

**APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
(33 CFR 325)**

OMB APPROVAL NO. 0710-003

Public reporting burden for this collection of information is estimated to average 5 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 this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-003), Washington, DC 20503. 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

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require permits authorizing activities in, or affecting, navigable waters of the United States; the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Routine uses: Information provided on this form will be used in evaluating the application for a permit. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed 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 instructions) and be submitted to the District Engineer having jurisdiction over 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 COMPLETED
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(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME & TITLE (an agent is not required)
6. APPLICANT'S ADDRESS	9. AGENT'S ADDRESS
7. APPLICANT'S PHONE NUMBERS WITH AREA CODE a. Residence b. Business	10. AGENT'S PHONE NUMBERS WITH AREA CODE a. Residence b. Business

11. STATEMENT OF AUTHORIZATION

I hereby authorize _____ 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.

APPLICANT'S SIGNATURE

DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)	
13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
15. LOCATION OF PROJECT COUNTY STATE	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)	
17. DIRECTIONS TO THE SITE	

18. NATURE OF ACTIVITY (Description of project, include all features)

19. PROJECT PURPOSE (Describe the reason or purpose of the project, see instructions)

USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. REASON(S) FOR DISCHARGE

21. TYPE(S) OF MATERIAL BEING DISCHARGED AND THE AMOUNT OF EACH TYPE IN CUBIC YARDS

22. SURFACE AREA IN ACRES OF WETLANDS OR OTHER WATERS FILLED (see instructions)

23. IS ANY PORTION OF THE WORK ALREADY COMPLETE? YES NO IF YES, DESCRIBE THE WORK

24. ADDRESSES OF ADJOINING PROPERTY OWNERS, LESSEES, ETC. WHOSE PROPERTY ADJOINS THE WATERBODY (If more than can be entered here, please attach a supplemental list)

25. LIST OF OTHER CERTIFICATIONS 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
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* Would include but is not restricted to zoning, building and flood plain permits.

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the 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.

Instructions For Preparing A Department of the Army Permit Application

Blocks 1 thru 4 - To be completed by Corps of Engineers.

Block 5 - APPLICANT'S NAME. Enter the name of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the responsible officer and title. If more than one party is associated with the application, please attach a sheet with the necessary information marked "Block 5".

Block 6 - ADDRESS OF APPLICANT. Please provide the full address of the party or parties responsible for the application. If more space is needed, attach an extra sheet of paper marked "Block 6".

Block 7 - APPLICANT PHONE NUMBERS. Please provide the number where you can usually be reached during normal business hours.

Block 8 - AUTHORIZED AGENT'S NAME AND TITLE. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer or any other person or organization. Note: An agent is not required.

Blocks 9 and 10 - AGENT'S ADDRESS AND TELEPHONE NUMBER. Please provide the complete mailing address of the agent, along with the telephone number where he/she can be reached during normal business hours.

Block 11 - STATEMENT OF AUTHORIZATION. To be completed by applicant if an agent is to be employed.

Block 12 - PROPOSED PROJECT NAME OR TITLE. Please provide name identifying the proposed project (i.e., Landmark Plaza, Burned Hills Subdivision, or Edsall Commercial Center).

Block 13 - NAME OF WATERBODY. Please provide the name of any stream, lake, marsh, or other waterway to be directly impacted by the activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14 - PROPOSED PROJECT STREET ADDRESS. If the proposed project is located at a site having a street address (not a box number), please enter it here.

Block 15 - LOCATION OF PROPOSED PROJECT. Enter the county and state where the proposed project is located. If more space is required, please attach a sheet with the necessary information marked "Block 15".

Block 16 - OTHER LOCATION DESCRIPTIONS. If available, provide the Section, Township, and Range of the site and/or the latitude and longitude. You may also provide a description of the proposed project location, such as lot numbers or tract numbers. You may choose to locate the proposed project site from a known point (such as the right descending bank of Smith Creek, one mile down from the Highway 14 Bridge). If a large river or stream, include the river mile of the proposed project site, if known.

Block 17 - DIRECTIONS TO THE SITE. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site.

Block 18 - NATURE OF ACTIVITY. Describe the overall activity or project. Give approximate dimensions of structures such as wingwalls, dikes, (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked "Block 18".

Block 19 - PROPOSED PROJECT PURPOSE. Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

Block 20 - REASONS FOR DISCHARGE. If the activity involves the discharge of dredged and/or fill material into a wetland or other waterbody, including the temporary placement of material, explain the specific purpose of the placement of the material (such as erosion control).

Instructions For Preparing A Department of the Army Permit Application

Block 21 - TYPES OF MATERIAL BEING DISCHARGED AND THE AMOUNT OF EACH TYPE IN CUBIC YARDS.

Describe the material to be discharged and amount of each material to be discharged within Corps jurisdiction. Please be sure this description will agree with your illustrations. Discharge material includes: rock, sand, clay, concrete, etc.

Block 22 - SURFACE AREAS OF WETLANDS OR OTHER WATERS FILLED. Describe the area to be filled at each location. Specifically identify the surface areas, or part thereof, to be filled. Also include the means by which the discharge is to be done (backhoe, dragline, etc.). If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If more space is needed, attach an extra sheet of paper marked "Block 22".

Block 23 - IS ANY PORTION OF THE WORK ALREADY COMPLETE? Provide any background on any part of the proposed project already completed. Describe the area already developed, structures completed, any dredged or fill material already discharged, the type of material, volume in cubic yards, acres filled, if a wetland or other waterbody (in acres or square feet). If the work was done under an existing Corps permit, identify the authorization if possible.

Block 24 - NAMES AND ADDRESSES OF ADJOINING PROPERTY OWNERS, LESSEES, etc., WHOSE PROPERTY ADJOINS THE PROJECT SITE. List complete names and full mailing addresses of the adjacent property owners (public and private) lessees, etc., whose property adjoins the waterbody or aquatic site where the work is being proposed so that they may be notified of the proposed activity (usually by public notice). If more space is needed, attach an extra sheet of paper marked "Block 24".

Block 25 - INFORMATION ABOUT APPROVALS OR DENIALS BY OTHER AGENCIES. You may need the approval of other Federal, State, or Local agencies for your project. Identify any applications you have submitted and the status, if any (approved or denied) of each application. You need not have obtained all other permits before applying for a Corps permit.

Block 26 - SIGNATURE OF APPLICANT OR AGENT. The application must be signed by the owner or other authorized party (agent). This signature shall be an affirmation that the party applying for the permit possesses the requisite property rights to undertake the activity applied for (including compliance with special conditions, mitigation, etc.).

DRAWINGS AND ILLUSTRATIONS - GENERAL INFORMATION

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View, or a Typical Cross-Section Map. Identify each illustration with a figure or attachment number.

Please submit one original, or good quality copy, of all drawings on an 8.5 X 11 inch plain white paper (tracing paper or film may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations.

Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross-section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate and contain all necessary information.



Alaska Gold Company

A NovaGold Subsidiary

Jim Wolfe
U.S. Army Corps of Engineers
Regulatory Division
PO Box 898
Anchorage, AK 99506-0898

May 25, 2006

Dear Mr. Wolfe:

Attached is Alaska Gold's 404 permit application for the Rock Creek Mine Project. The project is located on the Seward Peninsula in Northwest Alaska, and has been determined to be within the U.S. Army Corps of Engineers (USCOE) jurisdiction due to the presence of wetlands. The project life is presently estimated at 4- 5 years, therefore, Alaska Gold requests the permit be issued for a 5 year term. A draft application was submitted in October, 2005. This permit has been revised to include the following changes:

- new plans for backfilling of potentially acid generating development rock into the main pit at Big Hurrah. The fill volumes have been adjusted accordingly,
- the draft permit has also been updated with more accurate volumes of fill associated with the Big Hurrah access road and to attach engineering drawings for the design of the Big Hurrah access road,
- fill volumes at Rock Creek have also been adjusted to revise the Development Rock to represent the withdrawal of an earlier plan to expand the mine in future years, and
- changes to reflect the final engineering for the infiltration gallery.

The project includes two open pit gold mines. One located at Rock Creek approximately 7 miles northwest of Nome, and the other located at Big Hurrah approximately 50 miles northeast of Nome. A mill will be constructed at the Rock Creek site to process ore from both open pits at a rate of approximately 7000 tons per day. Ore from Big Hurrah will be transported by truck at a rate of approximately 500 tons per day

The mill will receive its power from Nome Joint Utilities (NJU) NJU will construct a power line within the existing right-of-way along the Glacier Creek Bypass Road. The power line will be owned and maintained by NJU.

The operation of the mine and beneficiation process involves the use of both explosives and chemical reagents including cyanide. Alaska Gold will be storing the bulk of these materials at

P.O. Box 640, Nome, Alaska 99762- 0640 USA • Telephone 1- 907- 443- 5272 • Facsimile 1- 907- 443- 5472

Head Office:
Suite 3454, Four Bentall Centre, 1055 Dunsmuir Street, P.O. Box 49215, Vancouver, BC V7X 1K8 Canada
Telephone 1- 604- 669- 6227 • Facsimile 1- 604- 669- 6272

the Rock Creek Mine site where operations are ongoing at all times providing security and oversight of the storage areas. The attached Project Description addresses explosives use and storage, chemical reagent use and storage as well as fuel use and storage, and site security.

Road access currently exists to the Rock Creek Site. An Alaska Department of Transportation (DOT) right-of way currently accesses the Big Hurrah Site, but will require upgrades to support large mining trucks. The modification and improvements to the DOT road to Big Hurrah are being cooperatively designed between Alaska Department of Natural Resources Habitat Division, DOT and Alaska Gold. The road improvement plan will include fishery habitat enhancement within the Big Hurrah floodplain.

If there is any additional information I may provide you, please contact me at (907) 743-9366 or (907) 443-5272.

