US Army Corps
of Engineers
Alaska District

Regulatory Division (1145)
CEPOA-RD
Post Office Box 6898
JBER, Alaska 99506-0898

Public Notice of Application for Permit

PUBLIC NOTICE DATE: June 4, 2020

EXPIRATION DATE: July 6, 2020

REFERENCE NUMBER: POA-2020-00274

WATERWAY: Frederick Sound

Interested parties are hereby notified that a Department of the Army permit application has been received for work in waters of the United States (U.S.) as described below and shown on the enclosed project drawings.

All comments regarding this Public Notice (PN) should be sent to the address noted above. If you desire to submit your comments by email, you should send it to the Project Manager's email as listed below or to: regpagemaster@usace.army.mil. All comments should include the PN reference number listed above.

All comments should reach this office no later than the expiration date of this PN to become part of the record and be considered in the decision. Please contact Jason Berkner at (907) 753-5778, toll free from within Alaska at (800) 478-2712, by fax at (907) 753-5567, or by email at: Jason.R.Berkner@usace.army.mil if further information is desired concerning this notice.

APPLICANT: Alaska Department of Transportation & Public Facilities (ADOT&PF)

PROJECT NAME: Kake Access Project

LOCATION: The project site is located in T. 56S., R. 78E., S. 31-32; T. 57S., R 76E., S. 2-4, 8-15; T. 57S., R 77E., S. 7-8, 13-14, 18, and 23-24; T. 57S., R 78E, S. 1-2, 11, 14-18; Copper River Meridian (United States Geologic Survey [USGS] Quadrangle Map Petersburg D-4 and D-5, Latitude 56.937796 °North, Longitude 133.266812 °West; on the northern portion of Kupreanof Island, in the vicinity of the Village of Kake, Alaska

SPECIAL AREA DESIGNATION: The project is located within the Tongass National Forest.

PURPOSE: The applicant's stated purpose is to provide year-round surface transportation access on Kupreanof Island between the community of Kake and a new boat launch on the eastern shore of Kupreanof lsland for the public to access lands along the route and to create an additional access point to navigable waters on Frederick Sound.

PROPOSED WORK: The project would result in the discharge of approximately 101,000 cubic yards of fill material into a total of 14.55 acres of wetlands and other Waters of the U.S. (WOTUS). The proposed discharges are associated with the construction of the roadway embankments, stream crossings, and the boat launch. Additionally, the project would result in a temporarily discharge of 30,000 cubic yards of fill into 8.53 acres of WOTUS during construction.

The Kake Access Project would consist of constructing 5.39 miles of new road, incorporating approximately 42 miles of existing forest roads, and constructing a new boat launch. The road would be an 18-foot wide, two-lane road. One bridge with a span of 128-feet would be constructed over Twelvemile Creek.

The proposed project would begin at Forest Road (FR) 6030, which is also known as Goose Lake Road. After following FR 6030 for 13.29 miles, the road turns to follow FR 45601 for 4.53 miles. The alignment then extends approximately 2.19 miles of new road north of Salt Chuck Creek and connecting to FR 45603. The alignment follows FR 45603 for one mile, and FR 6032 for 1.62 miles. The alignment then follows FR 6031 for approximately 14.54 miles before turning eastward on FR 6319 for 2.78 miles. Then the alignment joins and follows FR 6323 for 3.52 miles at which point it branches northeasterly with new road for 1.7 miles across the Twelvemile Creek drainage before joining back with FR 6323 for another 0.9 miles. This 0.9 mile of road has deteriorated and is currently unusable, it would be reconstructed to the project's design standards. At the end of FR 6323, the road would branch northward on new road for approximately 1.5 miles, ending at a boat launch that accesses Frederick Sound. The total length of the Kake Access road would be approximately 47.57 miles.

Construction of the roadway would require the permanent discharge of approximately 74,200 cubic yards of fill material into 12.93 acres of wetlands. The applicant would install 57 culverts for stream crossings along the alignment (see Enclosure C). One bridge would be constructed to cross Twelvemile Creek. With available data, up to 14 of these crossings may require anadromous fish passage. The number of fish passages may be adjusted as more data is gathered. Culvert and bridge installation for the proposed road will require the discharge of approximately 16,500 cubic yards of material into approximately 0.57-acre of waterways.

The proposed boat launch facility would include a ½-acre gravel-surfaced parking and access area leading to a 16-foot x 293-foot concrete plank launch ramp. Construction of the proposed parking area would result in the discharge of approximately 4,300 cubic yards of material into approximately 0.80 acres of wetlands. Construction of the proposed boat launch ramp would result in the discharge of approximately 1,700 cubic yards of material into approximately 0.25 acres of wetlands and waters below the Mean High Water (MHW) of Frederick Sound.

All work is proposed to be performed in accordance with the attached project figures (Enclosure D).

APPLICANT PROPOSED MITIGATION: Attachment A contains the applicant's proposed mitigation measures to avoid, minimize, and compensate for impacts to WOTUS from activities involving discharges of dredged or fill material.

WATER QUALITY CERTIFICATION: A permit for the described work will not be issued until a certification or waiver of certification, as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

CULTURAL RESOURCES: The Corps of Engineers (Corps) hereby designates ADOT&PF to prepare information, analyses and recommendations in compliance with the requirements of Section 106 of the National Historic Preservation Act (Section 106). The Corps will remain responsible for all documents or studys to ensure that the contents meet applicable standards and guidelines. A permit for the described work will not be issued until the Section 106 process has been completed.

Any comments the State Historic Preservation Officer may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the described work.

ENDANGERED SPECIES: The Corps hereby designates a non-Federal representative to conduct informal consultation or prepare a biological assessment pursuant to Section 7 of the Endangered Species Act (Section 7). Accordingly, this is written notice to the Directors of the National Marine Fisheries Service (NMFS) and the Fish and Wildlife Service (FWS) that AKDOT&PF will represent the Corps in the Section 7 consultation process. The Corps will retain responsibility for its Section 7 obligations, and a permit for the described work will not be issued until the Section 7 process has been completed.

Any comments the NMFS or FWS may have concerning endangered or threatened wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

The project area is within the known range of five species of Pacific Salmon.

We are currently gathering information regarding these species and have yet to make a determination of effect. Should we find that the described activity may affect the species listed above, we will follow the appropriate course of action under Section 305(b)(2) of the Magnuson-Stevens Act. Any comments the National Marine Fisheries Service may have

concerning essential fish habitat will be considered in our final assessment of the described work.

This PN initiates EFH consultation with the NMFS. Any comments or recommendations they may have concerning EFH will be considered in our final assessment of the described work.

TRIBAL CONSULTATION: The Alaska District fully supports tribal self-governance and government-to-government relations between Federally recognized Tribes and the Federal government. Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Alaska District on a government-to-government basis. Views of each Tribe regarding protected rights and resources will be accorded due consideration in this process. This PN serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal right or resource. Consultation may be initiated by the affected Tribe upon written request to the District Commander during the public comment period.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur. The decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(l) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Commander determines that it would be contrary to the public interest.

The Corps is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps

to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

AUTHORITY: This permit will be issued or denied under the following authorities:

(X) Perform work in or affecting navigable waters of the United States – Section 10 Rivers and Harbors Act 1899 (33 U.S.C. 403).

(X) Discharge dredged or fill material into waters of the United States – Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

Project drawings and a Notice of Application for State Water Quality Certification are enclosed with this Public Notice.

District Commander
U.S. Army, Corps of Engineers

Enclosures

MICHAEL J. DUNLEAVY, GOVERNOR

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
Wastewater Discharge Authorization Program (WDAP) / 401 Certification

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WDAP/401 CERTIFICATION
555 CORDOVA STREET
ANCHORAGE, ALASKA 99501-2617
PHONE: (907) 269-6285 | EMAIL: dec-401cert@alaska.gov

NOTICE OF APPLICATION FOR STATE WATER QUALITY CERTIFICATION

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. By agreement between the U.S. Army Corps of Engineers and the Department of Environmental Conservation, application for a Department of the Army permit to discharge dredged or fill material into navigable waters under Section 404 of the Clean Water Act also may serve as application for State Water Quality Certification.

Notice is hereby given that the application for a Department of the Army Permit described in the Corps of Engineers' Public Notice (PN) Reference Number **POA-2020-00274, Frederick Sound**, serves as application for State Water Quality Certification from the Department of Environmental Conservation.

After reviewing the application, the Department may certify there is reasonable assurance the activity, and any discharge that might result, will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

Any person desiring to comment on the project with respect to Water Quality Certification, may submit written comments to the address above or via email to dec-401cert@alaska.gov by the expiration date of the Corps of Engineer's Public Notice. All comments should include the PN reference number listed above. Mailed comments must be postmarked on or before the expiration date of the public notice.

Disability Reasonable Accommodation Notice

The State of Alaska, Department of Environmental Conservation complies with Title II of the Americans with Disabilities Act of 1990. If you are a person with a disability who may need special accommodation in order to participate in this public process, please contact Kate Orozco at 907-465-6171 or TDD Relay Service 1-800-770-8973/TTY or dial 711 within 5 days of the expiration date of this public notice to ensure that any necessary accommodations can be provided.

Enclosure A
Applicant proposed mitigation measures to avoid, minimize, and compensate for impacts to WOTUS.

~~Attachment C~~

Description of Avoidance, Minimization, and Compensation

Introduction

This Mitigation Statement was prepared as an attachment to the Section 404 Individual Permit application for the Kake Access Project proposed by the Alaska Department of Transportation and Public Facilities (DOT&PF). The purpose of the Mitigation Statement is to (1) describe the proposed avoidance and minimization of impacts to jurisdictional wetlands and other resources in the project area, and (2) identify the proposed compensatory mitigation for unavoidable impacts to wetlands and other waters of the United States from construction of the road. Please see the project description, included as Attachment B of the permit application package for additional project details.

The project has been developed to avoid and minimize fills in wetlands and other aquatic resources to the maximum extent practicable, as described below. Direct impacts to wetlands and waters, however, are unavoidable for most projects in Southeast Alaska, as wetlands and streams are abundant and widespread.

Avoidance and Minimization

The project has been designed to avoid and minimize the discharge of fill into wetlands and other waters. The following avoidance and minimization measures have been incorporated into the design and construction of the project.

Design avoidance measures:

- By incorporating more than 42 miles of existing road into the alignment, the project has been designed to avoid discharge fill into wetlands and other aquatic resources
- The design incorporates 1.5:1 side slopes, as recommended for slope stability and traffic safety, to avoid impacts to wetlands and other waters, where practicable.

Design minimization measures:

- Existing drainage patterns will be maintained. Properly sized and designed culverts will be used in appropriate locations to maintain the natural flow patterns and timing of surface water inflows to adjacent wetlands and waters.
- Stream crossings are designed to be perpendicular to the axis of the channel as engineering and routing conditions allow.
- The design incorporates 1.5:1 side slopes, as recommended for slope stability and traffic safety, to minimize impacts to wetlands and other waters (Attachment A: Permit Figures).

Construction avoidance and minimization measures:

- To the extent practicable, staging areas and other work areas will be located in uplands, at least 50 feet away from wetlands and/or water's edge. Previously disturbed upland areas will be used when possible.
- Contaminant-free embankment and surface materials will be used during construction to avoid introducing contaminated material to the project area.
- Project limits in waters of the U.S. will be clearly identified in the field (e.g., staking, flagging, silt fencing, existing footprint for maintenance activities, etc.) prior to clearing and construction to ensure avoidance of filling additional waters of the U.S. (including wetlands) beyond project footprints.
- Equipment will remain inside the identified project limits, and will not be stored, maintained, or repaired in waters of the U.S. Temporary stockpiles and equipment staging areas will be located in uplands or previously disturbed areas.
- A Stormwater Pollution Prevention Plan (SWPPP) will be prepared for the project. The plan will clearly describe best management practices (BMPs) required during construction to prevent erosion and runoff from entering aquatic habitats.
    - Erosion and sediment control measures (perimeter protection) such as silt fences and straw wattles will be placed around wetlands and waters within the disturbance limit (within 15 ft).
    - Temporarily disturbed areas, including slopes, will be re-contoured to match existing contours and stabilized within seven days of the completion of construction in the area. All silt fences, curtains, and other structures will be installed properly and maintained in a functioning manner where fill material and exposed soils might cause transport of sediment or turbidity beyond the immediate construction site.
    - Standard spill-prevention measures will be implemented during construction. Spill clean-up equipment (e.g., oil-absorbent pads) will be available onsite during construction.
- The work will not adversely alter existing hydrology of waters of the U.S., including wetlands. Construction methods will be chosen to prevent the draining of wetlands.
- Any stream bank affected by the work will be restored and stabilized. The stream bed and banks will be backfilled and restored to the pre-existing course, condition, capacity and location.
- Construction of the proposed boat launch will be performed at the lowest tide practicable.

