



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

December 17, 2008
Honolulu, Hawaii

Application for Stream Channel Alteration Permit (SCAP.2030.2)
Installation of Culvert Crossing on Pohakuhonu Stream
Kilauea, Kauai, TMK: (4) 5-2-022:025

APPLICANT:

Ulrich Rachner
P.O. Box 692
Kilauea, HI 96754

LANDOWNER:

Same

SUMMARY OF REQUEST:

Application for a Stream Channel Alteration Permit (SCAP) to install a culvert crossing on Pohakuhonu Stream, Kilauea, Kauai, TMK: (4) 5-2-022:025 (SCAP.2030.2).

LOCATION: Exhibits 1a, 1b and 1c.

BACKGROUND:

On January 18, 2005, the Commission approved a Stream Channel Alteration Permit (SCAP. 1560.2, formerly SCAP KA-376) to the applicant to construct a 16-foot wide culvert crossing over Pohakuhonu Stream by installing three 48-inch diameter pipes to convey the stream flow at TMK: (4) 5-2-022:020 and 025. The roadway crossing would provide vehicular access and utilities to Parcel 25 which is a 304 acre property zoned for agriculture with an allowable density of five residences. See Exhibit 4.

The Commission also approved the following special condition:

The applicant shall ensure that the culverts are configured in such a manner that provides a continuous wetted surface between the stream channel and the entries

and exits of the culverts. In addition, prior to the end of construction activities the applicant shall provide the Commission and the Division of Aquatic Resources with photographs or digital images of both the upstream and downstream transition areas between the stream channel and culverts.

DESCRIPTION:

The applicant is proposing to build a new 20-foot wide roadway across Pohakuhonu Stream to provide access to Parcel 25, Units 1 and 2 which is owned by the applicant. See Exhibit 1c. Five, 72-inch diameter high density polyethylene (HDPE) drain pipes, each approximately 47 feet in length, will be installed across Pohakuhonu Stream. Excavated material from the construction of the driveway will be placed over the pipes, and a four-inch thick concrete driveway will be built over a four-inch thick compacted base course. One-foot thick grouted rip rap will provide slope protection and an apron at the inlet and outlet ends of the drain pipes as it meets the stream. See Exhibits 2 and 3.

Approximately 1099 cubic yards of material will be excavated; 444 cubic yards of fill material for the embankment and 1,324 square feet of rip rap will be used for the culvert crossing.

Silt curtains and sand/gravel bags will be installed upstream and downstream of the proposed crossing area to isolate it. A temporary bypass ditch and 72-inch bypass pipe system will be constructed to divert water around the proposed construction area. A filter fabric fence will be installed along the downstream end of the project area to prevent silt from entering the stream. Construction within the stream channel is expected to last four weeks.

ANALYSIS:

Agency Reviews

The Office of Hawaiian Affairs asked if the applicant had considered the state's anti-degradation policy that requires that the existing use and the level of water quality necessary to protect the existing uses of the receiving state water be maintained and protected and the impacts to diadromous species that require an unimpeded mauka to makai connection.

The Department of Health (DOH) Clean Water Branch (CWB) made the following comments:

- DOH CWB received an application for a Section 401 Water Quality Certification (WQC) for the project but did not receive a project progress report or applicable monitoring and assessment reports for the first culvert crossing project.
- The applicant should contact the Honolulu Engineer District (HED) of the U.S. Army Corps of Engineers (COE) for a jurisdictional determination (JD) for potential Department of the Army (DA) permitting requirements. The property contains wetlands that may be subject to DA permitting requirements if the placement of dredged spoils or fill material into wetlands is unavoidable for the proposed construction activity. Wetland delineation may be required.
- The proposed project and its potential impacts must meet the state's anti-degradation policy, designated uses and water quality criteria.
- Additional information is needed to justify the need for the construction of a second stream crossing at Pohakuhonu.

- Additional information regarding the acreage of the total land areas to be disturbed associated with the proposed development is needed.
- A National Pollutant Discharge Elimination System (NPDES) permit will be required for storm water discharges associated with the proposed construction activity into State waters if the total land area is one acre or more. Additional information must be submitted to the CWB for further NPDES permitting requirements evaluation.

