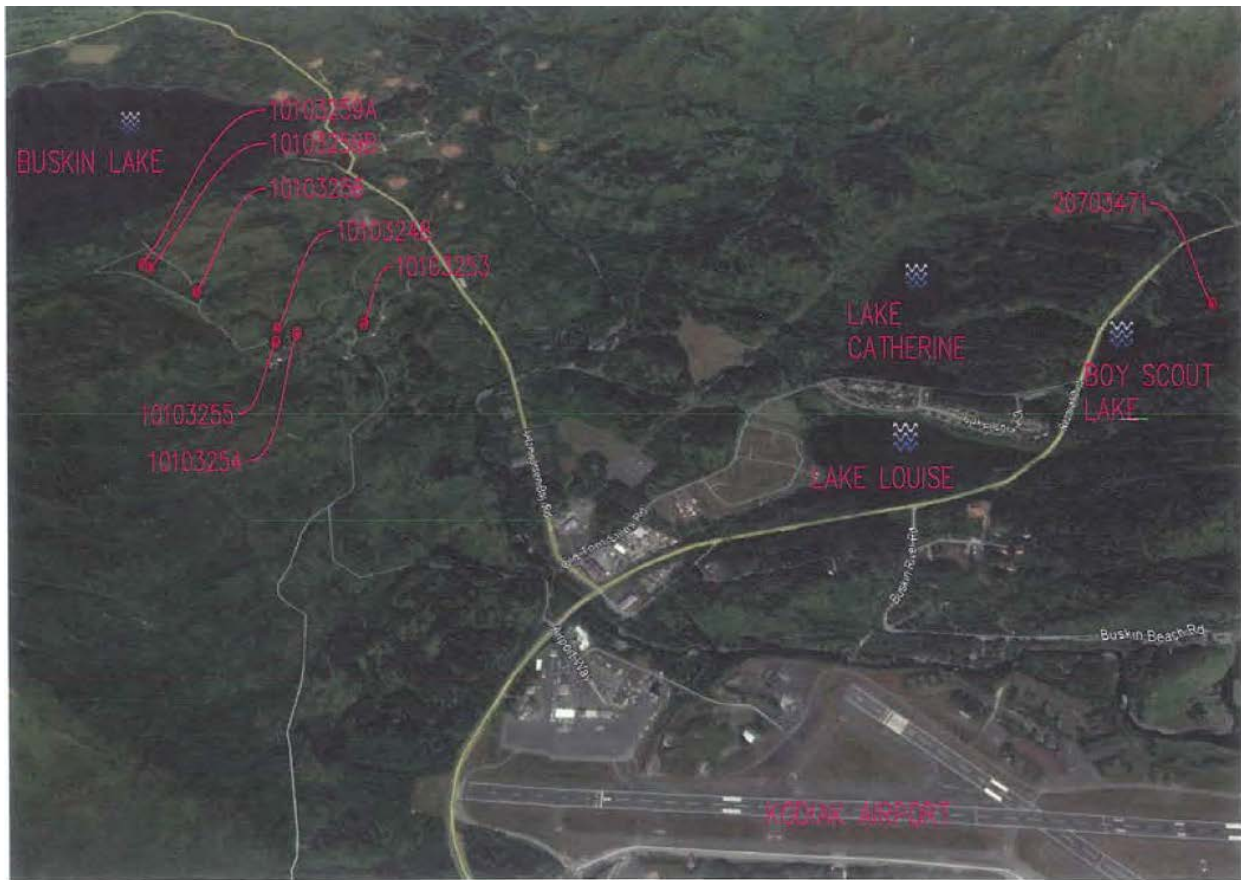


Invitation to Bid 10-004-19



Kodiak Island Habitat Enhancement Project – Magazine Area

Kodiak Soil and Water Conservation District
Department of Natural Resources

March 15, 2019



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N/A

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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 FOR BIDS
for Construction Contract

Date **March 15, 2019**

Kodiak Island Habitat Enhancement Project – Magazine Area (10-004-19)

Project Name and Number

Location of Project: **Kodiak, Alaska**

Contracting Officer: **Marlys Hagen, DNR Procurement Officer**

Issuing Office: **Department of Natural Resources**

State Funded ☐

Federal Aid ☒

Description of Work:

The contractor is to supply all labor, equipment, and supplies to complete work at seven (7) locations on Kodiak Island. The culverts will be provided by Kodiak Soil and Water Conservation District, all other material shall be provided by the contractor. The scope of work requires demolition of existing culverts and installation of the (provided) new aluminum structural plate box culverts and / or pipe culverts.

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 **September 30, 2020**.

Interim Completion dates, if applicable, will be shown in the Special Provisions.

Bidders are invited to submit sealed bids, in single copy, for furnishing all labor, equipment, and materials and for performing all work for the project described above. Bids will be opened publicly at 2:00 PM local time, at 550 W. 7th Ave., Suite 1330; Anchorage, AK 99501 on the 11th of April 2019.

SUBMISSION OF BIDS

ALL BIDS INCLUDING ANY AMENDMENTS OR WITHDRAWALS MUST BE RECEIVED PRIOR TO BID OPENING. BIDS SHALL BE SUBMITTED ON THE FORMS FURNISHED AND MUST BE IN A SEALED ENVELOPE MARKED AS FOLLOWS:

Bid for Project:
Kodiak Soil and Water Conservation District
Magazine Area Culvert Replacements
(10-004-19)

ATTN:
Marlys Hagen
Department of Natural Resources
550 West 7th Avenue, Suite 1330
Anchorage, AK 99501-3571

Bids, amendments or withdrawals transmitted by mail must be received at the above specified address no later than 30 minutes prior to the scheduled time of bid opening. Hand-delivered bids, amendments or withdrawals must be received at the above specified address prior to the scheduled time of bid opening. Faxed bid amendments must be addressed to the above specific address. Fax number: (907) 269-8909.

A bid guaranty is required with each bid in the amount of 5% of the amount bid. (Alternate bid items as well as supplemental bid items appearing on the bid schedule shall be included as part of the total amount bid when determining the amount of bid guaranty required for the project.)

The Department hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this Invitation, Disadvantaged Business Enterprises (DBEs) 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

Bidders are hereby notified that data to assist in preparing bids is available as follows:

Bidders are advised that this project utilizes the 2017 English Edition of the Standard Specifications for Highway Construction. This document can be downloaded at: <http://www.dot.state.ak.us/stwddes/dcsspecs/index.shtml#>

Plans and Specifications may be requested via email from marlys.hagen@alaska.gov.
For additional information contact:

Marlys Hagen
Department of Natural Resources
550 West 7th Avenue, Suite 1330
Anchorage, AK 99501-3571

All questions relating to design features, constructability, quantities, or other technical aspects of the project should be directed to the following. Bidders requesting assistance in viewing the project must make arrangements at least 48 hours in advance with: Marlys Hagen, Department of Natural Resources

Marlys Hagen
Department of Natural Resources
550 West 7th Avenue, Suite 1330
Anchorage, AK 99501-3571
Ph: (907) 269-8666 / Fax: (907) 269-8909
TDD/TTY: (907) 269-8411

All questions concerning bidding procedures should be directed to:

Marlys Hagen
Department of Natural Resources
550 West 7th Avenue, Suite 1330
Anchorage, AK 99501-3571
Ph: (907) 269-8666 / Fax: (907) 269-8909
TDD/TTY (907) 269-8411



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

REQUIRED DOCUMENTS

Federal-Aid Contracts

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 Form (Form 25D-9)**
 2. **Bid Schedule**
 3. **Bid Security**
 4. Any bid revisions must be submitted by the bidder prior to bid opening on the following form:
Bid Modification (Form 25D-16)
-

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

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

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-10A)**
2. **Payment Bond (Form 25D-12)**
3. **Performance Bond (Form 25D-13)**
4. **Contractor's Questionnaire (25D-8)**
5. **Certificate of Insurance** (from carrier)
6. **EEO-1 Certification (Form 25A-304)**
7. **Signed Federal Debarment and Certification Form**
8. **Schedule**



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

FEDERAL EEO BID CONDITIONS

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

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

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

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

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

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

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

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

The hours on minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

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

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

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

20. Goal and Timetable

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

ALASKA GOAL AND TIMETABLE FOR WOMEN*

<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

Kodiak Island Habitat Enhancement Project – Magazine Area (10-004-19)

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 day on the fifth working day after receipt of written or verbal notice from the Department.

Failure to submit this form with all required information by the due date will result in the bidder being declared nonresponsive and may result in the forfeiture of 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 greater than ½ of 1% of the contract amount.

OR

☐ Subcontractor List is as follows:

LIST FIRST TIER SUBCONTRACTORS ONLY

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

CONTINUE SUBCONTRACTOR INFORMATION ON REVERSE SIDE

I hereby certify that the listed licenses and registrations were valid at the time bids were received for this project. For contracts involving Federal-aid funding, Alaska Business License and Contractor Registration will be required prior to award of subcontract.

Signature of Authorized Company Representative

Title

Company Name

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

Date

()
Phone Number



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

CONTRACTOR'S QUESTIONNAIRE

Kodiak Island Habitat Enhancement Project – Magazine Area (10-004-19)

Project Name and Number

A. FINANCIAL

1. Have you ever failed to complete a contract due to insufficient resources?

☐ NO

☐ YES

If YES, explain:

2. Describe any arrangements you have made to finance this work: _____

B. EQUIPMENT

1. Describe below the equipment you have available and intend to use for this project:

ITEM	QUAN.	MAKE	MODEL	SIZE / CAPACITY	PRESENT MARKET VALUE

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

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

☐ NO ☐ YES If YES, describe type, quantity, and approximate cost:

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

☐ NO ☐ YES If YES, describe type and quantity:

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

☐ NO ☐ YES If NO, explain:

C. EXPERIENCE

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

☐ NO ☐ YES If YES, explain:

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 & Title of Person Signing

Signature

Date



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BID FORM

for

Kodiak Island Habitat Enhancement Project – Magazine Area (10-004-19)

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 for Bids dated **March 15, 2019**, 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 **USCG Base Kodiak, Kodiak**, Alaska, according to the plans and specifications and for the amount and prices named herein as indicated on the Bid Schedule consisting of **16** 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 Natural Resources 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 **September 30, 2020**, unless extended in writing by the Contracting Officer.

The Undersigned proposes to furnish Payment Bond in the amount of **50%** (of the contract) and Performance Bond in the amount of **50%** (of the contract), as surety conditioned for the full, complete and faithful performance of this contract.

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

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

NON-COLLUSION DECLARATION

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

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

Signature of Authorized Company Representative

Typed Name and Title

()

Phone Number

()

Fax Number

Email Address



BID SCHEDULE A

STATE OF ALASKA – DEPARTMENT OF NATURAL RESOURCES

Project Name: Kodiak Island Habitat Enhancement Project – Magazine Area – Site 10103248

Project Number: 10-004-19

Before preparing this bid schedule, read carefully, Section 102 of the 2017 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.

Notice: There are multiple bid schedules, one for each site. Bidders must bid on all pay items for all sites in order to be considered responsive. Contract award will be made on the basis of the total basic bid amounts for each site added together to comprise a Total Bid Amount shown on the Summary Bid Schedule on Page 2 of Bid Schedule G.

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

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** BASIC BID *****					
201(1)	Clearing and Grubbing	SY	643	\$	\$
201(6)	Selective Tree Removal	LS	ALL REQ'D	\$	\$
202(1)	Removal of Structures and Obstructions (Debris)	LS	ALL REQ'D	\$	\$
202(4)	Removal of Culvert Pipe	LF	72	\$	\$
203(2)	Bedrock Excavation	CY	115	\$	\$
203(3)	Unclassified Excavation	CY	461	\$	\$
203(5)	Reuse Select Fill Material Type C1	CY	346	\$	\$
203(5)	Borrow Select Fill Material Type C1	CY	212	\$	\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE A

203(5)	Borrow Fill Material (For Stream A, B &C)	CY	1420	\$	\$
204(1)	Select Fill Material Type A1	CY	76	\$	\$
204(1)	Select Fill Material Type A1	CY	76	\$	\$
301(4)	Aggregate Surface Course Grading E-1	CY	313**	\$	\$
602(2)	Install Structural Plate Aluminum Box Culvert - 15'9" Span x 8'0" Rise w/ Solid Invert	LF	63	\$	\$
611(1)	Riprap, Class II	CY	35	\$	\$
618(1)	Seeding (Schedule A)	SY	587	\$	\$
618(3)	Water for Seeding	LS	ALL REQ'D	\$	\$
620(1)	Topsoil, 4"	SY	587	\$	\$
621(1)	Planting Trees	EA	4	\$	\$
640(1)	Mobilization & Demobilization	LS	ALL REQ'D	\$	\$
641(1)	Erosion and Pollution Control Administration	LS	ALL REQ'D	\$	\$
641(3)	Temporary Erosion and Pollution Control	LS	ALL REQ'D	\$	\$
642(1)	Construction Surveying	LS	ALL REQ'D	\$	\$
643(2)	Traffic Maintenance	LS	ALL REQ'D	\$	\$
672(1)	Stream Diversion & Dewatering	LS	ALL REQ'D	\$	\$
690(1)-A	Waterway Bed – Fine Material	CY	120	\$	\$
690(1)-B	Waterway Bed – Coarse Material	CY	157	\$	\$

**INCLUDES ROAD DITCH GRADING

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE A

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
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***** CONTINUE BASIC BID *****

690(1)-C	Waterway Bed – Riprap Class II	CY	45	\$	\$
690(4)	Vegetative Mat (3 ft Wide)	SF	503	\$	\$
BID SCHEDULE A TOTAL BASIC BID					\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE B

STATE OF ALASKA – DEPARTMENT OF NATURAL RESOURCES

Project Name: Kodiak Island Habitat Enhancement Project – Magazine Area – Site 10103253

Project Number: 10-004-19

Before preparing this bid schedule, read carefully, Section 102 of the 2017 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.

Notice: There are multiple bid schedules, one for each site. Bidders must bid on all pay items for all sites in order to be considered responsive. Contract award will be made on the basis of the total basic bid amounts for each site added together to comprise a Total Bid Amount shown on the Summary Bid Schedule on Page 2 of Bid Schedule G.

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

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** BASIC BID *****					
201(1)	Clearing and Grubbing	SY	328	\$	\$
201(6)	Selective Tree Removal	LS	ALL REQ'D	\$	\$
202(1)	Removal of Structures and Obstructions (Debris)	LS	ALL REQ'D	\$	\$
202(4)	Removal of Culvert Pipe	LF	58	\$	\$
203(3)	Unclassified Excavation	CY	377	\$	\$
203(5)	Borrow Select Fill Material Type C1	CY	208	\$	\$
204(1)	Select Fill Material Type A1	CY	29	\$	\$
301(4)	Aggregate Surface Course Grading E-1	CY	47	\$	\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE B

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** CONTINUE BASIC BID *****					
603(9)	Install Corrugated Aluminum Round Pipe Culvert 72 in Diameter, Gage 10	LF	50	\$	\$
611(1)	Riprap, Class II	CY	16	\$	\$
618(1)	Seeding (Schedule A)	SY	153	\$	\$
618(3)	Water for Seeding	LS	ALL REQ'D	\$	\$
620(1)	Topsoil, 4"	SY	153	\$	\$
621(1)	Planting Trees	EA	4	\$	\$
640(1)	Mobilization & Demobilization	LS	ALL REQ'D	\$	\$
641(1)	Erosion and Pollution Control Administration	LS	ALL REQ'D	\$	\$
641(3)	Temporary Erosion and Pollution Control	LS	ALL REQ'D	\$	\$
642(1)	Construction Surveying	LS	ALL REQ'D	\$	\$
643(2)	Traffic Maintenance	LS	ALL REQ'D	\$	\$
672(1)	Stream Diversion & Dewatering	LS	ALL REQ'D	\$	\$
690(1)-A	Waterway Bed – Fine Material	CY	13	\$	\$
690(1)-B	Waterway Bed – Coarse Material	CY	22	\$	\$
690(4)	Vegetative Mat (3 ft Wide)	SF	110	\$	\$
BID SCHEDULE B TOTAL BASIC BID					\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE C
STATE OF ALASKA – DEPARTMENT OF NATURAL RESOURCES

Project Name: Kodiak Island Habitat Enhancement Project – Magazine Area – Site 10103254
Project Number: 10-004-19

Before preparing this bid schedule, read carefully, Section 102 of the 2017 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.

Notice: There are multiple bid schedules, one for each site. Bidders must bid on all pay items for all sites in order to be considered responsive. Contract award will be made on the basis of the total basic bid amounts for each site added together to comprise a Total Bid Amount shown on the Summary Bid Schedule on Page 2 of Bid Schedule G.

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

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** BASIC BID *****					
201(1)	Clearing and Grubbing	SY	1279	\$	\$
201(6)	Selective Tree Removal	LS	ALL REQ'D	\$	\$
202(1)	Removal of Structures and Obstructions (Debris)	LS	ALL REQ'D	\$	\$
202(4)	Removal of Culvert Pipe	LF	32	\$	\$
203(2)	Bedrock Excavation	CY	122	\$	\$
203(3)	Unclassified Excavation	CY	690	\$	\$
203(5)	Reuse Select Fill Material Type C1	CY	467	\$	\$
203(5)	Borrow Select Fill Material Type C1	CY	196	\$	\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE C

204(1)	Select Fill Material Type A1	CY	76	\$	\$
301(4)	Aggregate Surface Course Grading E-1	CY	180	\$	\$
602(2)	Install Structural Plate Aluminum Box Culvert - 15'9" Span x 8'0" Rise w/ Solid Invert	LF	63	\$	\$
611(1)	Riprap, Class II	CY	175***	\$	\$
618(1)	Seeding (Schedule A)	SY	1237	\$	\$
618(3)	Water for Seeding	LS	ALL REQ'D	\$	\$
620(1)	Topsoil, 4"	SY	1237	\$	\$
621(1)	Planting Trees	EA	4	\$	\$
640(1)	Mobilization & Demobilization	LS	ALL REQ'D	\$	\$
641(1)	Erosion and Pollution Control Administration	LS	ALL REQ'D	\$	\$
641(3)	Temporary Erosion and Pollution Control	LS	ALL REQ'D	\$	\$
642(1)	Construction Surveying	LS	ALL REQ'D	\$	\$
643(2)	Traffic Maintenance	LS	ALL REQ'D	\$	\$
672(1)	Stream Diversion & Dewatering	LS	ALL REQ'D	\$	\$
690(1)-A	Waterway Bed – Fine Material	CY	82	\$	\$
690(1)-B	Waterway Bed – Coarse Material	CY	117	\$	\$
690(1)-C	Waterway Bed – Riprap Class II	CY	21	\$	\$
690(4)	Vegetative Mat (3 ft Wide)	SF	170	\$	\$
BID SCHEDULE C TOTAL BASIC BID					\$

***INCLUDES ROAD ARMOR

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE D

STATE OF ALASKA – DEPARTMENT OF NATURAL RESOURCES

Project Name: Kodiak Island Habitat Enhancement Project – Magazine Area – Site 10103255

Project Number: 10-004-19

Before preparing this bid schedule, read carefully, Section 102 of the 2017 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.

Notice: There are multiple bid schedules, one for each site. Bidders must bid on all pay items for all sites in order to be considered responsive. Contract award will be made on the basis of the total basic bid amounts for each site added together to comprise a Total Bid Amount shown on the Summary Bid Schedule on Page 2 of Bid Schedule G.

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

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** BASIC BID *****					
201(1)	Clearing and Grubbing	SY	318	\$	\$
201(6)	Selective Tree Removal	LS	ALL REQ'D	\$	\$
202(1)	Removal of Structures and Obstructions (Debris)	LS	ALL REQ'D	\$	\$
202(4)	Removal of Culvert Pipe	LF	30	\$	\$
203(2)	Bedrock Excavation	CY	62	\$	\$
203(3)	Unclassified Excavation	CY	311	\$	\$
203(5)	Reuse Select Fill Material Type C1	CY	187	\$	\$
203(5)	Borrow Select Fill Material Type C1	CY	283	\$	\$

**** INCLUDES PARKING PAD AND BUNKER ROAD

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE D

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
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***** CONTINUE BASIC BID *****

204(1)	Select Fill Material Type A1	CY	54	\$	\$
301(4)	Aggregate Surface Course Grading E-1	CY	298****	\$	\$
602(2)	Install Structural Plate Aluminum Box Culvert - 13'3" Span x 6'9" Rise w/ Solid Invert	LF	54	\$	\$
607(4)	Reconstructed Fence	LF	78	\$	\$
607(5)	Drive Gate	EA	1	\$	\$
611(1)	Riprap, Class II	CY	52*****	\$	\$
618(1)	Seeding (Schedule A)	SY	253	\$	\$
618(3)	Water for Seeding	LS	ALL REQ'D	\$	\$
620(1)	Topsoil, 4"	SY	253	\$	\$
621(1)	Planting Trees	EA	4	\$	\$
640(1)	Mobilization & Demobilization	LS	ALL REQ'D	\$	\$
641(1)	Erosion and Pollution Control Administration	LS	ALL REQ'D	\$	\$
641(3)	Temporary Erosion and Pollution Control	LS	ALL REQ'D	\$	\$
642(1)	Construction Surveying	LS	ALL REQ'D	\$	\$
643(2)	Traffic Maintenance	LS	ALL REQ'D	\$	\$
672(1)	Stream Diversion & Dewatering	LS	ALL REQ'D	\$	\$
690(1)-A	Waterway Bed – Fine Material	CY	49	\$	\$
690(1)-B	Waterway Bed – Coarse Material	CY	67	\$	\$

*****INCLUDES BERM

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE D

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** CONTINUE BASIC BID *****					
690(1)-C	Waterway Bed – Riprap Class II	CY	5	\$	\$
690(4)	Vegetative Mat (3 ft Wide)	SF	590	\$	\$
BID SCHEDULE D TOTAL BASIC BID					\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE E
STATE OF ALASKA – DEPARTMENT OF NATURAL RESOURCES

Project Name: Kodiak Island Habitat Enhancement Project – Magazine Area – Site 10103256

Project Number: 10-004-19

Before preparing this bid schedule, read carefully, Section 102 of the 2017 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.

Notice: There are multiple bid schedules, one for each site. Bidders must bid on all pay items for all sites in order to be considered responsive. Contract award will be made on the basis of the total basic bid amounts for each site added together to comprise a Total Bid Amount shown on the Summary Bid Schedule on Page 2 of Bid Schedule G.

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

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** BASIC BID *****					
201(1)	Clearing and Grubbing	SY	861	\$	\$
201(6)	Selective Tree Removal	LS	ALL REQ'D	\$	\$
202(1)	Removal of Structures and Obstructions (Debris)	LS	ALL REQ'D	\$	\$
202(4)	Removal of Culvert Pipe	LF	27	\$	\$
203(3)	Unclassified Excavation	CY	458	\$	\$
203(5)	Reuse Select Fill Material Type C1	CY	321	\$	\$
203(5)	Borrow Select Fill Material Type C1	CY	594	\$	\$
204(1)	Select Fill Material Type A1	CY	26	\$	\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE E

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** CONTINUE BASIC BID *****					
301(4)	Aggregate Surface Course Grading E-1	CY	124	\$	\$
603(9)	Install Corrugated Aluminum Round Pipe Culvert 84 in Diameter, Gage 8	LF	47	\$	\$
611(1)	Riprap, Class II	CY	21	\$	\$
618(1)	Seeding (Schedule A)	SY	615	\$	\$
618(3)	Water for Seeding	LS	ALL REQ'D	\$	\$
620(1)	Topsoil, 4"	SY	615	\$	\$
621(1)	Planting Trees	EA	4	\$	\$
640(1)	Mobilization & Demobilization	LS	ALL REQ'D	\$	\$
641(1)	Erosion and Pollution Control Administration	LS	ALL REQ'D	\$	\$
641(3)	Temporary Erosion and Pollution Control	LS	ALL REQ'D	\$	\$
642(1)	Construction Surveying	LS	ALL REQ'D	\$	\$
643(2)	Traffic Maintenance	LS	ALL REQ'D	\$	\$
672(1)	Stream Diversion & Dewatering	LS	ALL REQ'D	\$	\$
690(1)-A	Waterway Bed – Fine Material	CY	17	\$	\$
690(1)-B	Waterway Bed – Coarse Material	CY	28	\$	\$
690(4)	Vegetative Mat (3 ft Wide)	SF	604	\$	\$
BID SCHEDULE E TOTAL BASIC BID					\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE F

STATE OF ALASKA – DEPARTMENT OF NATURAL RESOURCES

Project Name: Kodiak Island Habitat Enhancement Project – Magazine Area – Site 10103259 A & B

Project Number: 10-004-19

Before preparing this bid schedule, read carefully, Section 102 of the 2017 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.

Notice: There are multiple bid schedules, one for each site. Bidders must bid on all pay items for all sites in order to be considered responsive. Contract award will be made on the basis of the total basic bid amounts for each site added together to comprise a Total Bid Amount shown on the Summary Bid Schedule on Page 2 of Schedule G.

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

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** BASIC BID *****					
201(1)	Clearing and Grubbing	SY	839	\$	\$
201(6)	Selective Tree Removal	LS	ALL REQ'D	\$	\$
202(1)	Removal of Structures and Obstructions (Debris)	LS	ALL REQ'D	\$	\$
202(4)	Removal of Culvert Pipe	LF	29	\$	\$
203(2)	Bedrock Excavation	CY	85	\$	\$
203(3)	Unclassified Excavation	CY	114	\$	\$
203(5)	Reuse Select Fill Material Type C1	CY	119	\$	\$
203(5)	Borrow Select Fill Material Type C1	CY	611	\$	\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE F

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** CONTINUE BASIC BID *****					
204(1)	Select Fill Material Type A1	CY	64	\$	\$
301(4)	Aggregate Surface Course Grading E-1	CY	177	\$	\$
603(9)	Install Corrugated Aluminum Round Pipe Culvert 48 in Diameter, Gage 12	LF	101	\$	\$
611(1)	Riprap, Class II	CY	39	\$	\$
611(1)	Riprap, Class III	CY	116	\$	\$
618(1)	Seeding (Schedule A)	SY	153	\$	\$
618(3)	Water for Seeding	LS	ALL REQ'D	\$	\$
620(1)	Topsoil, 4"	SY	153	\$	\$
621(1)	Planting Trees	EA	4	\$	\$
640(1)	Mobilization & Demobilization	LS	ALL REQ'D	\$	\$
641(1)	Erosion and Pollution Control Administration	LS	ALL REQ'D	\$	\$
641(3)	Temporary Erosion and Pollution Control	LS	ALL REQ'D	\$	\$
642(1)	Construction Surveying	LS	ALL REQ'D	\$	\$
643(2)	Traffic Maintenance	LS	ALL REQ'D	\$	\$
BID SCHEDULE F TOTAL BASIC BID					\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE G
STATE OF ALASKA – DEPARTMENT OF NATURAL RESOURCES

Project Name: Kodiak Island Habitat Enhancement Project – Magazine Area – Site 20703471

Project Number: 10-004-19

Before preparing this bid schedule, read carefully, Section 102 of the 2017 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.

Notice: There are multiple bid schedules, one for each site. Bidders must bid on all pay items for all sites in order to be considered responsive. Contract award will be made on the basis of the total basic bid amounts for each site added together to comprise a Total Bid Amount from the Summary Bid Schedule on Page 2 of this Schedule G.

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

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** BASIC BID *****					
201(1)	Clearing and Grubbing	SY	254	\$	\$
201(6)	Selective Tree Removal	LS	ALL REQ'D	\$	\$
202(1)	Removal of Structures and Obstruction (Debris)	LS	ALL REQ'D	\$	\$
202(4)	Removal of Culvert Pipe	LF	38	\$	\$
203(3)	Unclassified Excavation	CY	135	\$	\$
618(3)	Water for Seeding	LS	ALL REQ'D	\$	\$
620(1)	Topsoil, 4"	SY	181	\$	\$
621(1)	Tree planting (Sitka Spruce)	EA	16	\$	\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



BID SCHEDULE G

640(1)	Mobilization & Demobilization	LS	ALL REQ'D	\$	\$
641(1)	Erosion and Pollution Control Administration	LS	ALL REQ'D	\$	\$
641(3)	Temporary Erosion and Pollution Control	LS	ALL REQ'D	\$	\$
642(1)	Construction Surveying	LS	ALL REQ'D	\$	\$
690(4)	Vegetative Mat (3 ft Wide)	SF	331	\$	\$
BID SCHEDULE G TOTAL BASIC BID					\$

NOTE: Bidders should enter the Total Basic Bid Amounts from all the Bid Schedules below, and total those amounts to reflect a Total Bid Amount.

SUMMARY BID SCHEDULE

Schedule ID	Total Basic Bid
Schedule A	\$
Schedule B	\$
Schedule C	\$
Schedule D	\$
Schedule E	\$
Schedule F	\$
Schedule G	\$
Total Bid Amount	\$

BID SCHEDULE

Kodiak Island Habitat Enhancement Project – Magazine Area

Project No. 10-004-19

Name of Bidding Firm _____



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

CONSTRUCTION CONTRACT

Kodiak Island Habitat Enhancement Project – Magazine Area (10-004-19)

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.

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: **September 30, 2020** 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 (See Section 108-1.07) dollars (\$ 550) 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 \$_____ Payment Bond, and \$_____ 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

Email Address

Date

(Corporate Seal)

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES

Design & Construction Duly Authorized Representative (Signature)

Date

Typed Name

Signature of Contracting Officer

Date

Typed Name



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

PAYMENT BOND

Bond No. _____

For

Kodiak Island Habitat Enhancement Project – Magazine Area (10-004-19)

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

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

Kodiak Island Habitat Enhancement Project – Magazine Area (10-004-19)
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

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

Kodiak Island Habitat Enhancement Project – Magazine Area (10-004-19)

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 (minimum 5% of the amount of the bid), 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)

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

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

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

INSTRUCTIONS

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



Kodiak Island Habitat Enhancement Project – Magazine Area (10-004-19)

Modification Number: _____

Changes to the adjusted bid amounts will be computed by the Department.

TOTAL REVISION: \$ _____

Responsible Party Signature

This form may be duplicated if additional pages are needed.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

EEO-1 CERTIFICATION
Federal-Aid Contracts

Kodiak Island Habitat Enhancement Project – Magazine Area (10-004-19)

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

**Certification Regarding Debarment, Suspension, Ineligibility
and Voluntary Exclusion
Lower Tier Covered Transactions**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 29 CFR Part 98, Section 98.510, Participant's responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211).

**(BEFORE COMPLETING CERTIFICATION, READ THE INSTRUCTIONS ON THE
FOLLOWING PAGE WHICH ARE AN INTEGRAL PART OF THE CERTIFICATION)**

The prospective recipient of Federal assistance funds certifies, by submission of this bid, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Where the prospective recipient of Federal assistance funds is unable to certify to any of the Statements in this certification, such prospective participant shall attach an explanation to this Proposal.

Name and Title of Authorized

Representative:_____.

Signature:_____

Date:_____.

1. Is this company enrolled in the Federal System for Awards Management (SAM)? YES
NO

2. If Yes, please provide either the DUNS Number _____ **or** the Cage Code
_____.

3. If No, the company must be enrolled in SAM before a contract can be signed or payment made on a contract involving Federal funds. Failure to do so will result in cancellation of the contract.

Instructions for Certification

1. By signing and submitting this Proposal, the prospective recipient of Federal assistance funds is providing the certification as set out below.
2. The certification in this class is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of Federal assistance funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Department of Labor (DOL) may pursue available remedies, including suspension and/or debarment.
3. The prospective recipient of Federal assistance funds shall provide immediate written notice to the person to whom this Proposal is submitted if at any time the prospective recipient of Federal assistance funds learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "Proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this Proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective recipient of Federal assistance funds agrees by submitting this Proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the DOL.
6. The prospective recipient of Federal assistance funds further agrees by submitting this Proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to check the List of Parties Excluded from Procurement or Non-procurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the DOL may pursue available remedies, including suspension and/or debarment.

Bid Package 2 – 100% Review

KODIAK SOIL AND WATER CONSERVATION DISTRICT BID PACKAGE # 2 *Kodiak Island Habitat Enhancement Project*

GENERAL REQUIREMENTS

Scope of work

The contractor is to supply all labor, equipment, materials (excluding culverts), and supplies to complete work at eight (8) locations on Kodiak Island. The scope of work requires demolition of existing culverts and installation of new aluminum structural plate box culverts and/or pipe culverts.

All construction shall be completed in accordance with the Alaska Department of Transportation and Public Facilities (ADOT&PF) Standard Specifications for Highway Construction (SSHC) 2017 Edition. Project specific special provisions are provided in the following sections. The requirements contained in the standard specifications and special provisions are hereby made a part of this solicitation and resultant contract.

<u>Locations</u>			
Stream Name	ADFG Number	Latitude	Longitude
Tributary to Battery Creek	10103248	N57.76681	W152.53416
Tributary to Battery Creek	10103253	N57.76713	W152.52919
Tributary to Battery Creek	10103254	N57.76668	W152.53295
Tributary to Battery Creek	10103255	N57.76621	W152.53395
Tributary to Battery Creek	10103256	N57.76832	W152.53971
Tributary to Battery Creek	10103259A	N57.76954	W152.54372
Tributary to Battery Creek	10103259B	N57.76940	W152.54319
Tributary to Boy Scout Lake	20703471	N57.76800	W152.47860

Contractor is to provide resources to complete this project without any adjustments in the original bid amount or contract time.

All work below the ordinary high-water mark will be completed between May 1 and July 30, 2020 for sites 10103248, 10103254 and 10103255. There will be no timing window for work below the ordinary high-water mark for other sites. Construction at sites 20703471, 10103253 and 10103256 shall be completed prior to September 30, 2019. Sites 10103259A and 10103259B may be completed either in 2019 or 2020. All construction activities will be completed by September 30, 2020.

Permits

The Kodiak Soil and Water Conservation District has obtained the following permits:

- ACOE wetland permit 404

Bid Package 2 – 100% Review

- DNR water use permit
- ADFG habitat permit

The contractor is required to obtain:

- Alaska Digline dig permit
- USCG dig permit
- ADFG fish collection permit
- ADEC SWPPP Permit

If more than one (1) acre of land is disturbed in cumulative, the contractor shall obtain (the latest version) Construction General Permit, develop a SWPPP based on that permit and submit a Notice of Intent to the Alaska Department of Environmental Conservation (ADEC).

The contractor is to coordinate with Kodiak Soil and Water Conservation District to obtain any remaining permits or transferring existing permits to the contractor.

Utility Locates

Contractor shall verify that no underground utilities are present at the site. Before any excavation begins on USCG property, the Contractor shall obtain and fully execute a USCG digging permit. The form requires a minimum of 2 weeks lead time and extensive coordination with several base agencies. The Contractor is required to furnish all locations, with detailed information and sketches regarding any proposed excavation(s). A USCG digging permit covers USCG utilities only and the contractor is required to coordinate with other local utilities and other agencies as appropriate. A separate request for each planned excavation is required; each phase of processing the form and its attachments shall be completed at least 48 hours prior to commencing work involving that phase. This form can be obtained from the USCG dig permit coordinator, Stan Skaw, stan.r.skaw@uscg.mil, 907-487-5192, or Joe Symonoski, joseph.j.symonoski@uscg.mil, 907-539-1474. In addition, the contractor shall request utility locates from the utilities having facilities in the area by using the Alaska Digline, Inc. Locate Call Center.

Road and Trail closures

The magazine area road may be closed for construction at the project sites. Access to the magazine area shall be maintained using an existing alternate road located 500 feet north of the existing access road. The contractor shall move barriers and provide signage to direct traffic during construction. Submit a traffic control plan to the USCG and the engineer for approval per specifications section 643.

The access trail to site 20703471 known as the “Boy Scout Walking Trail” may be closed for up to 30 days during construction. Provide detour signage and barriers during construction. Submit a separate traffic control plan to the engineer for approval per specifications section 643.

Equipment shall be washed each time prior to mobilization to ensure that the spread of invasive species is minimized.

Contractor shall notify the Alaska Department of Fish and Game and the Engineer a minimum of 72 hours prior to:

Bid Package 2 – 100% Review

- Prior to the initial excavation at the start of the project.
- Diverting stream flows into a temporary diversion channel or culvert.
- Placement of new culverts to allow for inspection of bedding materials and finish grade.
- Back fill of culvert above the spring line to verify the invert elevations.
- Placement of materials within the newly constructed channel to allow for inspection of the subgrade and fill material.
- Re-watering of the new stream bed (diverting stream flows into the constructed channel).

A representative from the Alaska Department of Fish and Game shall be given the opportunity to be onsite during stream diversion and dewatering of the constructed channel to relocate trapped fish. If the Alaska Department of Fish and Game declines the opportunity to be onsite, the Contractor is responsible for relocating trapped fish in accordance with the Permits.

KODIAK ISLAND HABITAT ENHANCEMENT PROJECT

STANDARD MODIFICATIONS

TO THE

**ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION
2017 EDITION**

SECTION 101 DEFINITONS AND TERMS

101-1.03 DEFINITIONS.

DEPARTMENT. Replace with the following: The Alaska Department of Natural Resources, Division of Support Services, for the Kodiak Soil & Water Conservation District.

SECTION 105 CONTROL OF WORK

Special Provision

105-1.18 WARRANTIES. Add the following:

If within two years after the date of Project Completion or such longer period of time as may be prescribed by the Contract, any work is found to be defective, the Contractor shall promptly, without cost to the Department and in accordance with the Engineer's written instructions, either correct such defective work, or, if it has been rejected by the Engineer, remove it from the site and replace it with conforming work. If the Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, the Department may have the defective work corrected or the rejected work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by the Contractor.

SECTION 201 CLEARING AND GRUBBING

Special Provision

201-1.01 DESCRIPTION. Add the following:

Selectively cut and remove trees as needed to complete the work. The contractor is to give the Engineer 72-hour notice and cut only the trees approved for removal.

Salvage and stockpile native organic soils and vegetative mat.

Stockpile and test excavated embankment material for reuse in accordance with section 104-1.04 Use of Materials Found on the Site.

201-3.01 GENERAL. Delete the first sentence and add the following.

The contractor will restrict all work to the project limits, excavation limits and clearing limits shown on the drawings.

201-3.02 Clearing Add the following:

The United States Fish and Wildlife Service recommends implementing voluntary timing guidelines that restrict clearing of vegetation during the nesting season for migratory birds from April 15 to July 15. The contractor may not collect birds (live or dead), their parts (e.g., feathers), or nests without a valid permit. Visit the Service permits page for more information on permits and applications:

<https://www.fws.gov/permits/applicationforms/ApplicationLM.html#MBTA>

To report injured or dead birds, call the Sick or Dead Bird Hotline at 1-866-527-3358

The contractor is responsible for completing clearing and grubbing as necessary to finish the project within the permitted time frame. It will be the contractor's responsibility to remove and dispose of all stumps obstructing construction activity (unless the debris are approved to be re-used on the project).

Stump holes outside of structural fill areas shall be backfilled with unclassified material and compacted in 12" lifts with the bucket of the excavator.

Cleared wood and wood debris may be salvaged for reconstruction of banks as directed by and coordinated with the engineer.

The contractor is to remove and dispose of any unused wood and wood debris from the site and reconstruct the bank as directed in the drawings and specifications.

201-3.03 Grubbing Add the following:

Salvage and stockpile for reuse, all the native organic soils and vegetative mats from areas that will be disturbed. Take care not to damage and break apart the vegetative mats. The vegetative mats shall be salvaged during the clearing and grubbing operations. Remove the mat in at least 12-inch wide sections and preserve intact as possible. Additional vegetative mat will be made available offsite if required. If additional vegetative mat is needed the contractor will be allowed to harvest and transport vegetation from an approved offsite location within three miles of the jobsite.

Bid Package 2 – 100% Review

The contractor is to notify the Engineer 72 hours in advance of vegetative mat placement, so arrangements can be made for offsite harvest.

201-5.01 BASIS OF PAYMENT. *Add the following:*

Salvaging/harvesting, stockpiling, transporting and placing native organic soils is subsidiary to Pay Item 620(1) Topsoil. Refer to section 620-3.01.

Pay Item		Pay Unit
201(1)	Clearing and Grubbing	Square Yard
201(6)	Selective Tree Removal	Lump Sum

SECTION 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Special Provision

202-3.01 GENERAL. Add the following

Debris Disposal: The contractor is to remove and dispose of all visible debris within the work areas. The debris is to include all old culverts or other man-made items found within 50 feet of either side of the centerline of the existing stream channel. In addition to the debris found in the work areas at all sites, the debris noted on drawing C-500 in the vicinity of site 20703471 shall be removed. The debris must be removed in its entirety, not just cut off at or below the surface of the ground. All holes resulting from debris removal shall be backfilled with native soils to meet the existing grade line. All debris removed from the site shall be legally disposed of offsite. Much of the work described in this section is out of the limits of excavation and is required to be done by hand. Heavy equipment is not allowed to travel outside of the limits of excavation.

Existing Culvert Pipe: The existing culvert pipes shall be legally disposed of offsite.

Existing Fence: The contractor shall replace any fence that is damaged during any construction activity.

202-5.01 BASIS OF PAYMENT. Add the following:

Removal and reinstallation of riprap boulders are subsidiary to Item 611(1) Riprap Class II and Class III.

Removal, salvage, and reinstallation of signs are subsidiary to item 202(1), Removal of Structures and Obstructions.

Pay Item		Pay Unit
202 (1)	Removal of Structures and Obstructions (Debris)	Lump Sum
202 (4)	Removal of Culvert Pipe	Linear Foot

Bid Package 2 – 100% Review

SECTION 203 EXCAVATION AND EMBANKMENT

Special Provision

203-3.01 GENERAL. Add the following:

Inspect excavation for hazardous conditions before worker entry daily and as conditions change. Inspections are to be completed by a competent person as defined by OSHA.

Delete paragraph 11 and add the following.

The contractor is to test and reuse the existing material in construction if approved by the government representative. If additional material is required, supplement with borrow to maintain the side slopes and elevations as shown on the drawings. Fill all ditches or low areas not required for drainage to prevent ponding. Grade the disturbed areas next to the new channels to drain into the new channels. Grade all other disturbed areas to the approximate original ground contour.

The contractor is to perform a gradation test on the existing embankment material in accordance with ASTM D-422. Density testing will be completed according to ASTM D698 / AASHTO T99 (Proctor Test) or ASTM D1557 / AASHTO T180 Modified Proctor Test.

203-3.02 ROCK EXCAVATION. Delete sentence following title and Add the following:

Excavate rock if required by cutting or ripping or both. Blasting is not allowed.

203-3.03 EMBANKMENT CONSTRUCTION. Delete the first paragraph and add the following:

Prior to any excavation of the existing embankment at or below the existing water level, a cofferdam made out of super sacks shall be installed as shown in the drawings. Use only approved materials in the construction of road embankment and culvert backfills.

Delete the second paragraph and add the following:

Supplemental material for the new embankment will be select material meeting the requirements of Subsection 703-2.07. Select material may be obtained from onsite or borrow sources that have been laboratory tested and meet the gradation requirements.

203-5.01 BASIS OF PAYMENT

Payment will be made under:

Pay Item	Pay Unit
203 (2) Bedrock Excavation	Cubic Yard
203 (3) Unclassified Excavation	Cubic Yard
203 (5) Reuse Select Fill Material Type C1	Cubic Yard
203 (5) Borrow Selected Material Type C1	Cubic Yard
203 (5) Borrow Fill Material (For stream A, B & C)	Cubic Yard

SECTION 204 STRUCTURE EXCAVATION FOR CONDUITS AND MINOR STRUCTURES

Special Provision

204-2.01 MATERIALS. Delete the first 3 sentences and add the following:

Bedding and backfill material around the culvert will be similar to DOT Select Material Type A but with all material passing the 1-inch sieve. This modified Type A mix will be called Select Material Type A1 (see section 703-2.07 this document).