Sincerely,

Charlotte L. MacCay
Environmental Manager

Rock Creek Mine Project
U.S. Army Corps of Engineers
404 Permit Application
Appendix 1 Mitigation and Minimization of Wetlands Impacts

May 25, 2006

The following measures to mitigate and minimize wetlands impacts were incorporated into the Rock Creek Project proposal:

Rock Creek Mine/Mill Facility

- The placement of facilities has been designed to minimize the overall footprint of the facility and to avoid wetlands where feasible. Wetland mapping was conducted early in the process. As a result, as the conceptual design was finalized, development rock stockpiles were relocated to minimize wetland impacts. Where the overall goal of avoiding wetlands could not be realized, attention was focused on minimizing disturbance to higher value willow wetlands by moving the stockpiles into the lower value open tundra wetlands.
- The beneficiation process was designed to produce paste tailings in lieu of conventional tailings. The lower volume associated with paste tailings requires less storage area for tailings disposal, which in turn results in less wetland impacts.
- All road and foundation fill will utilize development rock and/or historical tailings so as not to cause additional disturbance in the creation of new quarries or material sites.
- The powerline linking the facility to the Nome Joint Utilities will be placed within the existing road right-of-way so as not to create a new wetlands disturbance area.
- Workers will reside in town and commute to site thereby eliminating the disturbance that would be associated with creating a man-camp.
- Organic material will be stockpiled, to the extent feasible, for use in reclamation and restoration of disturbed areas.
- A complete reclamation plan has been developed to ensure adequate reclamation of the disturbed areas.
- A pit lake with water quality similar to background will provide over-wintering habitat for fish after closure.

Big Hurrah

- The Big Hurrah facilities have all been located outside of wetlands.
- Development rock stockpiles were designed to avoid impacts to the local creeks.
- Development rock stockpiles will be minimized by incorporating the practice of back filling. This will occur within a small satellite pit to the extent practicable.
- Organic material will be stockpiled, to the extent feasible, for use in reclamation and restoration of disturbed areas.
- A complete reclamation plan has been developed to ensure adequate reclamation of the disturbed areas.

- A pit lake with water quality similar to background will provide over-wintering habitat for fish after closure.
-
- All on-site road and foundation fill will utilize development rock and/or historical tailings so as not to cause additional disturbance in the creation of new quarries or material sites.

**Rock Creek Mine Project
U.S. Army Corps of Engineers
404 Permit Application
Appendix 1 Mitigation and Minimization of Wetlands Impacts**

July 2005
Continued

Access Road to Big Hurrah

- The access road into the Big Hurrah Mine will be located primarily within an existing road right-of-way.
- The access road is being designed in cooperation with the Alaska Department of Natural Resources Habitat Division, not only to locate the road where it least impacts the stream, but also to incorporate fishery enhancement components into the construction plan.
- The majority of road fill will be comprised of historic tailings so as not to cause additional disturbance in the creation of new quarries or material sites.
- Historical tailings will be removed to bank-full height which simultaneously provides banks for stream channel establishment while allowing for flood attenuation capacity.
- Any additional tailings and fill material will come from pits strategically located within the floodplain. Pits will be designed and located to meet Habitat Division criteria, and will serve to enhance fish habitat for overwintering and spawning.
- Stream channeling is presently disturbed due to historical dredging in the area, the main channel will be deepened to assist the stream in reclaiming a main channel in accordance with Habitat Division criteria.

Comment [DCN1]: Note that the pits are in the flood plain and therefore are comprised of tailings.

Comment [DCN2]: Is this a word?

Rock Creek Mine Project
U.S. Army Corps of Engineers 404 Permit Application
Appendix 2 – Revised May 26, 2006,

Summary of Fill and Disturbance Areas
Excerpts from Rock Creek Mine Plan of Operations, Volume 2: Project Description

Table 3-1 Rock Creek Mine Development Rock Stockpile Design Basis

Stockpile	Wetland Fill Volume (cubic yards)	Rockfill Quantity (cubic yards)	Storage (million tonnes)	Crest Elevation (feet)	Wetland Disturbance (acres)	Footprint Area (acres)
North Stockpile	4,230,000 (3,233,000 m ³)	4,230,000 (3,233,000 m ³)	5.98	404 (123 m)	119 (48 hectares)	131 (53 hectares)
South Stockpile	0	720,000 (550,000 m ³)	1.01	453 (138 m)	0	62 (25 hectares)
Total	4,230,000 (3,233,000 m³)	4,950,000 (3,783,000 m³)	6.99		119 (48 hectares)	193 (78 hectares)

Table 3-2 Big Hurrah Mine Development Rock Stockpile Design Basis

Stockpile	Wetland Fill Volume (cubic yards)	Rockfill Quantity (cubic yards)	Storage (million tonnes)	Crest Elevation (feet)	Wetlands Disturbance (acres)	Footprint Area (acres)
#1 East of Pit – Operations w/ Temporary PAG Stockpile	0	3,921,000 (2,998,000 m ³)	5.5	414 (126 m)	0	59 (24 hectares)
#1 East of Pit at Closure	0	2,616,000 (2,000,000 m ³)	3.7	414 (126 m)	0	42 (17 hectares)
#2 West of Satellite Pit	0	65,400 (50,000 m ³)	0.1	278 (84 m)	0	4 (1.5 hectares)
Backfill in Satellite	0	78,500 (60,000 m ³)	0.1	230 (70 m)	----	----
Backfill of PAG in Main Pit at Closure	0	1,305,000 (998,000 m ³)	1.8	192 (58.5 m)	---	-----
Total	0	4,064,900 (3,108,000 m³)	5.7	_____	0	63 (25.5 hectares)

Note: 1,305,000 cubic yards of PAG is presented twice; it is included in the East Stockpile during operations as a temporary storage area, and again as backfill in the pit at closure.

Table 3-3 Maximum Rock Creek Soil Stockpile Dimensions

Soil Stockpile	Wetland Fill Volume (cubic yards)	Rockfill Quantity (cubic yards)	Average Height (feet)	Wetlands Disturbance (acres)	Footprint Area (acres)
1	1,602,240 (1,225,000 m ³)	1,602,240 (1,225,000 m ³)	26 (8 m)	41 (16.5 hectares)	41 (16.5 hectares)
2	15,695 (12,000 m ³)	241,971 (185,000 m ³)	20 (6 m)	1.5 (0.5 hectares)	10 (4 hectares)
3	660,515 (505,000 m ³)	837,089 (640,000 m ³)	26 (8 m)	15 (6 hectares)	22 (9 hectares)
Total	2,278,450 (1,742,000 m³)	2,681,300 (2,050,000 m³)	_____	57.5 (23 hectares)	73 (29.5 hectares)

Table 3-4 Maximum Big Hurrah Soil Stockpile Dimensions

Soil Stockpile	Wetland Fill Volume (cubic yards)	Rockfill Quantity (cubic yards)	Average Height (feet)	Wetlands Disturbance (acres)	Footprint Area (acres)
1	0	26,159 (20,000 m ³)	13 (4 m)	0	2.5 (1 hectare)
Total	0	26,159 (20,000 m³)	_____	0	2.5 (1 hectare)

Table 3-5 Rock Creek Water Management Systems

	Wetland Fill Volume (cubic yards)	Rockfill Quantity (cubic yards)	Wetlands Disturbance (acres)	Footprint Area (acres)
Stormwater Diversion Channels	131,449 (100,500 m ³)	209,272 (160,000 m ³)	23 (9 hectares)	69 (28 hectares)
Class V Injection System - wells	32,700 (25,000 m ³)	32,700 (25,000 m ³)	7.5 (3 hectares)	7.5 (3 hectare)
Class V Injection System - Gallery	60,000 (45,900 m ³)	60,000 (45,900 m ³)	8.5 (3.5 hectare)	8.5 (3.5 hectare)
Total	224,149 (171,400m³)	301,972 (230,900 m³)	39 (15.5 hectare)	85.0 (34.5 hectare)

Table 3-6 Big Hurrah Water Management Systems

	Wetland Fill Volume (cubic yards)	Rockfill Quantity (cubic yards)	Wetlands Disturbance (acres)	Footprint Area (acres)
Stormwater Diversion Channels	0	3,270 (2,500 m ³)	0	5 (2 hectares)
Class V Injection System - wells	0	2,616 (2,000 m ³)	0	2.5 (1 hectare)
Total	0	5,886 (4,500 m³)	0	7.5 (3 hectares)

Table 4-2 Rock Creek TSF Fill Quantities

	Wetland Fill Volume (cubic yards)	Volume (cubic yards)	Maximum Elevation (feet)	Wetlands Disturbance (acres)	Footprint Area (acres)
TSF Embankment	6,212,765 (4,750,000 m ³)	3,858,454 (2,950,000 m ³)	328 (100 m)	94 (38 hectares)	173 (70 hectares)
Tailings		9,351,847 (7,150,000 m ³)	322 (98 m)		
Cap on Tailings		738,992 (565,000 m ³)			
Total	6,212,765 (4,750,000 m³)	13,949,293 (10,665,000 m³)		94 (38 hectares)	173 (70 hectares)

Table 5-1 Rock Creek Mine/Mill Complex Roads

	Wetland Fill Volume (cubic yards)	Rockfill Quantity (cubic yards)	Wetlands Disturbance (acres)	Footprint Area (acres)
Access road and on-site haul roads	510,101 (390,000 m ³)	850,168 (650,000 m ³)	49.5 (20 hectares)	73 (29.5 hectares)
Infiltration Zone access roads	45,778 (35,000 m ³)	45,778 (35,000 m ³)	6 (2.5 hectares)	6 (2.5 hectares)
Plant area general fill	117,716 (90,000 m ³)	117,716 (90,000 m ³)	44.5 (18 hectares)	44.5 (18 hectares)
Total	673,595 (515,000 m³)	1,013,662 (775,000 m³)	100 (40.5 hectares)	123.5 (50 hectares)

Table 5-2 Big Hurrah Mine Roads

	Wetland Fill Volume (cubic yards)	Rockfill Quantity (cubic yards)	Wetlands Disturbance (acres)	Footprint Area (acres)
On-site access road and on-site haul roads	78,477 (60,000 m ³)	240,663 (184,000 m ³)	5 (2 hectares)	31 (12.5 hectares)
Plant area general fill	0	6,540 (5,000 m ³)	0	1.5 (1.5 acres)
Total	78,477 (60,000 m³)	247,203 (189,000 m³)	5 (2 hectares)	32.5 (13 hectares)

Table 5-3 Big Hurrah Access Road

	Wetland Fill Volume (cubic yards)	Rockfill Quantity (cubic yards)	Wetlands Disturbance (acres)	Footprint Area (acres)
Big Hurrah Access Road	0	103,000 (79,000 m ³)	0	16 acres (6.5 hectares)
Total	0	103,000 (79,000 m³)	0	16 acres (6.5 hectares)

Project Mitigation Associated with Big Hurrah Access Road

	Dimensions	Footprint Area (acres)
Full Bank Stream Width	32 feet extended to 37 feet over two miles	8.4 acres (within the floodplain improvements)
FloodPlan Width	71 feet extended to 81 feet over 2 miles	18.4 acres
Fish Ponds	40 feet by 100 feet	0.2 acres
Historic Tailings Removed From the Floodplain	83,000 cu yds	11.3 acres
Channel Deeping	10,000 cu yds removed over 5000 ft	4.2 acres
Total Enhancement	-----	42.48 acres (some areas are overlapping)