Kauai County Planning Department commented that all proposed work shall comply with the County's Flood Ordinance.

Kauai County Public Works commented that:

- The flood study information used to determine Building/Drainageway Setbacks for the Kalihiwai Subdivision plan must be used to ensure that the proposed stream crossing will not increase surface water elevation of the base flood to an elevation higher than one foot below that of the Building/Drainage setback within the area of the owner's property.
- There shall be no rise in the base flood elevation in the areas outside the owner's property.
- A registered professional engineer licensed in the State of Hawaii shall submit for the County's review and approval a certification with supporting data that the above-mentioned requirements have been met for the project.

Historic Preservation commented that the project is situated in a parcel that is zoned agricultural and will follow the footprint of the stream. No historic properties will be affected.

Engineering previously commented that the project site is located in Zone X according to the Flood Insurance Rate Map (FIRM), and the National Flood Insurance Program (NFIP) does not have any regulations for developments within Zone X.

The Division of Aquatic Resources (DAR) previously commented:

- DAR preferred the alternative of constructing a bridge as opposed to a culvert crossing because it may have lesser impact on the streams.
- All of the streams in the Hanalei area provide habitat for native freshwater animals as well as some exotic freshwater animals. Native freshwater animals recruit from the ocean as post-larvae and swim upstream as they mature. Streams such as Pohakuhonu should be preserved as much as possible in order to perpetuate native freshwater species.
- Construction activities should have short term impacts on aquatic resources such as temporary turbidity, biota displacement and disturbance. The applicant should take mitigative measures to prevent contaminants such as sediment, pollutants, petroleum products, and debris from possibly entering the aquatic environment.
- Work should be scheduled during periods of minimal rainfall, and lands denuded of vegetation are replanted or covered as quickly as possible to control erosion.

The Department of Hawaiian Home Lands, State Parks, and Forestry and Wildlife had no objections to the project.

The U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, University of Hawaii Environmental Center and Land Division did not submit comments as of the date of preparation of this submittal.

RECOMMENDATION:

That the Commission approve a Stream Channel Alteration Permit (SCAP) to install a culvert crossing on Pohakuhonu Stream, Kauai, TMK: (4) 5-2-022:025. (SCAP.2030.2) with the following condition:

The applicant shall ensure that the culverts are configured in such a manner that provides a continuous wetted surface between the stream channel and the entries and exits of the culverts. In addition, prior the end of construction activities the applicant shall provide the Commission and the Division of Aquatic Resources with photographs or digital images of both the upstream and downstream transition areas between the stream channel and culverts.

The permit shall have a term of two (2) years subject to the Commission's Standard Permit Conditions in Exhibit 6.

Respectfully submitted,



KEN C. KAWAHARA, P.E.
Deputy Director

- Exhibits:
1. Location Maps 1a, 1b and 1c.
 2. Stream Crossing Plan and Profile
 3. Grading Plan and Details
 4. Photos of Proposed Stream Crossing Site
 5. Photos of Previously Completed Culvert Crossing (SCAP.1560.2, formerly SCAP-KA-376)
 6. Standard Stream Channel Alteration Permit Conditions

APPROVED FOR SUBMITTAL



LAURA H. THIELEN
Chairperson



Department of Land and Natural Resources
 Commission on Water Resource Management
 Stream Protection and Management Branch

