



City & Borough of Juneau, Alaska
155 Heritage Way Juneau, AK 99801

Plan NO.: **SGE20260002**
Plan Type: **PL - SGE - Sand & Gravel Extraction**
Work Classification: **SGE - Sand & Gravel Extraction**
Plan Status: **Fees Paid**
Apply Date: **05/19/2026**
Expiration: **[None Listed]**

Location Address

13010 GLACIER HWY, JUNEAU, AK 99801

Parcel Number

4B3001020020

Contacts

CBJ Engineering , Juneau, AK 99801 (907)500-4401 carelton.shorey@juneau.gov	Applicant	Dan Bleidorn, CBJ 155 Heritage Way, Juneau, AK 99801 (907) 586-5252 dan.bleidorn@juneau.gov	Applicant
Greg Morris, CBJ Lands and Resources 155 Heritage Way, Juneau, AK 99801 (907) 586-5252 greg.morris@juneau.gov	Applicant	CBJ Engineering , Juneau, AK 99801 (907)500-4401 carelton.shorey@juneau.gov	Contractor
Dan Bleidorn, CBJ 155 Heritage Way, Juneau, AK 99801 (907) 586-5252 dan.bleidorn@juneau.gov	Owner		

Description: In order to provide for future community rock material needs, the Lands Division requests that a new Conditional Use Permit be granted for another 10-year period. The new Conditional Use Permit would include the continuation of the existing permit conditions

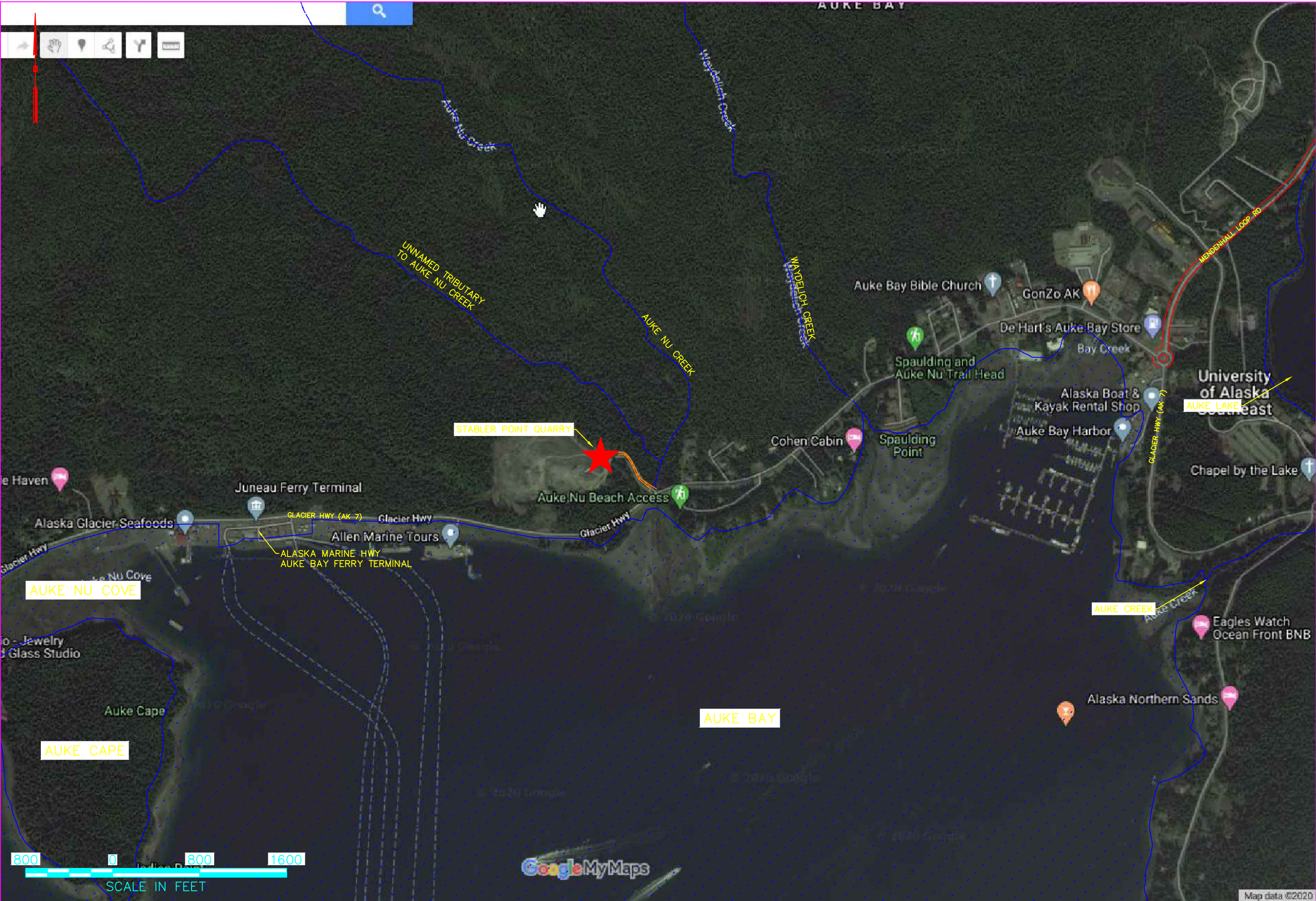
Fees	Amount	Payments	Amt Paid
Public Notice Sign Fee	50.00	Total Fees	\$1,750.00
Public Notice Sign Deposit	100.00	Credit Card	\$100.00
Class V Use Fee	1600.00	Credit Card	\$1,650.00
Total:	\$1,750.00	Amount Due:	\$0.00

Additional Information:

Note: Only answered questions are listed below. For a full view of all application questions see Civic Access More Info Tab:

<https://cityandboroughofjuneauak-energovweb.tylerhost.net/apps/selfservice#/plan/2b82401f-55af-4cd1-b210-4d215eeef405?tab=moreinfo>

Pre-Application Case Number: PAC20260002
Past extraction activities permitted on site?: Yes
Case Number: SGE2016-0001
Previously approved extraction permit: Yes
Previous extraction permit case number: USE2011 0017
Total area to be disturbed (Acres): 50
Has a financial warranty been established?: No
Class I Use: No
Class II Use: No
Class III Use: No
Class IV Use: No
Class V Use: Yes



STABLER POINT QUARRY MATERIAL SOURCE SWPPP

GENERAL LOCATION MAP

Revision:	2020-04
Revised by:	MCE
Date:	04-01-2020
Original by:	STAFF

SITE DESCRIPTION:

Total Facility Area = 32 acres
Area w/ Soils Exposed to Stormwater = 31.7 acres
Impervious Surface Area = 0.3 acres (Pavement)

POLLUTANT SUMMARY	
ACTIVITY	ASSOCIATED POLLUTANTS
PREPARATION OF NEW MINING AREAS	MOIST GASES, DUST, SEDIMENT (TSS), TURBIDITY
BLASTING (INCLUDING DRILLING)	DUST, SEDIMENT (TSS), TURBIDITY
ROCK EXTRACTION	DUST, SEDIMENT (TSS), TURBIDITY
CRUSHING & SCREENING	DUST, SEDIMENT (TSS), TURBIDITY
EQUIPMENT MAINTENANCE & TIE-LINE	OIL, ANTIFREEZE, LUBRICANTS, DIESEL FUEL, HYDRAULIC FLUID, TRANSMISSION FLUID, CLEANING SOLVENTS
ROADSIDE MAINTENANCE	DUST, SEDIMENT (TSS), TURBIDITY
RESTORATION/CONTIGUOUS GRADING	DUST, SEDIMENT (TSS), TURBIDITY

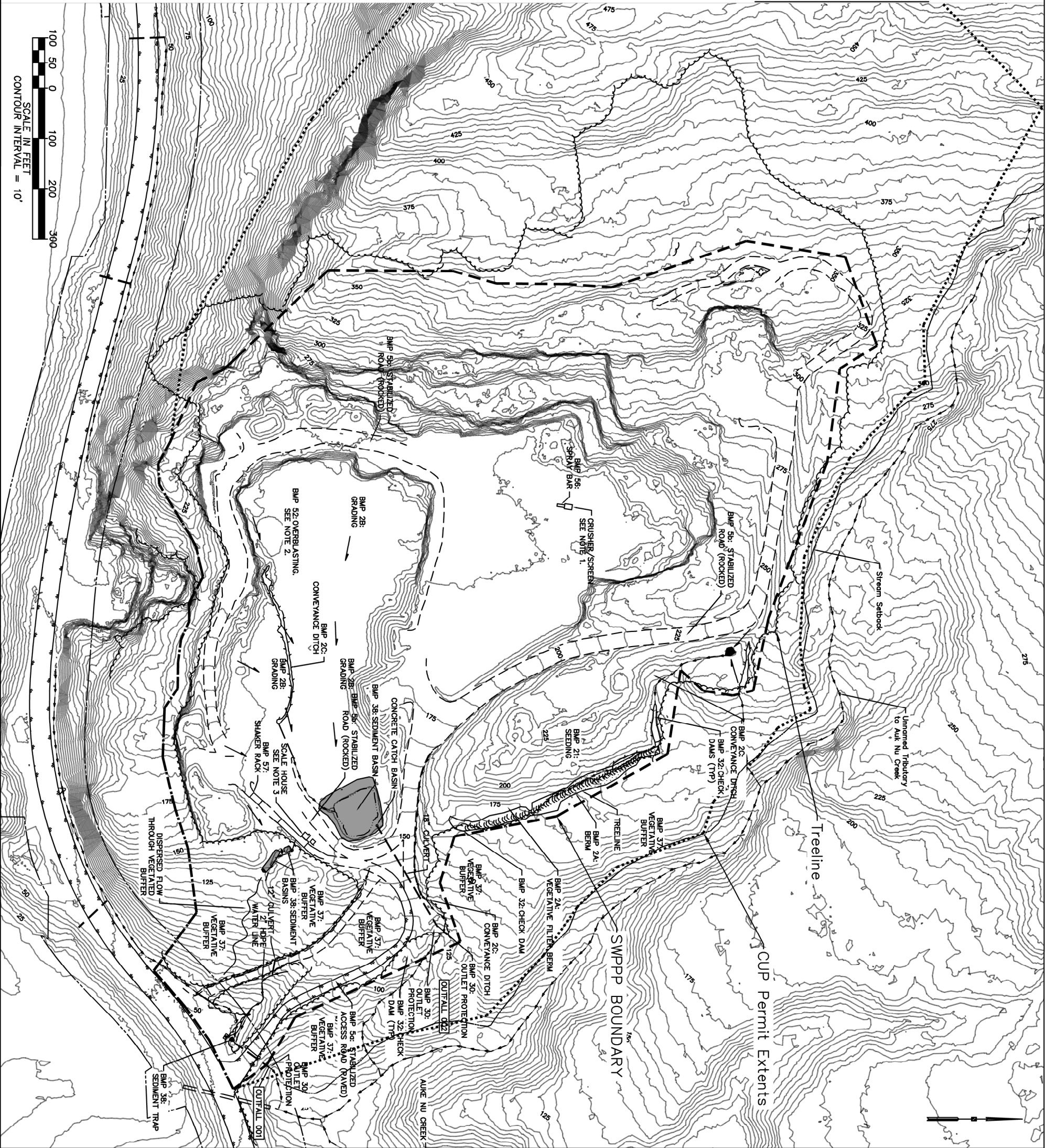
BMP	DESCRIPTION	OTHER NON-STRUCTURAL BMPs
1A	BURNS OR DIKES (SEE BMP 2, STAGING AREA)	• SEDIMENT TRACKING CONTROL: STREET SWEEPER AS NEEDED.
2B	GRADED AREA (SEE BMP 2, STAGING AREA)	• SEDIMENT TRACKING CONTROL: HAUL TRUCK MATERIAL CONTAINMENT
2C	STORMWATER CONVEYANCE (SEE BMP 2, STAGING AREA)	• SEDIMENT TRACKING CONTROL: PRESSURE WASHING AND STREET SWEEPING OF SCALE TO REMOVE FINE SEDIMENT
5A	STABILIZATION OF SITE ENTRANCE/EXIT	
5B	STABILIZATION OF OTHER SITE ROADS	
5C	EROSION PREVENTION OF TEMPORARY ROADS	
6	STOCKPILE MANAGEMENT	
9	SPILL PREVENTION AND CONTROL	
10	MULCHING, INCLUDING HYDROMULCHING	• CLEANING AND SEDIMENT CONTROL: WATER SOURCE SUPPLY PROVIDED
16	ROCK SLOPE ARMOR	
17	MATTING	
18	TOPSOILING	
20	SEEDING	
21	PIPE SLOPE DRAIN	
24	OUTLET PROTECTION	
30	CHECK DAMS	
32	FIBER ROLLS	
35	SILT FENCE	
36	VEGETATIVE BUFFER STRIP	
37	SEDIMENTATION TRAP (BASIN)	
38	CONTROLLED DROP	
50	CHECK DAM	
52	OVERBLASTING	
56	SPRAY BARS	
57	SHAKER RACK (CATTLE GUARD)	

NOTES:

1. CRUSHING AND SCREENING OPERATIONS VARY CONTINUALLY. REFER TO THE ACTIVE INDIVIDUAL MINING PLANS (IMPS) FOR CURRENTLY SPECIFIED LOCATIONS.
2. OVERBLASTING OCCURS IN ALL BLASTED AREAS. SEE SWPPP FOR DESCRIPTION OF BMP.
3. FRESH WATER SUPPLY AND PORTABLE SPILL CONTAINMENT DEVICE AVAILABLE AT SCALE HOUSE.

LEGEND

Drainage Channel	
Paved Road	
Other Road	
Treeline	
Facility Boundary	
Berm	
Stormwater Flow Direction	
BMP 38 – Sedimentation Trap (Basin)	
BMP 37 – Vegetated Buffer Strip	



STABLER POINT QUARRY MATERIAL SOURCE SWPPP

EXISTING CONDITIONS SITE MAP

SITE DESCRIPTION:

Total Facility Area = 20 acres
Area w/ Soils Exposed to Stormwater = 12 acres
Impermeous Surface Area = 0.3 acres (Pavement)

POLLUTANT SUMMARY

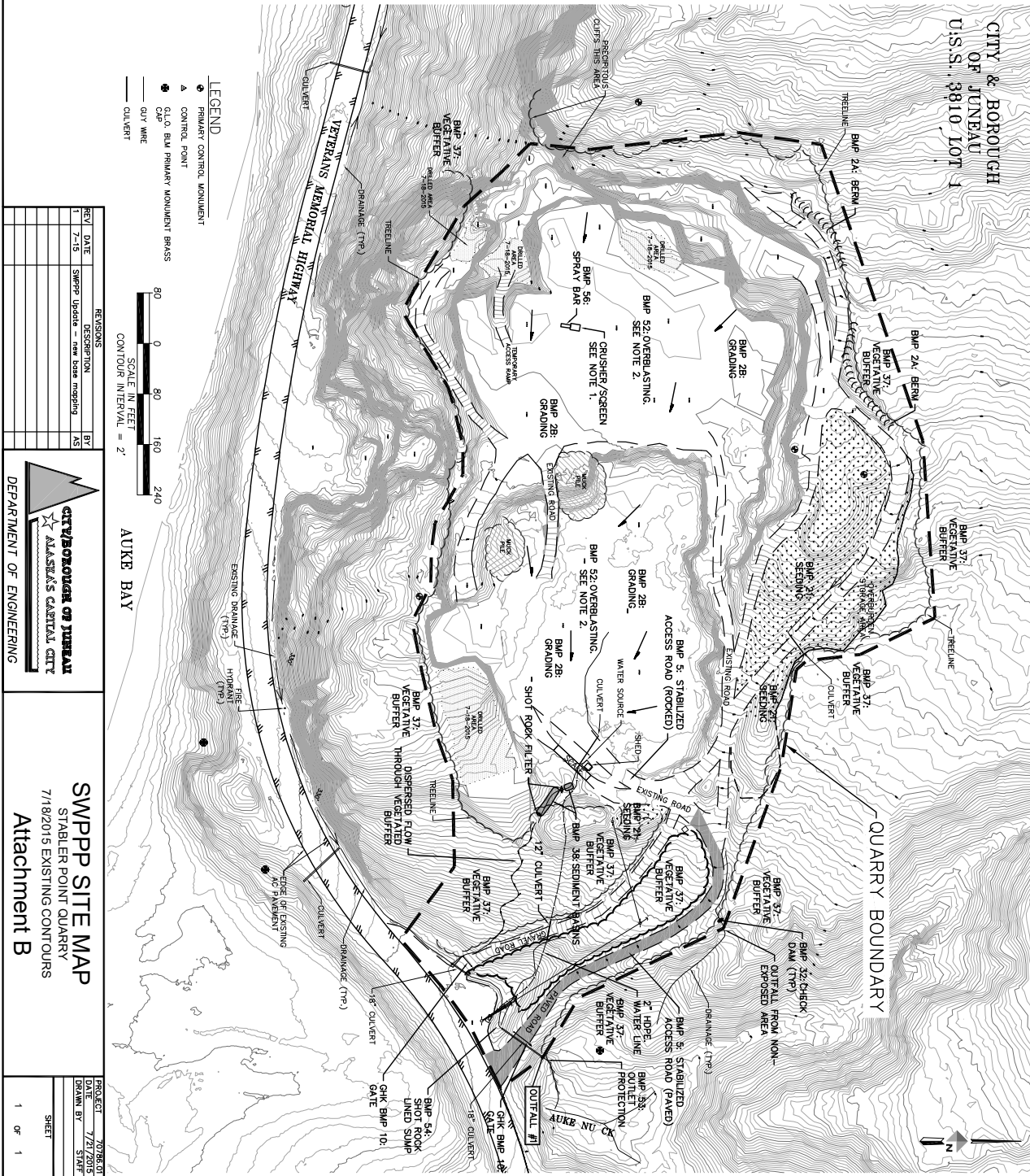
ACTIVITY	ASSOCIATED POLLUTANTS
QUARRY DEVELOPMENT	SEDIMENT, TURBIDITY
BLASTING	DUST, SEDIMENT, TURBIDITY
ROCK EXTRACTION	DUST, SEDIMENT, TURBIDITY
CRUSHING, SCREENING & STOCKPILING	DUST, SEDIMENT, TURBIDITY
MAINTENANCE & FUELING	OIL, ANTIFREEZE, LUBRICANTS, DIESEL, OTHER PETROLEUM PRODUCTS
DRAINAGE & BMP MAINT.	DUST, SEDIMENT, TURBIDITY
RESTORATION, CONTOUR GRADING	DUST, SEDIMENT, TURBIDITY

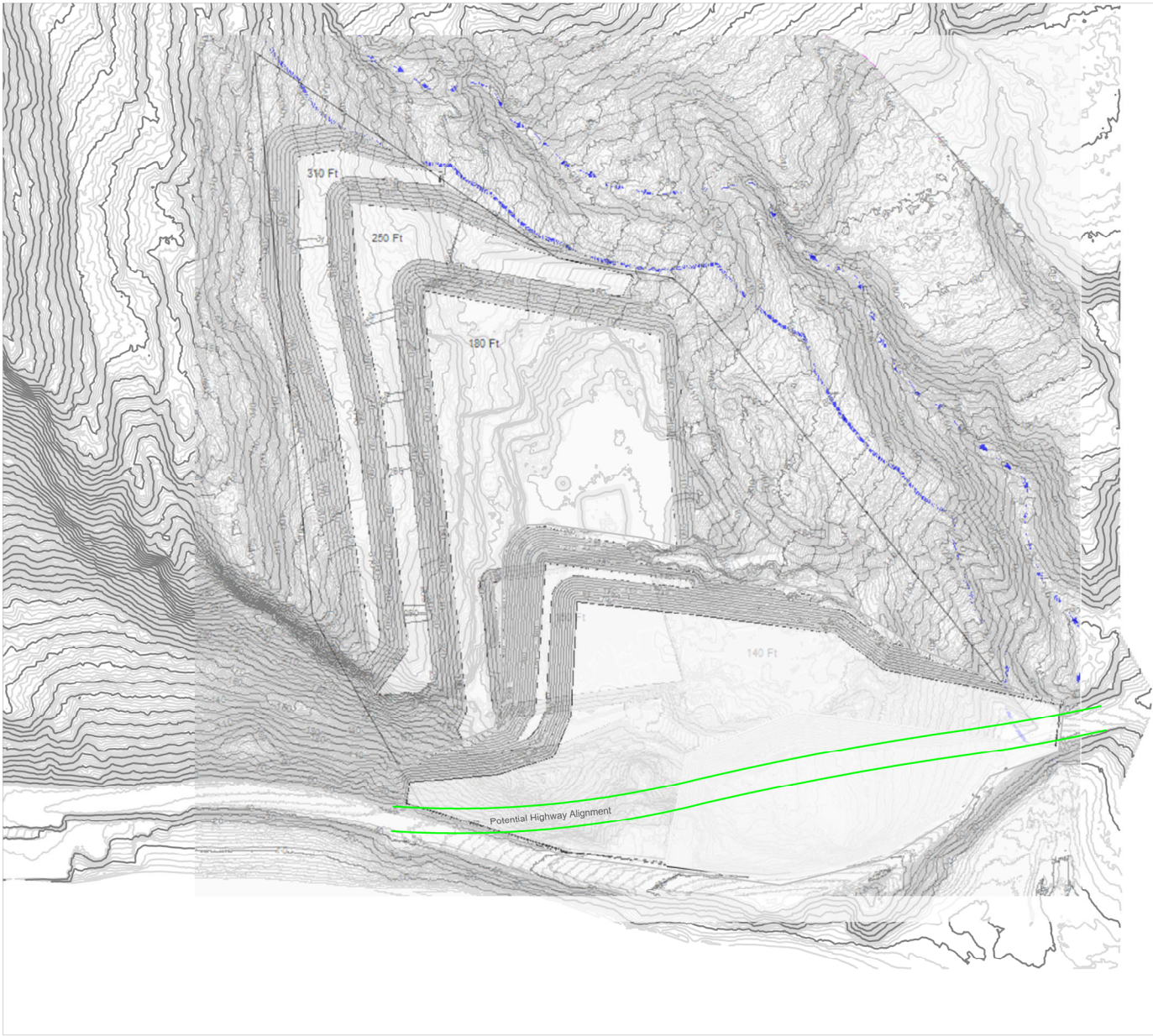
BMP SUMMARY

STRUCTURAL BMPs (SEE SECTION 3.6)	NON-STRUCTURAL BMPs
#2 STAGING AREAS #5 STABILIZATION OF CONSTRUCTION ENTRANCE/EXIT #6 EROSION PREVENTION ON TEMPORARY #20 TOPSOILING #21 SEEDING #32 CHECK DAMS #33 CHECK FENCE BUFFER STRIP #38 SEDIMENTATION BASIN #51 PORTABLE SPILL CONTAINMENT (PSC) #52 OVERBLASTING #53 SHOT ROCK PROTECTION #55 SHOT ROCK FILLED DEPRESSIONS #56 SPRAY BAR	• DUST CONTROL: SECONDARY CRUSHER SPRAY BAR, TO BE USED CRUSHING AND SCREENING AS NECESSARY. • SEDIMENT TRACKING CONTROL: STREET SWEEPER ON SITE. • SEDIMENT TRACKING CONTROL: HAIL TRUCK MATERIAL CONTAINMENT • SEDIMENT TRACKING CONTROL: PRESSURE WASHING AND STREET SWEEPING OF SCALE TO REMOVE FINE SEDIMENT • CLEANING AND SEDIMENT CONTROL: WATER SOURCE SUPPLY PROVIDED

NOTES:

- CRUSHING AND SCREENING OPERATIONS VARY CONTINUALLY. REFER TO THE ACTIVE INDIVIDUAL MINING PLANS (MPPs) FOR CURRENTLY SPECIFIED LOCATIONS.
- OVERBLASTING OCCURS IN ALL BLASTED AREAS. SEE SWPPP FOR DESCRIPTION OF BMP.
- SWPPP AND PSCs ARE STORED IN THE SCALE SHED.







(907) 586-0715
CDD_Admin@juneau.gov
www.juneau.org/community-development
155 Heritage Way • Juneau, AK 99801

Renewal of SGE-20160024 Stabler Point Quarry - Carleton Shorey

Case Number: PAC2026 0002
Applicant: Carleton Shorey and Dan Bleidorn
Property Owner: CBJ Lands and Resources
Property Address: 13010 Glacier Hwy
Parcel Code Number: 4B3001020020
Site Size: 13,503,600 square feet; 310 acres
Zoning: Rural Reserve (RR)
Existing Land Use: Sand and gravel operations

Conference Date: February 11, 2026

Report Issued: February 18, 2026

DISCLAIMER: Pre-application conferences are conducted for the purpose of providing applicants with a preliminary review of a project and timeline. Pre-application conferences are not based on a complete application and are not a guarantee of final project approval.

List of Attendees

Note: Copies of the Pre-Application Conference Report will be emailed, instead of mailed, to participants who have provided their email address below.

Name	Title	Email address
Carleton Shorey	Applicant	carleton.shorey@juneau.gov
Kathryn Oberlin	Planner	kathryn.oberlin@juneau.gov
Justin Smith	Planner	justin.smith@juneau.gov
Jeff Hedges	Building Official	jeffrey.hedges@juneau.gov
Jenny Smith	Chief General Engineer	jenny.smith@juneau.gov
Madeline Carse	Admin	madeline.carse@juneau.gov

CONFERENCE SUMMARY

Questions/issues/agreements identified at the conference that weren't identified in the attached reports.

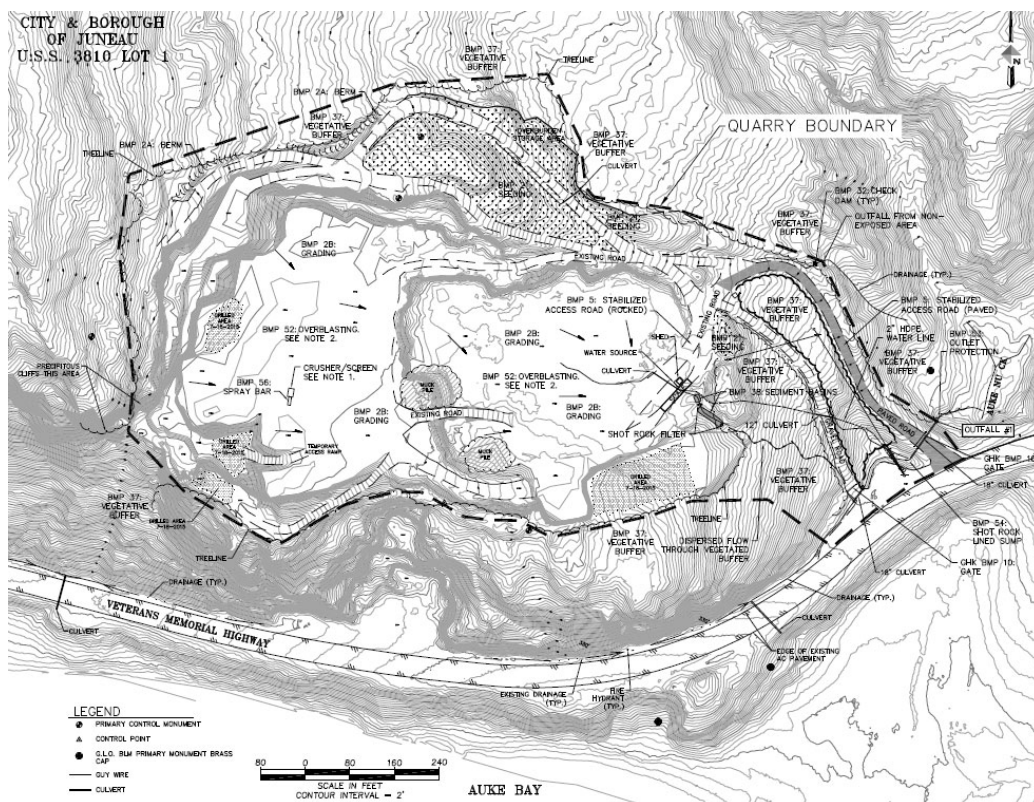
The following is a list of issues, comments, and proposed actions, and requested technical submittal items that were discussed at the pre-application conference:

The building division discussed noise concerns in relation to operating hours. The fire marshal was not present; it was noted that they conduct annual inspections. The general engineering division inquired about the quarry boundary, discussed drainage and the SWPPP, and clarified the height of the sound buffer. The planning division discussed the conditional use permit process and the prioritization of the neighborhood meeting and addressing concerns of the public.

The applicant noted that vibration data is available and that the need for flood mitigation creates precedent for the proposed increase in blasting size. Additionally, there are future plans with the DOT to adjust the curve of Glacier Highway in relation to the quarry. The applicant is seeking to complete the Conditional Use Permit process prior to August 2026, when the current permit expires.

Project Overview

The applicant is requesting approval of a new Conditional Use Permit for an additional ten-year period. The proposed Conditional Use Permit would include the continuation of most existing permit conditions.



Conditional Use Permit Process:

- Submit the application and back-up materials.
 - Electronic submissions accepted at <https://cityandboroughofjuneauak-energovweb.tylerhost.net/apps/selfservice#/home>
- The project will be assigned to a planner. They will review submitted materials and coordinate where necessary. When the planner assesses that the application is complete, they will schedule a hearing

before the Planning Commission. The planner might schedule a Neighborhood Meeting with property owners within 500 feet of the project.

- A notice will be sent to property owners within 500 feet of the project.
 - There will be two newspaper ads for the case.
 - The Applicant is required to post a Public Notice sign, which will be provided by CDD. The sign must be posted two weeks before the hearing.
 - Staff will prepare a report analyzing the project and make a recommendation to the Commission. The report will be publicly available the week before the hearing.
- At the Planning Commission meeting, the project can be:
 - On the Consent Agenda, where it will be passed without discussion.
 - On the Regular Agenda:
 - The Director will briefly describe the project.
 - The Applicant has 15 minutes to describe the project.
 - The public has the opportunity to comment. There is usually a time limit of two to three minutes.
 - The Applicant has time to respond to issues raised.
 - Public comment is closed, and there is no additional opportunity to participate.
- Within 30 days of the hearing, the Planning Commission will:
 - Approve the project
 - Approve with conditions
 - [CBJ 49.65.230](#) lays out eleven considerations that the commission will consider and may impose restrictions on the permit.
 - [CBJ 49.65.235](#) outlines two mandatory conditions of the permit. If these conditions do not apply, explain in the narrative submitted with the application.
 - Deny the project
 - Continue the project – if more information is required or if the Commission runs out of time.
- The decision can be appealed for 20 days after the Notice of Decision is filed with the City Clerk. If the decision is appealed, the Applicant can continue with their project at their own risk.
- Videos of the Planning Commission activities are posted on the Assembly's Minutes and Agendas site. <https://juneauak.portal.civicclerk.com/>

Background

Stabler Point Quarry occupies a portion of a CBJ-owned parcel (USS 3810, Lot 1 FR) which was platted into the Otter Way Subdivision in 1995. The lot was zoned R12 until 1987 when it became part of the RR zoning district. It is located near the Auke Bay Ferry Terminal with Glacier Highway serving as the primary access corridor.

The property has a long history of quarry and mineral extraction–related approvals dating back to the mid-1990s. The quarry was originally authorized through Conditional Use Permit USE-CU96-62 for sand and gravel extraction, with subsequent amendments and expansions approved over time. A 10-year Conditional Use Permit for rock quarry operations was approved in 2001 (USE2001-00022), with multiple modifications thereafter to adjust excavation areas, expand the quarry footprint, extend or modify hauling hours, allow Saturday hauling, and permit secondary crushing activities. The Conditional Use Permit has been renewed and modified multiple times, including renewals in 2011 and 2016 that extended quarry operations through 2026 and approved expansions of blast size and quarry area.

SECTION 1 – PLANNING DIVISION

1. **Zoning** – RR – Rural Reserve
 - a. Urban Mining District

- b. Recreational Vehicle Park Area
- 2. **Table of Permissible Uses** – The proposed use is permissible through a Conditional Use Permit process. The applicable use from the Table of Permissible Uses is 14.500 sand and gravel operations.
- 3. **Subdivision** – N/A
- 4. **Structure Setbacks** – From RR Dimensional Requirements:
 - a. Front yard – Min. 25 feet
 - b. Rear yard – Min. 25 feet
 - c. Street Side – Min. 17 feet
 - d. Side – Min. 15 feet
- 5. **Structure Height** – From RR Dimensional Requirements:
 - a. Permissible Uses - 45 feet
 - b. Accessory – 45 feet
- 6. **Access** – Glacier Hwy
- 7. **Parking & Circulation** – No parking required. The Commission is able to impose measures to protect private and public property adjoining the operation and to guarantee orderly and safe traffic circulation both on the public streets and within the permit application area.
- 8. **Lot Coverage** – From RR Dimensional Requirements: 20% maximum
- 9. **Vegetative Coverage** – From RR Dimensional Requirements: N/A
- 10. **Lighting** – Exterior lighting may not shed light or glare above the roofline of the building or beyond the property line of the site. Industrial and exterior lighting shall not be used in a manner that produces glare on public highways or neighboring property.