Compensatory Mitigation

The DOT&PF has designed the project to avoid and minimize adverse effects to aquatic resources and other environmental resources to the maximum extent practicable given the road design standards and the topographical constraints. Direct impacts from the project will result in the permanent loss of 14.55 acres of wetlands across four 12-digit Hydrologic Unit Code (HUC) watersheds totaling 87,000 acres. The affected 12-digit HUC watersheds contain over 44,000 acres of undisturbed wetlands and waterbodies on lands primarily managed by the US Forest Service. Due to the relatively small impact to wetlands and the protected and undeveloped nature of the affected watersheds, no compensatory mitigation is proposed.

Enclosure B

SUMMARY OF WETLAND IMPACTS BY TYPE						
Wetland Impacts from Road, Culvert and Bridge Construction Activities						
WETLAND TYPE	MAP CODE	COWARDIN	TEMPORARY BUFFER AREA (AC)	PERMANENT IMPACT AREA (AC)	QUANTITY (Permanent Impact Areas)	
					FILL (C.Y.)	CUT (C.Y)
Freshwater - Forested and Shrub	PFO, PSS	Palustrine Forested and Shrub	17.07	13.19	90,880.05	24,785.47
Freshwater Emergent	PEM	Palustrine Emergent	1.95	1.09	7,510.18	2,048.23
Riverine	R	Riverine Deepwater and Associated Wetlands	0.06	0.06	413.40	112.75
Estuarine and Marine Deepwater	E1, M2	Estuarine and Marine Subtidal Water	0.31	0.21	1,446.92	394.61
		Totals:	**19.39**	**14.55**	**100,250.55**	**27,341.06**

WETLAND IMPACTS				
WETLAND MAP CODE	TEMPORARY BUFFER AREA (AC)	PERMANENT IMPACT AREA (AC)	QUANTITY (Permanent Impact Areas)	
			FILL (C.Y.)	CUT (C.Y)
PFO4/EM1B	1.67	1.24	8,543.69	2,330.10
PFO4/SS1B	0.87	0.55	3,789.54	1,033.51
PFO4B	11.72	9.34	64,353.27	17,550.89
PSS1/EM1B	0.10	0.06	413.40	112.75
PSS1/EM1C	0.40	0.29	1,998.12	544.94
PSS4/EM1B	1.91	1.51	10,404.01	2,837.46
PSS4B	0.40	0.20	1,378.01	375.82
PEM1B	0.59	0.38	2,618.23	714.06
PEM1C	1.31	0.71	4,891.95	1,334.17
PEM1F	0.05	0.00	0.00	0.00
R2UBH	0.06	0.06	413.40	112.75
M2RSN	0.31	0.21	1,446.92	394.61
TOTALS:	19.39	14.55	100,250.55	27,341.06

ADJACENT PROPERTY OWNERS:

1. UNITED STATES FOREST SERVICE

WATER BODY: PORTAGE BAY AND FREDERICK SOUND

NEW ROAD CONSTRUCTION
WATERS OF THE U.S.
QUANTITY SUMMARY

APPLICATION BY:
ALASKA DEPARTMENT OF
TRANSPORTATION AND PUBLIC FACILITIES
SOUTHCOAST REGION

KAKE ROAD ACCESS ROAD
STATE PROJECT NO.: Z696070000

LOCATED NEAR: KAKE, ALASKA

DATE: MAY 2020 SHEET 1 OF 16

Culverts in Waters of the U.S.						
Name	Start Station	End Station	Size (FT)	Length (FT)	Fill Volume Below OHW (Bedding Material C.Y.)	Notes
P- 001	937+53.45'	937+72.36'	56.00	3.50'	0.00	Cross Culvert
P-002	940+39.82'	940+58.27'	86.00	2.50'	0.00	Cross Culvert
P- 003	940+97.91'	940+95.65'	51.00	3.00'	0.00	Cross Culvert
P- 005	946+64.44'	946+71.56'	59.00	3.00'	0.00	Cross Culvert
P- 007	952+85.57'	953+56.72'	106.00	3.50'	0.00	Cross Culvert
P- 009	962+51.46'	962+43.81'	52.00	6.00'	295.00	Fish Passage
P- 012	991+92.20'	992+44.49'	93.00	16.00'	6,175.00	Fish Passage
P- 014	1006+19.24'	1006+72.54'	102.00	7.00'	675.00	Fish Passage
P- 016	1013+35.36'	1013+55.87'	72.00	2.50'	0.00	Cross Culvert
P- 017	1018+39.81'	1018+30.45'	98.00	3.00'	0.00	Cross Culvert
P- 018	1021+75.97'	1022+64.43'	128.00	7.00'	1,930.00	Fish Passage
P- 019	1024+73.93'	1024+74.99'	64.00	4.00'	595.00	Fish Passage
P- 020	1028+67.69'	1028+94.90'	82.00	3.00'	0.00	Cross Culvert
P- 021	1032+66.48'	1032+59.85'	41.00	3.50'	0.00	Cross Culvert
P- 022	1048+83.20'	1048+90.54'	49.00	3.00'	0.00	Cross Culvert
P-201	2066+58.83'	2066+74.02'	51.00	7.00'	945.00	Fish Passage
P-202	2071+69.78'	2071+66.13'	45.00	2.00'	0.00	Cross Culvert
P-203	2072+70.83'	2072+81.72'	50.00	6.00'	560.00	Fish Passage
P-204	2075+98.80'	2076+30.43'	65.00	5.00'	765.00	Fish Passage
P-205	2081+21.74'	2081+30.53'	44.00	2.00'	0.00	Cross Culvert
P-206	2087+79.43'	2087+90.56'	52.00	4.00'	470.00	Fish Passage
P-207	2094+96.01'	2094+97.71'	50.00	2.00'	0.00	Cross Culvert
P-208	2104+26.07'	2104+28.04'	42.00	3.00'	0.00	Cross Culvert
P-211	2131+71.70'	2131+25.87'	62.00	4.00'	580.00	Fish Passage
P-212	2140+13.75'	2139+80.84'	55.00	2.50'	0.00	Cross Culvert
P-252	2148+38.86'	2148+36.48'	40.00	4.00'	380.00	Fish Passage
P-253	2149+94.87'	2149+72.55'	52.00	5.00'	610.00	Fish Passage
P-254	2155+29.78'	2155+30.35'	42.00	5.00'	450.00	Fish Passage
P-255	2156+51.28'	2156+55.31'	53.00	6.00'	695.00	Fish Passage

ADJACENT PROPERTY OWNERS:

1. UNITED STATES FOREST SERVICE

WATER BODY: PORTAGE BAY AND FREDERICK SOUND

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SOUTHCOAST REGION

KAKE ROAD ACCESS ROAD
STATE PROJECT NO.: Z696070000

LOCATED NEAR: KAKE, ALASKA

DATE: MAY 2020 SHEET 2 OF 16

Culverts in Waters of the U.S.						
Name	Start Station	End Station	Size (FT)	Length (FT)	Fill Volume Below OHW (Bedding Material C.Y.)	Notes
P-256	2161+45.69'	2161+55.11'	48.00	6.00'	705.00	Fish Passage
P-257	2165+52.85'	2165+61.16'	51.00	2.00'	0.00	Cross Culvert
P-258	2167+06.99'	2167+22.66'	60.00	3.00'	0.00	Cross Culvert
P-259	2169+12.74'	2169+30.04'	63.00	3.00'	0.00	Cross Culvert
P-261	2175+76.30'	2175+76.91'	53.00	3.00'	0.00	Cross Culvert
P-262	2179+85.82'	2179+86.22'	45.00	3.00'	0.00	Cross Culvert
P-263	2182+99.40'	2183+10.49'	51.00	2.50'	0.00	Cross Culvert
P-264	2187+52.14'	2187+49.75'	39.00	2.50'	0.00	Cross Culvert
P-301	2191+99.51'	2191+97.63'	39.00	2.50'	0.00	Cross Culvert
P-302	2195+20.17'	2195+30.76'	50.00	2.50'	0.00	Cross Culvert
P-303	2197+65.19'	2197+61.36'	54.00	2.50'	0.00	Cross Culvert
P-304	2203+06.49'	2202+85.11'	49.00	2.50'	0.00	Cross Culvert
P-305	2208+43.66'	2208+44.20'	42.00	2.50'	0.00	Cross Culvert
P-306	2209+55.56'	2209+58.83'	46.00	2.50'	0.00	Cross Culvert
P-307	2212+01.03'	2212+33.38'	51.00	2.00'	0.00	Cross Culvert
P-308	2213+46.86'	2213+40.80'	39.00	2.50'	0.00	Cross Culvert
P-309	2217+78.82'	2217+96.03'	48.00	2.50'	0.00	Cross Culvert
P-310	2220+87.91'	2220+86.24'	44.00	2.50'	0.00	Cross Culvert
P-311	2223+72.11'	2223+85.14'	42.00	2.00'	0.00	Cross Culvert
P-312	2227+10.99'	2227+16.19'	45.00	2.00'	0.00	Cross Culvert
P-313	2232+77.93'	2232+73.77'	65.00	2.00'	0.00	Cross Culvert
P-314	2236+33.44'	2236+28.22'	54.00	2.50'	0.00	Cross Culvert
P-315	2239+84.88'	2239+70.01'	64.00	2.00'	0.00	Cross Culvert
P-316	2240+98.12'	2240+95.83'	47.00	2.00'	0.00	Cross Culvert
P-317	2242+29.92'	2241+86.70'	70.00	2.00'	0.00	Cross Culvert
P-318	2247+03.94'	2247+19.45'	59.00	2.00'	0.00	Cross Culvert
P-319	2253+03.38'	2253+03.41'	46.00	2.00'	0.00	Cross Culvert
P-320	2257+26.76'	2257+24.84'	44.00	2.00'	0.00	Cross Culvert
				Totals:	15,830.00	

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KAKE ROAD ACCESS ROAD
STATE PROJECT NO.: Z696070000

LOCATED NEAR: KAKE, ALASKA

DATE: MAY 2020 SHEET 3 OF 16

Enclosure D
Project Figures

0 1.25 2.5 5 7.5 10 Miles

Legend

- Permanent Cut and Fill Boundary
- Temporary Impact Boundary
- Potential Material Sites Boundary
- Existing Roads
- Bridge Locations
- Fish Passage Culverts
- Cross Culverts
- Boat Launch Area

Permanent WOUS Fill

- Freshwater - Forested and Shrub
- Freshwater Emergent
- Riverine
- Estuarine and Marine Deepwater

Temporary WOUS Impact

- Freshwater - Forested and Shrub
- Freshwater Emergent
- Riverine
- Estuarine and Marine Deepwater

STATE OF ALASKA
Department of Transportation and Public Facilities
Southcoast Region

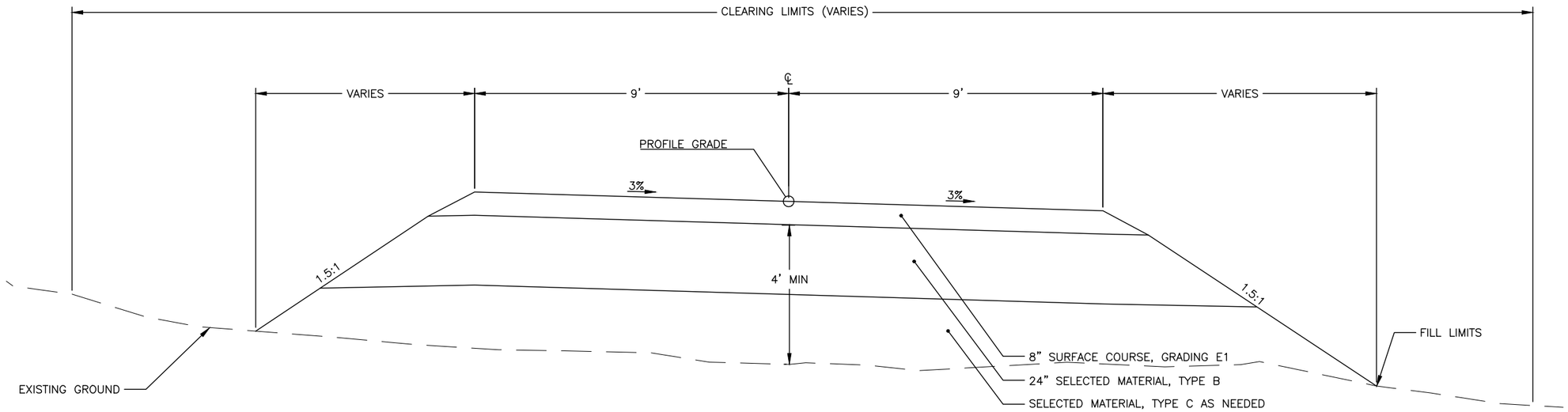
Kake Access Road Z696070000

Wetland Impact Map

DATE: May 2020 | Figure 4 of 16

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z696070000	2020	B1	B5



STANDARD FILL AREAS (NEW ROAD)