Total Project Fill Quantities

	Wetland Fill Volume (cubic yards)	Rockfill Quantity (cubic yards)	Wetlands Disturbance (acres)	Footprint Area (acres)
Rock Creek Site Total	13,618,959 (10,412,441m ³)	22,896,227 (17 505 421m ³)	409.5 (163.5 hectares)	601.5 (240.5 hectares)
Big Hurrah Site Total	78,477 (60,000 m ³)	4,447,148 (3,400,089 m ³)	5 (2 hectares)	154.5 (62 hectares)
Total Project	13,697,436 (10,472,441m³)	27,343,375 (20,905,510 m³)	414.5 (165.5 hectares)	756 (303.5 hectares)

Rock Creek Mine Project
U.S. Army Corps of Engineers
404 Permit Application
List of Figures

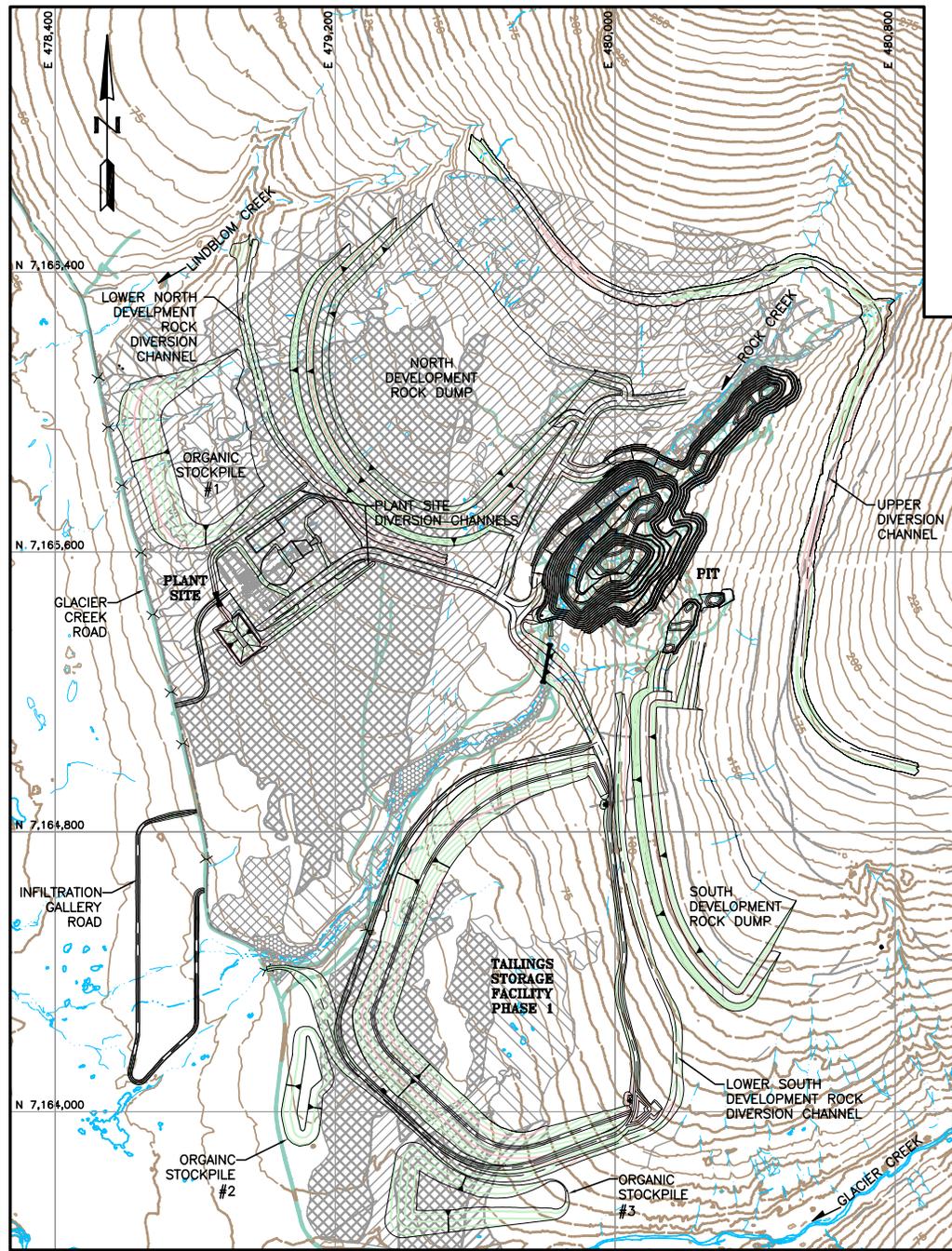
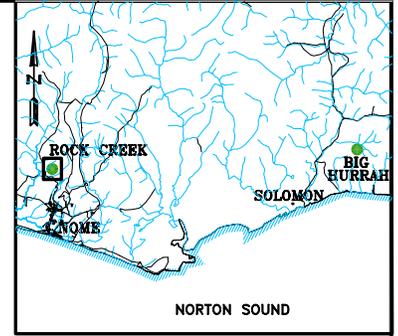
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FIGURE 1
 ROCK CREEK MINE PROJECT DESCRIPTION
 U.S. ARMY CORPS OF ENGINEERING
 NOME, AK
 VICINITY MAP

Bristol
 ENVIRONMENTAL & ENGINEERING
 SERVICES CORPORATION
 Phone (907) 963-0072 Fax (907) 963-4772
 Project No. 04000

DACUM	DATE	ISSUED	BY
NAE-27-23	OWN	MTG	1
PROJECTION	SCALE	0.0000	
LTM	APP'D	CLM	



WETLAND AREAS

	OPEN SHRUB/SEDGE TUNDRA WETLAND (PSS1/EM1B)
	CLOSED WILLOW THICKET WETLAND (PSS1B)
	OPEN SEDGE/SHRUB TUNDRA WETLAND (PEM1/SS1B)
	RIVERINE (R3UBH AND R3RBH)
	CLOSED FLOODED WILLOW THICKET (PSS1A)

LEGEND:

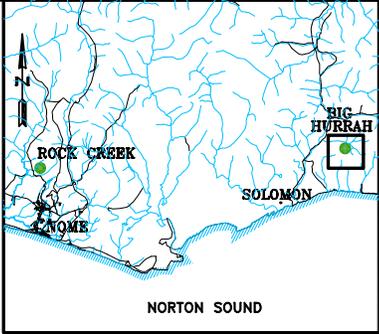
	PROPOSED GROUND SURFACE CONTOUR AND EL, METERS
	EXISTING GROUND SURFACE CONTOUR AND EL, METERS
	EXISTING ROAD
	EXISTING STREAM
	EXISTING DITCH
	EXISTING POND/WATER
	EXISTING CULVERT
	EXISTING TRAIL
	PROPOSED CULVERT

SCALE = 1:20,000

**U.S. ARMY CORPS OF ENGINEERING
404 PERMIT APPLICATION**

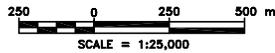
CLIENT	ALASKA GOLD COMPANY			
PROJECT	ROCK CREEK PROJECT			
TITLE	ROCK CREEK MINE/MILL SITE PLAN			
DESIGNED BY	JNM	CHECKED BY	RTB	DATE
DRAWN BY	JNM	APPROVED BY	RTB	10/14/05
FILENAME			FIGURE No.	REV.
1011F102E			2	D

SWC
SMITH WILLIAMS CONSULTANTS, INC.
304 Inverness Way South, Suite 400, Englewood, Colorado 80112
Phone: 303-433-0282 Fax: 303-433-0382



LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, METERS
- PROPOSED GROUND SURFACE CONTOUR AND EL, METERS
- EXISTING ROAD
- EXISTING STREAM
- EXISTING DITCH
- EXISTING POND/WATER
- WETLANDS
- PROPOSED CULVERT



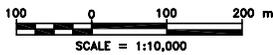
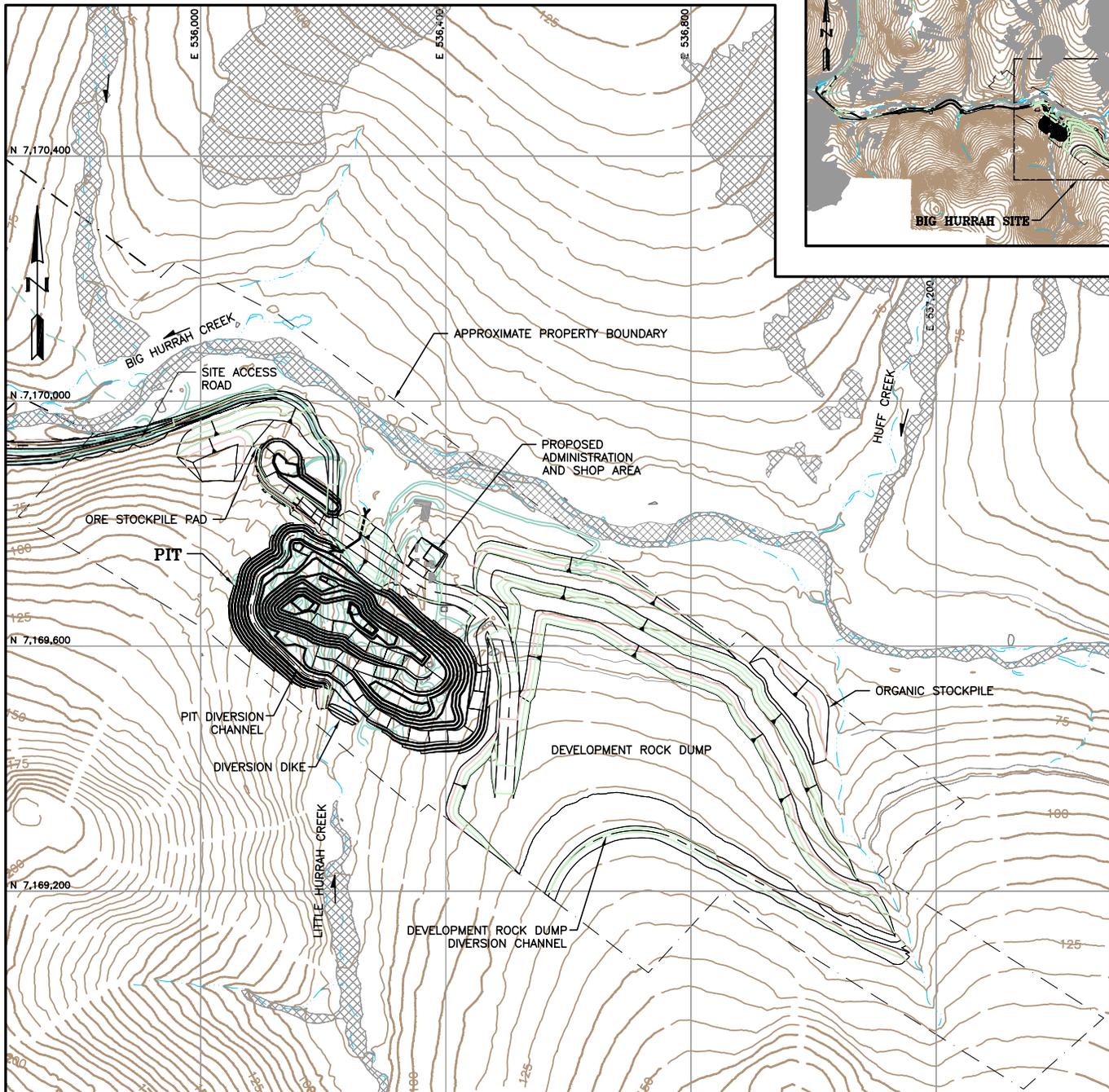
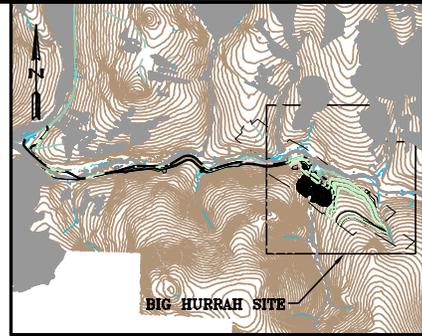
**U.S. ARMY CORPS OF ENGINEERING
404 PERMIT APPLICATION**