Prior to issuance of a building permit, the applicant shall submit a lighting plan illustrating the location and type of exterior lighting proposed for the development. Exterior lighting shall be designed and located to minimize off-site glare. Approval of the plan shall be at the discretion of the Community Development Department, according to the requirements at [CBJ 49.40.235\(d\)](#).

All exterior lighting fixtures shall be of a “full cutoff” design.

- 11. **Noise** – The Commission may place conditions affecting noise generation from this proposal. Please see [CBJ 49.65.210\(7\)\(C\)](#). In the application, include methods to be used to minimize noise pollution. The condition may also include measures to minimize or eliminate airborne particulates, visual blight, noise, and other adverse environmental effects [\[CBJ 49.65.230\(8\)\]](#).
- 12. **Flood** – This property is not located in a flood zone (Panel 02110C1214E and Panel 02110C1218E).
- 13. **Hazard/Mass Wasting/Avalanche/Hillside Endorsement** – This property is not located within a mapped hazard area. Hillside endorsement may be required depending on the development proposal.
- 14. **Habitat/Wetlands** –
 - a. Check with the U.S. Fish and Wildlife on the presence of eagle nests in the area. The presence of eagle nests may impact construction scheduling.
 - b. No anadromous waterbodies are on the subject parcel, or within 50 feet.

- c. There are wetlands located in the eastern part of the parcel. Contact the U.S. Army Corps of Engineers for wetlands-related development permits.

15. Plat or Covenant Restrictions – N/A

- 16. Traffic** – Glacier Highway is an ADOT and PF right-of-way. They may require a Traffic Impact Analysis or have comments regarding traffic circulation. The Commission may impose measures to protect private and public property adjoining the operation and to guarantee orderly and safe traffic circulation both on the public streets and within the permit application area.

- 17. Nonconforming situations** – No known nonconformities at this time.

SECTION 2 – BUILDING DIVISION

- 18. Building** – No issues or concerns at this time.

- 19. Outstanding Permits** – No outstanding permits

SECTION 3 – GENERAL ENGINEERING/PUBLIC WORKS DEPARTMENTS

- 20. Engineering** – No comments provided.

- 21. Drainage** – No comments provided.

- 22. Utilities** – No comments provided.

SECTION 4 – FIRE DEPARTMENT

- 23. Fire Items/Access** – No comments provided.

SECTION 5 – OTHER APPLICABLE AGENCY REVIEW

- 24.** DOT&PF/ Army Corps / DEC (wastewater) / DNR / USF&W

SECTION 6 – LIST OF REQUIRED APPLICATIONS

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

- 25.** Extraction Conditional Use Permit through Civic Access (Tyler Tech EPL) once available

Additional Submittal Requirements

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

- 26.** A copy of this pre-application conference report
- 27.** Project narrative meeting the requirements listed in the Extraction Permit Application Information form (**Attachment E**)
- 28.** Plans meeting the requirements listed in the Extraction Permit Application Information form (**Attachment E**)

Exceptions to Submittal Requirements

Submittal requirements that staff has determined **not** to be applicable or **not** required, given the specifics of the development proposal, are listed below. These items will **not** be required in order for the application to be reviewed.

- 29.** None at this time.

FEE ESTIMATES

The preliminary plan review fees listed below can be found in the CBJ code section [49.85](#).

Based upon the project plan submitted for pre-application review, staff has attempted to provide an accurate estimate for the permits and permit fees which will be triggered by your proposal.

1. Class V use, \$1,600
 - a. Unenclosed industrial uses using three or more acres of land [[CBJ 49.85.100\(3\)\(E\)\(ii\)](#)]
2. Sign permit, \$150 total (\$50 sign fee, \$100 deposit)

For informational handouts with submittal requirements for development applications, please visit our website at www.juneau.org/community-development.

Submit your Completed Application

You may submit your application(s) online via Civic Access.

Phone: (907) 586-0715

Web: www.juneau.org/community-development

ATTACHMENTS:

[49.15.330 – Conditional Use Permit](#)

[49.65 Article II. Sand and Gravel](#)

Attachment A - Stabler SWPPP site map

Attachment B - STF_SGE16-01

Attachment C - NOD_SGE16-01

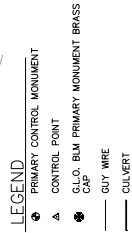
Attachment D - USS 3810

Attachment E - Extraction Permit Application Information form

Total Facility Area = 20 acres
Area w/ Soils Exposed to Stormwater = 12 acres
Impervious Surface Area = 0.3 acres (Pavement)

BMP SUMMARY	
STRUCTURAL BMPs (SEE SECTION 3.5)	NON-STRUCTURAL BMPs
#2 STAGING AREAS	• DUST CONTROL: SECONDARY CRUSHER SPRAY BAR, TO BE USED ON PRIMARY CRUSHING AND SCREENING AS NECESSARY.
#3A BERMS	• SEDIMENT TRACKING CONTROL: STREET SWEEPER ON SITE.
#5 STABILIZATION OF CONSTRUCTION ENTRANCE/EXIT	• SEDIMENT TRACKING CONTROL: HAUL TRUCK MATERIAL CONTAINMENT
#6 EROSION PREVENTION ON TEMPORARY ROADS	• SEDIMENT TRACKING CONTROL: PRESSURE WASHING AND STREET SWEEPING OF SCALE TO REMOVE FINE SEDIMENT
#20 TOPSOILING	• CLEANING AND SEDIMENT CONTROL: WATER SOURCE SUPPLY PROVIDED
#32 CHECK DAMS	
#36 SILT FENCE	
#37 VEGETATIVE BUFFER STRIP	
#38 SEDIMENTATION BASIN	
#51 PORTABLE SPILL CONTAINMENT (PSC)	
#52 OUTLET PROTECTION	
#53 SHOT ROCK UNBED	
#54 SHOT ROCK FILLED DEPRESSIONS	
#56 SPRAY BAR	

1. CRUSHER AND SCREENING OPERATIONS VARY CONTINUALLY. REFER TO THE ACTIVE NOTES.
2. OVERBLASTING OCCURS IN ALL BLASTED AREAS. SEE SWPPP FOR DESCRIPTION OF BMP.
3. SWPPP AND PSC'S ARE STORED IN THE SCALE SHED.



SWPPP SITE MAP
STABLER POINT QUARRY
7/18/2015 EXISTING CONTOURS
Attachment B



Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

DATE: August 11, 2016

TO: Planning Commission

FROM: Jonathan Lange, Planner
Community Development Department

FILE NO.: SGE2016 0001

PROPOSAL: A Conditional Use Permit for an extension to year 2026 and expansion of blast size and area of rock quarry operations for Stabler Point Quarry.

GENERAL INFORMATION

Applicant: City & Borough of Juneau, Lands Division

Property Owner: City & Borough of Juneau, Lands Division

Property Address: 13010 Glacier Highway

Legal Description: USS 3810 Lot 1 FR

Parcel Code Number: 4-B30-0-102-002-0

Site Size: (Parcel size: 13,503,600 Square Feet or 310 Acres) Quarry size: 16 Acres

Zoning: RR – Rural Reserve

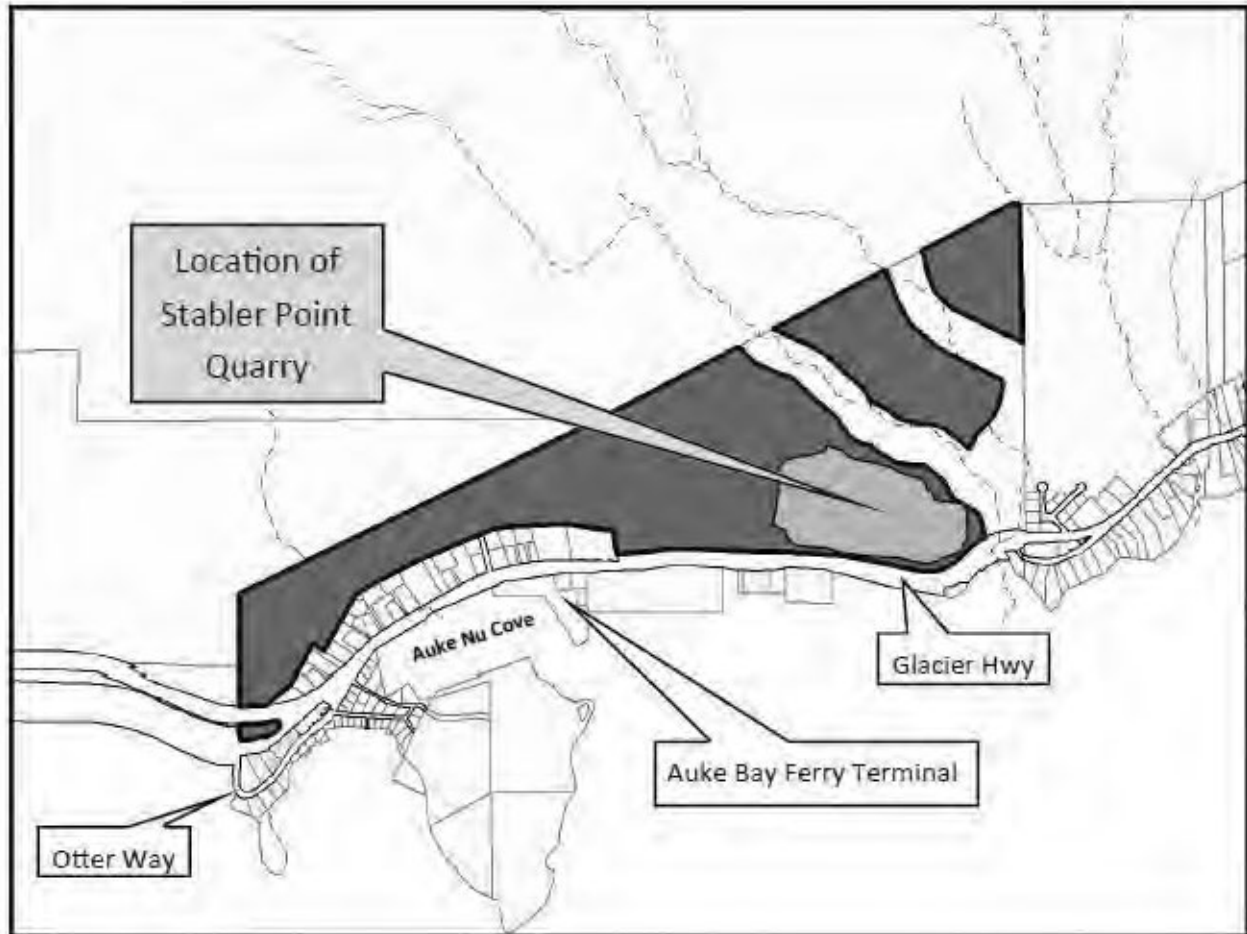
Utilities: Public Sewer and Water

Access: Glacier Highway

Existing Land Use: Rock Quarry

Surrounding Land Use: North – RR, Vacant and Auke Nu Creek
South – D-3, Single-Family Residence; WI, Auke Bay Ferry Terminal
East – D-1 (T) D-3, Single-Family Residences
West – RR, Vacant; D-3, Single-Family Residences

VICINITY MAP



ATTACHMENTS

- Attachment A – Application and Narrative
 - Attachment A 1 – Site Map
 - Attachment A 2 – Photo of Site
 - Attachment A 3 – 3D View of Intermediate Contours
 - Attachment A 4 – Proposed Expanded Quarry Limits Plan
 - Attachment A 5 – Possible Initial Development for Expanded Stabler Quarry
 - Attachment A 6 – USE2011 0017 Notice of Decision
 - Attachment A 7 – Vibration Monitoring Summary Report
 - Attachment A 8 – Stabler Quarry Noise Study 2011
- Attachment B – Public Notices and Neighborhood Meeting Handouts and Sign-in Sheet
- Attachment C – Agency Comments
- Attachment D – Public Comments

PROJECT DESCRIPTION

The applicant, City and Borough of Juneau (CBJ), Lands Division (Lands), requests a Conditional Use Permit for Stabler Point Quarry to expand the area of rock quarry operations, to extend the operational life to the year 2026, and to increase the maximum blast size to 25,000 cubic yards. Please see the attached applicant's narrative (Attachment A) and below, in Analysis, for further description of the Conditional Use Permit request.

Stabler Point Rock Quarry's current Conditional Use Permit allows for operations until the year 2021; but, because the applicant is requesting to expand the area of operations and increase the blast size, they are requesting to extend the operational life, to 2026, at the same time.

BACKGROUND

Stabler Point Quarry is located on Glacier Highway, west of Auke Bay, and just east of the Auke Bay ferry terminal. The quarry has been in operation since 2001. In 2011 the rock quarry operations Conditional Use Permit was renewed to allow for ten more years of operation. Currently the hours of operation are 8am – 4:30pm, Monday through Friday. Blasting is allowed from 10am - 12pm and 1pm – 3pm, Monday through Friday. These hours are proposed to stay the same.

The CBJ owns and manages the rock quarry, while private contractors conduct mining activities within the quarry. Recently, extraction has increased due to large projects within the Borough. The current quarry pit has expanded to its permitted perimeter and further extraction would require either lateral expansion, as requested in this application, or for the pit to be excavated deeper. A deeper pit would reduce the available space for extraction, processing and hauling activities. Thus, the applicant is asking to expand the area of rock quarry operations laterally away from Glacier Highway (see Attachment A 1).

The Alaska Department of Transportation and Public Facilities (DOT&PF) considers the existing curve of Glacier Highway at Stabler Point as dangerous because of the sharpness of the curve. At the end of the life of the quarry the DOT&PF want to straighten out the alignment of Glacier Highway at Stabler Point and establish a new road that would run from the existing entrance of the quarry on a straight line through the hill side to the west and then to continue on Glacier Highway.

NEIGHBORHOOD MEETING

CBJ Community Development (CDD), Engineering, and Lands Division staff held a neighborhood meeting at the University of Alaska Southeast on July 21, 2016 to discuss the proposed changes to the Stabler Point Quarry Conditional Use Permit. Three members of the public were in attendance. CDD staff gave an overview of the Conditional Use Permit process, and Engineering and Lands

Division gave background and information about the proposed expansion to the quarry operations. One member of the public requested more exact times of when blasting will occur.

AGENCY COMMENT

The CBJ Building, General Engineering, Fire, and Police Departments did not have any issues or comments with the proposal.

DOT&PF Southcoast Region offered the following comments on this proposal:

“Traffic and Safety has no comment or objection provided current traffic control provisions are kept in place.

“Right of Way and Utilities - Would like to see all the trees on the remaining slope above the highway high stumped. Leaving high stumps would slow escaping rock from rolling down slope too fast. Removing the tall trees will keep trees from damaging the utilities on the pole line across from the pit. When alders are high stumped they still grow and get more like a hedge shrub. That too would slow escaping rock.”

The applicants responded to DOT&PF’s comments (see Attachment C) and stated that their concern is possibly for the area that was previously mined near Glacier Highway. Engineering stated that “At this time the area is relatively clean and stable”, and that this concern would be more of an issue when they “start lowering the top of the cliff prior to mine closure.”

PUBLIC COMMENT

Staff received the following comments and questions from the public at the time of preparation of the staff report. Public Comments are Attachment D to the staff report.

Rich Brenner of 13650 Glacier Highway submitted, via email, questions to staff. His main concerns were of noise, especially in relation to hours of operation, and the location of the proposed expansion for the quarry operations. Quarry operation times are not proposed to change. The extent of the proposed lateral expansion of quarry operations will be approximately a half mile from Mr. Brenner’s property (see Attachment D for comments and staff’s response).

Staff received an email and phone call from Vivian Hegg of 2950 Fritz Cove Road. Ms. Hegg’s concerns are the visual and noise impacts of quarry operations. She also was wondering if the operation hours were proposed to change. Ms. Hegg asked staff to explain the size of expansion and the long term plan for realignment of Glacier Highway.

Karol Kriens of 12175 Glacier Highway, Unit A403 of Spaulding Beach Condos, provided written comments about the proposal. Ms. Kriens is concerned about: rocks that may fall from trucks onto

Glacier Highway; the speed of the trucks traveling along Glacier Highway; the effects of blasts to wildlife; and ensuring conditions of approval are followed.

Staff communicated with Suzanne Dvorak by telephone and via email. Ms. Dvorak and Mr. Robert L. Eastaugh own a home at 12555 Auke Nu Drive. They currently live in Anchorage, Alaska, and rent their home on Auke Nu Drive. In their written comments, Ms. Dvorak and Mr. Eastaugh provided five suggested requirements that they state would be “critical” to their willingness to accept the proposal. The requirements are as follows:

- “(1) The permit requires that vibration and blast effects observed and reported to date not be exceeded;
- (2) The permit requires adoption and implementation of recommendations contained in the ASE Blast Monitoring Report of December 31, 2015 (pages 8-11);
- (3) The permit includes a requirement identical to paragraph 7 of the Commission's 2011 Decision, which required that the quarry operator "submit a blast plan, reviewed by an independent blast consultant, to the CBJ Engineering Department/Quarry Manager for approval prior to each blast.";
- (4) The permit allows shot frequency not exceeding that experienced in 2015; and
- (5) The permit requires a "stepped" increase to the maximum proposed; i.e., require a 15,000 cubic yard blast to determine effects (conducted under similar conditions for any 25,000 cubic yard shots) before allowing shots at the requested 25,000 cubic yard level.”

Staff finds that Ms. Dvorak’s and Mr. Eastaugh’s suggested requirements 1-4 are met by the proposed conditions of approval. The applicant has shown in their Vibration Monitoring Summary Report (Attachment A 7) that controlled blasts up to 15,000 and 23,000 cubic yards of material are recorded to be far below the required limits of peak particle velocity allowed, as explained further in the below analysis, section 7(L).

Staff received a letter from Alison Browne. Ms. Browne owns an undeveloped lot at 12545 Auke Nu Drive. Her concerns are with the expansion of the blast size and how it might negatively impact her lot and any future structures she would like to place on her lot.

ANALYSIS

This permit has been reviewed and processed according to CBJ Land Use Code Title 49.65.210(a) Extraction permit.

49.65.200 Extraction permit required.

- (a) The use of property for the excavation, removal or other extraction of stone, sand, gravel, clay or other natural deposits and formations, including the processing of the materials, may be authorized in any district only under a conditional use permit issued by

the Commission under the procedures set forth in chapter 49.15, article III, as modified by this article. (Emphasis Added)

49.65.210 Contents of application.

Each person who requires a permit under this article [Article II Sand & Gravel] shall file an application with the department. The application shall contain a plan for the excavation operation, storage, on-site processing if permitted in the district, and site restoration. The plan shall include (see items 1-7 below):

The applicant has provided a detailed application and narrative responding to the following criteria listed in "Contents of application 1-7" below; see Attachment A.

(1) A graphic and legal description of the property;

Attachment A 1 shows an aerial photo of the subject parcels location. The Stabler Point rock quarry is located in U.S. Survey 3810, Lot 1 in the Auke Bay area at approximately 13 mile, Glacier Highway. The lot is zoned Rural Reserve and is 310 acres in size. The quarry is currently 16 acres in size; 24 additional acres are proposed for rock quarry operations.

(2) A topographic map showing the existing topography, vegetation, drainage features, ground water level, structures, significant natural and artificial conditions of the land, on-site and off- site geophysical hazards which may affect or be affected by the proposed operation, proposed structures, roads, stockpiling and operation;

Site topography is shown in Attachment A 1. Attachment A 2 is a photo of the quarry. Attachment A 3 shows a 3D rendering of the site contours. Existing topography is described in the applicant's narrative. The main floor of the quarry is at approximately 140 feet elevation; around 90 feet above Glacier Highway. Drainage will continue to settle in the existing areas and will drain toward Glacier Highway. A description of the drainage plan will be discussed further in this analysis under 7 (A).

(3) A topographic map and a typical cross section showing the proposed finished contour on the land, vegetation, drainage features, limits of overburden clearing, structures, and significant natural and artificial conditions of the property which will exist upon completion of the site restoration plan;

Proposed finished contours of the expansion of quarry operation area is included in the applicant's narrative and Attachment A 3.

(4) Topographic mapping required in subsections (2) and (3) of this section for areas having a slope of less than five percent shall show spot elevations at all breaks in grade, drainage

channels or swales and at selected points not more than 100 feet apart in all directions. For areas having a slope of greater than five percent, contours shall be shown at an interval of not more than five feet where the ground slope is regular; however, contour intervals of not more than two feet may be required where necessary to adequately show irregular land features or drainage details;

As mentioned in the applicant's narrative the walls of the quarry will be benched down toward the floor of the quarry at a series of benches 20 feet wide horizontally with 30 foot tall vertical walls between benches.

(5) The plan shall include a map showing ingress and egress points for trucks and other equipment;

The two existing access roads will continue to be used for ingress and egress to the quarry. The eastern most access road will continue to be used as the main entrance for quarry operations.

(6) The plan shall include a map showing all buildings and structures to be located on the site; and

The truck scale and associated buildings are shown in the aerial photo of Attachment 1 and were installed in the quarry in 2007. A small plastic garden storage shed and a portable restroom are the only other buildings on-site. All buildings are not permanent and will be relocated to lower levels of the quarry floor as the mining progresses downward.

(7) A narrative statement describing the operation, on-site processing, stockpiling, and site restoration shall be included showing:

The applicant describes the operations of the quarry as follows:

- "CBJ owns and manages the quarry, provides infrastructure (roads, truck scale, water), permitting, environmental monitoring and compliance oversight.
- Contractors are required to submit a mining plan for approval prior to mining. The contractor must operate under conditions imposed by the quarry usage plan. The mining plan and usage plan address the contractor's responsibilities while operating in the quarry.
- When space is available, mining areas may be allocated to contractors needing rock for other projects (e.g. State, Federal, and private).
- All actual mining work is done by contractors, not by CBJ.
- CBJ charges the contractor a management fee for each ton of rock mined. The fees are used to pay for CBJ's material sources operational expenses and to fund past and future material source development and reclamation expenses."

(A) A site drainage plan;

Site drainage and stormwater on-site management is regulated by the Alaska Department of Environmental Conservation (ADEC) through their Multi Sector General Permit. This requires the quarry to comply with and follow a Storm Water Pollution Prevention Plan or SWPPP. Most quarry runoff water is collected and settles in a pond located at the east end of the quarry. Here the pond discharges the water into a vegetated buffer zone and finally flows to an existing drainage ditch along Glacier Highway. The quarry also has a culvert that is used as the SWPPP designated stormwater outfall that flows under the access road towards Auke Nu Creek. This culvert is used at times of frozen ground or excessive rainfall.

The applicant's narrative describes that as the quarry expands the surface storm water runoff is expected to increase as well.

(B) A method of securing the area, including installation of gates at access points, posting, and fencing;

Both access roads are equipped with permanent locking gates within 100 feet of Glacier Highway. These gates are locked at the end of daily operations.

(C) Methods to be used to minimize noise pollution and visual blight;

A Noise Study was prepared in 2011 and is included as Attachment A 8 to the application. The study was prepared by Michael Minor and Associates, Inc. and models the existing and future noise impacts of the quarry operations. The study concludes that the current methods of noise mitigation are sufficient to meet code requirements. The mitigation measures are as follows:

- Restrict the use of exhaust brakes on trucks entering or leaving the quarry, unless required for safety reasons.
- A constructed earthen berm at the "open" east end of quarry serves as a noise barrier.
- Maintain a rock wall around south and western perimeter. Height of the wall is generally one bench height (30 ft) or taller above the lower quarry floor levels.
- Minimize the clearing of trees and other vegetation from around the perimeter of the quarry and encourage the regeneration of vegetation in order to diffuse noise and soften sound reflective surfaces.
- Limit crushing activities to the lower quarry levels, locating crushers behind stockpiled material if at all possible.

The applicant states that visual blight is minimized by allowing trees to grow and stay in place as long as possible around the quarry perimeter. These can act as a visual shield between Glacier Highway and the current quarry operations.

(D) The proposed hours and days of operation during the year;

Hours of operation are proposed to stay the same. The current hours of operation are Monday through Friday 8am to 4:30pm, all year except State holidays. Blasting is allowed Monday through Friday 10am - 12pm and 1pm - 3pm.

(E) The estimated amount and general type of material present and to be removed from the site;

Under the current quarry footprint approximately 1.8 million cubic yards of rock is potentially available. With the proposed expansion, the applicant is estimating that 2.3 million cubic yards of rock could potentially be extracted.

Generally the material that is extracted from the quarry is solid rock that requires blasting, crushing, and screening prior to loading and hauling of materials from the site. The applicant's narrative contains figures showing the mining operations footprint of current mining, continued to the elevation of Glacier Highway; and the proposed mining expansion away from Glacier Highway (see Attachment A under 7(E)).

(F) The results of test holes which show the water table level, if any, and the general type and location of materials to be removed;

The applicant states that there is no visible water table in the highway cut face and none has been found in the quarry. The quarry will eventually be mined down to the elevation of Glacier Highway.

(G) The date by which it is anticipated the extraction and processing operation will be completed;

The rate of extraction and the demand for rock from Stabler Point Quarry greatly affects the anticipated completion date of extraction and processing operations at the quarry. The applicant's narrative states that with the expansion of the quarry, rock supply could potentially continue into the foreseeable future.

(H) A schedule for completion of necessary site restoration work;

Site restoration work will follow the restoration plan and will leave clean rock faces interspersed with stable benches at the perimeter of the quarry. The restoration schedule will depend on actual extraction rate but will include grading and sloping of floor areas for proper drainage.

(I) Operating procedures for control of airborne particulates and other pollutant emissions from the site and equipment used at the site that may affect areas beyond the site boundaries;

When dust occurs within the quarry operations from drilling, blasting, and crushing/screening, water will be used by contractors to settle the dust. Drills used in the quarry are required to be

fitted with collection and separation devices. Spray bars are required during crushing and screening of rock. Water trucks are also used to spray down the quarry floor and roads.

- (J) The identification of any geophysical hazards which may affect or be affected by the proposed operation. A statement of the possible impact of the hazard on the operation and of the operation on the hazard including methods of reducing the impact shall be included;**

Prior to starting quarry operations near the southwest portion of the quarry a geotechnical evaluation of the large cliff face will need to be completed. This area contains several large overhanging sections of cliff, above Glacier Highway, that contain some large boulders.

- (K) The date of establishment of the operation and history of adjacent land development; and**

The applicant has outlined the date of establishment of the operation and history of adjacent land development in the application narrative under 7 (K), Attachment A.

- (L) Such additional relevant information as the Commission or Department may request.**

Eagles nests – Adjacent to the quarry are several historically designated eagle nest trees that have consistently had occupied nesting eagles. These eagles have become habituated to the quarry activities and have continued to use the nests in the area year after year.

Variances were received for allowing development within 330 feet of actively nesting eagles.

- VAR20008-00006 – A Variance request for the proposed expansion of the existing Stablers quarry pit within an eagle's nest habitat setback.
- VAR2001-00017 – A Variance to allow excavation of rock within the required 330 foot setback for an eagle nest located on public lands. The proposed Stabler Point rock quarry will be within 330' of eagles nest tress at various stages of operation.
- VAR2000-00037 – A Variance to allow excavation of rock within the required 330 foot setback for an eagle nest located on public lands, and
- VAR-VR96-52) – A Variance to reduce required setback from eagle nest tree.

Maximum Blast Limits – Conditional Use Permit USE2011 0017 Condition 25 limited the maximum blast limit to 6,000 cubic yards (see Attachment A 6). This limit was set by the Planning Commission and was taken from the CBJ Standard Specification for Civil Engineering Projects and Subdivision Improvement Section 02090 – Blasting Controls. The standards set a maximum limit of peak particle velocity at the nearest structure or facility. The blasting at Stabler Point Quarry conforms to the limits in the above mentioned standard. The CBJ Engineering Department has collected blast vibration data in Stabler Point Quarry. All shots ranging from 4,000 cubic yards to 24,000 cubic yards have been well under the peak particle velocity limit (see Attachment A, applicant's narrative).

The applicant has asked for the blast limit to be increased to 25,000 cubic yards. This will allow for fewer shots to be taken, while also staying below the peak particle velocity that is allowed. The applicant has shown vibration data that concludes that the bigger shots are below the allowed limit.

49.65.230 Commission action on Application.

The Commission may grant the permit but shall first consider each of the following areas (as listed below) and may impose restrictions as may be necessary to protect the public health, safety and welfare. Staff indicates that the following areas listed below were addressed in the 2001 and 2011 Conditional Use permits and listed as permit conditions under Attachment A 6. Some of these conditions are still relevant and, where still warranted, staff continues to recommend them as permit conditions for the current permit.

(1) The hours, days, and times of year of operation;

Staff recommends that the hours of operation continue as currently operated: Monday through Friday 8am - 4:30pm, year-round, except for State holidays; and that blasting is allowed Monday through Friday 10am - 12pm and 1pm - 3pm.

(2) Screening, whether natural or artificial, to reduce or eliminate adverse visual, audible or other impacts of the operation;

The applicant has provided a Noise Study (see Attachment A 8) that documents that the measured noise levels of the quarry operations were below the regulation of 65 dBA.

Staff recommends the following Conditions of Approval to mitigate adverse visual, audible or other impacts of the operation:

- The applicant shall (or cause to) retain a natural buffer at the western end of the quarry similar to that at the eastern end for a visual and noise barrier. This buffer may be pierced to create the new western entrance roadway for the realignment of Glacier Highway. Additionally, and when feasible, the buffer shall be retained during all quarry operations throughout the site for noise and visual buffering.
- Rock crushers shall be operated on the lower quarry levels. Stockpiles shall be located to provide additional noise screening barriers whenever possible.
- The applicant shall have all operators of the quarry conduct their activities in accordance with all requirements of the noise management plan, blasting and noise controls, and temporary environmental controls.
- The site clearing shall be consistent with needs to retain sound and visual barriers

for the quarry operation.

- (3) Measures to protect the public from the dangers of the operation or site, to prevent casual or easy access to the area, or to prevent the operation or area from being an unprotected attractive nuisance;**

The site will continue to use the security gates at each access road to the quarry. During blasting Glacier Highway is temporarily closed and public notice is given for each blast occurrence.

- (4) Final and working slope ratios of the face of any extraction area to the extent necessary to protect abutting public and private property, and to protect the future beneficial uses of the property as described in the applicant's plan for development and restoration;**

Staff recommends that the applicant reclaim the quarry site with finished faces and established benches, and removes loose rock during periods between projects, see Conditions of Approval.

- (5) Measures to protect private and public property adjoining the operation and to guarantee orderly and safe traffic circulation both on the public streets and within the permit application area;**

The applicant has addressed these measures in their application. Safe traffic circulation shall be guaranteed through blasting notice signs and closure of Glacier Highway during blasting.

- (6) Measures which will ensure adequate drainage or collection and storage of surface waters to protect surrounding property, eliminate dangers to the public, or to protect the future beneficial use of the property as described in the applicant's plan for development and restoration;**

Staff recommends Conditions of Approval for this application to ensure adequate drainage and stormwater management. Staff finds that the application adequately explains drainage, protection and restoration plans of the project.

- (7) Measures to protect the water level and water quality;**

This criterion has been discussed under subsection 7(A) above. No water level has been observed in the quarry or at the Glacier Highway road elevation.

- (8) Measures to minimize or eliminate airborne particulates, visual blight, noise and other adverse environmental effects;**

Measures have been implemented and will continue as Conditions of Approval for the Conditional Use Permit that minimize and eliminate airborne particles, visual blight, noise and other adverse environmental effects. Dust control devices shall continue to be used.

(9) Restoration measures and schedule;

Trees and buffers shall be retained, as feasible, and the exposed rock will be reclaimed with finished faces and established benches as discussed above.

(10) Other measures designed to protect the public health, safety and welfare, including preservation of neighboring property; and

The applicant's narrative addresses the measures that are taken to protect the public health, safety and welfare, including preserving neighborhood property.

(11) Present development and past history of the neighboring property.

The applicant has outlined the date of establishment of the operation and history of adjacent land development in the application narrative under 7 (K), Attachment A.

49.65.235 - Mandatory conditions of permit.

Unless specifically waived by the Commission, the requirements of this article shall be a condition of all permits issued. The Commission may not waive or modify any of the following requirements except upon a finding that the requirement would serve no useful purpose. Such finding must be supported by substantial evidence in the record of the hearing before the Commission:

- (1) A strip of land at the existing topographic level, and not less than 15 feet in width, shall be retained at the periphery of the site wherever the site abuts a public way. This periphery strip shall not be altered except as authorized for access points. This section does not alter the applicant's duty to maintain subjacent support.**

The project plan and applicant's narrative plan for a strip of land to remain between the quarry and Glacier Highway, the public way, until the time that DOT&PF realign Glacier Highway through Stabler Point.