STA. 710+00 TO 741+00
STA. 743+00 TO 761+97
STA. 767+78 TO 769+75
STA. 775+00 TO 824+00
STA. 826+51 TO 827+11
STA. 830+52 TO 845+00
STA. 846+00 TO 847+82
STA. 849+10 TO 853+15
STA. 854+00 TO 855+00
STA. 857+50 TO 858+50
STA. 860+00 TO 871+50
STA. 873+00 TO 910+00
STA. 915 +00 TO 923+00
STA. 926+00 TO 927+00
STA. 930+00 TO 951+00
STA. 955+00 TO 978+00
STA. 982+00 TO 985+00
STA. 988+00 TO 997+82
STA. 1004+75 TO 1005+00
STA. 1006+00 TO 1006+41
STA. 1010+00 TO 1057+00
STA. 1061+00 TO 1067+50
STA. 1317+00 TO 1352+50
STA. 1363+00 TO 1364+18
STA. 1365+00 TO 1380+00
STA. 1382+20 TO 1427+00
STA. 1429+67 TO 1430+50
STA. 1434+32 TO 1447+25
STA. 1450+42 TO 1452+00
STA. 1454+00 TO 1456+00
STA. 1462+00 TO 1464+00
STA. 1465+20 TO 1488+00
STA. 1642+00 TO 1653+00
STA. 1655+00 TO 1656+00
STA. 1660+00 TO 1662+00
STA. 1664+00 TO 1674+00
STA. 1677+00 TO 1680+00
STA. 1687+00 TO 1712+00
STA. 1715+50 TO 1716+50
STA. 1718+20 TO 1726+50
STA. 1728+50 TO 1729+50
STA. 1728+00 TO 1740+50
STA. 1743+50 TO 1744+50
STA. 1749+00 TO 1751+00
STA. 1753+00 TO 1754+50
STA. 1757+00 TO 1758+50
STA. 1771+50 TO 1773+50
STA. 1779+00 TO 1799+00
STA. 1800+50 TO 1842+00
STA. 1847+00 TO 1852+00
STA. 1853+75 TO 1855+20

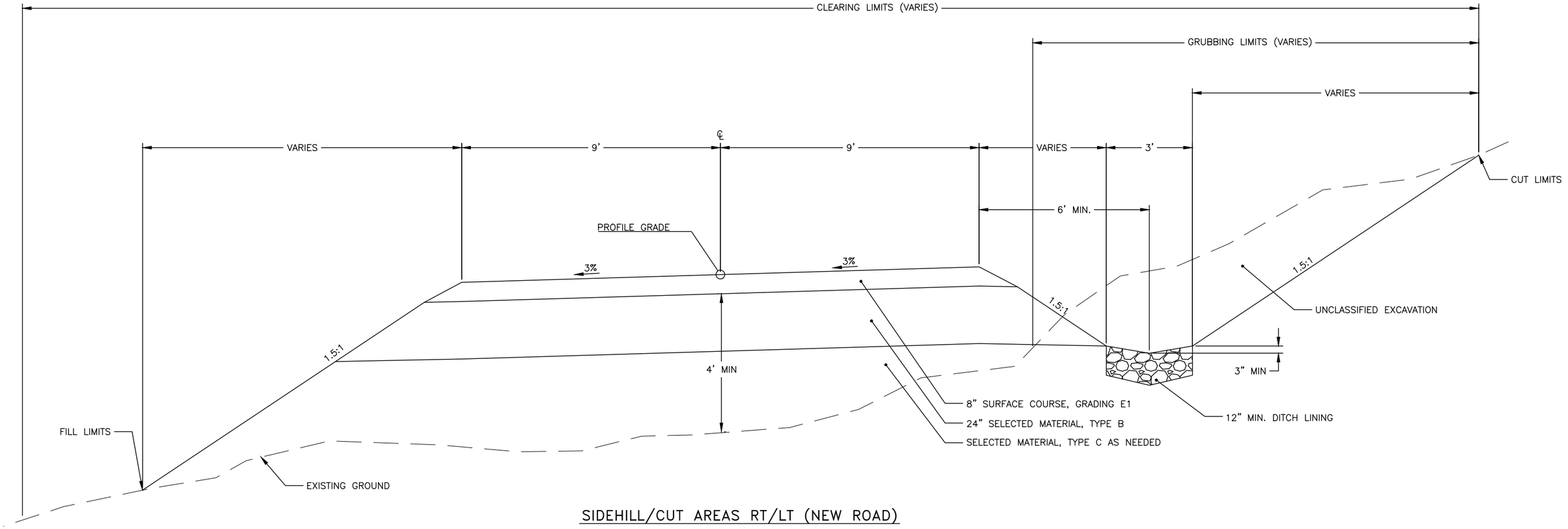
NOTE:

1. ALL STATIONING SHOWN ARE APPROXIMATE STATIONING LIMITS AND ARE SUBJECT TO CHANGE AS APPROVED BY THE ENGINEER.
2. SLOPE OF THE ROADWAY SHOULD DRAIN TOWARDS THE DOWNHILL SIDE OF THE HILL.
3. FILL SLOPES SHALL NOT BE STEEPER THAN 1.5:1. 2:1 FILL SLOPES SHALL BE USED, IF THE BORROW MATERIAL CONSISTS OF ERODIBLE PROPERTIES OR AND WILL NEED TO BE APPROVED BY THE ENGINEER.

TYPICAL SECTIONS 1 OF 5

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z696070000	2020	B2	B5



SIDEHILL/CUT AREAS RT/LT (NEW ROAD)

STA. 853+15 TO 854+00(RT)
STA. 871+50 TO 873+00(RT)
STA. 1380+00 TO 1382+20(RT)
STA. 1680+00 TO 1687+00(LT)
STA. 1726+50 TO 1728+50(RT)
STA. 1729+50 TO 1730+00(LT)
STA. 1740+50 TO 1743+50(RT)
STA. 1744+50 TO 1749+00(RT
STA. 1751+00 TO 1753+00(RT
STA. 1754+50 TO 1757+00(RT
STA. 1758+50 TO 1771+50(RT)
STA. 1773+50 TO 1779+00(RT)
STA. 1842+00 TO 1847+00(RT)

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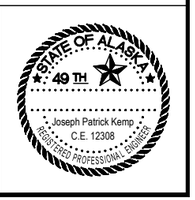
4. CUT SLOPES ARE SUBJECT TO CHANGE WITHIN THE THE RANGE OF 0.25:1 TO 1.5:1, TO BE DETERMINED BY FIELD CONDITIONS. ANY CHANGES TO WHAT SHOWN ON PLANS MUST BE APPROVED BY THE ENGINEER.

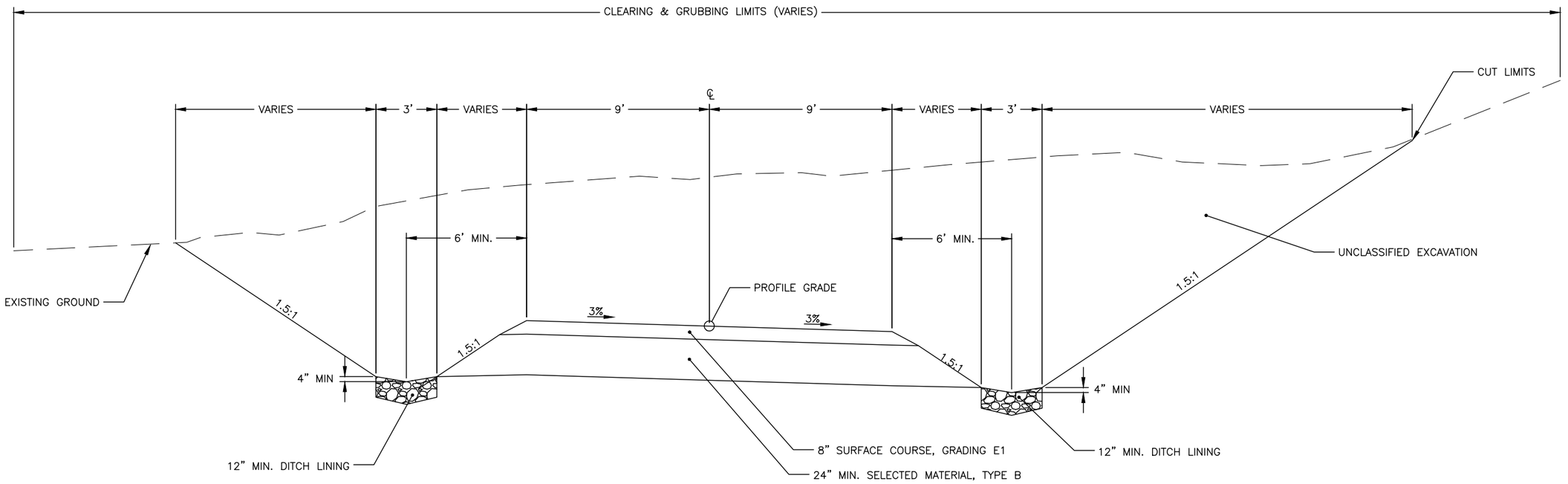
TYPICAL SECTIONS 2 OF 5



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
\\dotfpgnas\Precon\Projects\Communities\Kake\Z696070000 Kake Access Road\04 PS&E\10 - Drafting\1 Plots\Z696070000_B-B2 (2 Lane) Fri, Apr/10/20 08:55am

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z696070000	2020	B3	B5



THROUGH CUT AREAS (NEW ROAD)

STA. 761+67 TO 767+78
STA. 769+75 TO 775+0
STA. 824+00 TO 826+51
STA. 827+11 TO 830+52
STA. 845+00 TO 846+00
STA. 847+82 TO 849+10
STA. 855+00 TO 857+5
STA. 858+50 TO 860+00
STA. 910+00 TO 912+00
STA. 923+00 TO 926+00
STA. 927+00 TO 930+00
STA. 978+00 TO 982+00
STA. 997+82 TO 1004+70
STA. 1006+41 TO 1010+00
STA. 1352+50 TO 1356+20
STA. 1357+97 TO 1363+00
STA. 1364+18 TO 1365+00
STA. 1427+00 TO 1429+6
STA. 1430+50 TO 1434+32
STA. 1447+25 TO 1450+42
STA. 1452+00 TO 1454+0
STA. 1456+00 TO 1462+00
STA. 1464+00 TO 1465+20
STA. 1653+00 TO 1655+00
STA. 1656+00 TO 1660+00
STA. 1662+00 TO 1664+00
STA. 1712+00 TO 1715+50
STA. 1799+00 TO 1800+50

NOTE:

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3. FILL SLOPES SHALL NOT BE STEEPER THAN 1.5:1. 2:1 FILL SLOPES SHALL BE USED, IF THE BORROW MATERIAL CONSISTS OF ERODIBLE PROPERTIES. ANY CHANGES TO WHAT IS SHOWN ON PLANS MUST BE APPROVED BY THE ENGINEER.
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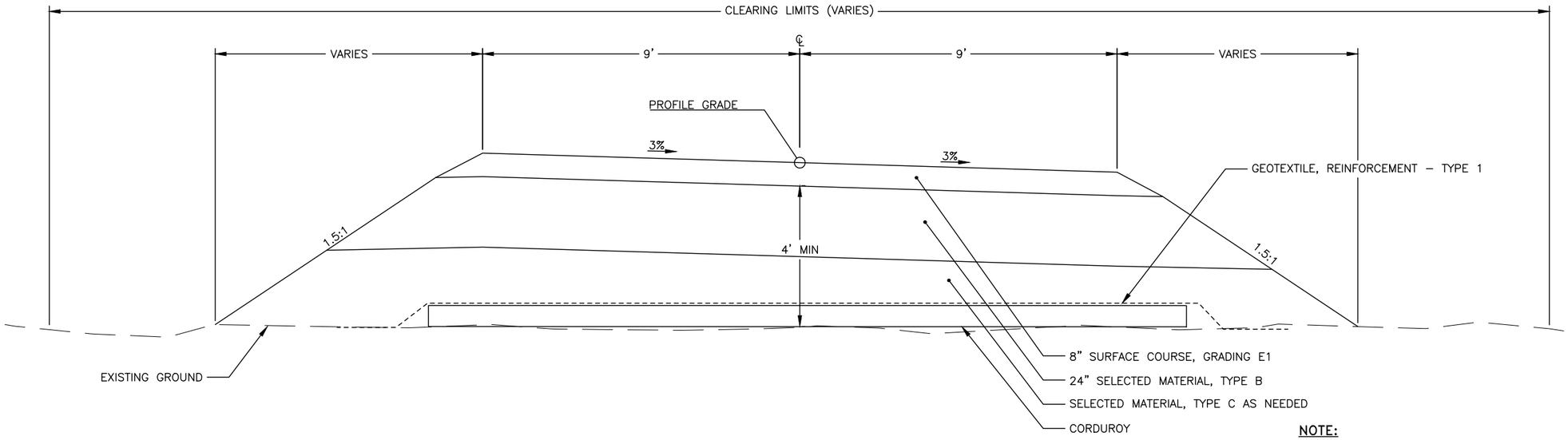
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
\\dotfpgnas\Precon\Projects\Communities\Koke\Z696070000 Koke Access Road\04 PS&E\10 - Drafting\1 Plots\Z696070000_B-B3 (2 Lane) Fri, Apr/10/20 08:55am

TYPICAL SECTIONS 3 OF 5

STATE OF ALASKA 49TH
Joseph Patrick Kemp
C.E. 12308
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z696070000	2020	B4	B5



WET(MUSKEG/WETLAND) FILL AREAS – CORDUROY AND GEOTEXTILE (NEW ROAD)

STA. 741+00 TO 743+00
STA. 912+00 TO 915+00
STA. 951+00 TO 955+00
STA. 985+00 TO 988+00
STA. 1057+00 TO 1061+00
STA. 1674+00 TO 1677+00

NOTE:

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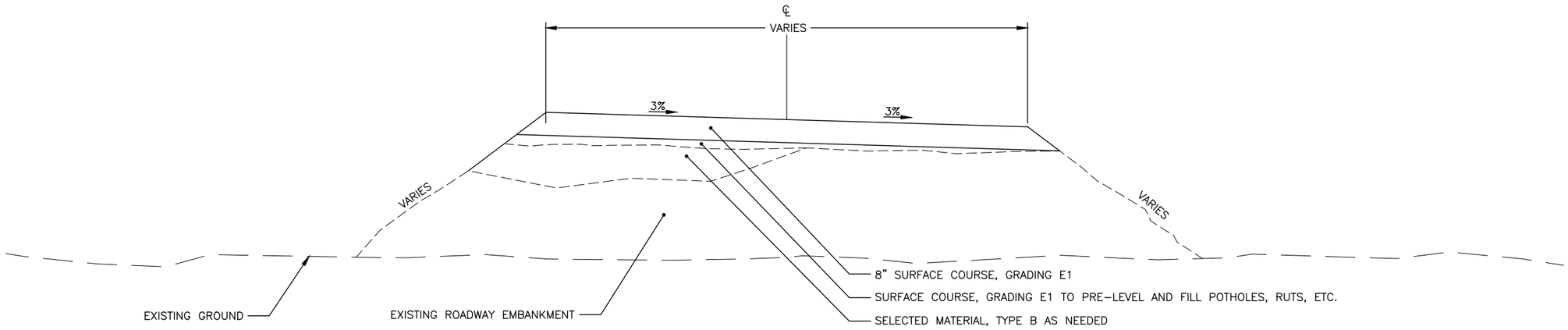


EXISTING ROAD RESURFACE AREAS WITH SPOT REPAIRS

STA. 10+00 TO 710+00
STA. 1067+50 TO 1317+00
STA. 1488+00 TO 1642+00

NOTE:

1. AREAS THAT NEED SPOT REPAIRS HAVE YET TO BE DETERMINED.
2. SPOT REPAIR WORK AREAS THAT REQUIRE WORK MUST BE APPROVED BY THE ENGINEER.
3. MATERIALS AND WORK ITEMS REQUIRED FOR SPOT REPAIRS WILL BE PAID FOR SEPARATELY UNDER THE RESPECTIVE ITEMS LISTED IN THE BID SCHEDULE.

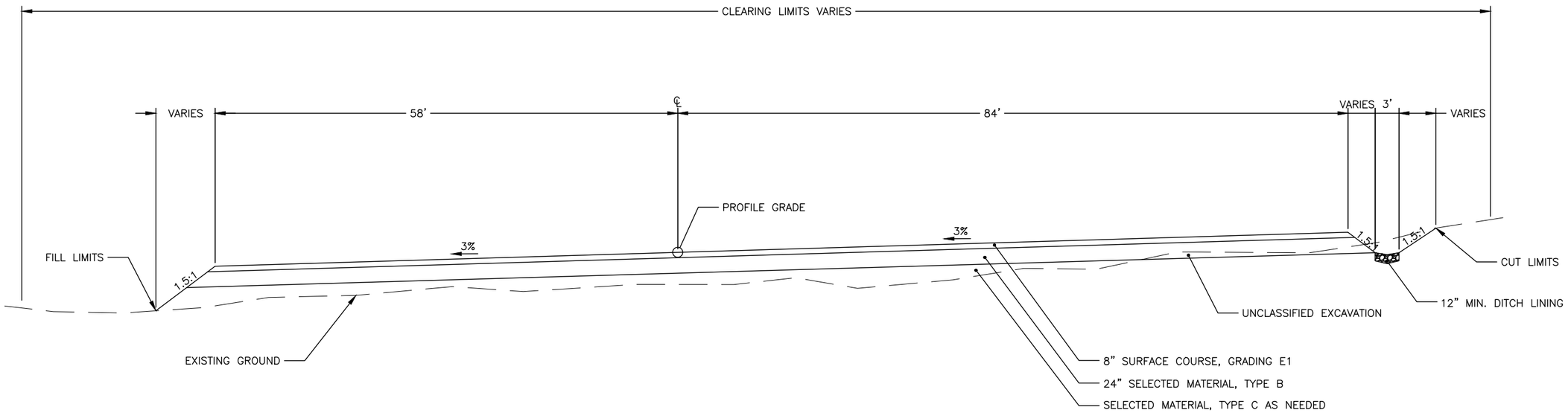
TYPICAL SECTIONS 4 OF 5

STATE OF ALASKA 49TH
Joseph Patrick Kemp
C.E. 12308
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
\\dotfpgnas\Precon\Projects\Communities\Kake\Z696070000 Kake Access Road\04 PS&E\10 – Drafting\1 Plots\Z696070000_B-B4 (2 Lane) Fri, Apr/10/20 08:55am

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z696070000	2020	B5	B5



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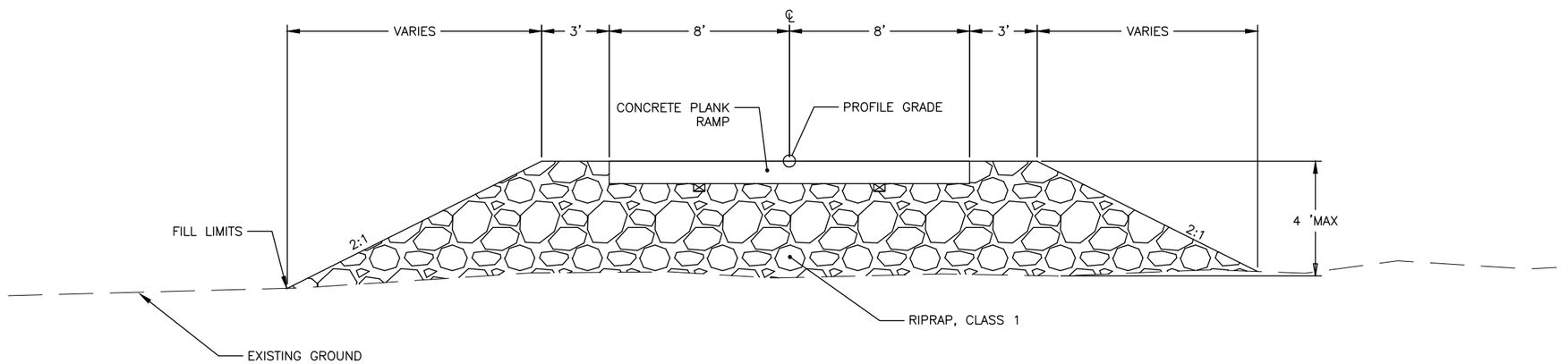
4. REFER TO THE HARBOR SITE PLAN AND LAUNCH RAMP & WALKDOWN FLOAT PLAN & SECTION INCLUDED IN THE SUPPLEMENTAL INFORMATION FOR MORE DETAILS.

BOAT LAUNCH PARKING LOT AREA

STA. 1852+00 TO 1853+75



BOAT LAUNCH RAMP

STA. 1855+20 TO 1856+80 (EOP)

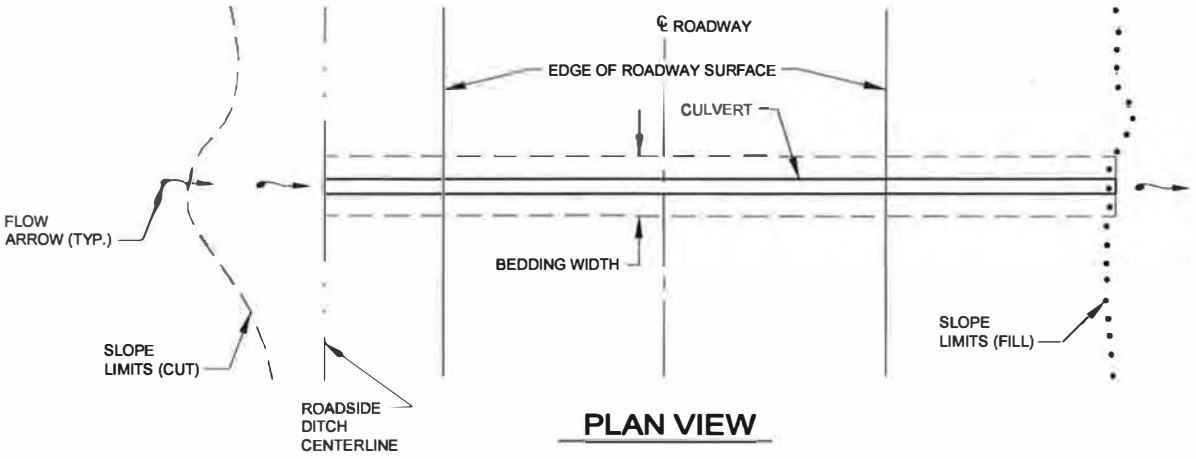
NOTE:

1. REFER TO THE HARBOR SITE PLAN AND LAUNCH RAMP & WALKDOWN FLOAT PLAN & SECTION INCLUDED IN THE SUPPLEMENTAL INFORMATION FOR MORE DETAILS.