CLIENT ALASKA GOLD COMPANY

PROJECT ROCK CREEK PROJECT

TITLE **BIG HURRAH AND
ACCESS ROAD OVERVIEW**

SMITH WILLIAMS CONSULTANTS, INC. <small>304 Inverness Way South, Suite 400, Englewood, Colorado 80112 Phone: 303-433-0282 Fax: 303-433-0382</small>	DESIGNED BY	JNM	CHECKED BY	RTB	DATE
	DRAWN BY	JNM	APPROVED BY	RTB	6/22/05
FILENAME			FIGURE No.	REV.	
1011F104B			3A	C	



LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, METERS
- PROPOSED GROUND SURFACE CONTOUR AND EL, METERS
- EXISTING ROAD
- EXISTING STREAM
- EXISTING DITCH
- EXISTING POND/WATER
- EXISTING STRUCTURE
- WETLANDS
- PROPOSED CULVERT

**U.S. ARMY CORPS OF ENGINEERING
404 PERMIT APPLICATION**

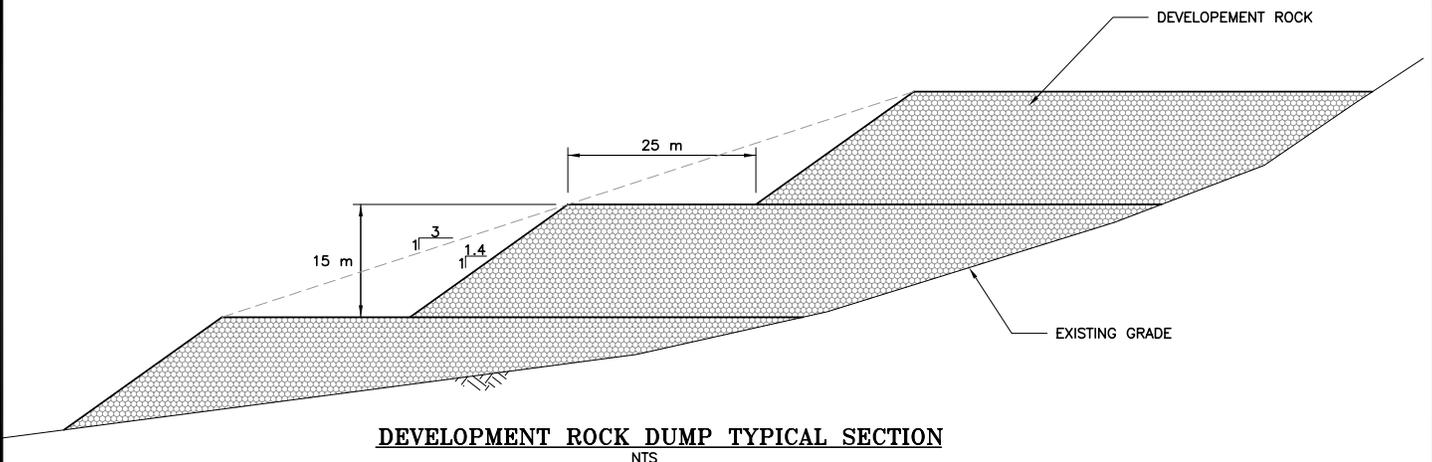
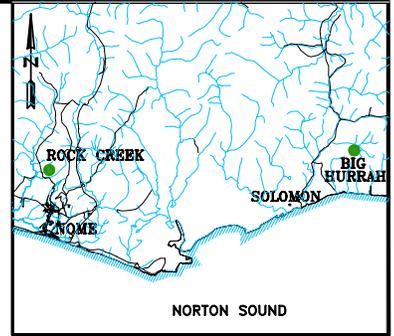
CLIENT ALASKA GOLD COMPANY

PROJECT ROCK CREEK PROJECT

TITLE **BIG HURRAH MINE SITE PLAN**

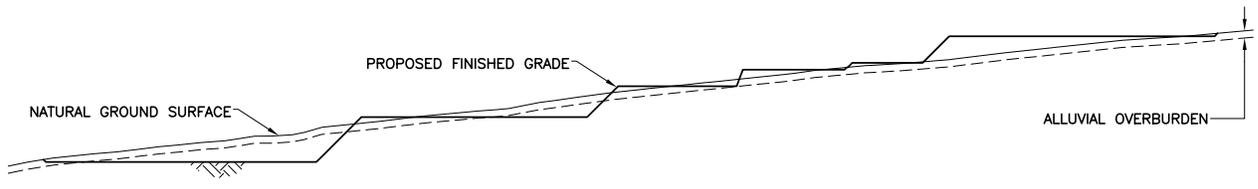
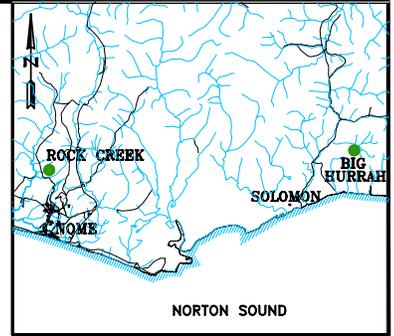
SWC
SMITH WILLIAMS CONSULTANTS, INC.
304 Inverness Way South, Suite 400, Englewood, Colorado 80112
Phone: 303-433-0262 Fax: 303-433-0362

DESIGNED BY	JNM	CHECKED BY	RTB	DATE
DRAWN BY	JNM	APPROVED BY	RTB	6/22/05
FILENAME			FIGURE No.	REV.
1011F103B			3B	C



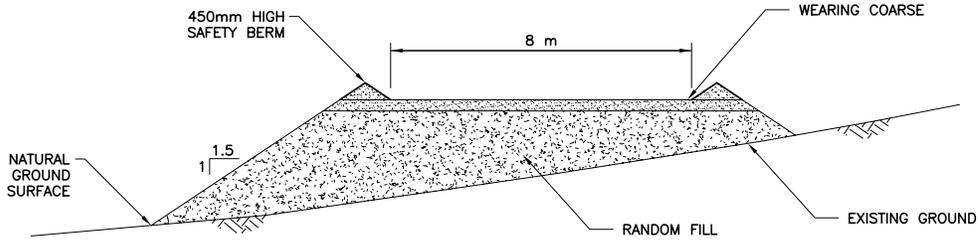
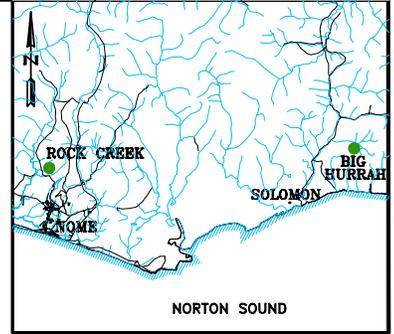
DEVELOPMENT ROCK DUMP TYPICAL SECTION
NTS

U.S. ARMY CORPS OF ENGINEERING 404 PERMIT APPLICATION					
CLIENT		ALASKA GOLD COMPANY			
PROJECT		ROCK CREEK PROJECT			
TITLE					
CROSS SECTION OF A TYPICAL DEVELOPMENT ROCK STOCKPILE					
SWC SMITH WILLIAMS CONSULTANTS, INC. <small>304 Inverness Way South, Suite 400, Englewood, Colorado 80112 Phone: 303-433-0262 Fax: 303-433-0362</small>	DESIGNED BY	JNM	CHECKED BY	RTB	DATE
	DRAWN BY	JNM	APPROVED BY	RTB	6/28/05
	FILENAME		FIGURE No.		REV.
1011F123		4		A	

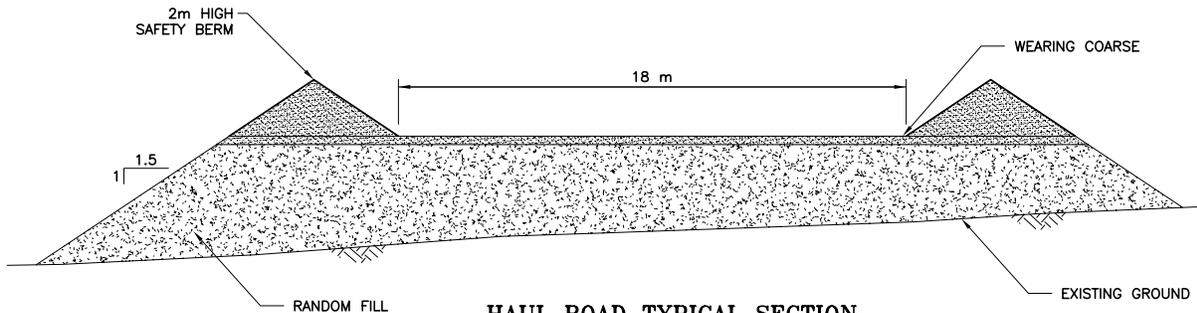


PLANT SITE SECTION
NTS

U.S. ARMY CORPS OF ENGINEERING 404 PERMIT APPLICATION					
CLIENT	ALASKA GOLD COMPANY				
PROJECT	ROCK CREEK PROJECT				
TITLE	CROSS SECTION OF A TYPICAL FOUNDATION FILL				
 SMITH WILLIAMS CONSULTANTS, INC. <small>304 Inverness Way South, Suite 400, Englewood, Colorado 80112 Phone: 303-433-0262 Fax: 303-433-0362</small>	DESIGNED BY	JNM	CHECKED BY	RTB	DATE
	DRAWN BY	JNM	APPROVED BY	RTB	6/28/05
	FILENAME		FIGURE No.	REV.	
1011F127		5	A		