**Pohakuhonu Stream
 Kilauea, Kauai
 November 2008**

Streams

- Ephemeral
- - - Intermittent
- Perennial

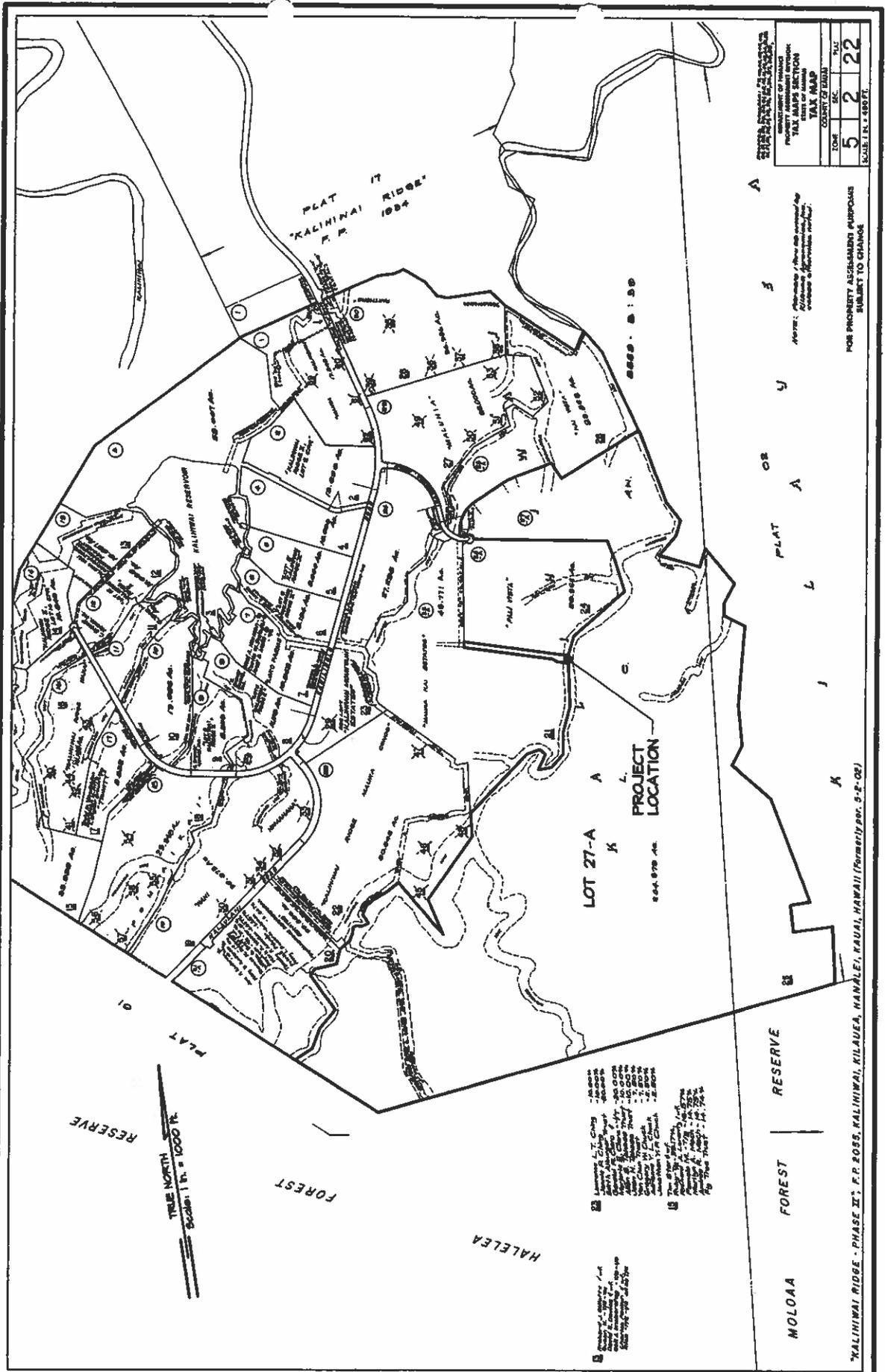
★ TMK: (4) 5-2-022:025

This map was produced by the Department of Land and Natural Resources (DLNR), Commission on Water Resource Management for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from DLNR.

Datum: North American Datum 1983

Tax Map Key (TMK) layer is comprised of tax assessor parcels derived from paper plat maps with attributes from public tax assessor records and is updated by each respective county.