General Backfill will be similar to DOT Select Material Type C but with less than 10% passing the #200 sieve. This modified Type C mix will be called Select Material Type C1 (see section 703-2.07 this document).

Stream Substrate is to be used inside the culvert to the level and thickness shown on the drawings (see section 690 of this document).

204-5.01 BASIS OF PAYMENT. Delete the fourth paragraph and substitute the following:

Any back-fill or bedding material required whose source is other than project excavation will be paid for at the contract price for pay item.

Payment will be made under:

Pay Item		Pay Unit
204 (1)	Select Material Type A1	Cubic Yard

Bid Package 2 – 100% Review

SECTION 301 AGGREGATE BASE AND SURFACE COURSE

301-1.01 DESCRIPTION. Construct an aggregate surface course on an approved foundation, as shown on the Plans. Use E-1 surface course as described in 703-2.

301-5.01 BASIS OF PAYMENT. Water for compaction, added to the aggregate on the grade, is subsidiary.

Pay Item		Pay Unit
301 (4)	Aggregate Surface Course (Grading E-1)	Cubic Yard

SECTION 602 STRUCTURAL PLATE PIPE

Special Provision

602-3.01 Add the following:

The structural plate culverts shall be provided by the Owner. The Contractor shall take delivery of the culvert materials, inventory the materials, on load and offload the materials, transport the materials from a storage area within five miles of the project site, and assemble and install the culverts. Contractor shall store all culvert materials as needed for the duration of the contract. Culverts will meet the American Association of State Highway and Transportation Officials (AASHTO) HS-20 load rating requirements with the minimum and maximum cover requirements shown in the contract drawings. Culvert clear span, rise and gage thickness will be equal to or greater than the minimum specified on the contract documents. The manufacturer will provide instructions and training for proper assembly, construction load limits, and backfill of the culverts.

602-5.01 BASIS OF PAYMENT. Delete the pay item list and substitute the following:

Payment will be made under:

	Pay Item	Pay Unit
602(2)	Install Structural Plate Aluminum Box Culvert 13'-3" Span, 6'-9" Rise with Solid Invert	Linear Foot
602(2)	Install Structural Plate Aluminum Box Culvert 15'-9" Span, 8'-0" Rise with Solid Invert	Linear Foot

Bid Package 2 – 100% Review

SECTION 603 CULVERTS AND STORM DRAINS

Special Provision

603-2.01 Add the following:

The corrugated aluminum pipe culverts shall be provided by the Owner. The Contractor shall take delivery of the culvert materials, inventory the materials, on load and offload the materials, transport the materials from a storage area within five miles of the project site, and assemble and install the culverts. Contractor shall store all culvert materials as needed for the duration of the contract. Culverts will meet the American Association of State Highway and Transportation Officials (AASHTO) HS-20 load rating requirements with the minimum and maximum cover requirements shown in the contract drawings. Culvert diameter and gage thickness will be equal to or greater than the minimum specified on the contract documents. The manufacturer will provide instructions and training for proper assembly, construction load limits, and backfill of the culverts.

603-5.01 BASIS OF PAYMENT.

Payment will be made under:

Pay Item	Pay Unit
603(9) Install Corrugated Aluminum Round Pipe Culvert 84 inch diam., Gage 8 (0.164 inch)	Linear Foot
603(9) Install Corrugated Aluminum Round Pipe Culvert 72 inch diam., Gage 10 (0.135 inch)	Linear Foot
603(9) Install Corrugated Aluminum Round Pipe Culvert 48 inch diam., Gage 12 (0.105 inch)	Linear Foot

Bid Package 2 – 100% Review

SECTION 607 FENCES

607-5.01 BASIS OF PAYMENT.

Payment will be made under:

Pay Item		Pay Unit
607(4)	Reconstructed Fence	Linear Foot
607(5)	Drive Gate	Each

Bid Package 2 – 100% Review

SECTION 611 RIPRAP

Special Provision

611-3.01 CONSTRUCTION REQUIREMENTS. Add the following:

Use riprap to construct revetment to the lines and grades shown in the Plans. Refer to Section 690 Waterway. Use borrow or salvaged organic soil to fill surface and sub-surface voids in the riprap to the satisfaction of the Engineer. Borrow or salvaged organic soil shall not prevent rock to rock contact. Cover riprap with 4" of topsoil and seed.

611-5.01 BASIS OF PAYMENT. Delete Pay Item table and add the following:

Filling voids in riprap with borrow or salvaged organic soils is subsidiary to Pay Item 611(1) Riprap, Class II and Class III.

Payment will be made under:

	Pay Item	Pay Unit
611(1)	Riprap, Class II	Cubic Yard
611(1)	Riprap, Class III	Cubic Yard

Bid Package 2 – 100% Review

SECTION 618 SEEDING

Special Provision

618-1.01 DESCRIPTION. Delete subsection in entirety and substitute the following:

Topsoil and seed new or disturbed slopes, riprap slope protection, and other areas shown on the drawings. Place the soil, then seed and water. Provide a living ground cover on slopes as soon as possible.

618-3.01 SOIL PREPARATION. Add the following:

Apply seed as detailed in subsection 618-3.03 immediately after the shaping of the slopes. Cover all slopes to be seeded with topsoil according to Section 620. Complete slope preparation as soon as topsoil is placed on the slopes.

618-3.03 APPLICATION. Add the following:

Water lightly, keep top 1/8" soil moist until final acceptance of the Project is received.

Apply at four pounds per 1000 square feet (174 lbs./Acre).

Contractor must provide the Engineer with seed tags provided by seed supplier showing seed purity and germination in compliance with Section 724 Seed for approval prior to applying seed to project site.

618-4.01 METHOD OF MEASUREMENT. Add the following:

The quantity of seeding shall include all cultivation, seeding, and limestone if required.

618-5.01 BASIS OF PAYMENT. Add the following:

Furnishing, mobilizing, modifying, operating, and maintaining all materials and equipment necessary to install seed is subsidiary to pay item 618(1) Seeding.

Pay Item		Pay Unit
618(1)	Seeding (Schedule A)	Square Yard
618(3)	Water for Seeding	Lump Sum

Bid Package 2 – 100% Review

SECTION 620 TOPSOIL

Special Provision

620-1.01 DESCRIPTION. First paragraph Add the following:

The contractor shall revegetate as much of the disturbed ground as possible with vegetative mat to match the existing landscape. Where vegetative mat is not feasible due to supply shortage, ground contours or not matching the surrounding area, the contractor is to apply topsoil and seed to stabilize the fill material from erosion.

620-3.01 PLACING. Add the following:

Place native organic soils (salvaged from clearing and grubbing and excavation work) or topsoil meeting the requirements of Section 726 to a thickness of 4 inches (or as shown on the drawings) on all disturbed soil away from the road prism and noted for seeding according to Section 618, Seeding of these specifications. Salvaged vegetative mat may be used in lieu of topsoil and seeding off the road embankment in areas where it matches the surrounding vegetation

	Pay Item	Pay Unit
620(1)	Top Soil (4")	Square Yard

SECTION 621 PLANTING TREES AND SHRUBS

621-3.03 PLANTING.

Plant approved vegetation only; protect job site from unwanted (invasive) species. As directed by the engineer, the contractor shall transplant seedling trees to replace the removed ones. A source of trees for transplanting will be provided by the owner within three miles of the site.

621-5.01 BASIS OF PAYMENT.

Pay Item		Pay Unit
621(1)	Planting trees (Sitka Spruce)	Each

Bid Package 2 – 100% Review

SECTION 640 MOBILIZATION AND DEMOBILIZATION

Standard Modifications

640-3.01 CONSTRUCTION REQUIREMENTS

Pressure wash all tracked equipment, excavation equipment, and excavation hauling equipment prior to mobilization to ensure that the spread of invasive species is minimized. Clean equipment so that no invasive species would have the chance of being spread or imported into the site. At a minimum, there should be no visible dirt on equipment.

All equipment must be rewashed if it was removed and then returned to the site.

Pay Item		Pay Unit
640(1)	Mobilization and Demobilization	Lump Sum

Bid Package 2 – 100% Review

SECTION 641 EROSION SEDIMENT AND POLLUTION CONTROL

Standard Modifications

641-5.01 Basis of Payment

Payment will be made under:

Pay Item		Pay Unit
641(1)	Erosion, Sediment and Pollution Control (Administration)	Lump Sum
641(3)	Temporary Erosion, Sediment and Pollution Control	Lump Sum

Bid Package 2 – 100% Review

SECTION 642 CONSTRUCTION SURVEYING AND MONUMENTS

Standard Modifications

642-3.01 GENERAL. First paragraph Add the following:

The contractor shall submit for approval the qualifications of all persons engaged in grade control. The lead person establishing and checking grades in the field must have a minimum of 2 years of relative experience and be assigned to the project with the primary responsibility of grade control. Equipment operators or other personnel with other project responsibilities cannot be responsible for grade control duties. At least one person competent in setting, adjusting and recording grades shall be on site at all times during stream bed excavation, culvert placement and backfill operations.

642-4.01 METHOD OF MEASUREMENT. Delete all 6 paragraphs and add the following:

No measurement of quantities will be made.

Delete the Pay Item table and add the following:

642-5.01 BASIS OF PAYMENT. Construction Surveying includes field and office work required to accomplish the work, including furnishing necessary personnel, equipment, transportation and supplies.

Traffic control devices necessary for the survey parties are considered subsidiary to Pay Item 642(1).

Payment will be made under:

Pay Item		Pay Unit
642(1)	Construction Surveying	Lump Sum

Bid Package 2 – 100% Review

SECTION 643 TRAFFIC MAINTENANCE

Standard Modifications

643-1.03 TRAFFIC CONTROL PLAN. Add the following:

The contractor shall submit for approval a traffic control plan. No work shall begin on the project site until the traffic control plan is approved.

643-4.01 METHOD OF MEASUREMENT. Delete items 1 thru 16 and add the following:

Traffic Maintenance will be lump sum and shall include preparation of TCPs, and all labor, materials, traffic control devices and equipment required to implement the Traffic Control Plans as specified and as directed. Temporary construction signs, flagging and pilot car, if required by TCP, will be subsidiary.

643-5.01 BASIS OF PAYMENT. Delete paragraphs 1 - 17 and add the following:

Traffic Maintenance. The contract price includes all resources required to provide all required Traffic Control Plans and public notices, and the maintenance of all roadways, approaches, crossings, intersections and pedestrian and bicycle facilities, as required. This item also includes any temporary construction signs and traffic control devices required but not shown on the bid schedule.

Payment will be made under:

Pay Item	Pay Unit
643(2) Traffic Maintenance	Lump Sum

SECTION 672 STREAM DIVERSION & DEWATERING

Special Provision

672-1.01 DESCRIPTION.

The Work under this Section consists of performing all operations pertaining to the dewatering of Work areas and diversion of surface and subsurface water flows for excavation and backfill during construction operations as shown on the drawings.

672-1.02 GENERAL.

A recommended Stream Diversion Plan has been provided on the drawings. The provided stream diversion plan and profile are intended to convey general concepts only. The location shown is approximate. The Contractor can adjust the locations of bulk bags (Super Sacks), coffer dams, the diversion culvert, and related items as needed to fit field conditions. The Contractor shall review this plan and request any preferred changes from the Engineer in writing before implementing a modified plan. Divert water and dewater work area only as approved in the permits. The stream bed, downstream of the work shall not be allowed to dry out. The contractor shall use work methods that will allow the portion of the streambed, outside the limits of construction, to remain wet for the duration of this project.

The contractor is allowed to propose an alternative diversion plan with engineer and owner approval.

Required Notifications:

The Contractor shall provide notification a minimum of 72 hours prior, or as required by the permit, to the USFWS, Alaska Department of Fish and Game (ADFG) and the Engineer of record before:

1. Diverting stream flows into the temporary diversion culvert.
2. Diverting stream flows into the reconstructed channel with in the new culvert.

672-2.01 MATERIALS.

Contractor shall be responsible for obtaining, mobilizing, operating, and maintaining all materials and equipment necessary to complete dewatering operations, including machinery, bulk bags, sandbags, hoses, pumping facilities, piping, temporary culverts, and the like. All material costs are incidental to pay item 672(1) Stream Diversion & Dewatering.

672-3.01 CONSTRUCTION.

Comply with construction design, installation, and operation of dewatering systems with current safety and environmental regulations. Work must be performed in dry conditions. Minimize disturbance of undisturbed ground. Engineer must approve placement of pads for dewatering equipment.

Maintain 24-hour pump operation for trench dewatering until backfill is at least 1' above the groundwater elevation.

672-3.02 DEWATERING.

Acceptance of Contractor's written Stream Diversion Plan by the Engineer does not relieve Contractor of responsibility for the exercise of reasonable precaution, prudent construction practices, overloading or misuse of existing or new structures, the adequacy and safety of such works, and the potential damage due to undermining existing or completed works.

Bid Package 2 – 100% Review

Relocate all the fish contained within any coffer/diversion dams, the scour pool, or the old channel before the site is completely dewatered. Place relocated fish in the closest pool upstream of the construction area. If trash pumps are used for stream diversion, the intake must be operated and maintained to prevent fish entrapment, entrainment, or injury. Around the intake use perforated or slotted plate and woven wire with a mesh size not greater than 3/32 inch or a profile bar and wedge wire with openings not greater than 1/16 inch. Intake velocities shall not exceed a passive velocity of 0.2 feet per second (fps) or an active velocity 0.4 fps.

Water resulting from Contractor's dewatering effort may not be pumped or otherwise diverted into creeks unless required permits, including, but not limited to, ADNR, ADEC and the U.S. Environmental Protection Agency, are obtained. Under no circumstances will the Contractor be allowed to divert water from the excavation onto roadways. Contractor is to provide a disposal site for excess water, within the limits of construction, in accordance with all necessary permits.

Maintain the dewatering pumping operations to ensure return flow does not exceed State of Alaska water quality standards. Water pumped from the construction site may require additional filtration by filter fabrics, settling, or other methods to prevent turbid water from directly entering the stream. Turbid water pumped from the work site for the purpose of lowering the water table in the trench during stream channel reconstruction shall be discharged at least 100 feet from stream flows, except when performing dewatering procedures described in the next subsection.

672-3.03 REWATERING.

Conduct rewatering activities to minimize sediment movement downstream of the site upon completion of in-stream work. Prior to re-diverting full stream flows to reconstructed channel (including culvert), wet the channel to wash fines into stream bed. Slowly wet the channel through use of pumps or by diverting a small portion of stream flows into the reconstructed channel. Provide means for collecting sediment and turbid water at downstream end of reconstructed channel. Capture and pump turbid water from downstream end of channel back to upstream end of channel until fines are washed into stream bed and water runs clear as determined by the Engineer. After the initial sediment is removed, slowly breach the coffer/diversion dams to avoid a large pulse of water being sent through the newly constructed channel.

672-4.01 METHOD OF MEASUREMENT.

Temporary culverts, pumps, hoses, stilling basins, sandbags, bulk bags (e.g., Super Sacks), plastic liners, temporary rock and riprap, and other materials will not be measured for payment.

672-5.01 BASIS OF PAYMENT.

All administrative costs, materials, equipment and labor necessary to complete the scope of work as specified under this section and not paid for under other items on the bid schedule, including temporary culverts, pumps, hoses, stilling basins, sandbags, bulk bags (e.g., Super Sacks), plastic liners, temporary rock and riprap, are subsidiary to Item 672(1), Stream Diversion & Dewatering.

Payment will be made under:

Pay Item		Pay Unit
672(1)	Stream Diversion & Dewatering	Lump Sum

SECTION 690 WATERWAY

690-1.01 DESCRIPTION.

Construct a waterway bed (stream bed, river bed, creek bed, and or similar), and waterway bank (protection and revegetation), at the location shown on the Plans.

690-1.02 REFERENCES.

Stream Bank Revegetation and Protection: A Guide for Alaska; published by Alaska Department of Fish and Game; printed copy available from the Department, and electronic copy available on the internet.

690-2.01 MATERIALS.

Clearing and Grubbing	Section 201
Spruce Trees	Section 621
Seeding	Section 618 & 724
Top Soil	Section 620 & 726
Channel Stream Substrate	Section 204

Waterway Bank Fill: Native material and Select Material, Type C1.

Salvaged Organic Soil: Salvaged topsoil, overburden material, or useable excavation high in organics and fines.

690-3.01 CONSTRUCTION REQUIREMENTS.

Provide equipment of a size and type to efficiently complete the work with the least impact on the waterway. Submit to the Engineer a list of equipment to be used during construction for review and approval. Do not damage the culvert structure or surface finish. Do not operate equipment directly on the surface of the culvert; work off of protective pad/dunnage or waterway bed fill material.

690-3.02 EXCAVATION.

Excavate to the dimensions shown on the Plans. Control excavated material to minimize disturbance to the new channel and banks.

690-3.03 WATERWAY BED.

Place channel stream substrate material in the channel by any methods that do not cause segregation or damage. The Channel Stream Substrate will be placed in lifts of various depths depending on the size of the material. The large riprap boulders are to be placed so that they are in solid contact with each other. The fines in between the larger riprap are an integral part of the waterway bed and are to be compacted tightly into the voids. Acceptable methods involve using water pressure, metal rods and hand tamping methods to force material into the voids until full. Make waterway bed surface roughness similar to the natural waterway bed. Layers of riprap separated by layers of fines are not acceptable.

690-3.04 WATERWAY BANK.

Tie the ends of constructed banks to the existing grade. Modify bank height and width as necessary to create a smooth transition from constructed bank to existing grade. Replace vegetative mat along the channel banks.

Bid Package 2 – 100% Review

Construct Banks:

Place the bank reconstruction materials as shown on the Plans and noted in the Specifications. Place the bank fill material combined with vegetative mat such that the top of the bank, the vegetated mat, is fairly flat and at the elevation shown on the drawings.

1. Install Erosion Control measures before beginning work.
2. Salvage/harvest and stockpile vegetative mat.
3. Excavate the waterway bank.
4. Place waterway bank fill.
5. Place vegetative mat on the topsoil. Plant vegetative mats between May 15 and August 1.
 - a.) Wet the bank. Soak vegetative mats to saturation prior to placing.
 - b.) If the vegetative mat has lost topsoil, such that the in-place thickness of the mat will not be 12-inches thick, place additional topsoil over the Willows, filling voids, and increasing the mat thickness to 12-inches plus the initial 4-inches of topsoil.
 - c.) Stake all areas to be planted with vegetative mats as shown on the Plans prior to installation. Notify the Engineer of the delineated areas three working days prior to installation. Install only after receiving the Engineers approval.
 - d.) Place vegetative mats tightly together, without gaps, with full contact of the root mass to the soil surface below, tamp into place and anchor with wooden stakes 18-inches long and spaced 1 per square yard.

690-3.05 ESTABLISHMENT PERIOD

Establishment period shall extend for two complete growing seasons after the required planting is completed. A growing season is from May1, to September 30.

Employ all possible means to preserve the vegetative mat in a healthy and vigorous condition to ensure successful establishment. During this period, perform the necessary weeding to keep the area of disturbance free from invasive species. Water as frequently as necessary to keep the immediate root area moist at all times.

The engineer may, but is not required to, determine the Project is complete except for the period of establishment, and issue a letter of final acceptance. After final acceptance, work or materials due under this subsection during any remaining period of establishment are considered warranty obligations that continue to be due following final acceptance in accordance with Subsection 105-1.18

690-3.06 PLANT REPLACEMENT

Engineer and Contractor's representative, in the spring of the year following the planting year and before June 30, inventory Willow cuttings, transplants, and vegetative mat planted on the project to determine the number/area of dead plants/organic materials.

1. Willow Cuttings. At least 4 cuttings per foot, on average over a 4-foot section, for each individual layer, shall be healthy and in a flourishing condition. For areas not meeting this requirement, replant the areas using live staking techniques; space the replacement live stakes at 6-inches along the layer or as directed by the Engineer. Do not remove the dead cuttings.

Bid Package 2 – 100% Review

2. Vegetative Mat. If the planted vegetative mat survival (mat being vigorous and healthy) area is greater than 75% of the original planting area, no replacement mat is required. If the mat survival area is less than 75%, replace the vegetative mat to increase the area to 75% of the originally planted area.

Coordinate the replacement of the vegetative mat with the planting of transplants to minimize damage to healthy organic materials. The Engineer will select which of the dead or unhealthy Willow cuttings, transplants, and vegetative mat area to replace.

Perform replacement planting between July 1 and July 15 according to the original planting procedures and as described in this subsection.

If after the maintenance period a survival rate, as described in 1 and 2 above, of planted organic material has not been attained, replant the materials to attain the levels of survival as described in 1 and 2 above, for each live organic material planted.

Contractor is responsible for replacing plants vandalized, stolen, or damaged during the maintenance period. Replace plants as soon as weather conditions permit. Provide replacement plant quality equal to, or better than, initially specified.

There is additional vegetated mat available for revegetation off site at a designated location. The contractor is to notify the Engineer, coordinate the schedule and provide man power and equipment for harvesting and transporting the replacement mat to the job site.

All plants are to be sourced locally on the island with an exception of grass seed. Plants are to be obtained from the Coast Guard area.

690-3.07 MAINTANENCE.

Install and maintain plastic safety fence meeting the requirements in Section 643, in the locations shown in the Revegetation Details on the Plans. Install plastic safety fence per the manufacturer's recommendations upon completion of waterway bank protection and revegetation. Remove plastic safety fence at the end of the maintenance period for the Willow cuttings, live Willow stakes, and vegetative mat.

Deep water vegetative mat, Willow cuttings, and transplants immediately after planting. Deep watering shall provide water penetration throughout the entire layer, to the top of the waterway bank fill, with minimum runoff. Rain will not be considered a substitute for deep watering unless permitted by the Engineer.

Deep water the vegetative mat, Willow cuttings and transplants as follows:

1. Deep water at least twice a week during the first 45 days after planting.
2. 45 days after planting, deep water during the remainder of the first growing season ending September 30 of the same year as the planting, through the maintenance period ending September 30 of the second growing season, as follows:
 - a. Once a week in May, June and July.
 - b. Once between August 10 and August 20.
 - c. Once during the last week in September.

Bid Package 2 – 100% Review

3. The Engineer may direct the Contractor to deep water past September 30 or provide supplemental watering any time during the life of the project when weather conditions are excessively warm or dry.

Daily water vegetative mat, Willow cuttings, and transplants, or as directed by the Engineer. Keep the mats moist until final acceptance of the project or as accepted by the Engineer.

The maintenance period extends from the time of planting to September 30 of the next two growing seasons.

690-5.01 BASIS OF PAYMENT.

1. Pay Items 690(1) include the materials and all work to place and maintain the materials in place, including but not limited to, excavation, placement/backfilling, benching, compacting, filling voids and similar.

2. Pay Item 690(2) includes the materials and all work to salvage/harvest, store, transport, place and maintain organic materials, salvaged vegetation, topsoil, watering, and similar. Watering is subsidiary.

Water diversion is paid under Section 672.

Offsite disposal of any material attributed to this feature of work shall be subsidiary to and paid under section 690 (1)

3. Vegetative mat shall be estimated in widths of a minimum of 3 feet wide.

Payment will be made under:

Pay Item		Pay Unit
690(1) – A	Waterway Bed – Fine Material	Cubic Yard
690(1) – B	Waterway Bed – Coarse Material	Cubic Yard
690(1) – C	Waterway Bed – Riprap Class II	Cubic Yard
690(4)	Vegetative Mat (3 ft wide)	Square Foot

Bid Package 2 – 100% Review

SECTION 703 AGGREGATES

703-2.03 AGGREGATE FOR BASE AND SURFACE COURSE. *Delete this subsection in its entirety and replace with the following:*

Aggregate surface course (E-1) shall contain material no larger than one (1) inch in diameter (1-inch minus material). Aggregate surface course (E-1) material shall be crushed stone or crushed gravel or mined pit run gravel consisting of sound, tough, durable pebbles or rock fragments of uniform quality and free from clay balls, vegetable matter, or other deleterious matters.

703-2.07 SELECTED MATERIAL. *Add the following 2 paragraphs:*

4. Type A1. Bedding material to 12 inches around and above the pipe:

Select Material Type A1

SIEVE	PERCENT PASSING BY WEIGHT
1in	100
No. 4	20 - 60
No. 200	0 - 6

5. Type C1

Earth, sand, gravel, rock, or combinations thereof containing no muck, peat, frozen material, roots, sod, or other deleterious matter with <10% passing the #200 sieve and is compactable under the provisions of Subsections 203-3.04 or 203-3.05.

Select Material Type C1

SIEVE	PERCENT PASSING BY WEIGHT
No. 200	<10 determined on the minus 3-inch portion of the sample

Bid Package 2 – 100% Review

SECTION 724 SEED

Standard Modifications

724-2.01 MATERIALS Add The following:

The required seed mix for this project is:

Name	Proportion by Weight
Nortran Tufted Hair grass, <i>Deschampsia caespitosa</i>	45%
Arctared' Red Fescue, <i>Festuca rubra</i>	30%
Egan Sloughgrass,	20%
Arctic Mulch Blue Joint Reed Grass	See Below *

*. Apply Arctic Mulch (Blue Joint Reed Grass) generously over newly seeded areas. The Arctic Mulch mixture will be applied at 46 lbs. per 1000 SF.

Bid Package 2 – 100% Review

SECTION 726 TOPSOIL

Standard Modifications

726-2.01 Delete sentence number 2 and replace with the following:

Contains a minimum of 10 percent organic matter as determined by loss-on-ignition of oven dried samples according to ATM 203.

Top soil shall be mixed 50/50 with compost contained from the city of Kodiak before placement.



THE STATE
of **ALASKA**

GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game

DIVISION OF HABITAT
Southcentral Region Office

333 Raspberry Road
Anchorage, Alaska
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FISH HABITAT PERMIT FH19-II-0025

ISSUED: February 6, 2019
EXPIRES: Life of Structure

Kodiak Soil and Water Conservation District
Attn: Ms. Kari Linkenhoker
518 West Marine Way, Suite 206
Kodiak, AK 99615

Dear Ms. Linkenhoker:

Re: Culvert Replacement – Battery Creek
Water Body No. 259-21-10120-2011
Section 9, T 28 S, R 20 W, SM
Location: 57.7668 N, 152.5341 W
ADF&G Culvert No. 20703248

Pursuant to the anadromous fish act at AS 16.05.871 (b), the Alaska Department of Fish and Game (ADF&G) Division of Habitat has reviewed your proposal to replace existing culverts located in Battery Creek. The culverts are located under an unnamed road on land managed by the United States Coast Guard.

Project Description

You propose to replace the twin 32-inch diameter culverts with a 15-foot 9-inch wide, 8-foot high aluminum arch culvert. The new 63-foot long culvert will be installed on a 2.04% slope (Sheets C-102 and C-103). The culvert will be backfilled to a depth of about 4 feet 8 inches with class II riprap configured into 3 rock spurs as well as material of similar gradation to the native streambed designed to remain stable at high flows. A meandering 8-foot wide low-flow channel will be constructed in the streambed material inside the culvert (Sheet C-103). To reduce scour, class II riprap and material of similar gradation to the native streambed material will be placed about 15 feet upstream and downstream of the culvert inlet and outlet. The riprap mix for the culvert backfill and the scour protection apron will include sufficient fines to seal the voids and reduce sub-surface flow.

The work area will be isolated from Battery Creek by installing a temporary coffer dam and the creek will remain flowing through a temporary 36-inch diameter culvert during construction (Sheets G-003 and C-101). If groundwater is present in the isolated work area during the culvert replacement, water will be pumped from the worksite. Pumped water will be discharged into upland vegetation to remove sediment.

The existing ditch downstream of the culvert will be backfilled and the stream will be diverted into the historic stream channel (Sheets C-102 and C-111). Fish will be removed from the work area and existing ditch to be filled and returned to Battery Creek in accordance with a valid Aquatic Resource Permit.

The streambanks upstream and downstream of the new culvert will be reconstructed with compacted salvaged native material and vegetative mats (Sheet C-110). All areas remaining disturbed areas will be stabilized with topsoil and native seed.

Anadromous Fish Act

Water Body No. 259-21-10120-2011 has been specified as being important for the spawning, rearing, or migration of anadromous fishes pursuant to AS 16.05.871(a). The water body provides habitat for coho and pink salmon.

In accordance with AS 16.05.871(d), your project is approved subject to the project description, the following stipulations and the permit terms.

1. No fuel shall be stored, no vehicles shall be fueled or serviced, and vehicles leaking fuel, hydraulic fluids, or other pollutants shall not be operated below the ordinary high water line of Battery Creek.
2. In-water work in the flowing channel of Battery Creek is prohibited July 31 - October 31 unless otherwise authorized by the Division of Habitat.
3. Work areas shall be isolated from the flowing waters of Battery Creek at all times during construction. The stream reach downstream of the culvert installation shall be supplied with a constant flow of clean water sufficient to support the aquatic life in the stream and maintain fish passage.
4. The new culvert shall be designed, installed, and maintained to accommodate the efficient passage and movement of fish, both upstream and downstream, for the life of the project.
5. If pumping water from Battery Creek is required during the project for dewatering or diversion, a properly sized and screened structure must surround the water intake structure. The screen mesh shall not exceed 0.1 inches (2.4 millimeter) and the water velocity at the screen surface shall not exceed 0.5 feet per second. The intake screen shall be periodically inspected during operations to ensure that the screening has not collapsed between the water intake and screen surface, that there are no openings in the

mesh or gaps between the mesh and frame of the intake structure greater than 0.1 inches, and that the screen has not become blocked by debris.

Permit Terms

This letter constitutes a permit issued under the authority of AS 16.05.871 and must be retained on site during project activities. Please be advised that this determination applies only to activities regulated by the Division of Habitat; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any provision contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, we recommend you consult the Division of Habitat immediately before considering any deviation from the approved plan.

You shall give an authorized representative of the state free and unobstructed access to the permit site, at safe and reasonable times, for the purpose of inspecting or monitoring compliance with any provision of this permit. You shall furnish whatever assistance and information the authorized representative reasonably requires for monitoring and inspection purposes.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. You shall mitigate any adverse effect upon fish or wildlife, their habitats, or any restriction or interference with public use that the commissioner determines was a direct result of your failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

You may appeal this permit decision relating to AS 16.05.871 in accordance with the provisions of AS 44.62.330-630.

Please direct questions about this permit to Habitat Biologist Will Frost at 267-2813 or emailed to william.frost@alaska.gov.

Sincerely,
Doug Vincent-Lang
Commissioner



By Ron Benkert
Southcentral Regional Supervisor

Enclosures: Sheets C-101 through C-103, C- 110, C-111, and G-003

Email cc:

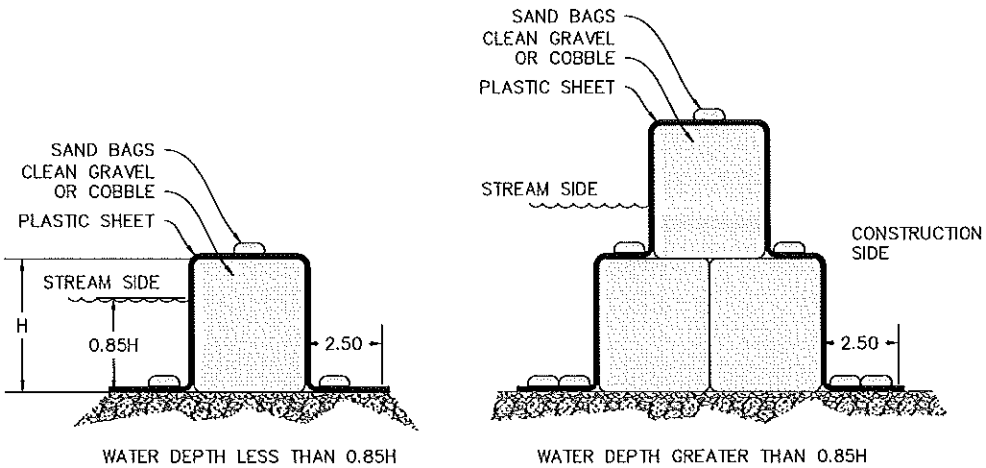
- A. Ott, ADF&G-HAB
- T. Polum, ADF&G-SF
- K. Schaberg, ADF&G-CF
- ARP Coordinator, ADF&G-SF
- G. O'Doherty, ADF&G-SF
- C. Larson, ADNR DMLW
- H. Brooks, ADNR DMLW
- AWT, Kodiak
- J. Rypkema, ADEC
- USACE, Regulatory
- H. Hanson, USFWS
- E. Ammann, NOAA
- M. Slife, KIB
- C. Lynch, Kodiak Construction Services

GENERAL NOTES:

- USE OF ROADS BY CONTRACTOR - CONTRACTOR SHALL NOT DAMAGE THE ROADS, INCLUDING ANY VEGETATION NOT IDENTIFIED FOR CLEARING IN THE PROJECT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR SAFE USE OF ROADS BY HIS PERSONNEL. TRAFFIC SAFETY MUST BE ASSURED ON ROADS AFFECTED BY CONSTRUCTION (SEE SPECIFICATIONS).
- CLEARING AND GRUBBING SHALL BE PERFORMED AS DESCRIBED IN THE SPECIFICATIONS ONLY IN THE AREAS IDENTIFIED ON THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF VEGETATIVE MAT IN THE AREAS NOT IDENTIFIED OR AFFECTED BY THE PROJECT.
- EXCAVATION AND BACKFILL: REMOVE AND LEGALLY DISPOSE OF ALL UNUSABLE EXCAVATION. EXCAVATION SHALL BE PERFORMED IN COMPLIANCE WITH ALL LOCAL AND FEDERAL (OSHA) SAFETY REGULATIONS AND REQUIREMENTS.
- FILL AND BEDDING MATERIAL SHALL BE PLACED AND COMPACTED WITH CARE UNDER HAUNCHES OF PIPE AND SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY BELOW AND ON BOTH SIDES OF PIPE TO 1 FOOT ABOVE THE TOP OF THE FULL LENGTH OF THE PIPE.
- ALUMINUM BOX/ROUND CULVERT
 - A. THE BOX/ROUND CULVERT SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, SECTION 26 (DIVISION II).
 - B. THE BOX/ROUND CULVERT SHALL BE ASSEMBLED IN ACCORDANCE WITH THE SHOP DRAWINGS PROVIDED BY THE MANUFACTURER, AND PER THE MANUFACTURER'S RECOMMENDATIONS. BOLTS SHALL BE TIGHTENED PER MANUFACTURER'S RECOMMENDATIONS.
 - C. THE BEDDING SHALL BE CONSTRUCTED TO A UNIFORM LINE AND GRADE USING MATERIAL OUTLINED IN THE SPECIFICATIONS.
- TEMPORARY DIVERSION CULVERT INSTALLATION NOTES
 - A. DO NOT PLACE EXCESS AND/OR UNSUITABLE MATERIAL EXCAVATED DURING CONSTRUCTION ADJACENT TO THE STREAM CHANNEL.
 - B. CULVERT JOINTS SHALL HAVE WATERTIGHT GASKETS AND SHOULD NOT LEAK. ALL BANDS AND JOINT MATERIAL SHALL BE INSTALLED ACCORDING TO SPECIFICATIONS AND MANUFACTURER'S REQUIREMENTS.
 - C. CONTRACTOR SHOULD LEGALLY DISPOSE EXCESS AND/OR UNSUITABLE MATERIAL OFFSITE.
 - D. ALL CULVERTS DESIGNATED FOR REPLACEMENT SHALL BE LEGALLY DISPOSED OF IN ACCORDANCE WITH THE STATE AND FEDERAL REGULATIONS AND REMOVED FROM THE OWNERS LAND.
- ALL DISTURBED AREAS AND BARE SOILS SHALL BE SEEDED OR COVERED WITH VEGETATION MAT, AND ROUGHENED IN ACCORDANCE WITH THE SPECIFICATIONS.
- ESTIMATE OF QUANTITIES IS IN PLACE, AND DO NOT ACCOUNT FOR WASTE OR SWELL PRIOR TO COMPACTION.

DIVERSION CULVERT AND COFFERDAM NOTES:

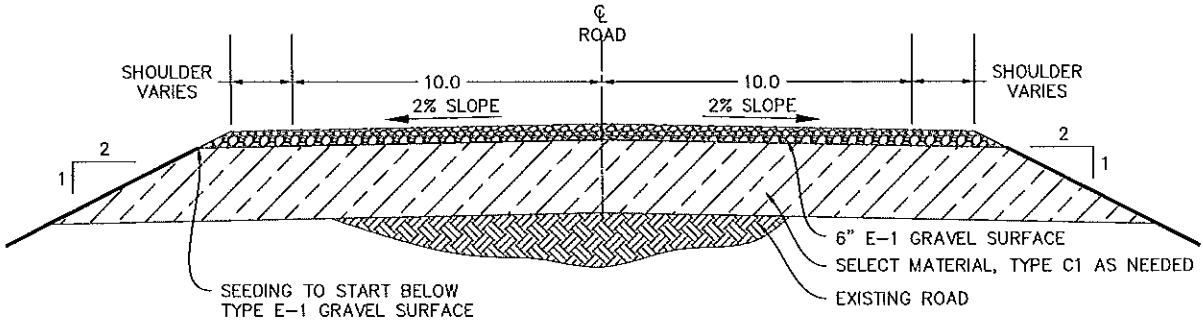
- DIVERSION CULVERTS ARE TEMPORARY AND SHALL BE REMOVED AT THE END OF THE PROJECT.
- SUPERSACK COFFERDAM SHALL BE CONSTRUCTED OF MULTIPLE UNITS OF SUPERSACKS FILLED WITH CLEAN GRAVEL OR COBBLE, AND ABUTTED SIDE BY SIDE TO CREATE A WATER TIGHT BARRIER THAT SEPARATES THE CONSTRUCTION SITE FROM THE STREAM.
- IF WATER DEPTH EXCEEDS 85% OF THE SUPER SACK HEIGHT, AN ADDITIONAL TOP ROW OF BAGS SHALL BE INSTALLED AND SUPPORTED BY TWO BOTTOM ROWS OF SUPERSACK BAGS.
- THE COFFERDAM SHALL BE SEALED BY COVERING IT WITH REINFORCED PLASTIC SHEETING THAT IS HELD IN PLACE BY ROWS OF SANDBAGS OR ROCK. INTERMITTENT PLACEMENT OF SANDBAGS OR ROCKS WILL BE EFFECTIVE. THE SANDBAGS MUST BE PLACED ON THE TOP OF THE SACKS AS WELL AS ALONG THE TOE OF THE COFFERDAM TO HOLD IT IN PLACE. THE PORTION OF THE SHEETING DRAPED ONTO THE WATER SIDE OF THE COFFERDAM SHALL BE WEIGHTED TO THE BOTTOM WITH A MINIMUM OF TWO ROWS OF SANDBAGS.
- THE ENDS OF THE COFFERDAM SHALL BE EXTENDED ONTO DRY LAND AND THE ENDS OF THE POLY SHEETING SHALL BE SECURED ABOVE THE WATERLINE WITH MULTIPLE LAYERS OF SANDBAGS. IF THE ENDS MUST BE TERMINATED AT A WET LOCATION THE COFFERDAM SHALL BE TIGHTLY SEALED TO THE GROUND WITH MULTIPLE LAYERS OF SHEETING AND SANDBAGS.
- THE SUPERSACKS SHALL BE WATERPROOF, CUBE SHAPED, POLYPROPYLENE WOVEN FABRIC WITH A FLAT BOTTOM, FOUR LIFTING LOOPS, RATED FOR A MINIMUM OF 2.5 TONS WORKING LOAD WITH A 5:1 SAFETY FACTOR.
- THE POLY SHEETING SHALL BE A MINIMUM OF 6 MIL THICKNESS. THE ROLL SHALL BE A MINIMUM OF 12 FEET WIDE AND LONG ENOUGH TO SPAN THE LENGTH OF THE COFFERDAM WITHOUT A SEAM.
- THE CONTRACTOR SHALL PROVIDE DEWATERING, AS NEEDED, ON THE BACK SIDE OF THE COFFERDAM IN THE WORK AREA. DEWATERING OPERATIONS SHALL CONSIST OF A PRIMARY PUMP AND BACKUP PUMP BOTH LARGE ENOUGH TO MAINTAIN THE WATER LEVEL SO THE EXCAVATION AND BACKFILL OPERATIONS CAN BE COMPLETED. DEWATERING OPERATIONS SHALL BE MONITORED 24 HOURS A DAY UNTIL THE PUMPS CAN BE SAFELY SHUT DOWN WITHOUT THE RISK OF DAMAGE TO THE WORK.
- WHEN THE WORK IS COMPLETED ALL SUPERSACKS, SANDBAGS, POLY SHEETING AND ALL DEBRIS SHALL BE CLEANED UP AND LEGALLY DISPOSED OF OFFSITE.



A DIVERSION SUPERSACK DETAILS
SCALE: NTS

ROADWAY NOTES:

- ROAD GRADES AND ALIGNMENTS, AS SHOWN ON PLANS, MAYBE SUBJECT TO REVISION AS REQUIRED.
- PROFILE ELEVATIONS ARE TO FINISH GRADES.
- UTILIZE EXISTING ROAD WIDTH OR MINIMUM ROAD WIDTH ESTABLISHED WHICHEVER IS GREATER.
- ANY DAMAGE TO THE EXISTING ROAD SYSTEM DUE TO CONTRACTOR OPERATIONS SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE PRIOR TO ACCEPTANCE BY THE ENGINEER.
- EXCAVATED MATERIAL FROM CULVERT INSTALLATION MAY BE USED AS SELECT MATERIAL, TYPE C1 FILL, IF APPROVED BY THE ENGINEER.