ACCESS ROAD TYPICAL SECTION
NTS



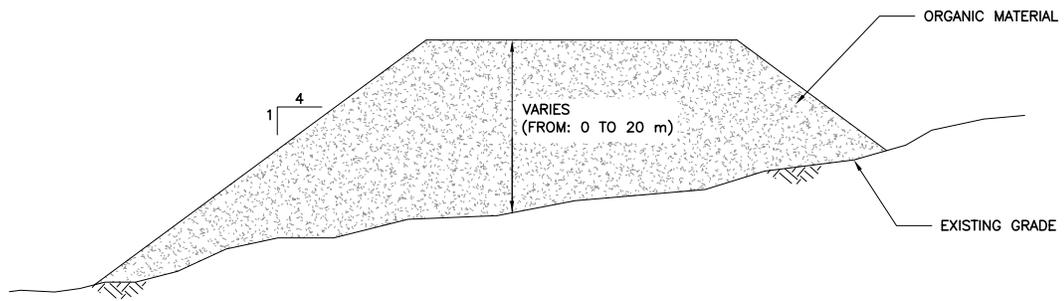
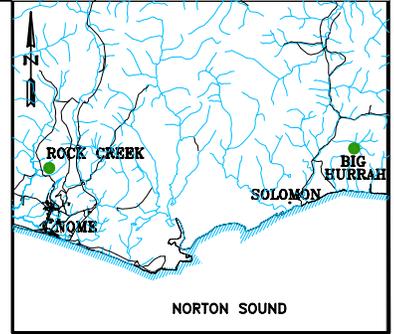
HAUL ROAD TYPICAL SECTION
NTS

**U.S. ARMY CORPS OF ENGINEERING
404 PERMIT APPLICATION**

CLIENT	ALASKA GOLD COMPANY
PROJECT	ROCK CREEK PROJECT

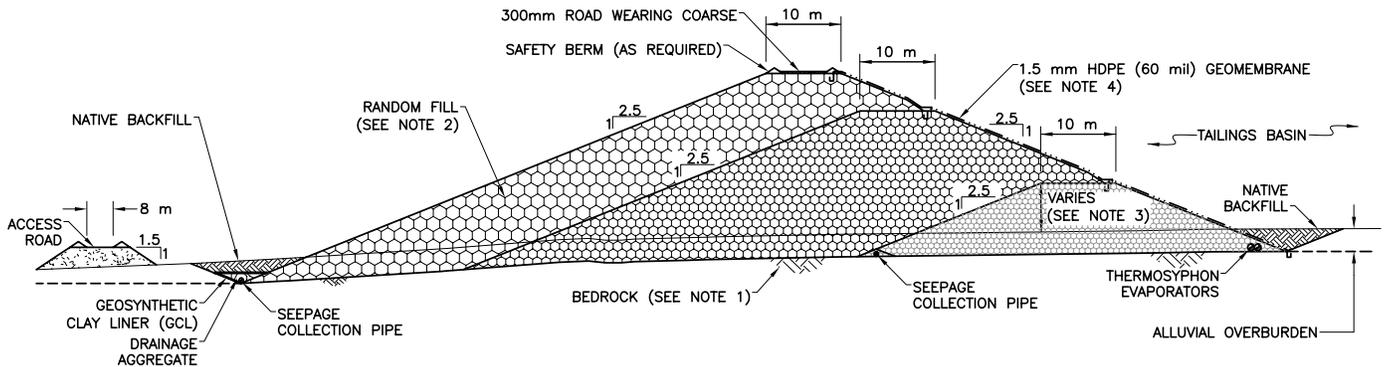
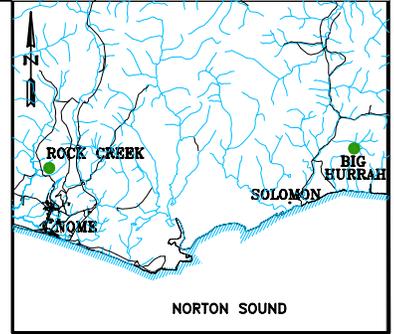
TITLE
**CROSS SECTION OF A TYPICAL
ON SITE ACCESS ROAD**

SMITH WILLIAMS CONSULTANTS, INC. 304 Inverness Way South, Suite 400, Englewood, Colorado 80112 Phone: 303-433-0262 Fax: 303-433-0362	DESIGNED BY	JNM	CHECKED BY	RTB	DATE
	DRAWN BY	JNM	APPROVED BY	RTB	6/28/05
	FILENAME		FIGURE No.	REV.	
	1011F124		6	A	



TYPICAL ORGANIC STOCKPILE
NTS

U.S. ARMY CORPS OF ENGINEERING 404 PERMIT APPLICATION					
CLIENT		ALASKA GOLD COMPANY			
PROJECT		ROCK CREEK PROJECT			
CROSS SECTION OF A TYPICAL ORGANIC STOCKPILE					
SWC SMITH WILLIAMS CONSULTANTS, INC. <small>304 Inverness Way South, Suite 400, Englewood, Colorado 80112 Phone: 303-433-0262 Fax: 303-433-0362</small>	DESIGNED BY	JNM	CHECKED BY	RTB	DATE
	DRAWN BY	JNM	APPROVED BY	RTB	6/28/05
	FILENAME		FIGURE No.		REV.
1011F126		7		A	



EMBANKMENT TYPICAL SECTION

NTS

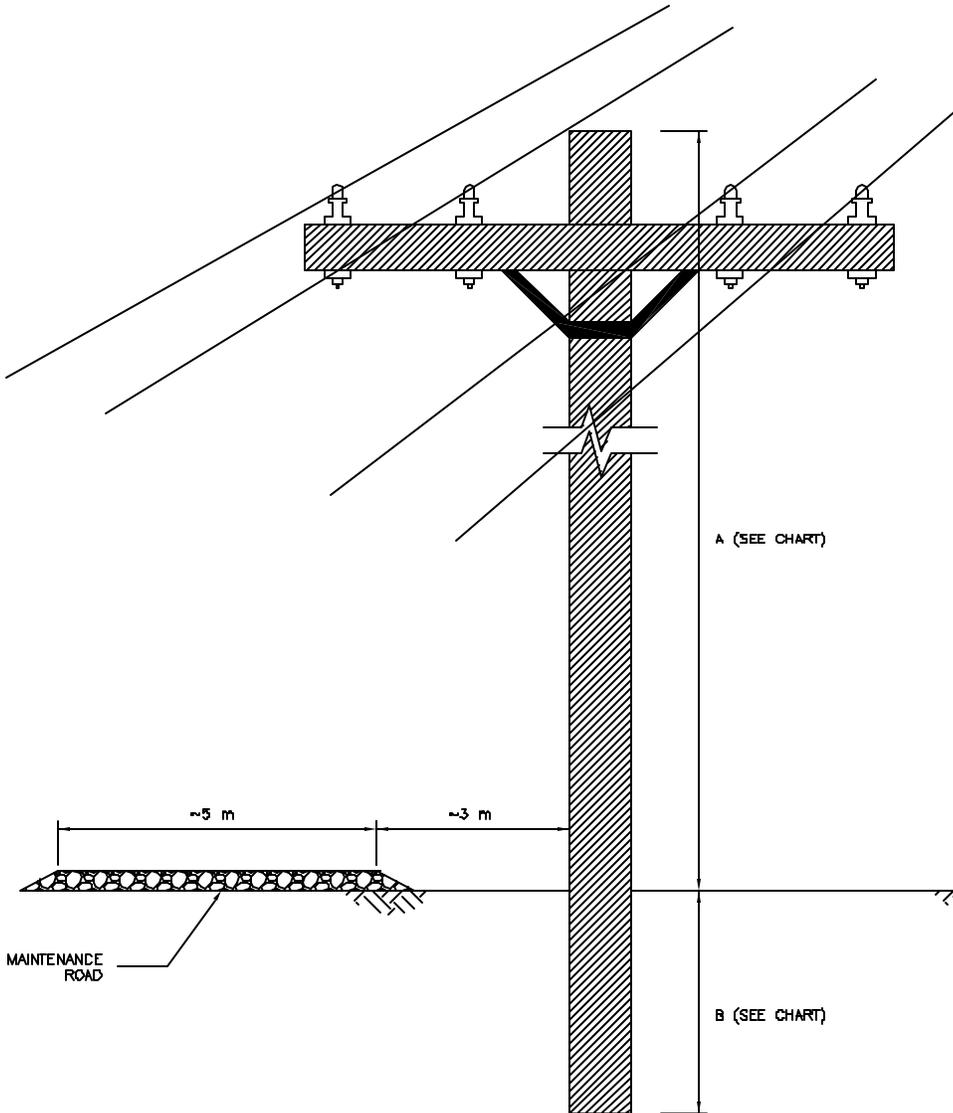
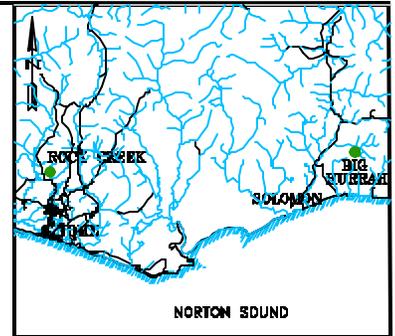
LEGEND:

-  PHASE 1, STAGE 1
-  PHASE 1, STAGE 2
-  PHASE 1, STAGE 3

NOTES:

1. FOUNDATION AREA MUST BE EXCAVATED TO NON-ICE RICH BEDROCK. FOUNDATION TO BE INSPECTED AND APPROVED BY THE ENGINEER.
2. EMBANKMENT RANDOM FILL SHALL CONSIST OF DEVELOPMENT ROCK FROM THE MINE PIT DEVELOPMENT.
3. EMBANKMENT HEIGHTS VARY ALONG ALIGNMENT. MAXIMUM HEIGHTS ARE:
9 m FOR STAGE 1, 20 m STAGE 2 AND
24 m FOR STAGE 3.
4. A 300 mm THICK LAYER OF LINER BEDDING MATERIAL UNDERLIES THE HDPE GEOMEMBRANE.