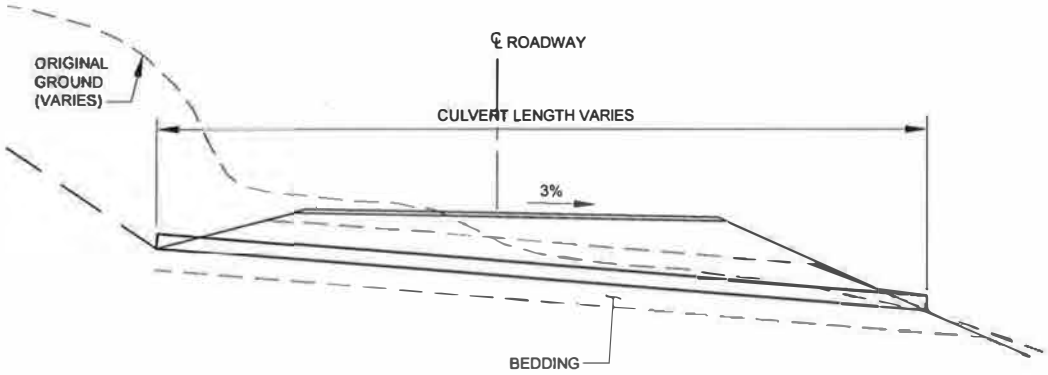
TYPICAL SECTONS 5 OF 5

STATE OF ALASKA 49TH
Joseph Patrick Kemp
C.E. 12308
REGISTERED PROFESSIONAL ENGINEER

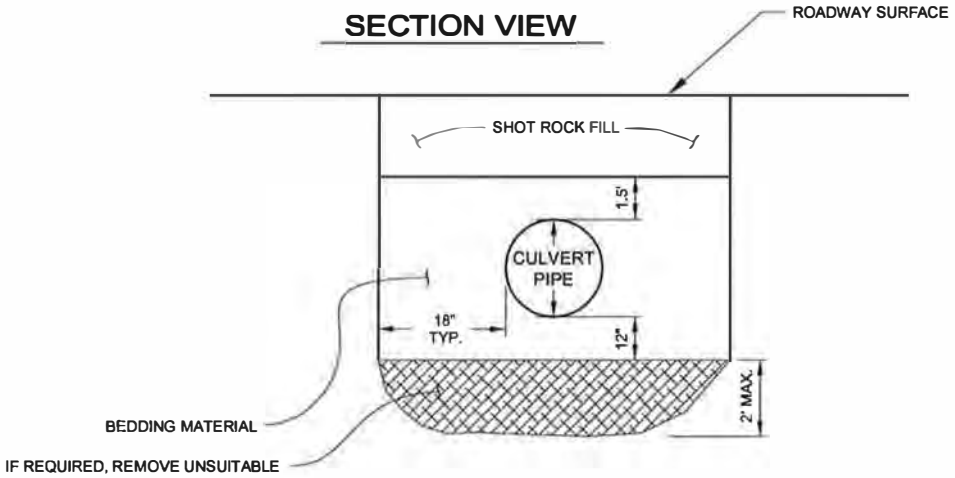
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
\\dotfpgnas\Precon\Projects\Communities\Kake\Z696070000 Kake Access Road\04 PS&E\10 - Drafting\1 Plots\Z696070000_B-B5 (2 Lane) Fri, Apr/10/20 08:56am



PLAN VIEW



SECTION VIEW

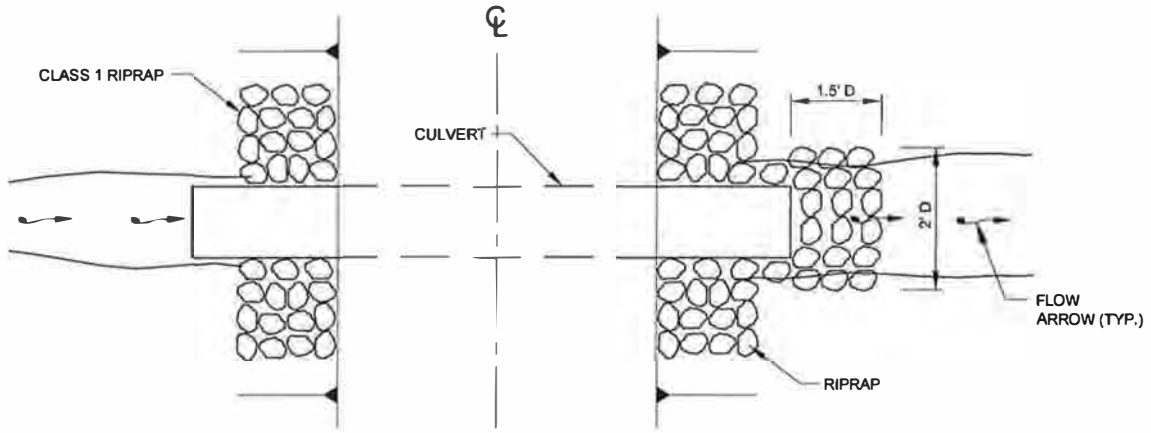


TYPICAL PIPE EMBEDMENT DETAIL

N.T.S.

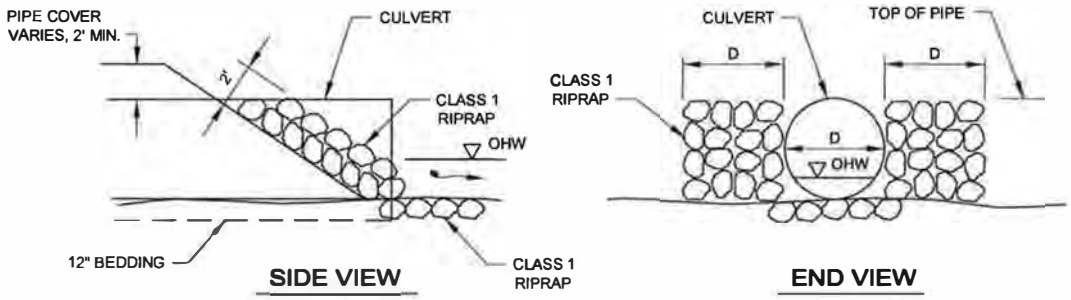
TYPICAL CULVERT INSTALLATION DETAIL

APPLICATION BY:
ALASKA STATE DEPT. OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION



PLAN VIEW

N.T.S.



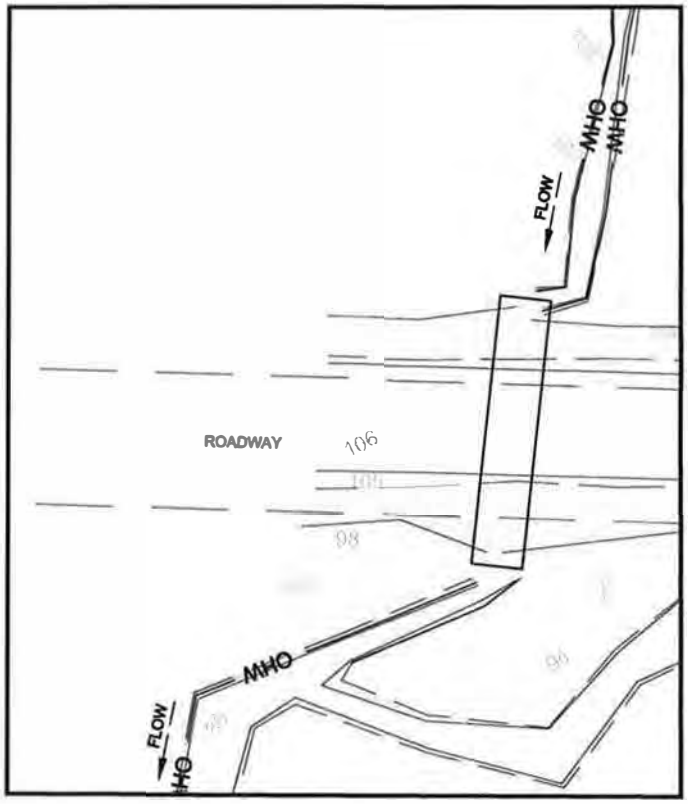
SIDE VIEW **END VIEW**

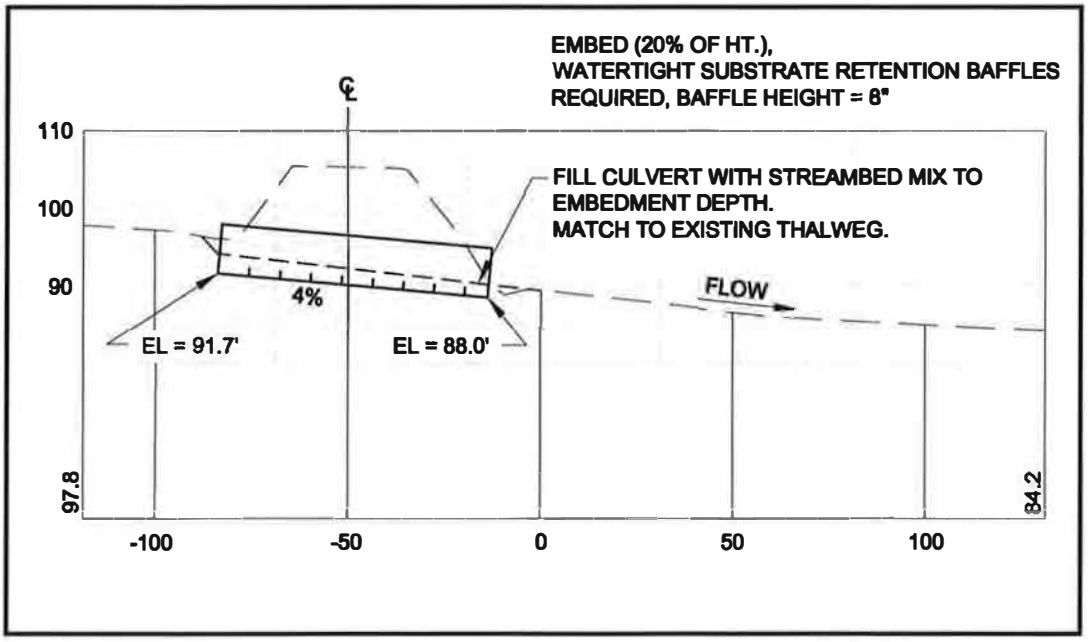
TYPICAL RIPRAP PLACEMENT

N.T.S.

TYPICAL CULVERT RIPRAP DETAILS

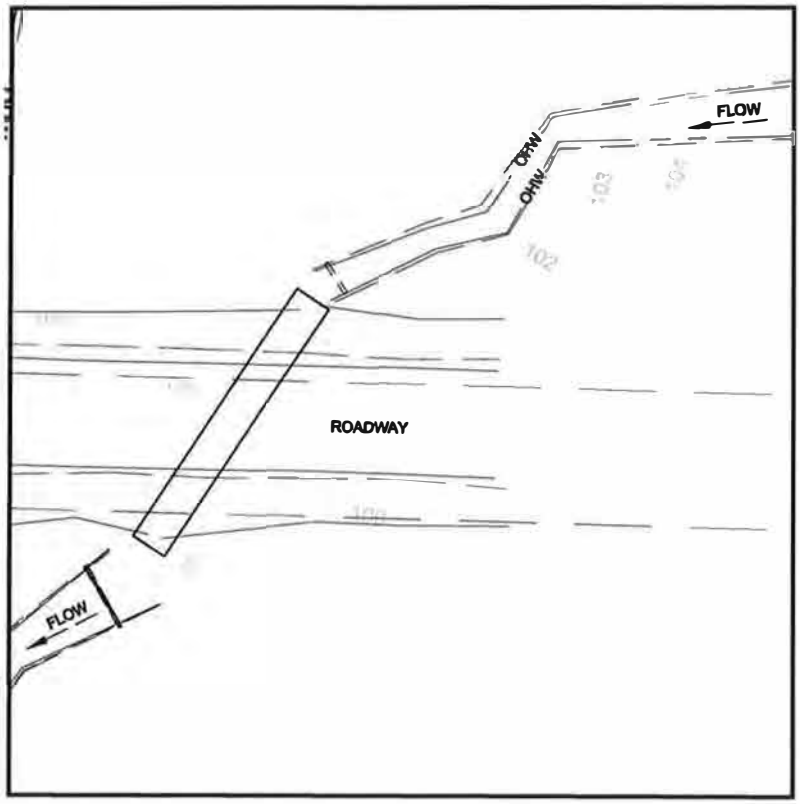
APPLICATION BY:
ALASKA STATE DEPT. OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