B ROAD TYPICAL SECTION
SCALE: NTS

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

DATE: 9/18/18	DESIGNED: GDU	CHECKED: JGB	SCALE: AS NOTED	FILE: 1598.17-0004
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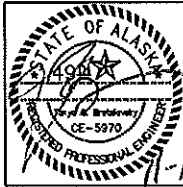
PROJECT	KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)
LOCATION	KODIAK, ALASKA
CLIENT	U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING	GENERAL NOTES, DIVERSION DETAILS & TYPICAL ROAD SECTION

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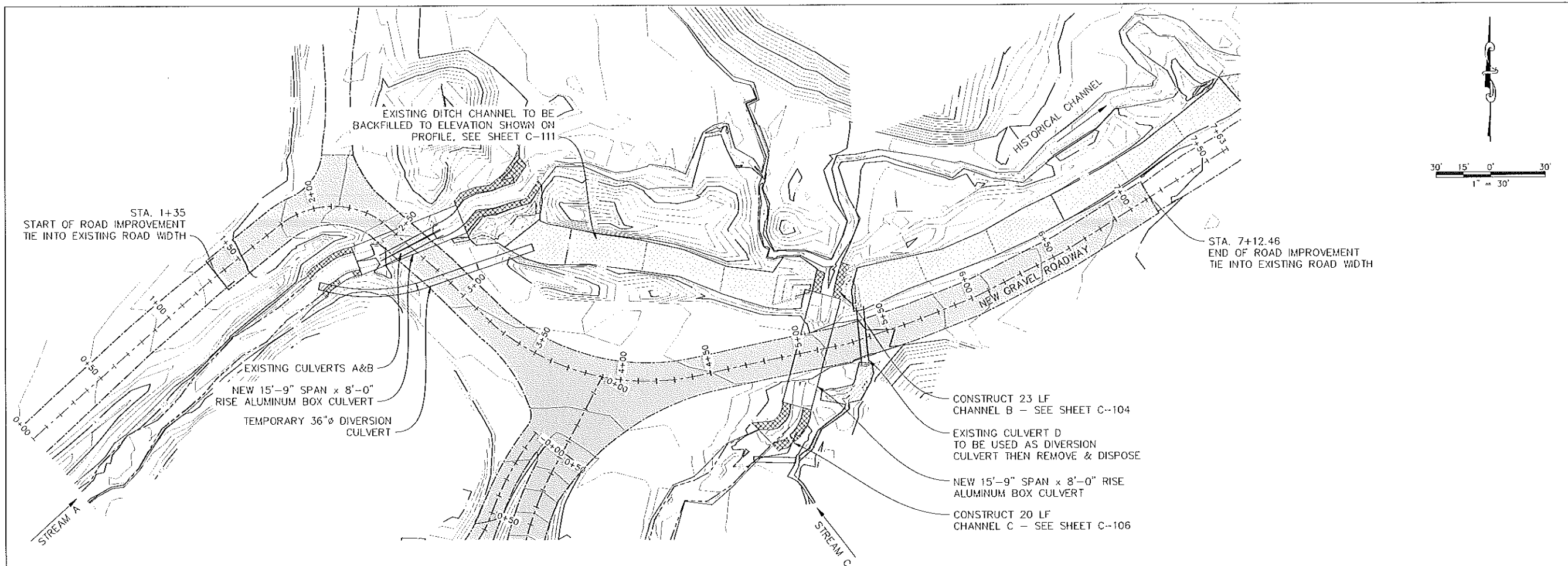
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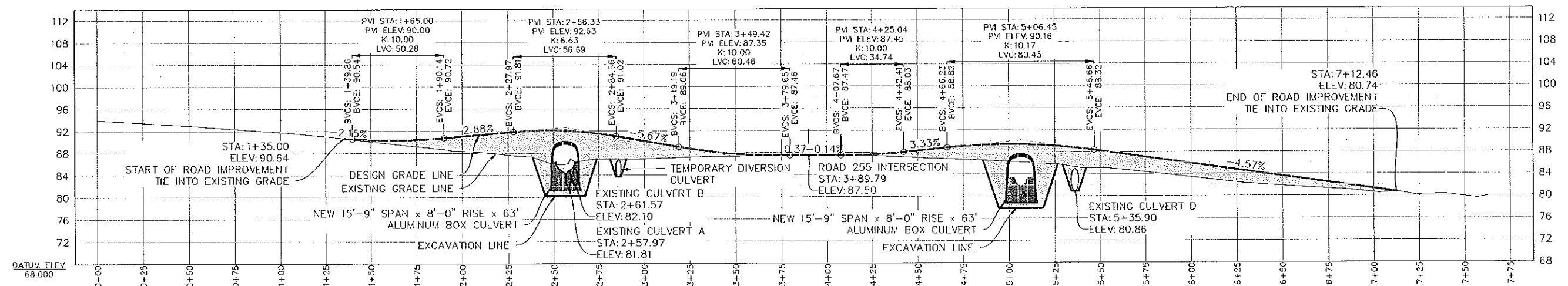
JOB NO. 1598.17

SHEET

G-003



A CULVERTS 10103248 & 10103254 PLAN
SCALE: 1 : 30



B CULVERT 10103248 & 10103254 ROAD PROFILE
SCALE: 1 : 30 (H) 1:3 (V)

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

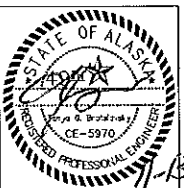
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PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)	LOCATION: KODIAK, ALASKA	CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING: CULVERT 10103248 & 10103254 ROAD PLAN & PROFILE		

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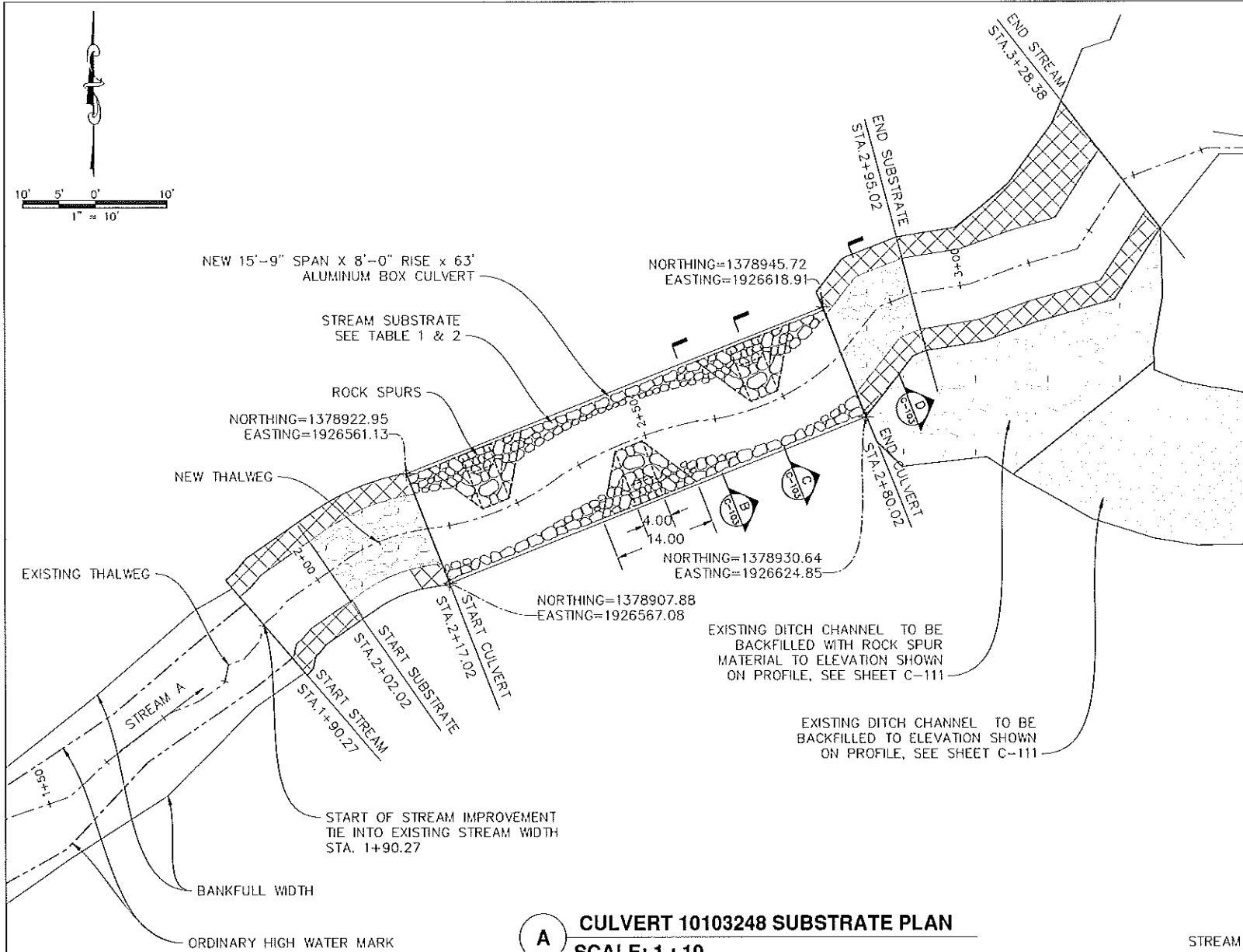
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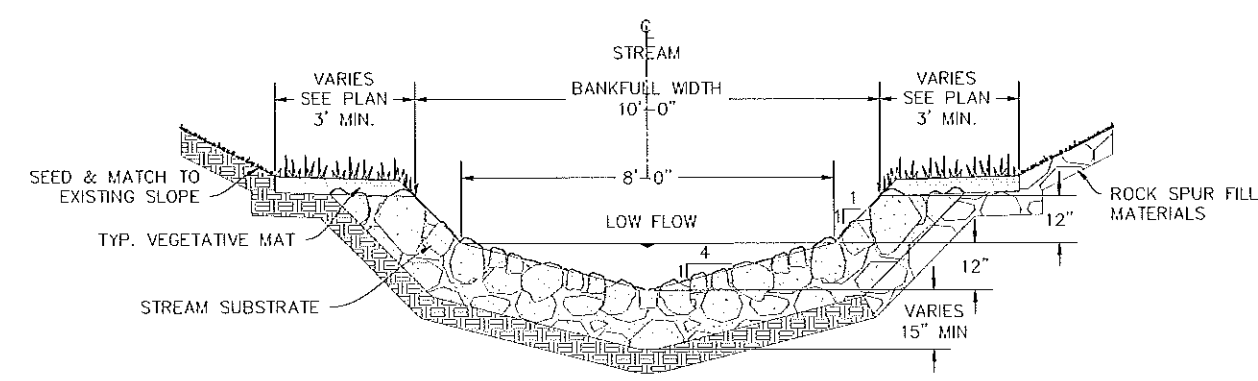
JOB NO. 1598.17

SHEET

C-101



A CULVERT 10103248 SUBSTRATE PLAN
SCALE: 1 : 10



D SECTION D
SCALE: 1 : 2

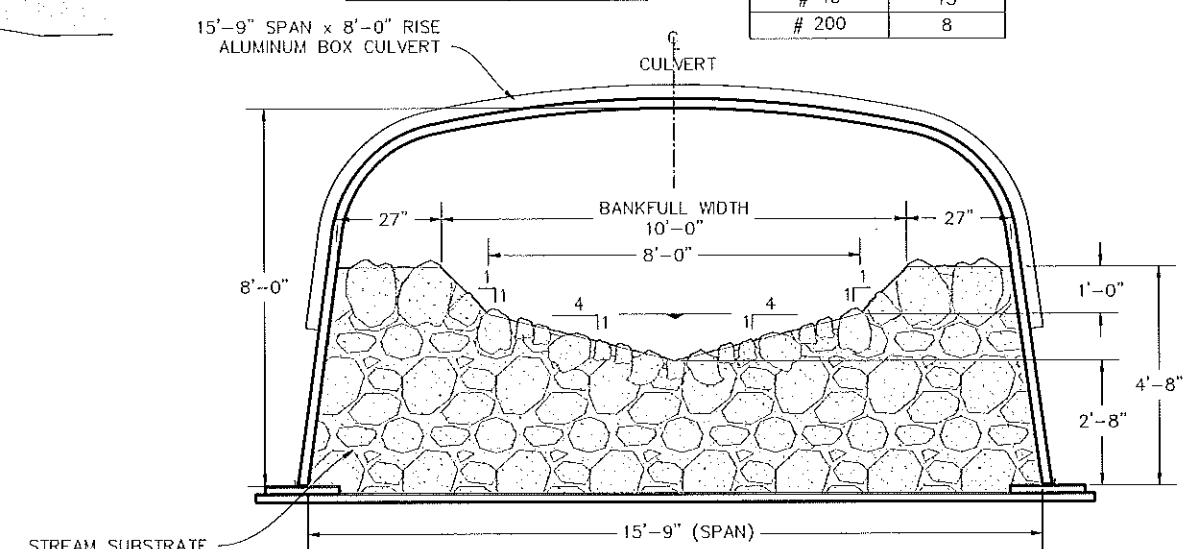
- NOTES:
1. STREAM SUBSTRATE MATERIAL SHALL BE MIXED AT SITE USING 2 PARTS COARSE TO 1 PART FINE.
 2. COARSE AND FINE MATERIALS SHALL FOLLOW THE GRADATION NOTED IN TABLE 1 AND 2, RESPECTIVELY.
 3. ROCK SPUR MATERIAL SHALL BE MIXED USING 1 PART CLASS II RIPRAP, 1 PART COARSE AND 1 PART FINE MATERIAL PER TABLE 1 & 2 BELOW.
 4. CONSTRUCT STREAM SUBSTRATE AND ROCK SPUR LEAVING A NON-UNIFORM, ROUGH SURFACE. CONTRACTOR SHALL WASH FINE MATERIALS INTO COARSE MATERIALS UNTIL BED IS SEALED AND WATER POOLS ON SURFACE. ADDITIONAL FINES MAY BE REQUIRED DURING THIS PROCESS.
 5. STREAM SHALL NOT BE RE-DIVERTED INTO CULVERT UNTIL ENGINEER HAS APPROVED BED MATERIALS ARE SUFFICIENTLY SEALED.
 6. HAND PLACEMENT OF ROCKS WILL BE REQUIRED FOR CHANNEL CONSTRUCTION AND SHOULD BE SUPERVISED AND APPROVED BY THE ENGINEER.
 7. EQUIPMENT SMALL ENOUGH TO FIT INTO CULVERT MAY BE USED TO FILL IN THE PIPE.

TABLE 1
COARSE MATERIAL

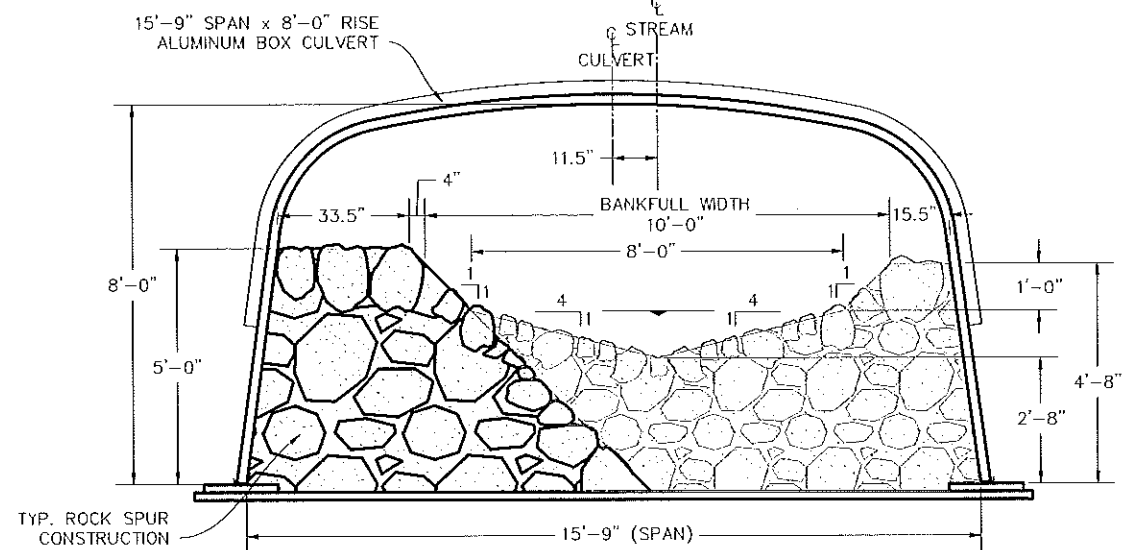
SIZE	% PASSING
13"	100
11"	80-90
6"	45-55
4"	25-35
3"	10-20

TABLE 2
FINE MATERIAL

SIZE	% PASSING
3"	100
2"	75-85
1 1/2"	65-75
3/4"	45-55
# 10	20-30
# 40	15
# 200	8



B SECTION B
SCALE: 1 : 2



C SECTION C
SCALE: 1 : 2

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

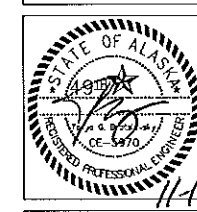
REV. NO.	DATE	REVISIONS

DATE: 11/7/18	DESIGNED: _____	DRAWN: GDU	CHECKED: TCB	SCALE: AS NOTED	FILE: 159817-1002
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PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)
LOCATION: KODIAK, ALASKA
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING: CULVERT 10103248 SUBSTRATE PLAN & SECTIONS

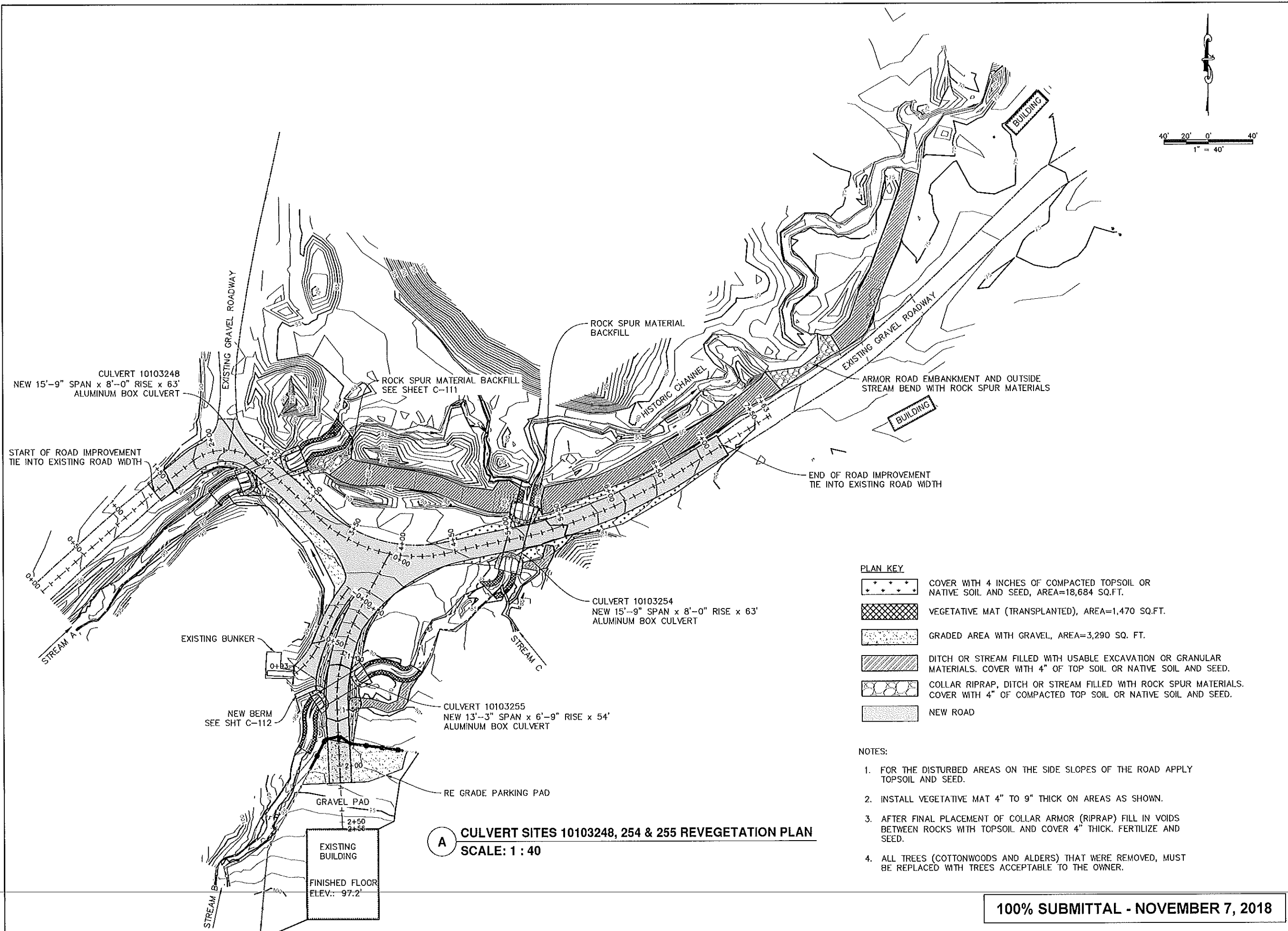
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JOB NO. 1598.17

SHEET
C-103



PLAN KEY

- COVER WITH 4 INCHES OF COMPACTED TOPSOIL OR NATIVE SOIL AND SEED, AREA=18,684 SQ.FT.
- VEGETATIVE MAT (TRANSPLANTED), AREA=1,470 SQ.FT.
- GRADED AREA WITH GRAVEL, AREA=3,290 SQ. FT.
- DITCH OR STREAM FILLED WITH USABLE EXCAVATION OR GRANULAR MATERIALS. COVER WITH 4" OF TOP SOIL OR NATIVE SOIL AND SEED.
- COLLAR RIPRAP, DITCH OR STREAM FILLED WITH ROCK SPUR MATERIALS. COVER WITH 4" OF COMPACTED TOP SOIL OR NATIVE SOIL AND SEED.
- NEW ROAD

NOTES:

- FOR THE DISTURBED AREAS ON THE SIDE SLOPES OF THE ROAD APPLY TOPSOIL AND SEED.
- INSTALL VEGETATIVE MAT 4" TO 9" THICK ON AREAS AS SHOWN.
- AFTER FINAL PLACEMENT OF COLLAR ARMOR (RIPRAP) FILL IN VOIDS BETWEEN ROCKS WITH TOPSOIL AND COVER 4" THICK. FERTILIZE AND SEED.
- ALL TREES (COTTONWOODS AND ALDERS) THAT WERE REMOVED, MUST BE REPLACED WITH TREES ACCEPTABLE TO THE OWNER.

A CULVERT SITES 10103248, 254 & 255 REVEGETATION PLAN
SCALE: 1 : 40

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

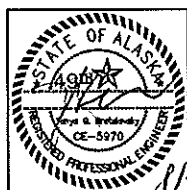
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	DRAWN: GDL			

PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)
LOCATION: KODIAK, ALASKA
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING: CULVERT SITES 10103248, 254 & 255 REVEGETATION PLAN

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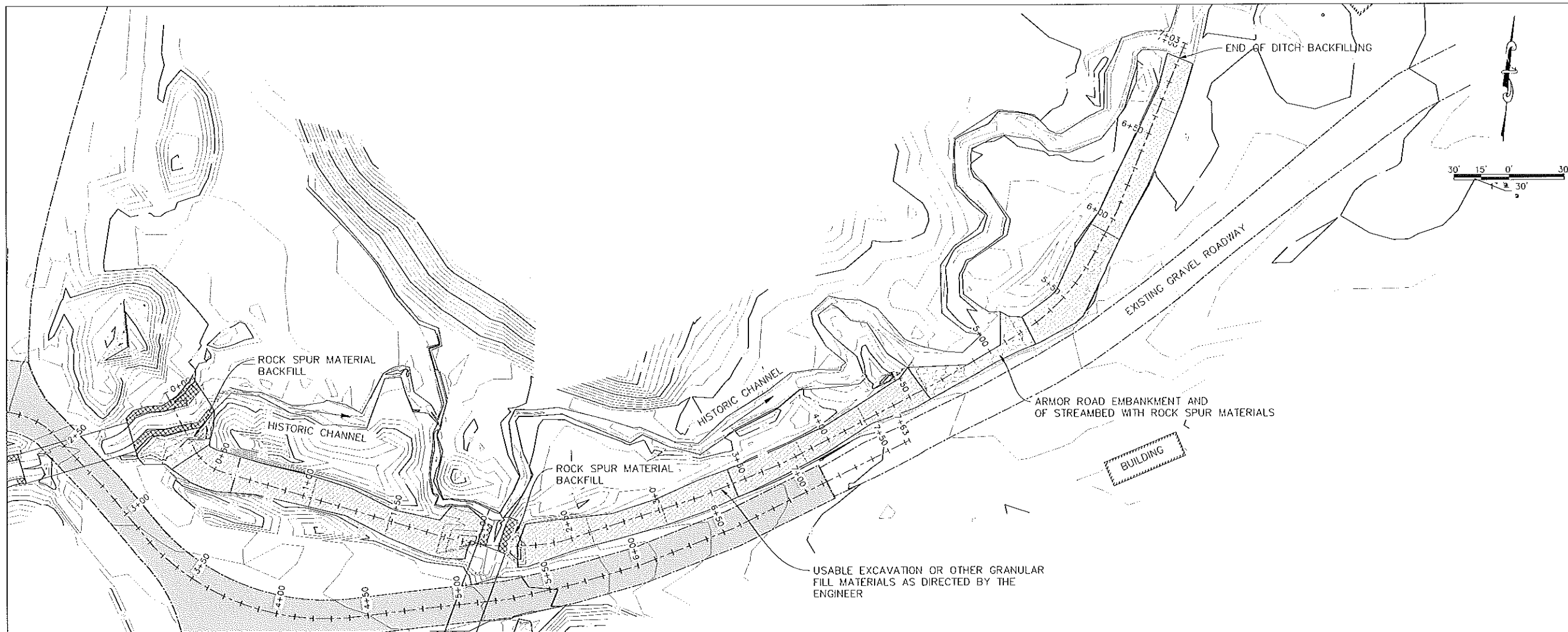
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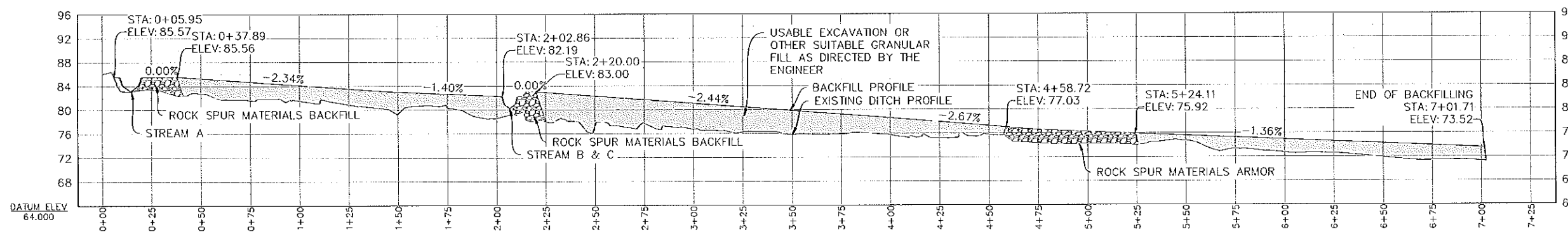
JOB NO. 1598.17

SHEET

C-110



A DITCH A - BACKFILLING PLAN
SCALE: 1 : 30



B DITCH A - BACKFILLING PROFILE
SCALE: 1 : 30 (H) 1:3 (V)

100% SUBMITTAL - NOVEMBER 7, 2018

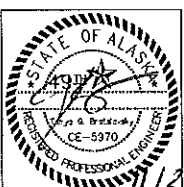
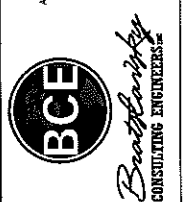
NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

DATE: 9/18/18	DESIGNED: _____	DRAWN: CDD	CHECKED: TCB	SCALE: AS NOTED	FILE: 1598.17-100%
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PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)	LOCATION: KODIAK, ALASKA	CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING: DITCH A - BACKFILLING PLAN & PROFILE		

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JOB NO. 1598.17

SHEET

C-111



THE STATE
of **ALASKA**

GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game

DIVISION OF HABITAT
Southcentral Region Office

333 Raspberry Road
Anchorage, Alaska
Main: 907.267.2342
Fax: 907.267.2499

FISH HABITAT PERMIT FH19-II-0024

ISSUED: February 4, 2019
EXPIRES: Life of Structure

Kodiak Soil and Water Conservation District
Attn: Ms. Kari Linkenhoker
518 West Marine Way, Suite 206
Kodiak, AK 99615

Re: Culvert Replacement – Unnamed Tributary Battery Creek
Water Body No. 259-21-10120-2011-3121
Section 9, T. 28 S, R 20 W, SM
Location: 57.7671 N, 152.5291 W
ADF&G Culvert No. 20703253

Dear Ms. Linkenhoker:

Pursuant to the anadromous fish act at AS 16.05.871 (b), the Alaska Department of Fish and Game (ADF&G) Division of Habitat has reviewed your proposal to replace an existing culvert located in the unnamed tributary Battery Creek. The culvert is located under an unnamed road on land managed by the United States Coast Guard.

Project Description

You propose to replace the perched 24-inch diameter culvert with a 72-inch diameter aluminum culvert. The new 50-foot long culvert will be installed on a 3.25% slope (Sheets C-200 and 201). The culvert will be backfilled to a depth of about 3 feet with material of similar gradation to the native streambed designed to remain stable at high flows. A 1.6 foot wide low-flow channel will be constructed in the streambed material inside the culvert (Sheet C-202). To reduce scour, class II riprap and material of similar gradation to the native streambed material will be placed about 10 feet upstream of the culvert inlet and about 12 feet downstream of the culvert outlet. The rip rap mix for the culvert backfill and the scour protection apron will include sufficient fines to seal the voids and reduce sub-surface flow.

An existing 48-inch diameter culvert (Culvert B) downstream of the new culvert in an adjacent ditch will be removed and the ditch will be reconfigured to provide fish passage into a wetland (Sheet C-204).

The work area will be isolated from the unnamed stream by installing a temporary coffer dam and the creek will remain flowing through a temporary 18-inch diameter culvert and diversion channel during construction (Sheets G-005 and C-206). Fish will be removed from the work area and returned to the unnamed stream in accordance with a valid Aquatic Resource Permit. If groundwater is present in the work area during the culvert replacement, water will be pumped from the worksite. Pumped water will be discharged into upland vegetation to remove sediment.

The streambanks upstream and downstream of the new culvert will be reconstructed with compacted salvaged native material and vegetative mats (Sheet C-207). All remaining disturbed areas will be stabilized with topsoil and native seed.

Anadromous Fish Act

Water Body No. 259-21-10120-2011-3121 has been specified as being important for the spawning, rearing, or migration of anadromous fishes pursuant to AS 16.05.871(a). The water body provides habitat for coho salmon.

In accordance with AS 16.05.871(d), your project is approved subject to the project description, the following stipulations and the permit terms.

1. No fuel shall be stored, no vehicles shall be fueled or serviced, and vehicles leaking fuel, hydraulic fluids, or other pollutants shall not be operated below the ordinary high water line of the unnamed stream.
2. In-water work in the flowing channel of the unnamed stream is prohibited July 31 - October 31 unless otherwise authorized by the Division of Habitat.
3. Work areas shall be isolated from the flowing waters of the creek at all times during construction. The stream reach downstream of the culvert installation shall be supplied with a constant flow of clean water sufficient to support the aquatic life in the stream and maintain fish passage.
4. The new culvert shall be designed, installed, and maintained to accommodate the efficient passage and movement of fish, both upstream and downstream, for the life of the project.
5. If pumping water from the unnamed stream is required during the project for dewatering or diversion, a properly sized and screened structure must surround the water intake structure. The screen mesh shall not exceed 0.1 inches (2.4 millimeter) and the water velocity at the screen surface shall not exceed 0.5 feet per second. The intake screen shall be periodically inspected during operations to ensure that the screening has not collapsed between the water intake and screen surface, that there are no openings in the

mesh or gaps between the mesh and frame of the intake structure greater than 0.1 inches, and that the screen has not become blocked by debris.

Permit Terms

This letter constitutes a permit issued under the authority of AS 16.05.871 and must be retained on site during project activities. Please be advised that this determination applies only to activities regulated by the Division of Habitat; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any provision contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, we recommend you consult the Division of Habitat immediately before considering any deviation from the approved plan.

You shall give an authorized representative of the state free and unobstructed access to the permit site, at safe and reasonable times, for the purpose of inspecting or monitoring compliance with any provision of this permit. You shall furnish whatever assistance and information the authorized representative reasonably requires for monitoring and inspection purposes.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. You shall mitigate any adverse effect upon fish or wildlife, their habitats, or any restriction or interference with public use that the commissioner determines was a direct result of your failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

You may appeal this permit decision relating to AS 16.05.871 in accordance with the provisions of AS 44.62.330-630.

Please direct questions about this permit to Habitat Biologist Will Frost at 267-2813 or emailed to william.frost@alaska.gov.

Sincerely,
Doug Vincent-Lang
Commissioner



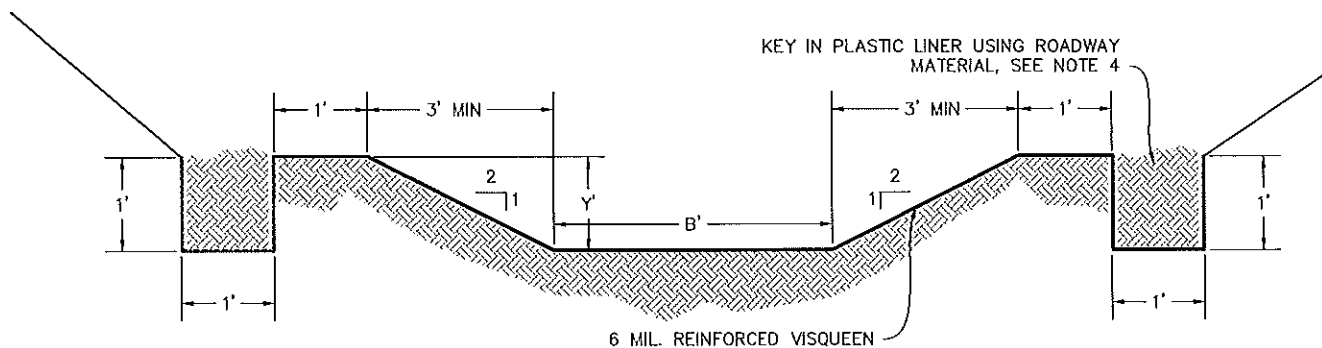
By Ron Benkert
Southcentral Regional Supervisor

Enclosures: Sheets G-005, C-200 through C-202, C-204, C206, and C-207

Email cc:

- A. Ott, ADF&G-HAB
- T. Polum, ADF&G-SF
- K. Schaberg, ADF&G-CF
- ARP Coordinator, ADF&G-SF
- G. O'Doherty, ADF&G-SF
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- J. Rypkema, ADEC
- USACE, Regulatory
- H. Hanson, USFWS
- E. Ammann, NOAA
- M. Slife, KIB
- C. Lynch, Kodiak Construction Services

CHANNEL DIMENSIONS					
SITE ID	2 YEAR Q(cfs)	AVERAGE CHANNEL SLOPE (ft/ft)	CHANNEL DEPTH "Y" (ft)	CALCULATED CHANNEL WIDTH "B" (ft.)	DIVERSION CULVERT DIAMETER (ft.)
10103248	24	0.020402	2	3.00	3.00
10103253	5	0.0257	1.5	1.50	1.50
10103254	21	0.02505	2	2.00	2.00
10103255	20	USE EXISTING CHANNEL & CULVERT			
10103256	14	USE EXISTING CHANNEL & CULVERT			
10103259 A&B	3	NO DIVERSION CHANNEL & CULVERT			
20203471	5	NO DIVERSION CHANNEL & CULVERT			



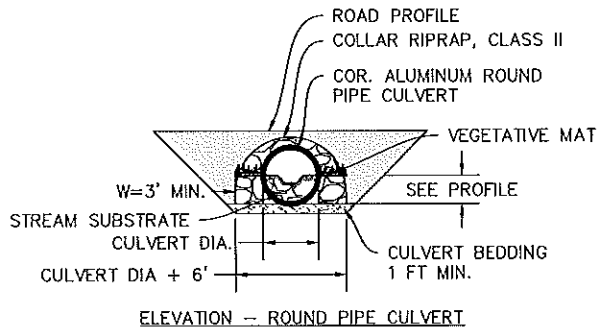
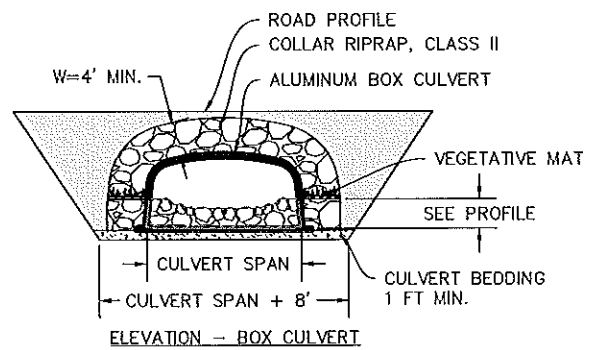
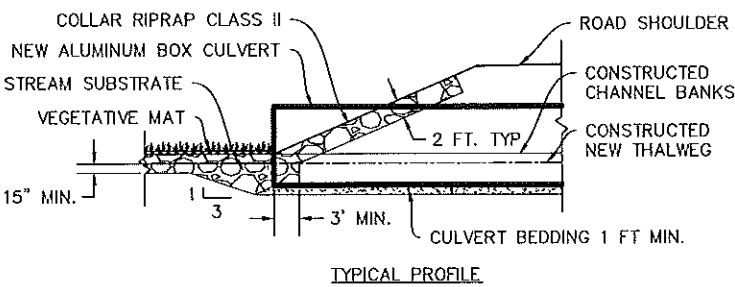
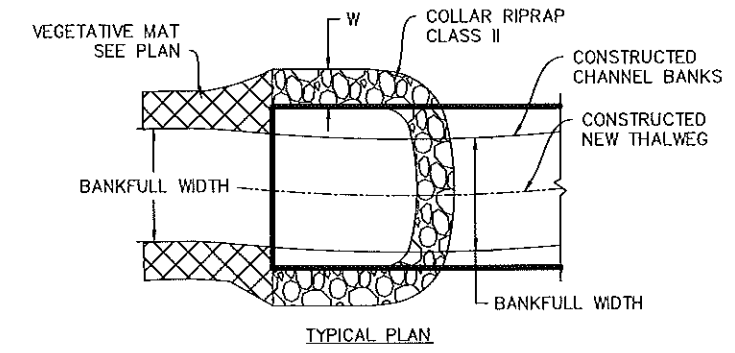
A TEMPORARY DIVERSION CHANNEL SECTION
SCALE: NTS

DIVERSION CHANNEL NOTES:

1. USE PLASTIC LINER ALONG ENTIRE LENGTH AND WIDTH OF TEMPORARY DIVERSION CHANNEL.
2. USE 6 MIL. OR THICKER REINFORCED VISQUEEN FOR LINER.
3. DO NOT CONSTRUCT WITH LONGITUDINAL JOINTS. BURY UPSTREAM EDGE OF LINER A MINIMUM OF 12" DEEP AND SECURE WITH RIPRAP OR SANDBAGS.
4. THE CONTRACTOR HAS AN OPTION TO USE DIFFERENT MATERIAL TO ANCHOR THE PLASTIC LINER SUBJECT TO APPROVAL OF THE ENGINEER.

COLLAR RIPRAP NOTE:

1. AFTER PLACEMENT OF COLLAR RIPRAP, FILL VOIDS BETWEEN ROCKS WITH TOP SOIL AND COVER 4" THICK. FERTILIZE AND SEED.



B TYPICAL COLLAR RIPRAP DETAILS
SCALE: NTS

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO. DATE

DESIGNED: DATE: 11/7/18

DRAWN: GDU

CHECKED: TCB

SCALE: AS NOTED

FILE: 1598.17-005

PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)

LOCATION: KODIAK, ALASKA

CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)

DRAWING: TEMPORARY DIVERSION CHANNEL SECTION & TABLE AND COLLAR RIPRAP DETAILS

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info@bce-al.com

BCE

Benitky
CONSULTING ENGINEERS

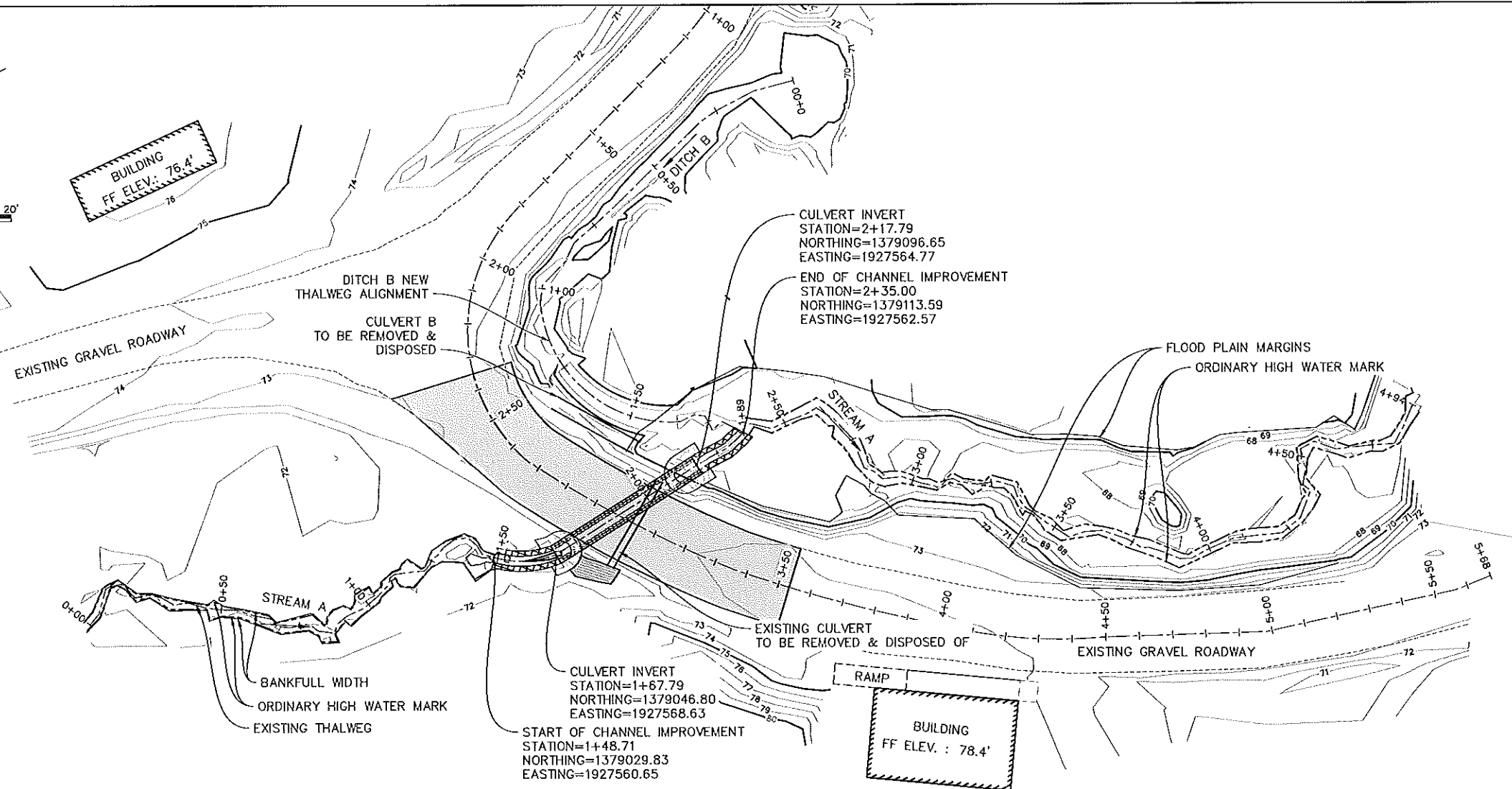
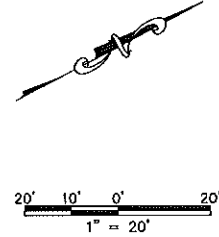
STATE OF ALASKA
40th
JAN 10 2019
REGISTERED PROFESSIONAL ENGINEER
CE-5970

11-137P

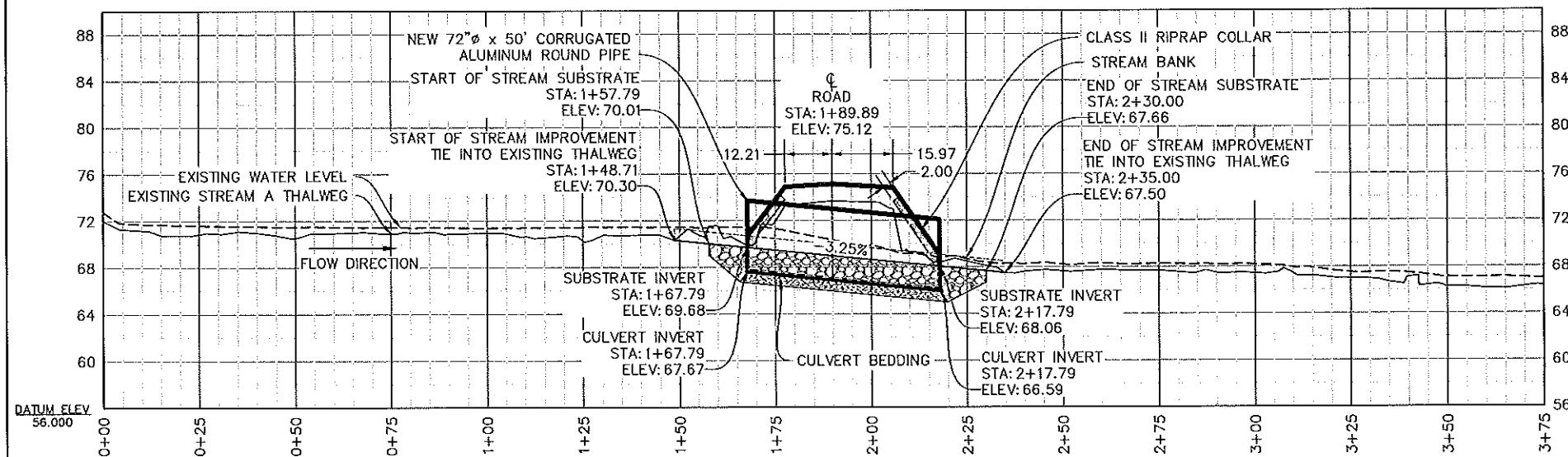
JOB NO. 1598.17

SHEET

G-005



A CULVERT 10103253 PLAN
SCALE: 1 : 20



B CULVERT 10103253 PROFILE
SCALE: 1 : 20

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

DATE: 11/7/18	DESIGNED: GDU	CHECKED: TCB	SCALE: AS NOTED	FILE: 159817-1002
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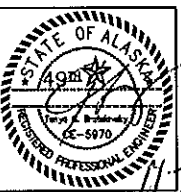
PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT	DRAWING: CULVERT 10103253 PLAN & PROFILE
LOCATION: KODIAK, ALASKA	
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)	

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JOB NO. 1598.17

SHEET

C-201

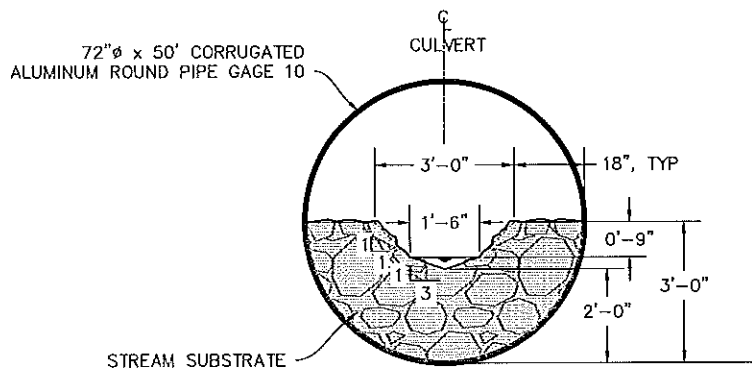
- NOTES:
1. STREAM CHANNEL SUBSTRATE MATERIAL SHALL BE MIXED AT SITE USING 2 PARTS COARSE TO 1 PART FINE.
 2. COARSE AND FINE MATERIALS SHALL FOLLOW THE GRADATION NOTED IN TABLE 1 AND 2, RESPECTIVELY.
 3. CONSTRUCT STREAM SUBSTRATE LEAVING A NON-UNIFORM, ROUGH SURFACE. CONTRACTOR SHALL WASH FINE MATERIALS UNTIL BED IS SEALED AND WATER POOLS ON SURFACE. ADDITIONAL FINES MAY BE REQUIRED DURING THIS PROCESS.
 4. STREAM SHALL NOT BE RE-DIVERTED INTO CULVERT UNTIL ENGINEER HAS APPROVED BED MATERIALS ARE SUFFICIENTLY SEALED.
 5. HAND PLACEMENT OF SUBSTRATE AND ROCKS WILL BE REQUIRED FOR CHANNEL CONSTRUCTION AND SHOULD BE SUPERVISED AND APPROVED BY THE ENGINEER.
 6. SMALL EQUIPMENT THAT FITS INTO CULVERT MAY BE USED TO PLACE FILL IN THE PIPE.