- (2) If the bank of any extraction area within the permit area is above the high water line or water table, it shall be left upon termination of associated extraction operations with a slope no greater than the angle of repose for unconsolidated material of the kind composing it, or such other angle as the Commission may prescribe. If extraction operations cause ponding or retained water in the excavated area, the slope of the submerged working face shall not exceed a slope of 3:1 from the edge of the usual water line to a water depth of seven feet. This slope ratio may not be exceeded during extraction operations unless casual or easy access to the site is prevented by a fence, natural barriers, or both.**

As explained above the water table and high water line are both below the quarry's lowest level. The quarry walls will be stepped down in benches toward the quarry floor. The drainage plan addresses water run-off.

Conformity with Adopted Plans

The following sections of adopted plans relate to the proposal:

CBJ Comprehensive Plan (2013)

POLICY 5.9 IT IS THE POLICY OF THE CBJ TO SUPPORT THE EXTRACTION AND PROCESSING OF MINERAL RESOURCES IN AN ENVIRONMENTALLY-SOUND MANNER, GIVING PROPER RECOGNITION TO THE UNIQUE VALUES OF THIS COMMUNITY.

Conditions of Approval for the proposed expansion of Stabler Point Rock Quarry will minimize negative affects to the environment and adjacent properties while providing extraction and processing of rock for projects throughout the community.

The Comprehensive Plan designates this land as Resource Development, which is defined as:

"Land to be managed primarily to identify and conserve natural resources until specific land uses are identified and developed. The area outside the study area of this Comprehensive Plan is considered to be designated Resource Development. As resources are identified or extracted from these lands, they should be re-designated and re-zoned appropriately."

CBJ Land Use Code Title 49

In general, the purpose of the Land Use Code is to ensure that development is:

- In accord with the values of the community;
- Achieving goals and policies with adopted plans;
- An appropriate use of economically valuable land;
- Appropriate in type, design, location, and
- Served by adequate utilities.

Stabler Point Rock Quarry provides rock for the community's needs. The Conditions of Approval recommended below will help the proposed expansion meet the intent of the Land Use Code.

Habitat

As discussed above, there are mapped eagles nests near the quarry. The quarry has received Variances to the no development buffer to eagles' nests and they have not expired. The eagles

return to their nests year after year and have become habituated to the quarry activities.

The subject parcel contains two stream corridors. The applicant has maintained a 50 foot setback for development from Auke Nu Creek (see Attachment A 1).

FINDINGS

CBJ §49.15.330 (e)(1), Review of Director's Determinations, states that the Planning Commission shall review the Director's report to consider:

1. Whether the application is complete;
2. Whether the proposed use is appropriate according to the Table of Permissible Uses; and,
3. Whether the development as proposed will comply with the other requirements of this chapter.

The Commission shall adopt the Director's determination on the three items above unless it finds, by a preponderance of the evidence, that the Director's determination was in error, and states its reasoning for each finding with particularity.

CBJ §49.15.330 (f), Commission Determinations, states that even if the Commission adopts the Director's determination, it may nonetheless deny or condition the permit if it concludes, based upon its own independent review of the information submitted at the public hearing, that the development will more probably than not:

1. Materially endanger the public health or safety;
2. Substantially decrease the value of or be out of harmony with property in the neighboring area; or,
3. Not be in general conformity with the comprehensive plan, thoroughfare plan, or other officially adopted plans.

Per CBJ §49.15.330 (e) & (f), Review of Director's & Commission's Determinations, the Director makes the following findings on the proposed development:

1. Is the application for the requested conditional use permit complete?

Yes. We find the application contains the information necessary to conduct full review of the proposed operations. The application submittal by the applicant, including the appropriate fees, substantially conforms to the requirements of CBJ Chapter 49.15.

2. Is the proposed use appropriate according to the Table of Permissible Uses?

Yes. The requested permit is appropriate according to the Table of Permissible Uses. The permit is listed at CBJ §49.25.300, Section 14.500 for the RR – Rural Reserve zoning district.

3. *Will the proposed development comply with the other requirements of this chapter?*

Yes. The proposed development complies with the other requirements of this chapter. Public notice of this project was provided in the August 9, 2016 and August 19, 2016 issues of the Juneau Empire's "Your Municipality" section, and a Notice of Public Hearing was mailed to all property owners within 1,000 feet of the subject parcel. Staff extended public notice to include parcels around Auke Bay Harbor and along Fritz Cove Road. Moreover, a Public Notice Sign was posted on the subject parcel, and on Fritz Cove Road, visible from the public Right of Way.

4. *Will the proposed development materially endanger the public health or safety?*

No. As the quarry operation continues to follow the Conditions of Approval, safety plan, noise mitigating measures, and environmental control plan, it will continue to operate in a way as to not endanger the public health and safety.

5. *Will the proposed development substantially decrease the value of or be out of harmony with property in the neighboring area?*

No. Though noise, vibrations, and dust have been a concern of property owners in the neighboring area, the operations and Conditions of Approval to the proposed expansion of the quarry operations have mitigated and will continue to mitigate these concerns. The proposed expansion to the quarry operations is found to not decrease the value of or be out of harmony with property in the neighboring area.

6. *Will the proposed development be in general conformity with the land use plan, thoroughfare plan, or other officially adopted plans?*

Yes. The proposed development is in general conformity with the Land Use Code Title 49 and the CBJ Comprehensive Plan.

Per CBJ §49.70.900 (b)(3), General Provisions, the Director makes the following Juneau Coastal Management Program consistency determination:

7. *Will the proposed development comply with the Juneau Coastal Management Program?*

N/A

RECOMMENDATION

It is recommended that the Planning Commission adopt the Director's analysis and findings and grant the requested Conditional Use Permit. The permit would allow the extension to year 2026

and expansion of blast size and area of rock quarry operations for Stabler Point Quarry. The approval is subject to the following conditions:

1. All vehicle loads shall be contained. Vehicles hauling from the site shall be operated with tailgates, covers or other similarly effective methods. The use of exhaust brakes on trucks entering or leaving the quarry shall not be used, unless required for safety reasons.
2. Public notification warning signs shall be erected a minimum of 24 hours prior to blasting. Written notification shall be given to Juneau Flight Services, Juneau Police Department and Capital City Fire / Rescue a minimum of 24 hours prior to blasting.
3. The hours, days, and dates of operation shall be 8am - 4:30pm, Monday through Friday, all year except State holidays.
4. Blasting operation shall be scheduled to occur between 10am - 12pm and 1pm - 3pm, Monday through Friday.
5. This quarry permit shall expire 10-years after the date of approval.
6. Each quarry operator shall submit an individual mining plan that is in conformance with this Conditional Use permit and is approved by the quarry manager prior to performing any work in the quarry. Each mining plan shall be prepared by a civil engineer or other authorized professional.
7. The operator is required to comply with the requirements of CBJ Standard Specifications 02090 Blasting Controls. A quarry operator shall submit a blast plan, reviewed by an independent blast consultant, to the CBJ Engineering Department/Quarry Manager for approval prior to each blast.
8. Quarry operators shall comply with the existing DOT/ PF approved Stabler Traffic Control Plan(s) for blasting operations, quarry access, and work within the DOT/ PF ROW.
9. Explosives shall not be stored on site, except for that which is immediately necessary for the next blast.
10. The applicant shall comply with DEC regulations governing stormwater discharges from the quarry site, with particular attention paid to protecting Auke Nu Creek
11. The applicant shall (or shall cause to) reclaim the quarry site with finished faces and established benches, and remove loose rock during the period between projects, even if the entire quantity of rock has not been removed.

12. The applicant shall (or cause to) control dust caused by excavation, truck hauling, rock crushing, or other aspects of the operation.
13. The applicant shall (or cause to) repair any damage to Glacier Highway as a result of the quarry operation. If there is visible damage to the roadway due to hauling or mining operations, the roadway shall be repaired in cooperation with DOT/ PF.
14. The applicant shall require the posting of a bond (or equivalent if project based) from all quarry operators to ensure spilled or tracked material are removed from public roads. The applicant shall (or cause to) remove all spilled materials immediately from public roadway and ensure that mud and debris tracked onto roads be cleaned daily, with the City having the ability to allow less frequency on a case by case basis as warranted. DOT/ PF reserves the right to request sweeping at any time it sees a problem or complaint.
15. The applicant shall ensure that lighting (if any) does not glare onto adjacent roadways.
16. The applicant shall (or cause to) operate the quarry according to the application proposal, including attachments and drawings, except that all conditions contained herein shall take precedence.
17. The applicant shall ensure that the rock extraction is consistent with the recommendations of the US Fish & Wildlife Service for the protection of nesting eagles according to the past approved variances (VAR96-52, VAR2000-37, VAR2001-17, & VAR2008-6).
18. The applicant shall maintain a lockable security gate at the quarry entrance.
19. The applicant shall (or cause to) retain a natural buffer at the western end of the quarry similar to that at the eastern end for a visual and noise barrier. This buffer may be pierced to create the new western entrance roadway (Attachment C). Additionally, and when feasible, the buffer shall be retained during all quarry operations throughout the site for noise and visual buffering.
20. Prior to extracting the southwestern cliff face of the quarry, a qualified expert in geophysical hazard shall evaluate the site and recommend guidelines for its development. Further, these guidelines shall be made part of any approved mining plans for these areas and written notification given to all operators.
21. The recommended noise levels (excluding blasting) as measured at the nearest property lines shall not exceed 65 dBA.
22. Rock crushers shall be operated on the lower quarry levels. Stockpiles shall be located in a

way to provide additional noise screening barriers whenever possible.

23. The applicant shall have all operators of the quarry conduct their activities in accordance with all requirements of the noise management plan, blasting and noise controls, and temporary environmental controls.
24. The site clearing shall be consistent with needs to retain sound and visual barriers for the quarry operation. Prior to removal of substantial vegetation, the clearing limits shall be flagged and reviewed for approval by the Community Development Department.
25. Individual blasts shall be limited to a maximum of 25,000 cubic yards.

Advisory Condition

26. The pull out area adjacent to the quarry entrance drive near Glacier Highway is to be used for equipment transfer only. There shall not be temporary or long term parking on the pull out area. Transfer operations shall occur outside of the roadway clear zone. Access into the pull out area shall be limited to right in and right out turns.
27. A strip of land at the existing topographic level not less than 15 feet in width shall be retained at the periphery of the site wherever the site abuts a public way. This periphery strip shall not be altered except as authorized for access points. This section does not alter the applicant's duty to maintain subjacent support.
28. If the bank of any extraction area within the permit area is above the high water line or water table, it shall be left upon termination of associated extraction operations, with a slope no greater than the angle of repose for unconsolidated material of the kind composing it, or such other angle as the Commission may prescribe. If extraction operations cause ponding or retained water in the excavated area, the slope of the submerged working face shall not exceed a slope of 3:1 from the edge of the usual water line to a water depth of seven feet. This slope ratio may not be exceeded during extraction operations unless casual or easy access to the site is prevented by a fence, natural barriers, or both.

DEVELOPMENT PERMIT APPLICATION

Project Number	CITY and BOROUGH of JUNEAU	Date Received: <u>6/23/16</u>
Project Name (City Staff to Assign Name)		

INFORMATION	Project Description Stahler Quarry Expansion		
	PROPERTY LOCATION		
	Street Address 13010 Glacier Highway		City/Zip Juneau 99801
	Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot) USS 3810 Lot 1 Fraction		
	Assessor's Parcel Number(s) 4 B30 0 102 002 0		
	LANDOWNER/ LESSEE		
	Property Owner's Name CJJ Lands Division		Contact Person: Greg Chaney
	Mailing Address 155 S. Seward Street		Work Phone: 5860205
	E-mail Address greg.chaney@juneau.org		Home Phone: Fax Number:
			Other Contact Phone Number(s): 586-0224
PROJECT / APPLICANT	LANDOWNER/ LESSEE CONSENT ****Required for Planning Permits, not needed on Building/ Engineering Permits****		
	I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows:		
	A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.		
	B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.		
	X	<u>Greg P. Chaney</u> Landowner/Lessee Signature	<u>June 23 2016</u> Date
	X	_____ Landowner/Lessee Signature	_____ Date
	NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.		
	APPLICANT If the same as OWNER, write "SAME" and sign and date at X below		
	Applicant's Name Same		Contact Person: Work Phone:
	Mailing Address		Home Phone: Fax Number:
E-mail Address		Other Contact Phone Number(s):	
X	<u>Greg P. Chaney</u> Applicant's Signature	<u>June 23 2016</u> Date of Application	

STAFF APPROVALS	☒	Permit Type	***SIGN	Date Received	Application Number(s)	
		Building/Grading Permit				
	✓	City/State Project Review and City Land Action				
		Inquiry Case (Fee In Lieu, Letter of ZC, Use Not Listed)				
		Mining Case (Small, Large, Rural, Extraction, Exploration)				
		Sign Approval (If more than one, fill in all applicable permit #'s)				
		Subdivision (Minor, Major, PUD, St. Vacation, St. Name Change)				
	✓	Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)			<u>SGE 20160001</u>	
		Variance Case (De Minimis and all other Variance case types)				
		Wetlands Permits				
		Zone Change Application				
		Other (Describe)				
	***Public Notice Sign Form filled out and in the file.					
	Comments:					Permit Intake Initials <u>JMC</u>

EXTRACTION PERMIT APPLICATION

(Sand, Gravel, and Quarry)

Project Number	Project Name (15 characters)	Case Number	Date Received
		SGE 20160001	June 23 16

LOCATION OF PROPOSED EXTRACTION:
Stabler Point Quarry 4 B30 0 102 002 0 TPU 14.500

DESCRIPTION OF ACTIVITY WHICH REQUIRES AN EXTRACTION PERMIT:
Extending the operational life of the quarry to 2026.
Expand the horizontal area permitted within the quarry.
Increasing the maximum blast size to 25,000 cubic yards.

HAVE EXTRACTION ACTIVITIES BEEN PERMITTED ON THIS SITE IN THE PAST? ☒ Yes ☐ No
Previous Case Number(s), if known: USE2011 0017

UNIQUE CHARACTERISTICS OF LAND OR BUILDING(S):
Site has been used as an active quarry for decades.

WHAT IS THE TOTAL AREA TO BE DISTURBED? 16 existing + 24 new acres **acres**
HAS A FINANCIAL WARRANTY BEEN ESTABLISHED? ☐ Yes ☐ No
AMOUNT \$ **WARRANTY HOLDER**
CONTACT INFORMATION OF WARRANTY HOLDER:
CBJ Self Financed

	EXTRACTION PERMIT FEE			
	Fees	Check No.	Receipt	Date
Application Fees	\$ 1600.00			
Admin. of Guarantee	\$			
Adjustment	\$			
Pub. Not. Sign Fee	\$ 50			
Pub. Not. Sign Deposit	\$ 100			
Total Fee	\$ 1750.00			

For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side.

If you need any assistance filling out this form, please contact the Permit Center at 586-0770.

2711402075380

NOTE: MUST BE ACCOMPANIED BY DEVELOPMENT PERMIT APPLICATION FORM



Public Notice Sign Lease Agreement

Community Development Department

Case # 56f20160001 Sign # _____ Hearing Date: _____

Assessor's Parcel # 4 B30 01020020 Check # _____ Receipt # _____

Applicant: CBJ Lands Division Phone #: 586-0205
(please print)

Application Received by: _____ Date: _____
(CDD staff initials/name)

I, _____, in cooperation with the Community Development Department (CDD), have leased a Public Notice Sign and agree to the terms listed below:

CHARGE: \$50 Preparation Fee
\$100 Refundable Deposit

RETURN TIME: The sign **MUST** be returned to the Community Development Department **by 4:30 p.m. on the Monday** following the scheduled hearing date. If the sign is returned later than the Monday after the Planning Commission meeting, but within two weeks of the meeting, \$50.00 may be refunded.

PENALTIES: The sign **MUST** be returned to the Permit Center Staff in the same condition it was taken: clean, undamaged, and with no attachments. **If a sign is not returned on time, or has been damaged, the \$100 deposit fee will be forfeited.**

POSTING REQUIREMENTS:

- The sign must be posted by the applicant/developer on the site at least 14 days prior to the hearing date.
- The sign must be clearly visible and readable from a public Right-of-Way.

(Applicant Signature)

(Date)

Sign Received by: _____ Date: _____ Staff Initials: _____

Sign Returned by: _____ Date: _____ Staff Initials: _____

REFUND INFORMATION:

Receipt Number: _____

Amount Refunded: _____ Method: _____ Date: _____ Staff Initials: _____

Refund Received by: _____ /mailed to: _____

**A Conditional Use Permit Application
for
Expanded Area of Rock Quarry Operations
at
CBJ's Stabler Point Quarry**

I. Introduction

The City and Borough of Juneau's current Conditional Use Permit for operating a rock quarry at Stabler Point expires in August 2021. The CBJ plans to continue to operate Stabler Point Quarry into the foreseeable future. While there are still another 5 years to operate the quarry under Notice of Decision USE2011 0017, the recent pace of extraction has been unprecedented and the quarry has expanded out to the outer edges of the permitted perimeter. At this time, if the lateral quarry area is not expanded, the quarry will need to be excavated deeper. As the pit becomes deeper, the amount of rock available is reduced because the quarry walls are benched in toward the center. Reduced quarry floor area results in less space available for extraction, processing and maneuvering. Eventually operations will become less efficient to the point where the quarry will have to be shut down. Although the ultimate development plan is for the adjacent Veterans Memorial Hwy to be rerouted through the large rock cut eventually to be left after mining, the Borough's ongoing need for Stabler rock remains. If mining is allowed to proceed northwards concurrent with mining within the existing permitted area, both objectives (road realignment and continued supply of quarry rock) can be achieved.

In order to provide for future community rock material needs, the Lands Division requests that a new Conditional Use Permit be granted for another 10 year period with an expanded operational area. The new Conditional Use Permit would include the continuation of most existing permit conditions established in the Notice of Decision for USE2011 0017.

A short summary of major events at Stabler Point Quarry during the current permit period follows:

- Stabler originally operated under USE2001-00022. The original permitted quarry limits were based on the road cut required for the realignment of Veterans Memorial Highway to remove sharp curves at Stabler Point. Quarry limits were subsequently expanded in 2005 (USE2005-00020) and again in 2008 (USE2008-00007) in response to the needs of specific large construction projects and a general increase in Borough wide demand for rock.
- Quarry hours and days of operation have been modified several times over the length of the current permit. USE2004-00028 approved hauling operations on Saturdays, and USE2005-00020 extended operating hours to 5:30pm for the new high school project. USE2008-00007 required that the quarry hours of operation return to those which were permitted under USE2001-00022 (8am to 4:30pm Monday to Friday).

- Many large Borough construction projects have utilized Stabler rock. Recent projects include: Thunder Mountain High School site work, AMHS Fast Ferry Terminal uplands, Auke Bay Commercial Loading Facility Phase I and II, AK National Guard/UAS Gym, Auke Bay Launch Ramp and Parking expansion, realignment of Glacier Hwy through UAS/DeHart's roundabout, Juneau International Airport Terminal expansion and Runway Safety Area projects. Stabler rock is also used in many CBJ street reconstruction projects, and in numerous private developments throughout the borough.
- Approximately 2 million tons of rock has been mined over the last 10 years. The quarry's busiest year was 2015 with 473,000 tons of rock mined. 2016 has also been an active year with the potential to sell as much, or more rock, than last year. The quietest year was 2012 with <50,000 tons mined.
- The average rate of extraction in next 10 year permit period is expected to be reduced due to fewer large public projects planned and a forecasted general downturn in the private construction sector. Projected average annual tonnage is expected to be around 150,000 tons / year.

II. Project Need

Continued operation of Stabler Point Quarry is important to the community of Juneau. The quarry provides:

- A reliable source of clean and durable rock for community projects.
- Economical haul costs; Trucking costs associated with transporting rock long distances adds significantly to the overall cost of rock used in construction projects. The location of Stabler Point quarry at the north end of town and adjacent to a main highway, is an important factor in reducing haul distances, trucking time, and therefore cost of rock for projects in this area of the borough. The other major source of rock in the Borough is located 10 road miles distant in Lemon Creek.
- The removal of rock for the future realignment of Veterans Memorial Highway will be achieved concurrently with quarry rock extraction operations.

III. Extraction Permit Requirements

Much of the information of the original 2001 permit application is still valid. Pertinent updates are presented below.

1. Property Location and Legal Description

Stabler Point Quarry is located at approximately mile post 13 on Veterans Memorial Hwy in Juneau, Alaska. The legal description of the lot containing the quarry is USS 3810, Lot 1.

The property is zoned Rural Reserve. The property is bounded to the east and west by lots zoned residential (D-3) and to the south across Veterans Memorial Highway by a Waterfront Industrial (WI) district. There is only one residence in the immediate vicinity directly south of the quarry.

2. Existing Topography

The quarry is located north and inland of Veterans Memorial Highway atop a rock bluff overlooking Auke Bay. Quarry topography as of 2015 is shown on the accompanying site map. Multiple benches are currently being mined and a main quarry floor has been established at about elevation 140 ft. This is approximately 90 feet higher than the highway elevation. Two short steep access roads, both located at the east end of the site, run between the highway and the main quarry floor where a truck scale is located. The main haul road is paved. A parallel unpaved road provides access for tracked equipment. Both roads are gated. Other temporary roads are located at various places within the quarry to provide access to the various mining areas as needed. A large rock-surfaced pullout is located adjacent to the highway between the two access roads. This area allows equipment to be transferred from low boy trailers well beyond the highway shoulder. Stripped overburden is stockpiled in a dedicated on-site storage area within the quarry limits.

3. Topographic Mapping and Typical Section of Proposed Finished Contours

The proposed finished contours are presented in both plan and 3-D perspective views in the attachments. The final topography will have a through cut suitable for the realignment of the highway. The quarry walls are shown as a series of 20 foot wide horizontal benches with 30 foot vertical between benches.

Also presented is a depiction of how the quarry may look at an intermediate stage of development, estimated to occur within the next ten years. By then it is expected that mining will have occurred out to the upper northern most limits with the final, highest elevation benches established. Mining should also have been completed down to the current quarry floor at 140 foot elevation. A wall of un-mined rock, a minimum of one bench high will be maintained along the western and southern perimeter of the quarry to act as a visual and sound barrier. If demand remains strong during this timeframe, the quarry floor may be lowered to 110 feet elevation as part of long term quarry development.

5. Ingress and Egress

Access to the quarry is via the two existing access roads located at the east end of the quarry site. It is anticipated that the paved eastern most access road will continue to be the quarry's main entrance for the duration of the next ten year permitting period. An alternate access route on the west end of the quarry will be investigated during the

next 10 years. This access alignment could provide superior sight distance and lower grades for heavy trucks to negotiate.

There is also an unpaved rock surfaced road that is parallel to the existing access road which is used primarily for the movement of heavy tracked equipment such as mobile crushers/screens between the highway and the quarry.

6. Map of Buildings and Structures

A truck scale was installed in the quarry in 2007. It is located on the 140 ft elevation floor level at the east end of the quarry. A re-locatable scale shack adjacent to the truck scale and a small plastic garden storage shed are the only buildings kept on-site. During construction season a rented portable restroom is also on-site.

The location of the truck scale and buildings are not permanent. The scale and associated structures will be re-located to lower floor levels as mining progresses downwards. This will occur within the next 10 year period.

Electricity is supplied to the quarry by a combination of overhead and underground power lines. City water is supplied seasonally to the scale shack via a meter box adjacent to the highway and a 2" diameter HDPE pipe that runs overland through the forest.

Both access roads are secured with a lockable gate at their highway entrance.

7. Narrative Statement Describing Quarry Operations

The operation of the quarry will continue as it is currently permitted.

- CBJ owns and manages the quarry, provides infrastructure (roads, truck scale, water), permitting, environmental monitoring and compliance oversight.
- Contractors are required to submit a mining plan for approval prior to mining. The contractor must operate under conditions imposed by the quarry usage plan. The mining plan and usage plan addresses the contractor's responsibilities while operating in the quarry.
- When space is available, mining areas may be allocated to contractors needing rock for other projects (e.g. State, Federal, and private).
- All actual mining work is done by contractors, not by CBJ.
- CBJ charges the contractor a management fee for each ton of rock mined. The fees are used to pay for CBJ's material sources operational expenses and to fund past and future material source development and reclamation expenses.

A. Site drainage Plan

Stormwater discharge from quarrying operations is regulated by the Alaska Department of Environmental Conservation's Multi Sector General Permit (MSGP) for Industrial Activities. The MSGP requires the quarry to maintain and comply with a Storm Water Pollution Prevention Plan (SWPPP). The majority of quarry runoff flows subsurface through the fractured rock of the quarry floor to a settling/collection pond located at the east end of the quarry. The pond discharges into a vegetated buffer zone. Drainage from the vegetated buffer zone is collected in the tracked vehicle access road ditch and conveyed to a sump/infiltration zone beside the main quarry access road entrance. Stormwater infiltrates into the ground at this point. When frozen ground prevents infiltration or when rainfall exceeds infiltration rates an overflow culvert adjacent to the sump allows stormwater to flow under the access road and on towards Auke Nu Creek. This culvert is the SWPPP's designated storm water outfall. As mining progresses, drainage will continue to be directed eastwards to this outfall.

Quarry expansion will increase the surface area exposed to rainfall; resulting storm water runoff is expected to increase accordingly. As expansion proceeds, additional on-site storm water treatment measures will be implemented to deal with the increase in storm water runoff.

The ultimate drainage plan for the site at the conclusion of mining operations will be determined by the requirements of the roadway engineering design performed for the realignment of the highway.

B. Area Security

Permanent gates are installed across both access roads within 100 ft of the intersection with the highway. The gates are locked each evening to keep unauthorized vehicles from entering the quarry. Quarry information signs are posted at the quarry entrances.

C. Methods to Minimize Noise Pollution and Visual Blight

i) Noise Pollution: The 2001 quarry Conditional Use application contained a noise management plan prepared by Toner Nordling & Associates, Inc. However, in the years of operation since 2001 the quarry development plan has evolved. Therefore, a new technical Noise Study was prepared by Michael Minor and Associates, Inc. for inclusion in the 2011 permit application (attached). The report models both existing and future noise impacts of quarry operations and concludes that current methods of noise mitigation are sufficient to meet code requirements. These methods currently include the following:

- Restrict the use of exhaust brakes on trucks entering or leaving the quarry, unless required for safety reasons.

- A constructed earthen berm at “open” east end of quarry serves as a noise barrier.
- Maintain a rock wall around south and western perimeter. Height of the wall is generally one bench height (30 ft) or taller above the lower quarry floor levels.
- Minimize the clearing of trees and other vegetation from around the perimeter of the quarry and encourage the regeneration of vegetation in order to diffuse noise and soften sound reflective surfaces.
- Limit crushing activities to the lower quarry levels, locating crushers behind stockpiled material if at all possible.

Visual Blight: Visual blight will be minimized by leaving as many trees standing for as long as possible around the quarry perimeter to act as a visual shield, especially those between the highway and the current quarry mining area.

Clearing of vegetation and stripping of overburden will be phased to stay ahead of mining operations.

Benches will be left in the rock faces around the quarry’s perimeter. Eventually the exposed rock of the benches/faces will weather to a dull grey to match the color of the existing cliffs typical in the area.

Planted cuttings and alder wildlings are well established beside the quarry access road and will continue to grow in the coming years, enhancing the aesthetics of the entrance to the quarry.

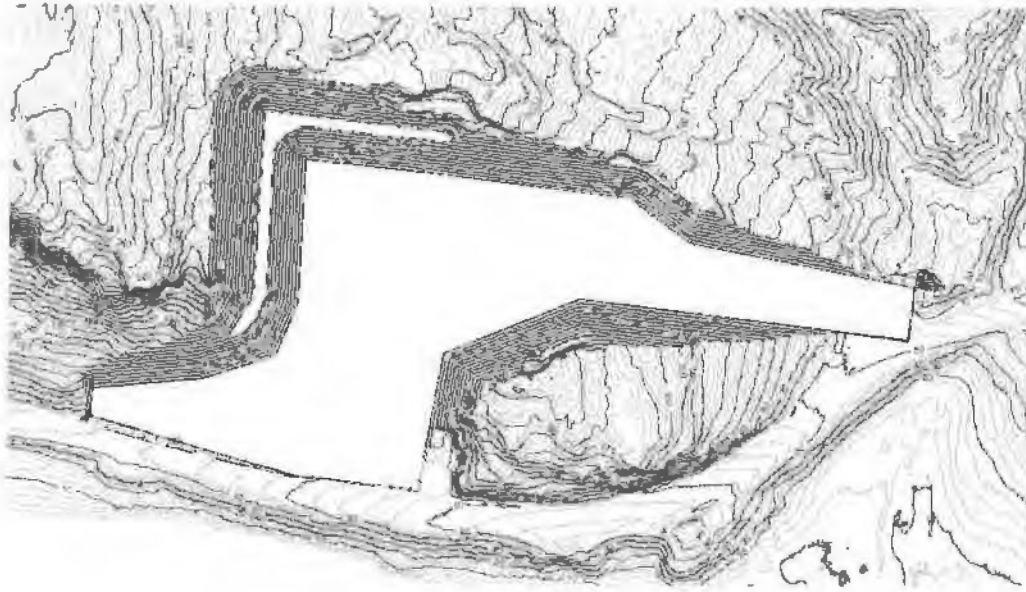
D. Quarry Hours and Days of Operation

Existing permitted quarry hours of operation are Monday – Friday 8:00AM to 4:30PM.

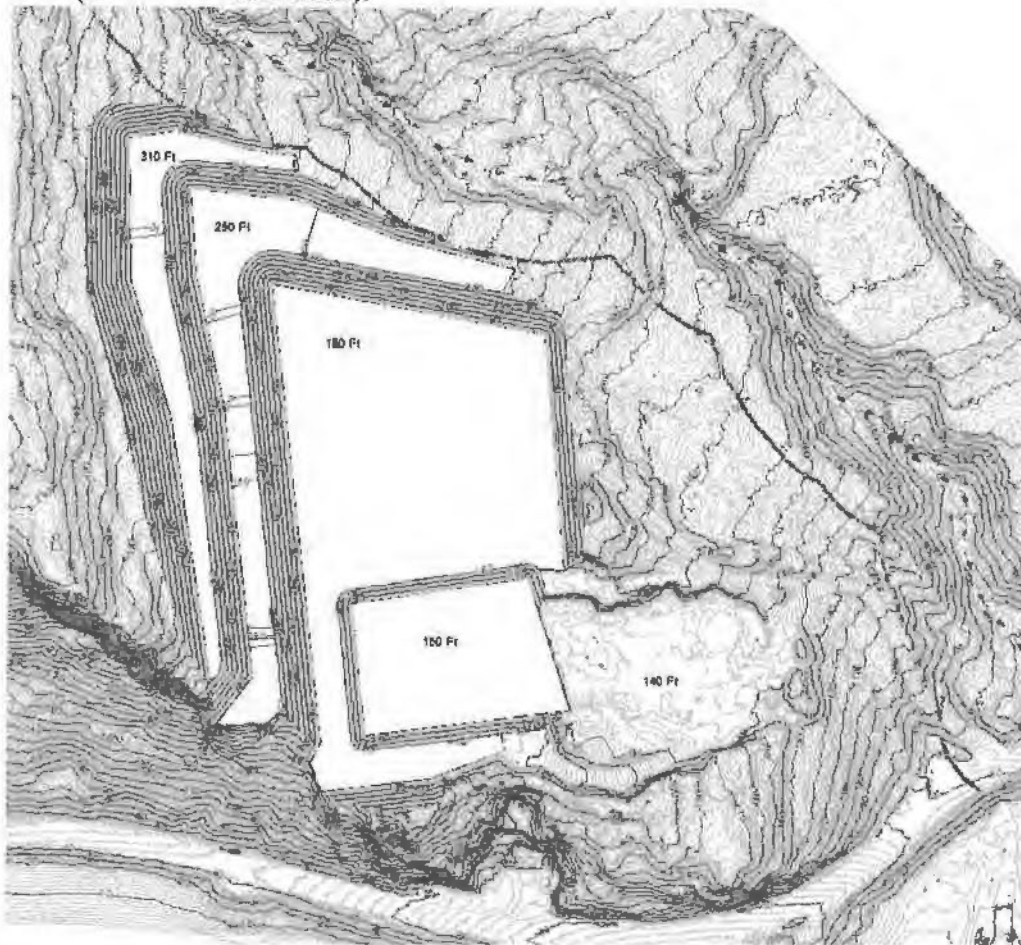
E. Amount and Type of Material for Extraction

The material in the quarry is solid rock, requiring blasting, crushing, and screening to produce shot rock products.

Approximately 1.8 million cubic yards of rock is potentially available for extraction under the current quarry development plan, if mined down to the elevation of the highway. See figure below.