U.S. ARMY CORPS OF ENGINEERING 404 PERMIT APPLICATION					
CLIENT		ALASKA GOLD COMPANY			
PROJECT		ROCK CREEK PROJECT			
TITLE		CROSS SECTION OF THE ROCK CREEK TAILINGS STORAGE FACILITY DAM			
 SMITH WILLIAMS CONSULTANTS, INC. <small>304 Inverness Way South, Suite 400, Englewood, Colorado 80112 Phone: 303-433-0262 Fax: 303-433-0362</small>	DESIGNED BY	JNM	CHECKED BY	RTB	DATE
	DRAWN BY	JNM	APPROVED BY	RTB	6/21/05
	FILENAME		FIGURE No.		REV.
1011F105		8		C	



NOTES:

1. IMBEDDMENT DEPTH (B) IS EQUAL TO 10% OF TOTAL ABOVE GROUND HEIGHT, PLUS AN ADDITIONAL 1.2 METERS.
2. MAINTENANCE ROAD NOT REQUIRED AT ALL LOCATIONS.

POLE SECTION	A	B
NJUS POWER PLANT TO BELTZ CORNER	13.7	2.6
BELTZ CORNER TO MINE ROAD	13.7	2.6
MINE ROAD	12.2	2.4

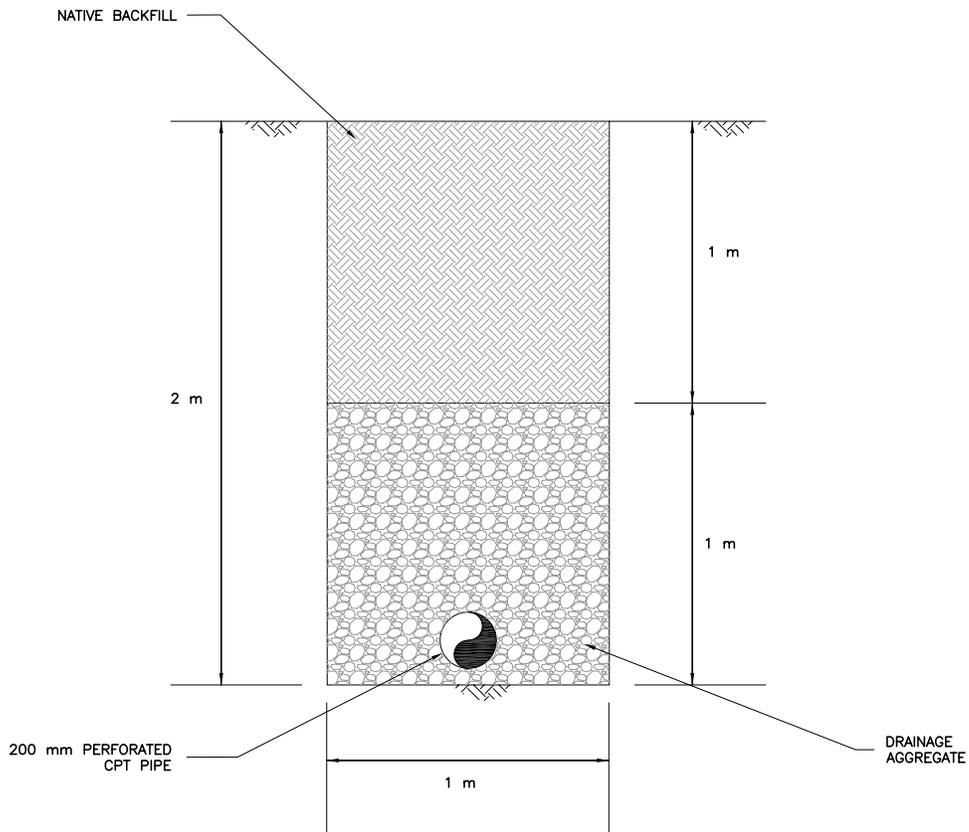
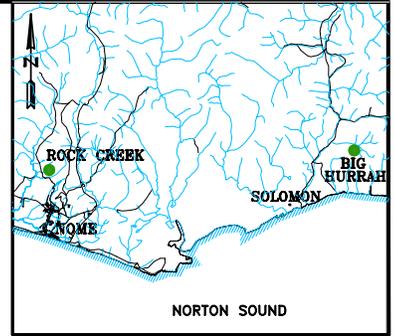
**U.S. ARMY CORPS OF ENGINEERING
404 PERMIT APPLICATION**

CLIENT: ALASKA GOLD COMPANY

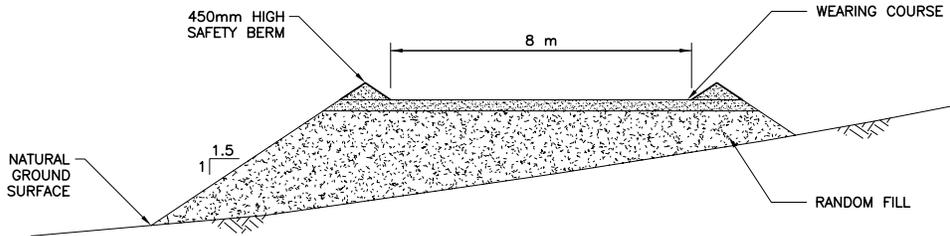
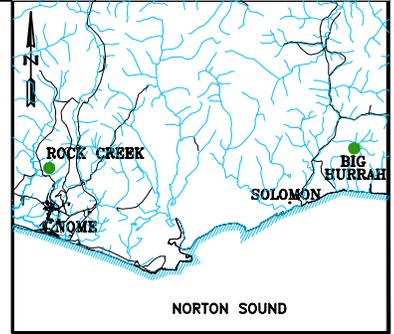
PROJECT: ROCK CREEK PROJECT

TITLE: CROSS SECTION OF A TYPICAL UTILITY POLE SETTING

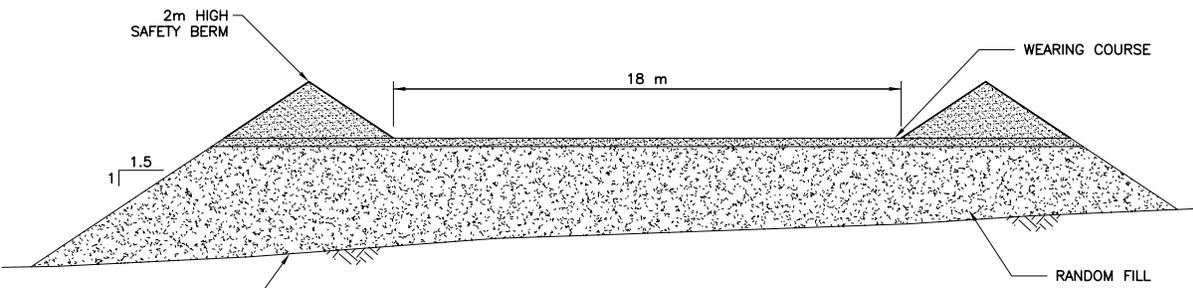
<p>SWC SMITH WILLIAMS CONSULTANTS, INC. 804 International Way, Suite 600, Anchorage, Alaska 99508 Phone: 907-552-6800 Fax: 907-552-6802</p>	DESIGNED BY	MJR	CHECKED BY	RTB	DATE
	DRAWN BY	MAZ	APPROVED BY	RTB	7/8/05
	FILENAME: 1011F132				FIGURE No. 9



U.S. ARMY CORPS OF ENGINEERING 404 PERMIT APPLICATION					
CLIENT	ALASKA GOLD COMPANY				
PROJECT	ROCK CREEK PROJECT				
TITLE	CROSS SECTION OF A TYPICAL CLASS V INJECTION SYSTEM				
 SMITH WILLIAMS CONSULTANTS, INC. <small>304 Inverness Way South, Suite 400, Englewood, Colorado 80112 Phone: 303-433-0262 Fax: 303-433-0362</small>	DESIGNED BY	MJR	CHECKED BY	RTB	DATE
	DRAWN BY	MJR	APPROVED BY	RTB	6/28/05
	FILENAME		FIGURE No.	REV.	
1011F128		10	A		



ACCESS ROAD TYPICAL SECTION
NTS

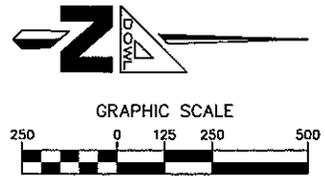
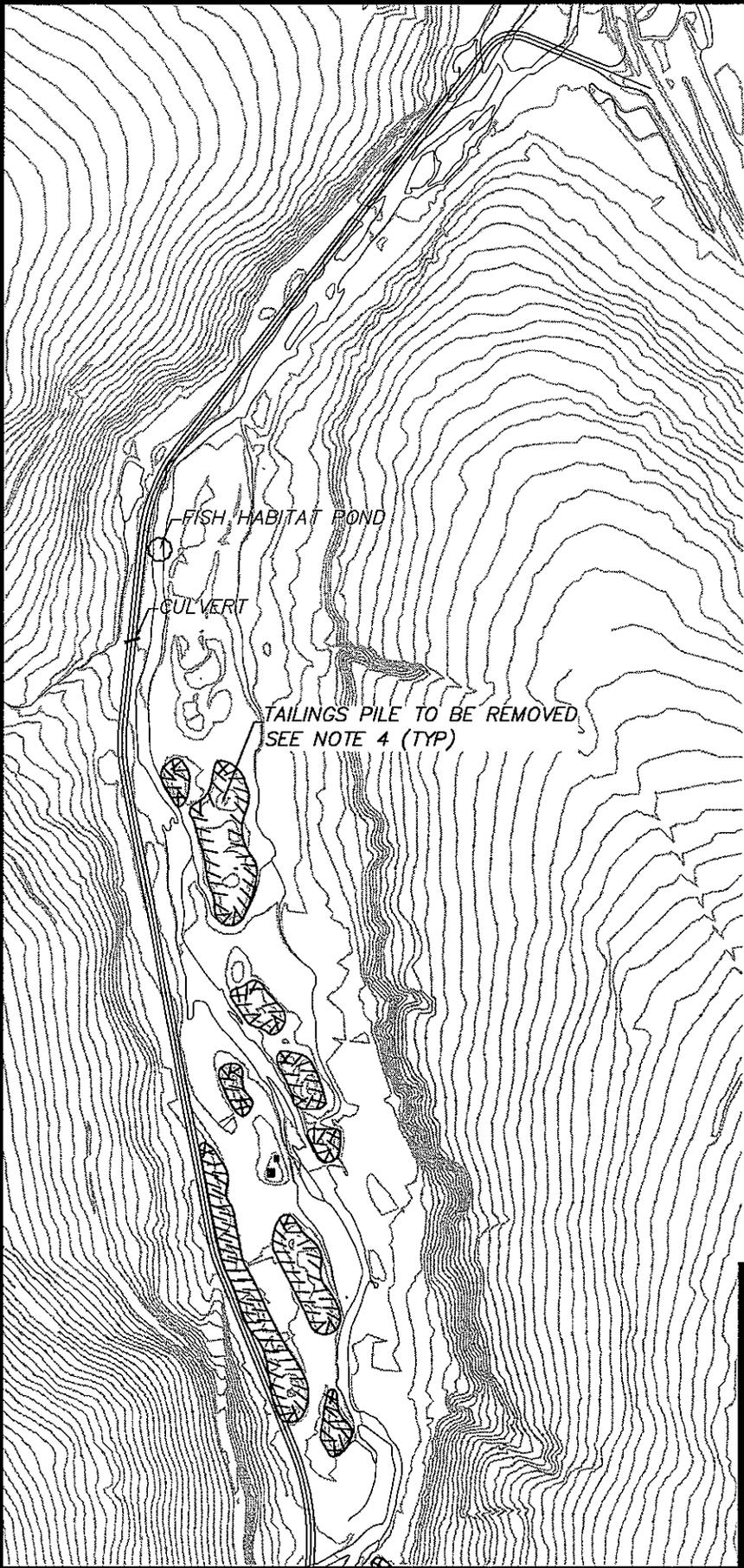