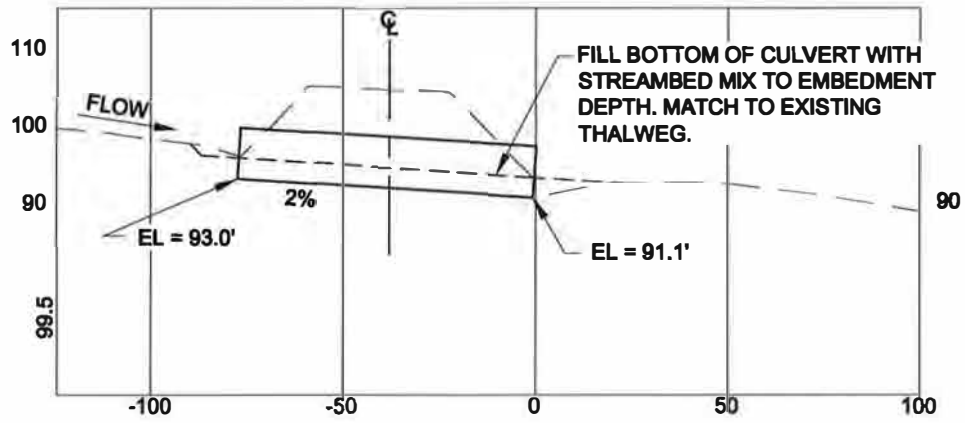




TYPICAL FISH PASSAGE PLAN AND PROFILE BAFFLED

APPLICATION BY:
ALASKA STATE DEPT. OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION



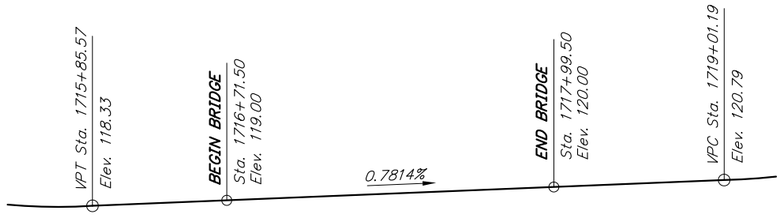


EMBED (20% FOR ARCH PIPES AND 40% FOR CIRCULAR PIPES)

TYPICAL FISH PASSAGE PLAN AND PROFILE NON-BAFFLED

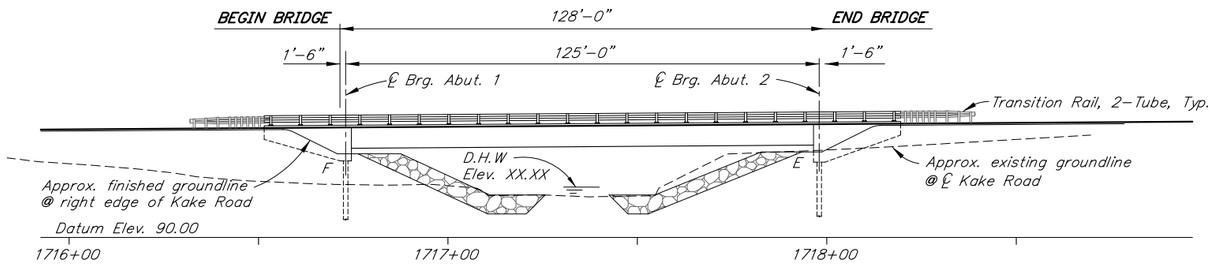
APPLICATION BY:
ALASKA STATE DEPT. OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

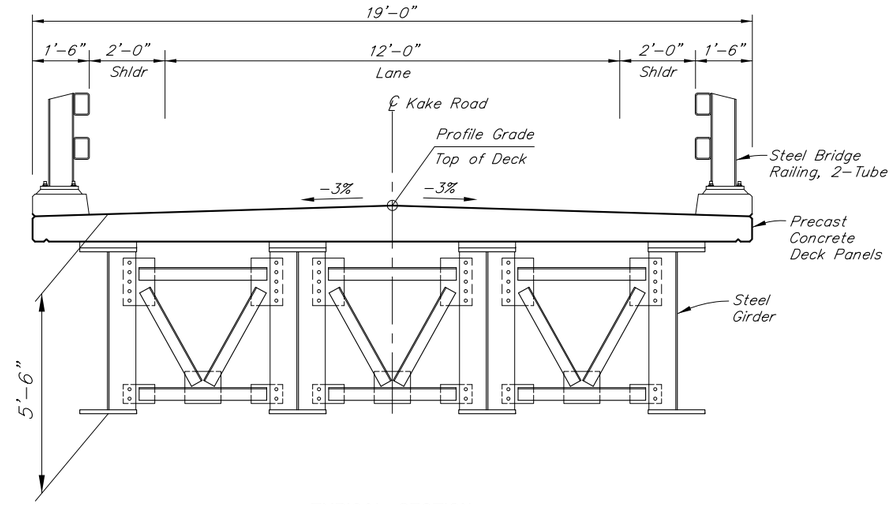
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	ProjectNo	2020	N1	TtlShts



PROFILE GRADE DATA

No Scale



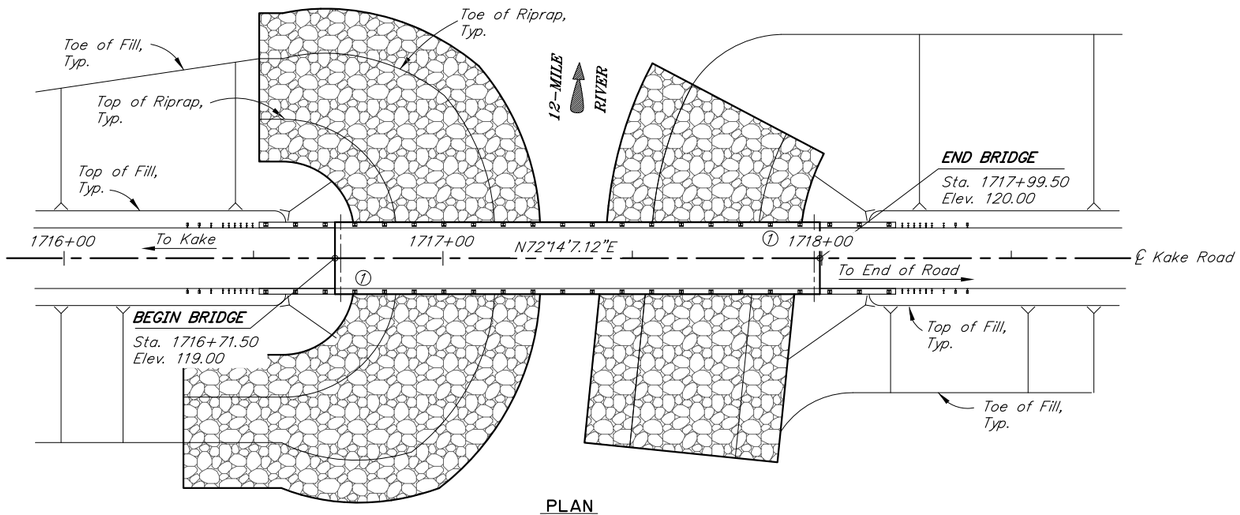


TYPICAL SECTION

12 6 0 1 2 3 4
In. Feet

ELEVATION

10 0 20 40
Feet



PLAN

10 0 20 40
Feet

BRIDGE DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
RIPRAP LAYOUT	3
RIPRAP DETAILS	4
ABUTMENT 1	5
ABUTMENT 2	6
ABUTMENT DETAILS	7
WINGWALLS	8
TYPICAL SECTION AND FRAMING PLAN	9
GIRDERS	10
GIRDER DETAILS	11
STEEL BRIDGE RAILING, 2-TUBE	12
TRANSITION RAIL, 2-TUBE	13
LOG OF TEST HOLE BORINGS	14-

OPTION 2

PRELIMINARY PLAN

① *Approximate location of Bridge Number Plate.*

DESIGNED BY:	*Designer*	CHECKED:	*Checker*	LAYOUT BY:	*Designed*	CHECKED BY:	*Checker*
DRAWN BY:	*Drafter*	CHECKED:	*Designer*	SPECIFICATIONS BY:	*DESIGNER*	P S & E COMPARED:	*Checker*
QUANTITIES BY:	*Designer*	CHECKED:	*Checker*	APPROVAL RECOMMENDED BY:			*Rich Pratt*

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

12-MILE RIVER BRIDGE

KAKE ROAD

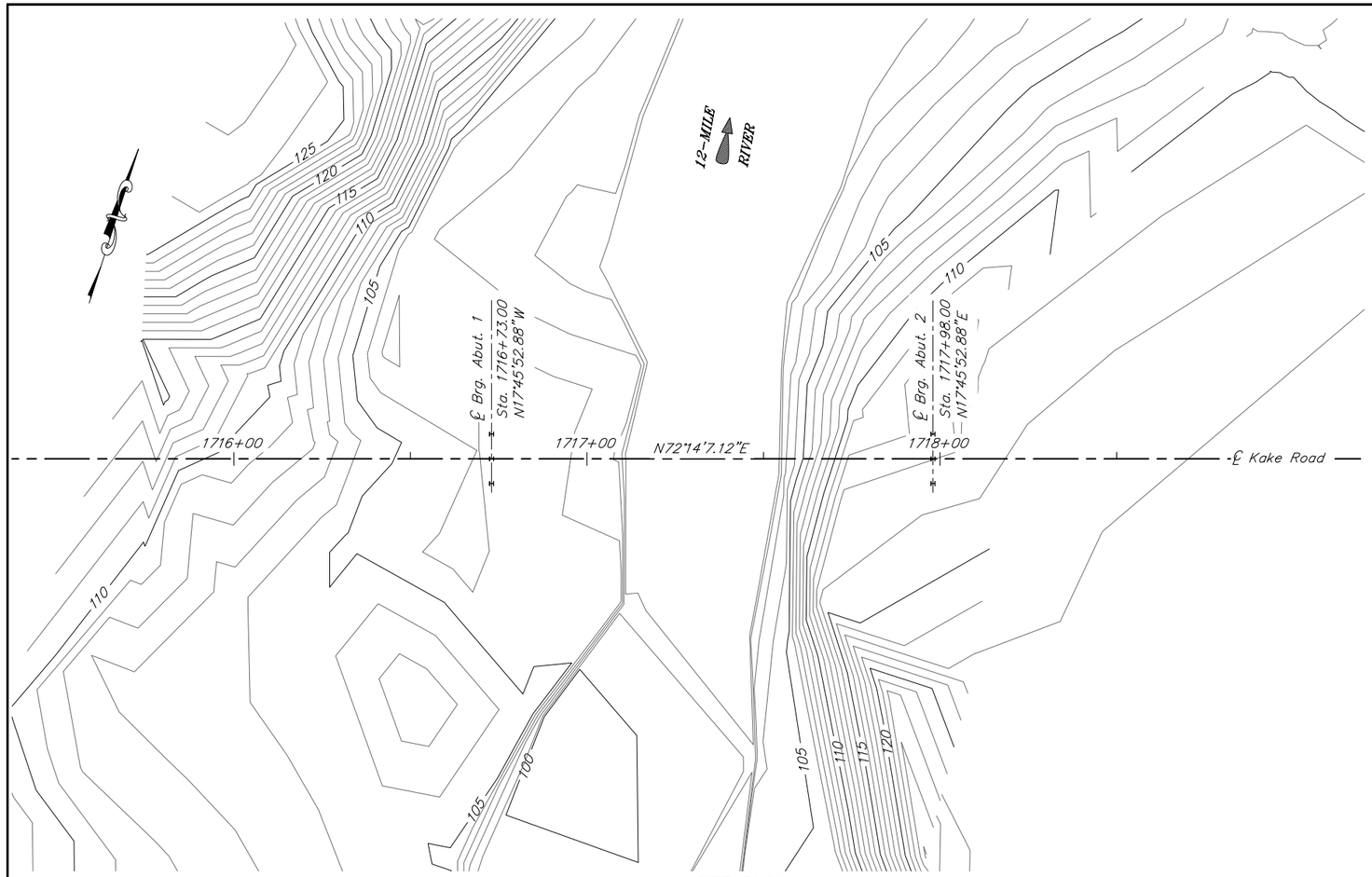
GENERAL LAYOUT

BRIDGE NO. 2379

DWG. NO. 1

R:\cad\Kake Road\2379\23790P2-GENERAL Fri, Mar/27/20 02:11pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	ProjectNo	2020	N2	TtlShts



SITE PLAN

10 0 20 40
Feet

OPTION 2

GENERAL NOTES

DESIGN: ..... *AASHTO LRFD Bridge Design Specifications, 2017 Edition, with latest interim specifications.*

Seismic design per AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2011 with latest interim revisions.