If the quarry mining limits are expanded as requested, approximately 2.3 million cubic yards of rock could potentially be mined from above the quarry's current upper floor level (at 180 foot elevation).



F. Water Table

The quarry is planned to be mined down to the elevation of the adjacent highway. Bed rock is contiguous through to the highway elevation as evidenced by the rock face exposed during the construction. No water table is visible in the highway cut face and none has been found to date in the quarry itself as mining has progressed. Surface runoff water is present in the quarry, and is either diverted around the quarry perimeter, or managed internally, as explained in the quarry's SWPPP.

G. Completion Date for Extraction and Processing

Completion date depends on rate of extraction. The rate of extraction varies according to Borough construction project needs, and availability of alternate rock sources. Due to the increasing cost of truck transportation it is anticipated that Stabler will continue to supply rock to projects mostly in the Valley area and out the road. Quarries in the Lemon Creek area will be better located to supply Lemon Creek, Downtown and Douglas projects with rock. The economic conditions and specific project needs will dictate how much overlap there will be in quarry service areas. The current construction boom is winding down with fewer major projects planned for the coming decade. Demand for rock will likely decline accordingly. It is anticipated that with an expansion of the mining area Stabler has the potential to continue to supply rock to the Borough for the foreseeable future.

H. Schedule for Site Restoration Work

The restoration plan calls for clean rock faces interspersed with stable benches left at the perimeter of the quarry as shown in attached drawings and renderings. The quarry floor areas will be graded and sloped to drain. The restoration schedule is very dependant on actual extraction rate. The development plan is to mine from the top down, northwards, until the mining limits are reached. The final walls and upper benches will then be established. These benches will be allowed to be colonized by alders and other native vegetation.

I. Control of Airborne Particulates

Dealing with dust is a fact of life when working in a quarry. Anytime rock is handled, processed or transported dust generation is a possibility. The control of airborne particulates is important for the health and safety of quarry workers and for the well being of the surrounding neighborhood. Juneau's wet and rainy climate is generally conducive for keeping dust levels down. However dry spells do occur and dust must be dealt with. The quarry operations most likely to produce dust are drilling, blasting, and crushing/screening. Drills used in the quarry are required to be fitted with devices to collect and separate the fine airborne particulates from the air used to blow the drill cuttings out of the bore holes. City water is piped to the lower quarry level for use by contractors during crushing and screening operations. Spray bars are

required to be used on crushers and screens to keep the dust levels down. Water trucks spray down quarry roads on exceptionally dry days in order to keep dust down.

J. Geophysical Hazards

The southwest portion of the quarry development area lies below a large cliff with several overhanging sections. The slopes below the cliff (and above the highway) contain some large boulders indicating past possible cliff instability issues. A geotechnical evaluation of the stability of the cliffs will be commissioned prior to commencing quarry operations in this area.

K. Date of Establishment of Operations / History of Adjacent Land Development

Date of Establishment - Brief permit history of Stabler Point Quarry...

- 1997-2001: Rock mined from the area of the roadside cliff for various projects.
- 2001: CBJ obtains Conditional Use permit, USE2001-00022, allowing the operation of the quarry for a 10 year period, M-F 8:00 AM to 4:30 PM
- 2004: USE2004-00028 modifies USE2001-00022. The main change is to permanently allow hauling operations to occur on Saturdays.
- 2005: USE2005-00020 modifies USE2004-00028 by extending the hours of operation to 8:00 AM to 5:30 PM to facilitate construction of new high school.
- 2007: Electricity and truck scale installed at quarry.
- 2008: The quarry's busiest year up to that point. Stabler rock was used on two adjacent Auke Bay harbor projects.
- 2008: USE2008-00007 allowed the expansion of the quarry's limits and the operation of secondary crushers, but also imposed new restrictions on the quarry's hours of operation, essentially rescinding previously issued USE2004-00028 and USE2005-00020.
- 2011: CBJ obtains Conditional Use Permit USE2011-0017, allowing the operation of the quarry for a further 10-year period.
- 2013: USE2013-0021 approved a temporary modification of truck hauling hours for the duration of a specific construction project.
- 2015: The quarry's busiest year to-date, exceeding the previous highest year's tonnage by almost 60%.
- 2016: Another very active year for the quarry. Application for expansion of mining area and 10-year renewal of permit to operate.

History of Adjacent Land Development

Adjacent lands to the east and north of the highway to the west have been developed as residential. The nearest residential property to the east is approximately 600 feet from the quarry limits. Along the western side of the quarry, it is approximately 1/2-mile to the nearest residential neighborhood. A single residence is located across Veterans Memorial Highway south of the quarry. Waterfront commercial properties

and public facilities have been developed southwest of the quarry along the shores of Auke Bay. No development has occurred north of the quarry. The northern boundary is Tongass National Forest.

L. Eagles

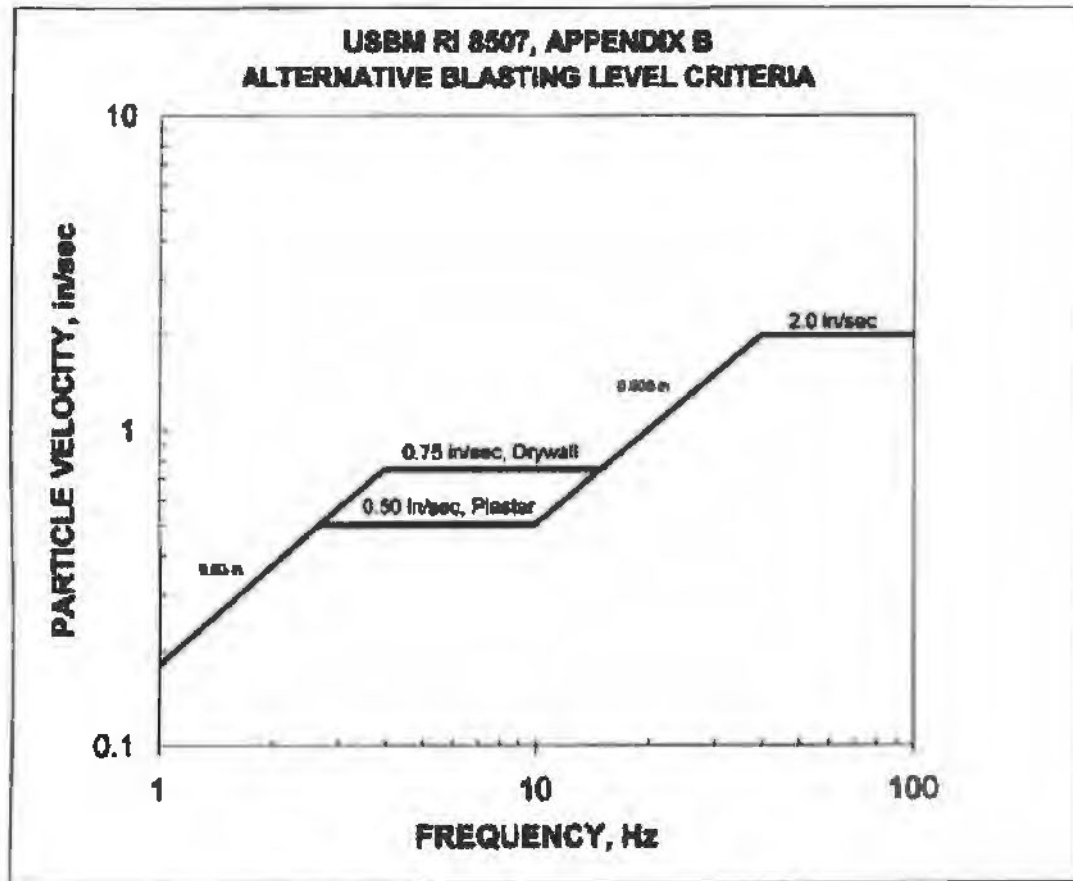
The quarry is adjacent to several historically designated eagle nest trees. Since at least 2005 and through 2014, a pair of eagles consistently occupied and successfully raised chicks from a nest located close to the quarry. Over the winter of 2014/15 this nest was observed to have deteriorated. In the spring of 2015 the eagles relocated and constructed a nest in new tree adjacent to the SW edge of the quarry. The eagles have shown remarkable ambivalence to on-going quarry activities (including blasting), as evidenced by continued presence year after year. Given their exposure and demonstrated history of tolerance to past quarry operations, it is not expected that further quarrying operations will have any impact on the future nesting activities of the resident eagle pair.

M. Maximum Blast Limits

USE2011 0017 Condition 25

“Individual blasts shall be limited to a maximum of 6,000 cubic yards.”

In reference to ground vibrations caused by blasting, the *CBJ Standard Specifications for Civil Engineering Projects & Subdivision Improvements* Section 02090 - *Blasting Controls*, sets the maximum limit for peak particle velocity at the nearest structure or facility at not-to-exceed 2 inches per second when frequency is 40-Hz or greater, and 0.75 inches per second when frequency is less than 40-Hz. These limits are based on recommendations established by the US Bureau of Mines. The Bureau of Mines guidelines have been widely incorporated into many States' codes, regulations, ordinances, and project specifications. Blasting at Stabler conforms to these limits.



CBJ Engineering has collected blast vibration data for each shot in the Stabler quarry. The data shows no exceedance of the vibration limits at the structures nearest the quarry. In 2015 CBJ Engineering contracted with *Alaska Seismic & Environmental, LLC*. (ASE) to conduct extensive blast vibration monitoring at various points within the quarry and at the closest structures. The size of the shots were allowed to vary significantly in order to provide sufficient data points for the analysis. ASE analyzed 2015 vibration data along with previously collected data from past year's shots. The results and findings were presented in an attached report. Table 1 of the seismic report summarizes the results from 12 shots. Shot size varied from 4,000 to a maximum of almost 24,000 cubic yards. The maximum peak particle velocity recorded at the residential structure nearest to Stabler during this study was 0.14 inch per second, *well below* maximum 2.00 inches per second allowed for the 56.8(Hz) frequency range. Interestingly this was the greatest peak particle vibration recorded at the structure and was associated with one of the smallest shots (5,482 yds³), while the largest shot (23,688 yds³) produced one of the smallest peak velocity measurements (0.04 inches per second).

It is apparent that shot location (distance from nearest structures, position within the quarry, shot direction, etc.), and blast design and implementation are more significant factors than pure shot size when considering blast induced vibration. The study demonstrates that large shots have not caused adverse vibration issues.

Factors other than vibration limits have a greater limiting effect on maximum shot size at Stabler. The established blasting “windows” of 10am to noon, and 1pm to 3pm create a practical limit to blast size. In order to comply with the allowable shot time window a contractor has to juggle many elements relating to blast design (how many bore holes to fill with explosive), what explosive (pumped, stick or powder), detonator choice, as well as site specific issues such as wet holes or dry, pump truck accessible or not, crew size, etc. Each shot is unique and it is appropriate to allow the CBJ Quarry Manager and the blaster in charge to determine how best to reach the desired outcome.

Recommended new conditions:

- Increase the maximum shot size to 25,000 cubic yards, with CBJ Quarry Manager approval.
- Continue using the existing blast windows of 10am to noon, and 1pm to 3pm.
- Monitor vibrations at nearest structures to ensure vibrations do not exceed established USBM recommendations.

IV. Conditional Use Permit Requirements

Exhibits, Drawings & Attachments

Attachment 1: Existing contours

Attachment 2: Finished contours

Attachment 3: 3D View final contours

Attachment 4: Proposed expanded quarry limits

Attachment 5: Possible Initial Development for Expanded Stabler Quarry

Attachment 6: USE2011 0017 Conditions

Attachment 7: Vibration Monitoring Summary Report

Attachment 8: Stabler Quarry Noise Study 2011

Attachment 1

Quarry Location



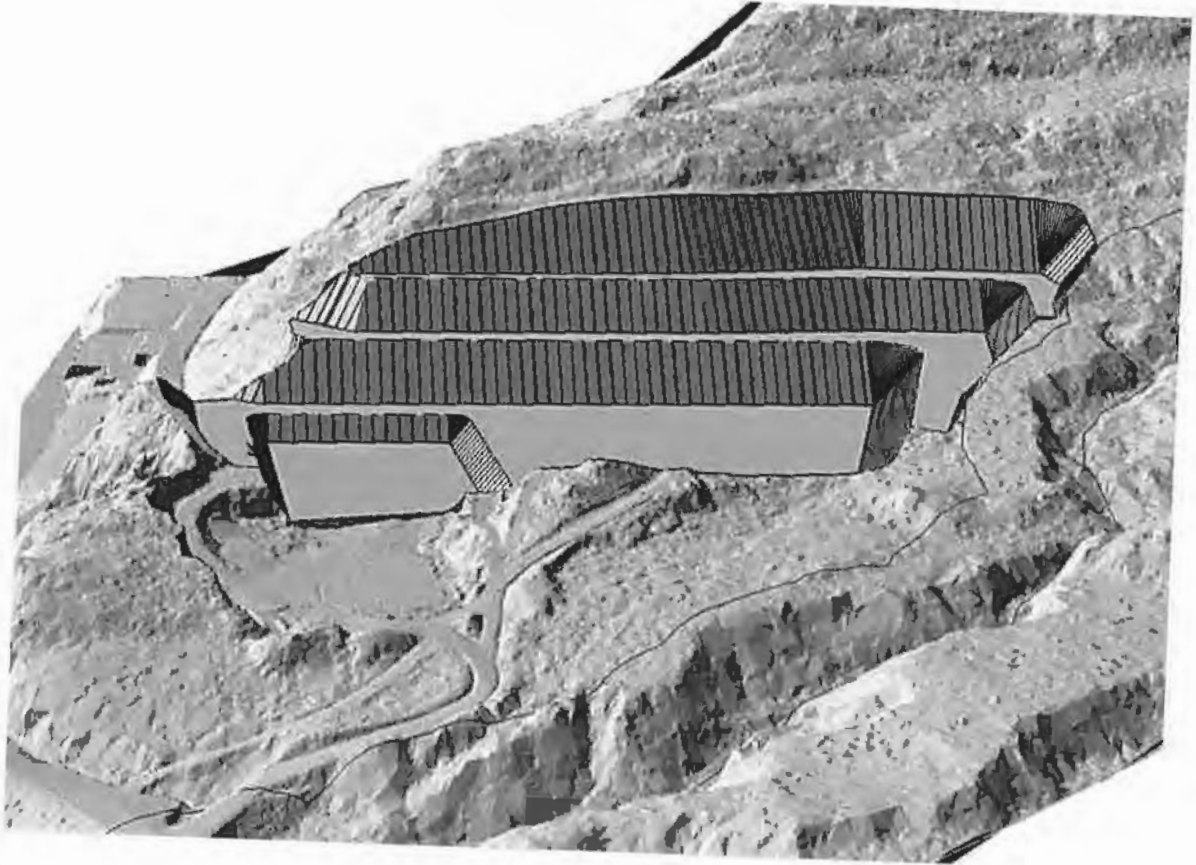
Attachment A 1 - Site Map

Attachment 2
Spring 2016



Attachment A 2 - Photo of Site

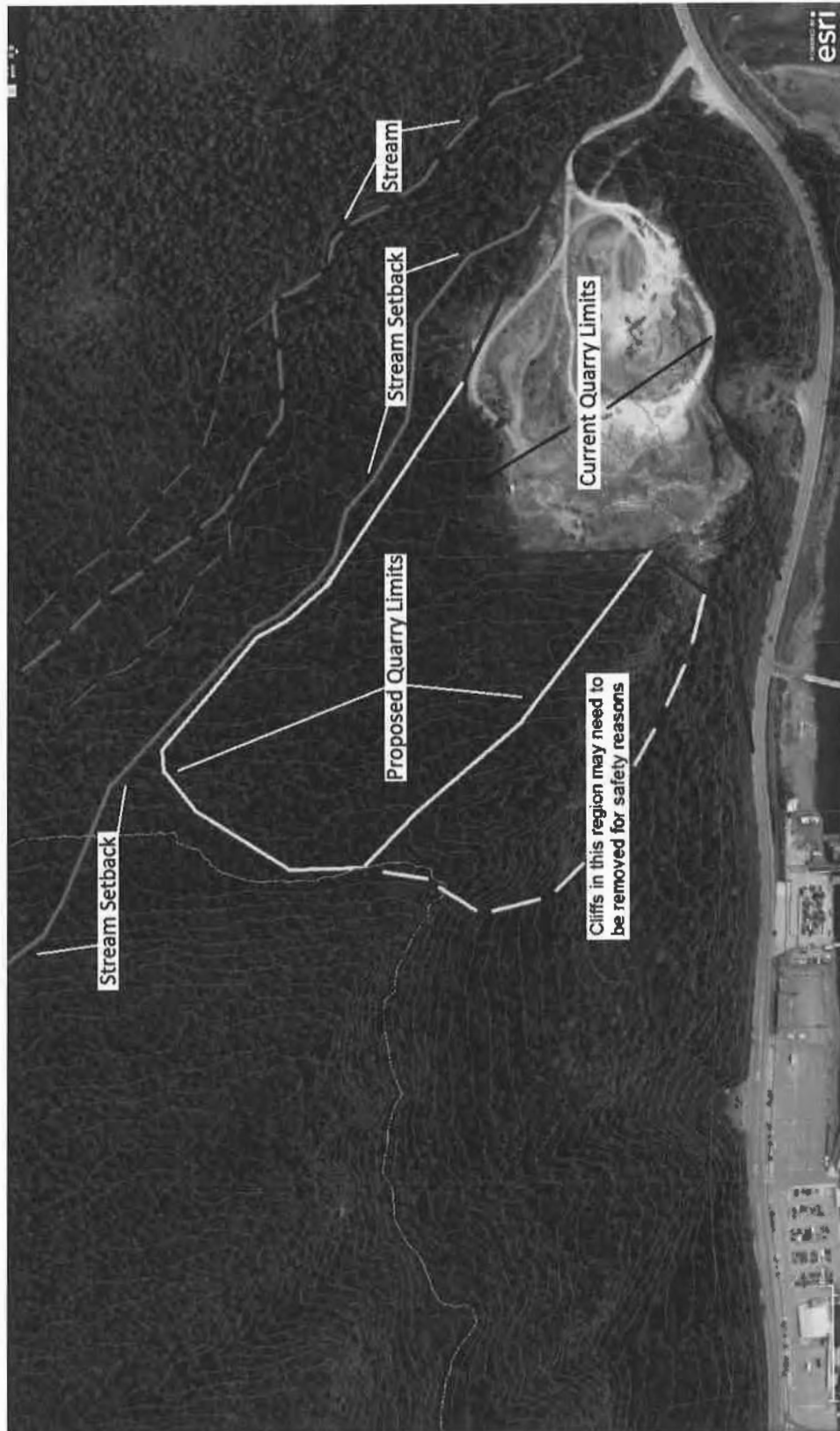
Attachment 3
3D View Intermediate Contours



Attachment A 3 - 3D View of Intermediate Contours

Attachment 4

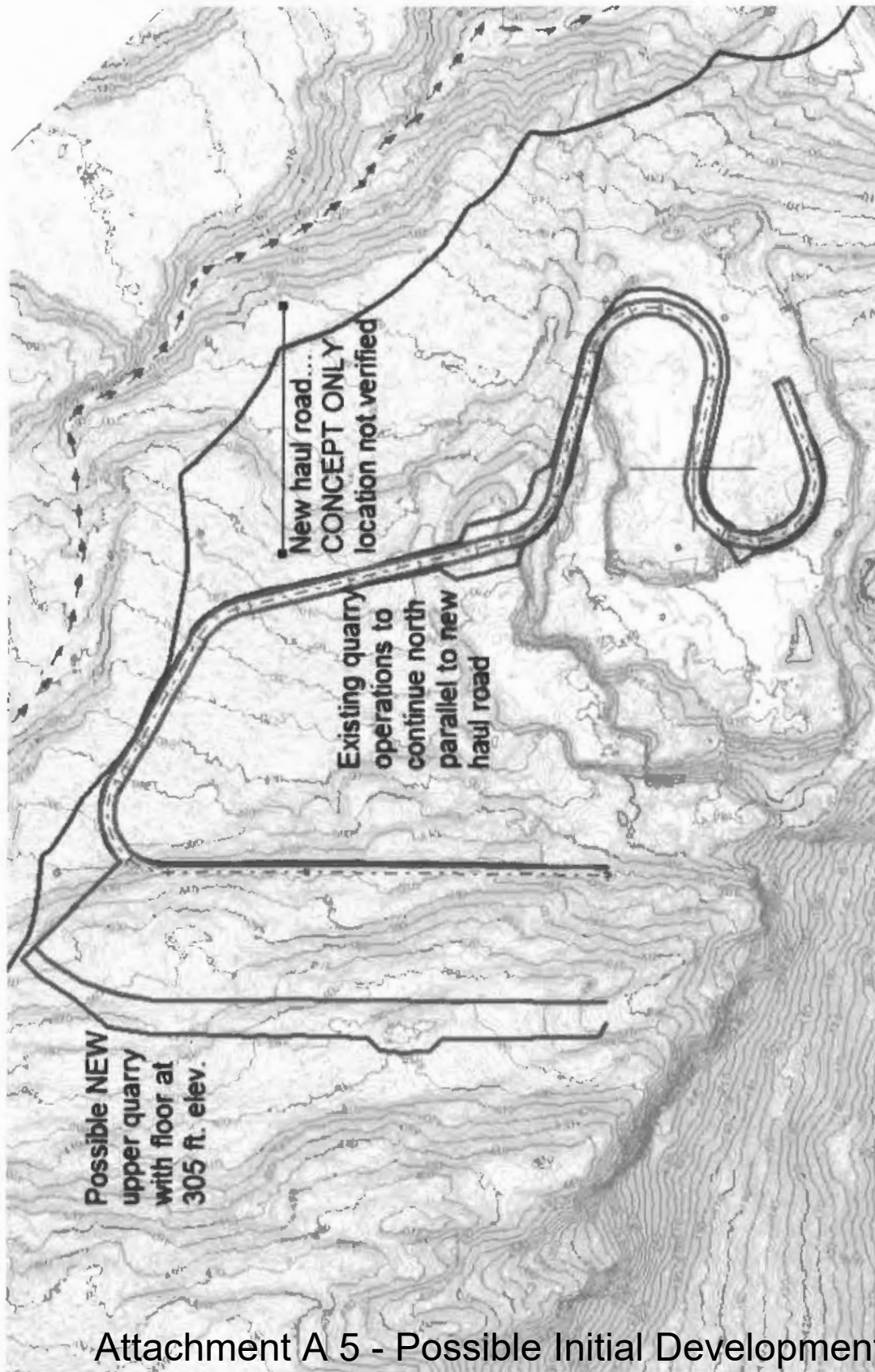
Proposed Expanded Stabler Quarry Limits



Attachment A 4 - Proposed Expanded Quarry Limits Plan

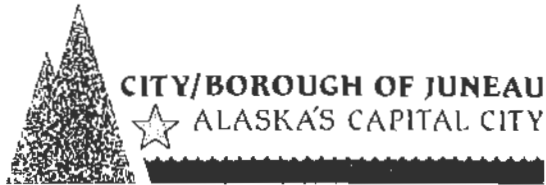
Attachment 5

Possible Initial Development for Expanded Stabler Quarry



Attachment A 5 - Possible Initial Development for Expanded Stabler Quarry

Attachment 6
USE2011 0017 Conditions



**PLANNING COMMISSION
NOTICE OF DECISION**

Date: August 10, 2011

File No.: USE2011 0017

City and Borough of Juneau
Alan Steffert
155 S. Seward Street
Juneau, AK 99801

Application For: Renew the 10-year Stablers Point Rock Quarry extraction permit.
Legal Description: Fraction of Lot 1 USS 3810
Property Address: 13010 Veterans Memorial Hwy
Parcel Code No.: 4-B30-0-102-002-0
Hearing Date: August 9th, 2011

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated August 3rd, 2011, and approved the renewal of the 10-year quarry permit to be conducted as described in the project description and project drawings submitted with the application and with the following conditions:

1. All vehicle loads shall be contained. Vehicles hauling from the site shall be operated with tailgates, covers or other similarly effective methods.
2. Public notification warning signs shall be erected a minimum of 24 hrs prior to blasting. Written notification shall be given to Juneau Flight Services, Juneau Police Department and Capital City Fire / Rescue a minimum of 24 hrs prior to blasting.
3. The hours, days and dates of operation shall be 8am – 4:30pm, Monday through Friday, all year except State holidays.
4. Blasting operation shall be scheduled to occur between 10am-12pm and 1pm-3pm, Monday through Friday.
5. This quarry permit shall expire 10-years after the date of approval.
6. Each quarry operator shall submit an individual mining plan that is in conformance with this Conditional Use permit and is approved by the quarry manager prior performing any work in the quarry. Each mining plan shall be prepared by a civil engineer or other authorized professional.
7. The operator is required to comply with the requirements of CBJ Standard Specifications 02090 Blasting Controls. A quarry operator shall submit a blast plan, reviewed by an independent blast consultant, to the CBJ Engineering Department/Quarry Manager for approval prior to each blast.

8. Quarry operators shall comply with the existing DOT/ PF approved Stablers Traffic Control Plan(s) for blasting operations, quarry access, and work within the DOT/ PF ROW.
9. Explosives shall not be stored on site, except for that which is immediately necessary for the next blast.
10. The applicant shall comply with DEC regulations governing stormwater discharges from the quarry site, with particular attention paid to protecting Auke Nu Creek
11. The applicant shall (or shall cause to) reclaim the quarry site with finished faces and established benches, and remove loose rock during the period between projects, even if the entire quantity of rock has not been removed.
12. The applicant shall (or cause to) control dust caused by excavation, truck hauling, rock crushing, or other aspects of the operation.
13. The applicant shall (or cause to) repair any damage to Glacier Highway as a result of the quarry operation. If there is visible damage to the roadway due to hauling or mining operations, the roadway shall be repaired in cooperation with DOT/ PF.
14. The applicant shall require the posting of a bond (or equivalent if project based) from all quarry operators to ensure spilled or tracked material are removed from public roads. The applicant shall (or cause to) remove all spilled materials immediately from public roadway and, that mud and debris tracked onto roads be cleaned daily within 200 yards west & east of the quarry entrance while loading and operations are on-going. DOT/ PF reserves the right to request sweeping at any time it sees a problem or complaint. (Edits by Planning Commission)
15. The applicant shall ensure that lighting (if any) does not glare onto adjacent roadways.
16. The applicant shall (or cause to) operate the quarry according to the application proposal, including attachments and drawings, except that all conditions contained herein shall take precedence.
17. The applicant shall ensure that the rock extraction is consistent with the recommendations of the US Fish & Wildlife Service for the protection of nesting eagles according to the past approved variances (VAR96-52, VAR2000-37, VAR2001-17, & VAR2008-6).
18. The applicant shall maintain a lockable security gate at the quarry entrance.
19. The applicant shall (or cause to) retain a natural buffer at the western end of the quarry similar to that at the eastern end for a visual and noise barrier. This buffer may be pierced to create the new western entrance roadway (Attachment C). Additionally, and when feasible, the buffer shall be retained during all quarry operations throughout the site for noise and visual buffering.

20. Prior to extracting the southwestern cliff face of the quarry, a qualified expert in geophysical hazard shall evaluate the site and recommend guidelines for its development. Further, these guidelines shall be made part of any approved mining plans for these areas and written notification given to all operators.
21. The recommended noise levels (excluding blasting) as measured at the nearest property lines shall not exceed 65 dBA.
22. Rock crushers shall be operated on the lower quarry levels. Stockpiles shall be located to provide additional noise screening barriers whenever possible.
23. The applicant shall have all operators of the quarry conduct their activities in accordance with all requirements of the noise management plan, blasting and noise controls, and temporary environmental controls.
24. The site clearing shall be consistent with needs to retain sound and visual barriers for the quarry operation. Prior to removal of substantial vegetation, the clearing limits shall be flagged and reviewed for approval by the Community Development Department.
25. Individual blasts shall be limited to a maximum of 6,000 cubic yards.

Advisory Condition

26. The pull out area adjacent to the quarry entrance drive near Glacier Highway is to be used for equipment transfer only. There shall not be temporary or long term parking on the pull out area. Transfer operations shall occur outside of the roadway clear zone. Access into the pull out area shall be limited to right in and right out turns.
27. A strip of land at the existing topographic level, and not less than 15 feet in width, shall be retained at the periphery of the site wherever the site abuts a public way. This periphery strip shall not be altered except as authorized for access points. This section does not alter the applicant's duty to maintain subjacent support.
28. If the bank of any extraction area within the permit area is above the high water line or water table, it shall be left upon termination of associated extraction operations with a slope no greater than the angle of repose for unconsolidated material of the kind composing it, or such other angle as the Commission may prescribe. If extraction operations cause ponding or retained water in the excavated area, the slope of the submerged working face shall not exceed a slope of 3:1 from the edge of the usual water line to a water depth of seven feet. This slope ratio may not be exceeded during extraction operations unless casual or easy access to the site is prevented by a fence, natural barriers, or both.
29. The applicant should contact DOT concerning the provision of a signal at the entrance to the quarry or other safety options. (Added by Planning Commission)

Alan Steffert
File No.: USE2011 0017
August 10, 2011
Page 4 of 4

Attachments: August 3rd, 2011, memorandum from Eric Feldt, Community Development, to the CBJ Planning Commission regarding USE2011-0017.

This Notice of Decision does not authorize construction activity. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

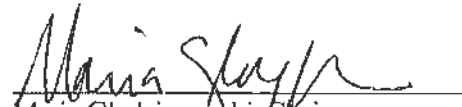
This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ §49.20.120).

Effective Date: The permit is effective upon approval by the Commission, August 9th, 2011.

Expiration Date: The permit will expire 10 years after the effective date, or August 9th, 2021. Application for permit extension must be submitted thirty days prior to the expiration date.

Project Planner:

Eric Feldt, Planner
Community Development Department


Maria Gladyszewski, Chair
Planning Commission

 8/10/2011
Filed With City Clerk Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ-adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

Attachment 7
Vibration Monitoring Summary Report



VIBRATION MONITORING SUMMARY REPORT

Project: Stabler's Point Blast Monitoring
Submitted to: Alan Steffert, Engineering Department
Description of work: Blast Monitoring
Reporting Period: May 15th – September 16th, 2015

BACKGROUND

Blasting at Stabler's Point Quarry is occurring near the pit boundaries and approaching final walls in some areas. Multiple contractors are permitted to blast in the pit including Alaska Juneau Construction (AJC), Miller Construction Company (MCC), and Channel Construction. During the summer and fall of 2015, seven blasts occurring near or adjacent to final wall locations were monitored and evaluated for performance and final wall damage potential. Monitoring efforts included blast design record keeping, vibration monitoring, and high speed video recording. An overview of the pit is shown in Figure 1 below.



Figure 1. Aerial view of Stablers Point Quarry. Quarry. Red rectangle in west half of pit indicates area where blast monitoring was performed in 2015.

METHODS

Monitoring efforts included collecting blast design information, in-ground vibration monitoring, and high speed video recording. Blast design information included location, bench height, pattern (burden and spacing), hole diameter and depth, borehole loading, timing, initiation sequence, and basic geologic conditions and abnormalities. Design information was determined as accurately as possible on site and from submitted blast plans.

Ground motion in terms of peak particle velocity (PPV) and frequency was recorded by seismographs and geophones. Typical seismograph and geophone installations are shown in Figures 2 and 3. All vibration monitoring was performed with seismographs operated in accordance with the International Society of Explosives Engineers (ISEE) Performance Specifications for Blasting Seismographs (2011 Edition) and Field Practice Guidelines for Blasting Seismographs (2009 Edition). Site specific conditions were used to determine monitoring locations and trigger levels. Ground vibrations were measured at various locations in close proximity to the blast site and farther away at the nearest residence located at 12701 Glacier Highway. Distances from each shot-to-seismograph were calculated as scaled distance (SD). Scaled distance factors for ground motions and airblast are given, respectively, by the following equations

$$\text{Square-root scaled distance (commonly referred to as SD)} \quad SRSD = \frac{D}{W^{1/2}} \quad (1)$$

$$\text{Cube-root scaled distance} \quad CRSD = \frac{D}{W^{1/3}} \quad (2)$$

Where D is the shot-to-seismograph distance and W is the maximum charge weight detonated within any 8 ms time period (per delay). Scaled distances were correlated with the largest PPVs of the three components of each tri-axial geophone to determine best fit equations describing ground motion attenuation. The attenuation equation is described as

$$PPV = a * SD^{-b} \quad (3)$$

where ' a ' is the y-intercept value at $SD = 1$ and ' b ' is the attenuation exponent that describes the rate of decay in PPV. The parameter ' a ' is the site specific energy term that represents the relative magnitude of explosive energy coupled into the ground at the blast site and is dependent on explosives type and rock quality. The attenuation slope term ' b ' is a function of geology transmitting the energy between the blast site and the seismograph. This relationship is useful in controlling ground vibrations for public relations and structural concerns as well as optimizing and troubleshooting blast design.