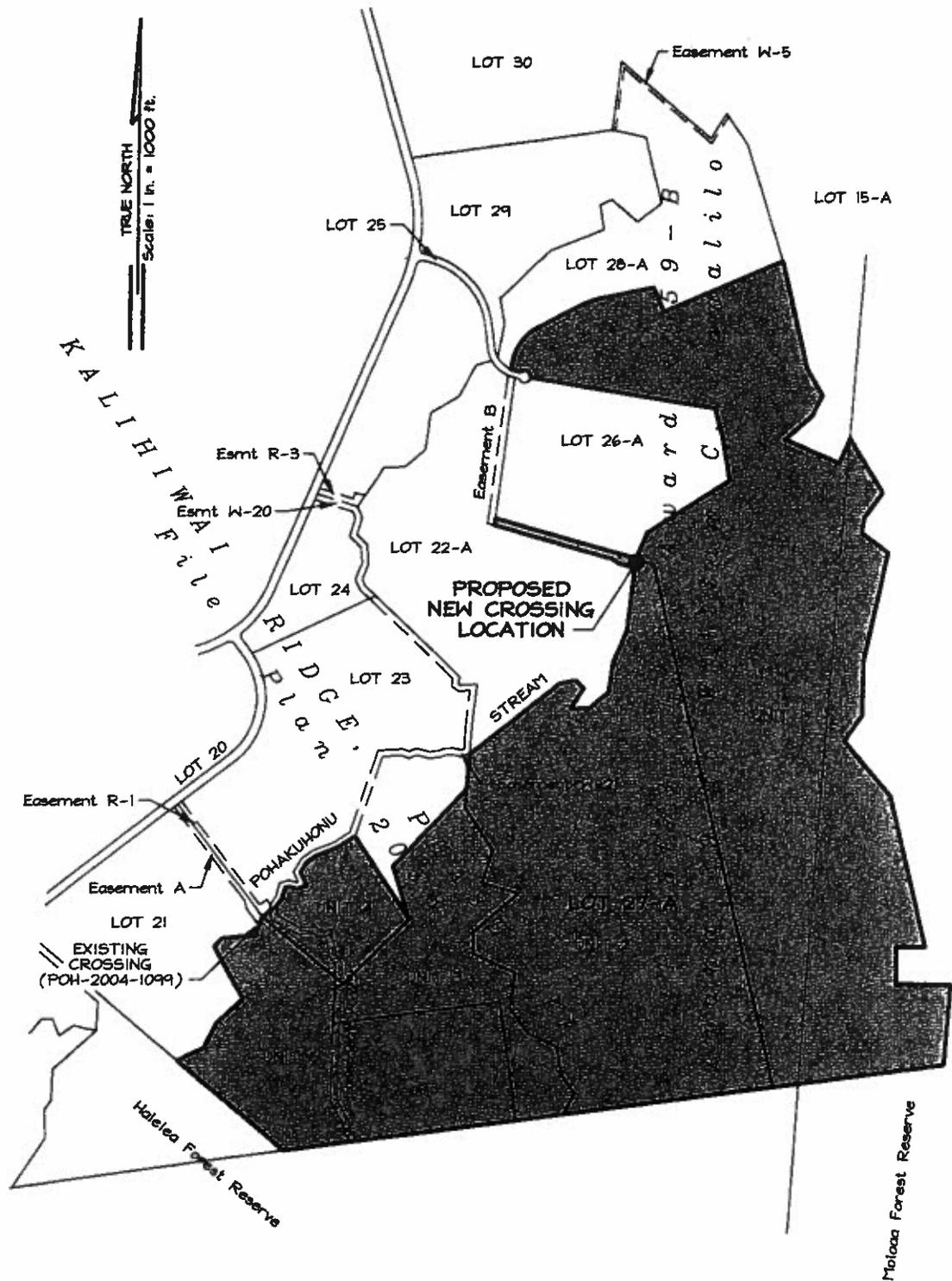
DEPARTMENT OF LAND AND NATURAL RESOURCES			
MANAGEMENT OF LAND			
TAX MAPS SECTION			
COUNTY OF HAWAII			
DATE	BY	SCALE	PLU
5-2-22	SC	1" = 400 FT.	22