LIVE LOAD: ..... *HL-93 or U80, whichever is Greater*

DEAD LOAD: ..... *Includes 50 psf for all wearing surfaces.*

SEISMIC PARAMETERS: ..... *PGA = 0.11*
Ss = 0.24
S1 = 0.18
Site Class = C
Liquefaction Potential = Low
AASHTO 7% probability of exceedance in 75 years.

REINFORCEMENT: ..... *ASTM A706, Grade 60, Fy = 60,000 psi*
ASTM A970 Headed bars, Class HA.
Space reinforcement evenly unless otherwise noted.
Galvanized reinforcing bars may be substituted for epoxy-coated bars.

CONCRETE: ..... *Class A Concrete unless otherwise noted, f'c = 4000 psi*
Class P Concrete for precast deck panels, f'c = 5,000 psi.
Provide rubbed finish on all exposed vertical surfaces.

STRUCTURAL STEEL: ..... *ASTM A709, Grade 50T3, Fy = 50,000 psi*
Galvanize structural steel in accordance with AASHTO M111 or SSPC CS23.00 unless noted otherwise.
All steel is main members subject to tension.

HIGH STRENGTH BOLTS: ..... *Galvanized ASTM F3125 Grade A325 or F1852, Fu = 120,000 psi.*
Exclude threads from shear plane. Do not use punched holes.

STRUCTURAL STEEL PILING: ..... *ASTM A709, GR50T3, Fy = 50,000 psi.*
Pile Tip reinforcing is required.

SHEAR STUD CONNECTORS: ..... *ASTM A108, Fu = 60,000 psi*

PILE DATA TABLE

LOCATION	PILE TYPE	DRIVING CRITERIA: MINIMUM PENETRATION (ft)	DRIVING CRITERIA: ESTIMATED PILE TIP ELEVATION (ft)	DRIVING CRITERIA: DRIVING RESISTANCE (K)	DESIGN DATA: STRENGTH I FACTORED LOAD (K)	DESIGN DATA: NOMINAL RESISTANCE (K)	DESIGN DATA: RESISTANCE FACTOR, Φ
Abutment 1	*HP 14X117*						*0.65*
Abutment 2	*HP 14X117*						*0.65*

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	PAY UNIT	ESTIMATING UNIT	SUBST.	SUPERST.	TOTAL QUANTITY
205.0006.0000	*Structural Fill*	*CY*	*CY*	*325*	*---*	*325*
501.0001.0000	*Class A Concrete*	*LS*	*CY*	*---*	*70.0*	*70.0*
501.0007.0000	*Precast Concrete Member, Deck Panel*	*EA*	*EA*	*---*	*25*	*25*
503.0001.0000	*Reinforcing Steel*	*LS*	*LBS*	*9,000*	*---*	*9,000*
503.0002.0000	*Epoxy-Coated Reinforcing Steel*	*LS*	*LBS*	*---*	*6,000*	*6,000*
504.0002.0000	*Structural Steel*	*LS*	*LBS*	*---*	*142,000*	*142,000*
505.0005.1417	*Furnish Structural Steel Piles, HP 14x117*	*LF*	*LF*	*240.0*	*---*	*240.0*
505.2005.1417	*Install Structural Steel Piles, HP 14x117*	*EA*	*EA*	*6*	*---*	*6*
507.0001.0002	*Steel Bridge Railing, 2-Tube*	*LF*	*LF*	*---*	*336.0*	*336.0*
606.0016.0000	*Transition Rail*	*EA*	*EA*	*---*	*4*	*4*
611.0001.0002	*Riprap, Class II*	*CY*	*CY*	*1,000*	*---*	*1,000*
631.0002.0001	*Geotextile, Erosion Control, Class 1*	*SY*	*SY*	*1,000*	*---*	*1,000*

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

ABBREVIATIONS:

℄	= centerline	(E)	= existing	LS	= lump sum
ℙ	= plate	EA	= each	LT.	= left
&	= and	Elev.	= elevation	max.	= maximum
@	= at	e.f.	= each face	min.	= minimum
ø	= diameter	e.w.	= each way	MSE	= mechanically stabilized earth
±	= approximate	Ext.	= exterior	n.f.	= near face
AASHTO	= American Association of State Highway and Transportation Officials	F	= fixed	No.	= number
		f.f.	= front/air face	o.c.	= on center
		f'c	= specified concrete compressive strength	O.H.W.	= ordinary high water
ASTM	= American Society for Testing and Materials			pcf	= pounds per cubic foot
		f'ci	= specified concrete compressive strength at release	psf	= pounds per square foot
Abut.	= abutment			psi	= pounds per square inch
Approx.	= approximate	Ft.	= feet	R	= radius
b.f.	= back/dirt face	Fy	= yield stress	R.O.W.	= right of way
bot.	= bottom	Glav.	= galvanize	RT.	= right
Br.	= bridge	H.S.	= high strength	Rd.	= road
btwn.	= between	Hwy.	= highway	spcs.	= space, spaces
Brg.	= bearings	ID	= internal diameter	Sta.	= station
C.G.	= center of gravity	Int.	= interior	SF	= square feet
C.I.P.	= cast in place	Jt.	= joint	SY	= square yard
CJP	= complete joint penetration	K	= kips	Std.	= standard
Clr.	= clear, clearance	ksf	= 1000 pounds per square foot	Symm.	= symmetric
CMP	= corrugated metal pipe	ksi	= 1000 pounds per square inch	Typ.	= typical
CY	= cubic yard	LBS or lb	= pounds	UT	= ultrasonic testing
Dia.	= diameter	LF	= linear foot	VPC	= vertical point of curve
Dwg.	= drawing			VPI	= vertical point of intersection
E	= expansion			VPT	= vertical point of tangent
				w/	= with

DESIGNED BY: *Designer*	CHECKED: *Checker*	FOUNDATIONS REVIEWED BY: *Engineer*	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975		12-MILE RIVER BRIDGE KAKE ROAD SITE PLAN
DRAWN BY: *Drafter*	CHECKED: *Designer*	**PRELIMINARY PLAN**			BRIDGE NO. 2379 DWG. NO. 2
QUANTITIES BY: *Designer*	CHECKED: *Checker*				

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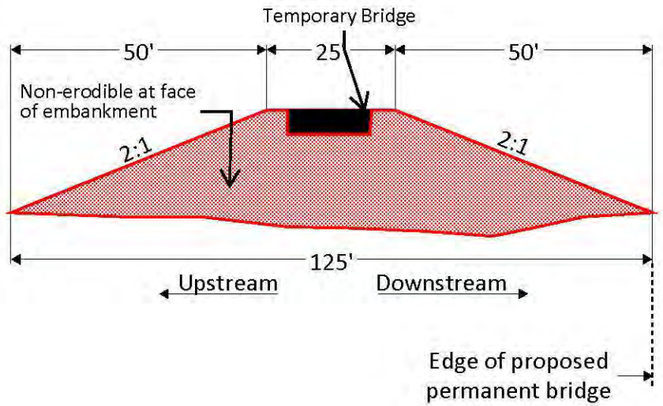
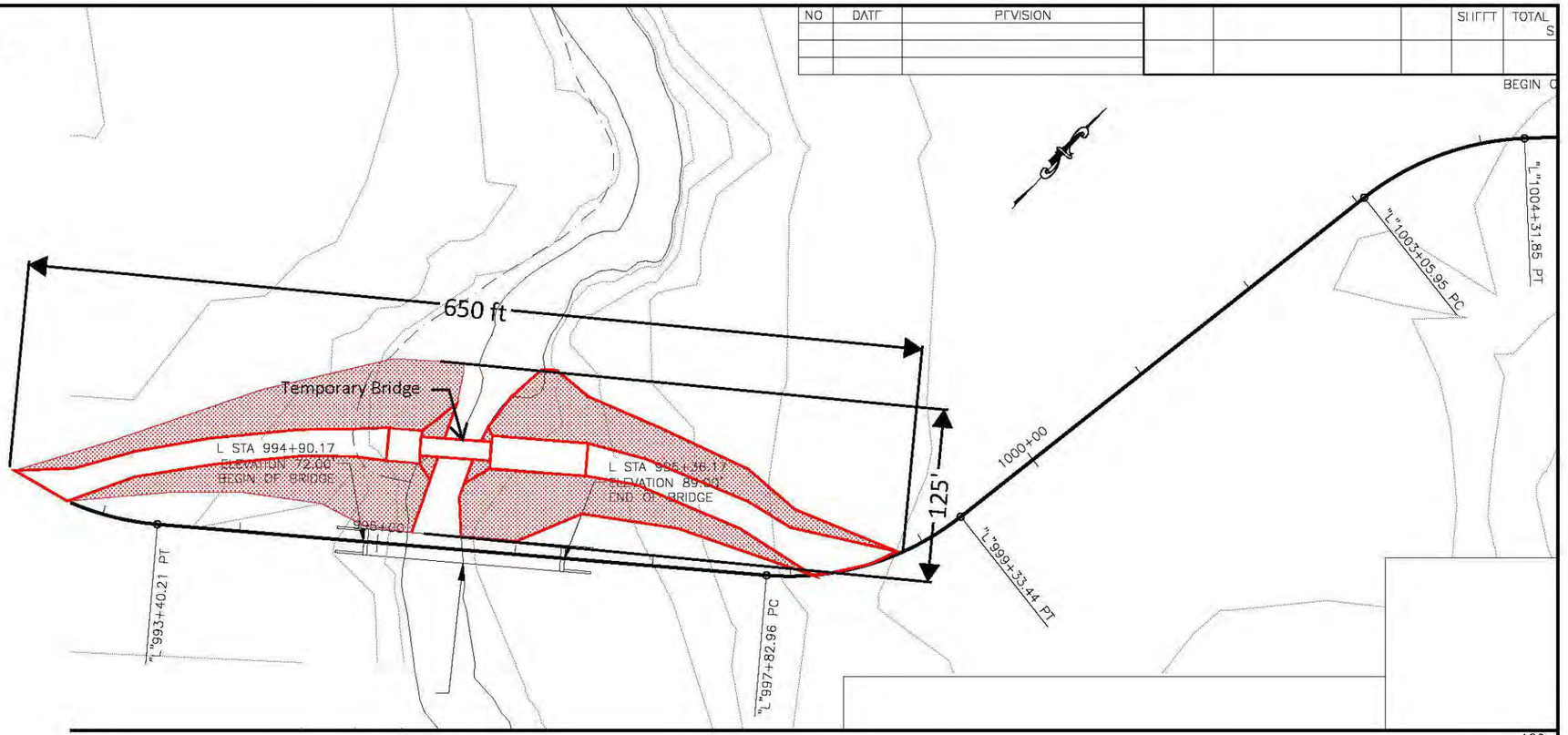
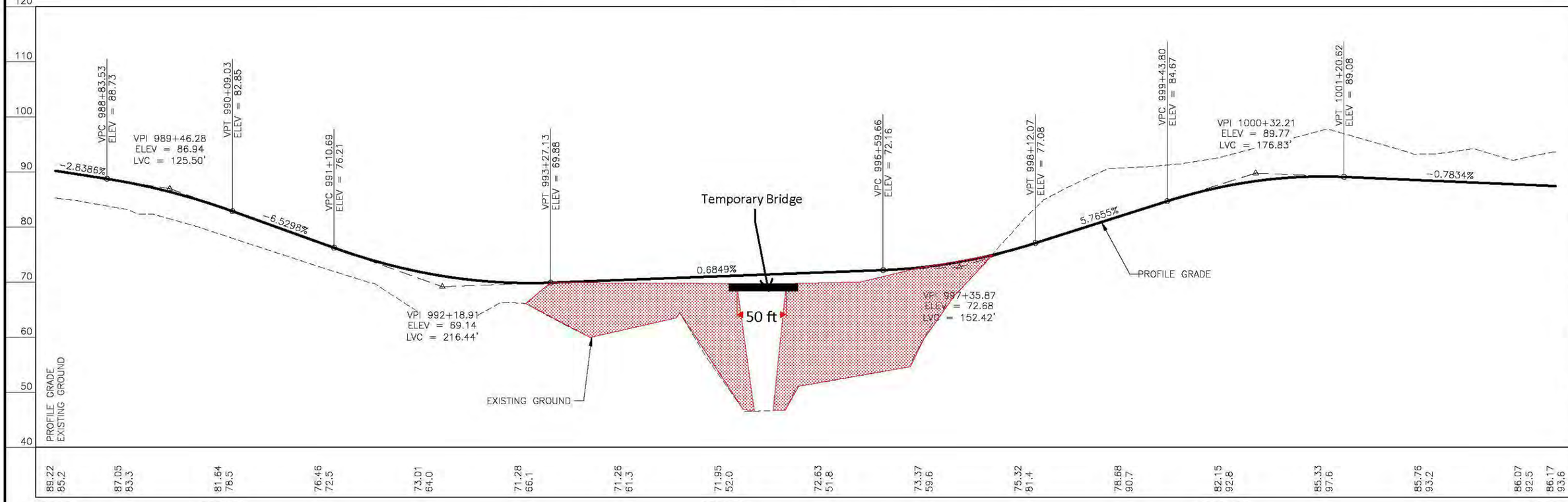
Example Temporary Bridge Cross Section