TABLE 1
COARSE MATERIAL (2 PARTS)

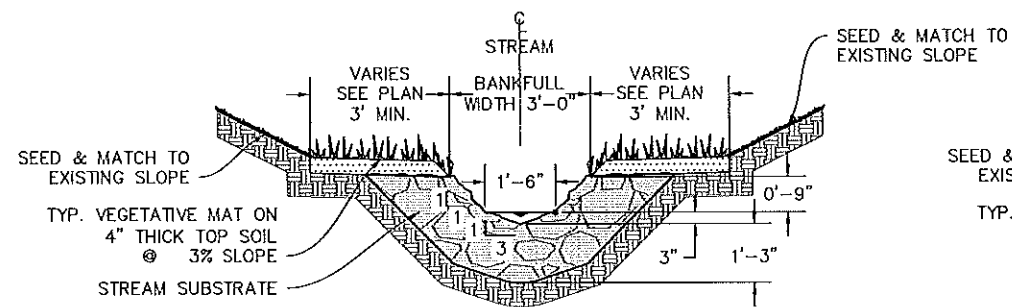
SIZE	% PASSING
10"	100
8"	80-90
6"	45-55
4"	25-35
2"	10-20

TABLE 2
FINE MATERIAL (1 PART)

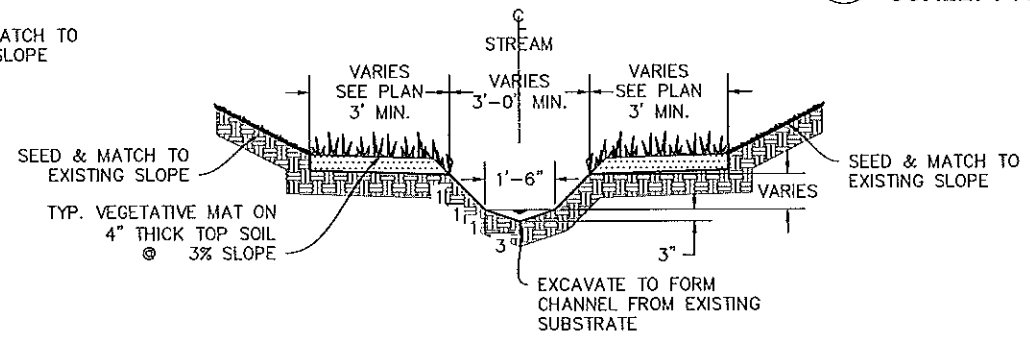
SIZE	% PASSING
3"	100
2"	75-85
1"	65-75
0.5"	45-55
#10	20-30
#40	15
#200	10



B SECTION B
C-202 SCALE: 1 : 2



C SECTION C
C-202 SCALE: 1 : 2



D SECTION D
C-202 SCALE: 1 : 2

100% SUBMITTAL - NOVEMBER 7, 2018

REV. NO.	DATE	REVISIONS

DATE: 11/7/18
DESIGNED: GDU
DRAWN: GDU
CHECKED: TCB
SCALE: AS NOTED
FILE: 1598.17-1002

PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT
LOCATION: KODIAK, ALASKA
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)

DRAWING: CULVERT 10103253 SUBSTRATE PLAN & SECTIONS

500 W 27th AVE, SUITE A
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PHONE (907) 272-5244
FAX (907) 272-5214
info@bce-al.com

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CONSULTING ENGINEERS, INC.

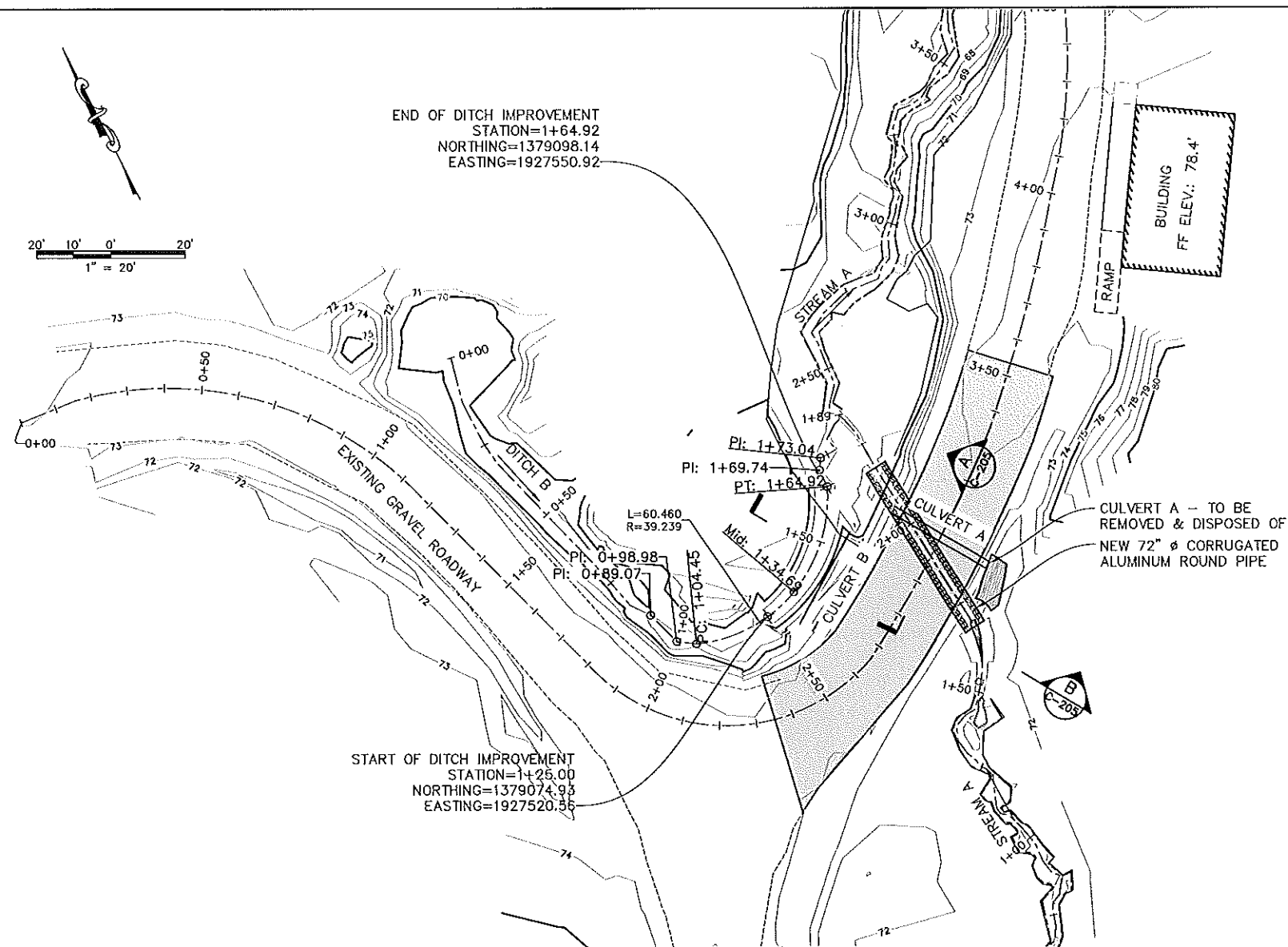
STATE OF ALASKA
Professional Engineer
CE-5970

JOB NO. 1598.17

SHEET

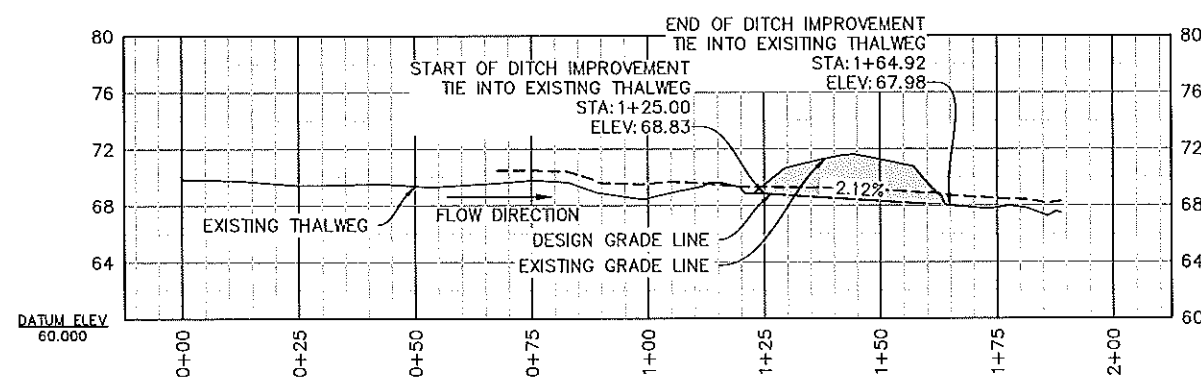
C-202

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.



DITCH B COORDINATE TABLE				
Point #	Elevation	Northing	Easting	Description
3000	68.90	1379089.86	1927492.89	0+89.07 - PI
3001	68.43	1379080.41	1927495.87	0+98.98 - PI
3002	68.39	1379077.32	1927500.39	1+04.45 - PC
3003	68.19	1379077.49	1927529.88	1+34.69 - Mid
3004	67.98	1379098.14	1927550.92	1+64.92 - PT
3005	67.85	1379102.96	1927551.14	1+69.74 - PI
3006	67.74	1379105.71	1927552.96	1+73.04 - PI

A CULVERT 10103253 DITCH B PLAN
SCALE: 1 : 20



B CULVERT 10103253 DITCH B PROFILE
SCALE: 1 : 20

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

DATE: 11/7/18	DESIGNED: _____	DRAWN: GDU	CHECKED: TCB	SCALE: AS NOTED	FILE: 1598.17-100%
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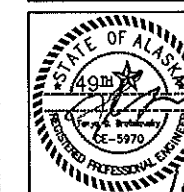
PROJECT	KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)
LOCATION	KODIAK, ALASKA
CLIENT	U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING	CULVERT 10103253 DITCH B PLAN & PROFILE

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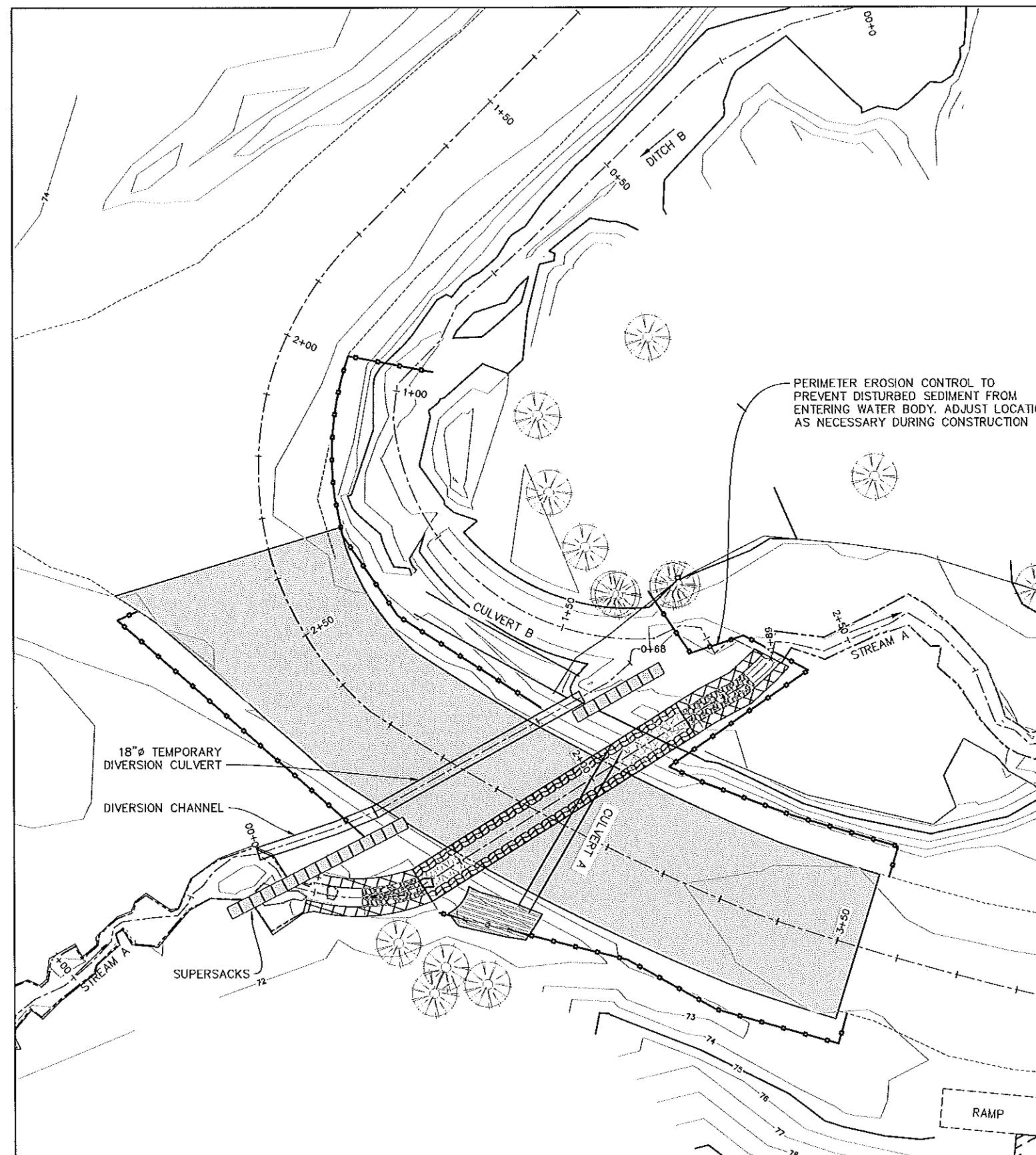
Brattberg
CONSULTING ENGINEERS



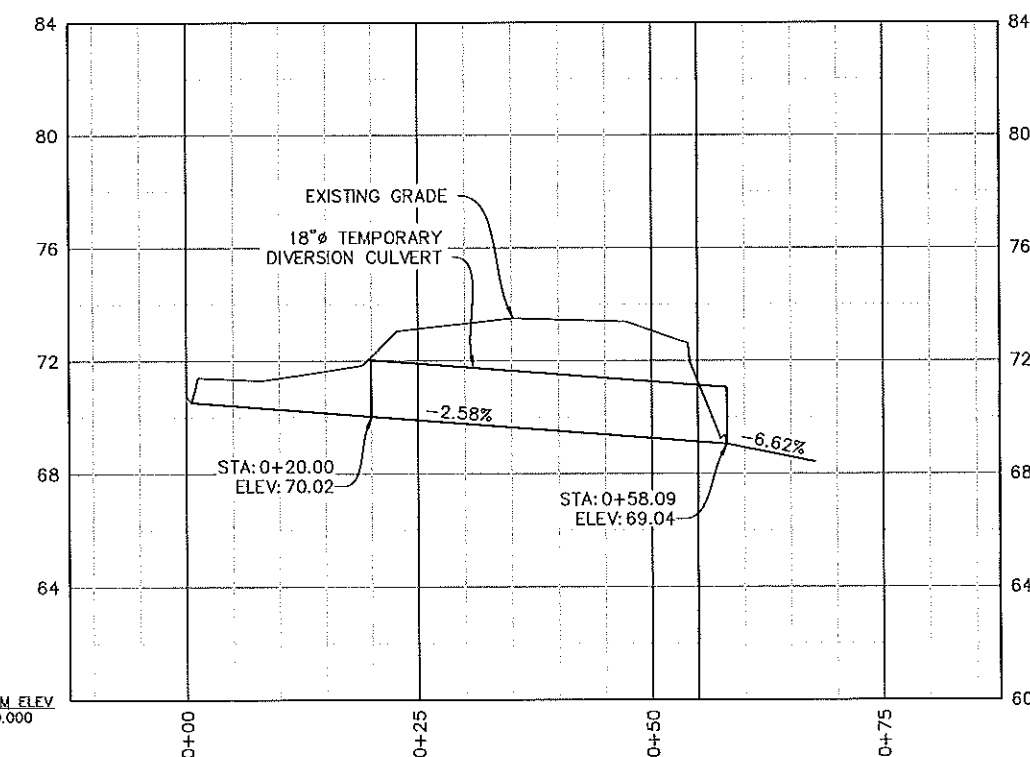
JOB NO. 1598.17

SHEET

C-204



A CULVERT 10103253 DIVERSION CULVERT, EROSION & SEDIMENT CONTROL PLAN
SCALE: 1 : 10



B CULVERT 10103253 DIVERSION PROFILE
SCALE: 1 : 10 (H) 1:3 (V)

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

DATE: 11/7/18	DESIGNED: _____	CHECKED: TGB	SCALE: AS NOTED	FILE: 159817-1002
	DRAWN: GDU			

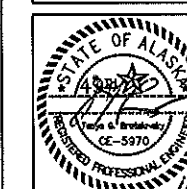
PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)	DRAWING: CULVERT 10103253 DIVERSION CULVERT, EROSION & SEDIMENT CONTROL PLAN
LOCATION: KODIAK, ALASKA	
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)	

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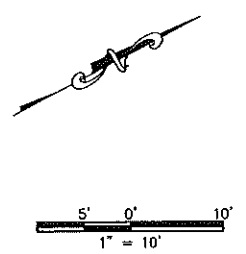
PHONE (907) 272-3264
FAX (907) 272-3214
mailto:info@bce-al.com



JOB NO. 1598.17

SHEET

C-206



- PLAN KEY**
- COVER WITH 4 INCHES OF COMPACTED TOPSOIL OR NATIVE SOIL AND SEED, AREA=1373 SQ.FT.
 - VEGETATIVE MAT (TRANSPLANTED), AREA=110 SQ.FT.
 - DITCH OR STREAM FILLED WITH NATIVE SOIL AND SEED
 - COLLAR RIPRAP
 - NEW ROAD
 - EXISTING TREES

- NOTES:**
1. FOR THE DISTURBED AREAS ON THE SIDE SLOPES OF THE ROAD APPLY TOPSOIL AND SEED.
 2. INSTALL VEGETATIVE MAT 4" TO 9" THICK ON AREAS AS SHOWN.
 3. AFTER FINAL PLACEMENT OF COLLAR ARMOR (RIPRAP) FILL IN VOIDS BETWEEN ROCKS WITH TOPSOIL AND COVER 4 INCHES THICK. FERTILIZE AND SEED.
 4. ALL TREES (COTTONWOODS AND ALDERS) THAT WERE REMOVED, MUST BE REPLACED WITH TREES ACCEPTABLE TO THE OWNERS.
 5. PROTECT EXISTING TREES.

A CULVERT 10103253 REVEGETATION PLAN
SCALE: 1 : 10

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

100% SUBMITTAL - NOVEMBER 7, 2018

REV. NO.	DATE	REVISIONS

DATE: 11/7/18	DESIGNED: _____	DRAWN: GDU	CHECKED: TCB	SCALE: AS NOTED	FILE: 159817-1003
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PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)	DRAWING: CULVERT 10103253 REVEGETATION PLAN
LOCATION: KODIAK, ALASKA	
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)	

500 W 27th AVE., SUITE A
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JOB NO. 1598.17

SHEET

C-207



THE STATE
of **ALASKA**

GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game

DIVISION OF HABITAT
Southcentral Region Office

333 Raspberry Road
Anchorage, Alaska
Main: 907.267.2342
Fax: 907.267.2499

FISH HABITAT PERMIT FH19-II-0022

ISSUED: February 7, 2019
EXPIRES: Life of Structure

Kodiak Soil and Water Conservation District
Attn: Ms. Kari Linkenhoker
518 West Marine Way, Suite 206
Kodiak, AK 99615

RE: Culvert Replacement – Unnamed Tributary Battery Creek
Section 9, T 28 S, R. 20 W, SM
Location: 57.7666 N, 152.5329 W
ADF&G Culvert No. 20703254

Dear Ms. Linkenhoker:

Pursuant to the fishway act at AS 16.05.841, the Alaska Department of Fish and Game (ADF&G) Division of Habitat has reviewed your proposal to replace an existing culvert located in an unnamed tributary of Battery Creek. The culvert is located under an unnamed road on land managed by the United States Coast Guard.

Project Description

You propose to replace the 36-inch diameter culvert with a 15-foot 9-inch wide, 8-foot high aluminum box culvert. The new 63-foot long culvert will be installed on a 3.57% slope (Sheet C-104). The new culvert will be installed upstream of the existing culvert. The culvert will be backfilled to a depth of about 4.2 feet with material of similar gradation to the native streambed designed to remain stable at high flows. A meandering 5-foot wide low-flow channel will be constructed in the streambed material inside the culvert along with 2 rock spurs constructed of class II riprap (Sheet C-105). A new stream channel will be constructed of materials of similar gradation to the native streambed materials upstream and downstream of the new culvert and will tie into the existing stream channel. The riprap mix for the culvert backfill/rock spurs and new stream channel will include sufficient fines to seal the voids and reduce sub-surface flow.

The work area will be isolated from the unnamed stream by installing a temporary coffer dam and the stream will continue to flow through the existing culvert during construction (Sheets C-100 and C-104). If groundwater is present in the isolated work area during the culvert replacement, water will be pumped from the worksite. Diverted water will be discharged into upland vegetation to remove sediment. When the new culvert is installed and the stream flow diverted into the new culvert, the existing culvert and abandoned stream channel will be backfilled with local materials.

The existing ditch downstream of the culvert will be backfilled and the stream flow will be diverted into the historic stream channel. (Sheet C-111). Fish will be removed from the work area and existing ditch to be filled and returned to the creek in accordance with a valid Aquatic Resource permit.

The streambanks upstream and downstream of the new culvert will be reconstructed with compacted salvaged native material and vegetative mats (Sheet C-110). All remaining disturbed areas will be stabilized with topsoil and native seed.

Fish Resources

The unnamed stream supports resident Dolly Varden at your project location. Your project as proposed has the potential to obstruct the efficient passage and movement of fish.

Fishway Act

In accordance with AS 16.05.841, your project is approved subject to the project description and permit terms, and the following stipulations.

1. The new culvert shall be designed, installed, and maintained to accommodate the efficient passage and movement of fish, both upstream and downstream, for the life of the project.
2. If pumping water from the creek is required during the project for dewatering or diversion, a properly sized and screened structure must surround the water intake structure. The screen mesh shall not exceed 0.1 inches (2.4 millimeter) and the water velocity at the screen surface shall not exceed 0.5 feet per second. The intake screen shall be periodically inspected during operations to ensure that the screening has not collapsed between the water intake and screen surface, that there are no openings in the mesh or gaps between the mesh and frame of the intake structure greater than 0.1 inches, and that the screen has not become blocked by debris.

Permit Terms

This letter constitutes a permit issued under the authority of AS 16.05.871 and must be retained on site during project activities. Please be advised that this determination applies only to activities regulated by the Division of Habitat; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any provision contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, we recommend you consult the Division of Habitat immediately before considering any deviation from the approved plan.

You shall give an authorized representative of the state free and unobstructed access to the permit site, at safe and reasonable times, for the purpose of inspecting or monitoring compliance with any provision of this permit. You shall furnish whatever assistance and information the authorized representative reasonably requires for monitoring and inspection purposes.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. You shall mitigate any adverse effect upon fish or wildlife, their habitats, or any restriction or interference with public use that the commissioner determines was a direct result of your failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

Please direct questions about this permit to Habitat Biologist Will Frost at 267-2813 or emailed to william.frost@alaska.gov.

Sincerely,
Doug Vincent-Lang
Commissioner



By Ron Benkert
Southcentral Regional Supervisor

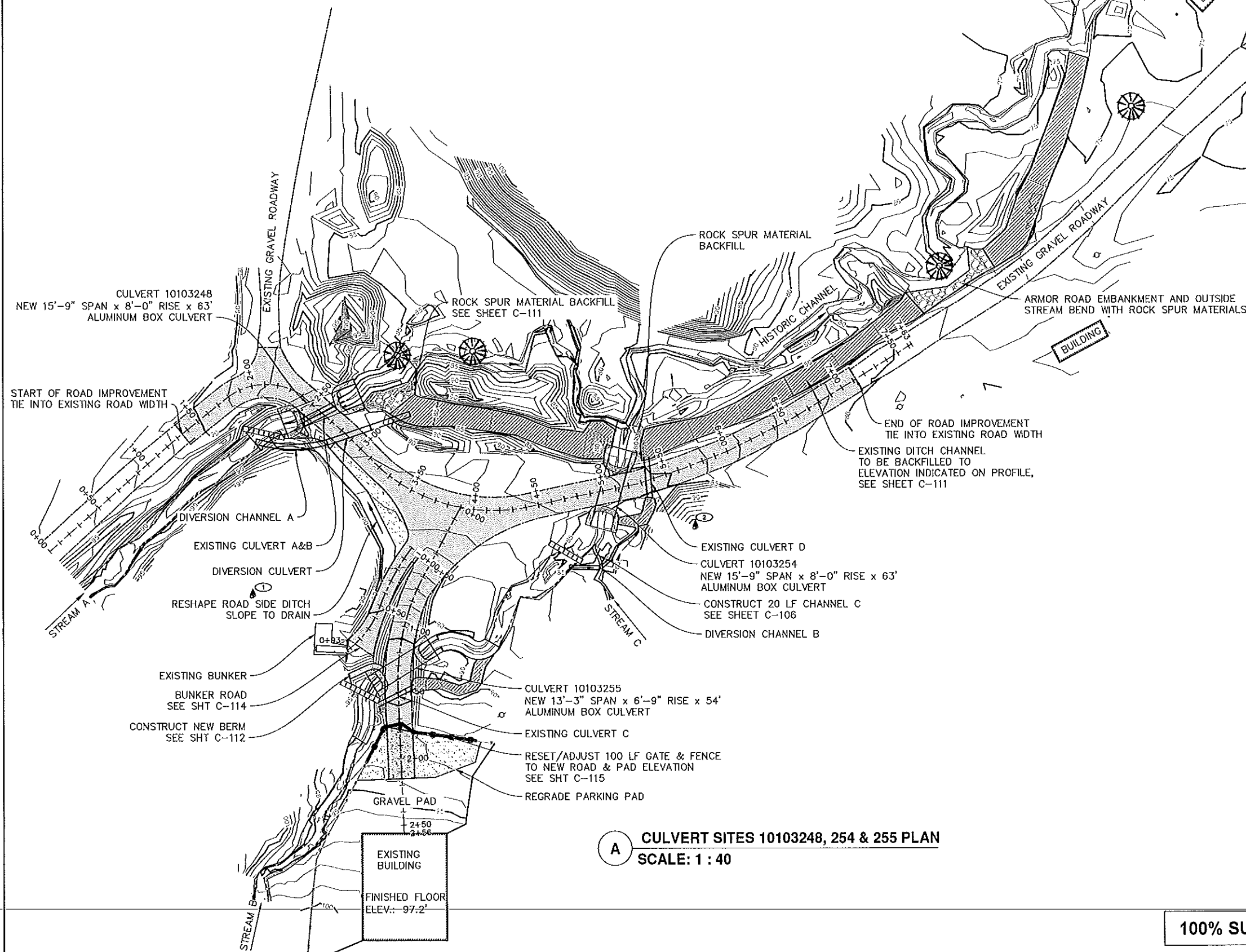
Enclosures: Sheets C-100, C-104, C-105, C-110, and C-111

Email cc:

A. Ott, ADF&G-HAB
T. Polum, ADF&G-SF
K. Schaberg, ADF&G-CF
ARP Coordinator, ADF&G-SF
G. O'Doherty, ADF&G-SF
C. Larson, ADNRL DMLW
H. Brooks, ADNRL DMLW
J. Rypkema, ADEC
AWT, Kodiak
USACE, Regulatory
H. Hanson, USFWS
E. Ammann, NOAA
M. Slife, KIB
C. Lynch, Kodiak Construction Services

CONTROL POINTS

POINT	NORTH	EAST	ELEVATION	DESCRIPTION
CP 1	1378786.28	1926540.69	135.34	SET PINK PLASTIC CAP ON 5/8" REBAR
CP 2	1378837.84	1926878.58	96.64	SET PINK PLASTIC CAP ON 5/8" REBAR



LEGEND

- SURVEY CONTROL POINT
- CONTROL POINT NUMBER
- EXISTING TREE
- CENTERLINE OF ROAD / THALWEG
- ORDINARY HIGH WATER LINE
- ROADWAY SHOULDER
- ISLAND
- EXISTING CULVERT AS NOTED
- FENCE LINE
- UTILITY POLE
- NEW GRAVEL SURFACE
- NEW ROAD SURFACE
- DITCH BACKFILL
- RIPRAP

NOTES

- THIS DRAWING IS BASED ON A FIELD SURVEY PERFORMED BY EDGE SURVEY AND DESIGN, LLC ON 10/9/2017.
- THE BASIS OF HORIZONTAL CONTROL IS CONTROL POINT 1 (SEE COORDINATE TABLE)
- COORDINATES SHOWN HEREON ARE ALASKA STATE PLANE ZONE 5, NAD83, U.S. SURVEY FEET.
- DISTANCES SHOWN ARE ALASKA STATE PLANE ZONE 5, NAD83, U.S. SURVEY FEET DISTANCES.
- ELEVATIONS SHOWN HEREON ARE BASED ON AN OPUS DERIVED NAVD88 ORTHOMETRIC HEIGHT, GEOID 12B, ON CONTROL POINT 1.

A CULVERT SITES 10103248, 254 & 255 PLAN
SCALE: 1 : 40

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

PROJECT KODIAK ISLAND HABITAT ENHANCEMENT PROJECT
(FISH PASSAGE)
LOCATION KODIAK, ALASKA
CLIENT U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING CULVERT SITES 10103248, 254 & 255 PLAN

500 W 27th AVE., SUITE A
ANCHORAGE, ALASKA 99503
WWW.EDGE-SD.COM
PHONE (907) 275-2934
FAX (907) 275-2934
WWW.EDGE-SD.COM

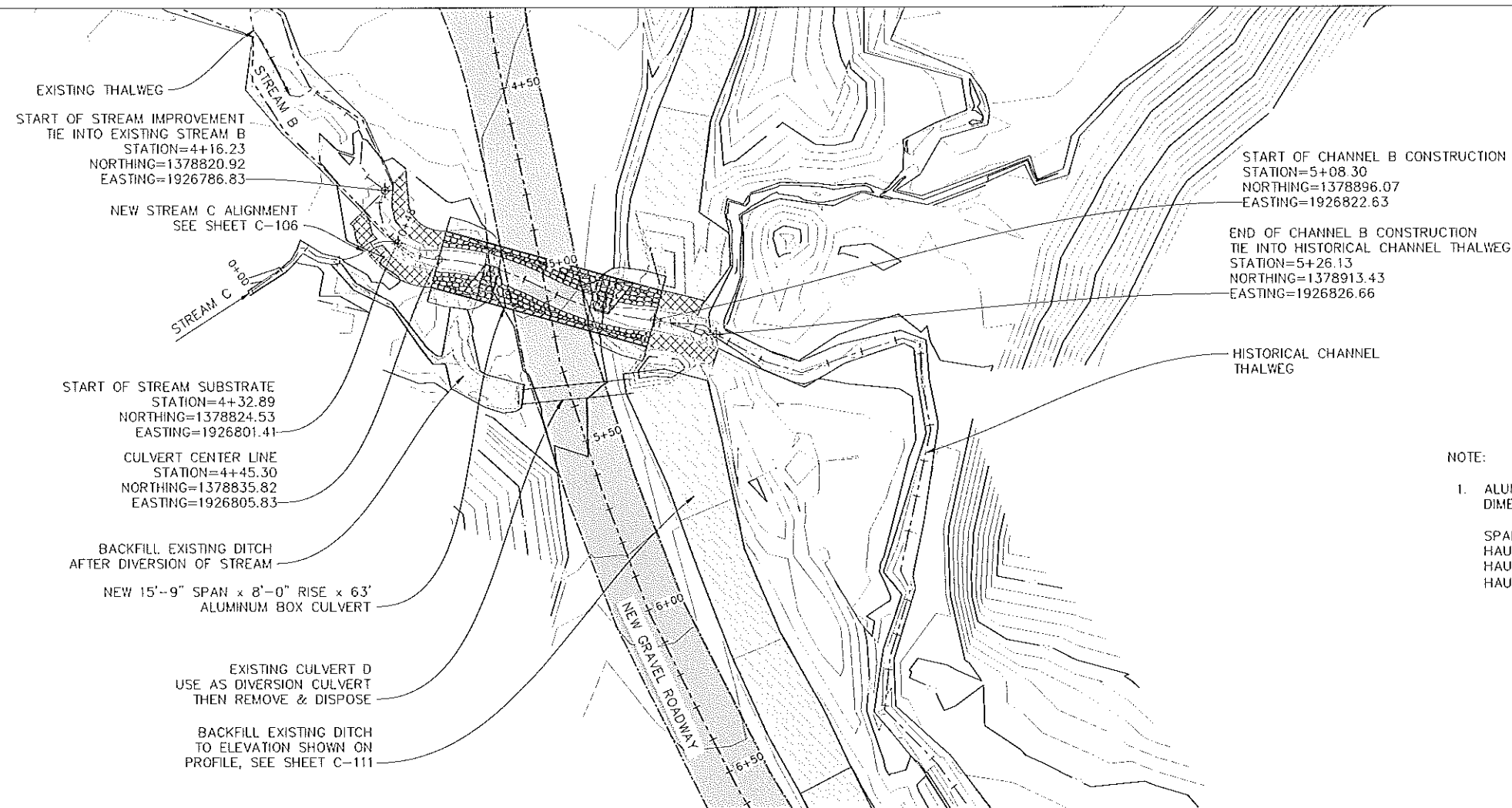
BCE
Bentley & Co.
CONSULTING ENGINEERS, INC.