FOR PROPERTY ASSESSMENT PURPOSES
SUBJECT TO CHANGE

- 1. Acreage
- 2. Area
- 3. Volume
- 4. Date
- 5. Name
- 6. Address
- 7. Phone
- 8. Fax
- 9. E-mail
- 10. Website
- 11. Other

TAX MAP KEY: (4) 5-2-22: 25

Pohakuloa Stream Crossing
Kalihwai, Hanalei, Kauai, Hawaii
Owner: Ulrich Rchner



Grant 2896 to Charles Titcomb

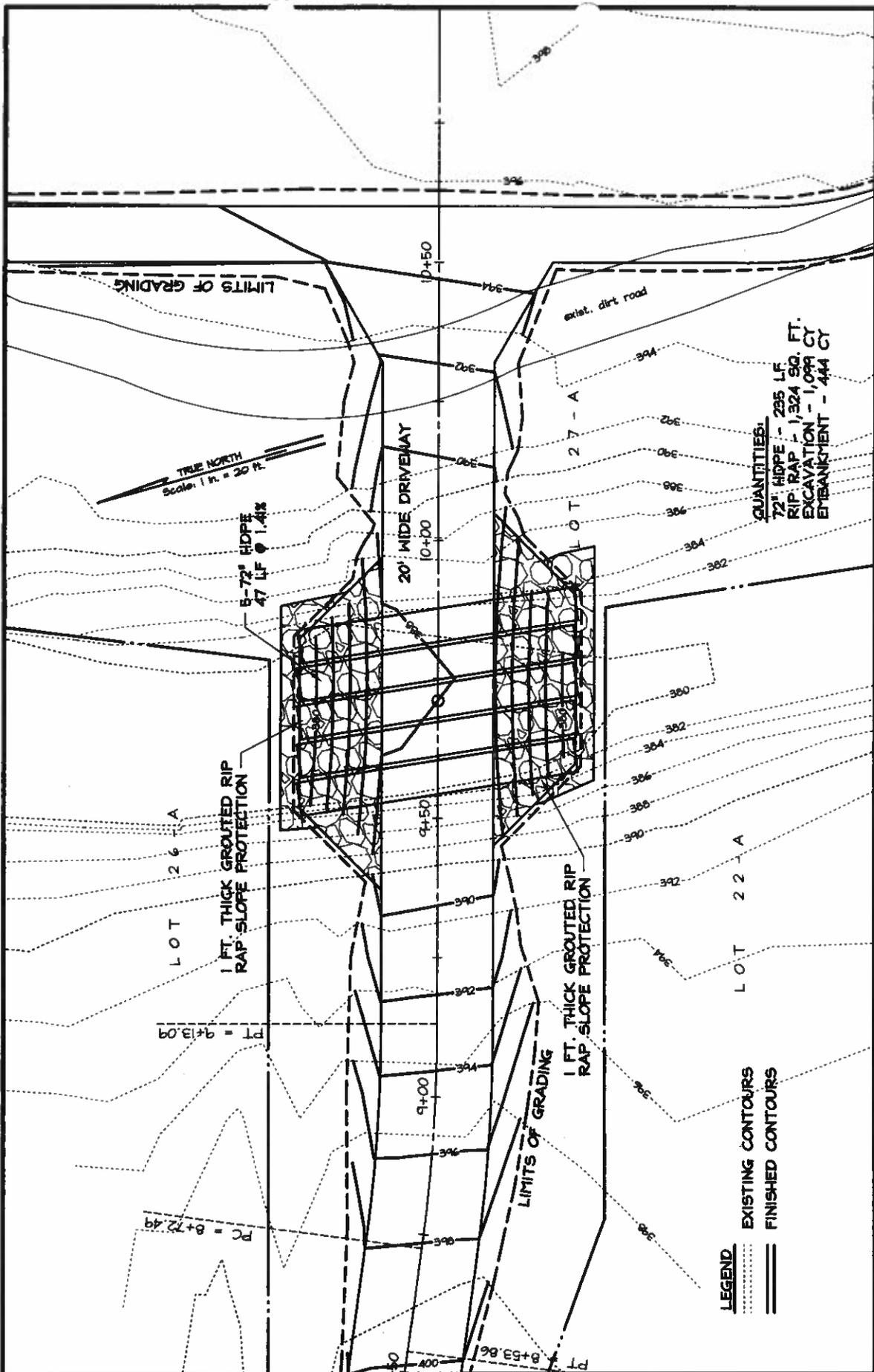
VICINITY MAP

Pohakuhonu Stream Crossing
Kalihiwai, Hanalei, Kaua'i, Hawai'i
Owner: Ulrich Rachner