HAUL ROAD TYPICAL SECTION
NTS

U.S. ARMY CORPS OF ENGINEERING 404 PERMIT APPLICATION				
CLIENT		ALASKA GOLD COMPANY		
PROJECT		ROCK CREEK PROJECT		
TITLE				
CROSS SECTION OF A TYPICAL BIG HURRAH ROAD FILL				
DESIGNED BY	JNM	CHECKED BY	RTB	DATE
DRAWN BY	JNM	APPROVED BY	RTB	6/28/05
FILENAME			FIGURE No.	REV.
1011F125			11	A

SWC
SMITH WILLIAMS CONSULTANTS, INC.
 304 Inverness Way South, Suite 400, Englewood, Colorado 80112
 Phone: 303-433-0282 Fax: 303-433-0382

P:\Projects\059240\DESIGN\4-27-06 FIGURES.dwg APR 27 2006 09:38:07 (DRM)



DOWL
ENGINEERS

NAME: BIG HURRAH MINE ACCESS ROAD

PROJECT: BIG HURRAH CREEK

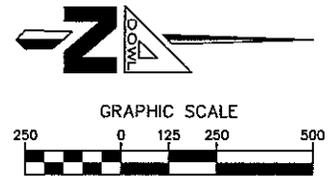
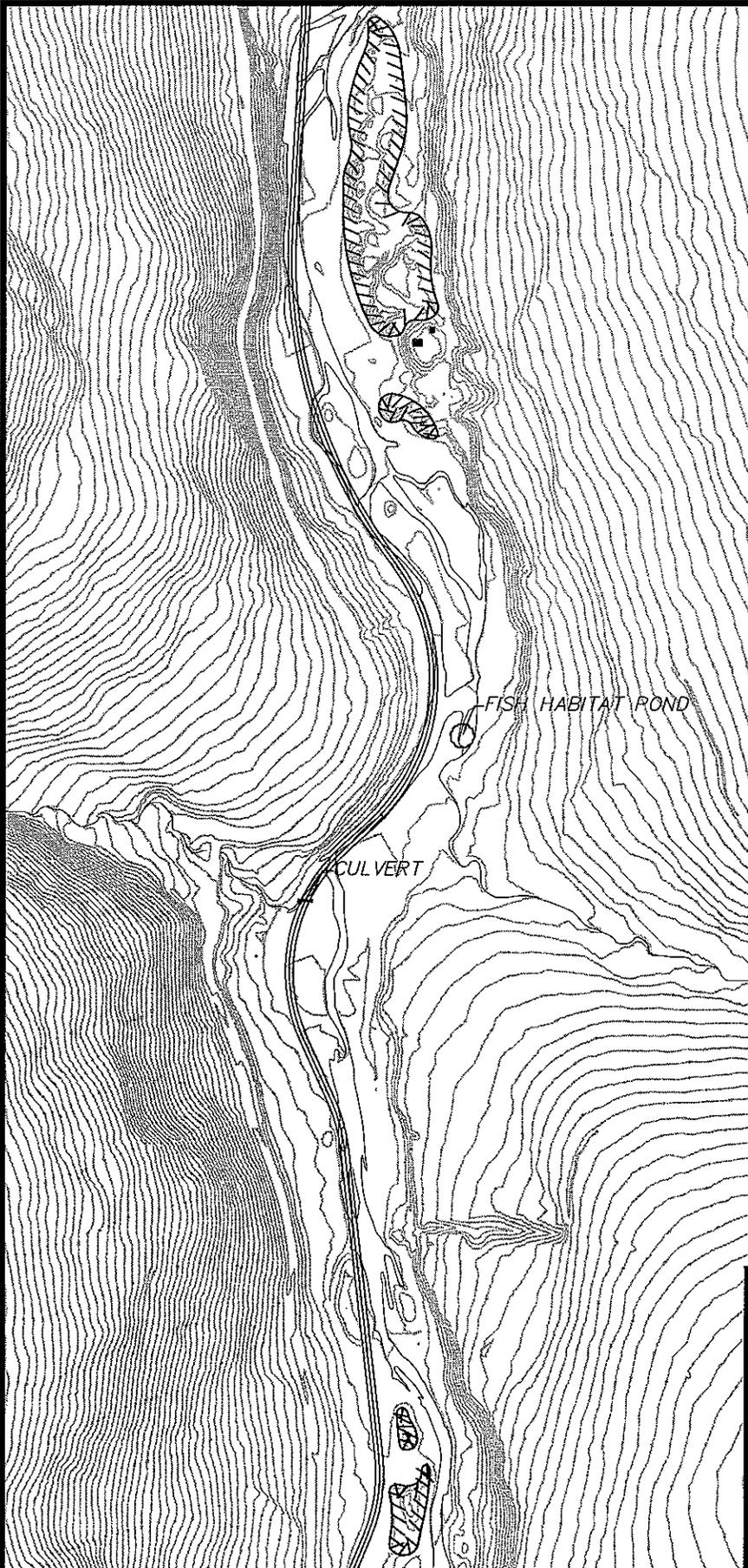
LOCATION: NOME, ALASKA

WATERBODY: BIG HURRAH

DATE: 04/27/06

SHEET: FIGURE 12a

P:\Projects\059240\DESIGN\4-27-06 FIGURES.dwg APR 27 2006 09:38:07 (DRM)



DOWL
ENGINEERS

NAME: BIG HURRAH MINE ACCESS ROAD

PROJECT: BIG HURRAH CREEK

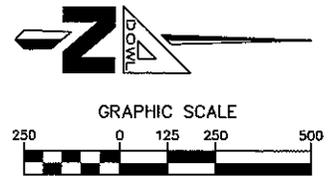
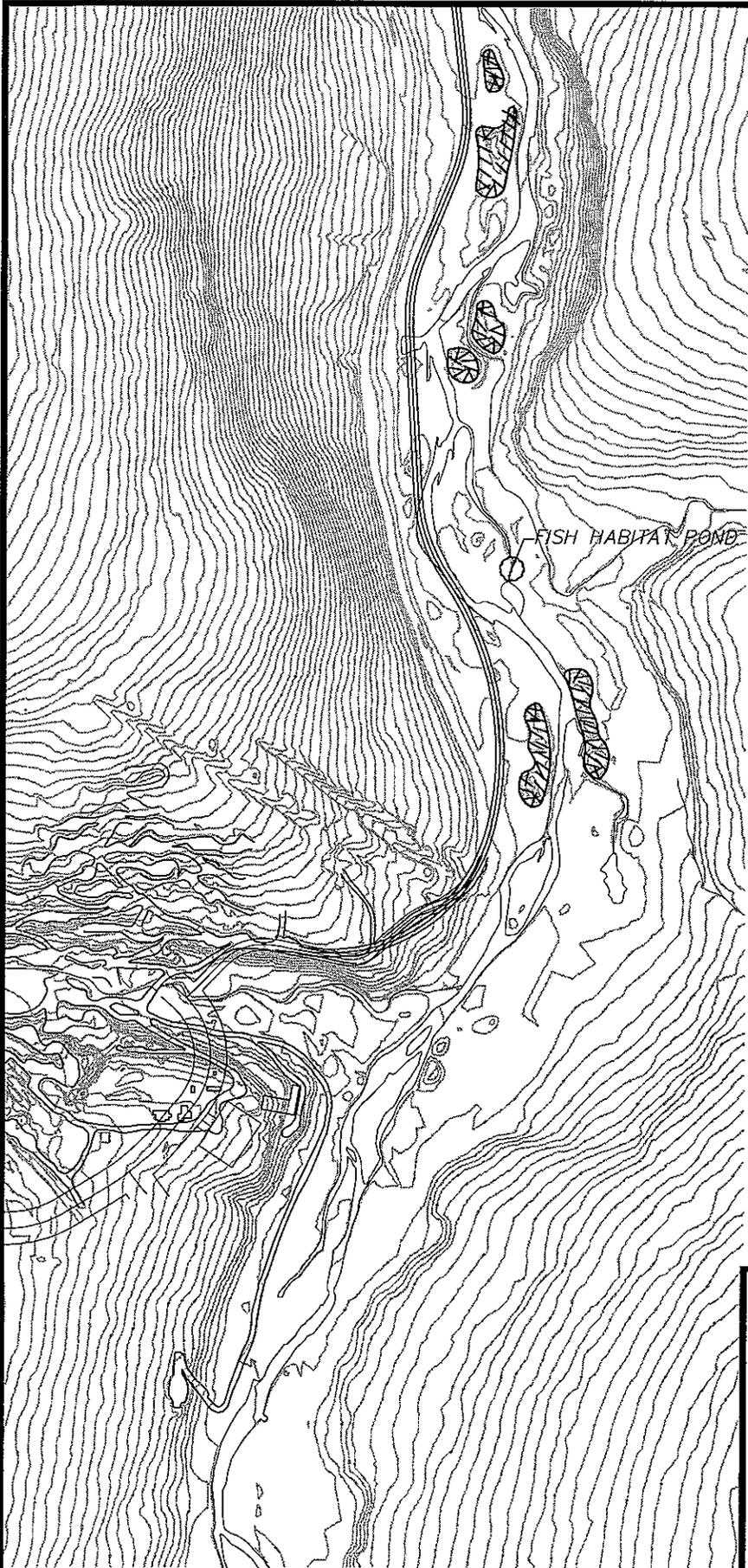
LOCATION: NOME, ALASKA

