laboratory test reports, dated within 90 days prior to the date of application showing that there are no viable seeds in the straw.
2. Shredded Bark Mulch. Shredded bark and wood with the following characteristics:
  - a. Not containing resin, tannin, or other compounds in quantities harmful to plant life.
  - b. Maximum length of individual pieces is 2 inches with 75% passing through a 1 inch sieve.
  - c. Will form a uniform ground cover/mat, have moisture absorption, retention, and percolation properties, not be susceptible to spreading by wind or rain providing a good growth medium.
  - d. May contain up to 50% shredded wood material.
  - e. Shredded wood material aged 1 year minimum prior to use.

**Hydraulic Erosion Control Products (HECPs)** Applied hydraulically.

A fiber mulch matrix: biodegradable and composed of wood, straw, coconut and other fibers natural and man-made. When applied, create a continuous, porous, absorbent high water holding, flexible blanket/mat/mulch/covering making intimate contact with, and adhering to sloped soil surface; permitting water infiltration; resists erosion and promotes rapid germination and accelerated plant growth. The fibers may be thermally processed, and cross-linked with a hydro-colloidal or linear anionic tackifier (curing period 24-48 hours) or mechanically-bonded (no curing period). When agitated in slurry tanks with

water the fibers will become uniformly suspended, without clumping to form homogeneous slurry.

The HECPs shall be delivered premixed by the manufacturer. The HECP will contain only the materials provided in the sealed containers from the manufacturer. No added components are permitted after the manufacturer seals the product container, before application, during application or otherwise. Submit documentation dated within 3 years of application, from an independent accredited laboratory as approved by the Engineer, showing that the product's testing performance meets the requirements for the slope(s) to be protected on the project, according to the National Transportation Product Evaluation Program (NTPEP), Erosion Control Technology Council (ECTC) and or the Texas DOT/Texas Transportation Institute (TTI) Laboratory.

If the HECP contains cotton or straw provide documentation that the material is certified weed free using NAISMA Standards. In-lieu of certified weed-free straw, provide documentation that the material is steam or heat treated to kill seeds or provide U.S. or state's department of agriculture laboratory test reports, dated within 90 days prior to the date of application showing that there are no viable seeds in the straw.

The HECP shall contain a dye to facilitate placement and inspection of the material.

1. Wood Strand, Fiber.

A blend of angular, loose, long thin wood pieces with a high length to width ratio and that are frayed. Minimum 95% of strands between 2 inches and 10 inches, at least 50% of the length shall have a width thickness between 1/16 and 1/8 inch. No single strand shall have a width or thickness greater than 1/2 inch. Processed wood fiber with the following characteristics:

- a. Will remain in uniform suspension in water under agitation and will blend with grass seed, fertilizer and other additives to form homogeneous slurry.
- b. Will form a blotter-like uniform ground cover on application, have moisture absorption, retention and percolation properties, the ability to cover, and hold grass seed in contact with soil, and not create a hard crust upon drying providing a good growth medium.

2. Dried Peat Moss. Partially decomposed fibrous or cellular stems and leaves of any of several species of Sphagnum mosses with the following characteristics:

- a. Chopped or shredded to allow distribution through normal hydraulic type seeding equipment and capable of being suspended in water to form part of a homogeneous slurry.
- b. Free from woody substances and mineral matter such as sulfur or iron and with a pH value of between 4.0 and 6.5.
- c. Furnished in an air dry condition and containing less than 35% moisture by weight. Have a water holding capacity of not less than 800% by weight on an oven dry basis.

3. Fiber Matrix (FM) Mulch - Types.

- a. Stabilized Mulch Matrices (SMMs)
- b. Bonded Fiber Matrices (BFMs)
- c. Mechanical Bonded Fiber Matrix (MBFM)
- d. Polymer Stabilized Fiber Matrix (PSFM)
- e. Fiber Reinforced Matrices (FRMs)
  - Flexible Growth Medium (FGM)
  - Extended-Term Flexible Growth Medium (ET-FGM)

**727-2.02 MATTING.** Fiber mulches, mulch matrices, nets and turf reinforcement mats manufactured from wood fibers, straw, jute, coir, polyolefins, PVC, nylon and others creating dimensionally stable nets, meshes, geotextiles and blankets; creating a continuous, porous, absorbent, flexible blanket/mat/mulch/covering making intimate contact with and adhering to sloped soil surface, resisting erosion and promoting rapid germination and accelerated plant growth.

**Rolled Erosion Control Products (RECPs)** (Temporary Degradable and Permanent Erosion Control)

Use RECPs that bear the Quality and Date Oversight and Review (QDOR) Seal from the ECTC. Independent test results from the NTPEP, that the mulch, when tested according to ASTM 6459 Standard Test Method for Determination of Rolled Erosion Control Products (RECP), Performance in Protecting Hillslopes from Rainfall-Induced Erosion, meets the performance requirement using the Revised Universal Soil Loss Equation (RUSL).

Functional Longevity.

1. Temporary Degradable.

a. Duration.