Date: 8/8/08

Sheet 3 of 7

EXHIBIT 1c

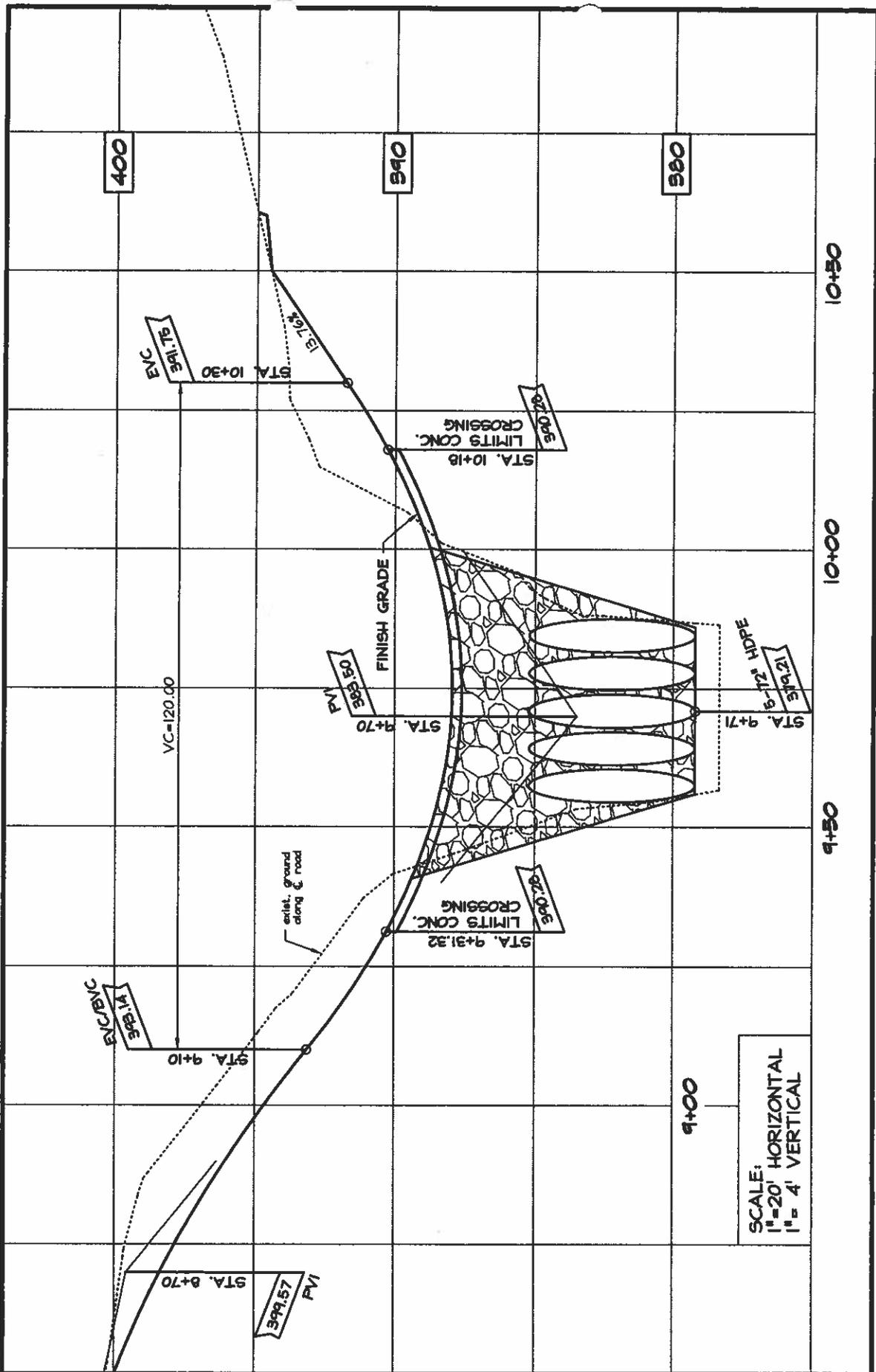


PLAN FOR STREAM CROSSING

Pohakuhanu Stream Crossing
 Kalihiwai, Hanalei, Kaua'i, Hawai'i
 Owner: Ulrich Rachtner

Date: 7/31/08

Sheet 4 of 5



SCALE:
 1" = 20' HORIZONTAL
 1" = 4' VERTICAL

PROFILE FOR STREAM CROSSING

Pohakuhonu Stream Crossing
 Kallihua, Hanalei, Kaua'i, Hawai'i
 Owner: Ulrich Rachner

FRANK LUTHELMANN AND ASSOCIATES, INC.
 1000 ...
 CIVIL ENGINEERS - STRUCTURAL ENGINEERS

NO.	DATE	REVISION

FRANK LUTHELMANN
 No. 12345
 State of Ohio

PROJECT: CONSTRUCTION PLAN FOR ...
 DRAWING NO. ...
 DATE: ...

MISCELLANEOUS DETAILS

SCALE:	AS SHOWN
DATE:	...
BY:	...
CHECKED BY:	...
APPROVED:	...