STATE OF ALASKA
JULY 1994
PROFESSIONAL ENGINEER
CE-5970

JOB NO. 1598.17

SHEET

C-100

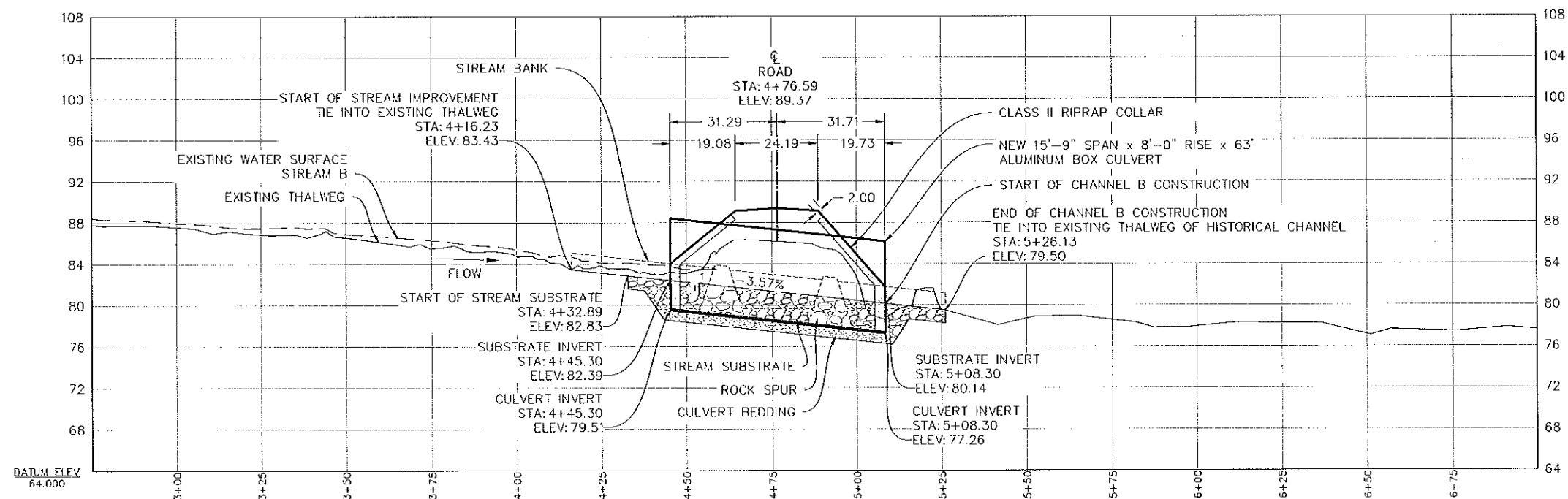


NOTE:

- ALUMINUM BOX CULVERT (ALBC) SHALL HAVE THE FOLLOWING DIMENSIONS:

SPAN: 15'-9" RISE: 8'-0"
HAUNCH GAGE: 6 CROWN GAGE: 6
HAUNCH RIB TYPE: TYPE II CROWN RIB TYPE: TYPE IV
HAUNCH RIB SPACING: 18" CROWN RIB SPACING: 18"

A CULVERT 10103254 PLAN
SCALE: 1 : 20



B CULVERT 10103254 PROFILE
SCALE: 1 : 20 (H) 1:3 (V)

100% SUBMITTAL - NOVEMBER 7, 2018

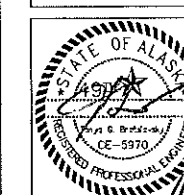
NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

DATE	11/7/18
DESIGNED	
DRAWN	CDU
CHECKED	TCB
SCALE	AS NOTED
FILE	100A17-1007

PROJECT	KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)
LOCATION	KODIAK, ALASKA
CLIENT	U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING	CULVERT 10103254 PLAN & PROFILE

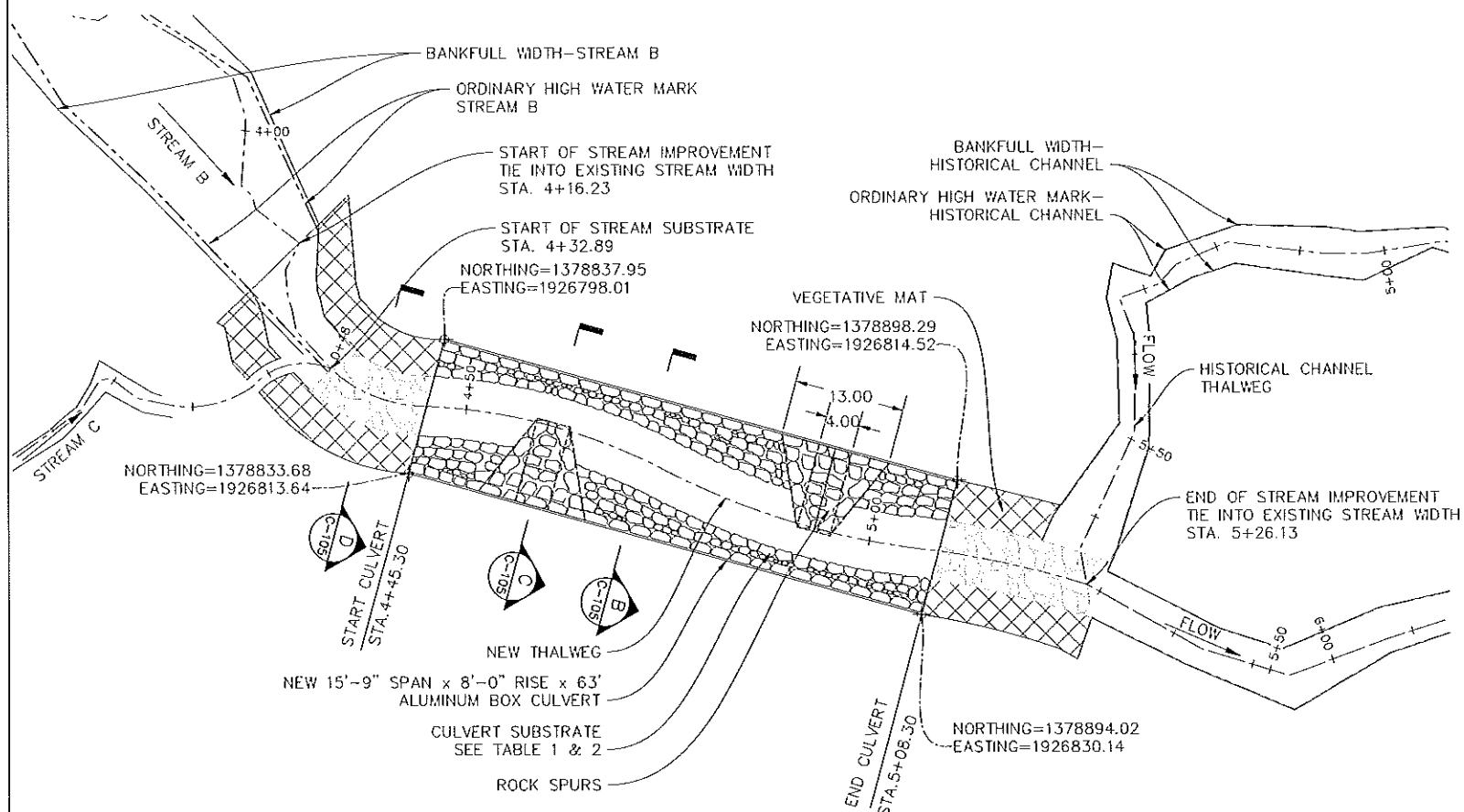
500 W. 27th AVE., SUITE A
ANCHORAGE, ALASKA 99503
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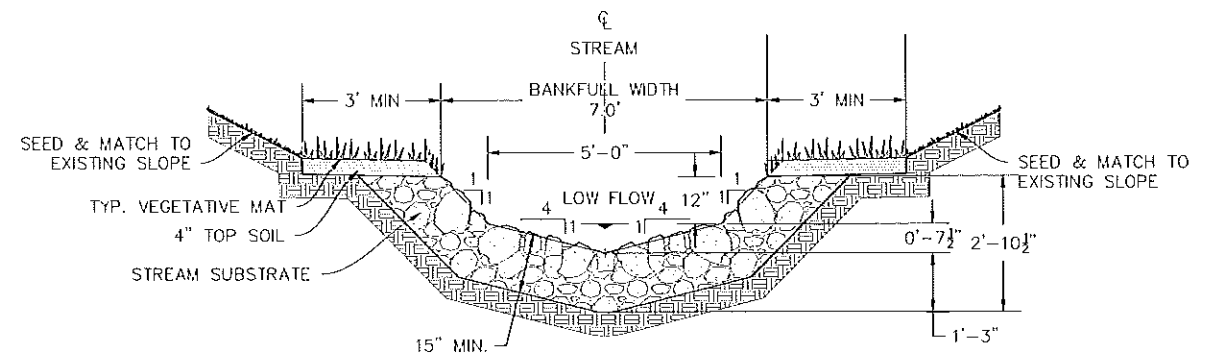
JOB NO. 1598.17

SHEET

C-104



A CULVERT 10103254 SUBSTRATE PLAN
SCALE: 1 : 10



D SECTION D
SCALE: 1 : 2

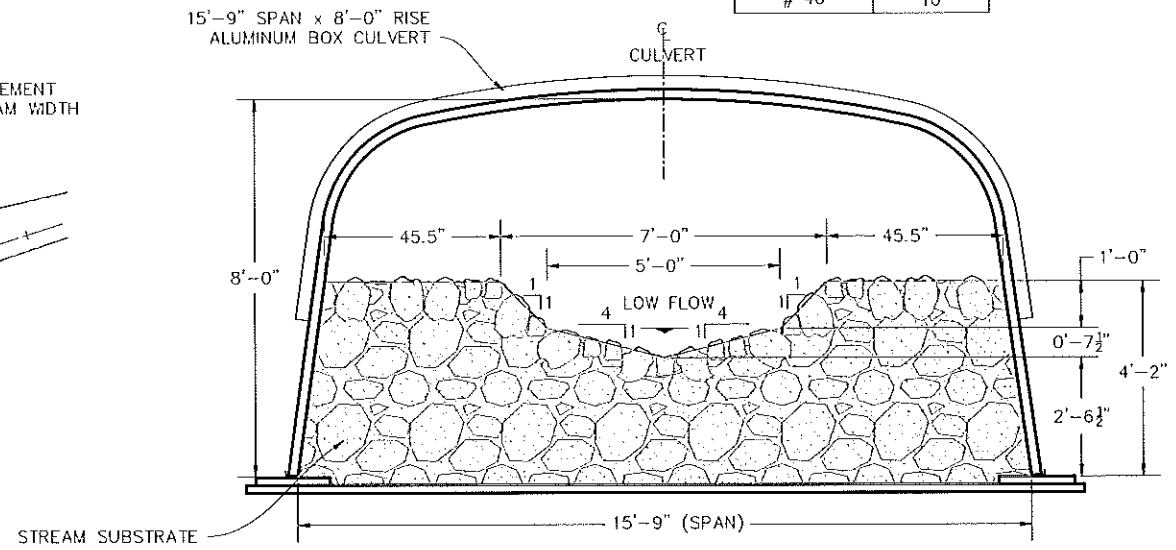
- NOTES:
1. STREAM SUBSTRATE MATERIAL SHALL BE MIXED AT SITE USING 2 PARTS COARSE TO 1 PART FINE.
 2. COARSE AND FINE MATERIALS SHALL FOLLOW THE GRADATION NOTED IN TABLE 1 AND 2, RESPECTIVELY.
 3. ROCK SPUR MATERIAL SHALL BE MIXED USING 1 PART CLASS II RIPRAP, 1 PART COARSE AND 1 PART FINE MATERIAL PER TABLE 1 & 2 BELOW.
 4. CONSTRUCT STREAM SUBSTRATE AND ROCK SPUR LEAVING A NON-UNIFORM, ROUGH SURFACE. CONTRACTOR SHALL WASH FINE MATERIALS INTO COARSE MATERIALS UNTIL BED IS SEALED AND WATER POOLS ON SURFACE. ADDITIONAL FINES MAY BE REQUIRED DURING THIS PROCESS.
 5. STREAM SHALL NOT BE RE-DIVERTED INTO CULVERT UNTIL ENGINEER HAS APPROVED BED MATERIALS ARE SUFFICIENTLY SEALED.
 6. HAND PLACEMENT OF ROCKS WILL BE REQUIRED FOR CHANNEL CONSTRUCTION AND SHOULD BE SUPERVISED AND APPROVED BY THE ENGINEER.
 7. EQUIPMENT SMALL ENOUGH TO FIT INTO CULVERT MAY BE USED TO FILL IN THE PIPE.

TABLE 1

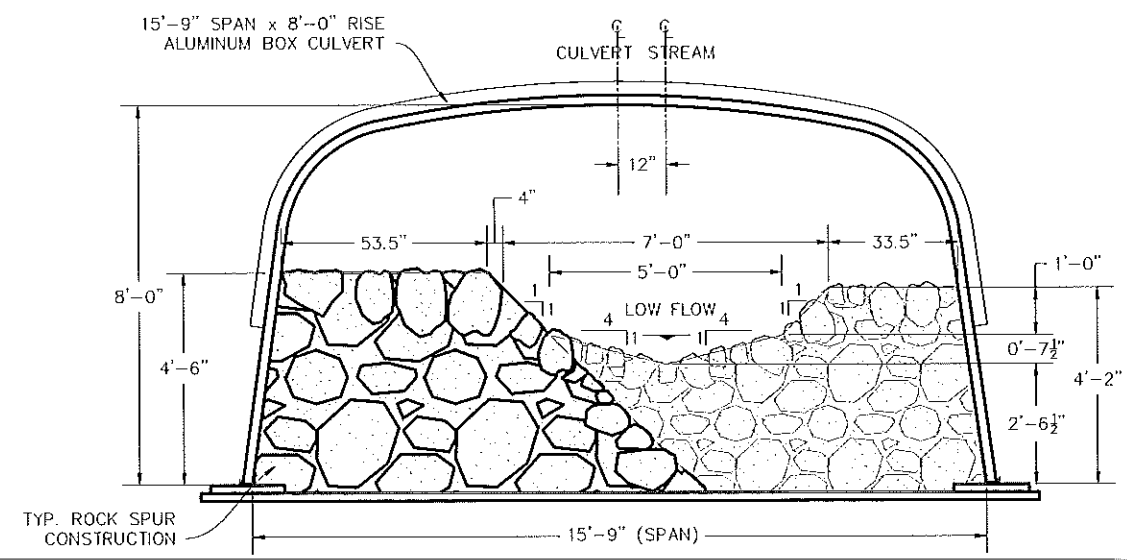
COARSE MATERIAL	
SIZE	% PASSING
15"	100
13"	80-90
8"	45-55
5"	25-35
4"	10-20

TABLE 2

FINE MATERIAL	
SIZE	% PASSING
4"	100
2.5"	75-85
2"	65-75
1"	45-55
1/2"	20-30
# 10	15
# 40	10



B SECTION B
SCALE: 1 : 2



C SECTION C
SCALE: 1 : 2

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REVISIONS

DATE

REV. NO.

11/7/18

DESIGNED: SDJ

DRAWN: SDJ

CHECKED: TCB

SCALE: AS NOTED

FILE: 150417-002

PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)

LOCATION: KODIAK, ALASKA

CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)

DRAWING: CULVERT 10103254 SUBSTRATE PLAN & SECTIONS

150 W. 27TH AVE., SUITE A

ANCHORAGE, ALASKA 99503

WWW.BCE-AN.COM

PHONE (907) 272-5294

FAX (907) 272-5214

mailto:info@bce-an.com

BCE

Bentley & Co.

CONSULTING ENGINEERS, INC.

STATE OF ALASKA

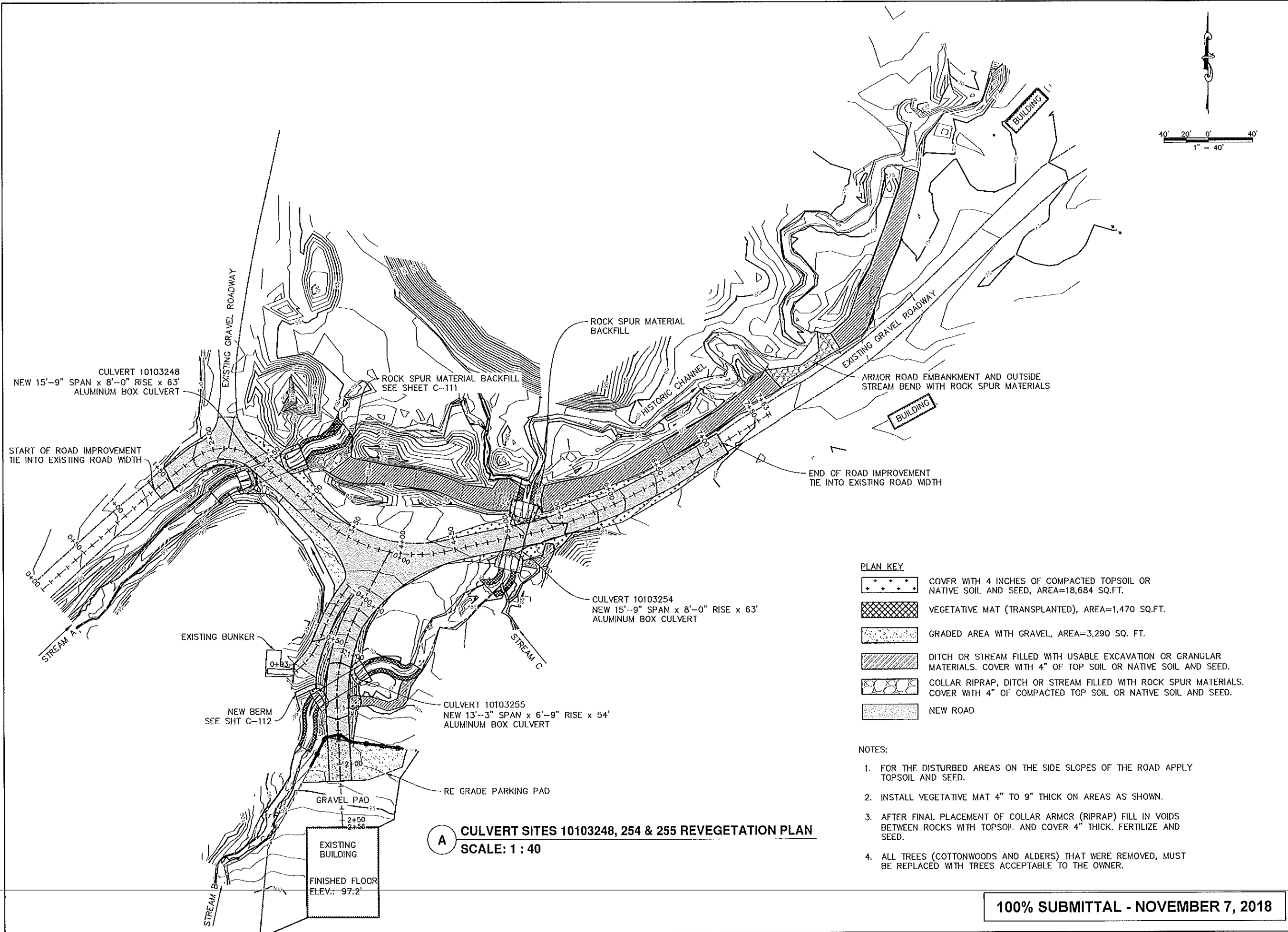
CE-5970

REGISTERED PROFESSIONAL ENGINEER

JOB NO. 1598.17

SHEET

C-105



PLAN KEY

- COVER WITH 4 INCHES OF COMPACTED TOPSOIL OR NATIVE SOIL AND SEED, AREA=18,684 SQ.FT.
- VEGETATIVE MAT (TRANSPLANTED), AREA=1,470 SQ.FT.
- GRADED AREA WITH GRAVEL, AREA=3,290 SQ. FT.
- DITCH OR STREAM FILLED WITH USABLE EXCAVATION OR GRANULAR MATERIALS. COVER WITH 4" OF TOP SOIL OR NATIVE SOIL AND SEED.
- COLLAR RIPRAP, DITCH OR STREAM FILLED WITH ROCK SPUR MATERIALS. COVER WITH 4" OF COMPACTED TOP SOIL OR NATIVE SOIL AND SEED.
- NEW ROAD

NOTES:

- FOR THE DISTURBED AREAS ON THE SIDE SLOPES OF THE ROAD APPLY TOPSOIL AND SEED.
- INSTALL VEGETATIVE MAT 4" TO 9" THICK ON AREAS AS SHOWN.
- AFTER FINAL PLACEMENT OF COLLAR ARMOR (RIPRAP) FILL IN VOIDS BETWEEN ROCKS WITH TOPSOIL AND COVER 4" THICK. FERTILIZE AND SEED.
- ALL TREES (COTTONWOODS AND ALDERS) THAT WERE REMOVED, MUST BE REPLACED WITH TREES ACCEPTABLE TO THE OWNER.

A CULVERT SITES 10103248, 254 & 255 REVEGETATION PLAN
SCALE: 1 : 40

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

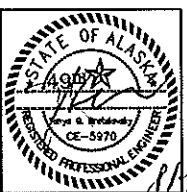
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	DRAWN: GDL			

PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)	DRAWING: CULVERT SITES 10103248, 254 & 255 REVEGETATION PLAN
LOCATION: KODIAK, ALASKA	
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)	

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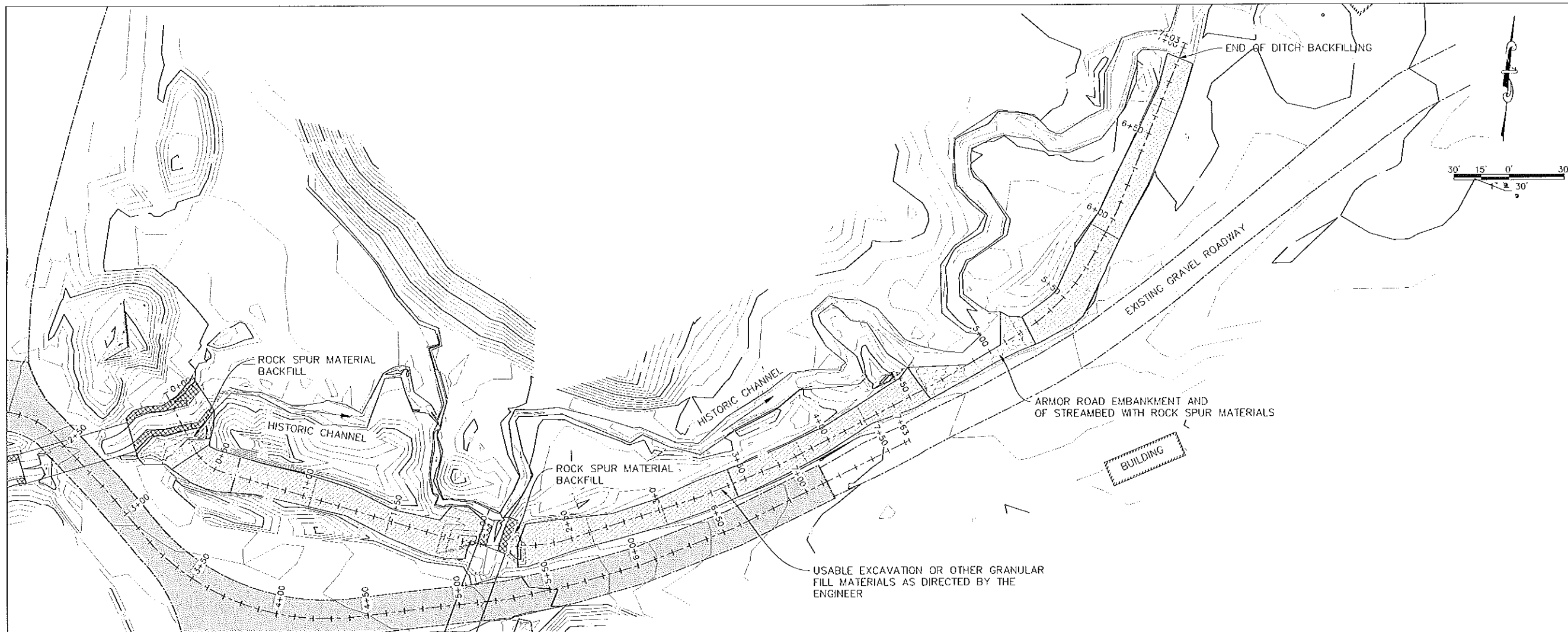
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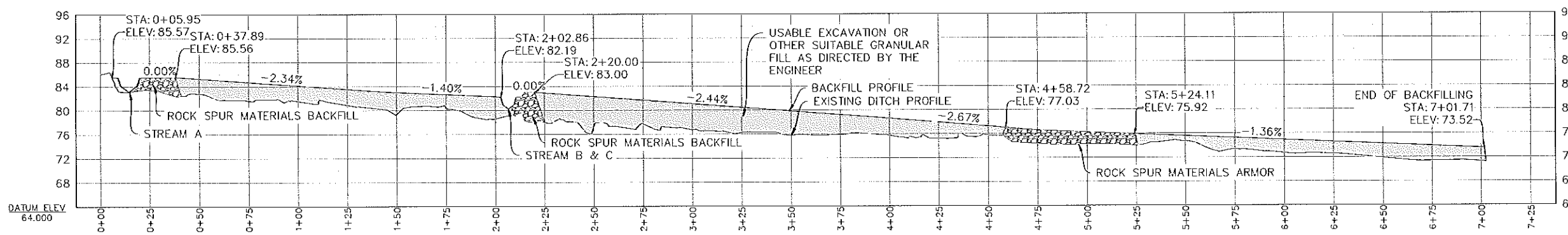
JOB NO.	1598.17
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SHEET

C-110



A DITCH A - BACKFILLING PLAN
SCALE: 1 : 30



B DITCH A - BACKFILLING PROFILE
SCALE: 1 : 30 (H) 1:3 (V)

100% SUBMITTAL - NOVEMBER 7, 2018

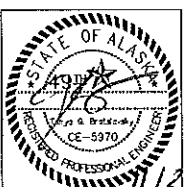
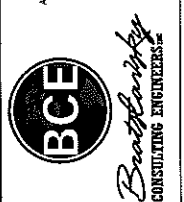
NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

DATE: 9/18/18	DESIGNED: _____	DRAWN: CDU	CHECKED: TCB	SCALE: AS NOTED	FILE: 1598.17-100%
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PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)	LOCATION: KODIAK, ALASKA
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)	DRAWING: DITCH A - BACKFILLING PLAN & PROFILE

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FAX (907) 272-5214
mailto:info@bce-al.com



JOB NO. 1598.17

SHEET

C-111



THE STATE
of **ALASKA**

GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game

DIVISION OF HABITAT
Southcentral Region Office

333 Raspberry Road
Anchorage, Alaska
Main: 907.267.2342
Fax: 907.267.2499

FISH HABITAT PERMIT FH19-II-0023

ISSUED: February 6, 2019

EXPIRES: Life of Structure

Kodiak Soil and Water Conservation District
Attn: Ms. Kari Linkenhoker
518 West Marine Way, Suite 206
Kodiak, AK 99615

RE: Culvert Replacement – Unnamed Tributary Battery Creek
Section 9, T 28 S, R 20 W, SM
Location: 57.7662 N, 152.5339 W
ADF&G Culvert No. 20703255

Dear Ms. Linkenhoker:

Pursuant to the fishway act at AS 16.05.841, the Alaska Department of Fish and Game (ADF&G) Division of Habitat has reviewed your proposal to replace an existing culvert located in Battery Creek. The culvert is located under an unnamed road on land managed by the United States Coast Guard.

Project Description

You propose to replace the 36-inch diameter culvert with a 13-foot 3-inch wide, 6-foot 9-inch high aluminum box culvert. The new 54-foot long culvert will be installed on a 2.17% slope (Sheet C-108). The new culvert will be installed downstream of the existing culvert. The culvert will be backfilled to a depth of about 4 feet with material of similar gradation to the native streambed designed to remain stable at high flows. A meandering 5-foot wide low-flow channel will be constructed in the streambed material inside the culvert along with 2 rock spurs constructed of class II riprap (Sheet C-109). A new stream channel will be constructed of materials of similar gradation to the native streambed materials upstream and downstream of the new culvert and will tie into the existing stream channel. The riprap mix for the culvert backfill and new stream channel will include sufficient fines to seal the voids and reduce sub-surface flow.

The existing ditch downstream of the culvert will be backfilled and the stream flow will be reconnected to the historic stream channel. (Sheets C-100 and C-111). Fish will be removed from the work area and existing ditch to be filled and returned to the creek in accordance with a valid Aquatic Resource permit.

The work area will be isolated from the unnamed stream by installing a temporary coffer dam and the stream will continue to flow through the existing culvert during construction (Sheet C-108). If groundwater is present in the isolated work area during the culvert replacement, water will be pumped from the worksite. Pumped water will be discharged into upland vegetation to remove sediment. When the new culvert is installed and the stream flow diverted into the new culvert, the existing culvert and abandoned stream channel will be backfilled with local materials.

The streambanks upstream and downstream of the new culvert will be reconstructed with compacted salvaged native material and vegetative mats (Sheet C-110). All remaining disturbed areas will be stabilized with topsoil and native seed.

Fish Resources

The unnamed stream supports resident Dolly Varden at your project location. Your project as proposed has the potential to obstruct the efficient passage and movement of fish.

Fishway Act

In accordance with AS 16.05.841, your project is approved subject to the project description and permit terms, the following stipulations.

1. The new culvert shall be designed, installed, and maintained to accommodate the efficient passage and movement of fish, both upstream and downstream, for the life of the project.
2. If pumping water from the creek is required during the project for dewatering or diversion, a properly sized and screened structure must surround the water intake structure. The screen mesh shall not exceed 0.1 inches (2.4 millimeter) and the water velocity at the screen surface shall not exceed 0.5 feet per second. The intake screen shall be periodically inspected during operations to ensure that the screening has not collapsed between the water intake and screen surface, that there are no openings in the mesh or gaps between the mesh and frame of the intake structure greater than 0.1 inches, and that the screen has not become blocked by debris.

Permit Terms

This letter constitutes a permit issued under the authority of AS 16.05.841 and must be retained on site during project activities. Please be advised that this determination applies only to activities regulated by the Division of Habitat; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any provision contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, we recommend you consult the Division of Habitat immediately before considering any deviation from the approved plan.

You shall give an authorized representative of the state free and unobstructed access to the permit site, at safe and reasonable times, for the purpose of inspecting or monitoring compliance with any provision of this permit. You shall furnish whatever assistance and information the authorized representative reasonably requires for monitoring and inspection purposes.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. You shall mitigate any adverse effect upon fish or wildlife, their habitats, or any restriction or interference with public use that the commissioner determines was a direct result of your failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

Please direct questions about this permit to Habitat Biologist Will Frost at 267-2813 or emailed to william.frost@alaska.gov.

Sincerely,
Doug Vincent-Lang
Commissioner



By Ron Benkert
Southcentral Regional Supervisor

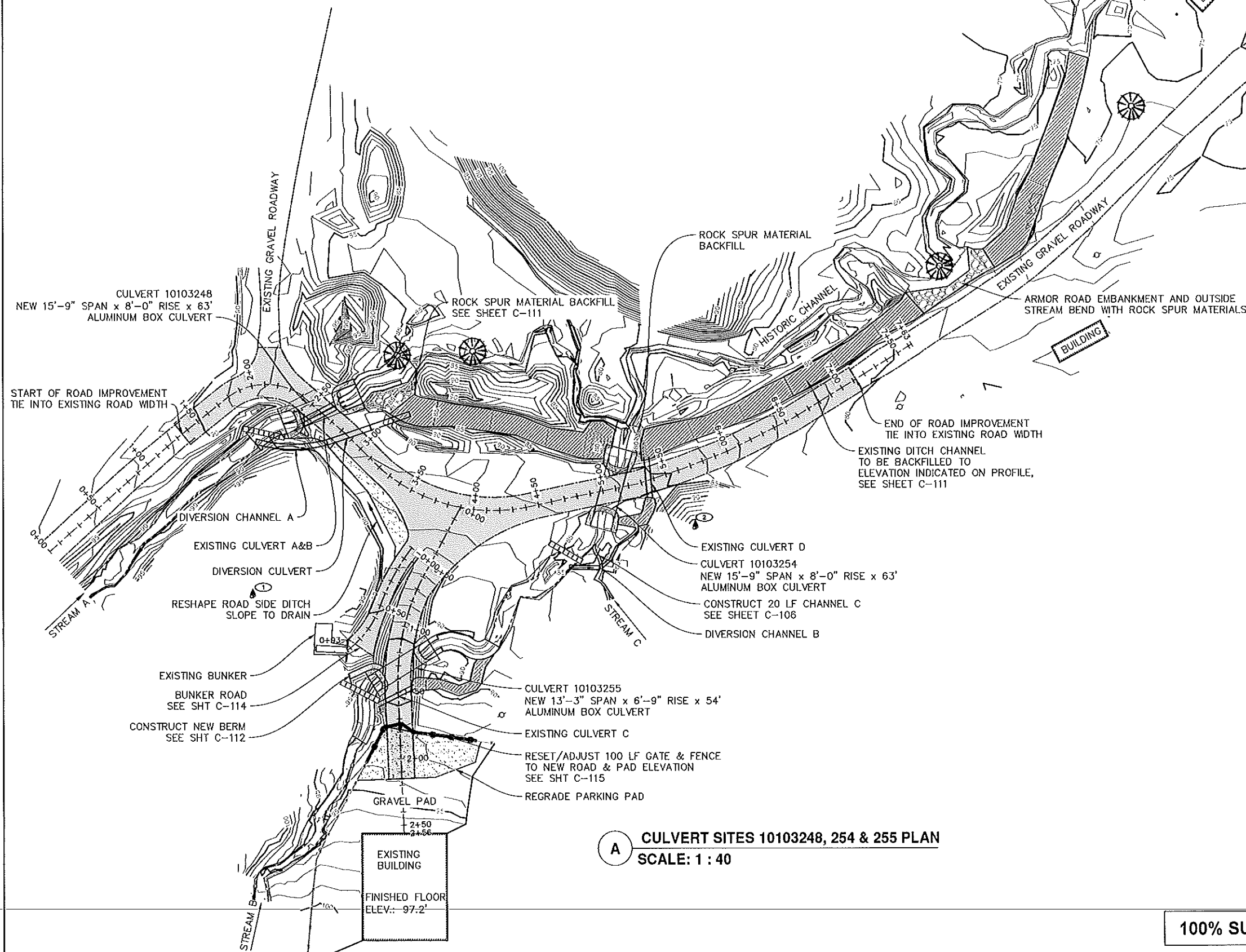
Enclosures: Sheets C-100, C-108, through C-111

Email cc:

- A. Ott, ADF&G-HAB
- T. Polum, ADF&G-SF
- K. Schaberg, ADF&G-CF
- ARP Coordinator, ADF&G-SF
- G. O'Doherty, ADF&G-SF
- C. Larson, ADNR DMLW
- H. Brooks, ADNR DMLW
- J. Rypkema, ADEC
- AWT, Kodiak
- USACE, Regulatory
- H. Hanson, USFWS
- E. Ammann, NOAA
- M. Slife, KIB
- C. Lynch, Kodiak Construction Services

CONTROL POINTS

POINT	NORTH	EAST	ELEVATION	DESCRIPTION
CP 1	1378786.28	1926540.69	135.34	SET PINK PLASTIC CAP ON 5/8" REBAR
CP 2	1378837.84	1926878.58	96.64	SET PINK PLASTIC CAP ON 5/8" REBAR



LEGEND

- SURVEY CONTROL POINT
- CONTROL POINT NUMBER
- EXISTING TREE
- CENTERLINE OF ROAD / THALWEG
- ORDINARY HIGH WATER LINE
- ROADWAY SHOULDER
- ISLAND
- EXISTING CULVERT AS NOTED
- FENCE LINE
- UTILITY POLE
- NEW GRAVEL SURFACE
- NEW ROAD SURFACE
- DITCH BACKFILL
- RIPRAP

NOTES

- THIS DRAWING IS BASED ON A FIELD SURVEY PERFORMED BY EDGE SURVEY AND DESIGN, LLC ON 10/9/2017.
- THE BASIS OF HORIZONTAL CONTROL IS CONTROL POINT 1 (SEE COORDINATE TABLE)
- COORDINATES SHOWN HEREON ARE ALASKA STATE PLANE ZONE 5, NAD83, U.S. SURVEY FEET.
- DISTANCES SHOWN ARE ALASKA STATE PLANE ZONE 5, NAD83, U.S. SURVEY FEET DISTANCES.
- ELEVATIONS SHOWN HEREON ARE BASED ON AN OPUS DERIVED NAVD88 ORTHOMETRIC HEIGHT, GEOID 12B, ON CONTROL POINT 1.

A CULVERT SITES 10103248, 254 & 255 PLAN
SCALE: 1 : 40

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

PROJECT KODIAK ISLAND HABITAT ENHANCEMENT PROJECT
(FISH PASSAGE)
LOCATION KODIAK, ALASKA
CLIENT U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING CULVERT SITES 10103248, 254 & 255 PLAN

500 W 27th AVE., SUITE A
ANCHORAGE, ALASKA 99503
WWW.EDGE-SD.COM
PHONE (907) 275-2934
FAX (907) 275-2934
WWW.EDGE-SD.COM

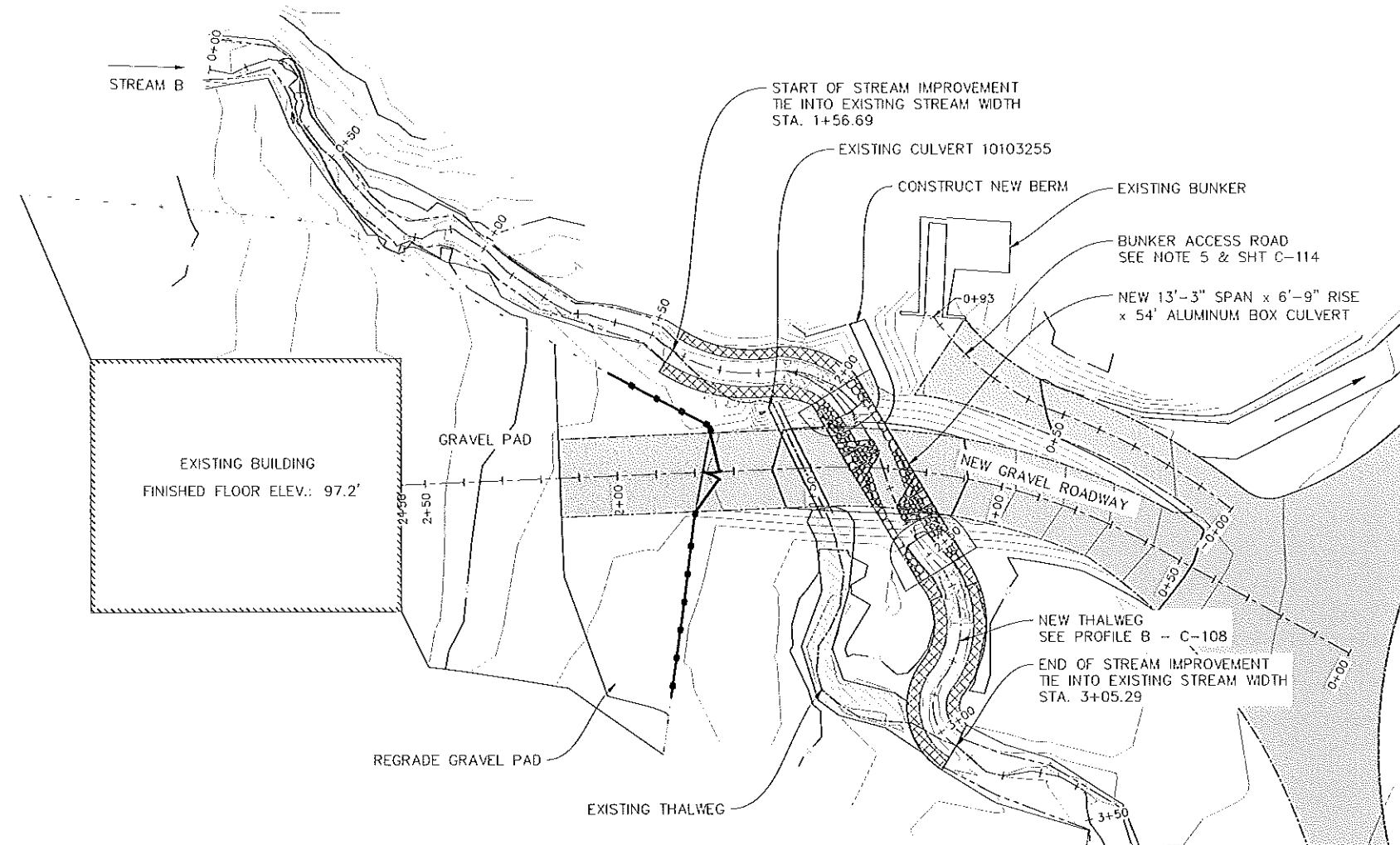
BCE
Bentley & Co.
CONSULTING ENGINEERS, INC.

STATE OF ALASKA
JULY 1994
PROFESSIONAL ENGINEER
CE-5970

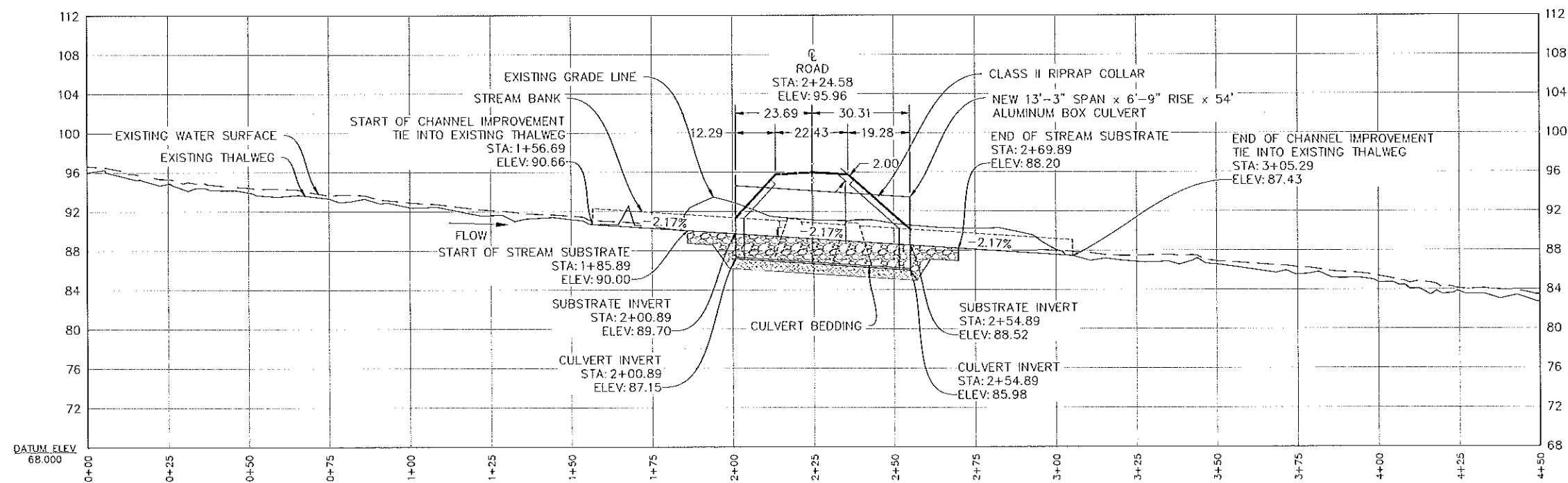
JOB NO. 1598.17

SHEET

C-100



A CULVERT 10103255 PLAN
SCALE: 1 : 20



B CULVERT 10103255 PROFILE
SCALE: 1 : 20 (H) 1:3 (V)

NOTES:

- ALUMINUM BOX CULVERT (ALBC) SHALL HAVE THE FOLLOWING DIMENSIONS:
SPAN: 13'-3" RISE: 6'-9"
HAUNCH GAGE: 2 CROWN GAGE: 2
HAUNCH RIB TYPE: TYPE II CROWN RIB TYPE: TYPE IV
HAUNCH RIB SPACING: 27" CROWN RIB SPACING: 9"
- COORDINATE ALL WORK WITH USCG.
- DO NOT OBSTRUCT ACCESS TO BUNKER OR BUILDING UNLESS APPROVED BY USCG.
- BACKFILL EXISTING THALWEG TO ELEVATION 90 FT.
- CONSTRUCT NEW ACCESS ROAD TO BUNKER. ASSURE IT IS GRADED TO MATCH EXISTING FINISH GRADES AND DOES NOT OBSTRUCT SURFACE DRAINAGE RUNOFF.