1) Short-Term RECPs. (RECPs 3 - 12 months)

C<sub>Factor</sub> = .15 maximum

Test Soil Type = Sandy Loam

(National Resources Conservation Service (NCRS) Soil Texture Triangle)

2) Moderate (Extended) -Term RECPs. (RECPs 24 months)

C<sub>Factor</sub> = .05 maximum

Test Soil Type = Sandy Loam (NCRS Soil Texture Triangle)

3) Long-Term RECPs. (RECPs 36 months)

C<sub>Factor</sub> = .01 maximum

Test Soil Type = Sandy Loam (NCRS Soil Texture Triangle)

b. Product types.

- 1) Mulch-Control Nets (MCNs). Planar woven natural fiber or extruded geosynthetic mesh used to anchor loose fiber matting/mulches.
- 2) Erosion Control Blankets (ECBs). Processed natural and/or polymer fibers, yarns or twines mechanically, structurally, or chemically bound together to form a continuous matrix with a minimum weight of 8 oz/yd<sup>2</sup> and a limiting shear stress of 0.45 lb/ft<sup>2</sup>.
- 3) Netless. Fibers mechanically interlocked and/or chemically adhered together.
- 4) Single-net and Double-net. Fibers mechanically bound together by single or double netting.
- 5) Open Weave Textiles (OWTs). Fibers woven into a continuous matrix.

c. Materials.

- 1) Burlap. Standard weave with a weight of 3.5 to 10 oz/yd<sup>2</sup>.
- 2) Jute Mesh Fabric. Cloth of a uniform, open, plain weave of undyed and unbleached single jute yarn. Use yarn that is loosely twisted and not varying in thickness more than one-half its normal diameter. Furnish jute mesh in rolled strips meeting the following requirements:
  - a) Width: 45 to 48 inches,  $\pm 1$  inch
  - b) 78 warp-ends per width of cloth (minimum)
  - c) 41 weft-ends per yard (minimum)
  - d) Weight: 20 ounces per linear yard,  $\pm 5\%$
- 3) Woven Paper or Sisal Mesh Netting. Woven from twisted yarns available in rolls 45 to 48 inches wide. Mesh may vary from closed to open weave, ranging from 1/8 to 1/4 inch openings. Shrinkage after wetting may not exceed 20% of the surface area.
- 4) Knitted Straw Mat. Commercially manufactured ECB. Use photodegradable netting and biodegradable thread. Use straw, in an air-dried condition, from oats, wheat, rye, barley, or other approved grain crops that are 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), and in conjunction with North American Invasive Species Management Association (NAISMA) standards, and free of mold, or other objectionable materials detrimental to plant life. 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 products manufactured in Alaska In-lieu of certified weed-free straw, provide documentation that the material is steam or heat treated to kill seeds or provide U.S. or state's department of

agriculture laboratory test reports, dated within 90 days prior to the date of application showing that there are no viable seeds in the straw. Non-certified straw or straw products manufactured in another state, country, or territory shall not be used. ECB may contain coconut or fiber to reinforce the straw.

- 5) Woven/Curled Wood blanket. Machine produced mat of curled wood shavings with a minimum of 80% 6-inch or longer fibers, with consistent thickness and the fibers evenly distributed over the entire area of the blanket. Smolder resistant without the use of chemical additives. Cover the top side of the blanket with biodegradable extruded plastic mesh.
- 6) Coconut (Coir Fiber). Machine produced mat, ECB of consistent thickness and coir fiber evenly distributed over the area of the mat. Use bio/photo degradable netting and thread.

## 2. Permanent.

### a. Product Types and Materials.

- 1) Turf Reinforcement Mats (TRMs). A rolled erosion control product composed of non-degradable synthetic fibers, filaments, nets, wire mesh, and/or other elements, processed into a permanent, three-dimensional matrix of sufficient thickness with a minimum weight of 8 oz/yd<sup>2</sup> and a minimum limiting shear stress of 1.5 lb/ft<sup>2</sup>. TRMs (may be supplemented with degradable components) shall impart immediate erosion protection, enhance vegetation establishment during and after maturation and permanent vegetation reinforcement providing long-term functionality.

**727-2.03 SEDIMENT RETENTION FIBER ROLLS (SRFRs)**. Fiber rolls also referred to as wattles. Manufacture of photodegradable or biodegradable fabric netting without preservative treatment, evenly woven, free of crusted material, cuts, and tears. Manufacture stakes of photodegradable or biodegradable material (wood stakes, except as approved by the Engineer).

### 1. Filter Sock (Wattle)

- a. Fabric netting.
- b. Filled with wood fiber, straw, flax, rice, coconut fiber material.
- c. Minimum diameter 5 inches.

### 2. Compost Sock.

- a. Extra Heavy weight fabric netting with a minimum strand width of 5 mils.
- b. Filled with coarse compost.
- c. Minimum diameter 8 inches.

### 3. Coir Log.

- a. Woven wrap bristle coir twine netting.

- b. Filled with 100% coconut (coir) fiber uniformly compacted.
- c. Segments maximum length 20 foot, diameter as suited to the application and a density of 7 lbs/pcf or greater.
- d. Coir twine strength equal to 80 lb minimum weaved to a 2 inch x 2 inch opening pattern.
- e. Ties made of hemp rope by 1/4 inch diameter.