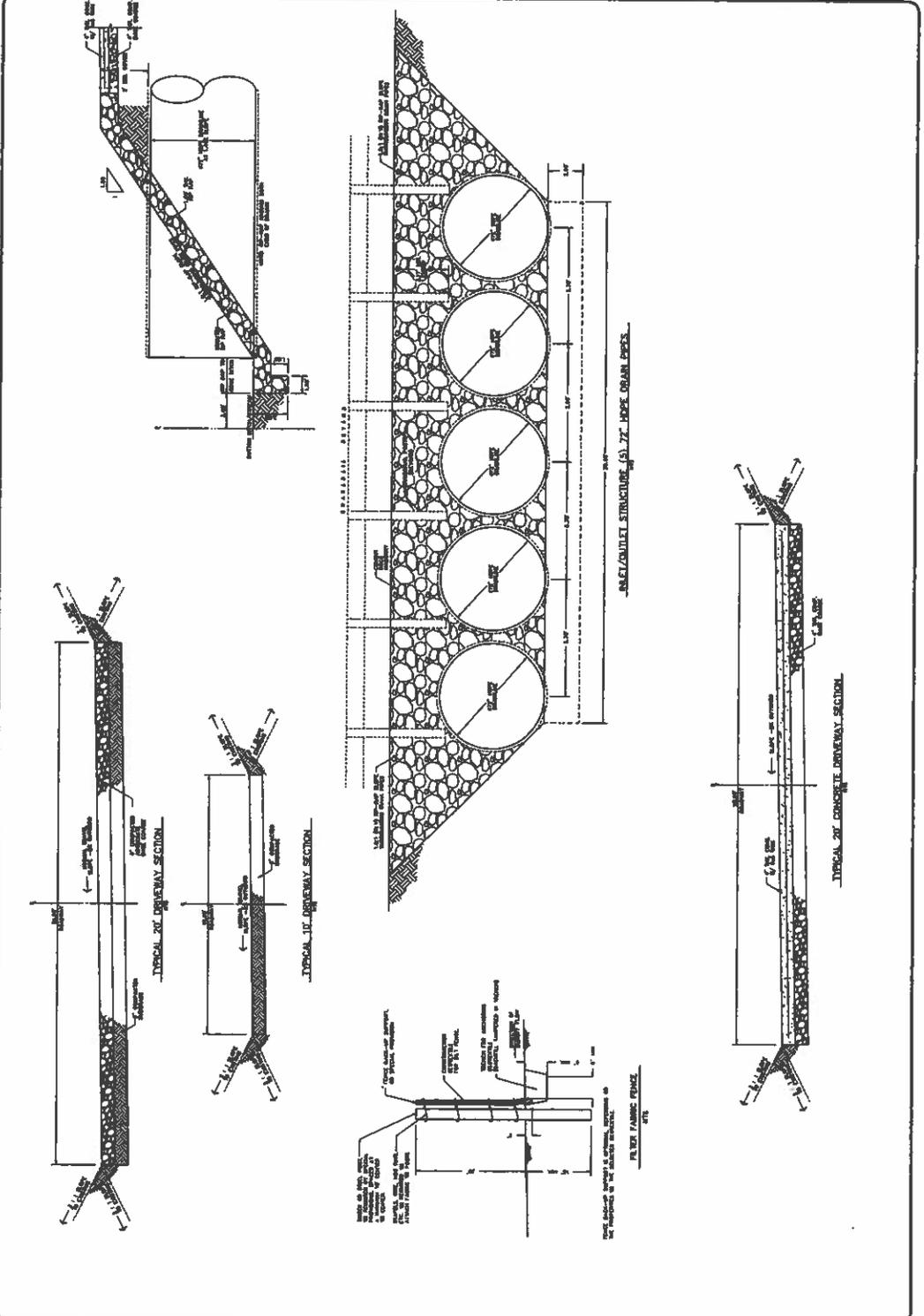




Photo 1, Stream Crossing Area



Photo 2, Stream Crossing Area

SCAP.1560.2 PHOTOS



Concrete Driveway across Stream



Upstream view of stream

SCAP.1560.2 PHOTOS



Upstream view of Culverts



Upstream view of Culverts

SCAP.1560.2 PHOTOS



Downstream view of stream



Downstream view of culverts

STANDARD STREAM CHANNEL ALTERATION PERMIT CONDITIONS
(Revised 9/19/07)

1. The permit application and staff submittal approved by the Commission at its meeting on December 17, 2008, shall be incorporated herein by reference.
2. The applicant shall comply with all other applicable statutes, ordinances, and regulations of the Federal, State and county governments.
3. The applicant, his successors, assigns, officers, employees, contractors, agents, and representatives, shall indemnify, defend, and hold the State of Hawaii harmless from and against any claim or demand for loss, liability, or damage including claims for property damage, personal injury, or death arising out of any act or omission of the applicant or his successors, assigns, officers, employees, contractors, and agents under this permit or related to the granting of this permit.
4. The applicant shall notify the Commission, by letter, of the actual dates of project initiation and completion. The applicant shall submit a set of as-built plans and photos of the completed work to the Commission upon completion of this project. This permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The proposed work under this stream channel alteration permit shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Commission upon showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.
5. Before proceeding with any work authorized by the Commission, the applicant shall submit one set of construction plans and specifications to determine consistency with the conditions of the permit and the declarations set forth in the permit application.
6. *The applicant shall develop site-specific, construction best management practices (BMPs) that are designed, implemented, operated, and maintained by the applicant and its contractor to properly isolate and confine construction activities and to contain and prevent any potential pollutant(s) discharges from adversely impacting state waters. BMPs shall control erosion and dust during construction and schedule construction activities during periods of low stream flow.*
7. *The applicant shall protect and preserve the natural character of the stream bank and stream bed to the greatest extent possible. The applicant shall plant or cover lands denuded of vegetation as quickly as possible to prevent erosion and use native plant species common to riparian environments to improve the habitat quality of the stream environment.*
8. In the event that subsurface cultural remains such as artifacts, burials or deposits of shells or charcoal are encountered during excavation work, the applicant shall stop work in the area of the find and contact the Department's Historic Preservation Division immediately. Work may commence only after written concurrence by the State Historic Preservation Division.