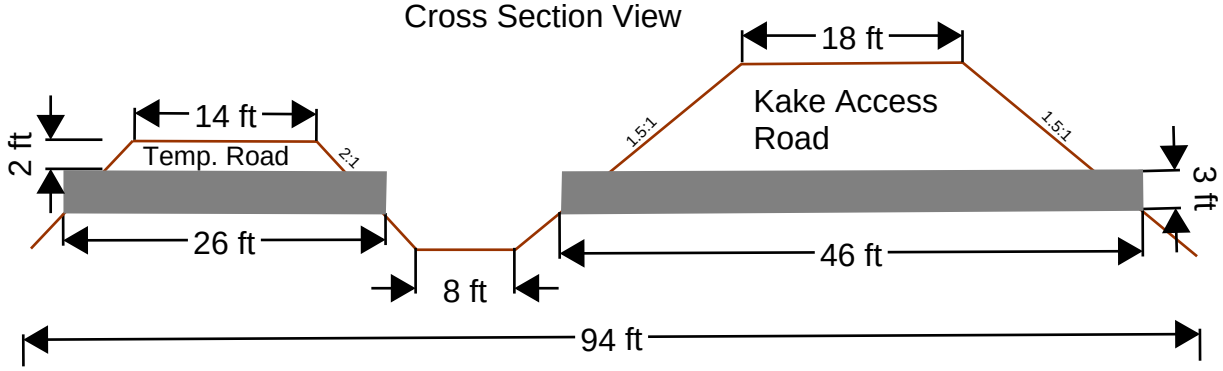




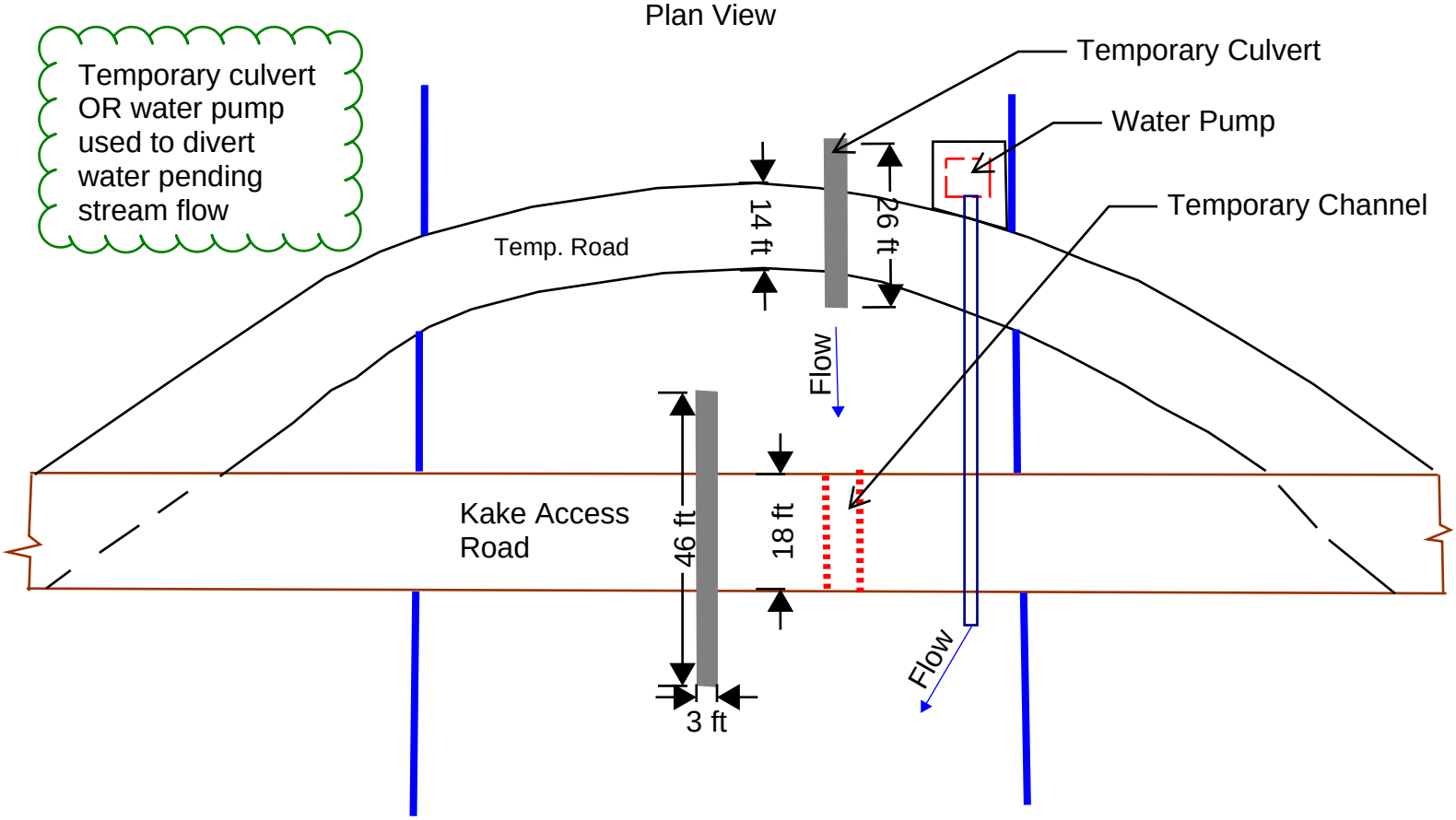


Temporary Crossing
Non Fish Culverts

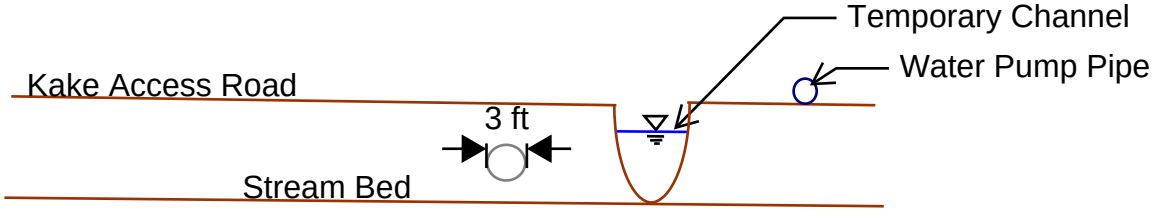
Cross Section View



Plan View

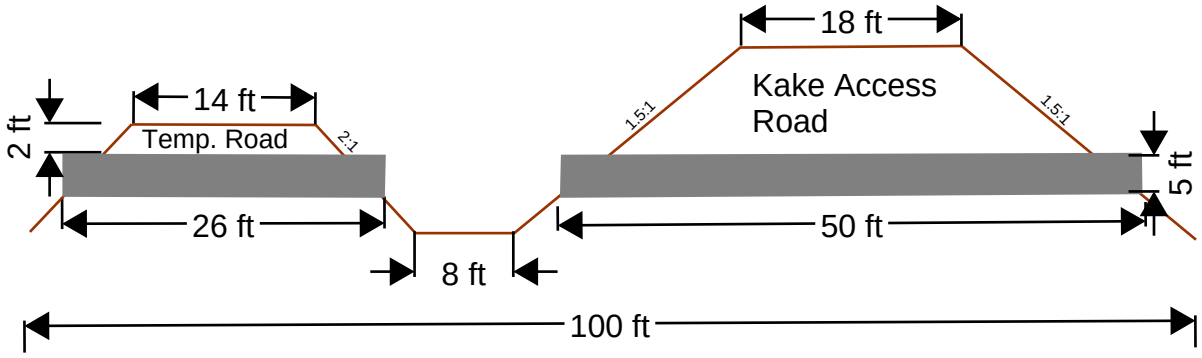


Profile View



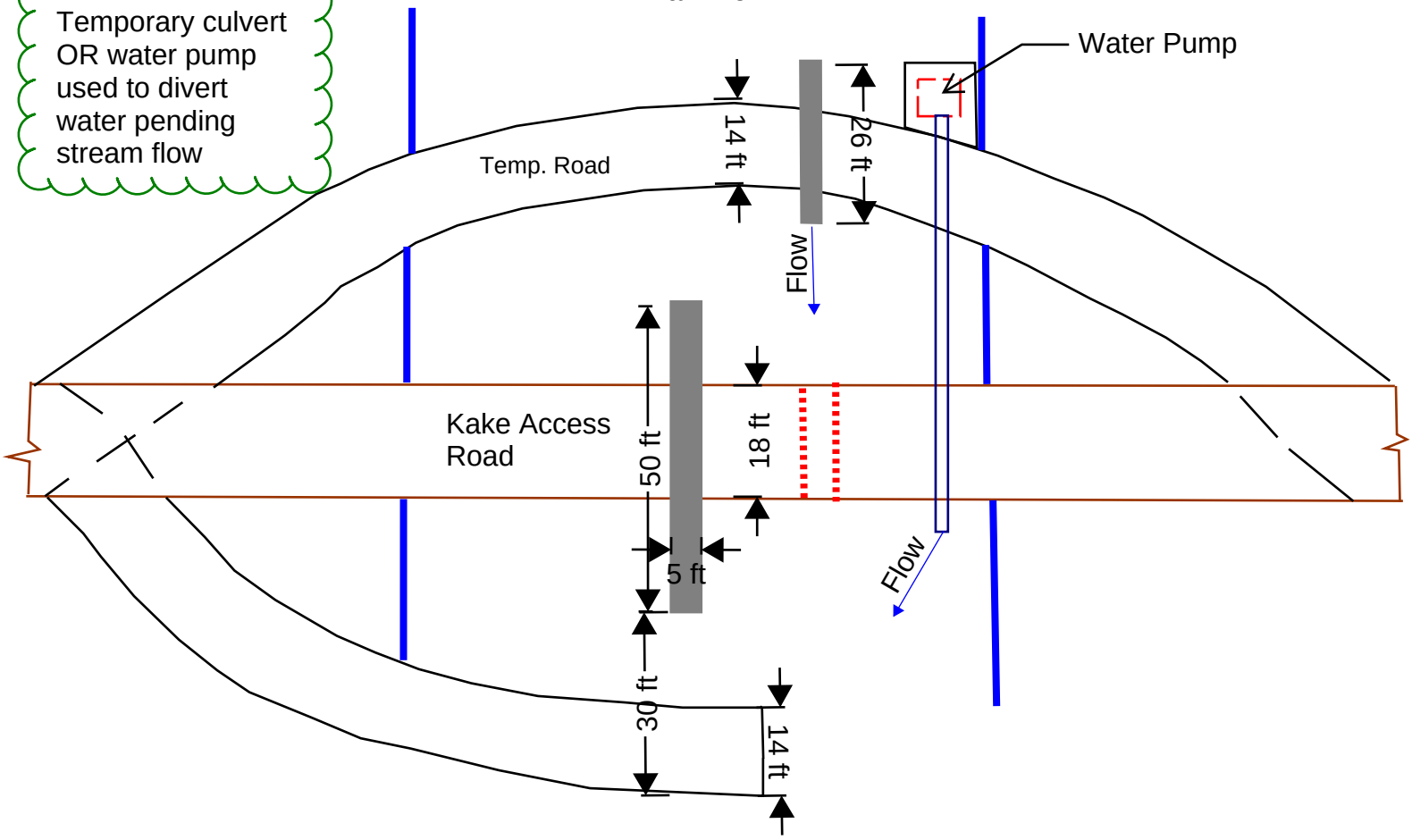
Temporary Crossing
Fish Culverts

Cross Section View



Temporary culvert OR water pump used to divert water pending stream flow

Plan View



Profile View