**727-2.04 COMPOST.** Suitable for serving as a soil amendment or an erosion control material. Sanitized, mature compost meeting local, state, and Federal quality requirements tested and certified by the U.S. Composting Council (USCC) under the Seal of Testing Assurance (STA) Program. Biosolids compost must meet the Standards for Class A biosolids outlined in 40 Code of Federal Regulations (CFR) Part 503. Additionally, meet the requirements of the AASHTO specifications:

1. Compost Blankets. Standard Practice for Compost for Erosion/Sediment Control (Compost Blankets) R 52.
2. Compost Filter Berms and Filter Socks. Standard Practice for Compost for Erosion/Sediment Control (Filter Berms and Filter socks) R 51.

**727-2.05 TACKIFIER.** Tackifier, viscous overspray, generally composed of dry powered vegetable gums derived from guar gum, psyllium and sodium alginase; asphaltic emulsions; petroleum distillates; co-polymer emulsions; and lignosulfonates and used to anchor soil, compost, seed, the mulch fibers to one another, and the ground. Contain no growth or germination inhibiting materials nor significantly reduce infiltration rates. Tackifier shall hydrate in water and readily blend with other slurry material. Tackifier options include:

1. Type A. Organic tackifier with certification of plant sources; or
2. Type B. Synthetic tackifier with certification confirming product is not harmful to plants, animals, or aquatic life.

**727-2.06 POLYACRYLAMIDE (PAM).** Use as a tie-down for soil, compost, seed and as a flocculent. Polyacrylamide (PAM) products shall meet the requirements of American National Standards Institute (ANSI)/National Sanitation Foundation International (NSF) Standard 60 for drinking water treatment, be anionic (not cationic), linear and not cross-linked with an average molecular weight greater than 5 Mg/mole, minimum 30 percent charge density; contain at least 80% active ingredients and a moisture content not exceeding 10% by weight.

Deliver PAM in a dry granular powder or liquid form.

**727-2.07 GEOTEXTILE-ENCASED CHECK DAM AND SEDIMENT BARRIER.** Urethane foam core encased in geotextile material (silt fence material Section 633), minimum 8 inches height by minimum base width of 16 inches by minimum 7 foot length.



**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.

CR730.1-062204

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):

<b>Manufacturer</b>	<b>Model</b>	<b>Type</b>	<b>Contact</b>
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.

CR730.2-122217

# APPENDIX A

## PERMITS

PERMIT DESCRIPTION	ISSUE DATE	EXPIRE DATE
NONE	N/A	N/A

# **APPENDIX B**

## **SURVEY REQUIREMENTS**

1. Alaska Construction Surveying Requirements (US Customary Units)



**Alaska  
Department of  
Transportation  
and  
Public Facilities**

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**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

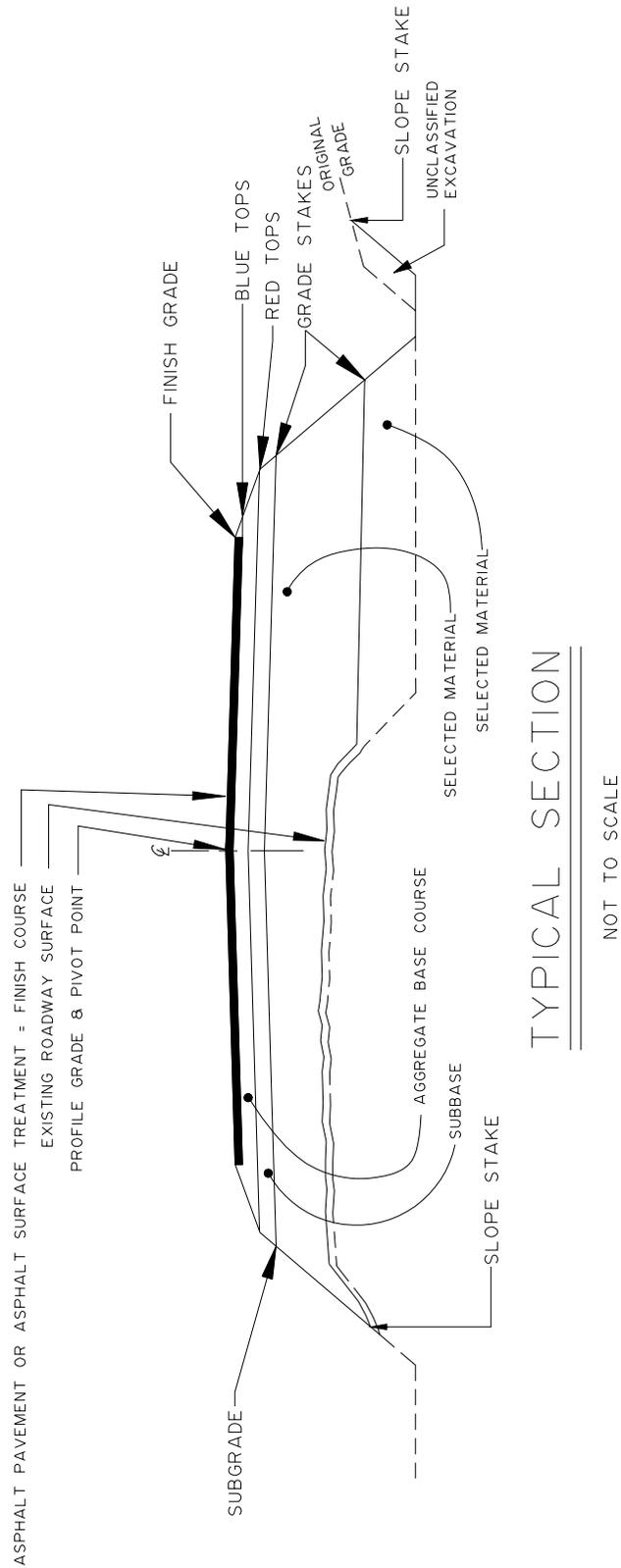
**Table 2—Survey frequency requirements (in feet)**

	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.