In addition to blast design recording and vibration monitoring, each blast was filmed from multiple view angles with high speed video cameras. All videos were edited and submitted post blast. An effort to use motion targets to assess ground heave and movement behind the shot was attempted but proved to be difficult to carry out due to site layout and large shot sizes. Various rock structures are shown in Figures 4, 5, and 6.



Figure 2. Left. Installing triaxial geophone in ground.

Figure 3. Right. Seismograph and sensors. Microphone on stand measures air blast and sandbag is covering buried triaxial geophone.



Figure 4. Left. Rock structure in southeast area of quarry.

Figure 5. Right. Rock structure along south side of quarry.



Figure 6. Rock mass and varying structure on west side of quarry.

RESULTS

A summary of vibration monitoring results for all monitored blasts is provided in Table 1. The summary information includes peak particle velocities (PPVs), associated frequencies, and airblast (dB) for each blast. Monitoring data were compared to scaled distance (SRSD, or SD). The largest shot monitored was performed by AJC on 9/16/15 and was approximately 23,688 cu yds. The largest amount of product shot within an 8 ms delay period (max lbs/delay) was recorded at 960 lbs / delay on 3/25/15. It should be noted that exact blast design details were difficult to obtain and actual amounts may have varied.

The ground motion attenuation relationship in terms of PPV and scaled distance (SD) for all monitoring results is shown in Figure 7. The equation for the best fit linear regression model is given by the formula

$$PPV = 9.02 SD^{-1.24} \quad (4)$$

with a 92% correlation coefficient.

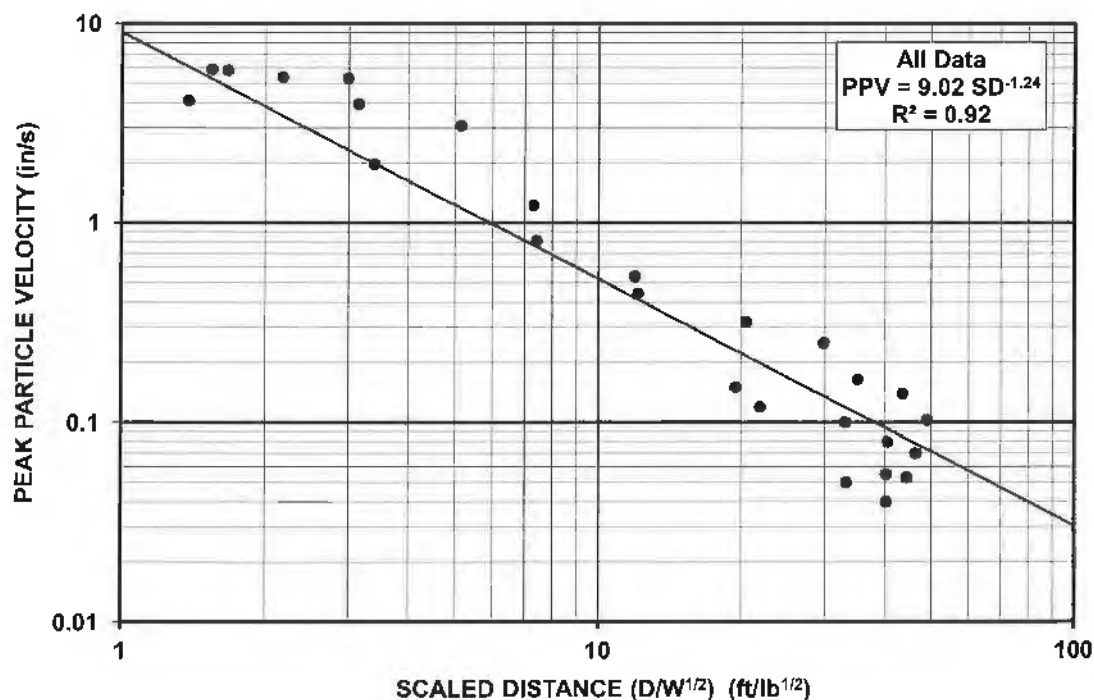


Figure 7. Site-specific attenuation plot developed from vibration data recorded during all blasts. Data include measurements taken within the quarry and at the nearest residence on Glacier Hwy.

Table 1. Summary of vibration and airblast monitoring results for blasts monitored in 2015. Previously monitored shots and shot sizes are provided for comparison. The monitoring location indicates if the seismograph was installed in the quarry or at the nearest residence (house). *Note: Not all quarry blasts from 2015 are included in table.*

Date	Time	Company	Location	Serial Number	Distance	Charge Weight per Delay	Scaled Distance	Cube Root Scaled Distance	Peak Particle Velocity	Peak Frequency	FFT	Airblast	Shot Size
					(ft)	(lb)	(ft/lb ^{1/2})	(ft/lb ^{1/3})	(in/sec)	(Hz)	(Hz)	(db)	(yds ³)
8/30/2013	2:20 PM	AJC	quarry	5582	173	560	7.3	21.0	1.23	26.2	20.0	139	9,000
			quarry	2276	461	560	19.5	56.0	0.15	60.2	20.5	125	
			quarry	5041	832	560	35.2	101.2	0.17	36.5	40.4	126	
			house	5581	1160	560	49.0	141.0	0.10	29.2	19.4	117	
8/12/2014	3:33 PM	AJC	quarry	11537	343	827	11.9	36.6	0.54	53.8	43.7	135	12,000
			quarry	5581	591	827	20.6	63.1	0.32	37.9	37.1	135	
			house	5582	950	827	33.0	101.4	0.10	26.9	47.8	119	
9/16/2014	1:04 PM	AJC	quarry	11537	303	623	12.1	35.6	0.44	30.1	39.6	148	9,600
			quarry	5581	744	623	29.8	87.3	0.25	26.9	26.6	140	
			house	5582	1005	623	40.3	117.9	0.06	20.0	19.8	125	
3/25/2015	1:56 PM	AJC	quarry	11280	230	960	7.4	23.4	0.81	48.7	42.0	135	16,497
			quarry	5581	680	960	21.9	69.1	0.12	36.5	30.4	127	
			house	5582	1030	960	33.2	104.7	0.05	30.1	40.5	118	
5/15/2015	1:05 PM	MCC	quarry	11537	35	517	1.5	4.4	5.89	25.6	25.9	NA	5,482
			house	5582	993	517	43.7	124.0	0.14	56.8	48.0	112	
5/26/2015	1:06 PM	MCC	quarry	12043	41	146	3.4	7.8	1.97	40.9	34.9	134	4,032
			quarry	11537	38	146	3.1	7.2	3.96	44.5	44.4	NA	

Table 1 Cont'd. Summary of vibration and airblast monitoring results for blasts monitored in 2015. Previously monitored shots and shot sizes are provided for comparison. The monitoring location indicates if the seismograph was installed in the quarry or at the nearest residence (house). *Note: Not all quarry blasts from 2015 are included in table.*

Date	Time	Company	Location	Serial Number	Distance	Charge Weight per Delay	Scaled Distance	Cube Root Scaled Distance	Peak Particle Velocity	Peak Frequency	FFT	Airblast	Shot Size
					(ft)	(lb)	(ft/lb ^{1/2})	(ft/lb ^{1/3})	(in/sec)	(Hz)	(Hz)	(db)	(yds ³)
6/4/2015	1:08 PM	AJC	house	5582	900	375	46.5	125.1	0.07	73.1	91.0	116	9,529
			quarry	12043	27	375	1.4	3.8	10.19	146.2	2.1	NA	
			quarry	11537	42	375	2.2	5.8	5.39	30.1	17.8	139	
6/16/2015	1:02 PM	MCC	quarry	12043	39	550	1.7	4.8	5.83	28.0	25.9	146	7,960
			quarry	11537	70	550	3.0	8.6	5.32	33.5	42.7	145	
7/2/2015	1:04 PM	MCC	quarry	12043	103	400	5.2	14.0	3.09	18.4	21.9	133	3,999
			house	5182	890	400	44.5	121.0	0.05	10.0	NA	NA	
7/23/2015	1:04 PM	MCC	quarry	12043	356	276	21.4	54.8	<0.3	NA	NA	NA	5,408
			quarry	11537	12	276	0.7	1.8	5.73	16.6	19.1	138	
8/14/2015	3:08 PM	AJC	house	5581	1058	680	40.6	120.6	0.08	42.6	46.8	125	16,877
			quarry	12043	25	680	1.0	2.8	6.74	25.2	40.8	146	
			quarry	11537	15	680	0.6	1.7	6.15	11.8	40.8	142	
9/16/2015	4:15 PM	AJC	house	5582	1166	840	40.2	123.9	0.04	39.3	15.3	123	23,688
			quarry	5581	40	840	1.4	4.2	4.12	36.5	28.3	145	

For blasting activities, close-in ground motion attenuation is often separated and calculated for small scaled distance values. Close-in attenuations are useful in assessing blast design and damage potential to final wall or other proximate structures. Figure 8 shows two separate attenuations for Stabler's Point Quarry blasts for close-in (smaller shot-to-seismograph) and farther (larger) scaled distances. The equations are shown below.

$$\text{For close-in } SD < 5, \quad PPV = 6.17 SD^{-0.38} \quad (5)$$

$$\text{For } SD > 5, \quad PPV = 24.8 SD^{-1.56} \quad (6)$$

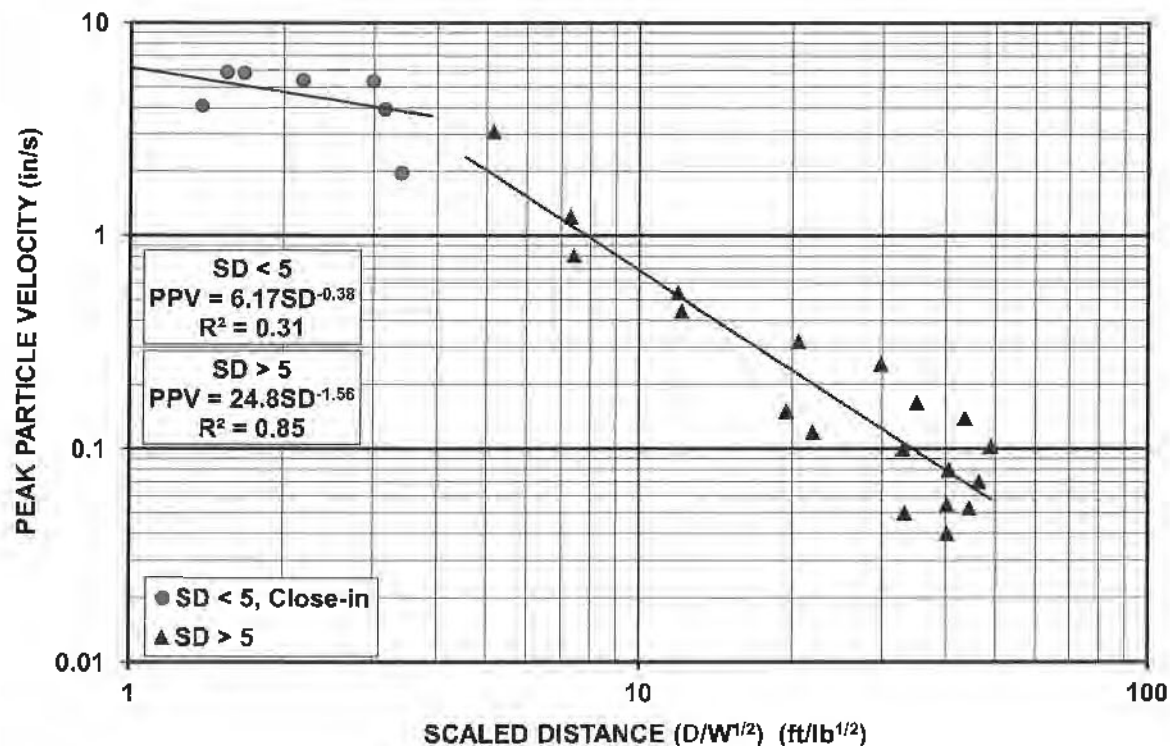


Figure 8. Site-specific attenuation models for close-in ($SD < 5$) and farther away ($SD > 5$) scaled distances. Attenuation relationships were developed from vibration data recorded during all blasts. Data include measurements taken within the quarry and at the nearest residence on Glacier Hwy.

RECOMMENDATIONS

Measurements from seismographs deployed during blasts at Stabler's Point Quarry in 2015 provided data to develop a basic model of attenuation of ground vibrations. The attenuation models in Figures 7 and 8 can be used to predict vibrations at nearby structures and to optimize blasting procedures and will be useful for future blast management. More information including additional monitoring and blast design parameters are necessary to develop an accurate close-in attenuation model.

It is recommended that the CBJ develop a **Blasting Risk Management Plan** specifically for Stabler's Point Quarry. A risk management plan can improve and maintain community relations as well as minimize off-site impacts and risks. Blasting concerns and impacts can include

- impacts on resources including water, air and soil quality;
- wildlife and fisheries impacts;
- blasting dust and fume control;
- impacts and damage to nearby residential and commercial structures and utilities;
- blast induced vibration and noise;
- blast induced fly rock and debris, and
- explosives security concerns.

Blast management programs often consist of project design, minimum operator/blaster qualifications, minimum performance specifications and criteria, and capable oversight. Establishing clear standards and criteria for blast induced ground vibration and air overpressure greatly minimizes owner risk to damage claims and helps to accurately address public concerns. Blast monitoring standards or minimum specifications should be established and applied for all compliance ground vibration and air overpressure monitoring. Current industry standards are recommended by the International Society of Explosives Engineers and include

- qualified seismograph operators;
- calibrated seismographs and sensors;
- record keeping including installation details and coupling method, sample rate, trigger level, date, time, distance to blast, etc.;
- comparison of ground vibrations to established criteria. The U.S. Bureau of Mines (USBM) Report of Investigations (RI) 8507 criteria is widely used to assess blast induced vibration damage.

In addition to keeping monitoring records, detailed records of each blast should be required in the form of 'post blast' or 'as-built' blast reports. Post blast reports provide a critical record of how a blast was executed and should be submitted after every blast with the minimum information.

- Date and time of blast, name of blaster-in-charge
- Location of blast
- Pattern (burden, spacing, hole diameter, depth, etc.)

- Number of holes loaded, typical loading scheme
- Maximum pounds per delay
- Timing / initiation sequence
- Type and quantity of products used
- Any irregularities (water, voids, etc.)
- Vibration and air overpressure monitoring results

Proper record keeping minimizes risk and is paramount to assessing blast performance. Blast records can be combined with additional measurement techniques for further blast optimization. Some measurement techniques available include but are not limited to face profiling, close-in ground vibration monitoring, blasted rock size (fragmentation analysis) and back break measurement, digital rock mass characterization, velocity of detonation (VOD) measurements, and face velocity movement. While advanced techniques are available, most operations can benefit from establishing a blast management program with clear goals. Since much of the blasting within the quarry is occurring near the permitted boundary, final wall parameters should be defined. A geological assessment should examine the physical rock properties, structure, and characteristics; and identify and significant water sources or drainages, and any other abnormalities or unique zones within the quarry. The geological assessment should also include recommendations for performance goals such as minimum catch bench width, batter angle and overall slope angle as shown in Figure 9. It should be noted that performance goals and slope parameters can vary depending on actual blasting results and may evolve over time.

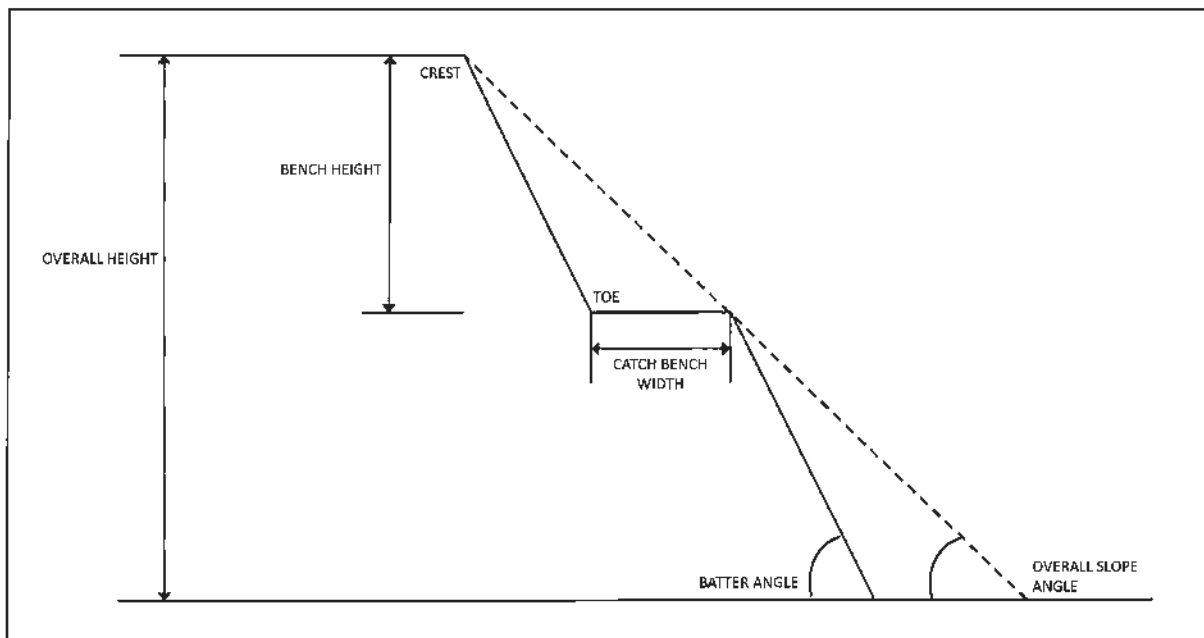


Figure 9. Illustration of slope design parameters.

Once a final slope design is established, wall control blasting techniques can be utilized to prevent damage to final slopes, reduce wall failures, comply with safety standards, improve aggregate production, and meet other performance goals.

Blasting methods and designs varied greatly during observations and monitoring of blasts during 2015. Pattern layout, product type, and timing consistently varied between the two operators (AJC and MCC) observed. Undoubtedly, some techniques were more effective in certain areas and conditions. A detailed site analysis including a geotechnical analysis and classification of the quarry could help guide design and specific goals for each blast. For example, a blast in the middle of the pit would be designed with a goal of maximizing production while a trim shot along the quarry perimeter would have the goal of minimizing impacts to the final wall. In areas where wall control blasting is necessary, aggregate production is often reduced making performance goals and effective techniques critical to efficient operations.

Wall control blasting techniques are extremely site specific and depend on many parameters and are often best determined by experienced blasters in the field. Some general considerations to decrease final wall damage potential are listed below.

- Establish a clean free face that promotes good relief
- Long and narrow blast plan, limit the number of rows
- Ensure proper drill depth and angle above catch benches and adjacent to final slopes
- Use proper product and timing configuration for conditions
- Cushion or buffer blasting
- Presplit blasting
- Line drilling

During blast monitoring at Stabler's Point Quarry in 2015, no wall control blasting techniques were observed. Operators used the same pattern layout and blast design for both production and trim shots along final walls. These methods resulted in back break, slip plane and wedge failures in some cases, and greatly reduced the width of final catch benches.

Safe, efficient blasting is a product of thorough planning, communication, and documentation and there are many advanced techniques available to assist in blast optimization. An effective blasting risk management plan will depend on many factors including site evaluation, blast design, bench preparation, pattern layout, drilling, explosives type and quality, borehole loading, record keeping, excavation, blast evaluation, and plan refinement. Since there are multiple contractors operating within the quarry a blast oversight position could assist in coordinating the efforts and actions of each operator and ensure the ultimate goals of the CBJ are met.

SUMMARY

A summary of key results and recommendations is listed below for reference.

- Continue to collect ground vibration data to improve attenuation models
- Use attenuation models to predict vibrations and optimize blasting
- Develop a site specific risk management plan
- Require additional information for compliance monitoring
- Obtain geological assessment to define final wall parameters and performance goals
- Require post blast / as-built reports verifying blast design and execution
- Provide blast oversight

Attachment 8
Stabler Quarry Noise Study 2011

Stabler Point Quarry

Noise Study

Prepared for
City and Borough of Juneau
155 South Seward Street
Juneau AK99801

Produced by
Michael Minor & Associates, Inc.
Portland Oregon

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Introduction

This technical noise study is for the continued operation of the Stabler Point Quarry, located northwest of Juneau Alaska, off Glacier Highway. The report was prepared at the request of the Engineering Department of the City and Borough of Juneau (CBJ). The report provides an introduction to noise and noise descriptors, land use near the proposed facility, project noise guidelines existing noise sources, and projected noise levels from facility operations. Project noise impacts and noise mitigation measures are also discussed as related to facility operation.

Project Description

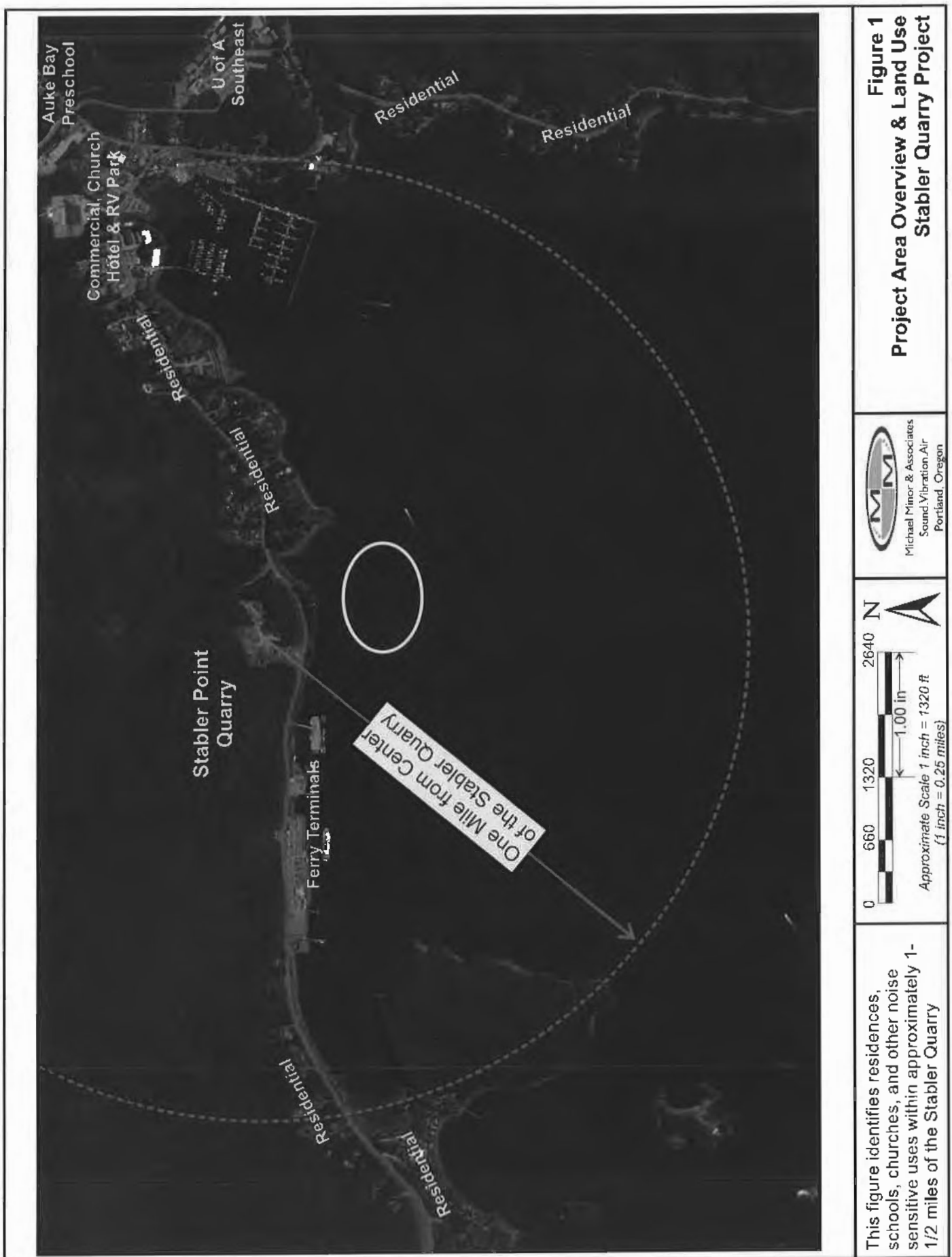
The proposed project is to continue to use the Stabler Point Quarry for approximately 20 years, and excavate the area down to an elevation that is equal to the Glacier Highway. At the end of the quarry operations there will be a fairly significant through-cut that can be used to realign the Glacier Highway and correct the existing curve. The area between the quarry and the highway, which contains three trees with nesting eagle, will be left untouched.

Currently, the top of the quarry is visible at several single family residences located east of the quarry along the coast, and at some residences across Auke Bay. The quarry operations are currently just barely visible to residential properties to the west of the quarry, past the ferry terminal. The exposure of the mine toward the west is due to the current mining operations on top of the rocky ridge in the SW corner of the current cleared area. The current plan for the next 10 years is to continue to mine the cleared area, and as the mining proceeds, the project will leave a series of stepped, 15 to 20 foot wide benches, 30 feet high down the finished quarry walls. These steps will act as a shielding from rock crushing and associated mining activities. Mine operational plans are to maintain a rock wall to shield the western and southern perimeter of the lower working levels, and to also maintain the existing overburden berms at the eastern end of the quarry to act as sound and visual barriers.

Land Use

The proposed site is an existing quarry and along the Glacier Highway, northwest of Juneau Alaska. Much of the land in the immediate area is undeveloped forest. The nearest residential areas were identified north and south of the Glacier Highway directly east of the site. Several single family residences were identified within 500 to 800 feet from the quarry entrance from the Glacier Highway. These residential areas are shielded from the quarry by existing topographical conditions, including the area with the three eagle nests and the natural earth berm to the east of the Stable Quarry access roads.

West of the site there are several single family residences, beginning approximately 4300 feet west of the site, near the ferry terminals. Several more single family homes were identified along Indian Cover Drive and Otter Way. Other noise sensitive land uses within 1 to 1.5 miles of the site include several single and multi-family residences, schools, churches, a hotel, and other commercial uses near Auke Bay. Figure 1 shows an overview of the site with the nearby residential land uses identified.



What is Sound (Noise) and How Do We Quantify It?

Sound is any change in air pressure that the human ear can detect, from barely perceptible sounds, to sound levels that can cause hearing damage. These changes in air pressure are translated to sound in the human ear. The greater the change in air pressure, the louder the sound. For example, a quiet whisper in the library creates a relatively small change in the room air pressure, whereas air pressure changes are much greater in the front row of a rock concert.

In addition to the loudness of sound, frequency is a term also used to describe sound. The frequency of sound is determined by the number of recurring changes in air pressure per second. A sound that contains a relatively high number of pressure changes per second is generally referred to as a high frequency noise or “high-pitched.” Common examples of high-frequency noise would include a referee’s whistle or a triangle chime. A sound that has a low number of pressure changes per second is referred to as low frequency or low-pitched noise (for example, a bass drum or helicopter).

A person’s response to noise is subjective and can vary greatly from person to person. Some key factors that can influence an individual’s response include the loudness, frequency, the amount of background noise present, and the nature of the activity taking place that the noise affects. For example, boisterous children playing outside during the day, with background traffic noise present, is generally less obtrusive than children making the same amount of noise during the nighttime sleeping hours inside a house. Keeping with this theme, when sounds are unpleasant, unwanted, or disturbingly loud, people normally consider them to be “noise.”

How Do We Measure Sound?

We measure sound both in terms of loudness and frequency. The unit used to measure the loudness of noise is called a decibel (dB). A range from 0 to 120 dB is the typical range of hearing. While the loudness of sound is an easy concept for most people, a sound’s frequency is just as important in understanding how we hear sounds.

Frequency is measured in terms of the number of changes in air pressure that occur per second. The unit we use to measure the frequency of noise is called hertz (Hz). While the human ear can detect a wide range of frequencies from 20 Hz to 20,000 Hz, it is most sensitive to sounds at the middle frequencies (500 to 4,000 Hz). The human ear is progressively less sensitive to sound at frequencies above and below this middle range. For example, a noise level of 60 dB at 200 Hz would be considerably less noticeable to the average person than 50 dB at 1,000 Hz. The human ear is most sensitive to sound at frequencies of 1000 to 3000 Hz.

Common Noise Units and Descriptors

Hz – Hertz, unit of frequency

dB – Decibels

dBA – Decibels with A-weighting

L_{eq} – Energy-equivalent sound pressure level

To account for the human ear's sensitivity to frequencies, an adjustment is made to the dB measurement scale. The adjusted scale, referred to as the A-weighted decibel scale, provides a more accurate measure of what the human ear can actually hear. When the A-weighted scale is used, the decibel levels are designated as dBA. This unit of measurement is used in this report.

For a sense of perspective, normal human conversation ranges between 44 and 65 dBA when people are about 3 to 6 feet apart. Very slight changes in noise levels, up or down, are generally not detectable by the human ear. The smallest change in broadband noise that a human ear can perceive is about 3 dBA, while increases of 5 dBA or more are clearly noticeable. For most people, a 10 dBA increase in noise levels is judged as a doubling of sound level, while a 10 dBA decrease in noise levels is perceived to be half as loud. For example, a person talking at 70 dBA is perceived as twice as loud as the same person talking at 60 dBA.

What Are Typical Neighborhood Noise Levels?

In most neighborhoods, nighttime noise levels are noticeably lower than daytime noise levels. In a quiet rural area at night, such as the residential area along Glacier Highway, noise levels can range between 32 and 35 dBA during nighttime periods with little to no wind or animal activity (birds chirping) and if no traffic, aircraft, marine, or other noise sources are active. The dominant noise source in this case would be wind, and residual noise from the City and Borough of Juneau. As residents start their day and local traffic increases, this same rural area would be expected to have noise levels ranging from 45 to 60 dBA. While noise levels in urban neighborhoods are louder than rural areas, they share the same pattern of lower noise levels at night than during the day. Quiet urban nighttime noise levels range from 40 to 50 dBA. Noise levels during the day in downtown Juneau area are predicted to frequently be as high as 65 to 75 dBA, with on-site noise measurement taken several years ago, for the Alaska Juneau Mine, supporting background noise levels of this magnitude.

How Do We Take Into Account That Noise Changes Over Time?

Noise levels from most sources tend to vary with time. For example, noise levels increase when a car approaches, then reach a maximum peak as it passes, and decrease as the car moves farther away. In this example, noise levels within a one minute timeframe may range from 45 dBA as the vehicle approaches, increase to 65 dBA as it passes by, and return to 45 dBA as it moves away. To account for the variance in loudness over time, a common noise measurement is the equivalent sound pressure level (L_{eq}). The L_{eq} is defined as the energy average noise level, in dBA, for a specific time period (for example, one minute). Therefore, assuming the energy average noise level was 60 dBA during the entire period of time the car could be heard as it passed by, the noise level would be stated as 60 dBA L_{eq} .

How Does Sound Reduce As It Travels From the Source To the Receiver?

There are several factors that determine how sound levels decrease over a distance. Under ideal conditions, a point noise source in free space will attenuate at a rate of 6 dB each time the distance from the source doubles (using the inverse square law). An ideal line source (such as constant flowing traffic on a busy highway) reduces at a rate of approximately 3 dB

each time the distance doubles. Under real-life conditions, however, interactions of sound waves with the ground often result in attenuation that is slightly higher than the *ideal* reduction factors given above. Other factors that affect the attenuation of sound with distance include existing structures; topography; foliage; ground cover; and atmospheric conditions such as wind, temperature, and relative humidity. The potential effects of these factors on sound propagation are described below:

Attenuation refers to the reduction in loudness, or amplitude, of noise as it moves away from the noise source.

- Existing structures can substantially affect noise levels. Structures can reduce noise by physically blocking the sound transmission and, under special circumstances, may cause an increase in noise levels if the sound is reflected off the structure and transmitted to a nearby receiver location. Measurements have shown that a single-story house has the potential, through shielding, to reduce noise levels by as much as 10 dB or greater. The actual noise reduction will depend greatly on the geometry of the noise source, receiver, and location of the structure. Increases in noise caused by reflection are normally 3 dB or less, which is the minimum change in noise levels that can be noticed by the human ear.
- Topography includes existing hills, berms, and other surface features between the noise source and receiver location. As with structures, topography can potentially reduce or increase sound, depending on the geometry of the area. When placed between the noise source and receiver, hills and berms can have an effect on noise levels. In many situations, berms are used as noise mitigation because they physically block the noise source from the receiver location. In some locations, however, the topography can cause an overall increase in sound levels by either reflecting or channeling the noise towards a sensitive receiver location.
- Dense foliage can slightly reduce noise levels. The Federal Highway Administration (FHWA) assumes up to a 5 dBA reduction in traffic noise for locations that have at least 100 feet of dense evergreen foliage.
- Ground cover between the receiver and the noise source can also affect noise transmission. For example, sound will travel very well across reflective surfaces such as water and pavement, but can be attenuated when the ground cover is field grass, lawn, or even loose soil. Snow pack can also increase the attenuation of sound when compared to hard soil or pavement.
- Atmospheric conditions that can affect the transmission of noise include wind, temperature, humidity, and precipitation. Wind can increase sound levels if it is blowing from the noise source to the receiver; conversely, it can reduce noise levels if blowing in the opposite direction. Noise propagation can also be affected when the temperature gradient is such that an inversion is formed. Other atmospheric conditions such as humidity and precipitation are rarely severe enough to result in noticeable changes in noise level propagation. Because weather conditions frequently change, it is not realistic to consider atmospheric conditions in traffic noise studies.