WATERBODY: BIG HURRAH

DATE: 04/27/06

SHEET: FIGURE 12b

P:\Projects\DS9240\DESIGN\4-27-06 FIGURES.dwg APR 27 2006 09:38:07 (DRM)



DOWL
ENGINEERS

NAME: BIG HURRAH MINE ACCESS ROAD

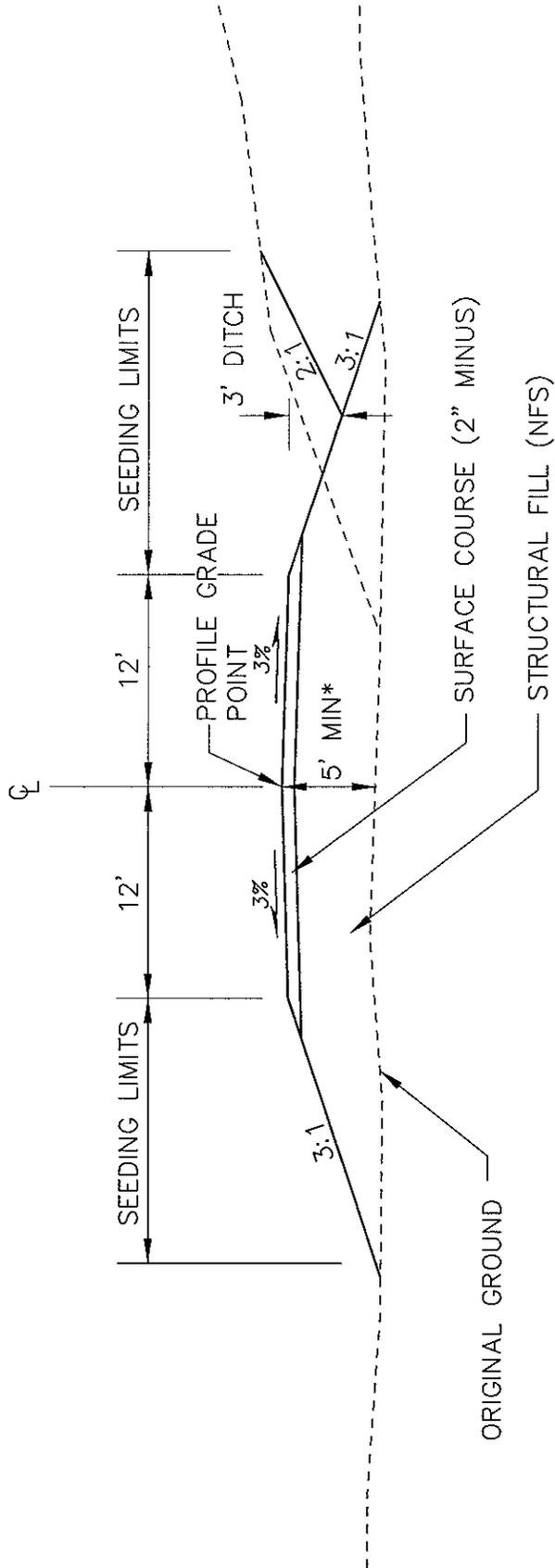
PROJECT: BIG HURRAH CREEK

LOCATION: NOME, ALASKA

WATERBODY: BIG HURRAH

DATE: 04/27/06

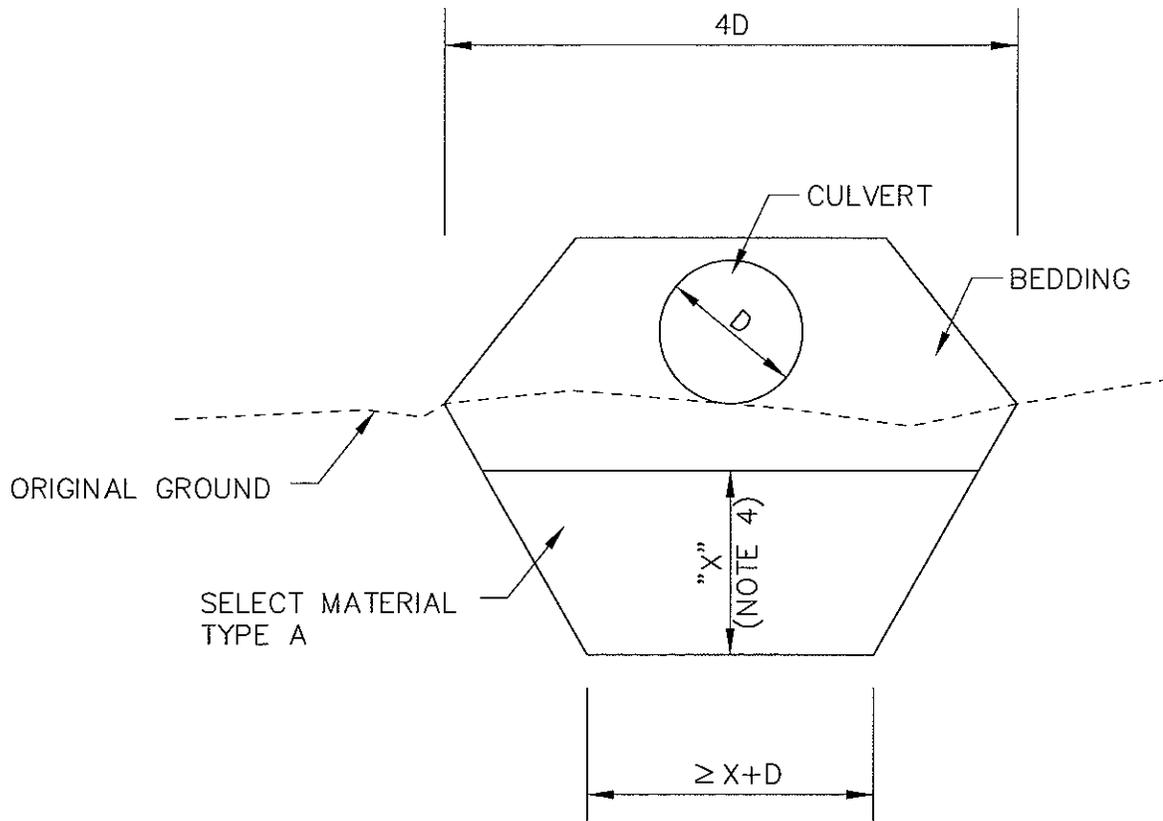
SHEET: FIGURE 12c



* ASSUMES THAW STABLE GROUND
DEPTH MAY INCREASE FOR THAW
UNSTABLE GROUND



NAME: BIG HURRAH MINE ACCESS ROAD
PROJECT: BIG HURRAH CREEK
LOCATION: NOME, ALASKA
WATERBODY: BIG HURRAH
DATE: 04/27/06
SHEET: FIGURE 13



NAME: BIG HURRAH MINE ACCESS ROAD

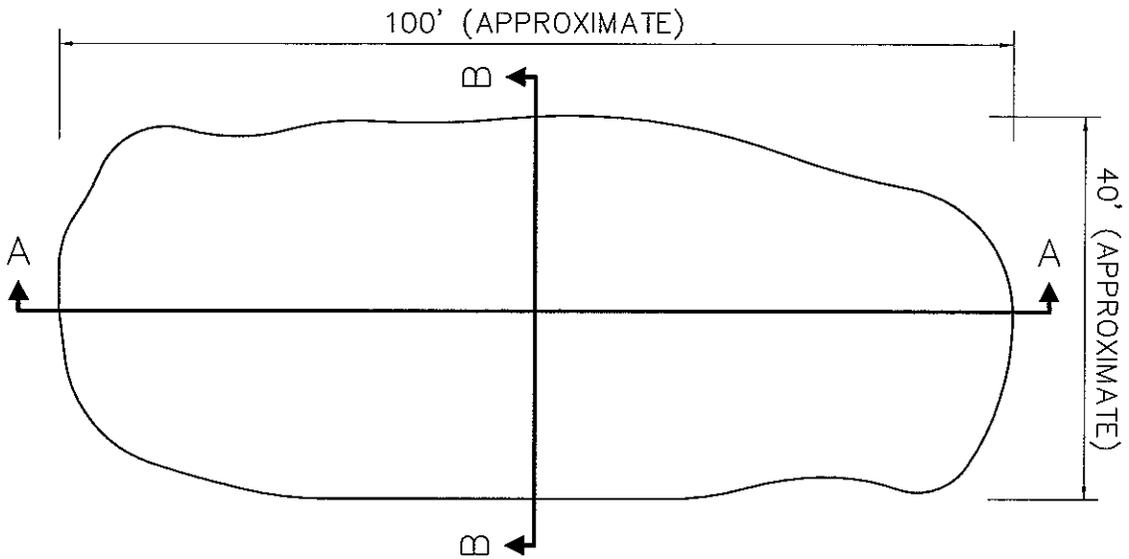
PROJECT: BIG HURRAH CREEK
CULVERT FOUNDATION DETAIL

LOCATION: NOME, ALASKA

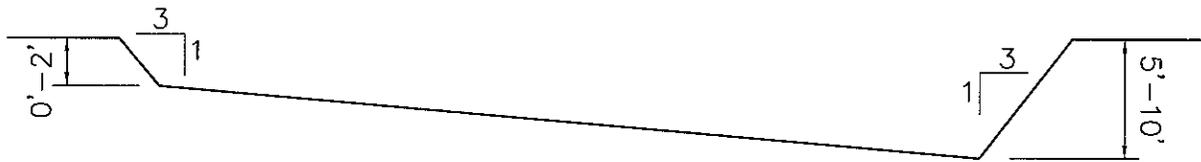
WATERBODY: BIG HURRAH

DATE: 04/27/06

SHEET: FIGURE 14



TYPICAL FISH HABITAT POND PLAN VIEW



TYPICAL FISH HABITAT POND PROFILE SECTION A-A



TYPICAL FISH HABITAT POND CROSS SECTION SECTION B-B



NAME: BIG HURRAH MINE ACCESS ROAD

PROJECT: BIG HURRAH CREEK
FISH HABITAT POND DETAIL

LOCATION: NOME, ALASKA

WATERBODY: BIG HURRAH

DATE: 04/27/06

SHEET: FIGURE 15