PROJECT KODIAK ISLAND HABITAT ENHANCEMENT PROJECT
(FISH PASSAGE)

LOCATION KODIAK, ALASKA
CLIENT U.S. FISH & WILDLIFE SERVICE (FWS)

DRAWING CULVERT 10103255 PLAN & PROFILE

500 W 27th AVE., SUITE A
ANCHORAGE, ALASKA 99503
WWW.BCE-AL.COM



Barthelmy
CONSULTING ENGINEERS

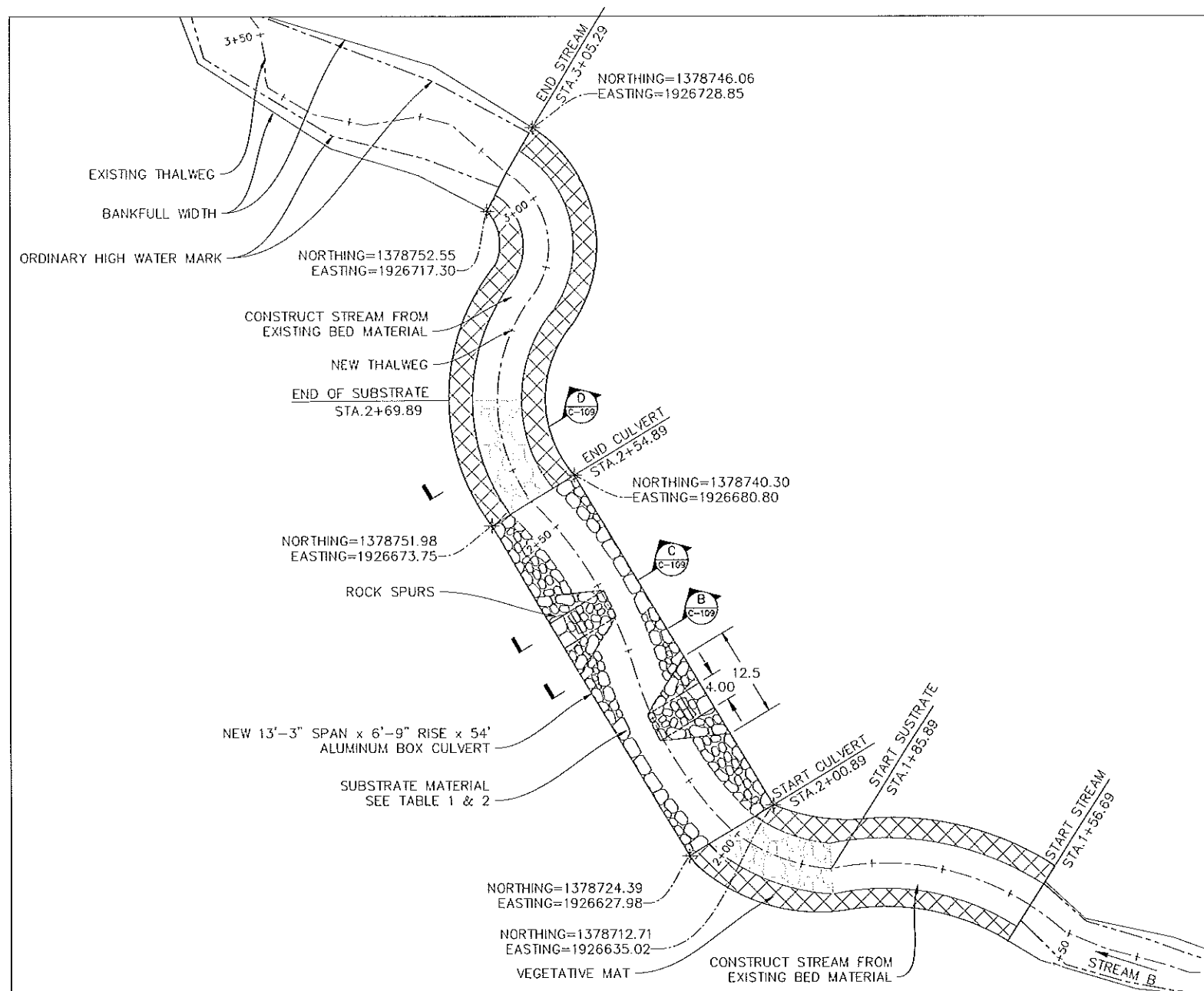


JOB NO. 1598.17

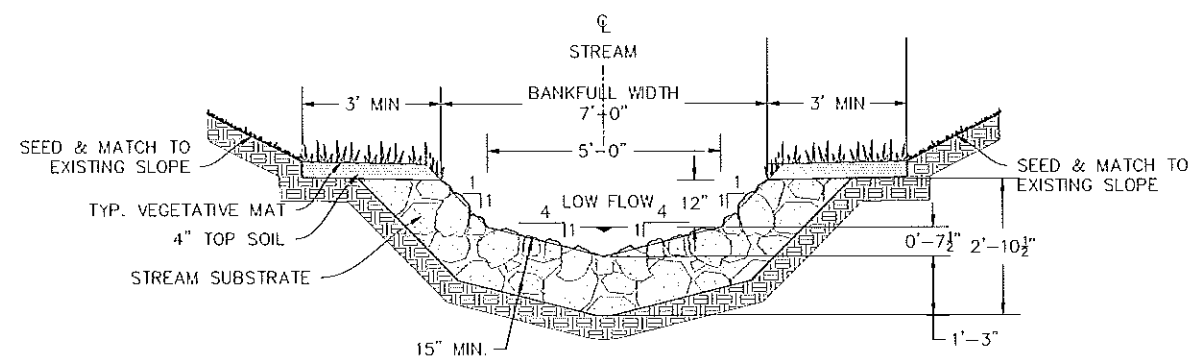
SHEET

C-108

100% SUBMITTAL - NOVEMBER 7, 2018



A CULVERT 10103255 SUBSTRATE PLAN
SCALE: 1 : 10



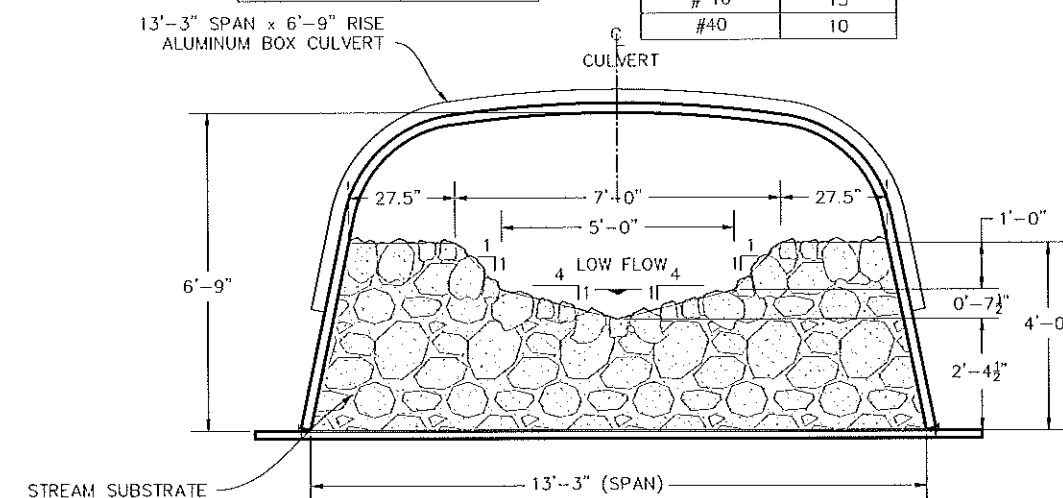
D SECTION D
C-109 SCALE: 1 : 2

NOTES:

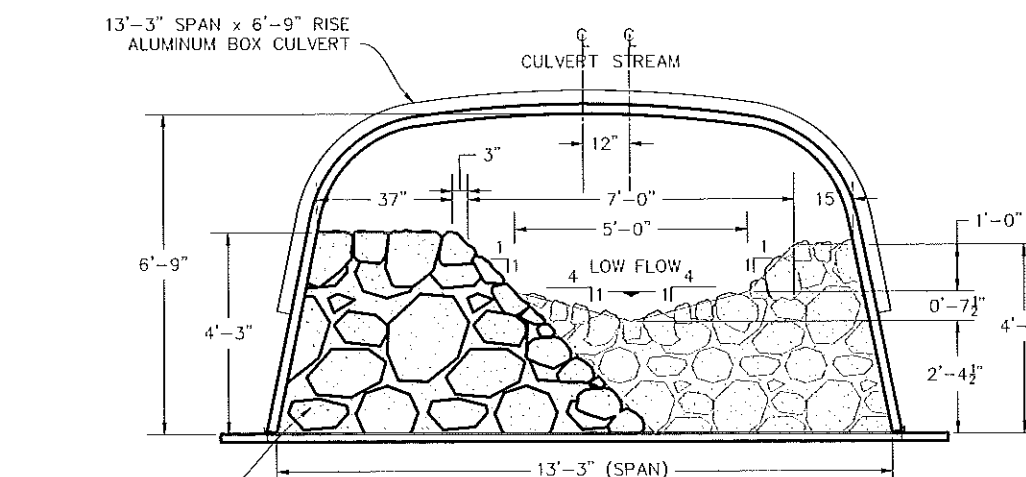
1. STREAM SUBSTRATE MATERIAL SHALL BE MIXED AT SITE USING 2 PARTS COARSE TO 1 PART FINE.
2. COARSE AND FINE MATERIALS SHALL FOLLOW THE GRADATION NOTED IN TABLE 1 AND 2, RESPECTIVELY.
3. ROCK SPUR MATERIAL SHALL BE MIXED USING 1 PART CLASS II RIPRAP, 1 PART COARSE AND 1 PART FINE MATERIAL PER TABLE 1 & 2 BELOW.
4. CONSTRUCT STREAM SUBSTRATE AND ROCK SPUR LEAVING A NON-UNIFORM, ROUGH SURFACE. CONTRACTOR SHALL WASH FINE MATERIALS INTO COARSE MATERIALS UNTIL BED IS SEALED AND WATER POOLS ON SURFACE. ADDITIONAL FINES MAY BE REQUIRED DURING THIS PROCESS.
5. STREAM SHALL NOT BE RE-DIVERTED INTO CULVERT UNTIL ENGINEER HAS APPROVED BED MATERIALS ARE SUFFICIENTLY SEALED.
6. HAND PLACEMENT OF ROCKS WILL BE REQUIRED FOR CHANNEL CONSTRUCTION AND SHOULD BE SUPERVISED AND APPROVED BY THE ENGINEER.
7. EQUIPMENT SMALL ENOUGH TO FIT INTO CULVERT MAY BE USED TO FILL IN THE PIPE.

TABLE 1 COARSE MATERIAL	
SIZE	% PASSING
12"	100
11"	80-90
7"	45-55
5"	25-35
3"	10-20

TABLE 2 FINE MATERIAL	
SIZE	% PASSING
3"	100
2"	75-85
1.5"	65-75
3/4"	45-55
# 4	20-30
# 10	15
#40	10



B SECTION B
C-109 SCALE: 1 : 2



C SECTION C
C-109 SCALE: 1 : 2

100% SUBMITTAL - NOVEMBER 7, 2018

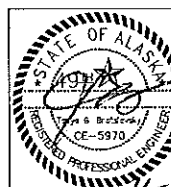
NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

PROJECT KODIAK ISLAND HABITAT ENHANCEMENT PROJECT
(FISH PASSAGE)
LOCATION KODIAK, ALASKA
CLIENT U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING CULVERT 10103255 SUBSTRATE PLAN & SECTION

505 W. 27th AVE., SUITE 4
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mailto:bce@bce-an.com



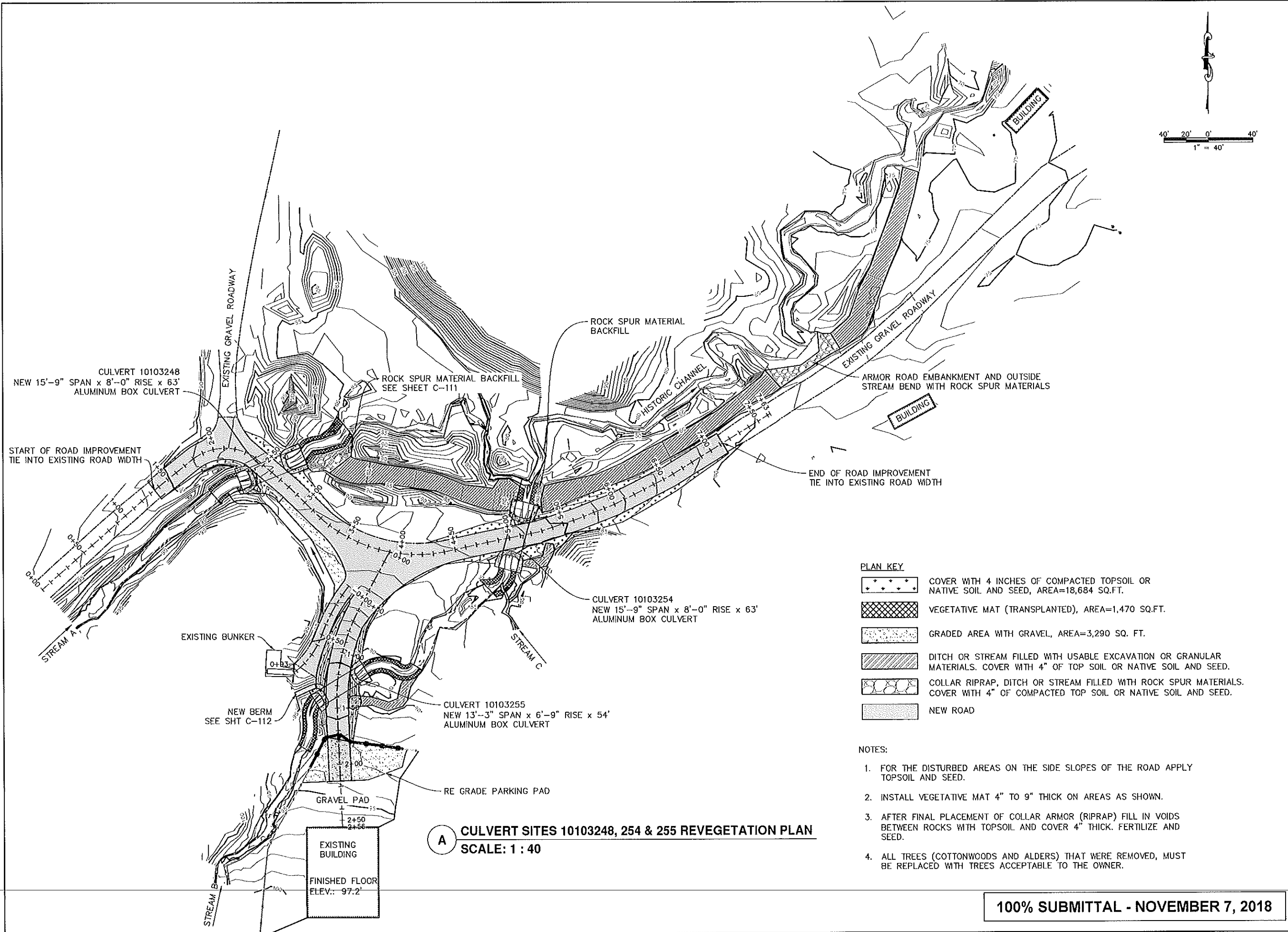
Bratton
CONSULTING ENGINEERS



JOB NO. 1598.17

SHEET

C-109



NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

100% SUBMITTAL - NOVEMBER 7, 2018

REV. NO.	DATE	REVISIONS

DATE: 11/7/18	DESIGNED: _____	CHECKED: TGR	SCALE: AS NOTED	FILE: 159817-100%
	DRAWN: GDL			

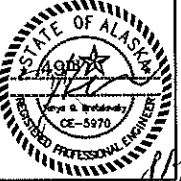
PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)	DRAWING: CULVERT SITES 10103248, 254 & 255 REVEGETATION PLAN
LOCATION: KODIAK, ALASKA	
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)	

500 W 27th AVE, SUITE A
ANCHORAGE, ALASKA 99503
WWW.BCE-AL.COM

PHONE (907) 275-5264
FAX (907) 275-5214
info@bce-al.com

BCE

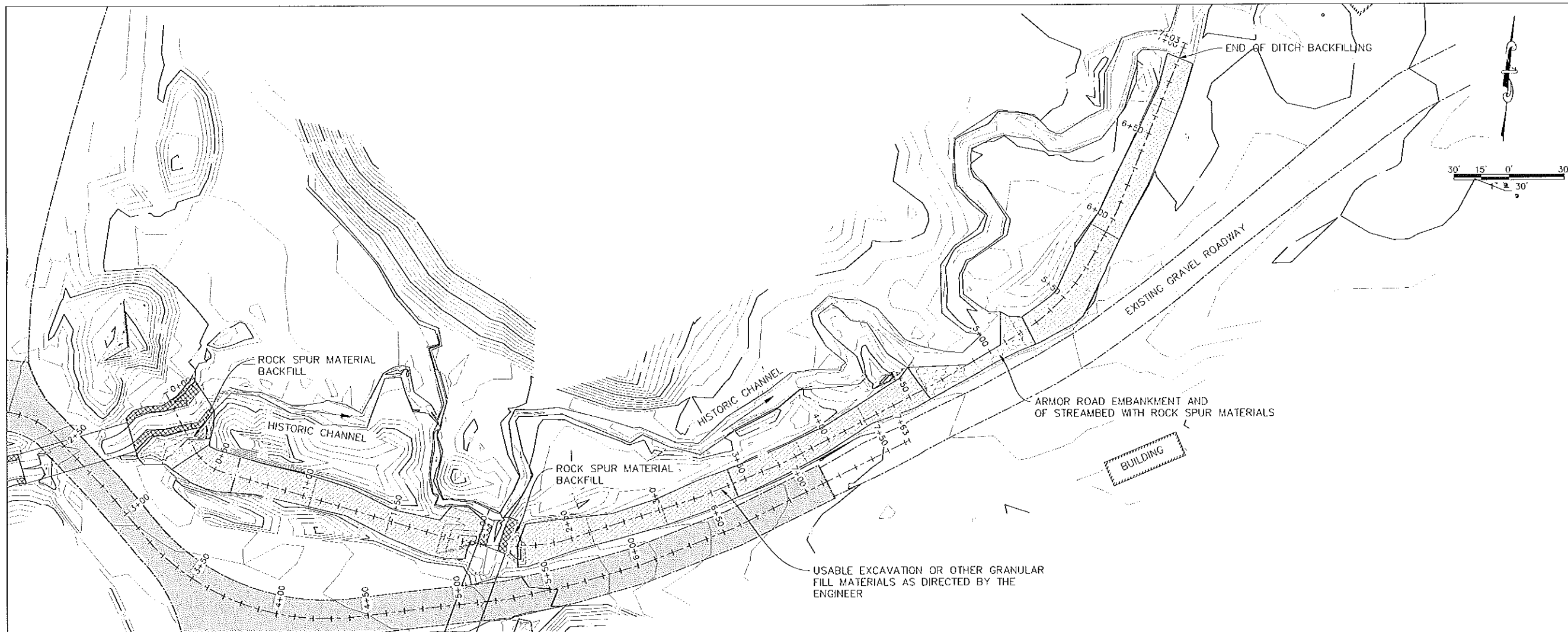
Brattberg
CONSULTING ENGINEERS



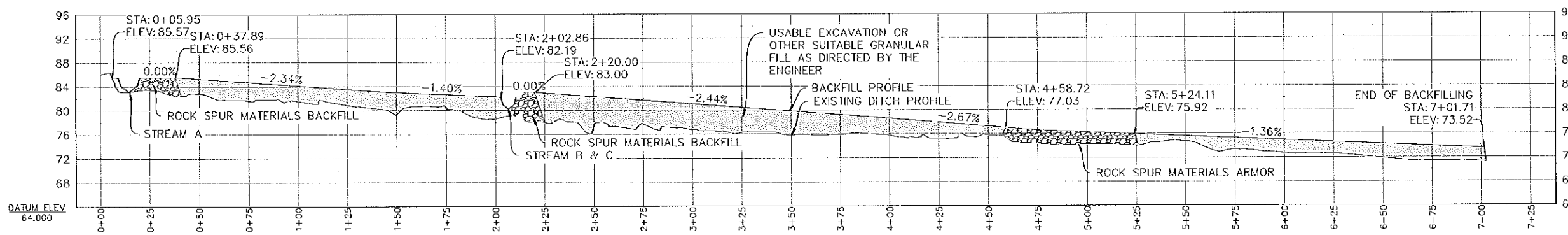
JOB NO. 1598.17

SHEET

C-110



A DITCH A - BACKFILLING PLAN
SCALE: 1 : 30



B DITCH A - BACKFILLING PROFILE
SCALE: 1 : 30 (H) 1:3 (V)

100% SUBMITTAL - NOVEMBER 7, 2018

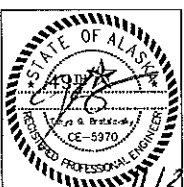
NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

DATE: 9/18/18	DESIGNED: _____	DRAWN: CDU	CHECKED: TCB	SCALE: AS NOTED	FILE: 1598.17-100%
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PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)	LOCATION: KODIAK, ALASKA
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)	DRAWING: DITCH A - BACKFILLING PLAN & PROFILE

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FAX (907) 272-5214
mailto:info@bce-al.com



JOB NO. 1598.17

SHEET

C-111



THE STATE
of **ALASKA**

GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game

DIVISION OF HABITAT
Southcentral Region Office

333 Raspberry Road
Anchorage, Alaska
Main: 907.267.2342
Fax: 907.267.2499

FISH HABITAT PERMIT FH19-II-0026

ISSUED: February 6, 2019
EXPIRES: Life of Structure

Kodiak Soil and Water Conservation District
Attn: Ms. Kari Linkenhoker
518 West Marine Way, Suite 206
Kodiak, AK 99615

Dear Ms. Linkenhoker:

Re: Culvert Replacement – Battery Creek
Water Body No. 259-21-10120-2011
Section 9, T 28 S, R. 20 W, SM
Location: 57.7683 N, 152.5397 W
ADF&G Culvert No. 20703256

Pursuant to the anadromous fish act at AS 16.05.871 (b), the Alaska Department of Fish and Game (ADF&G) Division of Habitat has reviewed your proposal to replace an existing culvert located in Battery Creek. The culvert is located under an unnamed road on land managed by the United States Coast Guard.

Project Description

You propose to replace the existing 24-inch diameter culvert with an 84-inch diameter aluminum culvert. The new 47-foot long culvert will be installed on a 0.82 slope (Sheet C-303). The new culvert will be installed upstream of the existing culvert. The culvert will be backfilled to a depth of about 3 feet with material of similar gradation to the native streambed designed to remain stable at high flows. A 2.6-foot wide low-flow channel will be constructed in the streambed material inside the culvert (Sheet C-304). To reduce scour, class II riprap and material of similar gradation to the native streambed material will be placed about 8 feet upstream of the culvert inlet and about 10 feet downstream of the culvert outlet. The riprap mix for the culvert backfill and the scour protection apron will include sufficient fines to seal the voids and reduce sub-surface flow.

The work area will be isolated from Battery Creek by installing a temporary coffer dam and the creek will remain flowing through the existing 24-inch diameter culvert during construction (Sheet C-303). Fish will be removed from the work area and returned to Battery Creek in accordance with a valid Aquatic Resource Permit. If groundwater is present in the work area during the culvert replacement, water will be pumped from the worksite. Pumped water will be discharged into upland vegetation to remove sediment.

About 240 feet of the stream channel downstream of the new culvert will be reconfigured to merge with the new culvert (Sheet C-306). The streambanks upstream and downstream of the new culvert will be reconstructed with compacted salvaged native material and vegetative mats. All remaining disturbed areas will be stabilized with topsoil and native seed.

Anadromous Fish Act

Water Body No. 259-21-10120-2011 has been specified as being important for the spawning, rearing, or migration of anadromous fishes pursuant to AS 16.05.871(a). The water body provides habitat for coho and pink salmon.

In accordance with AS 16.05.871(d), your project is approved subject to the project description, the following stipulations and the permit terms.

1. No fuel shall be stored, no vehicles shall be fueled or serviced, and vehicles leaking fuel, hydraulic fluids, or other pollutants shall not be operated below the ordinary high water line of Battery Creek.
2. In-water work in the flowing channel of Battery Creek is prohibited July 31 - October 31 unless otherwise authorized by the Division of Habitat.
3. Work areas shall be isolated from the flowing waters of Battery Creek at all times during construction. The stream reach downstream of the culvert installation shall be supplied with a constant flow of clean water sufficient to support the aquatic life in the stream and maintain fish passage.
4. The new culvert shall be designed, installed, and maintained to accommodate the efficient passage and movement of fish, both upstream and downstream, for the life of the project.
5. If pumping water from Battery Creek is required during the project for dewatering or diversion, a properly sized and screened structure must surround the water intake structure. The screen mesh shall not exceed 0.1 inches (2.4 millimeter) and the water velocity at the screen surface shall not exceed 0.5 feet per second. The intake screen shall be periodically inspected during operations to ensure that the screening has not collapsed between the water intake and screen surface, that there are no openings in the mesh or gaps between the mesh and frame of the intake structure greater than 0.1 inches, and that the screen has not become blocked by debris.

Permit Terms

This letter constitutes a permit issued under the authority of AS 16.05.871 and must be retained on site during project activities. Please be advised that this determination applies only to activities regulated by the Division of Habitat; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any provision contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, we recommend you consult the Division of Habitat immediately before considering any deviation from the approved plan.

You shall give an authorized representative of the state free and unobstructed access to the permit site, at safe and reasonable times, for the purpose of inspecting or monitoring compliance with any provision of this permit. You shall furnish whatever assistance and information the authorized representative reasonably requires for monitoring and inspection purposes.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. You shall mitigate any adverse effect upon fish or wildlife, their habitats, or any restriction or interference with public use that the commissioner determines was a direct result of your failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

You may appeal this permit decision relating to AS 16.05.871 in accordance with the provisions of AS 44.62.330-630.

Please direct questions about this permit to Habitat Biologist Will Frost at 267-2813 or emailed to william.frost@alaska.gov.

Sincerely,
Doug Vincent-Lang
Commissioner

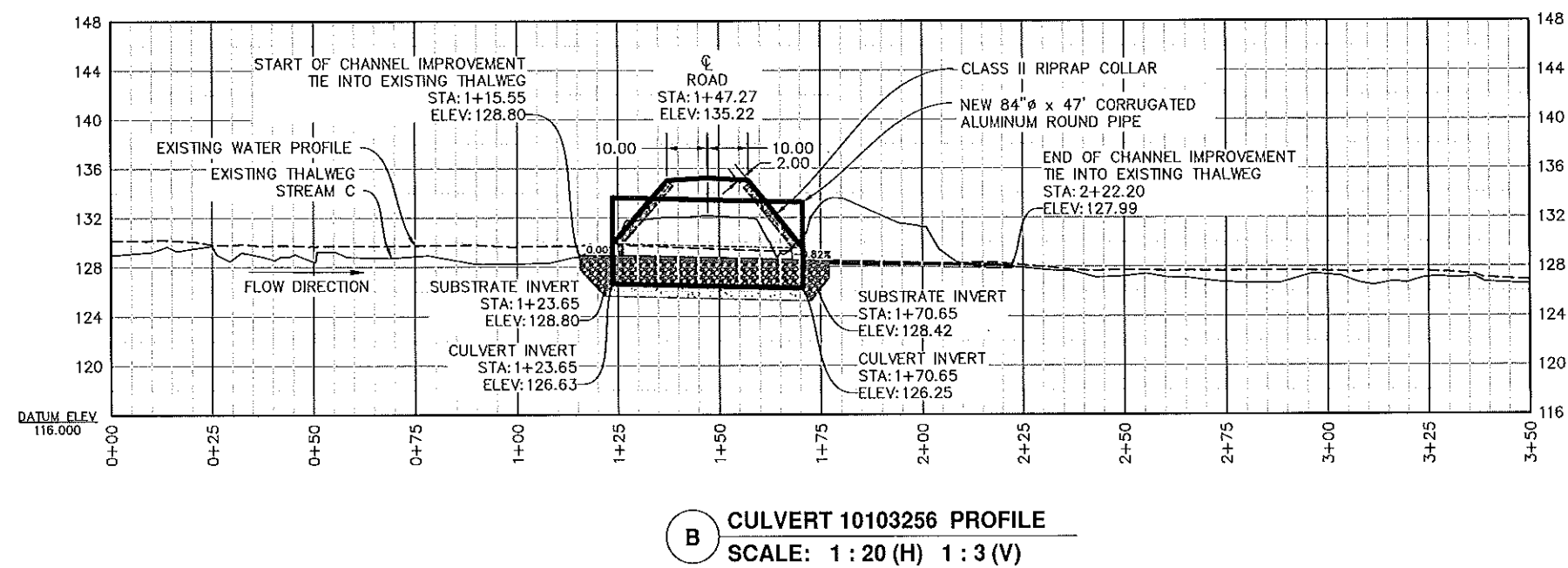
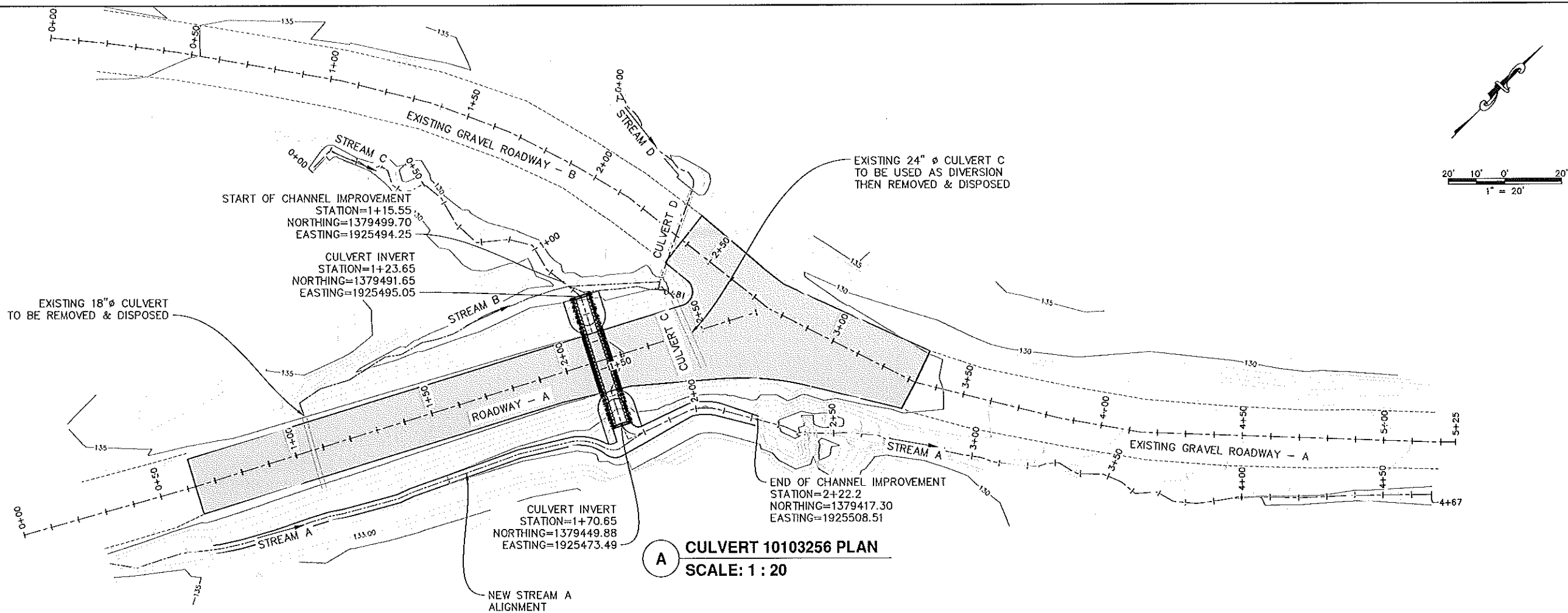


By Ron Benkert
Southcentral Regional Supervisor

Enclosures: Sheets C-303, C-304, and C-306

Email cc:

- A. Ott, ADF&G-HAB
- T. Polum, ADF&G-SF
- K. Schaberg, ADF&G-CF
- ARP Coordinator, ADF&G-SF
- G. O'Doherty, ADF&G-SF
- AWT, Kodiak
- C. Larson, ADNR DMLW
- H. Brooks, ADNR DMLW
- J. Rypkema, ADEC
- USACE, Regulatory
- H. Hanson, USFWS
- E. Ammann, NOAA
- M. Slife, KIB
- C. Lynch, Kodiak Construction Services



100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

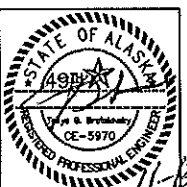
DATE: 11/7/18	DESIGNED: GDU	CHECKED: JSB	SCALE: AS NOTED	FILE: 1988.17-1003

PROJECT KODIAK ISLAND HABITAT ENHANCEMENT PROJECT
(FISH PASSAGE)
LOCATION KODIAK, ALASKA
CLIENT U.S. FISH & WILDLIFE SERVICE (FWS)

DRAWING CULVERT 10103256 PLAN & PROFILE

300 W 27th AVE., SUITE A
ANCHORAGE, ALASKA 99503
WWW.BCE-AL.COM

PHONE (907) 272-2004
FAX (907) 272-2014
info@bce-al.com



JOB NO. 1598.17

SHEET

C-303

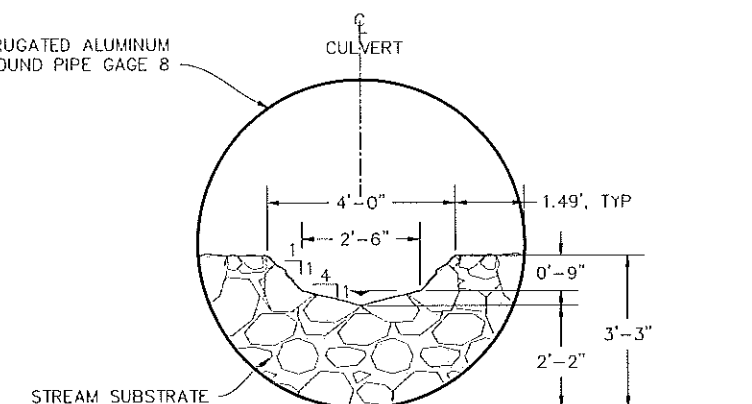
NOTES:

1. STREAM CHANNEL SUBSTRATE MATERIAL SHALL BE MIXED AT SITE USING 2 PARTS COARSE TO 1 PART FINE.
2. COARSE AND FINE MATERIALS SHALL FOLLOW THE GRADATION NOTED IN TABLE 1 AND 2, RESPECTIVELY.
3. CONSTRUCT STREAM SUBSTRATE LEAVING A NON-UNIFORM, ROUGH SURFACE. CONTRACTOR SHALL WASH FINE MATERIALS INTO COARSE MATERIALS UNTIL BED IS SEALED AND WATER POOLS ON SURFACE. ADDITIONAL FINES MAY BE REQUIRED DURING THIS PROCESS.
4. STREAM SHALL NOT BE RE-DIVERTED INTO CULVERT UNTIL ENGINEER HAS APPROVED BED MATERIALS ARE SUFFICIENTLY SEALED.
5. HAND PLACEMENT OF ROCKS WILL BE REQUIRED FOR CHANNEL CONSTRUCTION AND SHOULD BE SUPERVISED AND APPROVED BY THE ENGINEER.
6. SMALL EQUIPMENT THAT FITS INTO CULVERT MAY BE USED TO PLACE FILL IN THE PIPE.

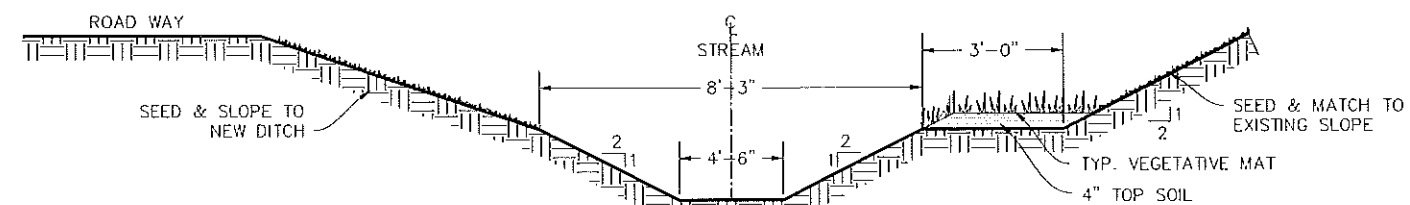
TABLE 1	
COARSE MATERIAL (3 PARTS)	
SIZE	% PASSING
12"	100
10"	80-90
6"	45-55
4"	25-35
3"	10-20

TABLE 2	
FINE MATERIAL (1 PART)	
SIZE	% PASSING
3"	100
2"	75-85
1.5"	65-75
0.75"	45-55
# 4	20-30
# 40	15
#200	10

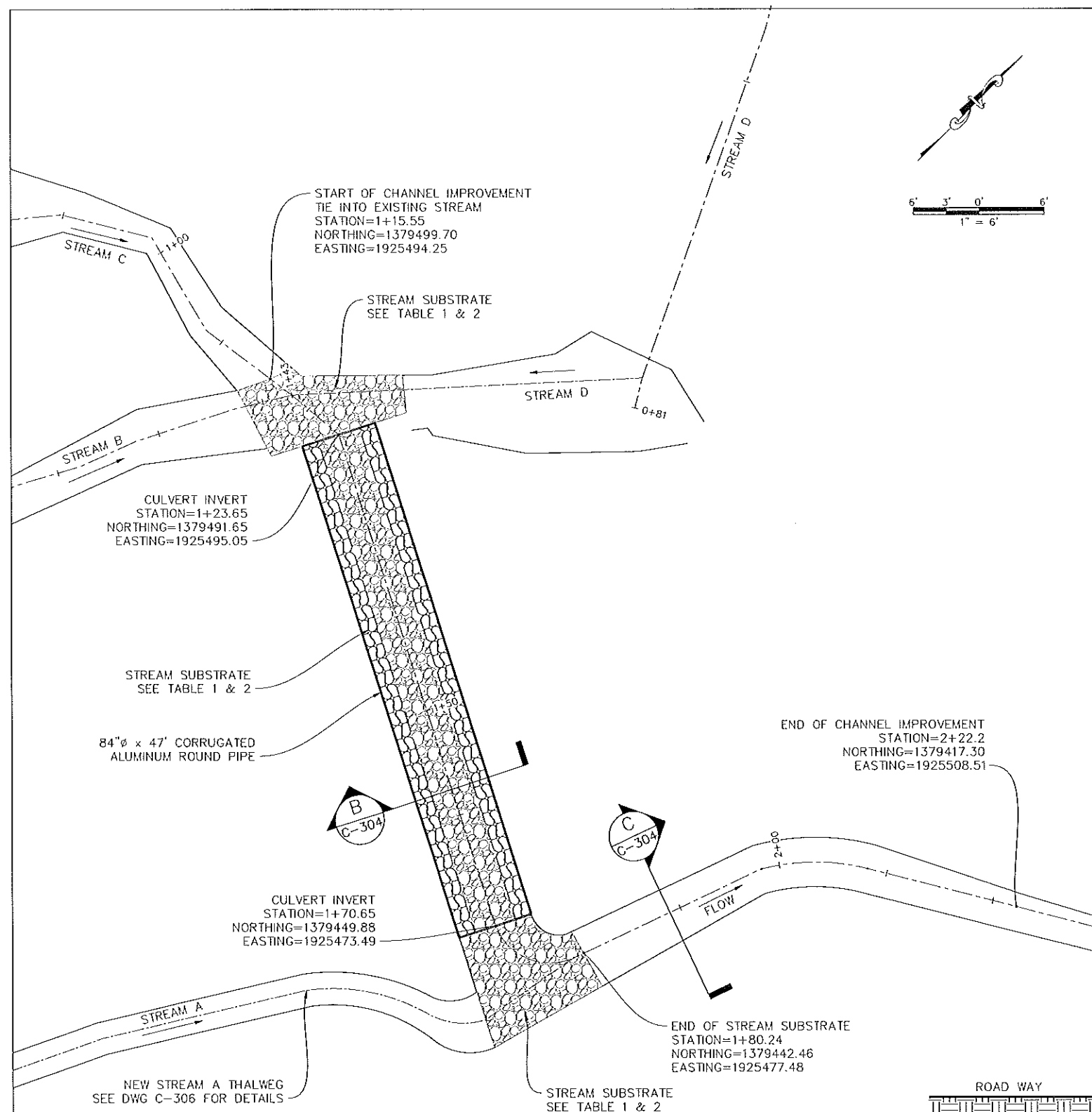
84"Ø x 47' CORRUGATED ALUMINUM
ROUND PIPE GAGE 8



B SECTION B
C-304 SCALE: 1 : 2



C SECTION C
C-304 SCALE: 1 : 2



A CULVERT 10103256 SUBSTRATE PLAN
SCALE: 1 : 20

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

100% SUBMITTAL - NOVEMBER 7, 2018

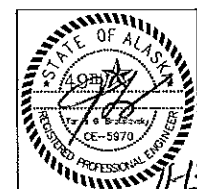
REV NO	DATE	REVISIONS

DATE: 9/18/18	DESIGNED: GDU	CHECKED: TOB	SCALE: 1:5000 17-100%	FILE: 1508.17-100%
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PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)	LOCATION: KODIAK, ALASKA	CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)	DRAWING: CULVERT 10103256 SUBSTRATE PLAN & SECTIONS
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500 W 27th AVE., SUITE A
ANCHORAGE, ALASKA 99503
WWW.BCE-AL.COM

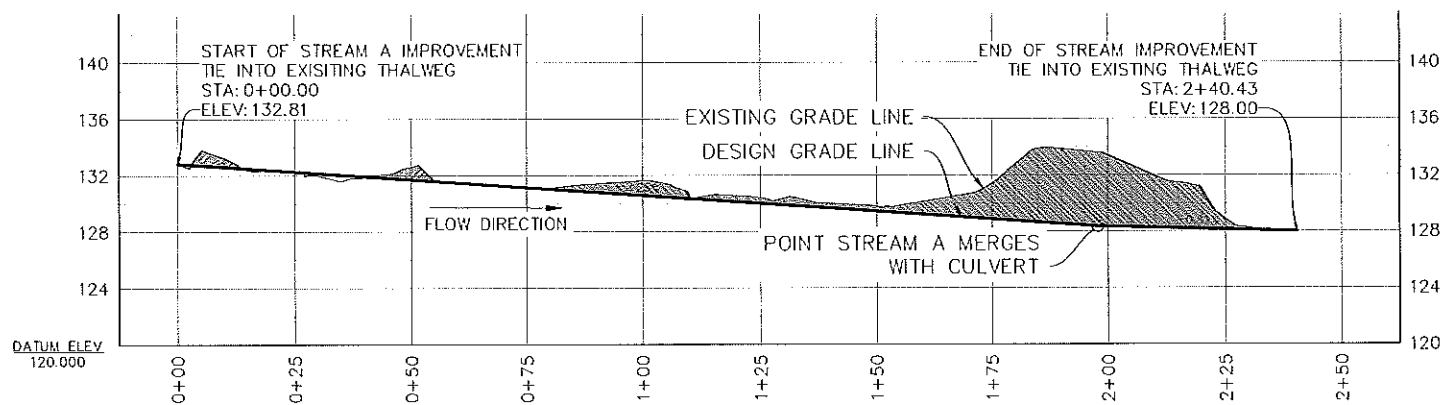
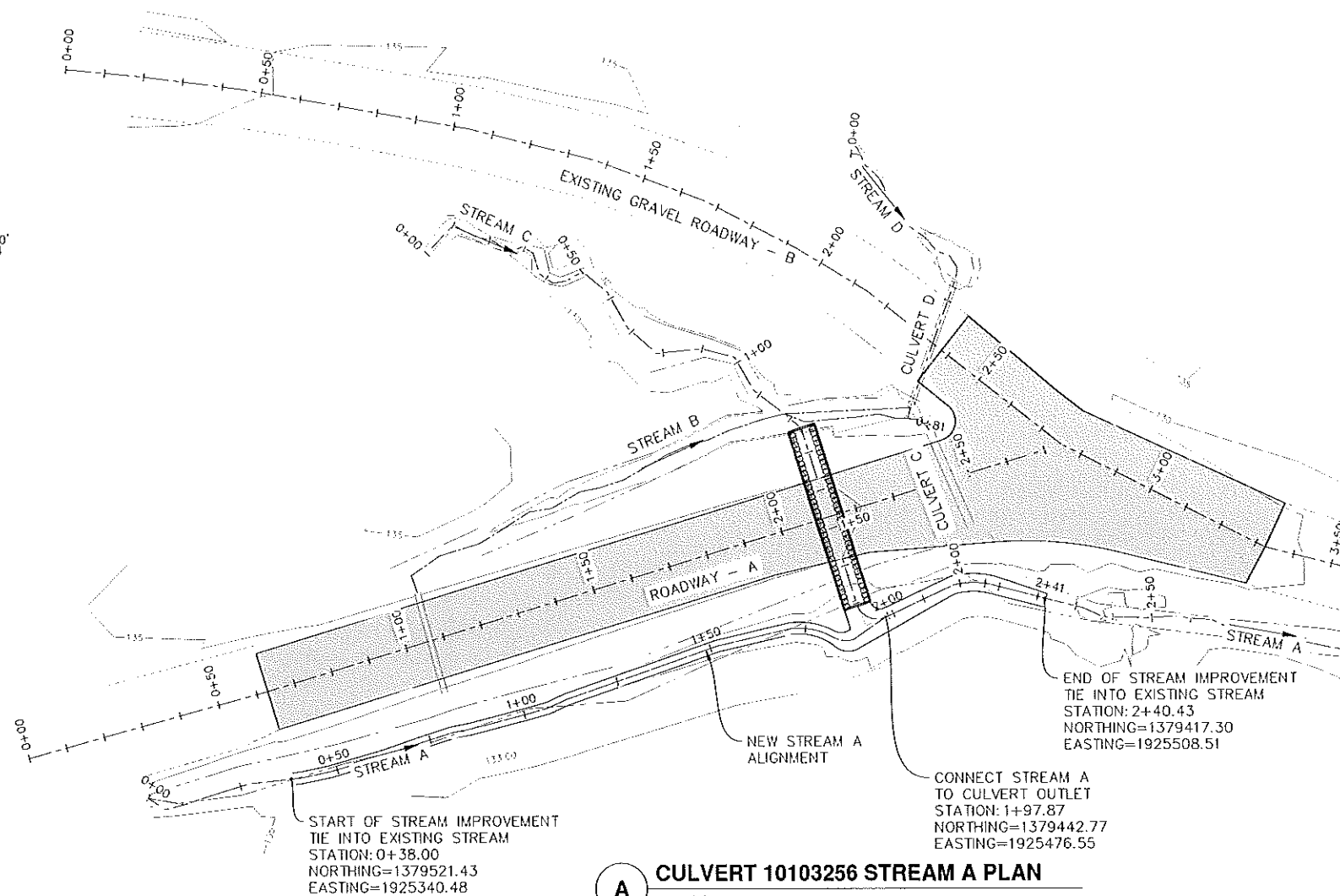
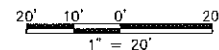
PHONE (907) 272-5244
FAX (907) 272-5214
HOLDING@bce-al.com



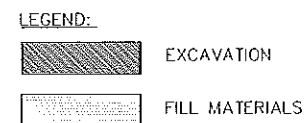
JOB NO. 15588-17

SHEET

C-304



B CULVERT 10103256 STREAM A PROFILE
SCALE: 1 : 20 (H) 1 : 3 (V)



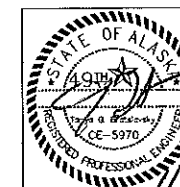
PROJECT KODIAK ISLAND HABITAT ENHANCEMENT PROJECT
(FISH PASSAGE)
LOCATION KODIAK, ALASKA
CLIENT U.S. FISH & WILDLIFE SERVICE (FWS)

DRAWING CULVERT 10103256 STREAM A PLAN & PROFILE

500 W 27th AVE., SUITE A
ANCHORAGE, ALASKA 99503
WWW.BCE-AL.COM

PHONE (907) 275-5284
FAX (907) 275-5214
BCE-AL@GMAIL.COM

BCE
Beatty & Co.
CONSULTING ENGINEERS



JOB NO. 1598.17

SHEET

C-306

100% SUBMITTAL - NOVEMBER 7, 2018



THE STATE
of **ALASKA**

GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game

DIVISION OF HABITAT
Southcentral Region Office

333 Raspberry Road
Anchorage, Alaska
Main: 907.267.2342
Fax: 907.267.2499

FISH HABITAT PERMIT FH19-II-0027

ISSUED: January 30, 2019
EXPIRES: December 31, 2021

Kodiak Soil and Water Conservation District
Attn: Ms. Kari Linkenhoker
518 West Marine Way, Suite 206
Kodiak, AK 99615

Dear Ms. Linkenhoker:

Re: Culvert Removal – Unnamed Tributary Buskin River
Water Body No. 259-21-10120-2006-3050-4050
Section 11, T 28 S, R 20 W, SM
Location: 57.7680 N, 152.4786 W
ADF&G Culvert # 20703471

Pursuant to the anadromous fish act at AS 16.05.871 (b), the Alaska Department of Fish and Game (ADF&G) Division of Habitat has reviewed your proposal to remove an existing culvert located in an unnamed tributary to Buskin River. The culvert is located under an abandoned WWII era road on land owned by Natives of Kodiak, Inc.

Project Description

An 18-inch diameter culvert will be removed and the stream channel reconfigured adjacent to the existing culvert (Sheets C-500 and C-501). Surplus fill material will be deposited in an upland location. The dimensions of the restored stream channel will closely match the width and depth of a reference reach to be determined in the field. During the new stream channel construction, a temporary sediment filter will be installed downstream of the new stream channel (Sheet C-502). All in water work will be conducted during periods of low flow.

The streambanks will be reconstructed with compacted salvaged native material and stabilized with rooted alder and vegetative mats. All areas disturbed during construction will be stabilized with topsoil and native seed (Sheet C-503).

Anadromous Fish Act

Water Body No. 259-21-10120-2006-3050-4050 has been specified as being important for the spawning, rearing, or migration of anadromous fishes pursuant to AS 16.05.871(a). The water body provides habitat for coho salmon.

In accordance with AS 16.05.871(d), your project is approved subject to the project description, the following stipulations and the permit terms.

1. No fuel shall be stored, no vehicles shall be fueled or serviced, and vehicles leaking fuel, hydraulic fluids, or other pollutants shall not be operated below the ordinary high water line of the unnamed tributary to Buskin River.
2. Work areas shall be isolated from the flowing waters of the unnamed stream at all times during construction. The stream reach downstream of the work area shall be supplied with a constant flow of clean water sufficient to support the aquatic life in the stream and maintain fish passage.

Permit Terms

This letter constitutes a permit issued under the authority of AS 16.05.871 and must be retained on site during project activities. Please be advised that this determination applies only to activities regulated by the Division of Habitat; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any provision contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, we recommend you consult the Division of Habitat immediately before considering any deviation from the approved plan.

You shall give an authorized representative of the state free and unobstructed access to the permit site, at safe and reasonable times, for the purpose of inspecting or monitoring compliance with any provision of this permit. You shall furnish whatever assistance and information the authorized representative reasonably requires for monitoring and inspection purposes.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. You shall mitigate any adverse effect upon fish or wildlife, their habitats, or any restriction or interference with public use that the commissioner determines was a direct result of your failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

You may appeal this permit decision relating to AS 16.05.871 in accordance with the provisions of AS 44.62.330-630.

Please direct questions about this permit to Habitat Biologist Will Frost at 267-2813 or emailed to william.frost@alaska.gov.

Sincerely,
Doug Vincent-Lang
Commissioner

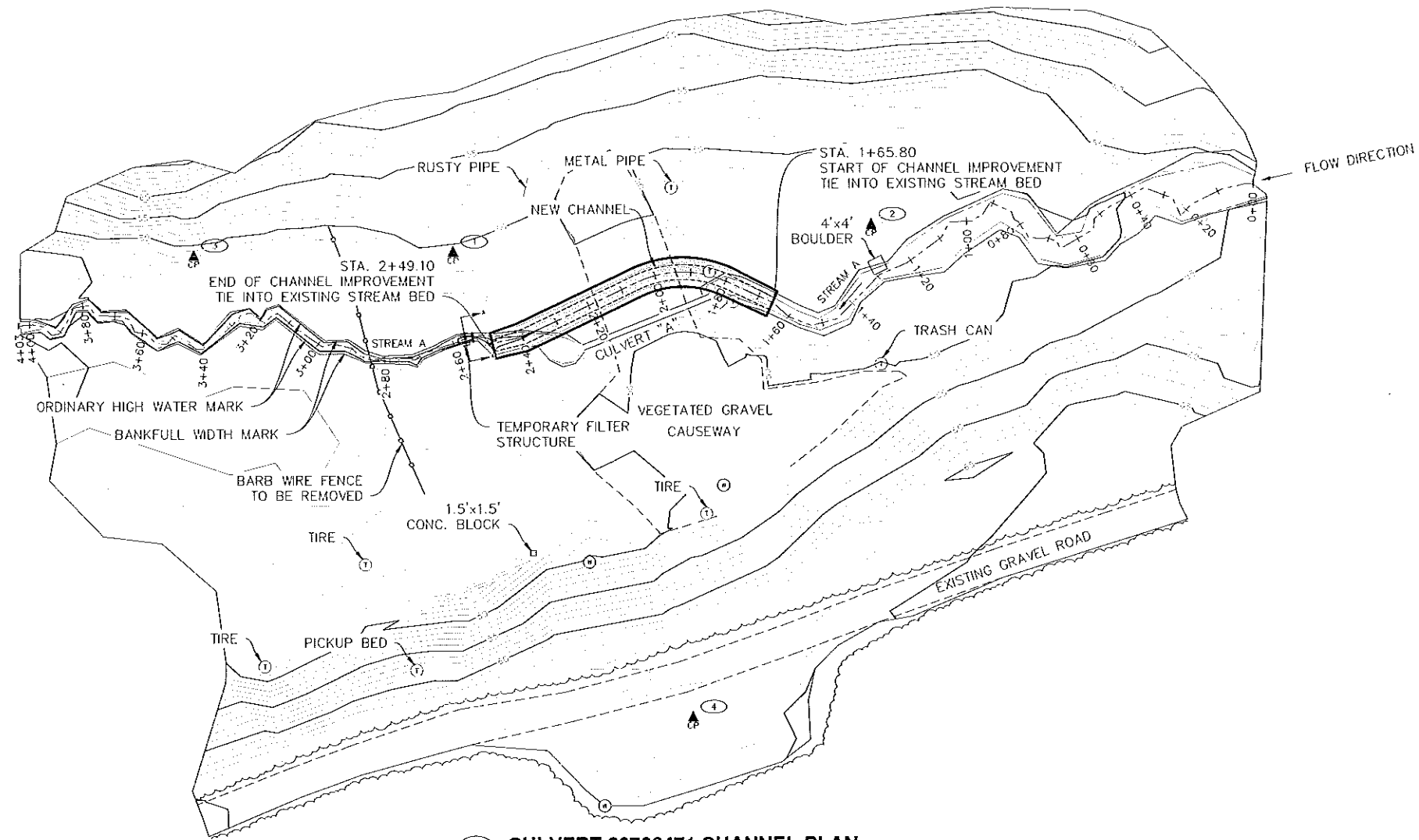


By Ron Benkert
Southcentral Regional Supervisor

Enclosures: Sheets C-500 through C-503

Email cc:

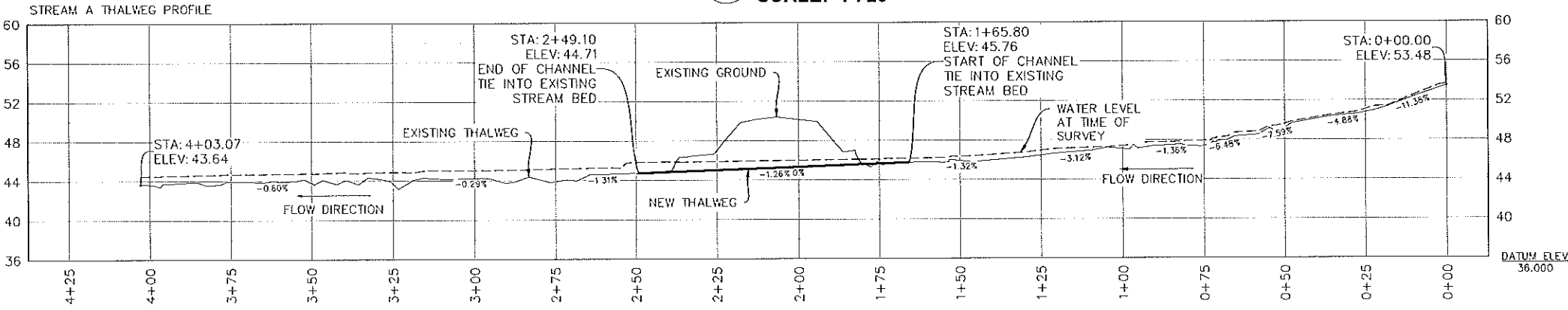
- A. Ott, ADF&G-HAB
- T. Polum, ADF&G-SF
- K. Schaberg, ADF&G-CF
- ARP Coordinator, ADF&G-SF
- G. O'Doherty, ADF&G-SF
- AWT, Kodiak
- C. Larson, ADNR DMLW
- H. Brooks, ADNR DMLW
- J. Rypkema, ADEC
- USACE, Regulatory
- H. Hanson, USFWS
- E. Ammann, NOAA
- M. Slife, KIB



- LEGEND**
- SURVEY CONTROL POINT
 - CONTROL POINT NUMBER
 - EXISTING TREE
 - TRASH AS NOTED
 - MONITOR WELL
 - CENTERLINE OF ROAD / THALWEG
 - ORDINARY HIGH WATER LINE
 - TREELINE
 - ROADWAY SHOULDER
 - EXISTING CULVERT AS NOTED
 - BARB WIRE FENCE
 - GALVANIZED METAL PIPE

SCOPE OF WORK INCLUDES THE FOLLOWING:
 1. CONSTRUCTION OF NEW CHANNEL.
 2. REMOVAL OF ALL TRASH, BARB WIRE FENCE AND CULVERT.

A CULVERT 20703471 CHANNEL PLAN
 SCALE: 1 : 20



B CULVERT 20703471 CHANNEL PROFILE
 SCALE: 1 : 20 (H) 1 : 3 (V)

CONTROL POINTS				
POINT	NORTH	EAST	ELEVATION	DESCRIPTION
CP 1	1379622.27	1937363.33	49.33	SET PINK PLASTIC CAP ON 5/8" REBAR
CP 2	1379629.43	1937478.17	48.89	SET PINK PLASTIC CAP ON 5/8" REBAR
CP 3	1379621.41	1937291.66	47.18	SET PINK PLASTIC CAP ON 5/8" REBAR
CP 4	1379495.35	1937428.59	62.78	SET PINK PLASTIC CAP ON 5/8" REBAR

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

DATE: 11/7/18
 DESIGNED:
 DRAWN: SDU
 CHECKED: TCB
 SCALE: AS NOTED
 FILE: 159817-1002

PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)
 LOCATION: KODIAK, ALASKA
 CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)

DRAWING: CULVERT 20703471 CHANNEL PLAN & PROFILE

500 W 27th AVE., SUITE A
 ANCHORAGE, ALASKA 99503
 WWW.BCE-AL.COM

PHONE (907) 277-5244
 FAX (907) 277-5214
 info@bce-al.com

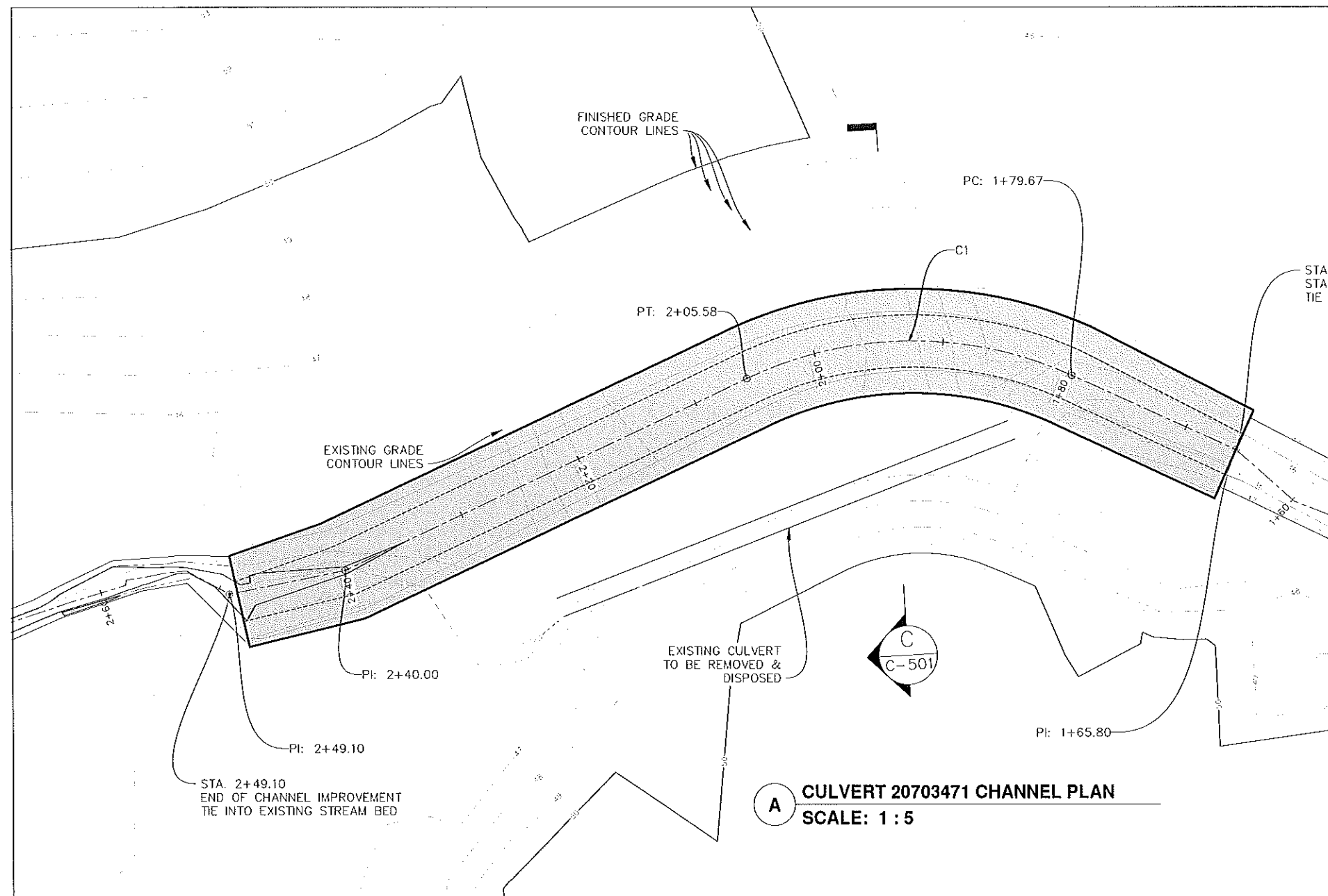
BCE
 Battilana
 CONSULTING ENGINEERS

STATE OF ALASKA
 PROFESSIONAL ENGINEER
 CE-5970

JOB NO. 1598.17

SHEET

C-500



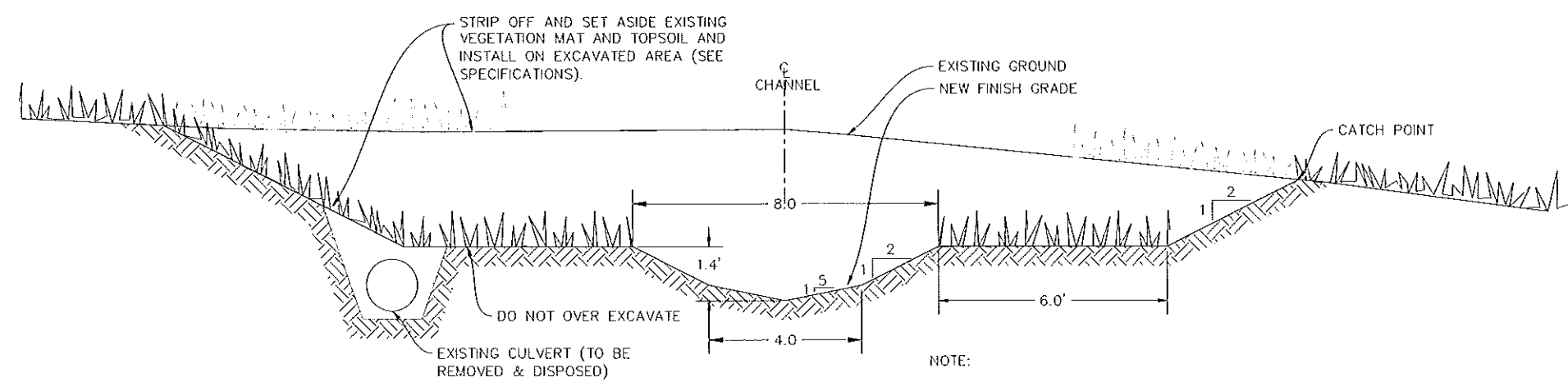
CURVE TABLE: CHANNEL ALIGNMENT

Curve #	Radius	Length	Chord Length	Start Station	End Station
C1	30.00	25.90	25.11	1+79.67	2+05.58

CHANNEL COORDINATE TABLE

Point #	Elevation	Northing	Easting	Description
2001	45.76	1379609.62	1937451.16	1+65.80 - PI
2002	45.61	1379615.31	1937438.50	1+79.67 - PC
2003	45.47	1379617.95	1937425.93	1+92.63 - Mid
2004	45.32	1379615.08	1937413.40	2+05.58 - PT
2005	44.94	1379600.40	1937382.27	2+40.00 - PI

A CULVERT 20703471 CHANNEL PLAN
SCALE: 1 : 5



C SECTION C
SCALE: 1" : 2'

NOTE:
EXCAVATION IN NATIVE SOIL, SHAPE NEW CHANNEL
IN EXISTING FILL MATERIAL. DO NOT OVER EXCAVATE.

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

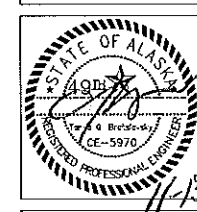
DATE: 11/7/18	DESIGNED: _____	CHECKED: TCB	SCALE: AS NOTED	FILE: 193417-1005
	DRAWN: GDU			

PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT
(FISH PASSAGE)
LOCATION: KODIAK, ALASKA
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING: CULVERT 20703471 CHANNEL PLAN & CROSS SECTION

500 W 27th AVE., SUITE A
ANCHORAGE, ALASKA 99503
WWW.BCE-AL.COM

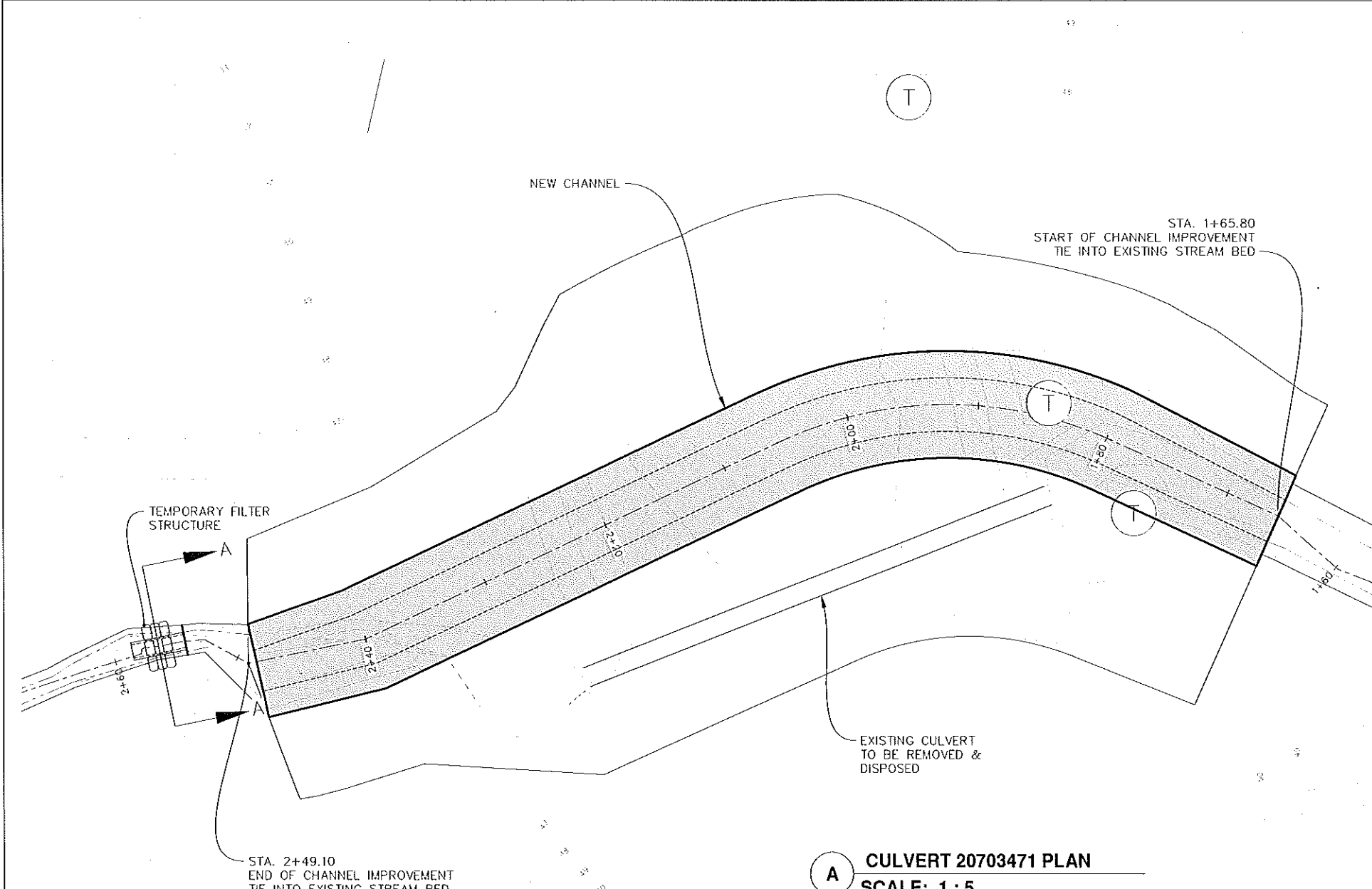
PHONE (907) 275-5264
FAX (907) 275-5214
mobile@bce-al.com

BCE
Breitkopf & Brezinski
CONSULTING ENGINEERS



JOB NO. 1598.17

SHEET
C-501



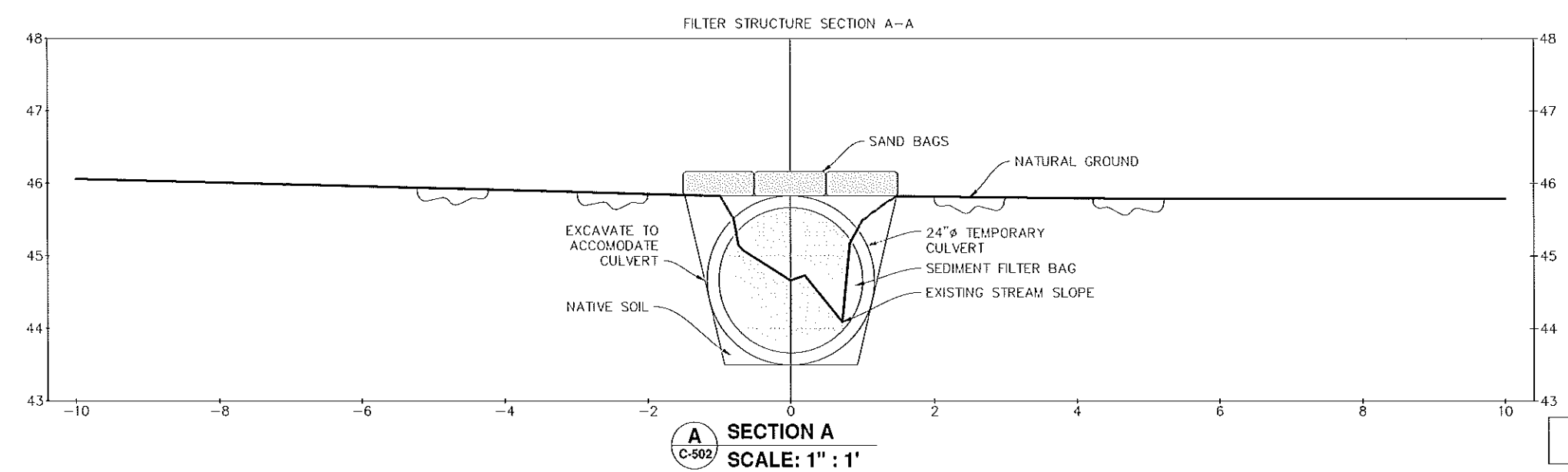
- NOTES:
1. LIMITS OF CLEARING AND GRUBBING SHOWN ARE APPROXIMATE BASED ON PLANNING PURPOSES ONLY. ACTUAL LIMITS SHALL BE DELINEATED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO CLEARING AND GRUBBING.
 2. THE STREAM CHANNEL AND VEGETATION IN AREAS NOT AFFECTED BY WORK SHALL BE PROTECTED AND PRESERVED BY THE CONTRACTOR. RESEED ALL DISTURBED AREAS.
 3. ANY DISTURBED VEGETATION OUTSIDE OF THE DEFINED WORK AREA SHALL BE REPAIRED ACCORDING TO THE SPECIFICATIONS.
 4. THE WORK INCLUDES REMOVAL AND LEGALLY DISPOSAL OF THE EXISTING DEBRIS WITHIN 200 FT RADIUS FROM NEW CHANNEL.

PLAN KEY

○ LIMIT OF DISTURBANCE,
A= 254 SY

○ TRASH AS NOTED

A CULVERT 20703471 PLAN
SCALE: 1 : 5



100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV NO	DATE	REVISIONS

DATE	DESIGNED	DRAWN	CHECKED	SCALE	FILE
11/7/18				AS NOTED	1508-17-1005

PROJECT	KODIAK ISLAND HABITAT ENHANCEMENT PROJECT (FISH PASSAGE)
LOCATION	KODIAK, ALASKA
CLIENT	U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING	CULVERT 20703471 DEMOLITION PLAN & FILTER STRUCTURE SECTION

500 W 27th AVE., SUITE A
ANCHORAGE, ALASKA 99503
WWW.BCE-AL.COM

PHONE (907) 272-5264
FAX (907) 272-5214
mobile@bce-al.com

BCE

Brattberg
CONSULTING ENGINEERS

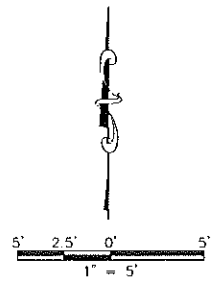
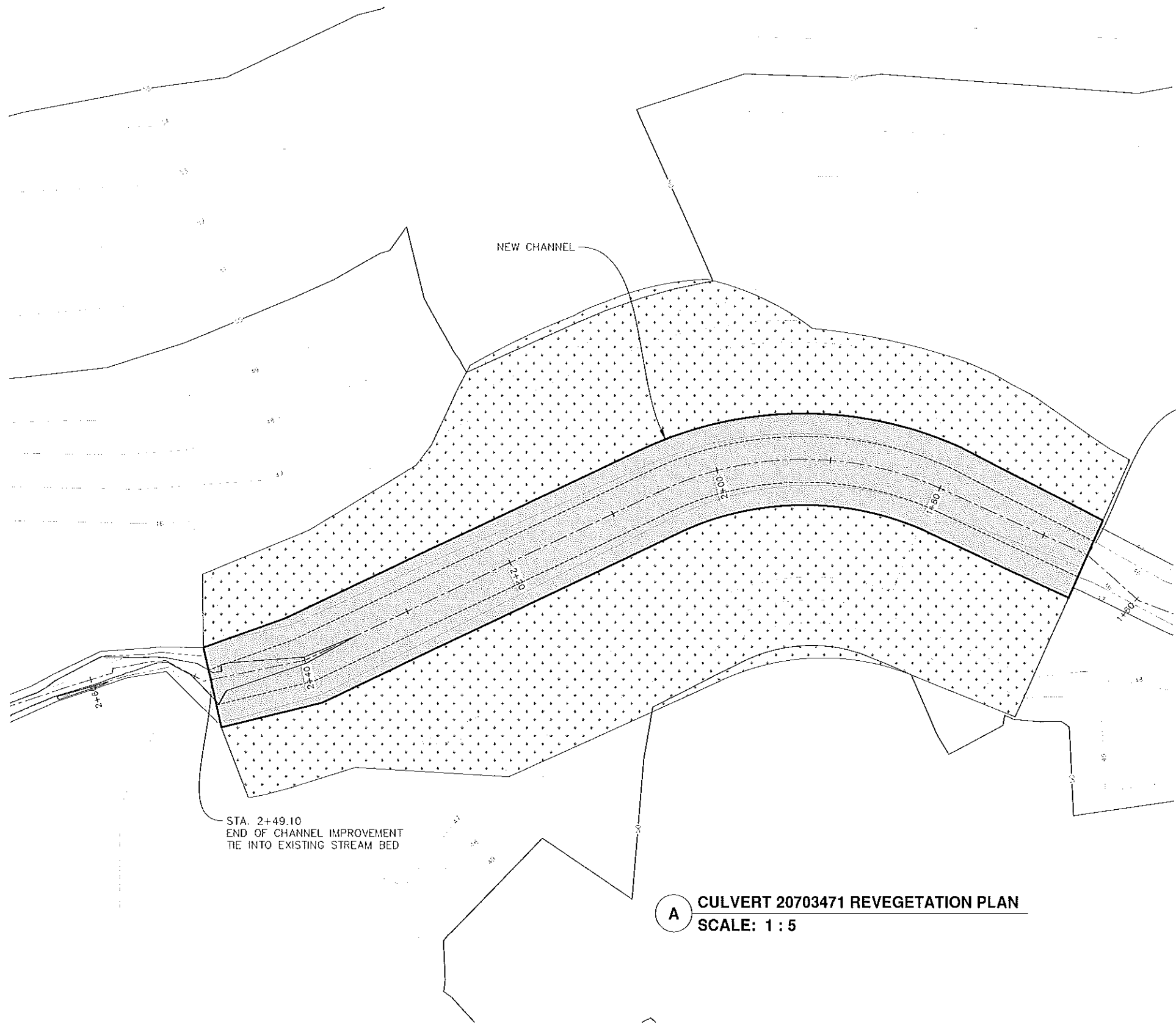
STATE OF ALASKA
Professional Engineer
CE-5970

11-13-18

JOB NO. 1598.17

SHEET

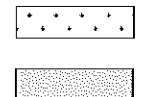
C-502



STA. 1+65.80
START OF CHANNEL IMPROVEMENT
TIE INTO EXISTING STREAM BED

STA. 2+49.10
END OF CHANNEL IMPROVEMENT
TIE INTO EXISTING STREAM BED

PLAN KEY



DISTURBED AREA = 181 SY: REINSTALL VEGETATIVE MAT ON 4 INCHES OF COMPACTED TOP SOIL OR NATIVE SOIL.

NEW CHANNEL

NOTES:

- 1. ORGANIC FERTILIZER TO BE APPLIED BY HAND. DO NOT APPLY FERTILIZER WITHIN 4 FEET OF WILLOWS.
- 2. ALL TREES THAT WERE REMOVED, MUST BE REPLACED WITH TREES ACCEPTABLE TO THE OWNERS. PROTECT EXISTING TREES.

A CULVERT 20703471 REVEGETATION PLAN
SCALE: 1 : 5

100% SUBMITTAL - NOVEMBER 7, 2018

NOTE: FOR 11"x17" DRAWINGS, USE HALF THE INDICATED SCALE.

REV. NO.	DATE	REVISIONS

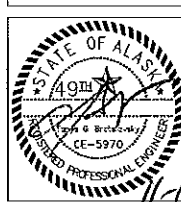
DATE: 11/7/18
DESIGNED: _____
DRAWN: GCU
CHECKED: JCB
SCALE: AS NOTED
FILE: 1598.17-1002

PROJECT: KODIAK ISLAND HABITAT ENHANCEMENT PROJECT
LOCATION: KODIAK, ALASKA
CLIENT: U.S. FISH & WILDLIFE SERVICE (FWS)
DRAWING: CULVERT 2070471 REVEGETATION PLAN

500 W 27th AVE, SUITE A
ANCHORAGE, ALASKA 99503
WWW.BCE-AL.COM

PHONE (907) 272-5264
FAX (907) 272-5214
mailto:bce@al.com

Brattin & Co.
CONSULTING ENGINEERS



JOB NO. 1598.17

SHEET
C-503

11-13-18

**U.S. ARMY CORPS OF ENGINEERS
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT**

33 CFR 325. The proponent agency is CECW-CO-R.

OMB APPROVAL NO. 0710-0003
EXPIRES: 28 FEBRUARY 2013

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
--------------------	----------------------	------------------	------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First - Middle - Last - Company - Kodiak Soil and Water Conservation District E-mail Address - blythe.brown@kodiaksoilandwater.org		8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Blythe Middle - Last - Brown Company - Kodiak Soil and Water Conservation District E-mail Address - blythe.brown@kodiaksoilandwater.org	
6. APPLICANT'S ADDRESS: Address- 301 Research Court, Room 245 City - Kodiak State - AK Zip - 99615 Country -		9. AGENT'S ADDRESS: Address- 301 Research Court, Room 245 City - Kodiak State - AK Zip - 99615 Country -	
7. APPLICANT'S PHONE NOS. w/AREA CODE a. Residence b. Business c. Fax (907) 486-5574		10. AGENTS PHONE NOS. w/AREA CODE a. Residence b. Business c. Fax (907) 486-5574	

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Blythe Brown to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

SIGNATURE OF APPLICANT

1/16/19
DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions) Magazine Area and unnamed tributary of Boy Scout Lake.			
13. NAME OF WATERBODY, IF KNOWN (if applicable) Battery Creek and unname tribs of Battery Creek and Boy Scout Lak		14. PROJECT STREET ADDRESS (if applicable) Address City - Kodiak State- AK Zip- 99615	
15. LOCATION OF PROJECT Latitude: +N 57.460708 Longitude: -W -152.312382			
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID Municipality Section - 9 Township - 28 South Range - 20 West			

17. DIRECTIONS TO THE SITE

To reach the Magazine area: From the Kodiak State Airport, turn North (right) onto Rezanof Drive, turn left after approximately 0.1 mile (immediately after crossing the bridge over Buskin River) onto Anton Larsen Bay Road. Continue 1.01 miles and turn left into gated Base Kodiak Magazine area. If you continue past the yellow gate, you will encounter culvert 253 at mile .29, 254 at mile .47, 248 at mile .53,, continue left at the fork and you will reach 256 at mile .81 and 259 at mile .99. If you take a left turn after culvert 254 you will encounter 255 at mile .53.

To reach the unnamed tributary to Boy Scout Lake: From the Kodiak State Airport, turn North (right) onto Rezanof Drive, turn right after approximately 1.68 miles to parking area. Continue .28 miles along trail and turn right then continue another approximate 340 feet to culvert

18. Nature of Activity (Description of project, include all features)

The project will replace existing drainage culverts with culverts designed for fish passage within the magazine area of the USCG Base Kodiak. The project consists of the replacement of seven culverts that will be installed in accordance with fish passage specifications. They will be installed at a lower elevation in the channel for continuous stream flow and native material will be placed inside the newly installed culverts to recreate natural channel characteristics. During replacement of the culverts, the stream will be diverted through temporary diversion culverts and lined diversion channels. The project will also allow the stream to be restored to its natural channel and backfilling ditches. The tributary to Boy Scout Lake will remove an abandoned culvert and will direct the stream back into the natural channel.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The Alaska Department of Fish and Game has identified culverts 20703248, 20703253, 20703254, 20703255, 20703256, 20703259, 20703471 as priorities for replacement to improve fish passage and allow access to spawning and rearing habitat for anadromous and resident fish in the Buskin Watershed. The existing conditions of the aforementioned culverts include but are not limited to, "compound gradient in pipe, mechanical damage or joints parting, structural problems, outfall height red, hydraulic flows exceed capacity, and inlet perch" as per Alaska Department of Fish and Game.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Excavate and back fill materials to facilitate the installation of a temporary culvert where needed. Excavate and back fill materials to facilitate the removal and installation of a culvert to design specifications. Placement of bedding and roadbed material under new culvert. Placement of roadbed material to raise road to obtain minimum cover on new culvert. Placement of fill material in new culvert to mimic natural channel conditions. Placement of rip rap to protect the inlet and outlet of culvert and to construct stream banks inside the culvert. Backfill existing water conveyance ditch and direct flows to natural stream bed.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
Fill material - 4964 CY	Waterway bed - 853 CY	Riprap - 2766 CY

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres
or
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Project will take place during times of low water runoff. Refueling and equipment maintenance shall not be performed within 100' of wetlands. Appropriate erosion and sediment controls will be utilized to minimize sediment laden water from leaving the site. Re-watering activities will minimize the movement of sediment downstream by providing means of collecting sediment laden water downstream and pumping upstream until water is clear. All disturbed areas shall be stabilized. Project provides an ecological benefit by restoring stream function and improving fish passage at an existing road stream crossings and removing debris from the watershed.

24. Is Any Portion of the Work Already Complete? ☐ Yes ☒ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address-

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
ADFG	Fish Habitat Permit		01/17/2019		
AK DNR	Temporary Water Use		01/17/2019		
USFWS	SHPO		10/22/2018		

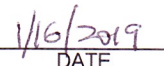
* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.


SIGNATURE OF APPLICANT


DATE


SIGNATURE OF AGENT


DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



Anchorage Office 550 West 7 th Avenue, Suite 1020 Anchorage, AK 99501-3562 (907) 269-8400 Fax: (907) 269-8904	Juneau Office 400 Willoughby, #400 PO Box 111020 Juneau, AK 99811-1020 (907) 465-3400 Fax: (907) 465-3886	Fairbanks Office 3700 Airport Way Fairbanks, AK 99709-4699 (907) 451-2705 Fax: (907) 451-2703	For ADNR Use Only Date Stamp
For ADNR Use Only TWUA #	For ADNR Use Only CID #(s)	Receipt Code "WR"	

APPLICATION FOR TEMPORARY USE OF WATER

Applicants must complete all sections of this application.
Incomplete applications will not be accepted

- Up to five (5) separate sources of water may be requested on a single application. If more than five (5) separate water sources are needed, additional applications will be required.
 - Types of sources include: river, stream, creek, spring, lake, pond, well, etc.
- Normal processing time is approximately 60 days based upon the date DNR determines the application is complete, and anticipated project start date.
- If Needed: CALL FOR INSTRUCTIONS or answers to questions before submitting application:
 - For mining water uses, excluding gravel, contact the Fairbanks office at (907) 451-2790
 - For hydroelectric and all other Southeast projects, contact the Juneau office at (907) 465-2533.
 - For all other temporary uses of water, contact the Anchorage office at (907) 269-8641.
- Unless otherwise requested, the issued authorizations are emailed to the Applicant.

SECTION I: APPLICANT INFORMATION

Project Name: Kodiak Island Habitat Enhancement Project – Buskin River – Magazine Area

Applicant Name (Individual or Company): Kodiak Soil and Water Conservation District

Name and Title of Company Contact: Blythe Brown – Acting District Manager

Mailing Address: 301 Research Court, Room 245
Kodiak, AK 99615

Billing Address: 301 Research Court, Room 245
Kodiak, AK 99615

Phone Number: 907-486-5574 Alternate Phone Number: _____

Email Address: blythe.brown@kodiaksoilandwater.org

Agent/Consultant Name and Title: _____

Organization Name: _____

Mailing Address: _____

Phone Number: _____ Alternate Phone Number: _____

Email Address: _____

SECTION II: FEES

Application Fee \$450: (the application fee covers up to 18 hours of staff time)

Submit non-refundable fee of \$450 for **each** application per 11 AAC 05.260.

Make checks payable to the "Department of Natural Resources."

**** For Credit Card payments, wait for confirmation email with assigned case number and payment instructions.**

SECTION III: MAP(s)

1. Attach a **legible map(s)**, such as a USGS topographic map or subdivision plat, that includes labeled meridian, township, range, and section lines (MTRS). The map(s) must be of sufficient scale to show the location of the proposed activity.

2. **Indicate clearly on the map the following:** (check each box when completed)

☐ the location where **water is to be withdrawn from each water source.**

☐ the area(s) where **the water is proposed to be used.**

If applicable:

☐ the area(s) where **water is to be discharged.**

☐ the area(s) where **water is to be returned to the water source.**

SECTION IV: PERIOD OF USE

Total number of years water use is being requested: 5 (maximum five years)

Water Use Start Date: 05/01/2019 Water Use End Date: 05/01/2024

Period of Use: ☒ Seasonal Months & Days of use (e.g. June 1st - September 30th): May 01 – August 30

☐ Year-round

SECTION V: LOCATION DESCRIPTION

Identify each water source and its geographic location using MTRS. Include Lat/Long coordinates if available.

Example: Finger Lake: Seward Meridian, Township 22 North, Range 15 West, Section 20, SW¼NW¼

MTRS: S 22N 15W 20 SW NW

Lat/Long: 61°59'1.892"N, 152°04'22.037"W

Table 1: Name & Location of Water Source(s) (No more than 5 water separate sources per application)

Geographic Name of Water Body or Well Depth (if unnamed, put "Unnamed"; e.g. unnamed lake.)	Meridian	Township	Range	Section(s)	Quarter Sections (optional)			
					QQ			Q
1. Battery Creek (20703248, 20703254, 20703256, 20703259)	Seward	28S	20W	9	NW	1/4	SE	1/4
2. Unnamed tributary to Battery Creek (20703253)	Seward	28S	20W	9	NE	1/4	SW	1/4
3. Unnamed tributary to Battery Creek (20703255)	Seward	28S	20W	9	NW	1/4	SE	1/4
4. Unnamed tributary to Boy Scout Lake (Genivieve Lake) (20703471)	Seward	28S	20W	11	NW	1/4	NE	1/4
5.						1/4		1/4

Datum Used: Geographic Coordinate System for Lat/Long (e.g. NAD83): NAD83

Identify the project area(s) where water is to be used and the geographic locations using MTRS. Include Lat/Long coordinates if available. If linear, such as a road construction project, include a start and end Lat/Long and/or milepost.

Table 2: Location of Water Use Area(s)								
Project Area (e.g. milepost range, place name, survey, etc.)	Meridian	Township	Range	Section(s)	Quarter Sections (optional) QQ Q			
1. Magazine Area – USCG Base Kodiak Battery Creek and two unnamed tributaries to Battery Creek	Seward	28S	20W	9		1/4		1/4
	Start Latitude:			Start Longitude:				
	End Latitude:			End Longitude:				
2. Unnamed tributary to Boy Scout Lake (Genivieve Lake)	Seward	28S	20W	11		1/4		1/4
	Start Latitude:			Start Longitude:				
	End Latitude:			End Longitude:				
3.						1/4		1/4
	Start Latitude:			Start Longitude:				
	End Latitude:			End Longitude:				

Datum Used: Geographic Coordinate System for Lat/Long (e.g. NAD83): NAD83
(Attach additional sheets if needed)

Identify the location(s) where water is to be discharged or returned to the source and the geographic locations using MTRS. Include Lat/Long coordinates if available.