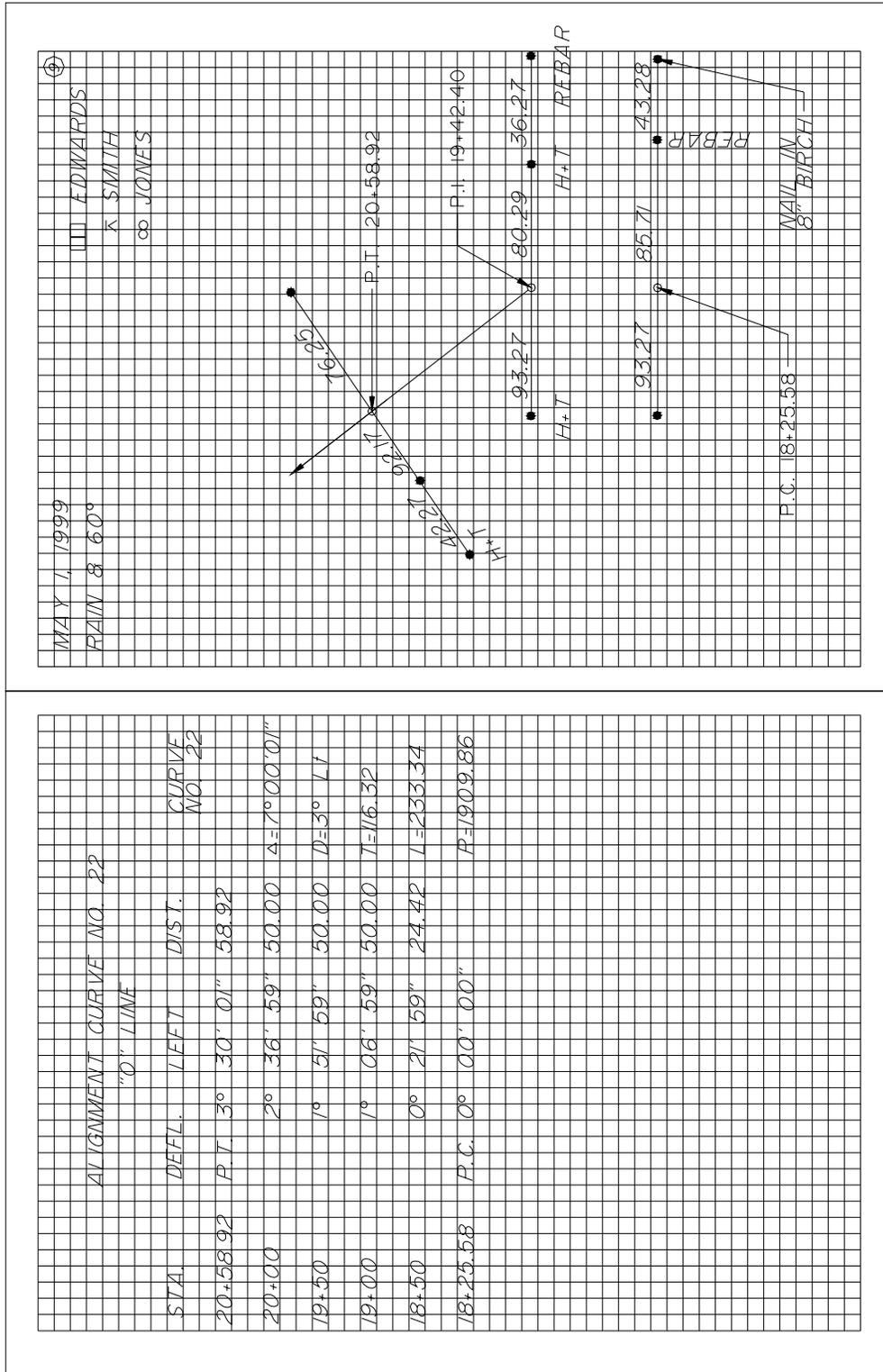
**Table 3—Survey point materials requirements**

	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.