Table 1 provides some common noise sources and compares their relative loudness to that of an 80 dBA source, such as a garbage disposal or food blender.

Table 1: Sound Levels and Relative Loudness of Typical Noise Sources			
Noise Source or Activity	Sound Level (dBA)	Subjective Impression	Relative Loudness (human judgment of different sound levels)
Jet aircraft takeoff from carrier (50 ft)	140	Threshold of pain	64 times as loud
50-hp siren (100 ft)	130		32 times as loud
Loud rock concert near stage Jet takeoff (200 ft)	120	Uncomfortably loud	16 times as loud
Locomotive warning horn (90 feet)	110		8 times as loud
Jet takeoff (2,000 ft)	100	Very loud	4 times as loud
Heavy truck or motorcycle (25 ft) OHV high engine revolutions (20 ft)	90		2 times as loud
Garbage disposal, food blender (2 ft)	80	Moderately loud	Reference loudness
Passenger car at 65 mph (25 ft)	70		1/2 as loud
Large store air-conditioning unit (20 ft) OHV at idle (20 ft)	60		1/4 as loud
Light auto traffic (100 ft)	50	Quiet	1/8 as loud
Bedroom or quiet living room Bird calls	40		1/16 as loud
Quiet library, soft whisper (15 ft)	30	Very quiet	
High quality recording studio	20		
Acoustic Test Chamber	10	Just audible	
	0	Threshold of hearing	
Sources: Beranek (1988) and EPA (1971)			

Noise levels used in this analysis are stated as sound pressure levels in terms of decibels on the A-scale (dBA). The A-scale is used in most ordinances and standards, including the applicable standards for this project. The primary noise level descriptor used in this analysis is the L_{max} . A complete list of noise descriptors that are commonly used are provided below for reference. The L_{max} was selected as the main descriptor because it follows the City and Borough of Juneau Code and is the easiest to for most people to understand.

- **L_{eq} (equivalent continuous sound level):** The constant sound level in dBA that, lasting for a time "T," would have produced the same energy in the same time period "T" as an actual A-weighted noise event.
- **L_{max} (maximum A-weighted sound level):** The greatest continuous sound level, in dBA, measured during the preset measurement period.
- **L_{min} (maximum A-weighted RMS sound level):** The greatest RMS (root-mean square) sound level, in dBA, measured during the preset measurement period.
- **L_{xx} (statistical sound level descriptor):** The sound level descriptor L_{xx} is defined as the sound level exceeded XX percent of the time. For example, during a 1-hour measurement, an L10 of 85 dBA means the sound level was at or above 85 dBA for 6 minutes (10%) of the hour. The periods over the 85 dBA levels could also occur at different time, such as each time a truck passes by the measurement location.

Existing Area Noise Sources

Existing noise sources in the area include traffic on the Glacier Highway, aircraft from the Juneau Airport, watercraft, helicopters and floatplanes in the summer. For the residential areas along the Glacier Highway, traffic on the highway and aircraft from Juneau Airport are some of the more notable noise source in the area. Noise from the quarry operations may also be noticeable, depending on the activity and atmospheric conditions. Based on past measurement in Juneau during the AJ Mine EIS and measured noise levels in other areas of Alaska, noise levels are projected to range from 45 to 60 dBA during daytime hours, and 30 to 45 dBA during nighttime hours.

One of the dominate noise sources in the Auke Bay area, especially during summer months, are helicopters taking tourists on scenic flights to the glacier and ice fields. There are also several light planes that fly the Juneau to Skagway route across Auke Bay. Other notable noise producing activities in this area include harbor construction projects, barging operations, and noise related to the operations of the ferry system and other marine traffic, including boat traffic from the three marinas near the project site.

Project Noise Permit Conditions

The current City and Borough of Juneau regulations for this type of use are contained in Chapter 49.15, Permits, City and Borough of Juneau Municipal Code. Under Article G-11, Chapter 49.15.330, permit conditions could restrict noise levels from operation of this type of facility to 65 dBA at the property line during daytime hours, and 55 dBA at the property line during nighttime hours. Daytime is considered between 7:00 am and 7:00 pm, with nighttime defined at 7:00 pm to 7:00 am.

Current permit conditions restrict the operations of the Stabler Point Quarry to the hours of 8:00 am and 4:30 pm daily. In addition, as part of the permit conditions, the maximum allowable noise levels would be 65 dBA at the nearest property line during daytime hours. Because the facility would be closed during nighttime hours, any nighttime noise restriction for the site is not relevant.

The purpose of this analysis is to provide the predicted noise levels from the facility during typical operations. The facilities operational noise levels were predicted for several nearby residences and also at several sites where noise related complaints have been received.

Methods of Noise Projections

The analysis was performed using standard acoustical formulas, information from the City and Borough of Juneau, and reference noise levels for equipment in use at the site. The reference noise levels used in the analysis are provided in Table 2. The table provides typical noise levels during operation, noise levels that could be produced during heavy activity, and typical idle or low level operational noise.

Table 2. reference Equipment Listing and Noise Levels				
Equipment	Reference Noise Levels @ 50 ft			Source
	Minimum	Typical	Full Load	
Back Hoe CAT 325	68	78	78	Measured and/or US DOT - FHWA
Compressors & Light trailers	68	74	78	Measured and/or US DOT - FHWA
Dozer D9/10/11 Cat	85	88	94	US DOT - FHWA/EPA and US Bureau of Mines
Excavator - Hitachi 3500	82	88	92	US DOT - FHWA/EPA and US Bureau of Mines
Excavator - P&H 4100 Elect	82	86	90	US DOT - FHWA/EPA and US Bureau of Mines
Grader/Scraper	80	82	84	Measured and/or US DOT - FHWA
Mine Truck - CAT 777	82	86	88	Measured and/or US DOT - FHWA
Mine Truck - Idling CAT 793/785/789	72	76	78	Measured and/or US DOT - FHWA
Mine Truck - Normal Op CAT 793/785/789	84	88	90	US DOT - FHWA/EPA and US Bureau of Mines
Rock Drill - IR DM-M2	86	92	96	US DOT - FHWA/EPA and US Bureau of Mines
Rock Jaw Crusher	76	86	89	Measured and/or US Bureau of Mines
Rock Cone Crusher	76	84	88	Measured and/or US Bureau of Mines
Rock Screen	76	82	86	Measured and/or US Bureau of Mines
Utility Trucks	68	72	76	US DOT - FHWA/EPA and US Bureau of Mines
Water Treatment Plant - Pumps	64	66	70	US DOT - FHWA/EPA and US Bureau of Mines
Utility Equipment	82	68	90	Measured and/or US DOT - FHWA
Note: All noise levels are provided in L _{max} dBA.				

In general, the site is far enough from most noise sensitive receivers to be treated as a point source. As previously described, noise levels typically reduce by 6 dB per doubling of distance for point sources. There are several factors that contribute to the noise projections, including ground cover, shielding by the quarry walls, and topographical conditions between the quarry and the modeling site. The ground cover between the receiver locations and the

quarry site was included in the projections. Receivers located near the quarry are all shielded by dense foliage, and for those receivers, a soft ground cover was assumed. For those receivers located across Auke Bay, a hard reflective surface was assumed to account for the transmission of noise across the water. Topographical conditions in the area were also an important consideration, as the Stabler Point Quarry is located slightly up-hill from most of the noise sensitive properties. The shielding effects of the benches of the quarry were included in the analysis where appropriate.

Project noise levels were projected for the current conditions, and future conditions. The future noise levels projections are predicted using the assumptions on how the quarry will look in approximately 10 years, after the quarry is benched down and the equipment is better shielded from the receivers. Figure 2 is a depiction of how the quarry is expected to look in 10 years. Note the benches and location of equipment and the shielding that the benches provide to noise sensitive properties near the site. Figure 2 also provides a sample picture of a rock crushing operation.

The locations selected for noise modeling were based on the land use and proximity to site. Receiver R1 and R2 are located to the west of the quarry, near the Ferry terminal and the Auke Nu Cove area. Receiver R3 and R4 are some of the nearest to the site, located north the Glacier Highway east of the site near Oxford Street. Two additional noise modeling sites, R5 and R6, were selected south of the Glacier Highway, east of the site, on and near Auke Nu Drive. Finally, there are four noise modeling locations along Fritz Cove Road, southeast of the site (R7 through R10). These four sites are all located along the bay, and were modeled assuming the more efficient sound transmission characteristics of sound traveling water. Figure 3 provides an aerial view of the general area, location of the quarry, and the 10 noise modeling locations used in this analysis.

Rendering of Stabler Quarry
in Approximately 10 years

Benches

Typical Quarry and Rock Crushing
Activity and Equipment would take
place on the floor of the quarry,
shielded from the residences

Quarry Floor

Glacier Highway

Quarry Entrance

Glacier Highway

Bald Eagle
Nest Area

Figure 2
Quarry Benches and Equipment Location
Stabler Quarry Project



Michael Minor & Associates
Sound Vibration Air
Portland, Oregon

Not to Scale

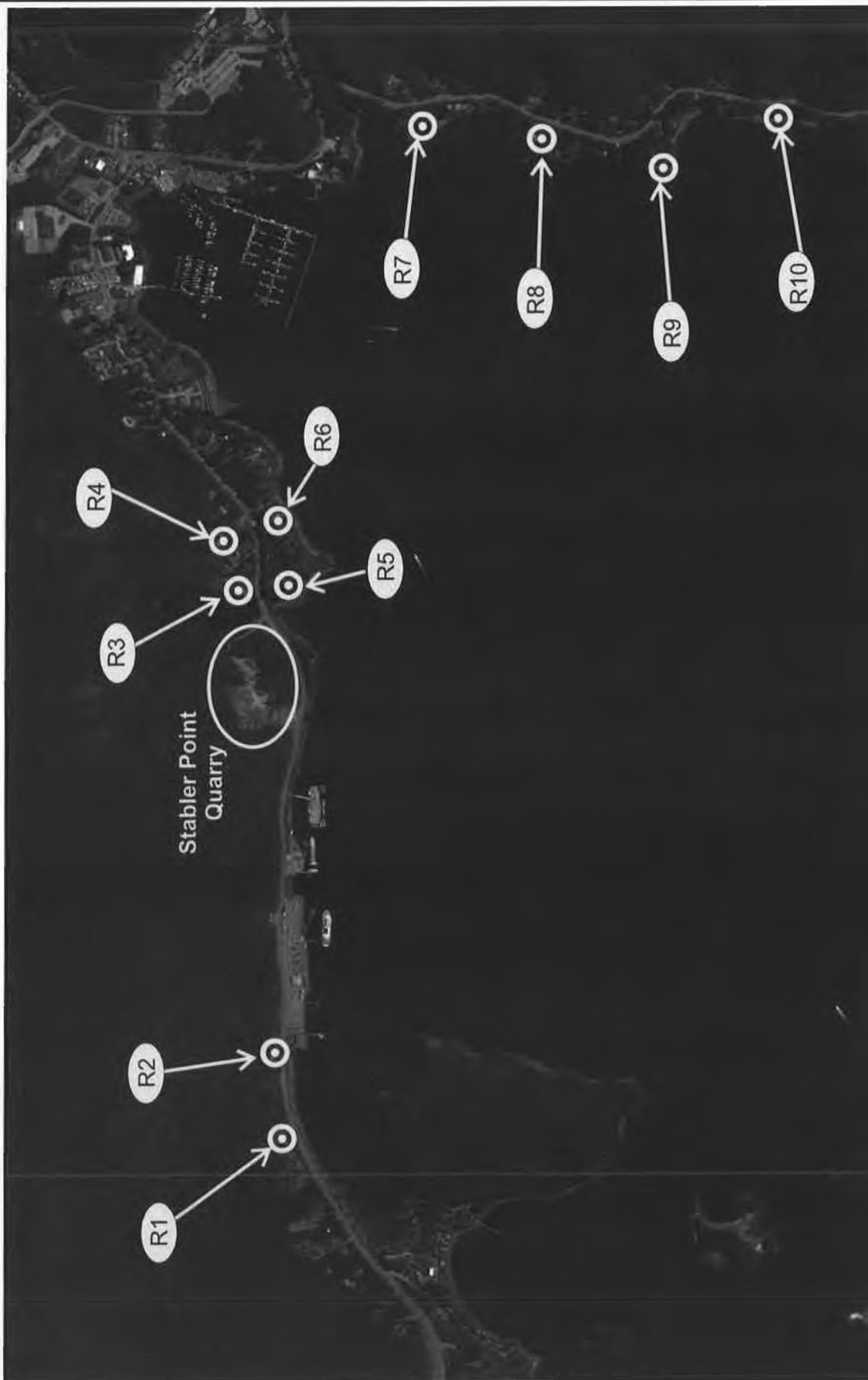
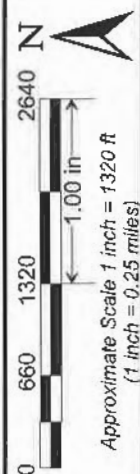
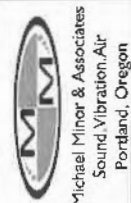


Figure 3
Noise Modeling Locations
Stabler Quarry Project



⊙ Noise Modeling Sites

Project Noise Modeling Results

Noise levels were projected assuming typical operational characteristics for this type of facility. Then analysis assumes simultaneous operations of dozers for clearing and grubbing, excavators and mine haul trucks to transport the excavated material, water trucks to keep dust at a minimum, rock drills in preparation for blasting, and rock crushing operations. Although it is highly improbable that all of these operations would actually occur at the same time, using these assumptions allows for a worst case analysis of the potential noise from the site.

As previously stated, the noise projections included the noise reducing effects of topographical conditions and ground effects. For receivers R1 and R2, located west of the quarry, the shielding effects of the quarry wall and ground effects of dense foliage are assumed in the analysis. Similar topographical conditions and ground effects were also assumed for R3 and R4. R5 and R6 are located along the bay, and have similar ground effects, but less topographical shielding. Finally the receivers along Fritz Cove Road have some shielding from the walls of the site, but the noise propagation across the water was modeled as a hard site with minimal ground attenuation.

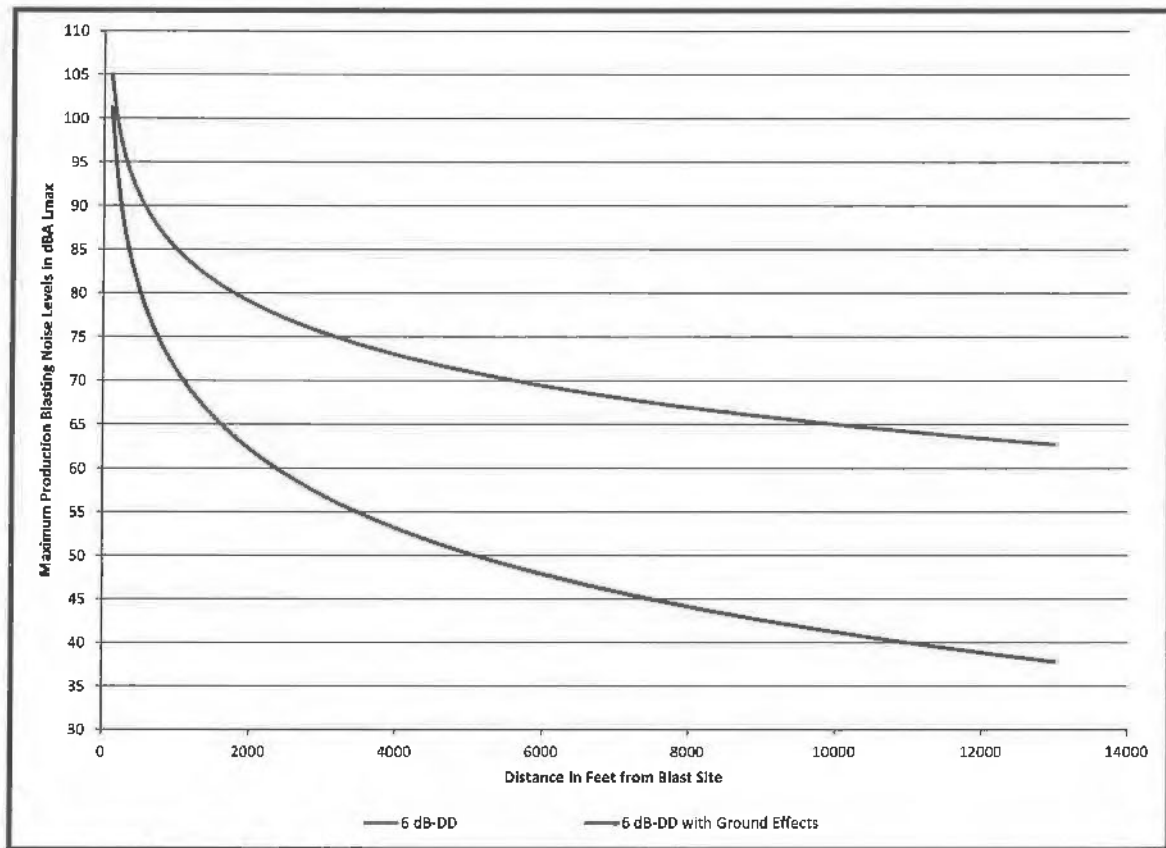
As described, the noise level projections were performed for the existing conditions and future conditions, 10 year in the future, when there will be additional shielding from the benching the quarry walls. The results of the noise levels projections are provided in Table 2. The table includes the distance from the quarry to the receivers along with the existing and future noise projections.

Table 2. Noise Modeling Results for Stabler Quarry				
Receiver Number	Site Description¹	Distance to Quarry²	Existing Noise Levels³	Future Noise Levels⁴
R1	West of Site, near Ferry Terminal	4110	39	34
R2	West of Site, near Auke Nu Cove	3200	41	36
R3	East of Site, Oxford Street Area	740	55	48
R4	East of Site, residences north of Glacier Hwy	1000	52	45
R5	East of Site, Aukenu Dr Area	860	57	52
R6	East of Site, residences south of Glacier Hwy	1440	52	47
R7	Northwest waterfront, Fritz Cove Road Area, north	5800	59	57
R8	Northwest waterfront, Fritz Cove Road Area, central	6180	58	56
R9	Northwest waterfront, Fritz Cove Road Area, central	6570	58	56
R10	Northwest waterfront, Fritz Cove Road Area, south	7610	56	54
Note: 1. Noise modeling site are shown on Figure 3 2. Distance between the quarry and the receiver site 3. Existing noise levels in L _{max} dBA 4. Future noise levels in L _{max} dBA				

Noise levels projections ranged from 34 to 59 dBA L_{max} . The highest noise levels are actually located along Fritz Cove Road due to the efficient propagation of noise across the bay. The lowest levels are predicted to the west of the site due to the shielding effects of the quarry wall and dense foliage. There are no predicted noise levels that meet the 65 dBA L_{max} permit conditions, and therefore no noise impacts are predicted. Because these projections were performed using the worst case scenario the actual noise levels would be expected to be lower, and operations of the quarry are in compliance with the permit conditions.

Blasting Noise Projections

Production blast noise levels were predicted using a reference noise level of 105 dBA at 100 feet, which is a typical blast level for quarry operations. Production blasting at the Stabler Quarry is very intermittent, and infrequent. The number of production blasts per year depends on the needs of the contractor. Between January and November of 2010 there were ten production blasts, and in 2009 there were 14 production blasts. An average frequency of two production blasts per month through the construction season is likely typical, with fewer, if any, production blasts during the winter months. The Stabler Quarry is currently permitted to have production blasts between 10:00 AM and 12:00 Noon, or between 1:00 PM and 3:00 PM, Monday through Friday. Blasting is not allowed on weekends or nighttime hours. The vast majority of production blasts are in the afternoon, between 1:00 PM and 3:00 PM. Figure 4 is a graph of typical noise attenuation for blasting out to a distance of 2 miles from the site. The graph includes a standard reduction of 6 dB per-doubling of distance and a second that also includes ground effects, which is a more likely representation of the blast levels at large distances from the quarry. Blasting is not considered under the 65 dBA permit conditions.



Noise Mitigation Measures

Because the operational noise levels from the Stabler Quarry are all predicted to remain within the City and Borough of Juneau regulations for this land use, no noise mitigation measures are being recommended. The operational hours, limits on blasting and general design of the facility along with its location are all sufficient design measures to reduce noise levels to within the City and Borough of Juneau regulations.

Summary

Noise levels predicted using a worst case scenario ranged from 34 to 59 dBA L_{max} at residential area near the site. The noise projections are all within the permit conditions of 65 dBA L_{max} . Because the noise levels projections did not show any exceedance of the criteria, and the operational hours are only during daytime hours, no noise mitigation was proposed.

Appendix A:
References and Supporting Information

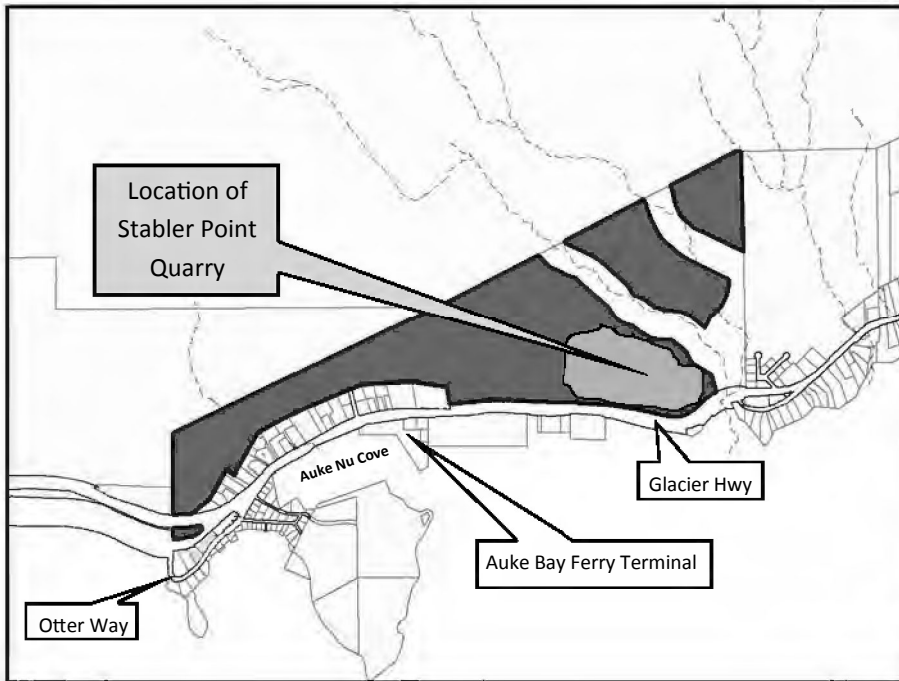
Beranek, Leo L. 1988. *Noise and Vibration Control*. Institute of Noise Control Engineering.

Juneau Area Wide Traffic Map, 2005 and 2006. Alaska Department of Transportation.

USDOT. 1977. *Highway Construction Noise: Measurement, Prediction and Mitigation*. U.S. Department of Transportation. Federal Highway Administration, Washington, DC.



NOTICE OF NEIGHBORHOOD MEETING



City & Borough of Juneau
Community Development Department
155 S Seward Street • Juneau, Alaska 99801

SHIP TO:



Notice of Neighborhood Meeting for Stabler Point Quarry's Conditional Use Permit

UAS Egan Building, Glacier View Room, 221
Thursday, July 21, 6:30-8:00 pm

Dear Resident,

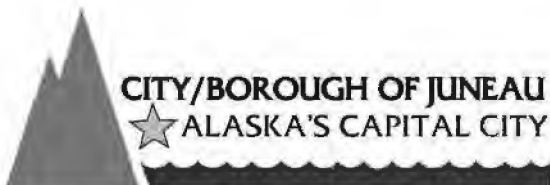
The **CBJ Community Development Department** received a Conditional Use Permit Application for an extension, to year 2026, and expansion of blast size and area of rock quarry operation for Stabler Point Quarry, near Auke Bay, at 13010 Glacier Highway.

The CBJ Community Development Department is hosting a neighborhood meeting to discuss the CBJ Conditional Use Permit process. Also, staff from the CBJ Lands & Resources and Engineering Departments will explain the details of the application. This meeting will be held on **Thursday, July 21, from 6:30 to 8:00 p.m. in the Egan Building, Glacier View Room # 221 , at UAS.**

The **purpose of the July 21st meeting is to provide information, respond to questions, and to get a sense of any concerns** that the neighborhood might have, so issues may be addressed in advance of the formal public hearing with the CBJ Planning Commission. **The project has been scheduled for review by the Planning Commission at their August 23rd regular meeting.** Prior to that meeting, all landowners within 1,000 feet of the proposed application will receive a separate notice with details on how and where to submit comments or testify on the proposal.

If you have questions or would like more information, **please contact Jonathan Lange, Community Development Planner, at 586-0218 or by email at jonathan.lange@juneau.org.**

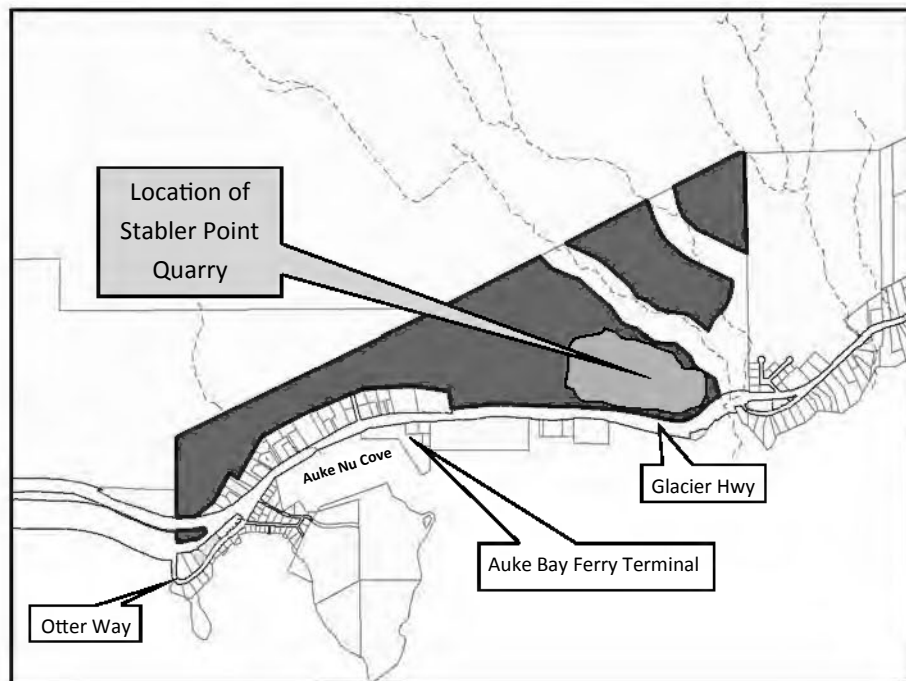
Date notice was printed: July 13, 2016



Attachment B

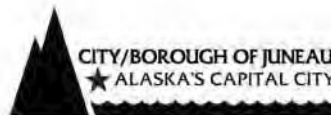


NOTICE OF PUBLIC HEARING



City & Borough of Juneau
Community Development Department
155 S Seward Street • Juneau, Alaska 99801

SHIP TO:



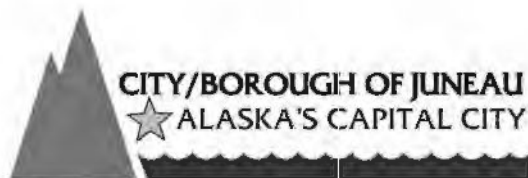
PROPOSAL: A Conditional Use Permit for an extension to year 2026 and expansion of blast size and area of rock quarry operations for Stabler Point Quarry.

File No:	SGE20160001	Applicant:	GREG CHANEY
To:	Adjacent Property Owners	Property PCN:	4-B30-0-102-002-0
Hearing Date:	August 23, 2016	Owner:	CITY & BOROUGH OF JUNEAU LANDS AND RESOURCES
Hearing Time:	7:00 PM	Lot Size:	310.00 acres
Place:	Assembly Chambers	Zoned:	RR
	Municipal Building	Site Address:	13010 GLACIER HWY
	155 South Seward Street	Accessed Via:	GLACIER HWY
	Juneau, Alaska 99801		

PROPERTY OWNERS PLEASE NOTE:

You are invited to attend this Public Hearing and present oral testimony. The Planning Commission will also consider written testimony. You are encouraged to submit written material to the Community Development Department 14 days prior to the Public Hearing. Materials received by this deadline are included in the information packet given to the Planning Commission a week before the Public Hearing. Written material received after the deadline will be provided to the Planning Commission at the Public Hearing.

If you have questions, please contact Jonathan Lange at Jonathan.Lange@juneau.org or 586.0218.

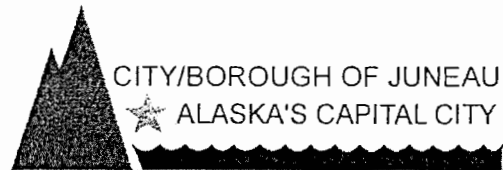


Planning Commission Agendas, Staff Reports and Meeting Results can be viewed at <http://www.juneau.org/assembly/novus.php>

Attachment B

Date notice was printed: July 18, 2016

Conditional Use Permit



What is a Conditional Use Permit?

A Conditional Use is a use that may or may not be appropriate in a particular zoning district. For this reason it needs to be reviewed for its character, intensity, or size of that or surrounding uses. The permit is a way to review proposed projects impacts and allow different land uses in zoning districts.

What is a Conditional Use Permit for?

Some land uses are allowed outright, like a single-family home in a residential zone. However, uses like churches, libraries, or schools are examples that need additional review by the Planning Commission to be considered for residential districts.

The Table of Permissible Uses in the CBJ Land Use Code Title 49 outlines uses in different zoning districts that may be allowed outright with staff approval, allowed with a Conditional Use Permit and Planning Commission approval, or not allowed.

What criteria is used in reviewing a Conditional Use permit?

- Effect on public health and safety.
- Effect on property values and whether the project is in harmony with other uses in the neighborhood.
- Conformity with the Comprehensive Plan and other adopted land use and transportation plans; and
- Compliance with the habitat sections of the Land Use Code that address possible impacts to coastal resources, such as fish and wildlife habitat and water quality.

What should the project narrative include?

- Development schedule – Hours of operation and/or a time limit may be imposed upon specific projects to minimize conflict or disruption of other uses or neighbors.
- Use – The use of the land or structure in the proposed project or development may be restricted to that indicated in the application.
- Habitat – Development shall minimize environmental impacts near eagle's nests, wetlands, and intertidal areas.
- Sound – Conditions may be imposed to the level of noise that may be produced from a development or project.
- Screening – The commission may require construction of fencing or plantings to screen the development or portions thereof from public view.
- Lot size and development size
- Drainage – Conditions may be imposed to improve on and off-site drainage.
- Other conditions – May be imposed when reasonably necessary to protect public health, safety, and welfare.

Note: This handout does not cover all code sections and requirements as outlined in the Land Use Code. Please see Title 49 – CBJ 49.15.330 for specific code references on Conditional Use Permits.

What is the Conditional Use Permit process?

- **Pre-application Conference – Required** for all Conditional Use Permit applications. CBJ staff will talk over the Conditional Use Permit process and all required permits and information needed for a complete review.
- **Neighborhood Meeting** – These meetings can be optional but are encouraged.
- **Permit application including:**
 1. Narrative - Clearly describe proposed project. Be specific.
 2. Site plan - Show existing and proposed: buildings, lighting, vegetation, and use of land. Show parking and traffic circulation.
 3. Fees - Between \$350 to \$1,600 based on the size and scope of the project. CDD staff will assist you in determining the fee for your project.
- **Review** – CBJ staff and other external applicable agencies will review the proposed project.
- **Staff report** – The Planner assigned to your specific project will review the application for consistency with land use codes and applicable plans. Staff will then make a recommendation to the Planning Commission.
- **Public Notice** – Notice of all hearings will be sent by mail to all property owners within 500 feet of the proposed project. A larger area may be required depending on the project and area affected. Notice will also be placed in the newspaper. A public notice sign will be required to be posted on-site 14 days prior to the public hearing. A sign rental fee is \$50 with a sign deposit of \$100.
- **Public Hearing** – The hearings are open to the public and give the public a chance to testify or comment to the Planning Commission on specific projects.
- **Notice of Decision (NOD)** – Is issued once the Planning Commission reaches a decision on the proposed project.
 1. Appeal Period – Within 20 days of a decision the decision may be appealed to the Assembly. Any work done within the 20 days after a decision is done at your own risk.
 2. Expiration – Conditional Use Permits do have an expiration date. The permit will become void 18 months after its effective date if no associated permits have been issued, or substantial progress has been made on the project.