Table 3: Location of Water Discharge or Return Flow (if applicable)								
Describe the area where the water will be discharged or returned to the source (Example: ground surface, name of river, lake, well, etc.)	Meridian	Township	Range	Section(s)	Quarter Sections (optional) QQ Q			
Immediately below project sites	Seward	28S	20W	9		1/4		1/4
	Latitude:			Longitude:				
Immediately below project site	Seward	28S	20W	11		1/4		1/4
	Latitude:			Longitude:				
						1/4		1/4
	Latitude:			Longitude:				
						1/4		1/4
	Latitude:			Longitude:				

Datum Used: Geographic Coordinate System for Lat/Long (e.g. NAD83): NAD83
(Attach additional sheets if needed)

SECTION VI: AMOUNT OF WATER per source

The next five pages contain a data table for each specific water source being requested (Source 1, Source 2, Source 3, Source 4, and Source 5). Complete a data table for each source. If you are only requesting one (1) source, complete only the Source 1 data table.

No more than five (5) sources per application.

Glossary of terms are listed on the last page of this application.

Source 1 (as identified in Section V, Table 1) 20703248 (57.76681, -152.53416)

☒ **Surface Source Name (Example: Chena River):** Battery Creek (ADFG stream 259-21-10120-2011)

Source Depth (ft): 2	Source Width (ft) (river, stream or creek only) 3	Surface Area (acres): (lake or pond. only)	Source Volume (gallons):
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Data Source(s):
(i.e. bathymetry, etc.) Survey

Are fish present? ☒ Yes ☐ No ☐ Unknown

If Yes, what fish type(s) are they: ☒ Anadromous ☒ Resident ☐ Resistant ☐ Sensitive ☐ Unknown

☐ **Subsurface Source Name (Example: Well A1):**

Well Depth (ft):	Well Diameter (in):	Static Water Level (ft):	Recovery Rate (g/m):
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Is there a known contaminated site within ¼ mile of this source? ☐ Yes ☐ No ☐ Unknown

Quantity of Water to be used or taken from this source only: 2yr Q(cfs) = 24

Amount of Water to be Used:	Total amount per Day (gallons)	Total Seasonal Amount (gallons)	Total Seasonal Amount of Ice (gallons)	Total Water & Ice Combined (gallons)	Date Water Use Will Begin (mm/dd/yyyy)	Date Water Use Will End (mm/dd/yyyy)
	1.551 X 10 ⁷	2.172 x 10 ⁸		2.172 x 10 ⁸		14 days

Purpose: Describe how the water is to be used and for what purpose. If multiple uses describe each use. Specify season of use if applicable. Battery Creek will be temporarily rerouted to remove two side by side culverts and replace with a 15'9" x 8'0" aluminum box culvert. The water will be rerouted to allow a dry construction area for the culvert replacement needed for fish passage. The diversion consists of a lined channel and culvert. The pump around will ensure that any ground water or seepage from the cofferdams will not have a negative impact during construction of the new culvert. Discharge from the pumps will be filtered through sediment trapping methods and vegetation. There will be no net use.

Method of Taking: (Check and complete all that apply) ☒ Withdrawal ☒ Diversion ☐ Impoundment ☐ In Source Water Use

☒ **Withdrawal:** If there are considerable variations in the pump/siphon capacities and operation schedule, describe difference in an attachment.

<input checked="" type="checkbox"/> Pumps	Number of Pump(s)/Siphon(s)	Pump/Siphon Intake Size (inches)	Max. Pump/Siphon Rate (gpm)	Max. Hours Pumping/Siphoning per Day (hrs)	# of Days Used/Month (days)	Length of pipe/hose (pump/siphon to point of use) (ft)
<input type="checkbox"/> Siphon	1	6	1000	24	14	125
Haul Trucks:	Number of Trucks:	Tank Capacity (gal):		# of Loads/day:		
Storage Tanks:	Number of Tanks:	Tank Capacity (gal):		# of Fill/day:		

☒ **Diversion:** Is this diversion a stream bypass? ☒ Yes ☐ No

Does the diversion have a headgate structure? ☐ Yes ☒ No If Yes, how many hours/day will the headgate be open: _____ hrs

Pump:	Pipe/Hose Diameter (in)	Pipe/Hose Length (ft) (from take point to pint of use)		Screened	Diversion Rate (gpm or cfs)	
	6	110		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1000	
Gravity / Ditch:	Length (ft)	Width (ft)	Depth (ft)	Lined	Head Elevation (ft)	Diversion Rate (gpm or cfs)
	120	4	3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	87	24 cfs

☐ **Impoundment: Attach drawings, specifications and plans**

Dam:	<input type="checkbox"/> Existing Dam <input type="checkbox"/> Dam to be constructed				
	Dam Height (ft)	Dam Width at Base (ft)	Dam Width at Crest (ft)	Water Storage Capacity (gallons or acre-feet)	
Reservoirs / Cofferdam:	Length (ft)	Width (ft)	Depth (ft)	Reservoir Storage Capacity (gallons or acre-feet)	Cofferdam Dewatering Amount (gallons or acre-feet)
Levee	Length (ft)	Width (ft)	Height (ft)	Is this a Permanent Levee?	Diversion Rate (gpm or cfs)
				<input type="checkbox"/> Yes <input type="checkbox"/> No	

☐ **In Source Water Use:** Water used does not leave water source **Attach drawings, specifications and plans**

☐ Hydrokinetic Device ☐ Hydroelectric Turbine ☐ Suction Dredge

Source 2 (as identified in Section V, Table 1) 20703253 (57.76713, -152.52919)☒ **Surface Source Name (Example: Chena River):** Unnamed tributary to Battery Creek (ADFG stream 259-21-10120-2011-3121)

Source Depth (ft): 1.5	Source Width (ft) (river, stream or creek only) 1.5	Surface Area (acres): (lake or pond, only)	Source Volume (gallons):
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Data Source(s):
(i.e. bathymetry, etc.) SurveyAre fish present? ☒ Yes ☐ No ☐ UnknownIf Yes, what fish type(s) are they: ☒ Anadromous ☒ Resident ☐ Resistant ☐ Sensitive ☐ Unknown☐ **Subsurface Source Name (Example: Well A1):**

Well Depth (ft):	Well Diameter (in):	Static Water Level (ft):	Recovery Rate (g/m):
------------------	---------------------	--------------------------	----------------------

Is there a known contaminated site within ¼ mile of this source? ☐ Yes ☐ No ☐ Unknown**Quantity of Water to be used or taken from this source only:** 2yr Q(cfs) = 5

Amount of Water to be Used:	Total amount per Day (gallons)	Total Seasonal Amount (gallons)	Total Seasonal Amount of Ice (gallons)	Total Water & Ice Combined (gallons)	Date Water Use Will Begin (mm/dd/yyyy)	Date Water Use Will End (mm/dd/yyyy)
	3,232 x 10 ⁶	4,524 x 10 ⁷		4,524 x 10 ⁷		14 days

Purpose: Describe how the water is to be used and for what purpose. If multiple uses describe each use. Specify season of use if applicable. The stream will be temporarily rerouted to allow for the replacement of an existing 24" culvert and install new 72" corrugated aluminum round pipe. The water will be rerouted to allow a dry construction area for the culvert replacement needed for fish passage. The diversion consists of a lined channel and culvert. The pump around will ensure that any ground water or seepage from the cofferdams will not have a negative impact during construction of the new culvert. Discharge from the pumps will be filtered through sediment trapping methods and vegetation. There will be no net use.

Method of Taking: (Check and complete all that apply) ☒ Withdrawal ☒ Diversion ☐ Impoundment ☐ In Source Water Use☒ **Withdrawal:** If there are considerable variations in the pump/siphon capacities and operation schedule, describe difference in an attachment.

<input checked="" type="checkbox"/> Pumps <input type="checkbox"/> Siphon	Number of Pump(s)/Siphon(s)	Pump/Siphon Intake Size (inches)	Max. Pump/Siphon Rate (gpm)	Max. Hours Pumping/Siphoning per Day (hrs)	# of Days Used/Month (days)	Length of pipe/hose (pump/siphon to point of use) (ft)
	1	6	1000	24	14	100

Haul Trucks:	Number of Trucks:	Tank Capacity (gal):	# of Loads/day:
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Storage Tanks:	Number of Tanks:	Tank Capacity (gal):	# of Fill/day:
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☒ **Diversion:** Is this diversion a stream bypass? ☒ Yes ☐ NoDoes the diversion have a headgate structure? ☐ Yes ☒ No If Yes, how many hours/day will the headgate be open: _____ hrs

Pump:	Pipe/Hose Diameter (in)	Pipe/Hose Length (ft) (from take point to pint of use)	Screened		Diversion Rate (gpm or cfs)	
	6	110	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1000	
Gravity / Ditch:	Length (ft)	Width (ft)	Depth (ft)	Lined	Head Elevation (ft)	Diversion Rate (gpm or cfs)
	28	2.5	2.5	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	71	5 cfs

☐ **Impoundment: Attach drawings, specifications and plans**

Dam:	<input type="checkbox"/> Existing Dam <input type="checkbox"/> Dam to be constructed				
	Dam Height (ft)	Dam Width at Base (ft)	Dam Width at Crest (ft)	Water Storage Capacity (gallons or acre-feet)	
Reservoirs / Cofferdam:	Length (ft)	Width (ft)	Depth (ft)	Reservoir Storage Capacity (gallons or acre-feet)	Cofferdam Dewatering Amount (gallons or acre-feet)
Levee	Length (ft)	Width (ft)	Height (ft)	Is this a Permanent Levee?	Diversion Rate (gpm or cfs)
				<input type="checkbox"/> Yes <input type="checkbox"/> No	

☐ **In Source Water Use:** Water used does not leave water source **Attach drawings, specifications and plans**☐ Hydrokinetic Device ☐ Hydroelectric Turbine ☐ Suction Dredge

Source 3 (as identified in Section V, Table 1) 20703254 (57.76688, -152.53295)

☒ **Surface Source Name (Example: Chena River):** unnamed tributary to Battery Creek (259-21-10120-2011)

Source Depth (ft): 2	Source Width (ft) (river, stream or creek only) 2	Surface Area (acres): (lake or pond, only)	Source Volume (gallons):
-------------------------	--	--	--------------------------

Data Source(s):
(i.e. bathymetry, etc.) Survey

Are fish present? ☒ Yes ☐ No ☐ Unknown

If Yes, what fish type(s) are they: ☒ Anadromous ☐ Resident ☐ Resistant ☐ Sensitive ☐ Unknown

☐ **Subsurface Source Name (Example: Well A1):**

Well Depth (ft):	Well Diameter (in):	Static Water Level (ft):	Recovery Rate (g/m):
------------------	---------------------	--------------------------	----------------------

Is there a known contaminated site within ¼ mile of this source? ☐ Yes ☐ No ☐ Unknown

Quantity of Water to be used or taken from this source only: 2yr Q(cfs) = 21

Amount of Water to be Used:	Total amount per Day (gallons)	Total Seasonal Amount (gallons)	Total Seasonal Amount of Ice (gallons)	Total Water & Ice Combined (gallons)	Date Water Use Will Begin (mm/dd/yyyy)	Date Water Use Will End (mm/dd/yyyy)
	1,357 x 10 ⁴ 7	1,900 x 10 ⁴ 8		1,900 x 10 ⁴ 8		14 days

Purpose: Describe how the water is to be used and for what purpose. If multiple uses describe each use. Specify season of use if applicable.
The existing culvert will be utilized as a diversion during the construction of the new 15'9" x 8'0" aluminum box culvert. After the installation of the new culvert the existing ditch will be backfilled and flow will be redirected to the historical channel thalweg.

Method of Taking: (Check and complete all that apply) ☒ Withdrawal ☒ Diversion ☐ Impoundment ☐ In Source Water Use

☒ **Withdrawal:** If there are considerable variations in the pump/siphon capacities and operation schedule, describe difference in an attachment.

<input checked="" type="checkbox"/> Pumps	Number of Pump(s)/Siphon(s)	Pump/Siphon Intake Size (inches)	Max. Pump/Siphon Rate (gpm)	Max. Hours Pumping/Siphoning per Day (hrs)	# of Days Used/Month (days)	Length of pipe/hose (pump/siphon to point of use) (ft)
<input type="checkbox"/> Siphon	1	6	1000	24	14	120

Haul Trucks:	Number of Trucks:	Tank Capacity (gal):	# of Loads/day:
Storage Tanks:	Number of Tanks:	Tank Capacity (gal):	# of Fill/day:

☒ **Diversion:** Is this diversion a stream bypass? ☒ Yes ☐ No

Does the diversion have a headgate structure? ☐ Yes ☒ No If Yes, how many hours/day will the headgate be open: _____ hrs

Pump:	Pipe/Hose Diameter (in)	Pipe/Hose Length (ft) (from take point to pint of use)	Screened	Diversion Rate (gpm or cfs)
	6	110	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1000

Gravity / Ditch:	Length (ft)	Width (ft)	Depth (ft)	Lined	Head Elevation (ft)	Diversion Rate (gpm or cfs)
	30	3	3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		21cfs

☐ **Impoundment: Attach drawings, specifications and plans**

Dam:	<input type="checkbox"/> Existing Dam <input type="checkbox"/> Dam to be constructed			
	Dam Height (ft)	Dam Width at Base (ft)	Dam Width at Crest (ft)	Water Storage Capacity (gallons or acre-feet)

Reservoirs / Cofferdam:	Length (ft)	Width (ft)	Depth (ft)	Reservoir Storage Capacity (gallons or acre-feet)	Cofferdam Dewatering Amount (gallons or acre-feet)

Levee	Length (ft)	Width (ft)	Height (ft)	Is this a Permanent Levee?	Diversion Rate (gpm or cfs)
				<input type="checkbox"/> Yes <input type="checkbox"/> No	

☐ **In Source Water Use:** Water used does not leave water source **Attach drawings, specifications and plans**

☐ Hydrokinetic Device ☐ Hydroelectric Turbine ☐ Suction Dredge

Source 4 (as identified in Section V, Table 1) 20703255 (57.76621, -152.53395)☒ **Surface Source Name** (Example: Chena River): unnamed tributary to Battery Creek

Source Depth (ft): 0.5	Source Width (ft) (river, stream or creek only) 8	Surface Area (acres): (lake or pond, only)	Source Volume (gallons):
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Data Source(s):
(i.e. bathymetry, etc.) SurveyAre fish present? ☒ Yes ☐ No ☐ UnknownIf Yes, what fish type(s) are they: ☒ Anadromous ☐ Resident ☐ Resistant ☐ Sensitive ☐ Unknown☐ **Subsurface Source Name** (Example: Well A1):

Well Depth (ft):	Well Diameter (in):	Static Water Level (ft):	Recovery Rate (g/m):
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Is there a known contaminated site within ¼ mile of this source? ☐ Yes ☐ No ☐ Unknown**Quantity of Water to be used or taken from this source only:** 2 yr Q (cfs) = 20

Amount of Water to be Used:	Total amount per Day (gallons)	Total Seasonal Amount (gallons)	Total Seasonal Amount of Ice (gallons)	Total Water & Ice Combined (gallons)	Date Water Use Will Begin (mm/dd/yyyy)	Date Water Use Will End (mm/dd/yyyy)
	1 293 x 10 ⁴ 7	1.810 x 10 ⁴ 8		1.810 x 10 ⁴ 8		14 days

Purpose: Describe how the water is to be used and for what purpose. If multiple uses describe each use. Specify season of use if applicable.
The hydrolic flows exceed the capacity of the existing 36" pipe. The stream will remain in the existing culvert during the installation of a new 13'3" x 6'9" box culvert. After construction the stream will be rerouted to the newly installed culvert and the existing thalweg will be backfilled.**Method of Taking:** (Check and complete all that apply) ☐ Withdrawal ☐ Diversion ☐ Impoundment ☐ In Source Water Use☒ **Withdrawal:** If there are considerable variations in the pump/siphon capacities and operation schedule, describe difference in an attachment.

<input type="checkbox"/> Pumps <input type="checkbox"/> Siphon	Number of Pump(s)/Siphon(s) 1	Pump/Siphon Intake Size (inches) 6	Max. Pump/Siphon Rate (gpm) 1000	Max. Hours Pumping/Siphoning per Day (hrs) 24	# of Days Used/Month (days) 14	Length of pipe/hose (pump/siphon to point of use) (ft) 150
Haul Trucks:	Number of Trucks:	Tank Capacity (gal):		# of Loads/day:		
Storage Tanks:	Number of Tanks:	Tank Capacity (gal):		# of Fill/day:		

☒ **Diversion:** Is this diversion a stream bypass? ☐ Yes ☒ NoDoes the diversion have a headgate structure? ☐ Yes ☐ No If Yes, how many hours/day will the headgate be open: _____ hrs

Pump:	Pipe/Hose Diameter (in)	Pipe/Hose Length (ft) (from take point to pint of use)	Screened		Diversion Rate (gpm or cfs)	
	6	110	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		1000	
Gravity / Ditch:	Length (ft)	Width (ft)	Depth (ft)	Lined	Head Elevation (ft)	Diversion Rate (gpm or cfs)
				<input type="checkbox"/> Yes <input type="checkbox"/> No		

☐ **Impoundment:** Attach drawings, specifications and plans

Dam:	<input type="checkbox"/> Existing Dam <input type="checkbox"/> Dam to be constructed				
	Dam Height (ft)	Dam Width at Base (ft)	Dam Width at Crest (ft)	Water Storage Capacity (gallons or acre-feet)	
Reservoirs / Cofferdam:	Length (ft)	Width (ft)	Depth (ft)	Reservoir Storage Capacity (gallons or acre-feet)	Cofferdam Dewatering Amount (gallons or acre-feet)
Levee	Length (ft)	Width (ft)	Height (ft)	Is this a Permanent Levee?	Diversion Rate (gpm or cfs)
				<input type="checkbox"/> Yes <input type="checkbox"/> No	

☐ **In Source Water Use:** Water used does not leave water source **Attach drawings, specifications and plans**☐ Hydrokinetic Device ☐ Hydroelectric Turbine ☐ Suction Dredge

Source 5 (as identified in Section V, Table 1) 20703256 (57.76832, -152.53971)☒ **Surface Source Name** (Example: Chena River): unnamed tributary to Battery Creek

Source Depth (ft): 2	Source Width (ft) (river, stream or creek only) 3.5	Surface Area (acres): (lake or pond, only)	Source Volume (gallons):
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Data Source(s):
(i.e. bathymetry, etc.) SurveyAre fish present? ☐ Yes ☐ No ☒ UnknownIf Yes, what fish type(s) are they: ☐ Anadromous ☐ Resident ☐ Resistant ☐ Sensitive ☐ Unknown☐ **Subsurface Source Name** (Example: Well A1):

Well Depth (ft):	Well Diameter (in):	Static Water Level (ft):	Recovery Rate (g/m):
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Is there a known contaminated site within ¼ mile of this source? ☐ Yes ☐ No ☐ Unknown**Quantity of Water to be used or taken from this source only:** 2 yr Q (cfs) = 14

Amount of Water to be Used:	Total amount per Day (gallons)	Total Seasonal Amount (gallons)	Total Seasonal Amount of Ice (gallons)	Total Water & Ice Combined (gallons)	Date Water Use Will Begin (mm/dd/yyyy)	Date Water Use Will End (mm/dd/yyyy)
	9.048 x 10 ⁶	1.267 x 10 ⁸		1.267 x 10 ⁸		14 days

Purpose: Describe how the water is to be used and for what purpose. If multiple uses describe each use. Specify season of use if applicable. The culvert is badly damaged and perched. The existing 24" culvert will remain and be utilized as a diversion during the construction of the new 84" corrugated aluminum round pipe. An instream diversion structure will bypass the construction site. The existing culvert will be removed and water routed to the new culvert. The pump will remove any water that bypasses the diversion or groundwater seepage.

Method of Taking: (Check and complete all that apply) ☒ Withdrawal ☐ Diversion ☐ Impoundment ☐ In Source Water Use☒ **Withdrawal:** If there are considerable variations in the pump/siphon capacities and operation schedule, describe difference in an attachment.

<input checked="" type="checkbox"/> Pumps <input type="checkbox"/> Siphon	Number of Pump(s)/Siphon(s)	Pump/Siphon Intake Size (inches)	Max. Pump/Siphon Rate (gpm)	Max. Hours Pumping/Siphoning per Day (hrs)	# of Days Used/Month (days)	Length of pipe/hose (pump/siphon to point of use) (ft)
	1	6	1000	24	14	100

Haul Trucks:	Number of Trucks:	Tank Capacity (gal):	# of Loads/day:
Storage Tanks:	Number of Tanks:	Tank Capacity (gal):	# of Fill/day:

☐ **Diversion:** Is this diversion a stream bypass? ☐ Yes ☐ NoDoes the diversion have a headgate structure? ☐ Yes ☐ No If Yes, how many hours/day will the headgate be open: _____ hrs

Pump:	Pipe/Hose Diameter (in)	Pipe/Hose Length (ft) (from take point to pint of use)	Screened	Diversion Rate (gpm or cfs)		
	6	110	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1000		
Gravity / Ditch:	Length (ft)	Width (ft)	Depth (ft)	Lined	Head Elevation (ft)	Diversion Rate (gpm or cfs)
				<input type="checkbox"/> Yes <input type="checkbox"/> No		

☐ **Impoundment:** Attach drawings, specifications and plans

Dam:	<input type="checkbox"/> Existing Dam <input type="checkbox"/> Dam to be constructed				
	Dam Height (ft)	Dam Width at Base (ft)	Dam Width at Crest (ft)	Water Storage Capacity (gallons or acre-feet)	
Reservoirs / Cofferdam:	Length (ft)	Width (ft)	Depth (ft)	Reservoir Storage Capacity (gallons or acre-feet)	Cofferdam Dewatering Amount (gallons or acre-feet)
Levee	Length (ft)	Width (ft)	Height (ft)	Is this a Permanent Levee?	Diversion Rate (gpm or cfs)
				<input type="checkbox"/> Yes <input type="checkbox"/> No	

☐ **In Source Water Use:** Water used does not leave water source **Attach drawings, specifications and plans**☐ Hydrokinetic Device ☐ Hydroelectric Turbine ☐ Suction Dredge

Source 6 (as identified in Section V, Table 1) (20703259A and 20703259B) (current culvert 57.76954, -152.54372)**Surface Source Name (Example: Chena River):** unnamed tributary to Battery Creek

Source Depth (ft): 0.25	Source Width (ft) (river, stream or creek only) 3.5	Surface Area (acres): (lake or pond, only)	Source Volume (gallons):
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Data Source(s):
(i.e. bathymetry, etc.) SurveyAre fish present? Yes No ☒ Unknown

If Yes, what fish type(s) are they: Anadromous Resident Resistant Sensitive Unknown

Subsurface Source Name (Example: Well A1):

Well Depth (ft):	Well Diameter (in):	Static Water Level (ft):	Recovery Rate (g/m):
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Is there a known contaminated site within ¼ mile of this source? Yes No Unknown

Quantity of Water to be used or taken from this source only: 2yr Q (cfs) = 3

Amount of Water to be Used:	Total amount per Day (gallons)	Total Seasonal Amount (gallons)	Total Seasonal Amount of Ice (gallons)	Total Water & Ice Combined (gallons)	Date Water Use Will Begin (mm/dd/yyyy)	Date Water Use Will End (mm/dd/yyyy)
	1.939 x 10 ⁶	2.715 x 10 ⁷		2.715 x 10 ⁷		unknown

Purpose: Describe how the water is to be used and for what purpose. If multiple uses describe each use. Specify season of use if applicable.
Water will be diverted and site dewatered for replacement of existing 18" damaged culvert to be replaced with two new 48" aluminum round pipes. The location of culvert A will be at the same location of the existing culvert. Culvert B will be approximately 60 feet downstream as this stream only flows at times of high water. Culvert B will be installed during no flow and then water will be diverted to this culvert during the construction of the Culvert A. After the installation, the diversion will be removed and streams to flow without interference.

Method of Taking: (Check and complete all that apply) Withdrawal Diversion Impoundment In Source Water Use☒ **Withdrawal:** If there are considerable variations in the pump/siphon capacities and operation schedule, describe difference in an attachment.

<input checked="" type="checkbox"/> Pumps	Number of Pump(s)/Siphon(s)	Pump/Siphon Intake Size (inches)	Max. Pump/Siphon Rate (gpm)	Max. Hours Pumping/Siphoning per Day (hrs)	# of Days Used/Month (days)	Length of pipe/hose (pump/siphon to point of use) (ft)
<input type="checkbox"/> Siphon	1	6	1000	21	14	125
Haul Trucks:	Number of Trucks:	Tank Capacity (gal):		# of Loads/day:		
Storage Tanks:	Number of Tanks:	Tank Capacity (gal):		# of Fill/day:		

Diversion: Is this diversion a stream bypass? Yes No

Does the diversion have a headgate structure? Yes No If Yes, how many hours/day will the headgate be open: _____ hrs

Pump:	Pipe/Hose Diameter (in)	Pipe/Hose Length (ft) (from take point to point of use)		Screened		Diversion Rate (gpm or cfs)
	6	110		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		1000
Gravity / Ditch:	Length (ft)	Width (ft)	Depth (ft)	Lined		Diversion Rate (gpm or cfs)
				Yes No		

Impoundment: Attach drawings, specifications and plans

Dam:	Existing Dam		Dam to be constructed			
	Dam Height (ft)		Dam Width at Base (ft)		Dam Width at Crest (ft)	Water Storage Capacity (gallons or acre-feet)
Reservoirs / Cofferdam:	Length (ft)	Width (ft)	Depth (ft)	Reservoir Storage Capacity (gallons or acre-feet)		Cofferdam Dewatering Amount (gallons or acre-feet)
Levee	Length (ft)	Width (ft)	Height (ft)	Is this a Permanent Levee?		Diversion Rate (gpm or cfs)
				Yes No		

In Source Water Use: Water used does not leave water source **Attach drawings, specifications and plans**

Hydrokinetic Device Hydroelectric Turbine Suction Dredge

Source 7 (as identified in Section V, Table 1) 20703471 (57.76800, -152.47860)**Surface Source Name (Example: Chena River):** Unnamed tributary to Boy Scout Lake

Source Depth (ft): 2	Source Width (ft) (river, stream or creek only) 12	Surface Area (acres): (lake or pond, only)	Source Volume (gallons):
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Data Source(s):
(i.e. bathymetry, etc.) SurveyAre fish present? ☒ Yes ☐ No UnknownIf Yes, what fish type(s) are they: ☒ Anadromous ☐ Resident ☐ Resistant ☐ Sensitive ☐ Unknown**Subsurface Source Name (Example: Well A1):**

Well Depth (ft):	Well Diameter (in):	Static Water Level (ft):	Recovery Rate (g/m):
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Is there a known contaminated site within ¼ mile of this source? Yes No Unknown

Quantity of Water to be used or taken from this source only: 2yr Q (cfs) = 5

Amount of Water to be Used:	Total amount per Day (gallons)	Total Seasonal Amount (gallons)	Total Seasonal Amount of Ice (gallons)	Total Water & Ice Combined (gallons)	Date Water Use Will Begin (mm/dd/yyyy)	Date Water Use Will End (mm/dd/yyyy)
	3.232 x 10 ⁶	4.524 x 10 ⁷		4.524 x 10 ⁷		14 days

Purpose: Describe how the water is to be used and for what purpose. If multiple uses describe each use. Specify season of use if applicable.
This portion of the project involves moving the stream into a channel and removing a culvert. The channel will continue to move through the existing 18" stave culvert until channel and bank improvements have been completed. The stream will then be rerouted to the newly installed channel and the old culvert will be removed and backfilled. The pump around at this location will keep the construction activity dry until it is completed.

Method of Taking: (Check and complete all that apply) Withdrawal Diversion Impoundment In Source Water Use☒ **Withdrawal:** If there are considerable variations in the pump/siphon capacities and operation schedule, describe difference in an attachment.

Pumps	Number of Pump(s)/Siphon(s)	Pump/Siphon Intake Size (inches)	Max. Pump/Siphon Rate (gpm)	Max. Hours Pumping/Siphoning per Day (hrs)	# of Days Used/Month (days)	Length of pipe/hose (pump/siphon to point of use) (ft)
Siphon	1	6	1000	24	14	150
Haul Trucks:	Number of Trucks:	Tank Capacity (gal):		# of Loads/day:		
Storage Tanks:	Number of Tanks:	Tank Capacity (gal):		# of Fill/day:		

Diversion: Is this diversion a stream bypass? Yes No

Does the diversion have a headgate structure? Yes No If Yes, how many hours/day will the headgate be open: _____ hrs

Pump:	Pipe/Hose Diameter (in)		Pipe/Hose Length (ft) (from take point to point of use)		Screened		Diversion Rate (gpm or cfs)
	6		110		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1000	
Gravity / Ditch:	Length (ft)	Width (ft)	Depth (ft)	Lined		Head Elevation (ft)	Diversion Rate (gpm or cfs)
				Yes No			

Impoundment: Attach drawings, specifications and plans

Dam:	Existing Dam		Dam to be constructed				Water Storage Capacity (gallons or acre-feet)
	Dam Height (ft)		Dam Width at Base (ft)		Dam Width at Crest (ft)		
Reservoirs / Cofferdam:	Length (ft)	Width (ft)	Depth (ft)	Reservoir Storage Capacity (gallons or acre-feet)		Cofferdam Dewatering Amount (gallons or acre-feet)	
Levee	Length (ft)	Width (ft)	Height (ft)	Is this a Permanent Levee?		Diversion Rate (gpm or cfs)	
				Yes	No		

In Source Water Use: Water used does not leave water source **Attach drawings, specifications and plans**

Hydrokinetic Device Hydroelectric Turbine Suction Dredge

SECTION VII: PROJECT DESCRIPTION

1. Summarize your entire project. Attach a detailed project description.

The habitat enhancement project is funded through the US Fish and Wildlife Service with EVOS grant funding. The project will greatly improve fish migration within the Buskin River Watershed by removing barriers to fish passage. The Alaska Department of Fish and Game has spent a considerable amount of time and resources to identify and prioritize culvert replacement projects within the watershed. The projects propose no net use. Water will be returned to stream via diversions that consists of lined channels, temporary culverts, or existing culverts that will be removed at the end of construction. Diversions per culverts will be limited to 14 days in accordance with the ADFG Fish Resources permit.

(Attach additional sheets if needed)

2. What alternative water sources are available should a portion of your requested use be excluded because of water shortage or public interest concerns?

None. In order for this project to be completed, flow must be relocated temporarily to allow for construction of the new culverts.

(Attach additional sheets if needed)

3. Are there any surface water bodies or water wells at or near your site(s) that could be affected by the proposed activity?

☐ Yes ☐ No ☐ Unknown

If yes, list them and any surface water or ground water monitoring programs going on at or near the sites, any water shortages or water quality problems in the area, and any information about the water table, if known.

Projects are instream and as such, potential for sedimentation downstream. Projects will be monitored and erosion and sediment controls such as dewatering methods and potential for stormwater contaminants will be monitored and any issues will be corrected. Project site 20703471 is approximately 0.13 mile upstream from Boy Scout Lake (Genevieve Lake).

(Attach additional sheets if needed)

4. Briefly describe what changes at the project site and surrounding area will occur or are likely to occur because of construction or operation of your project (e.g. public access, streambed alteration, trenching, grading, excavation, etc.)

The site is on gated USCG property and thus, closed from public access. The roads must remain open to allow for USCG personnel access to various buildings. The streambeds will be altered to mimic natural streambed within the newly installed culverts and increase the capacity within the culverts to allow for anadromous fish passage and maintain flow for storm events.

(Attach additional sheets if needed)

5. Briefly describe land use around the water take, use and return flow points (e.g. national park, recreational site, residential).

The magazine area surrounding land is natural habitat and located behind gates for the USCG Base Kodiak. Roads and nearby buildings are used for storage and training by the US Coast Guard. The take will be upstream of the culvert replacement and points of return will be immediately downstream of construction activities. There is no net use of water. Filtered water will be discharge from pumping operations 100 feet from stream to allow any sediment to filter prior to the return of the stream. Water will be rerouted to allow for construction associated with culvert replacement and restoration.

(Attach additional sheets if needed)

6. Will the project be worked in phases? ☐ Yes ☐ No

If Yes, describe the phases.

ADFG stipulated work be conducted between May 01 and July 30 for sites 10103248, 10103254 and 10103255. All construction activities will be coordinated with the Kodiak Soil and Water Conservation District, onsite contractor, USFWS and ADFG to coordinate construction to minimize in stream and environmental disturbances. Work will be dependent on construction availability on island to complete one project within the 14 day timeframe.

SECTION VIII: OTHER PERMITS THAT MAY BE REQUIRED

1. Have you contacted ADF&G for any required Permits? ☒ Yes ☐ No
2. Have you contacted ADEC for any required Water Authorizations? ☒ Yes ☐ No
3. Have you contacted the U.S. Army Corps of Engineers for any required Permits? ☒ Yes ☐ No
4. Have you received land access permission for all requested water sources, uses, and discharges? ☒ Yes ☐ No
5. If application includes an artificial barrier, such as a dam, reservoir, cofferdam, levee, etc., have you submitted the "Hazard Potential Classification and Jurisdictional Review" form to determine if it falls within the jurisdiction of the Alaska Dam Safety Program? <http://dnr.alaska.gov/mlw/water/dams/> ☐ Yes ☐ No

SECTION IX: SIGNATURE

Check all that are attached:

- ☐ \$450 Application Fee: Non-refundable.
Make checks payable to the "Department of Natural Resources."
*** For Credit Card payments, wait for confirmation email with assigned case number and payment instructions.*
- ☐ Detailed Project Description pertaining to Water Use
 - ☐ Sketches, photos, specifications and plans
 - ☐ Plans of water systems, if applicable
- ☐ Legible map that includes:
 - ☐ Meridian, township, range, section
 - ☐ Location of water source(s) and take point(s) are clearly marked and labeled
 - ☐ Location(s) where water is to be used is/are clearly marked and labeled
 - ☐ If applicable, location(s) where water is to be discharged or returned to the water source is/are clearly marked and labeled
- ☐ Copy of ADF&G Fish Habitat Permit(s), if applicable and available.
- ☐ Well Log(s), if applicable and available.
- ☐ Bathymetry or other source volume or flow rate data, if applicable and available

11 AAC 93.220 sets out the required information on the application and authorizes the department to consider any other information needed to process an application for a temporary use of water.

AS 38.05.035(a) authorizes the director to decide what information is needed to process an application for the sale or use of state land and resources. This information is made a part of the state public land records and becomes public information under AS 40.25.110 and 40.25.120 (unless the information qualifies for confidentiality under AS 38.05.035(a)(8) and confidentiality is requested, AS 43.05.230, or AS 45.48). Public information is open to inspection by you or any member of the public. A person who is the subject of the information may challenge its accuracy or completeness under AS 44.99.310, by giving a written description of the challenged information, the changes needed to correct it, and a name and address where the person can be reached. False statements made in an application for a benefit are punishable under AS 11.56.210. In submitting this form, the applicant agrees with the Department to use "electronic" means to conduct "transactions" (as those terms are used in the Uniform Electronic Transactions Act, AS 09.80.010 – AS 09.80.195) that relate to this form and that the Department need not retain the original paper form of this record: the department may retain this record as an electronic record and destroy the original.

By signature below, I hereby certify that I have the legal authority or have been granted the authority, to sign this application for a Temporary Water Use Authorization on behalf of the applicant listed. I also certify that the information presented in this application is true and correct to the best of my knowledge. I understand that no water right or priority is established per 11 AAC 93.210-220, that the water used remains subject to appropriation by others, and that temporary water use authorizations may be revoked if necessary to protect the water rights of other persons or the public interest.

Signature of Applicant or Authorized Representative

Date:

Printed Name

Title

Organization

REFERENCES

Measurement Units:

CFS = cubic feet per second
GPM = gallons per minute
GPD = gallons per day
MGD = million gallons per day

AF = acre-feet of water
AFD = acre-feet per day
AFY = acre-feet per year

Conversions:

1 CFS = 646,317 GPD 1 GPM = 1,440 GPD 1 AF = 325,851 Gallons

11 AAC 93.035. Requirement to apply for the use of a significant amount of water:

- (a) A significant amount of water is that amount of water for which an application for a water right or an application for a temporary water use authorization is required, as described in (b) of this section.
- (b) A person shall file an application for a water right under 11 AAC 93.040 or for a temporary water use authorization under 11 AAC 93.220 before
 - (1) the consumptive use of more than 5,000 gallons of water from a single source in a single day;
 - (2) the regular daily or recurring consumptive use of more than 500 gpd from a single source for more than 10 days per calendar year;
 - (3) the non-consumptive use of more than 30,000 gpd (0.05 cubic feet per second) from a single source; or
 - (4) any water use that may adversely affect the water rights of other appropriators or the public interest.

GLOSSARY OF TERMS

ADF&G:

Alaska Department of Fish and Game.

ADEC:

Alaska Department of Environmental Conservation

Anadromous Fish:

Fish that migrate from salt water to spawn in fresh water. A fish or fish species that spends portions of its life cycle in both fresh and salt waters, entering fresh water from the sea to spawn and includes the anadromous forms of pacific trout and salmon of the genus *Oncorhynchus* (rainbow and cutthroat trout and chinook, coho, sockeye, chum and pink salmon), Arctic char, Dolly Varden, sheefish, smelts, lamprey, whitefish, and sturgeon.

Cofferdam:

A water tight enclosure pumped dry to permit construction work below the waterline.

Dam:

An artificial barrier constructed to impound or hold back water to raise its level, or to divert the flow of water.

- AS 46.17.900(3) "Dam" includes an artificial barrier, and its appurtenant works, which may impound or divert water.

Discharge Area:

The location where water is discharged.

Diversion:

A channel or other structure used to change or direct the flow of water, over and in direct contact with the ground, from one watercourse to another. Any activity, constructed or not, that alters the natural flow of water such as: fill, levee, ditches, channels, culverts, cofferdams, temporary or permanent dams and reservoirs, etc.)

Gravity/Ditch:

The use of a natural or constructed ditch or channel to divert the natural flow of water from one location to another.

Haul Trucks:

Trucks specifically designed to haul water.

Headgate:

A gate for controlling the water flowing into a pipe or channel.

Impoundment:

Any temporary or permanent artificial barrier that holds back or confines the natural flow of water such as: a dam, reservoir, cofferdam, etc.).

In Source Water Use:

A device that is placed within a water source that utilizes the water for a specific purpose without removing the water from the source.

Examples:

- Hydrokinetic Device or Hydroelectric Turbine: source water flow is used to turn the device or turbine fins which turn a generator creating power.
- Suction dredging from a barge or other floating structure where:
 - both water and sediment are sucked up creating a water/sediment slurry which is pumped to another location within the water source for discharge; or
 - the water is separated from the water/sediment slurry with the separated water being discharged back into the water source and the sediment being discharged elsewhere.

Levee:

A natural or manmade embankment or barrier, along the edge of a stream, lake or river, built to direct the flow of water or to prevent the overflow of water such as a river.

Method of Taking:

How the water is removed from the source (i.e. pumping, diverting, and/or impounding) and the type of equipment used to remove the water.

Pump:

The use of mechanical pumps (manual, electric, internal combustion, etc.) to move water from one location to another.

Pump Around:

A dewatering method involving withdrawing water via pump, such as from a cofferdam or stream, to isolate the jurisdictional water from the work area to work in dry conditions. The water, which is initially pumped, is sometimes then discharged into a ditch or channel to complete the process of moving the water around the work area.

Recovery Rate: (Wells)

The rate at which water flows into the well while water is being pumped out of the well.

Reservoir:

A structure constructed to store water or cause water to be stored for use. A natural or manmade pond, lake, or basin, used for the storage, regulation, and control of water. Water held in storage in either an artificial or natural basin and impoundments primarily for a source of water for power, municipal, industrial, domestic or flood control use.

- AS 46.17.900(9) "reservoir" means a basin, appurtenant to a dam, that is capable of impounding water.

Resident Fish:

Fish that do not migrate out to the ocean, but remain in freshwater

Resistant Fish: (North Slope)

Species of fish that are resistant to low concentrations of dissolved oxygen. For example: ninespine stickleback and Alaska blackfish.

Sensitive Fish: (North Slope)

Species of fish that are sensitive to low concentrations of dissolved oxygen. These include Arctic grayling, Arctic char, lake trout, Dolly Varden, whitefish, and other species.

Siphon:

A tube, hose or pipe used to convey water upwards from one location then down to a lower location. Once water has been forced into the tube, hose or pipe, typically by suction or immersion, flow continues unaided.

Stream Bypass:

A diversion that returns the water to the same source stream but downstream from the original take point.

Storage Tanks:

Containers used to store water for short or long-term use.

Sub-surface Source:

Water that lies beneath the ground surface and is accessed through the use of a dug or drilled well, or an excavation such as a trench or pit.

Surface Source:

Water that is present on the ground surface such as: river, creek, stream, lake, pond, spring, wetland, etc.)

Take Point:

The location where water is withdrawn or diverted from its source.

Withdrawal:

A withdrawal occurs when water is taken from a ground or surface water source, either permanently or temporarily, and conveyed to an area or location for use or to a discharge area. A withdrawal is distinguished from a diversion in that a withdrawal occurs by taking water from the source via a hose or pipe wherein the withdrawn water is not in direct contact with the ground over which it is conveyed.

MATERIALS CERTIFICATION LIST

Project Name: Kodiak Island Habitat Enhancement Project - Magazine Area

DESCRIPTION	CONSTRUCTION PROJECT ENGINEER	DESIGN ENGINEER OF RECORD	MANUFACTURER / REMARKS
602 STRUCTURAL PLATE PIPE			
Structural Plate Aluminum Box Culvert 13'-3" Span, 6'-9" Rise with Solid Invert			
Structural Plate Aluminum Box Culvert 15'-9" Span, 8'-0" Rise with Solid Invert			
603 CULVERTS AND STORM DRAINS			
Corrugated Aluminum Round Pipe Culvert 84 inch diameter, Gage 8			
Corrugated Aluminum Round Pipe Culvert 72 inch diameter, Gage 10			
Corrugated Aluminum Round Pipe Culvert 48 inch diameter, Gage 12			
607 FENCES			
Fence Fabric and Accessories			
Drive Gate			
611 RIPRAP			
Riprap, Class II Materials Analysis			
Riprap, Class III Materials Analysis			
623 BLOCK SODDING			
623 Vegetated Mat Salvage and Replanting, Work Plan			
640 MOBILIZATION AND DEMOBILIZATION			
Record As-Built Drawings			
641 EROSION SEDIMENT AND POLLUTION CONTROL			
Storm Water Pollution Prevention Plan (SWPPP)			
eNOI			
eNOT and Final SWPPP			
SWPPP Inspection Reports			
642 CONSTRUCTION SURVEYING AND MONUMENTS			
Survey Personnel Qualifications & Equipment List			
Survey Field Notes			
643 TRAFFIC MAINTENANCE			
Traffic Control Plan			
Construction Phasing Plan			
Traffic Control Supervisor and Flagger Certifications			
646 CMP SCHEDULING			
Project Schedule			
672 STREAM DIVERSION AND DEWATERING			
Stream Diversion and Dewatering Plan			
690 WATERWAY			
Stream Substrate - Fine Material Analysis			
Stream Substrate - Coarse Material Analysis			
Stream Substrate - Riprap Class II Analysis			
703 AGGREGATES			
Select Material Type A1 Analysis			
Select Material Type C1 Analysis			
Select Material Type C Analysis			
Select Material Type E1 Analysis			
724 SEED			
Seed Mix Certification			