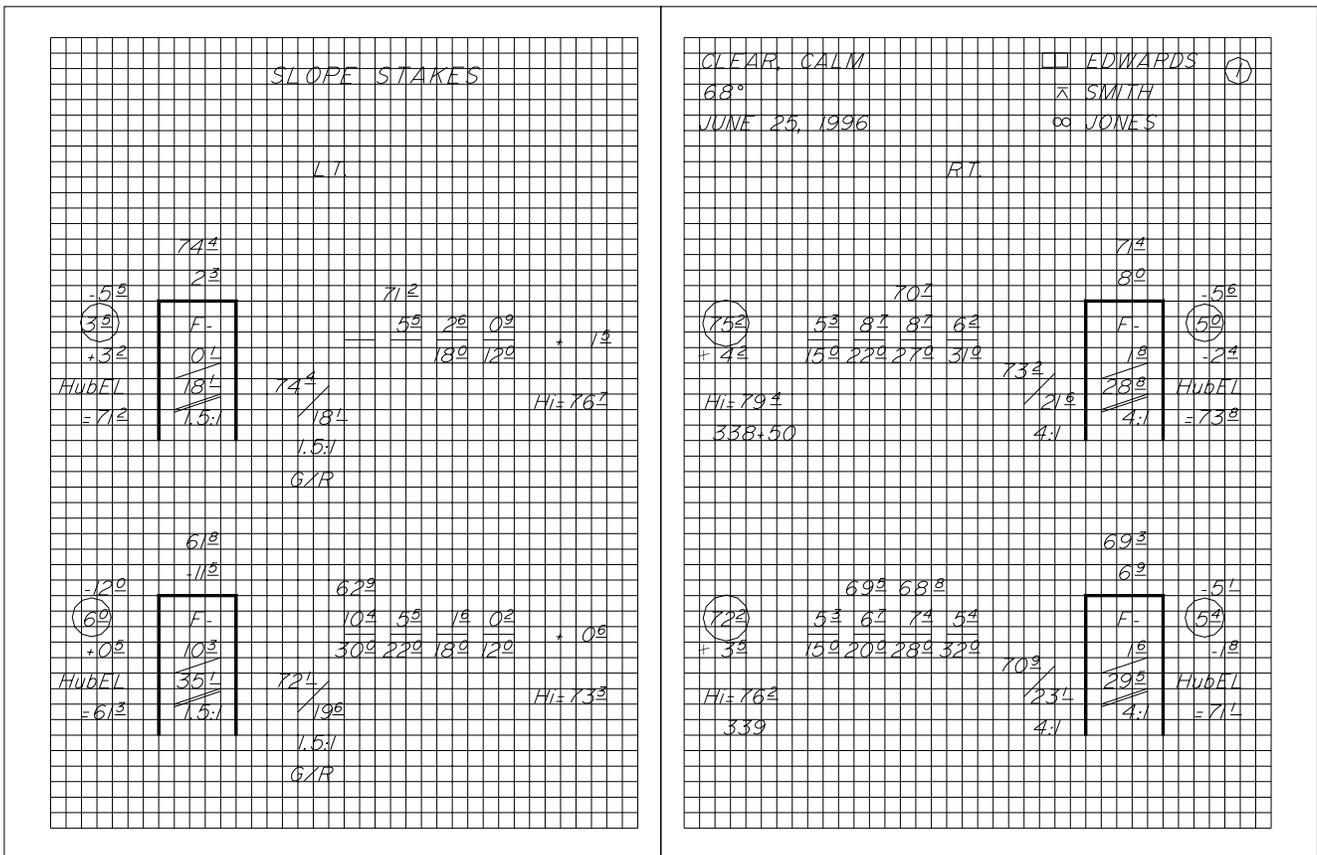






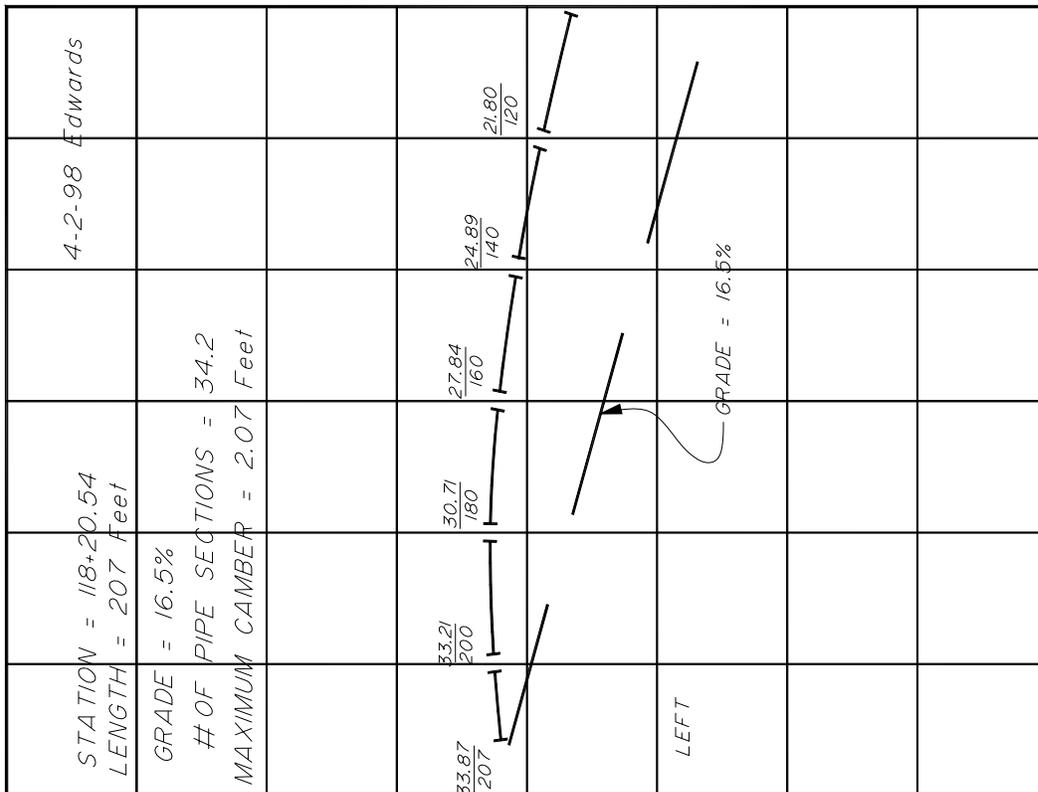
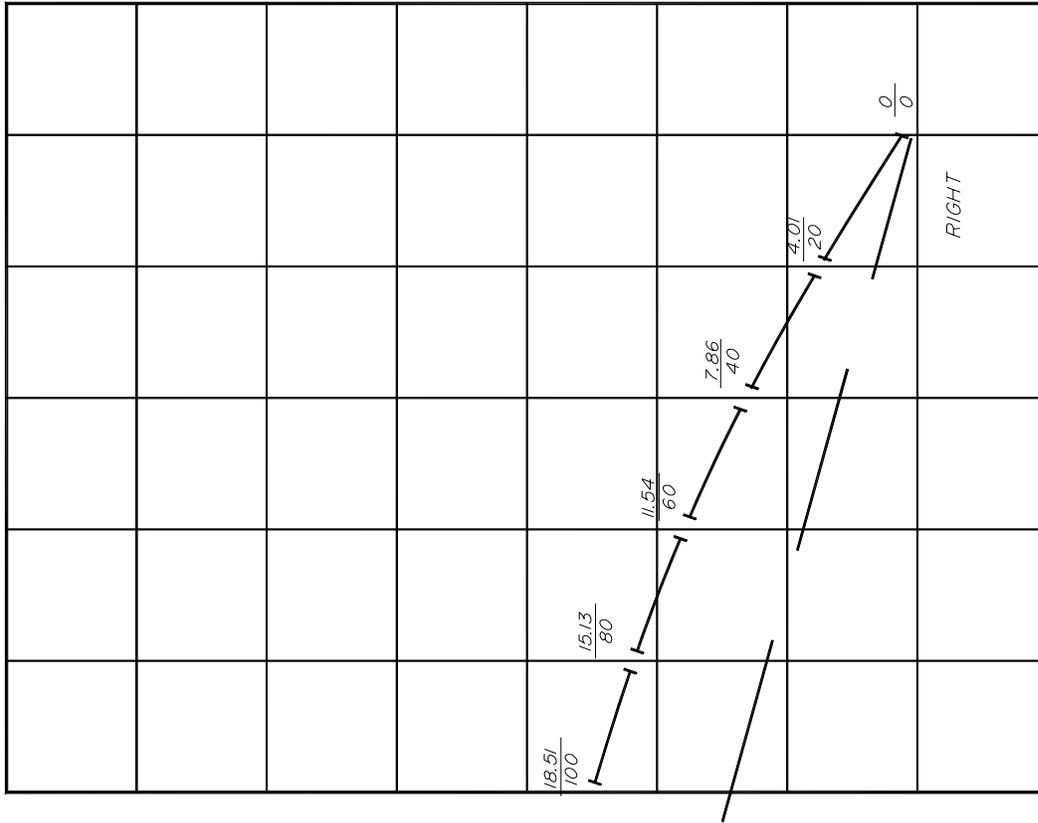
## 7. Typical slope stake notes

- ✓ 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.



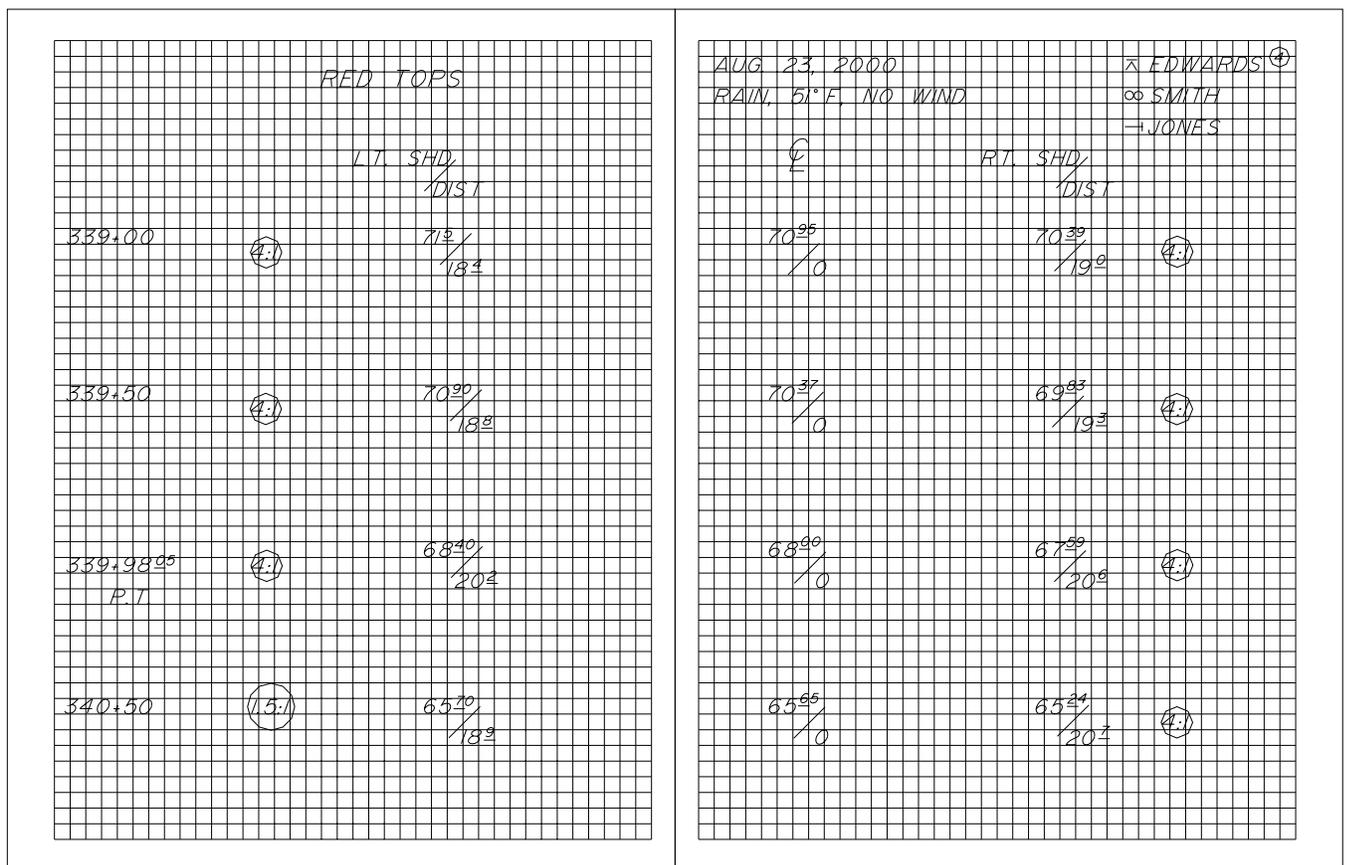


# 9. Typical culvert camber diagram



## 10. Typical blue or red tops and grade stake notes

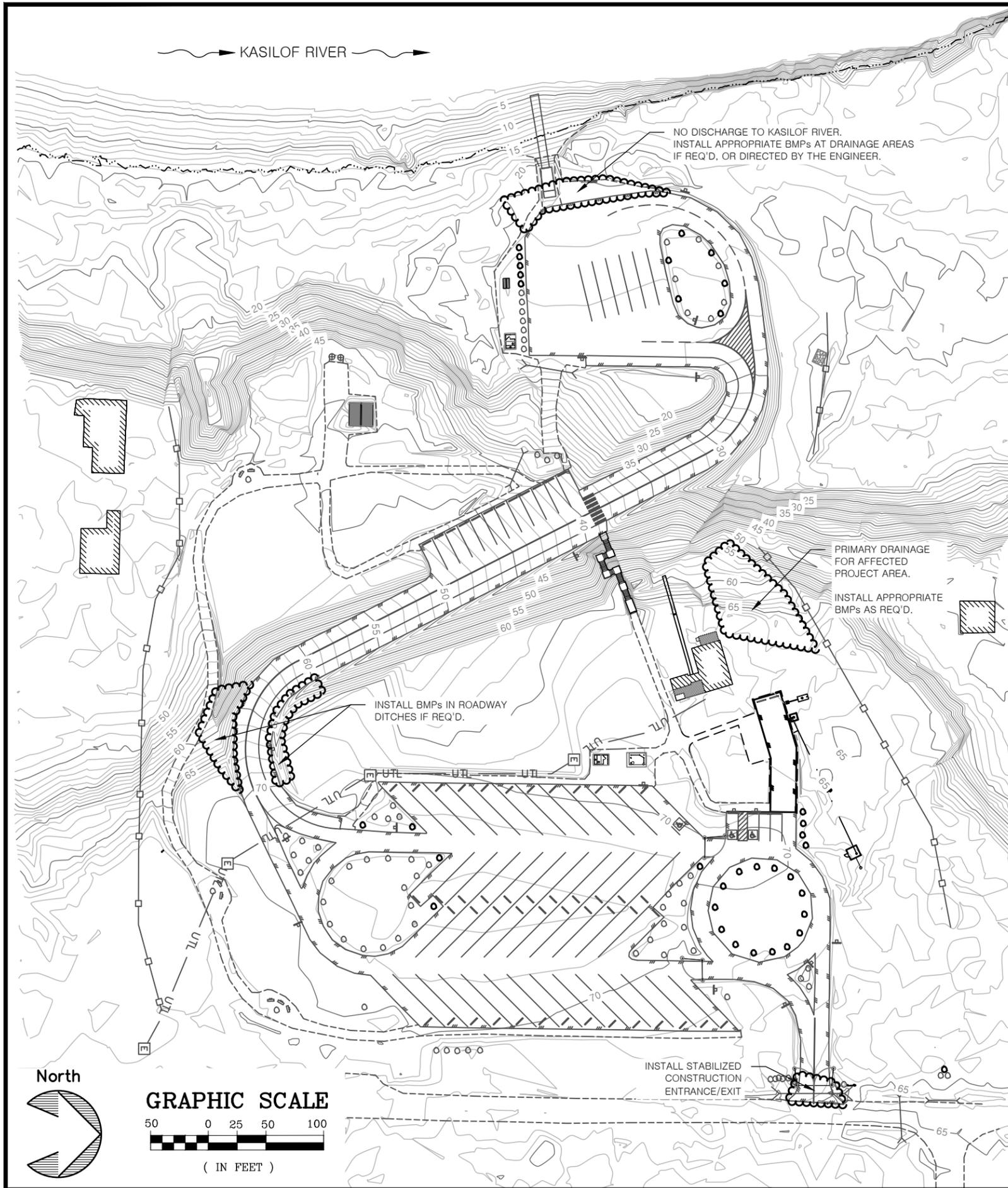
- ✓ Place blue and red tops at each break in typical section and on centerline.
- ✓ Use blue tops for top of base course.
- ✓ Use red tops for the bottom of the base course.
- ✓ Evenly space red/blue tops at and between crown section break points with a maximum spacing of 25 feet between red/blue tops.
- ✓ 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: OLD KASILOF LANDING STATE RECREATION SITE
2. THIS PROJECT INCLUDES EARTHWORK (EXCAVATION AND EMBANKMENT CONSTRUCTION), PAVING, INSTALLATION OF PARK FACILITIES.
3. PROJECT AREA: 4,000 SQUARE FEET
4. PROJECT DISTURBED AREA: 3,500 SQUARE FEET
5. PERCENT IMPERVIOUS AREA BEFORE CONSTRUCTION: 0%
7. PERCENT IMPERVIOUS AREA AFTER CONSTRUCTION: 83%
8. RUNOFF COEFFICIENT BEFORE CONSTRUCTION: 0.55
9. RUNOFF COEFFICIENT AFTER CONSTRUCTION: 0.85
10. MATERIAL SITES: BORROW, TYPE A MATERIAL AND OTHERS WILL BE OBTAINED FROM CONTRACTOR FURNISHED SITES.
11. EXISTING SOILS CONSIST OF SOLDOTNA SILT LOAM, CLUNIE PEAT, AND TYPIC CRYAQUENTS

**ENVIRONMENTAL INFORMATION:**

1. RECEIVING WATER BODIES: KASILOF RIVER
2. IMPAIRED WATER BODIES: NONE
3. TOTAL MAXIMUM DAILY LOAD (TMDL) WATERS: N/A
4. THREATENED AND ENDANGERED SPECIES (ESA): NONE
5. HISTORIC IMPACTS: HISTORICAL TRUJILLO PROPERTY
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. HAULING, GRADING, COMPACTING, AND STOCKPILING MATERIAL
3. CONSTRUCTING FACILITY HOST SITE
4. INSTALL AMENITIES AND PARK FACILITIES
5. 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 CONTROL 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

OLD KASILOF LANDING SRS  
 FACILITY HOST SITE  
 PROJECT No. 73032-2

EROSION SEDIMENT CONTROL PLAN  
 (ESCP)



PREPARED: DKM  
 DRAWN: DKM  
 REVIEWED: RCS  
 DATE: 02/2026

SHEET  
**1**  
 OF 1 SHEETS

**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:** Old Kasilof Landing SRS

**Facility Host Site, PJ#:** 73032-2

## MASTER MATERIAL CERTIFICATION LIST

**Project Engineer Signature:**

**203 BORROW, TYPE A**

Borrow, Type A	203.0005.000A						
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**301 AGGREGATE BASE COURSE, GRADING D-1**

Aggregate Base Course, Grading D-1	301.0001.00D1						
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**401 HOT MIX ASPHALT, TYPE II, CLASS B**

Hot Mix Asphalt, Type II, Class B	401.0001.200B						
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**618 SEEDING**

Seeding	618.0002.0000						
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**620 TOPSOIL, CLASS B**

Topsoil, Class B	620.0001.000B						
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**622 PARK FACILITIES**

Concrete Parking Bumper	622.2016.0000						
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Barrier Rock	622.2017.0000						
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Removeable Barrier Post	622.2024.0000						
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Well House	622.2105.0000						
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Waterline Pipe	622.2106.0000						
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RV Hose Bib	622.2107.0000						
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RV Power Station Pedestal	622.2108.0000						
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**626 WASTEWATER HOLDING TANK**

Wastewater Holding Tank	626.2100.0000						
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**627 WELL**

Well Drilling	627.2101.0000						
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Well Casing	627.2102.0000						
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Well Drop Pipe	627.2103.0000						
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Well Pump and Controls	627.2104.0000						
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**630 GEOTEXTILE**

Geotextile Separation, Class 3	630.0001.0003						
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**641 EROSION SEDIMENT AND POLLUTION CONTROL**

Erosion, Sediment and Pollution Control	641.0002.0000						
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**687 HDPE INNERDUCT INSTALLTION**

1.25-Inch HDPE Innerduct	687.0000.0001						
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Junction Box, Type A	687.0000.0001						
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**670 TRAFFIC MARKINGS**

Traffic Markings	670.0001.0000						
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