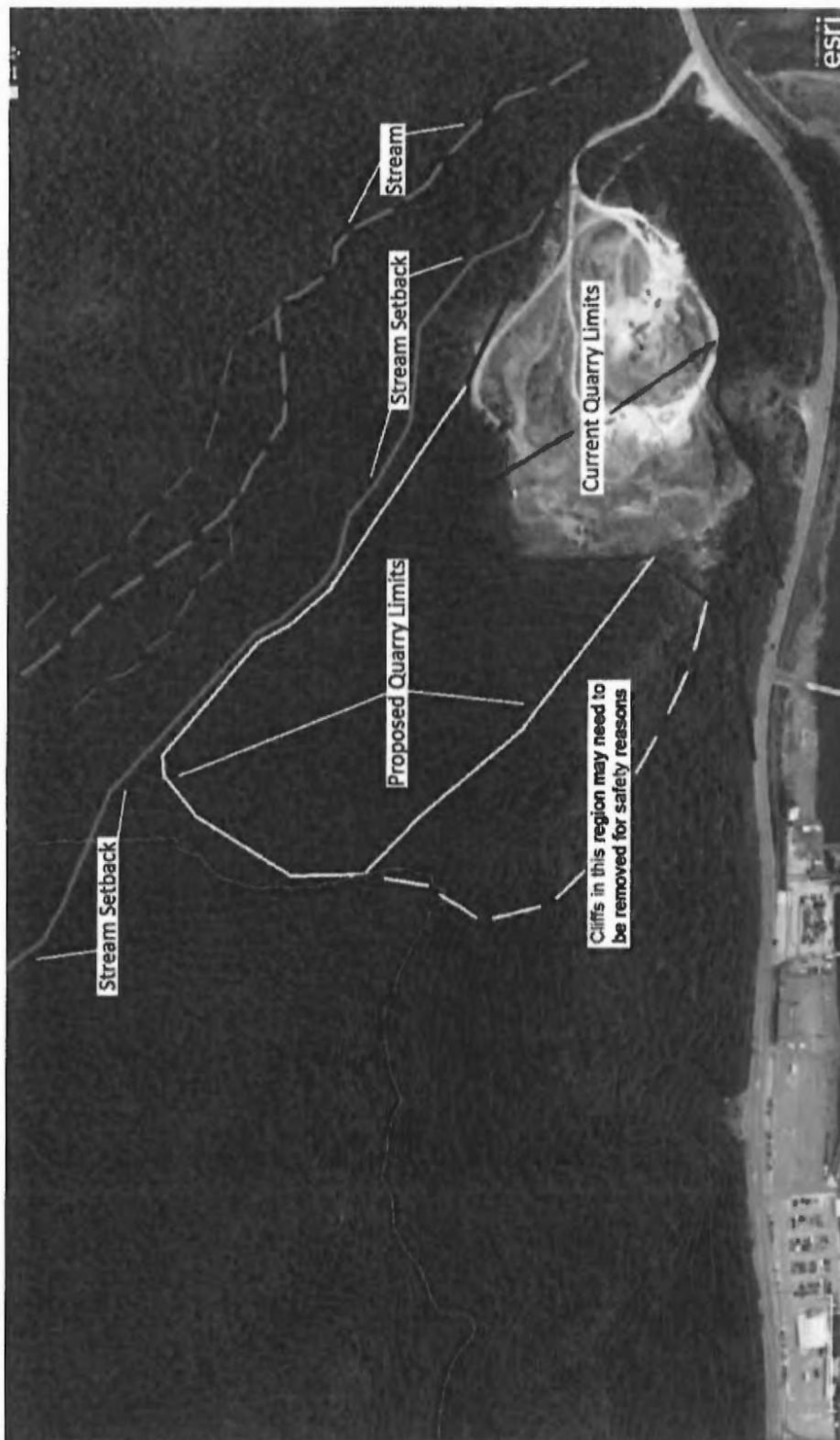
Please contact the Permit Center with any questions or to schedule a Pre-Application Conference:

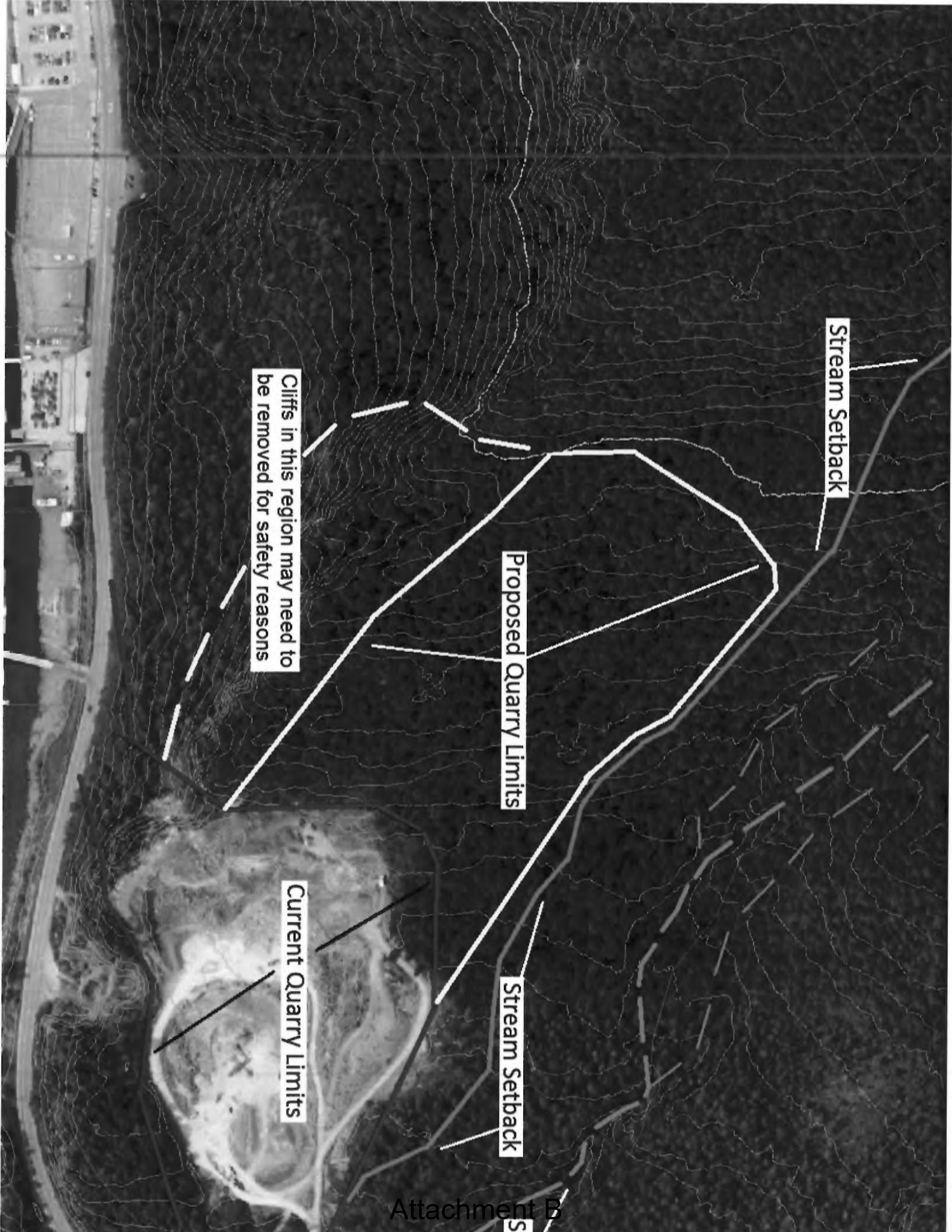
230 S. Franklin Street, 4th Floor – Marine View Building
Phone: (907) 586-0770 • Fax: (907) 586-4925
Permits@juneau.org • www.juneau.org

Monday through Friday (except Holidays) 8am to 4:30pm
Applications received: 8am to 4pm

Attachment 4

Proposed Expanded Stabler Quarry Limits





Stream Setback

Proposed Quarry Limits

Current Quarry Limits

Stream Setback

Cliffs in this region may need to be removed for safety reasons

Name: _____

Phone: _____ Email: _____

Mailing Address: _____

Phone: _____ Email: _____

Mailing Address: _____

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Please have comments submitted by Noon August 5th
Email comments to: jonathan.lange@juneau.org
586-0218

Email comments to: jonathan.lange@juneau.org

586-0218

Attachment B

**UAS, Egan Building, Glacier View Room #221
July 21st, 2016 6:30pm – 8pm**

[illegible]

Jonathan Lange

From: Ed Mercer
Sent: Thursday, June 30, 2016 9:41 AM
To: Jonathan Lange; Charlie Ford; Ron King; Dan Jager; Sven Pearson; Ed Foster; jackie.timothy@alaska.gov; marie.heidemann@alaska.gov; steve_b_lewis@fws.gov
Subject: RE: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Hi Jonathan,

JPD does not have any issue with this.

Thanks, Ed

From: Jonathan Lange
Sent: Thursday, June 30, 2016 9:39 AM
To: Charlie Ford; Ron King; Dan Jager; Sven Pearson; Ed Mercer; Ed Foster; jackie.timothy@alaska.gov; marie.heidemann@alaska.gov; steve_b_lewis@fws.gov
Subject: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Subject: Please review attached documents related to a Sand and Gravel Extraction Conditional Use Permit for a 10 year extension; and expansion of blast size and area of rock quarry operations for Stabler Point Quarry.
File: SGE2016 0001
Location: 13010 Glacier Highway



Please see the attached application and proposed plan narrative.

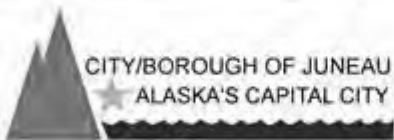


The application is to:

- Extend the operational life of the quarry to 2026
- Expand the horizontal area permitted within the quarry
- Increase the maximum blast size to 25,000 cubic yards

I look forward to receiving your comments. Please comment by July 14, 2016 or as soon as possible. Let me know if you require any additional information for this project or have any questions. Thank you and have a great day.

Jonathan Lange, CFM
 Planner II, Community Development Dept.
 City & Borough of Juneau, Alaska
 155 S. Seward St. Juneau, AK 99801
 Ph (907)586-0218
Jonathan.Lange@juneau.org



Jonathan Lange

From: Dan Jager
Sent: Thursday, June 30, 2016 9:47 AM
To: Jonathan Lange
Cc: Sven Pearson
Subject: RE: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Good morning Jonathan, there are no fire dept. issues with this. Thanks.
Dan

From: Jonathan Lange
Sent: Thursday, June 30, 2016 9:39 AM
To: Charlie Ford; Ron King; Dan Jager; Sven Pearson; Ed Mercer; Ed Foster; jackie.timothy@alaska.gov; marie.heidemann@alaska.gov; steve_b_lewis@fws.gov
Subject: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Subject: Please review attached documents related to a Sand and Gravel Extraction Conditional Use Permit for a 10 year extension; and expansion of blast size and area of rock quarry operations for Stabler Point Quarry.
File: SGE2016 0001
Location: 13010 Glacier Highway

Jonathan Lange

From: Charlie Ford
Sent: Thursday, June 30, 2016 9:55 AM
To: Jonathan Lange; Ron King; Dan Jager; Sven Pearson; Ed Mercer; Ed Foster; jackie.timothy@alaska.gov; marie.heidemann@alaska.gov; steve_b_lewis@fws.gov
Subject: RE: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Jonathan,
No Building issues with this one.
Thanks,

Charlie Ford, Building Official
Community Development Dept.
City and Borough of Juneau
Tel (907)586-0767 Fax(907)586-4529
email Charlie.Ford@juneau.org
Web page www.juneau.org/permits

From: Jonathan Lange
Sent: Thursday, June 30, 2016 9:39 AM
To: Charlie Ford; Ron King; Dan Jager; Sven Pearson; Ed Mercer; Ed Foster; jackie.timothy@alaska.gov; marie.heidemann@alaska.gov; steve_b_lewis@fws.gov
Subject: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Subject: Please review attached documents related to a Sand and Gravel Extraction Conditional Use Permit for a 10 year extension; and expansion of blast size and area of rock quarry operations for Stabler Point Quarry.
File: SGE2016 0001
Location: 13010 Glacier Highway

Jonathan Lange

From: Ron King
Sent: Thursday, June 30, 2016 10:18 AM
To: Jonathan Lange
Subject: RE: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

No issues

Ron King PLS

General Engineering
907-586-0881

From: Jonathan Lange
Sent: Thursday, June 30, 2016 9:39 AM
To: Charlie Ford; Ron King; Dan Jager; Sven Pearson; Ed Mercer; Ed Foster; jackie.timothy@alaska.gov; marie.heidemann@alaska.gov; steve_b_lewis@fws.gov
Subject: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Subject: Please review attached documents related to a Sand and Gravel Extraction Conditional Use Permit for a 10 year extension; and expansion of blast size and area of rock quarry operations for Stabler Point Quarry.
File: SGE2016 0001
Location: 13010 Glacier Highway

Jonathan Lange

From: Alan Steffert
Sent: Tuesday, July 12, 2016 3:09 PM
To: Alec Venechuk; Greg Chaney; Jonathan Lange
Cc: Dan Bleidorn; Rachel Friedlander
Subject: RE: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Jonathan,

Some history: The area of concern for rock fall on to the road has been a chute (lower half of chute outlined in red in photo below) that provides a straight shot from ridge top to hwy. In the past, rocks in the chute have occasionally come loose during unseasonal winter thaws (unrelated to quarry activity), but now the chute is relatively “clean” and stable. The debris fan at the base has been cleared up, and we have removed hanging and loose rock from the head of the chute. With the contributory area clear and stable I don’t see the chute as being a problem until we need to start lowering the top of the cliff prior to mine closure.

Alan



From: Alec Venechuk
Sent: Tuesday, July 12, 2016 2:20 PM
To: Greg Chaney; Jonathan Lange; Alan Steffert
Cc: Dan Bleidorn; Rachel Friedlander
Subject: RE: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

I agree, DOT would reserve the right to do anything inside the highway ROW, but I don't see a need for CBJ to cut trees that weren't themselves a hazard.

-Alec

From: Greg Chaney
Sent: Tuesday, July 12, 2016 1:29 PM
To: Alec Venechuk; Jonathan Lange; Alan Steffert
Cc: Dan Bleidorn; Rachel Friedlander
Subject: RE: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Hi Jonathan,

I don't agree with DOT's request to cut / "high stump" the trees that boarder the quarry because they might represent a hazard to the powerlines. The powerlines are on the opposite side of the road so a tree would have to fall downslope and across the highway to hit a powerline. As you can see from the photo below, it is unlikely that the trees would reach that far. In addition, those trees establish a visual buffer and provide some sound attenuation.

CBJ also creates some liability if we cut trees and then the slope becomes unstable. Law has cautioned us about trying to preemptively stablize slopes because we could be blamed for causing instability.

So I would prefer not to accept that recommendation.

Let me know if you have questions.

- Greg Chaney
CBJ Lands and Resources Manager



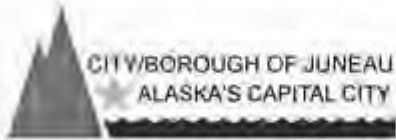
From: Alec Venechuk
Sent: Tuesday, July 12, 2016 8:22 AM
To: Jonathan Lange; Alan Steffert; Greg Chaney
Subject: RE: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Thank you Jonathan

From: Jonathan Lange
Sent: Monday, July 11, 2016 4:28 PM
To: Alec Venechuk; Alan Steffert; Greg Chaney
Subject: FW: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

FYI – Comments from DOT.

Jonathan Lange, CFM
Planner II, Community Development Dept.
City & Borough of Juneau, Alaska
155 S. Seward St. Juneau, AK 99801
Ph (907)586-0218
Jonathan.Lange@juneau.org



From: Heidemann, Marie E (DOT) [<mailto:marie.heidemann@alaska.gov>]
Sent: Monday, July 11, 2016 3:07 PM
To: Jonathan Lange
Subject: RE: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Jonathan,

ADOT&PF Southcoast Region offers the following comments on this proposal:

Traffic and Safety has no comment or objection provided current traffic control provisions are kept in place

Right of Way and Utilities - Would like to see all the trees on the remaining slope above the highway high stumped. Leaving high stumps would slow escaping rock from rolling down slope too fast. Removing the tall tree will keep trees from damaging the utilities on the pole line across from the pit. When alders are high stumped they still grow and get more like a hedge shrub. That too would slow escaping rock.

Thank you for the opportunity to comment.

Marie Heidemann
Transportation Planner
Southcoast Region, ADOT&PF
465-1775

From: Jonathan Lange [<mailto:Jonathan.Lange@juneau.org>]
Sent: Thursday, June 30, 2016 9:39 AM
To: Charlie Ford; Ron King; Dan Jager; Sven Pearson; Ed Mercer; Ed Foster; Timothy, Jackie L (DFG); Heidemann, Marie E (DOT); steve_b_lewis@fws.gov
Subject: Request for Review Comments for SGE2016 0001 - Stabler Point Quarry Expansion

Subject: Please review attached documents related to a Sand and Gravel Extraction Conditional Use Permit for a 10 year extension; and expansion of blast size and area of rock quarry operations for Stabler Point Quarry.

Jonathan Lange

From: Rich Brenner <richbrenner.alaska@gmail.com>
Sent: Friday, July 22, 2016 4:01 PM
To: Jonathan Lange
Subject: Re: Stabler Point Quarry permit

Thanks Jonathan! I really appreciate the GIS exercise and my sense of doom and gloom has faded....I'm sure my wife will be happy too.

Take care,
Rich

On Fri, Jul 22, 2016 at 3:48 PM, Jonathan Lange <Jonathan.Lange@juneau.org> wrote:

Rich,

From my estimate using our GIS system it is approximately a ½ mile from your nearest property line to the proposed expansion line of the quarry (see below).



The re-routing of Glacier Highway would be for the curve at Stabler Point, near the quarry. DOT would like to straighten out that curve. The new alignment is not determined, but from what I understand it would start from approximately where the current entrance to the quarry is and come out on the other side (see below).



I hope this information helps.

Let me know if you have any further questions.

Have a good weekend.

Jonathan Lange, CFM

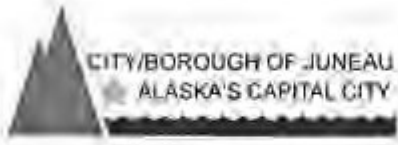
Planner II, Community Development Dept.

City & Borough of Juneau, Alaska

155 S. Seward St. Juneau, AK 99801

Ph (907)586-0218

Jonathan.Lange@juneau.org



From: Rich Brenner [<mailto:richbrenner.alaska@gmail.com>]

Sent: Friday, July 22, 2016 3:01 PM

To: Jonathan Lange

Subject: Re: Stabler Point Quarry permit

Thanks Jonathan,

Our land is directly above Glacier Seafoods dock. I can't really tell from the application, but it would be good to have a better idea of how close the quarry will get to our property. The application says "1/2 mile" but I think that's for the existing quarry, not for the planned expansion. Also, the plan mentions (eventually) re-routing the highway. Is the plan to re-route the highway behind our property? If so, that would have major ramifications for our recreational opportunities back there and the value of our property.

Thank you,

Rich

On Fri, Jul 22, 2016 at 2:17 PM, Jonathan Lange <Jonathan.Lange@juneau.org> wrote:

Hi Rich,

Thanks for your email.

Please see the attached application for more information. The attachment contains the application and narrative, the Notice of Decision for their current permit, a Vibration Monitoring Summary Report, and a Noise Study.

The application is for three things:

Extending the operational life of the quarry to 2026

Expanding the horizontal area permitted within the quarry (see below and Attachment 4 to the application narrative)

Increasing the maximum blast size to 25,000 cubic yards

The operation hours are not proposing to change from the current allowed hours of Monday through Friday 8am-4:30pm.

Please let me or Alec Venechuk, CBJ Project Engineer and Quarry Manager, know if you have any further questions.

Alec's contact info is as follows:

Alec.Venechuk@juneau.org

Office: 907-586-0874

Cell: 907-388-1099



Jonathan Lange, CFM

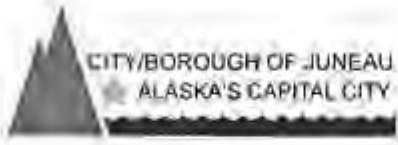
Planner II, Community Development Dept.

City & Borough of Juneau, Alaska

155 S. Seward St. Juneau, AK 99801

Ph (907)586-0218

Jonathan.Lange@juneau.org



From: Rich Brenner [<mailto:richbrenner.alaska@gmail.com>]

Sent: Friday, July 22, 2016 12:31 PM

To: Jonathan Lange

Subject: Stabler Point Quarry permit

Hi Jonathan,

Unfortunately, my wife and I were not able to attend last night's meeting regarding the Stable Point Quarry permit application.

How can we find out more about the proposed expansion of the quarry?

Our particular concerns are noise on weekends, during mornings and evenings, and how large of an expansion is being proposed. The card you send us shows the existing quarry. I think it would be helpful to see how this compares to the proposed expansion.

Thank you,

Rich Brenner and Allison Bidlack

Auke Bay

Jonathan Lange

From: Jonathan Lange
Sent: Tuesday, August 02, 2016 1:22 PM
To: 'BobE'
Subject: RE: Stabler Point Quarry

Hello,

Thank you for your email and your interest in being involved in the public hearing. I look forward to receiving your written testimony.

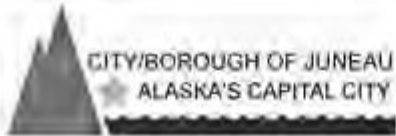
Unfortunately, the Planning Commission does not have a way for the public to listen in or participate telephonically to the hearing. We encourage the public to attend the meeting and if that is not possible to send in written testimony. Please send your written comments in as soon as you can, or no later than 14 days prior to the hearing (August 9th) to have the comments included and addressed in the staff report. After that date, the public testimony will be provided to the Planning Commission the night of the hearing.

Again, sorry that we don't have the ability for you to participate telephonically.

Please let me know if you have any further questions.

Have a good rest of your day.

Jonathan Lange, CFM
Planner II, Community Development Dept.
City & Borough of Juneau, Alaska
155 S. Seward St. Juneau, AK 99801
Ph (907)586-0218
Jonathan.Lange@juneau.org



From: BobE [<mailto:besd@acsalaska.net>]
Sent: Friday, July 29, 2016 4:48 PM
To: Jonathan Lange
Subject: Re: Stabler Point Quarry

Hi Jonathan,

We would like to participate telephonically to the CBJ Public Hearing on August 23rd. We will be submitting written testimony, but would like to listen to the oral testimony during the hearing.

Could you please provide a call in number, or instructions for other means to participate.

Thank you,
Suzanne Dvorak
& Bob eastaugh

On Jul 24, 2016, at 6:47 PM, BobE <besd@acsalaska.net> wrote:

Hi Jonathan,

Thank you for forwarding the permit application and narrative. It's interesting reading.

We'll be in touch with either you or Alec if we have further questions.

Best,
Suzanne Dvorak
& Bob Eastaugh

On Jul 22, 2016, at 3:56 PM, Jonathan Lange <Jonathan.Lange@juneau.org> wrote:

Hi Susan,

Thanks for your call this afternoon.

Please see the attached application for more information about the Stabler Point Quarry Conditional Use Permit. The attachment contains the application and narrative, the Notice of Decision for their current permit, a Vibration Monitoring Summary Report, and a Noise Study.

The application is for three things:

- Extending the operational life of the quarry to 2026

- Expanding the horizontal area permitted within the quarry (see below and Attachment 4 to the application narrative)

- Increasing the maximum blast size to 25,000 cubic yards

The operation hours are not proposing to change from the current allowed hours of Monday through Friday 8am-4:30pm.

Please let me or Alec Venechuck, CBJ Project Engineer and Quarry Manager, know if you have any further questions.

Alec's contact info is as follows:

- Alec.Venechuk@juneau.org

- Office: 907-586-0874

- Cell: 907-388-1099

<image001.jpg>

Jonathan Lange, CFM
Planner II, Community Development Dept.

City & Borough of Juneau, Alaska

155 S. Seward St. Juneau, AK 99801

Ph (907)586-0218

Jonathan.Lange@juneau.org

<image002.jpg>

<APP_SGE16-01.pdf>

Paul M. & ChongUn Hoffman
12500 Auke Nu Drive
Juneau, Alaska 99801-8638

City & Borough of Juneau

Attn: Alec Venechuk, Greg Chaney & Rob Steedle (via email)

Re: Conditional Use Permit, File No: SGE20160001
Stabler Point Quarry

As you can discern from the above address for our home, we live approximately a quarter mile from the Quarry. We have reviewed the Application for Permit, Stabler Point Quarry Noise Study and the Vibration Monitoring Summary Report, along with other materials. Since living at this address since 2002, we are well aware of the Quarry and its activities. We have a request and observation for your consideration.

Some days we are at home and haven't driven out for a day or two. Therefore we have not seen the signs put up on Glacier Highway providing notice of an imminent blast. Suddenly we feel a vibration through the house and muffled noise, with the first thought, "an earthquake." Then I go out of the house up to the road to see that there are signs out and traffic backed up on the road, and realize it was a blast at the Quarry. With this information I can reassure my wife, who is generally more afraid of earthquakes and possible tsunamis than I am.

I have lived in Auke Bay, although not at this address, since 1956. I have experienced a number of earthquakes here, such as the Lituya Bay 1958, Good Friday 1964 and a number of other, smaller ones primarily out in the ocean off of Cross Sound. Although the larger Quarry blasts provide a shorter period of vibration (shaking) than the earthquakes, the intensity at our home is between III & IV on the Modified Mercalli Intensity Scale.

For those of us who live near the Quarry, and it is not a very large number, would it be possible that a CBJ or Contractor employee a day or two before each blasting bring to or leave a notice on the front door of these nearby homes of the date and time of the blast?

Our house is built almost entirely on a bedrock point of land, about 30 feet above high tide. Perhaps because we are on bedrock, the vibrations from the blasts comes through to us more than other places. On several occasions after a blast, the jolting was strong enough that I went around the house, observing the cement floors & walls and sheetrock walls to see if any cracks had occurred. While I cannot attribute any of the cracks in the house directly to the event of a blast, yet it might be an accumulative effect of blasts, as we do have some cracks. We would suggest that blasts of a magnitude greater than in the past or that send greater shock waves through the bedrock may be a bad idea. Increasing the magnitude of the allowable blasts, as seems requested in the application, from 6,000 cubic yards to 25,000 cubic yards, more than a four-fold increase, is not going to be a wise decision.

We are not against the Quarry or getting rock for the community projects from this location. We are only asking for reasonable considerations and adjustments in blasting and operations practices for the citizens like us who live nearby to not bear a disproportionate burden. Thank you for your consideration.

Paul M. Hoffman (723-9407)

Jonathan Lange

From: Jonathan Lange
Sent: Friday, August 05, 2016 1:32 PM
To: 'Vivian H.'
Subject: RE: Quarry Expansion
Attachments: ConditionalUseHandout_06252015.pdf; APP_SGE16-01.pdf

Hello Ms. Hegg,

Thank you for your email. I will follow up with a phone call this afternoon to hopefully answer some more of your questions about the application.

At the neighborhood meeting Community Development Department staff gave an overview of the Conditional Use Permit process, and Engineering and Lands Division gave background and information about the proposed expansion to the quarry operations. Please see attached handout. We also shared the below site plan or "Proposed Expansion Stabler Quarry Limits", Attachment 4 from the applicant's narrative.

Please see the attached application for more information about the Stabler Point Quarry Conditional Use Permit. The attachment contains the application and narrative, the Notice of Decision for their current permit, a Vibration Monitoring Summary Report, and a Noise Study.

The application is for three things:

- Extending the operational life of the quarry to 2026

- Expanding the horizontal area permitted within the quarry (see below and Attachment 4 to the application narrative)

- Increasing the maximum blast size to 25,000 cubic yards

The operation hours are not proposing to change from the current allowed hours of Monday through Friday 8am-4:30pm, closed for State holidays.

You are correct, the expansion is to provide rock for the community. The realignment of Glacier Highway is the long term plan for the rock quarry and for this curve at Stabler Point. The State Department of Transportation does not have a specific date for when they would want to complete the realignment. You could speak with them if you have further questions about the plan.

Please let me or Alec Venechuck, CBJ Project Engineer and Quarry Manager, know if you have any further questions.

Alec's contact info is as follows:

Alec.Venechuk@juneau.org

Office: 907-586-0874

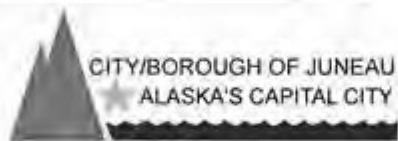
Cell: 907-388-1099

Attachment 4
Proposed Expanded Stabler Quarry Limits



Talk to you soon.

Jonathan Lange, CFM
Planner II, Community Development Dept.
City & Borough of Juneau, Alaska
155 S. Seward St. Juneau, AK 99801
Ph (907)586-0218
Jonathan.Lange@juneau.org



From: Vivian H. [<mailto:goldeneye35@live.com>]
Sent: Friday, August 05, 2016 9:44 AM
To: Jonathan Lange
Subject: Quarry Expansion

Mr Lange:

We have a couple of questions about the conditional use permit for the expansion of the Stabler Point Quarry and we would appreciate a call so we could ask a little more about the

proposed project. I am most likely to be home before 10:00 am and after 2:30 pm but please call at any time that works for you.

I understand there was notification of an initial meeting to people living in the immediate area and I am curious about whether notes or other information on the staff report and discussion at that meeting are available in printed or power point form or online?

To explain our interest we live on Fritz Cove Road so the only impact on us would be visual and, more particularly, noise. For some years there have been restrictions on the hours of operation set by the Planning Commission and I'm guessing these may also change as part of the expansion project.

I understand this expansion is primarily to provide access to more rock for but also part of the long term plan to move the highway back from the coastline. Since Greg Chaney is listed as the applicant, should I ask the State Highway Department for information about the status and timeline of that second goal?

We appreciate being included in the second notification of the project.

Thank you,

Vivian Hegg

2950 Fritz Cove Road

789-7311

Response to Proposal: A Conditional Use Permit for an extension to year 2026 and expansion of blast size and area of rock quarry operations for Stable Point Quarry from K Kriens August 8, 2016.

I live in the Spaulding Beach Condos and the activities of the current quarry operations do impact the residential life of the area. An extension and even more an expansion that more than doubles the current size of blasting will increase the negative impact on the people who live in Auke Bay from the quarry operations.

There are large rocks that fall from the trucks and end up on the highway.

The driveway out of Spaulding Beach is on a curve and hard to see oncoming traffic. More than once I have had a large quarry truck come up on me fast after I have entered the highway (looking as far as I could see down the road before I pulled out and seeing no traffic). They are big vehicles and one of those on your bumper is scary.

When coming from town and going towards the Ferry Terminal, I have had the big trucks on my bumper again since the speed limit is 35 mph and they want to go faster once they clear the elementary school turn. 35 mph does not start until after the creek and after the Spaulding Beach Condo driveway.

The blasting does affect the people and wildlife in the area. During blasts that I have heard and felt, I have witness sea gulls, eagles and ducks take flight in response.

The trucks run over the new roundabout at Deharts. Many tire marks – some could be the buses since I have followed both trucks and buses and observed both of them just driving on the middle sideway like it was part of the road so they don't have to keep the vehicle within the road parameters.

From what I understand the original Conditional Use Permit was for "certain conditions". How often, by who and what was done to verify that the certain conditions of the original use permit were followed? If it was not, were there any penalties beyond making residents of Auke Bay live with them? Auke Bay is a residential area and with major plans to increase the livability of the area through community planning. How does this quarry fit into the residential atmosphere?

Even if you grant an extension to this use permit – ten years it too long. There has to be some type of accountability if you do grant an extension and ten years gives the owner or future owner of the quarry a long time to beg off and nothing can be done. Going to a five year extension gives the Planning Commission a method to stop negative behavior. It is easier to control quarry actions by keeping the ability to make the owner responsible within reasonable time frames. If they are not, then in five years the permit ends - ten years gives the owner or future owner the abilities to stretch it out and never really respond appropriately since there is no pressure to get another extension for a long time.

The reason for the expansion of the blast size has not fully been explained or reviewed. It appears that it was just thrown in there to get it by the Planning Commission. This seriously needs to be revisited, even as a normal citizen not in the business; I see many flaws with the proposed expansion acreage.

Please consider my comments to increase the livability of Auke Bay for its residents.

Robert L. Eastaugh and Suzanne Dvorak
P.O. Box 112448
Anchorage, Alaska 99511-2448
907 344-7246
(12555 Auke Nu Drive)
email: besd@acsalaska.net

August 8, 2016

Planning Commission
City & Borough of Juneau

Re: Stabler Point Quarry Proposal SGE20160001

Dear Commissioners:

We have reviewed the proposal. Although we are not enthusiastic about the quarry operations, we will not object to the proposal so long as the permit is conditioned on these five requirements (discussed in more detail below):

- (1) The permit requires that vibration and blast effects observed and reported to date not be exceeded;
- (2) The permit requires adoption and implementation of recommendations contained in the ASE Blast Monitoring Report of December 31, 2015 (pages 8-11);
- (3) The permit includes a requirement identical to paragraph 7 of the Commission's 2011 Decision, which required that the quarry operator "submit a blast plan, reviewed by an independent blast consultant, to the CBJ Engineering Department/Quarry Manager for approval prior to each blast.";
- (4) The permit allows shot frequency not exceeding that experienced in 2015; and
- (5) The permit requires a "stepped" increase to the maximum proposed; i.e., require a 15,000 cubic yard blast to determine effects (conducted under similar conditions for any 25,000 cubic yard shots) before allowing shots at the requested 25,000 cubic yard level.

We consider these five conditions critical to our willingness to accept this proposal.

We own the house at 12555 Auke Nu Drive. It was built in the 1920's by my grandparents and has been in the family ever since. We currently rent it to tenants, but we occupied it for 30 days in May and June and intend to occupy it seasonally and very possibly someday permanently.

The quarry proposal gives us concerns about potential property damage from vibration or airblast (over pressure), loss of property value and rental income from inconvenience and loss of quality of life, and increased heavy truck traffic.

As it happens, we personally have not yet been on-site during any of the blasting, but former tenants who were on-site report major blast-related "impacts;" one tenant thought an airplane had struck the house.

There has been no monitoring to date on our property, and so far we have noticed no damage that we can definitely attribute to the quarry. We have noticed cracks in drywall joints in an upstairs suite rebuilt in the summer of 2015. That suite is in the part of the house closest to the quarry; some of its windows face the quarry. We cannot say whether the cracks are related to quarry activities.

Other quarry activity that directly affects us is the relatively high level of Auke Bay-area traffic of heavy trucks from and to the quarry.

The airblast, vibration, and traffic effects are significant, and affect the quality of life of anyone living on our property. We have not yet experienced any resulting decline in the financial value of the property or in its value as a rental property. But we would be surprised if there were no decline in the future. Potential tenants with a choice of properties will be less likely to choose one subject to nearby quarrying.

Nonetheless, we also recognize that the CBJ has a valid interest in making this quarry useful, and that necessarily means some blasting and trucking.

But that doesn't mean the quarry activities should be more intrusive than they have been. There must be a balance between the impacts on existing property owners (most whose ownership long predated the quarry operations) and CBJ's interests in deriving some income and making construction materials available.

We strongly believe that balance is best struck if approval of the proposal is conditioned on these five requirements (as listed on the first page):

First, adherence to the blast effects observed to date. These effects include vibration and air overpressure. It appears from the blast reports for 2015

that shot size does not in itself necessarily determine the magnitude of the resulting effects. The effects to date are certainly unpleasant to local residents, but are bearable. Just because the recorded vibration levels are well below the theoretical maximum in the Bureau of Mines standards does not mean residents and property owners should have to endure anything greater than what they have been enduring to date, and certainly nothing approaching the theoretical maximum.

It seems clear that expert blasting operators can produce substantial amounts of rock with blast vibrations and overpressures that, although they are unpleasant, are at least bearable. I am told by Chris Breeds, a Seattle PhD mining engineer with expertise in blasting, that there are means to control blast effects, such as phased explosions and electronic detonations. To the extent these methods may increase the cost of a given shot, that is simply the price of doing business, both for the CBJ, which is selling its resource, and for ultimate users; but to the extent this cost is avoidable by using the expertise evidenced to date at the quarry, then staying within the recorded results appropriately balances the CBJ's interests as owner and its interests as regulator of activities in its borders.

The proposal implicitly proposes that the effects, if the proposal is granted, will not exceed the results recorded to date. The Commission should condition the permit on that implicit proposal. That will leave it to the quarry operator to balance extraction and cost.

Under no circumstances could any significant increases in the magnitude of the blast effects (vibration and overpressure, not to mention fly rock) be justified. It is irrelevant that the Bureau of Mines standards have not been exceeded. Residents are not happy with the current effects. Allowing effects that could be up to ten times larger than the effects experienced to date would be a startling increase to residents. The proper standard should be what has been experienced so far.

If that is not possible, then the permit should be issued only provisionally for a one-year period, and then reconsidered when residents have had a chance to experience the effects of blasting under the new permit. The proposal is for a ten-year extension, i.e., until 2026. That would mean exposure to 10 years of effects that might prove intolerable.

Second, adopting the recommendations contained in the ASE Blast Monitoring Report of December 31, 2015. Pages 8-11 of the ASE Report of December 31, 2015 contain many helpful recommendations, especially the recommendations for requiring careful blast monitoring records, to ensure compliance. The recommendations also contain observations about 2015 blasting, and note apparent deficiencies in wall control blasting techniques. That suggests

better blast planning might be beneficial to the CBJ as quarry owner. Better plans might achieve adequate production with lower vibration and over-pressure levels. As both owner and regulator of industrial activities, the CBJ also has a responsibility to use the quarry without unduly affecting local residents.

Third, requiring CBJ approval of each blast plan. The Planning Commission should adopt a requirement identical to paragraph 7 of the Commission's August 10, 2011 Decision. It requires that the quarry operator "submit a blast plan, reviewed by an independent blast consultant, to the CBJ Engineering Department/Quarry Manager for approval prior to each blast." We regard this to be an essential protection.

Fourth, limiting shot frequency. Shot frequency apparently increased by 60% in 2015 and may be up in 2016. The frequency has a major effect on how residents experience and view the quarry operations, and thus the nature of their responses to the proposal. If residents thought the blasts would be two times as frequent, for example, their responses might change. The Commission should limit the annual shot frequency to the frequency of 2015 (the most recent complete year). As noted below, the new proposed standard would control for 10 years.

Fifth, requiring a test shot. Mining engineer Chris Breeds suggested to me that it would be reasonable to require a "stepped" increase to the maximum proposed; i.e., he suggested requiring a 15,000 cubic yard blast to determine effects (under similar conditions) before allowing shots at the requested 25,000 cubic yard level. Again, the proposal is to extend the current permit, expiring in 2021, for ten years. In effect, the new levels would be in place for 10 years, from 2016 through 2026. A test of 15,000 cubic yards (under similar conditions to proposed shots of 25,000 cubic yards) would help reveal whether the Commission should grant a permit that potentially allows much larger blast effects for 10 years. If the Commission is seriously considering a proposal that will affect residents for 10 years, it should also consider the stepped test and delaying final approval.

Our comments to date are necessarily conditional, because the worst-case consequences of the proposal can't be definitively described. Based on what has been recorded and experienced so far, the Commission should adopt the conditions we discuss above to prevent the worst-case consequences from ever occurring.

Very truly yours,

Robert L. Eastaugh

Suzanne Dvorak

Alison E. Browne
P.O. Box 20589
Juneau, AK 99802-0589
907-723-6037



August 9, 2016

Planning Commission, City & Borough of Juneau
Community Development Department
155 S. Seward Street
Juneau, AK 99801

Re: Proposal: Stabler Point Quarry Conditional Use Permit

Dear Commissioners and Staff:

I am a life-long resident of Juneau and have been a homeowner since the late 1970s. I have lived in West Juneau for the past 30+ years.

I also own an undeveloped lot located at 12545 Auke Nu Drive, where I am considering building a new house during the next two years. It will become my primary residence. There has been a required pledge to the city (in the form of a Time Certificate of Deposit) that I, as owner of the Auke Nu Drive lot, connect to city water this summer, whether or not I plan to build.

As an Auke Nu Drive property owner, I received a notice of the Stabler Point Rock Quarry expansion July informational meeting (which I could not attend) and the notice for the upcoming August 23rd Planning Commission meeting.

Until now, I have never given much thought to the quarry other than it was providing fill for public purposes necessary for the development and growth of certain Juneau areas, including ports and harbors, which, in my mind, ultimately help make Juneau a better city for its residents, and a better capital city.

Because the Conditional Use Permit before you contains expansion of blast size at Stabler Point Quarry, and because I have never lived in the neighborhood where I may build in the near future, I met with Alec Venechuk, the new CBJ liaison to the quarry. He explained that CBJ oversees quarry activity protocols. He mentioned that the existing quarry is "mined out," and the planned mining expansion would continue up the hillside in a NW direction.

Mr. Venechuk also said that the quarry has been adjusting blast size as needed for efficiency's sake. In reviewing my notes, I take that to mean they have increased the blast to extract rock faster. If that's the case, I would like reassurance that the following neighborhood impacts that I describe below will not increase in terms of impact and frequency.

I began asking quarry neighbors (across the highway from the quarry -- but not at Stablers Point) if they had felt prior blasts. Five of six households have inescapably felt the blasts over the past number of years. A former tenant in the house next door to my lot told me that at the time of one blast (and she had not received prior notice of the blast), she thought a small plane had crashed into the house -- there was a loud bang/jolt, and the entire roof shook. She called the property manager who explained that it was quarry blast impact. Another neighborhood resident told me they jumped out of their chairs during two separate occasions at the sudden jolts ("big bumps") from the impact. The owner said it "really shook" their house. They were unnerved, not knowing what caused it. They had not received prior notice. The resident walked up to the highway and saw a blast warning sign posted there which they had not seen beforehand. Another resident said that it felt as though the house "jumped up" because of the blast. That resident and another said all windows rattled during blasting. Another Auke Nu property owner told me they have not felt any blasts (they work in town during blasting hours, however), but they were aware that blasting can disrupt upland rock substructure which can cause hydrogen sulfide to be released into ground water which can negatively impact streams and well water. The houses I know of along Auke Nu Drive are on city water.

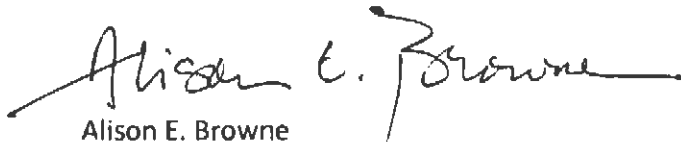
I understand that there were 10 to 14 blasts during 2015, and the number during 2016 will be higher. With the Planning Commission's approval of blast size expansion,

- (1) Could the proposed expansion of blast size negatively impact
 - (a) the substructure and slope of my lot, and/or
 - (b) any stage of homebuilding during new-home construction one or two years from now?
 - (c) the stability of tall Sitka spruce that stand on my and neighbors' lots?
- (2) Will blast impacts on neighborhood residents, land and structures cause property values to decrease?

I would like the foregoing questions answered, and I urge the Planning Commission to reconsider blast expansion. I also urge the Commission to continue requiring ongoing detailed records and testing of each blast; and continue working with neighbors who request that city seismic meters be placed on their property during a blast. It should also be incumbent on the City & Borough to ensure that residents within blast impact areas are adequately informed of blasts 3 to 4 days in advance -- and not just through signs on the road -- but also through email, smart-mail, or robocall, etc.

And finally: Quarry neighborhood residents may wish to postpone getting on that step-ladder to change a smoke alarm battery or light bulb, wash windows, or paint ceiling trim **until AFTER** a blast.

Sincerely,


Alison E. Browne



Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

PLANNING COMMISSION NOTICE OF DECISION

Date: August 24, 2016

File No.: SGE2016 0001

City & Borough of Juneau
Lands Division
155 S. Seward Street
Juneau, AK 99801

Proposal: A Conditional Use Permit for an extension to year 2026 and expansion of blast size and area of rock quarry operations for Stabler Point Quarry.

Property Address: 13010 Glacier Highway

Legal Description: USS 3810 LT 1 FR

Parcel Code No.: 4-B30-0-102-002-0

Hearing Date: August 23, 2016

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated August 11, 2016, and approved the Conditional Use Permit for Stabler Point Quarry to be conducted as described in the project description and project drawings submitted with the application and with the following conditions. The Commission modified conditions 2, 21, and 26 – 28 as described below.

1. All vehicle loads shall be contained. Vehicles hauling from the site shall be operated with tailgates, covers or other similarly effective methods. The use of exhaust brakes on trucks entering or leaving the quarry shall not be used, unless required for safety reasons.
2. Public notification warning signs shall be erected a minimum of 24 hours prior to blasting. Written notification shall be given to Juneau Flight Services, Juneau Police Department and Capital City Fire / Rescue a minimum of 24 hours prior to blasting. The applicant shall issue email notification 24 hours prior to blasting to all those who request it.
3. The hours, days and dates of operation shall be 8am – 4:30pm, Monday through Friday, all year except State holidays.

4. Blasting operation shall be scheduled to occur between 10am-12pm and 1pm-3pm, Monday through Friday.
5. This quarry permit shall expire 10-years after the date of approval.
6. Each quarry operator shall submit an individual mining plan that is in conformance with this Conditional Use permit and is approved by the quarry manager prior to performing any work in the quarry. Each mining plan shall be prepared by a civil engineer or other authorized professional.
7. The operator is required to comply with the requirements of CBJ Standard Specifications 02090 Blasting Controls. A quarry operator shall submit a blast plan, reviewed by an independent blast consultant, to the CBJ Engineering Department/Quarry Manager for approval prior to each blast.
8. Quarry operators shall comply with the existing ADOT/PF approved Stabler Traffic Control Plan(s) for blasting operations, quarry access, and work within the ADOT/PF ROW.
9. Explosives shall not be stored on site, except for that which is immediately necessary for the next blast.
10. The applicant shall comply with ADEC regulations governing stormwater discharges from the quarry site, with particular attention paid to protecting Auke Nu Creek.
11. The applicant shall (or shall cause to) reclaim the quarry site with finished faces and established benches, and remove loose rock during the period between projects, even if the entire quantity of rock has not been removed.
12. The applicant shall (or cause to) control dust caused by excavation, truck hauling, rock crushing, or other aspects of the operation.
13. The applicant shall (or cause to) repair any damage to Glacier Highway as a result of the quarry operation. If there is visible damage to the roadway due to hauling or mining operations, the roadway shall be repaired in cooperation with ADOT/PF.
14. The applicant shall require the posting of a bond (or equivalent if project based) from all quarry operators to ensure spilled or tracked material are removed from public roads. The applicant shall (or cause to) remove all spilled materials immediately from public roadway and ensure that mud and debris tracked onto roads be cleaned daily with the City having the ability to allow less frequency on a case by case basis as warranted. ADOT/PF reserves the right to request sweeping at any time it sees a problem or complaint.
15. The applicant shall ensure that lighting (if any) does not glare onto adjacent roadways.
16. The applicant shall (or cause to) operate the quarry according to the application proposal, including attachments and drawings, except that all conditions contained herein shall take precedence.

17. The applicant shall ensure that the rock extraction is consistent with the recommendations of the US Fish & Wildlife Service for the protection of nesting eagles according to the past approved variances (VAR96-52, VAR2000-37, VAR2001-17, & VAR2008-6).
18. The applicant shall maintain a lockable security gate at the quarry entrance.
19. The applicant shall (or cause to) retain a natural buffer at the western end of the quarry similar to that at the eastern end for a visual and noise barrier. This buffer may be pierced to create the new western entrance roadway (Attachment A). Additionally, and when feasible, the buffer shall be retained during all quarry operations throughout the site for noise and visual buffering.
20. Prior to extracting the southwestern cliff face of the quarry, a qualified expert in geophysical hazard shall evaluate the site and recommend guidelines for its development. Further, these guidelines shall be made part of any approved mining plans for these areas and written notification given to all operators.
21. The noise levels (excluding blasting) as measured at the nearest property lines shall not exceed 65 dBA.
22. Rock crushers shall be operated on the lower quarry levels. Stockpiles shall be located in a way to provide additional noise screening barriers whenever possible.
23. The applicant shall have all operators of the quarry conduct their activities in accordance with all requirements of the noise management plan, blasting and noise controls, and temporary environmental controls.
24. The site clearing shall be consistent with needs to retain sound and visual barriers for the quarry operation. Prior to removal of substantial vegetation, the clearing limits shall be flagged and reviewed for approval by the Community Development Department.
25. Individual blasts shall be limited to a maximum of 25,000 cubic yards.
26. The pull out area adjacent to the quarry entrance drive near Glacier Highway is to be used for equipment transfer only. There shall not be temporary or long term parking on the pull out area. Transfer operations shall occur outside of the roadway clear zone. Access into the pull out area shall be limited to right in and right out turns.
27. A strip of land at the existing topographic level not less than 15 feet in width shall be retained at the periphery of the site wherever the site abuts a public way. This periphery strip shall not be altered except as authorized for access points. This section does not alter the applicant's duty to maintain subjacent support.
28. If the bank of any extraction area within the permit area is above the high water line or water table, it shall be left upon termination of associated extraction operations with a slope no greater than the angle of repose for unconsolidated material of the kind

composing it, or such other angle as the Commission may prescribe. If extraction operations cause ponding or retained water in the excavated area, the slope of the submerged working face shall not exceed a slope of 3:1 from the edge of the usual water line to a water depth of seven feet. This slope ratio may not be exceeded during extraction operations unless casual or easy access to the site is prevented by a fence, natural barriers, or both.

Attachments: August 11, 2016, memorandum from Jonathan Lange, Community Development, to the CBJ Planning Commission regarding SGE2016 0001.

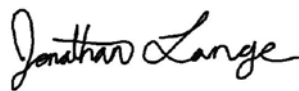
This Notice of Decision does not authorize construction activity. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ §49.20.120).

Effective Date: The permit is effective upon approval by the Commission, August 23, 2016.

Expiration Date: The permit will expire 18 months after the effective date, or February 23, 2018, if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the development permit was authorized. Application for permit extension must be submitted thirty days prior to the expiration date.

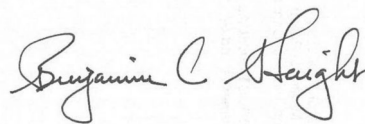
Project Planner:



Jonathan Lange, Planner Community
Development Department



Filed With City Clerk



Ben Haight, Chair
Planning Commission

8/30/16

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ-adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

ORIGINAL

U. S. SURVEY No. 3810, ALASKA EMBRACING LOTS 1 AND 2 SITUATED

ON THE NORTHERLY SHORE OF AUKE BAY
ADJOINING HOMESTEAD ENTRY SURVEY NO. 120
U.S. SURVEYS NOS. 687, 2340, 3050
AND
ENCLOSING U.S. SURVEY NO. 2389
ABOUT 15 MILES NORTHWESTERLY
FROM
JUNEAU, ALASKA

APPROXIMATE GEOGRAPHIC POSITION
AT CORNER NO. 1
LATITUDE $58^{\circ}23'40''$ N. LONGITUDE $134^{\circ}39'50''$ W.

AREA SURVEYED:
GROSS AREA 387.05 ACRES
AREA OF U.S. SURVEY NO. 2389 37.58 ACRES
NET AREA 349.46 ACRES

EXECUTED BY
THEODORE P. KOBREKLE, CADASTRAL SURVEYOR
AND
ROBERT Q. FICKERING, SUPERVISORY CADASTRAL SURVEYOR
MAY 21, 1960 TO SEPTEMBER 29, 1962

UNDER SPECIAL INSTRUCTIONS
DATED MARCH 1, 1960
AND
APPROVED MAY 5, 1960

FOR COURSES AND DISTANCES OF U.S. SURVEY NO. 2389,
SEE OFFICIAL RECORD OF THAT SURVEY.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C.
May 24, 1963

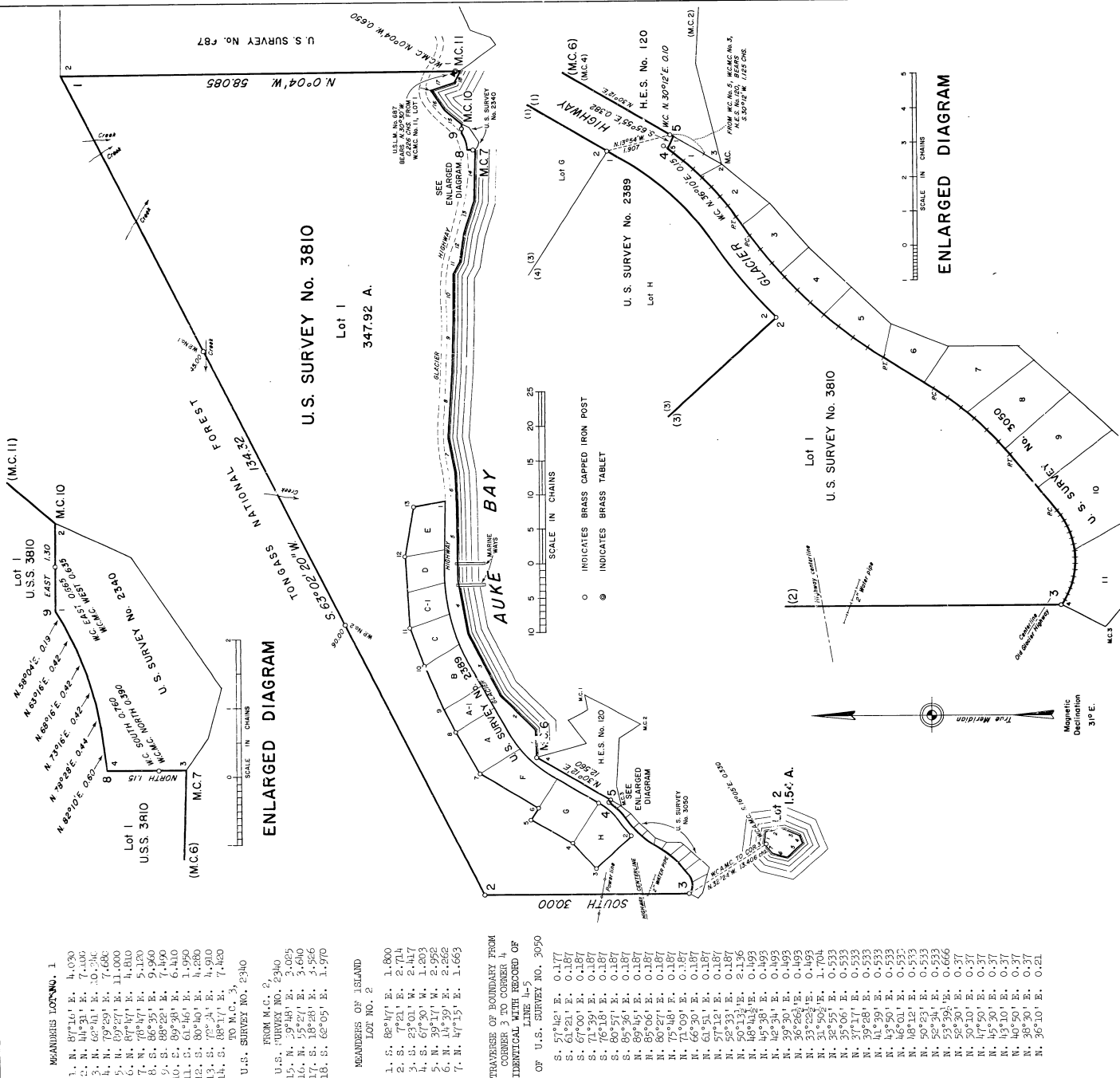
This plat is strictly conformable to the approved
field notes, and the survey, having been correctly ex-
ecuted in accordance with the requirements of law and
the regulations of this Bureau, is hereby accepted.

For the Director

E. J. Hume

Chief, Division of Engineering

U.S. 231, 02. L.M.
2-1-10 (8-2, 0-1)



MEASUREMENTS LOT NO. 1

1. N. $87^{\circ}16' E.$ 4.030
2. N. $69^{\circ}41' E.$ 1.740
3. N. $79^{\circ}29' E.$ 7.685
4. N. $89^{\circ}27' E.$ 11.000
5. N. $76^{\circ}17' E.$ 4.810
6. N. $76^{\circ}17' E.$ 5.120
7. N. $86^{\circ}35' E.$ 9.960
8. N. $88^{\circ}28' E.$ 7.490
9. N. $89^{\circ}38' E.$ 6.410
10. N. $61^{\circ}46' E.$ 1.590
11. N. $77^{\circ}21' E.$ 1.560
12. N. $77^{\circ}21' E.$ 4.910
13. N. $89^{\circ}17' E.$ 7.420
14. S. TO M.C. 3.

U.S. SURVEY NO. 2340

FROM M.C. 2

1. N. $59^{\circ}48' E.$ 3.025
2. N. $59^{\circ}48' E.$ 3.640
3. N. $59^{\circ}48' E.$ 3.640
4. S. $66^{\circ}05' E.$ 1.970

MEASUREMENTS OF ISLAND

LOT NO. 2

1. S. $80^{\circ}17' E.$ 1.800
2. S. $72^{\circ}21' E.$ 2.714
3. S. $23^{\circ}01' W.$ 2.417
4. S. $67^{\circ}30' W.$ 1.203
5. N. $39^{\circ}17' W.$ 2.952
6. N. $14^{\circ}39' E.$ 2.262
7. N. $47^{\circ}15' E.$ 1.663

TRANSVERSE OF BOUNDARY FROM
CORNER 1, LINE RECORD OF
IDENTIFICATION LINE 14-5
OF U.S. SURVEY NO. 3050

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MEASUREMENTS LOT NO. 2

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Extraction Permit Application Information

Extraction permit applications are outlined in CBJ 49.65.210

Applications for Extraction Permits are reviewed by the Planning Commission at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make decisions tailored to individual applications. The Commission may stipulate conditions to mitigate external adverse impacts from the proposed use. If it is determined that these impacts cannot be satisfactorily overcome, the permit shall be denied.

Pre-Application Conference: A pre-application conference is required prior to submitting an application. The applicant will meet with City & Borough of Juneau (CBJ) staff to discuss the proposed development, the permit procedure, and to determine the application fee. To schedule a pre-application conference, please contact the Permit Center at 586-0770 or via email at pac@juneau.gov.

Application: An application for an Extraction Permit will not be accepted by the Community Development Department (CDD) until it is determined to be complete. The items needed for a complete application are:

1. **Forms:** Completed Extraction Permit Application and Development Permit Application forms.
2. **Fees:** The fee for an Extraction Permit Application is dependent upon the class of the proposed use. Land Use fees generally range from \$1000 to \$1,600. Any development, work or use done without a permit issued will be subject to double fees. All fees are subject to change.
3. **Project Narrative:** A detailed narrative describing the proposed extraction operations, on-site processing, stockpiling, and site restoration shall be included showing:
 - a. Location of proposed extraction;
 - b. A site drainage plan;
 - c. A method of securing the area, including installation of gates at access points, posting, and fencing;
 - d. Methods to be used to minimize noise pollution and visual blight;
 - e. The proposed hours and days of operation during the year;
 - f. The estimated amount and general type of material present and to be removed from the site;
 - g. The results of test holes which show the water table level;
 - h. The date by which it is anticipated the extraction and processing operation will be completed;
 - i. A schedule for completion of necessary site restoration work;
 - j. Operating procedures for control of airborne particulates and other pollutant emissions from the site and equipment used at the site that may affect areas beyond the site boundaries;
 - k. The identification of any geophysical hazards which may affect or be affected by the proposed operation. A statement of the possible impact of the hazard on the operation and of the operation on the hazard including methods of reducing the impact;
 - l. The date the operation was established and history of adjacent land development;
 - m. Compatibility of the proposed operation with the present and future development, utilities, and public services.
 - n. Unique characteristics of land or buildings; and
 - o. Any additional relevant information as the commission or department may request.
4. **Plans:** All plans are to be drawn to scale and clearly show the items listed below:
 - a. A topographic map showing the existing topography, vegetation, drainage features, ground water level, structures, significant natural and artificial conditions of the land, on-site and off-site geophysical hazards which may affect or be affected by the proposed operation, proposed structures, roads, stockpiling and operation;
 - b. A topographic map and a typical cross section showing the proposed finished contour on the land, vegetation, drainage features, limits of overburden clearing, structures, and significant natural and artificial conditions of the property which will exist upon completion of the site restoration plan;
 - c. Topographic maps required in (A) and (B) for areas having a slope of less than five percent shall show spot elevations at all breaks in grade, drainage channels or swales and at selected points not more than 100 feet apart in all directions. For areas having a slope of greater than five percent, contours shall be shown at an interval of not more than five feet where the ground slope is regular; however, contour intervals of not more than two feet may be required where necessary to adequately show irregular land features or drainage details;
 - d. The plan must include a map showing ingress and egress points for trucks and other equipment;
 - e. The plan must include a map showing all buildings and structures to be located on the site;
 - f. Existing and proposed lighting; and
 - g. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.).

Document Format: All information that is submitted as part of an application shall be submitted in either of the following formats:

1. Electronic copies may be submitted by CD, DVD or E-mail in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf or other formats pre-approved by the Community Development Department.
2. Paper copies may not be larger than 11" X 17" (Unless a larger paper size is preapproved by the Community Development Department).

Please consult with the Community Development Department to discuss whether additional information may be required for your application. The “Planner-On-Call” can be reached by contacting the Permit Center at 586-0770 or via email at Permits@juneau.org.

Application Review and Hearing Procedure: Once the application is determined to be complete, the Community Development Department (CDD) will initiate the review and scheduling of the application. This process includes:

Review: Upon receipt of a complete application and the required filing fee, CDD shall schedule a public hearing to be held within 45-days of the receipt of the completed application. Prior to the hearing CDD shall submit a copy of the application to the Engineering Department for a report containing an evaluation of the information in the application and shall include recommendations relating to the effect the proposed extraction and expected traffic will have upon the streets and other improvements of the City and Borough, whether such streets and improvements are existing or projected; the water table, water quality, and drainage; and all properties within the area of influence of the proposed operation. Also during this time, CDD will send the application out for a 15-day agency review period; CDD will evaluate the application for consistency with all applicable City & Borough of Juneau codes and adopted plans; and depending on unique characteristics of the permit request the application may be required to be reviewed by other municipal boards and committees. Review comments may require the applicant to provide additional information, clarification, or submit modifications/alterations for the proposed project.

Hearing: All Extraction Permit Applications will be heard by the Planning Commission as a Conditional Use permit. Within 30-days of the hearing, the commission shall take action on the application. After the public hearing on the application, the commission may grant the permit but shall first consider each of the following areas and may impose such restrictions as may be necessary to protect the public health, safety and welfare:

- A. The hours, days, and times of year of operation;
- B. Screening, whether natural or artificial, to reduce or eliminate adverse visual, audible or other impacts of the operation;
- C. Measures to protect the public from the dangers of the operation or site, to prevent casual or easy access to the area, or to prevent the operation or area from being an unprotected attractive nuisance;
- D. Final and working slope ratios of the face of any extraction area to the extent necessary to protect abutting public and private property, and to protect the future beneficial uses of the property as described in the applicant's plan for development and restoration;
- E. Measures to protect private and public property adjoining the operation and to guarantee orderly and safe traffic circulation both on the public streets and within the permit application area;
- F. Measures which will ensure adequate drainage or collection and storage of surface waters to protect surrounding property, eliminate dangers to the public, or to protect the future beneficial use of the property as described in the applicant's plan for development and restoration;
- G. Measures to protect the water level and water quality;
- H. Measures to minimize or eliminate airborne particulates, visual blight, noise, and other adverse environmental effects;
- I. Restoration measures and schedule;
- J. Other measures designed to protect the public health, safety and welfare, including preservation of neighboring property; and
- K. Present development and past history of the neighboring property.

Public Notice Responsibilities: As part of the Extraction Permitting process, all permit requests must be given proper public notice as outlined in CBJ 49.65.225 and CBJ 49.15.230 which consists of the following:

The Community Development Department will give notice of the pending Planning Commission meeting and its agenda in the local newspaper a minimum of 10-days prior to the meeting. Furthermore, CDD will mail notices to all property owners within 300-feet of the project site.

The Applicant will post a sign on the site at least 14 days prior to the meeting. The sign shall be visible from a public right-of-way or where determined appropriate by CDD. Signs may be produced by the Community Development Department for a preparation fee of \$50, and a \$100 deposit that will be refunded in full if the sign is returned within seven days of the scheduled hearing date. If the sign is returned between eight and 14 days of the scheduled hearing \$50 may be refunded. The Applicant may make and erect their own sign. Please speak with the Community Development Department for more information.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED