

# CARLSMITH BALL LLP

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July 25, 2013

Mr. Duane Kanuha  
Planning Director  
Planning Department  
County of Hawaii  
101 Pauahi Street, Suite 3  
Hilo, Hawaii 96720

✓ Mr. Daniel E. Orodener  
Executive Officer  
Land Use Commission  
Department of Business,  
Economic Development & Tourism  
State of Hawaii  
P.O. Box 2359  
Honolulu, Hawaii 96804

2013 JUL 29 A 8:39  
LAND USE COMMISSION  
STATE OF HAWAII

Re: Annual Monitoring Report  
Special Permit Docket No. 70-85 (Special Permit No. 164)  
Applicant: Edwin DeLuz Trucking & Gravel, LLC  
Waikoloa, District of South Kohala, Hawaii (approx. 63.648± acres)  
TMK: (3) 6-8-002: portion of 50 [formerly TMK: (3) 6-8-002: portion of 16]

Dear Messrs. Kanuha and Orodener:

In accordance with Condition No. 7 of the Decision and Order dated August 1, 2012 of the Land Use Commission, Applicant Edwin DeLuz Trucking & Gravel, LLC hereby submits its annual monitoring report. The nine conditions in the August 1, 2012 Decision and Order are addressed below:

**Condition 1:**            **The Applicant, its successors or assigns shall be responsible for complying with all stated conditions of approval.**

Response:            The Applicant will comply with all stated conditions of approval.

**Condition 2:**            **Quarrying operations at Site 1 (Pu'u Hina'i Quarry) shall be terminated by December 11, 2015, or prior to final subdivision approval of the increment of adjacent RA zoned lands which abut the quarry boundaries, or prior to abandonment, whichever occurs first.**

Response:            The Applicant will terminate its quarrying operations in accordance with this condition or will, if necessary, seek an amendment of this condition if it desires to further extend its quarrying operations.

**Condition 3:**            **Mining of Pu`u Hina`i shall immediately cease, to protect and preserve the pu'u, in compliance with the South Kohala Community Development Plan.**

Response:            The Applicant is not performing any mining of Pu`u Hina`i and no mining has occurred on the pu`u since 2007.

**Condition 4:**            **Upon termination of operations or abandonment of any portion of Site 1 (Pu`u Hina`i Quarry), the land shall be graded to blend with the surrounding areas and re-vegetated. Further, the site shall be left in a non-hazardous condition. Appropriate documentation which demonstrates compliance with this condition shall be submitted to the Hawaii County Planning Director for review and approval within ninety (90) days from the termination or abandonment date.**

Response:            The Applicant will comply with all stated conditions of approval. There has been no termination or abandonment of operation of Site 1.

**Condition 5:**            **The applicant shall submit a soils report of the mined area of Pu`u Hina`i by an engineer qualified in the field of soil mechanics and licensed within the State of Hawai`i within one (1) year from the effective date of this amendment. The soils report, which shall provide recommendations for the stabilization of Pu`u Hina`i, shall be submitted to the Planning Director for review and approval, in consultation with the Department of Public Works. The applicant shall comply with the recommendation(s) of the approved soils report to stabilize the pu'u and bring it into a non-hazardous condition. Additionally, the applicant shall comply with any other measures determined by the Planning Director to provide reasonable assurance of the stability of Pu`u Hina`i and the safety of the people who may work or have reason to be in close proximity to the pu`u.**

Response:            Concurrently with the submission of this report, the Applicant has submitted to the Planning Director for review and approval a soils report of the mined area of Pu`u Hina`i prepared by Robert J. Thomas, Jr., P.E., of Construction Engineering Labs, a geotechnical engineer qualified in the field of soil mechanics and licensed within the State of Hawaii. The Applicant will comply with the recommendations of the approved soils report and any other measures determined by the Planning Director to provide reasonable assurance of the stability of Pu`u Hina`i and the safety of the people who may work or have reason to be in close proximity to the pu`u.

**Condition 6:** All other applicable laws, requirements, rules and regulations, including those of the Department of Health, shall be complied with.

Response: The Applicant will comply with all stated conditions of approval. All equipment and machinery used by the Applicant complies with all DOH standards for noise and exhaust considerations.

**Condition 7:** An annual monitoring report shall be submitted to the Hawaii County Planning Director and the State Land Use Commission prior to the anniversary date of the approval of this amendment. The report shall include, but not be limited to, the amount of material quarried or removed, a detailed listing of public complaints or problems, and their disposition. Should conflict arise, which cannot be mitigated or mediated, the quarry operations shall cease upon appropriate findings by the County of Hawaii Planning Commission that the quarry use will have an adverse impact on surrounding properties.

Response: The Applicant is not aware of any public complaints or problems associated with its activities at the quarry site. There has been no material quarried or removed from the quarry since 2007. The quarry is primarily being maintained to supply material for Phase II of the Queen Kaahumanu Road Widening Project which has been delayed. The Applicant's activities on the quarry site has been limited to maintenance, repair and replacement of its equipment and general maintenance of the area.

**Condition 8:** Should any of the conditions not be met or substantially complied with in a timely fashion, the Hawaii County Planning Director shall initiate procedures to revoke the permit.

Response: The Applicant will comply with the foregoing condition.

**Condition 9:** Within thirty (30) days of the effective date of the Commission's approval of the Amendment, the Applicant shall issue public notice of the action taken by the Commission approving the Amendment in the name of Waikoloa Development Company to invite public comment on the Amendment. The Applicant shall inform the Commission of responses (or lack thereof) to the public notice and forward all public comments to the LUC.

Response: The Applicant issued public notice of the action taken by the Land Use Commission approving the amendment of Condition No. 5 of the above-referenced special permit in the name of Waikoloa Development Company and invited public comment on the amendment. The Applicant did not receive any responses to the public notice.

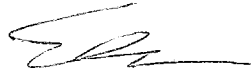
Mr. Duane Kanuha  
Mr. Daniel E. Orodenker  
July 25, 2013  
Page 4

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Thank you for your attention to this matter. Please do not hesitate to contact me should you have any questions or require additional information or documentation from the Applicant.

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Sincerely,



Edmund W.K. Haitzuka

EWK/ewh  
cc: Edwin DeLuz Trucking & Gravel, LLC  
4813-1800-8852.1

COPY

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Dear Mr. Kanuha:

Pursuant to Condition No. 5 of the Order Granting Amendment to Condition No. 5 Extending Time to Comply dated August 1, 2012, please find enclosed, for your review and approval, a Soils Investigation Report of the mined area of Pu'u Hina'i prepared by Robert J. Thomas, Jr., P.E., of Construction Engineering Labs, a geotechnical engineer qualified in the field of soil mechanics and licensed within the State of Hawaii.

Thank you for your attention to this matter. Please feel free to contact me should you have any questions or require additional information or documentation from the Applicant.

Sincerely,



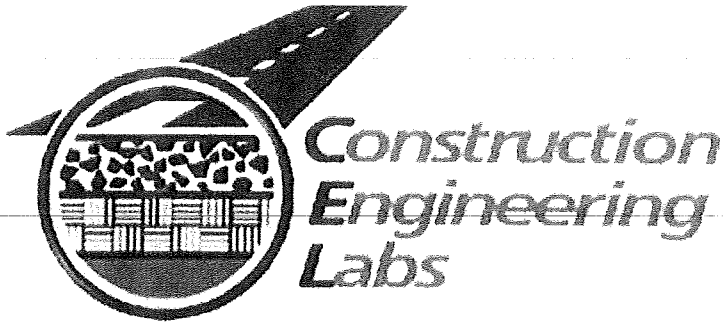
Edmund W.K. Haitsuka

EWB/ewh

Enclosure(s)

cc: Warren Lee, County Department of Public Works  
✓ Daniel E. Orodener, State Land Use Commission  
Edwin DeLuz Trucking & Gravel, LLC

4827-2650-8564.1



## **Soils Investigation Report**

**Pu'u Hina'i Quarry**

**Waikoloa, South Kohala, Hawaii**

**TMK (3) 6-8-002-50 (por. 16)**

Prepared for:

Mr. Kevin M. Balog

Edwin DeLuz Trucking & Gravel, LLC

PO Box 9

Kamuela, HI 96743

July 5, 2013

96-1173 Waihona Street, Unit B-7, Pearl City, Hawaii 96782

Phone: 808-455-1522 Fax: 808-455-1384 Email [cel-pe@hawaii.rr.com](mailto:cel-pe@hawaii.rr.com)

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Various Maps and Aerial Photos of Pu'u Hina'i Quarry

## **INTRODUCTION**

Presented in this report are the results and recommendations of a geotechnical investigation completed at Pu'u Hina'i Quarry, Waikoloa, South Kohala, Hawaii, TMK (3) 6-8-002-50 (por. 16).

Construction Engineering Labs, Inc. was contracted by Mr. Kevin M. Balog, Edwin DeLuz Trucking & Gravel, LLC to evaluate the subject quarry site to provide recommendations for the stabilization of Pu'u Hina'i.

Initially, we expected the field exploration would be accomplished by performing a series of site visits, collection of samples from sidewalls of existing excavations and from an excavated test pit for further observation. However, during our site visits, we determined that the hazard and nature of the vertically cut faces of clinker and cinder precluded the need for sampling and laboratory analysis.

### **A. Geotechnical Investigation**

1. Site visits by soils engineer and senior field technician – field evaluation.
2. Review and correlate any available soil information on the site.
3. Review available site mapping and aerial photographs
5. Prepare a report summarizing findings and recommendations.
6. Provide correspondence and testimony associated with requests and requirements of the County of Hawaii, Planning Commission

### **B. Aggregate Testing**

1. Nature of the clinker material precluded the need for analysis.

### **C. Evaluation and Report**

1. Correlate and analyze the field results.
2. Develop geotechnical recommendations for:  
Stabilization and safety of Pu'u Hina'i
3. Submit a written report summarizing the findings and recommendations.
4. Provide correspondence and testimony associated with requests and requirements of the County of Hawaii, Planning Commission and the State of Hawaii, Office of Planning

## **PROJECT AND SITE DESCRIPTION**

The site is located to the south of Waikoloa Road in the Waikoloa Highlands area. The site is bounded by other private property in all directions that is either vacant or activity or used for quarry, construction, ranching or agricultural purposes. Based on information provided to CEL by Mr. Kevin M. Balog, it appears that the existing elevation at the floor of the quarry to be on the order of 1150 to 1200 feet above Mean Sea Level (MSL). The height of the near vertical cut face is on the order of 200 feet. Mining equipment (crusher and excavation) were observed on site, but appeared to have been left unused for months.

## **REGIONAL GEOLOGY**

The project site is situated on the southwestern flank of the volcanic Mauna Kea Mountain. Prior explosive eruptions along the sides of Mauna Kea, threw rock fragments and ash high into the air. The ash was mostly carried away by wind action. The coarse clinker and cinder



material fell closer to the vent, piling up to form cinder cones, some of which are almost 5,000 feet across and a 1,000 feet high. The cones in this area are generally built with scoriaceous, sponge like cinder. For the most part the cinder is loose, and not welded together, like much of the splatter in the cones of the earlier stages of buildup. The lava within this region has practically no soil covering and is bare of vegetation except for mosses, lichens, and ferns.

## **LAVA FLOW HAZARD**

The U.S. Geological Survey has evaluated and ranked areas of the island of Hawaii for their potential to be covered with lava flows. The rankings are based on several factors: proximity to active volcanism, topography, and past volcanism within the last 60,000 years. The scale that the USGS uses is from 1 to 9, with 1 being the most susceptible to lava flows and 9 being the least likely to receive a new lava flow. The project site is located in Lava Flow Hazard Zone 8. Mauna Kea has erupted several times in the last 10,000 years, most recently about 4,500 years ago. This volcano is considered dormant but not extinct. Zone 8 includes the lower slopes of Mauna Kea. Most of this area has not been affected by lava flows for the past 10,000 years. Thus the lava flow hazard is deemed to be relatively low.

## **FIELD INVESTIGATION**

CEL was present at the site from September 2011 to the present day, to perform the soils investigation. Findings from our site reconnaissance indicate layers of dark gray and blue clinker within strata of reddish brown clinker/cinder. The clinker was extremely jagged and sharp and well interlocked, like pieces of a puzzle. Though some near vertical surfaces remained intact for years, the clinker easily sloughed off with the brush of a hand. The clinker is very porous and light (on the order of 500 to 700 lbs per cubic yard). Much of rock fragments could be considered friable, easily crumbled under hand pressure.

Again, the observed strata of clinker and cinder were generally loose and not welded together. Sloughing and caving are likely results of mechanical disturbance of the near vertical, cut face of the former quarry area.

Observations of the site conditions during our site reconnaissance affirmed the Planning Commission concerns for worker safety. Some sloughing of clinker and cinder from the near vertical quarry cut on the south side of Pu'u Hina'i was also observed.

Our field and record reconnaissance also revealed the location of a land survey bench mark at the top of Pu'u Hina'i. This location is a critical land mark for future development and confirmation of existing property lines and elevations.

## **RECOMMENDATIONS**

### **Stabilization of the Quarry**

Failure modes of cut slopes in natural rock are typically divided into three general types: sliding, toppling, and localized sloughing. Based on our site investigation, it is our opinion that the most likely type of failure to be encountered on this project would be localized sloughing. Accordingly, our recommendations for stabilizing the cut face for this project are based on this opinion.

CEL first considered recommending the contractor collapse the vertical face of the loose clinker and cinder with excavation or blasting equipment. Once the hazardous cut face was collapsed, the contractor would then construct slopes on the order of 1 horizontal to 2 vertical from the sloughed material and material pushed from other portions of the cinder cone. However, such disturbance of the cone would most likely destroy the critical land surveying bench mark referenced above and conflict with county and state agencies' mandates to preserve this unique geologic feature.

Another alternative would be to construct a slope (1 horizontal to 2 vertical) comprised of compacted lifts of fill to stabilize the near vertical cut face of the quarry. Due to the unstable slope conditions of the near vertical cut face of loose clinker and cinders, compounded by the extreme height (up to 200 feet), the work environment in the vicinity of the cut face would be very hazardous for workers on or near vibration-generating, heavy equipment.

As such, our recommendation is to secure the area of the cut face from all human and mechanical disturbances. The contractor may consider security fences, appropriate warning signs, and periodic monitoring by security personnel. Should the cut face collapse on its own or as the result of seismic activity sometime in the future, we will revisit the site and determine if alternative stabilization options may be initiated.

#### **LIMITATIONS AND REVIEW**

This report has been prepared in general accordance with accepted local engineering practice for the exclusive use of Mr. Kevin M. Balog, and Edwin DeLuz Trucking & Gravel, LLC for the subject Pu'u Hina'i Quarry site.

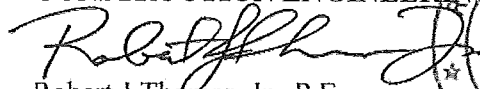
The conclusions and recommendations of this report are based upon data obtained from the visual inspection of the existing on-site conditions, with the assumption that the subsurface conditions do not deviate from those observed. If any variations or undesirable conditions are encountered or there is a significant change in the surface and cut face conditions, CEL should be notified so that the changes can be reviewed, and conclusions and recommendations of this report modified or verified in writing.

Excluded from CEL's scope of work was the identification and classification of contaminated soils concerning environmental conditions; therefore, no attempt was made nor should one be construed, that this report addresses environmental concerns with regard to contaminated soil material and water.

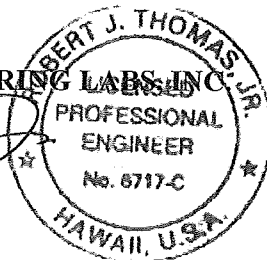
Should you have any questions regarding this report, or if we can be of further assistance, please contact us at your convenience. We appreciate the opportunity to have been of service to you on this project.

Sincerely,

**CONSTRUCTION ENGINEERING LABS, INC.**

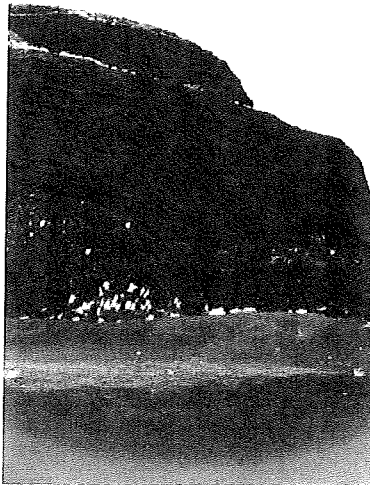
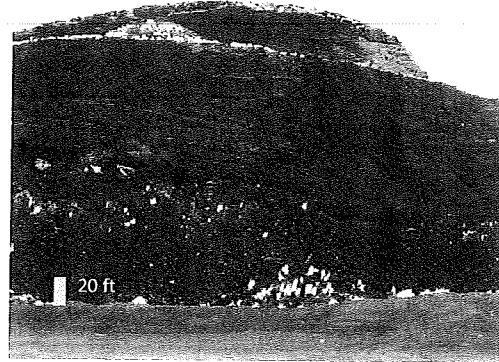
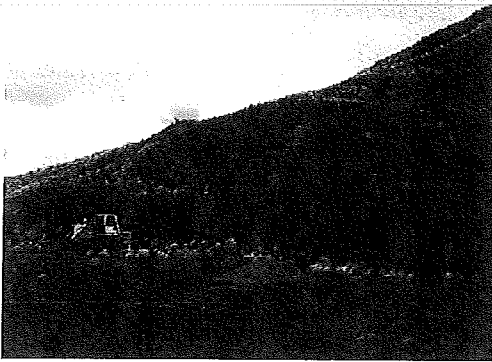


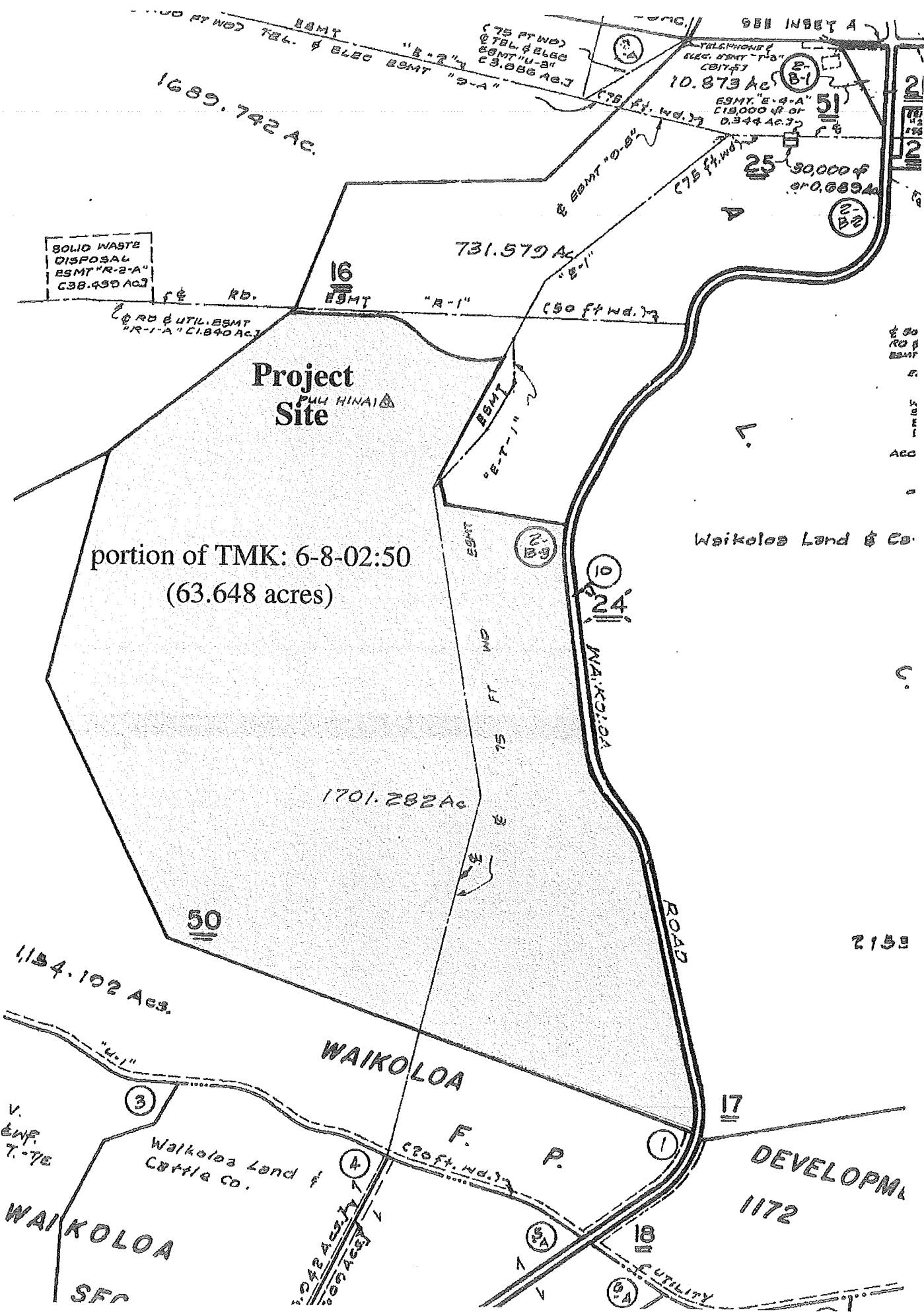
Robert J. Thomas, Jr., P.E.  
Geotechnical Engineer



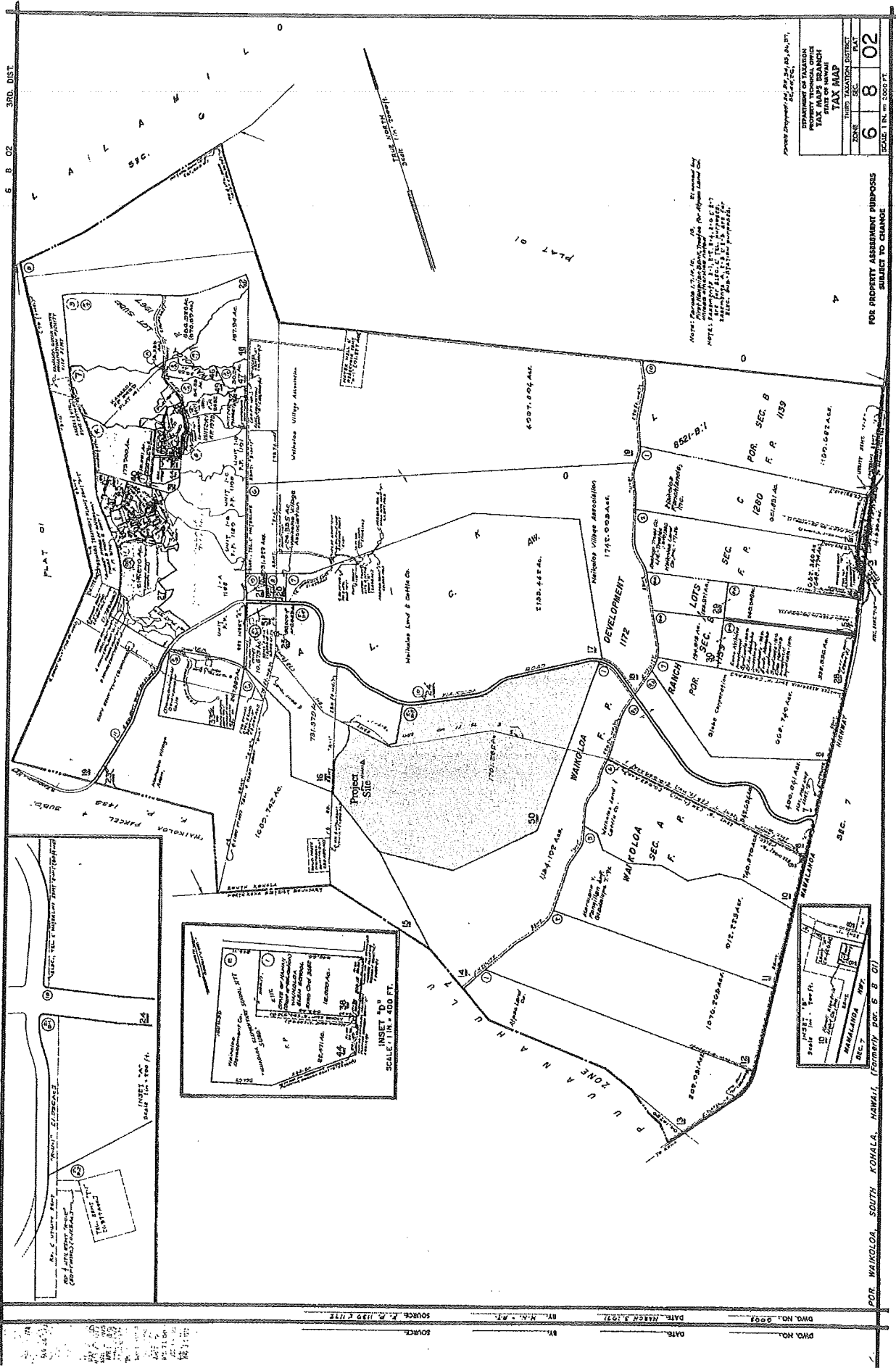
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## SITE PHOTOS





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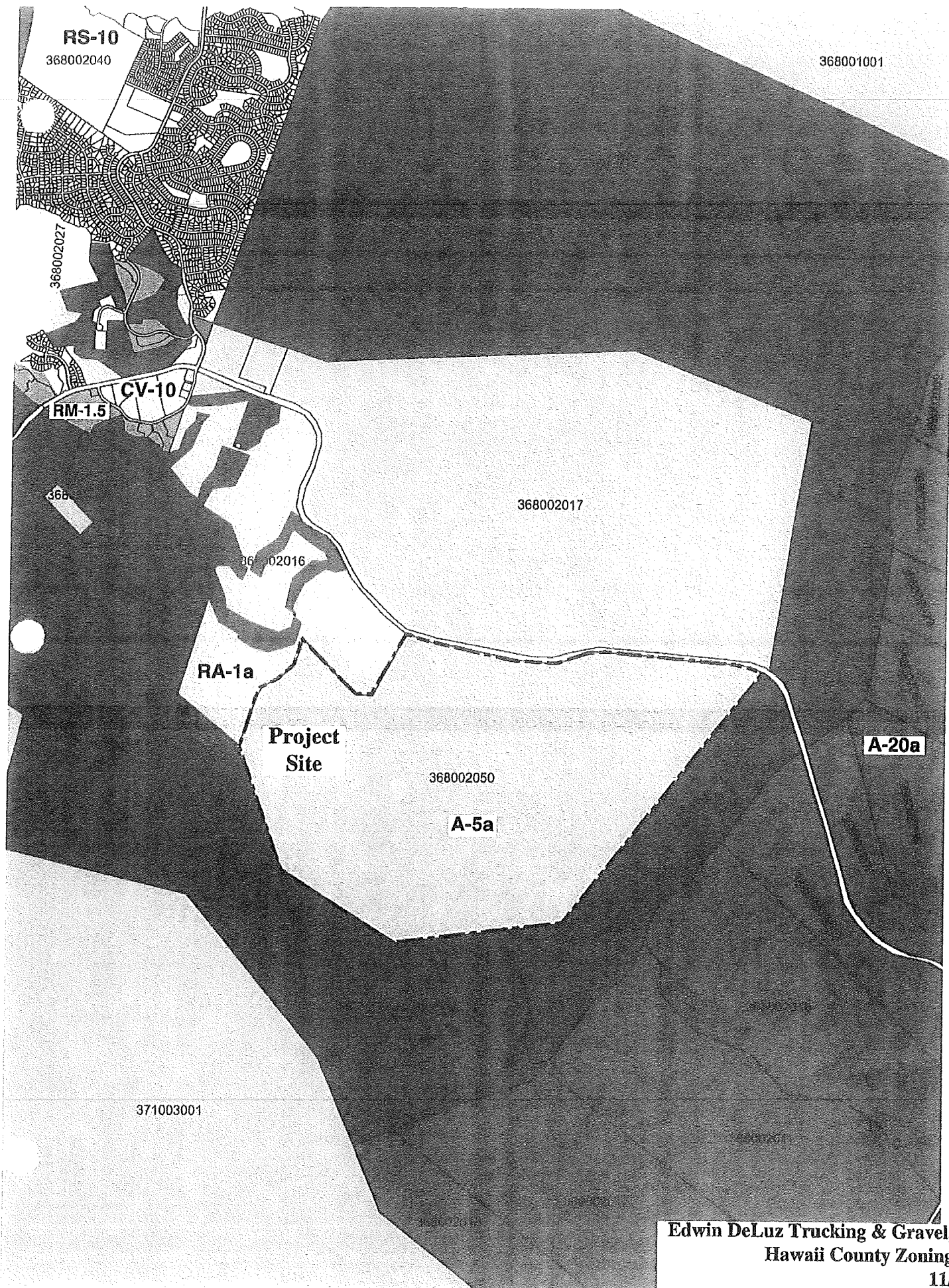


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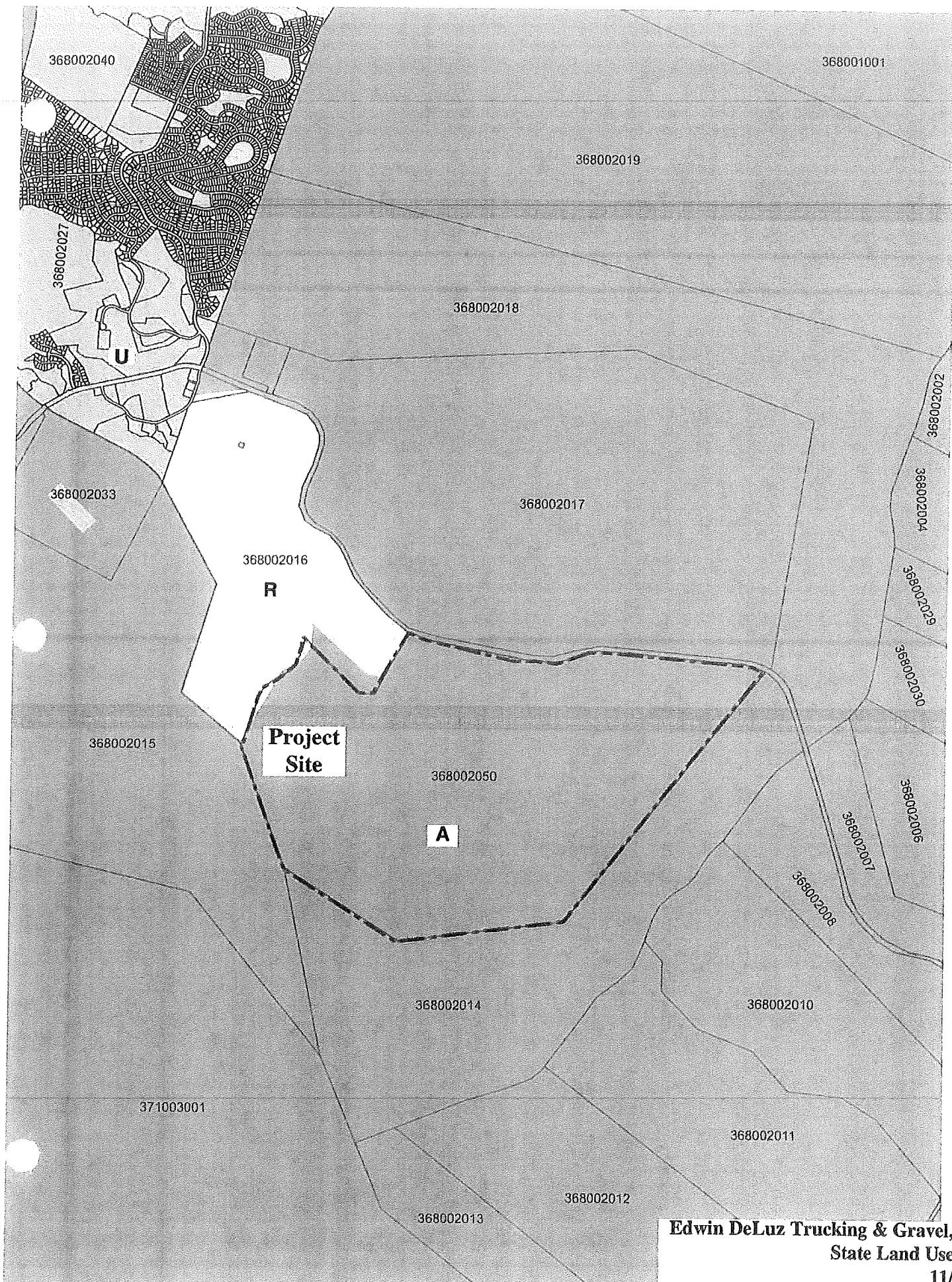
FOR WAIKOLOA, SOUTH KOHOLA, HAWAII, (FORMERLY POC 6 B 01)



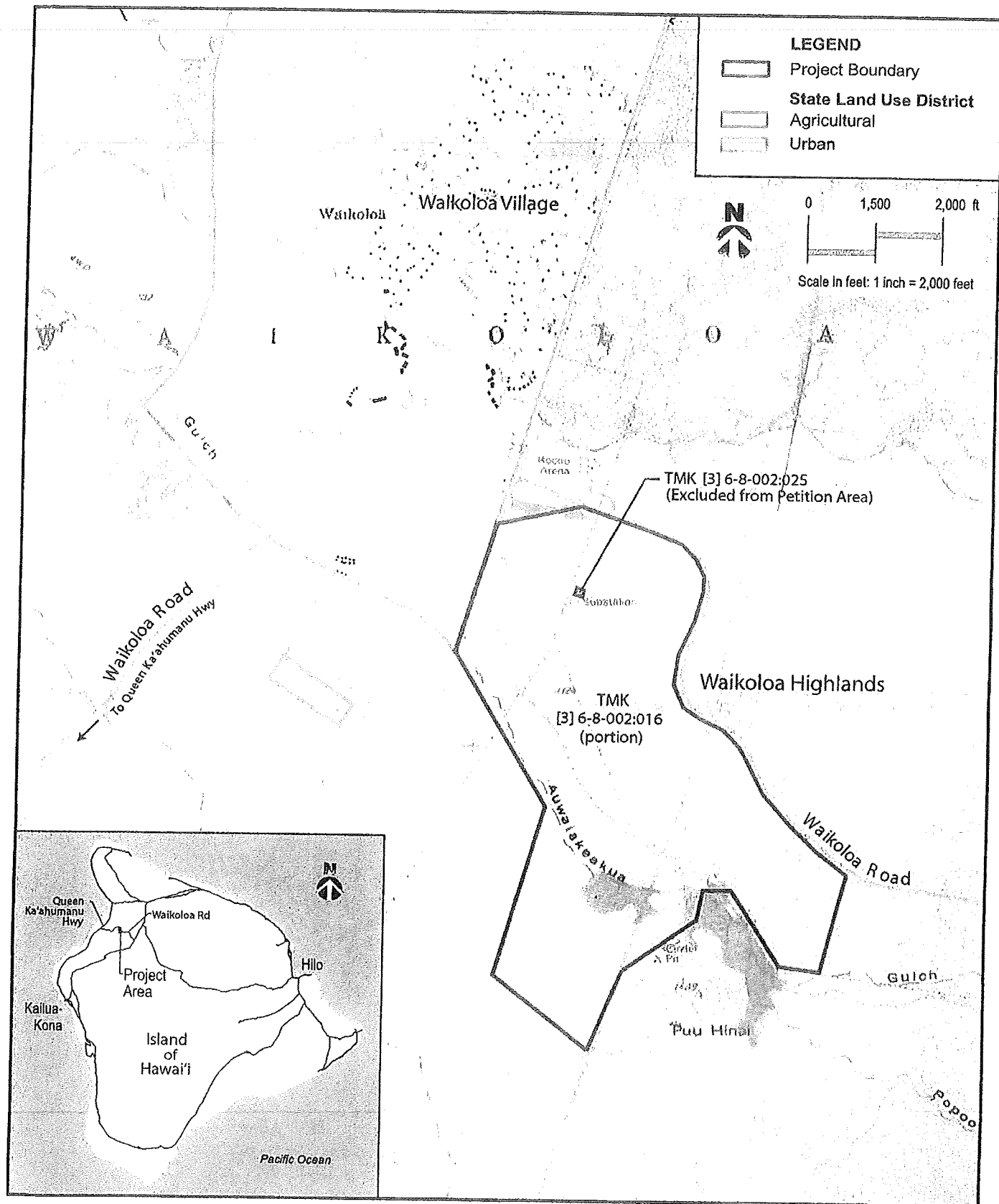






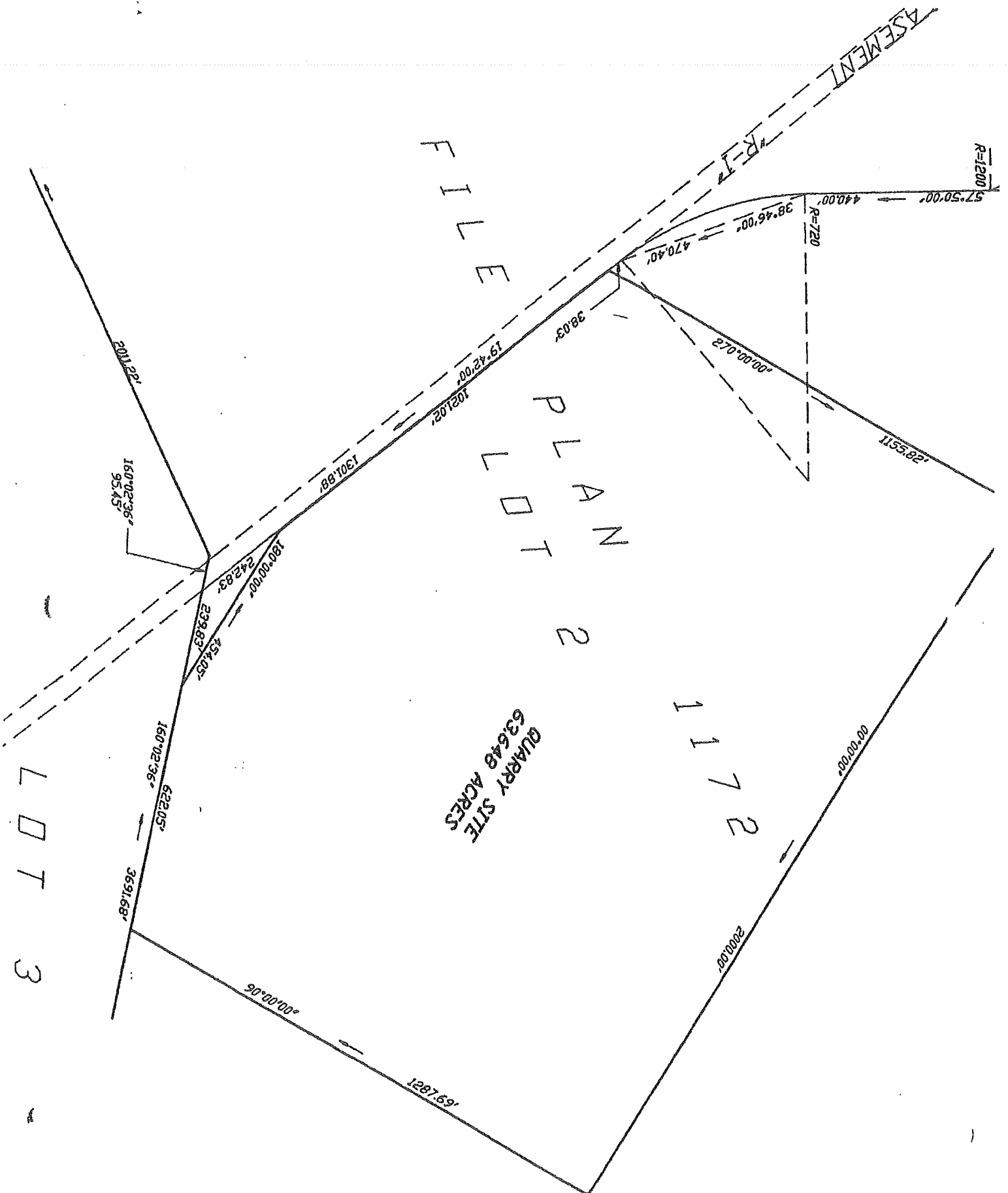


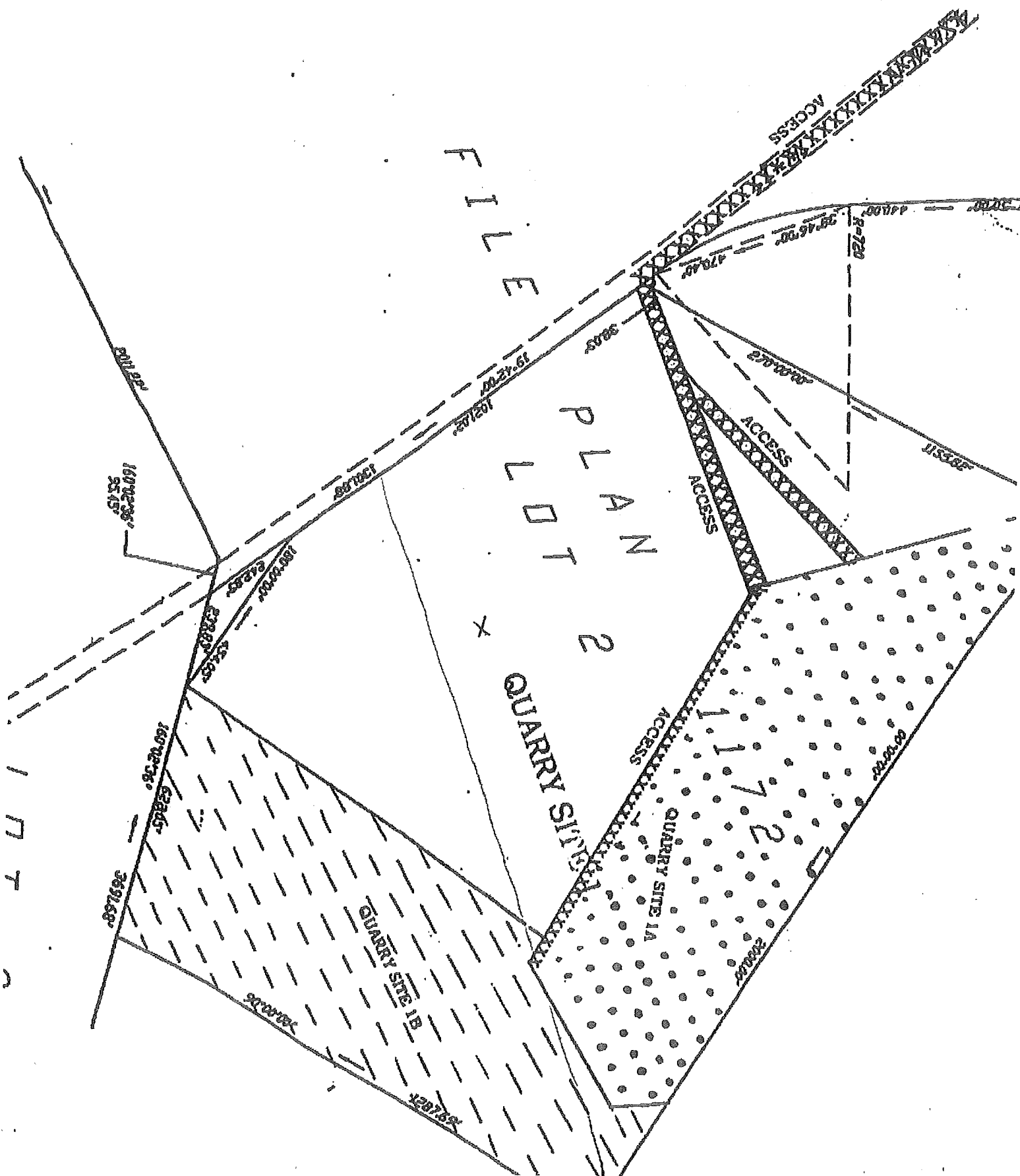




**Waikoloa Highlands  
Project Location Map**

**Exhibit "1"**

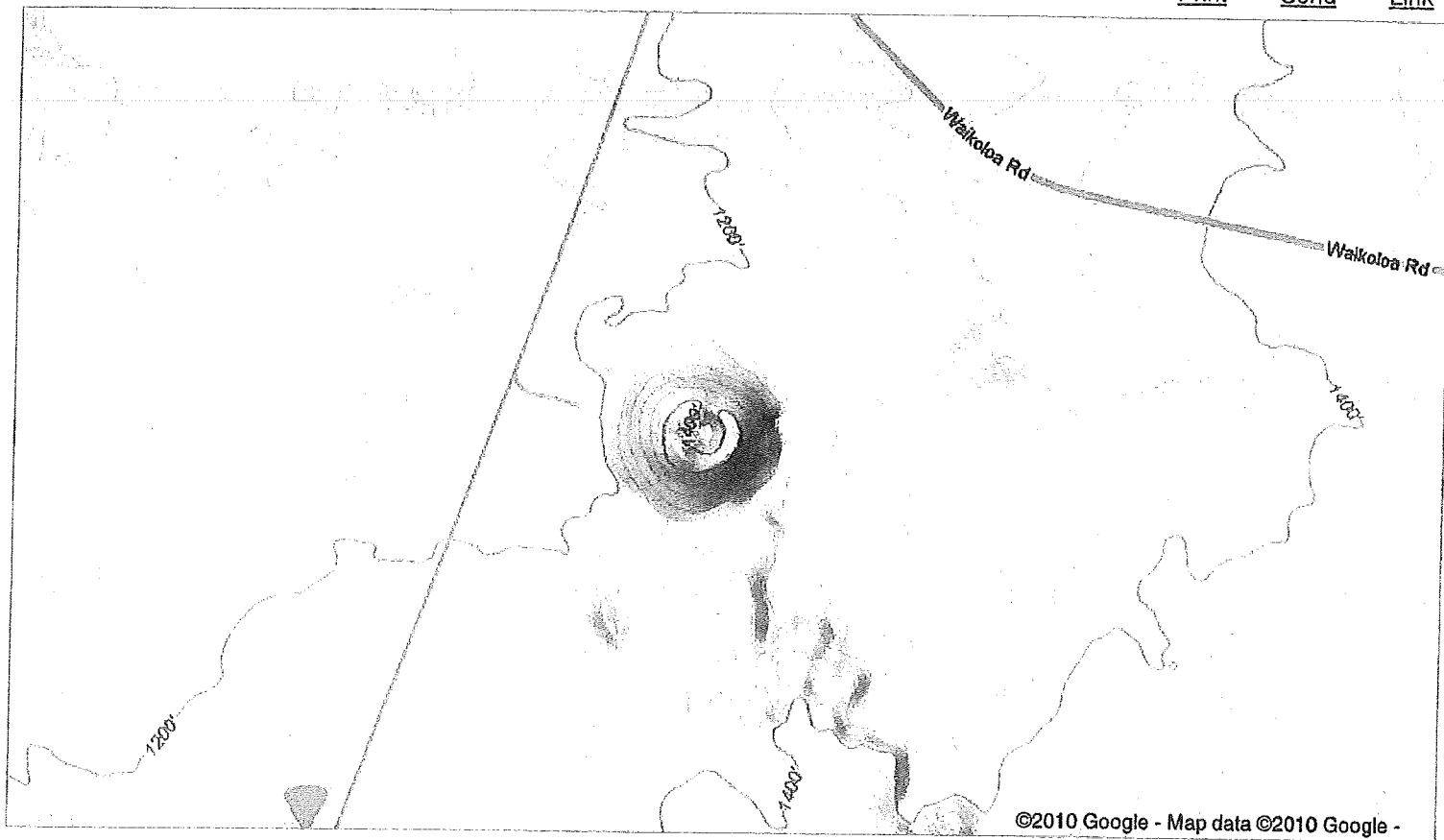




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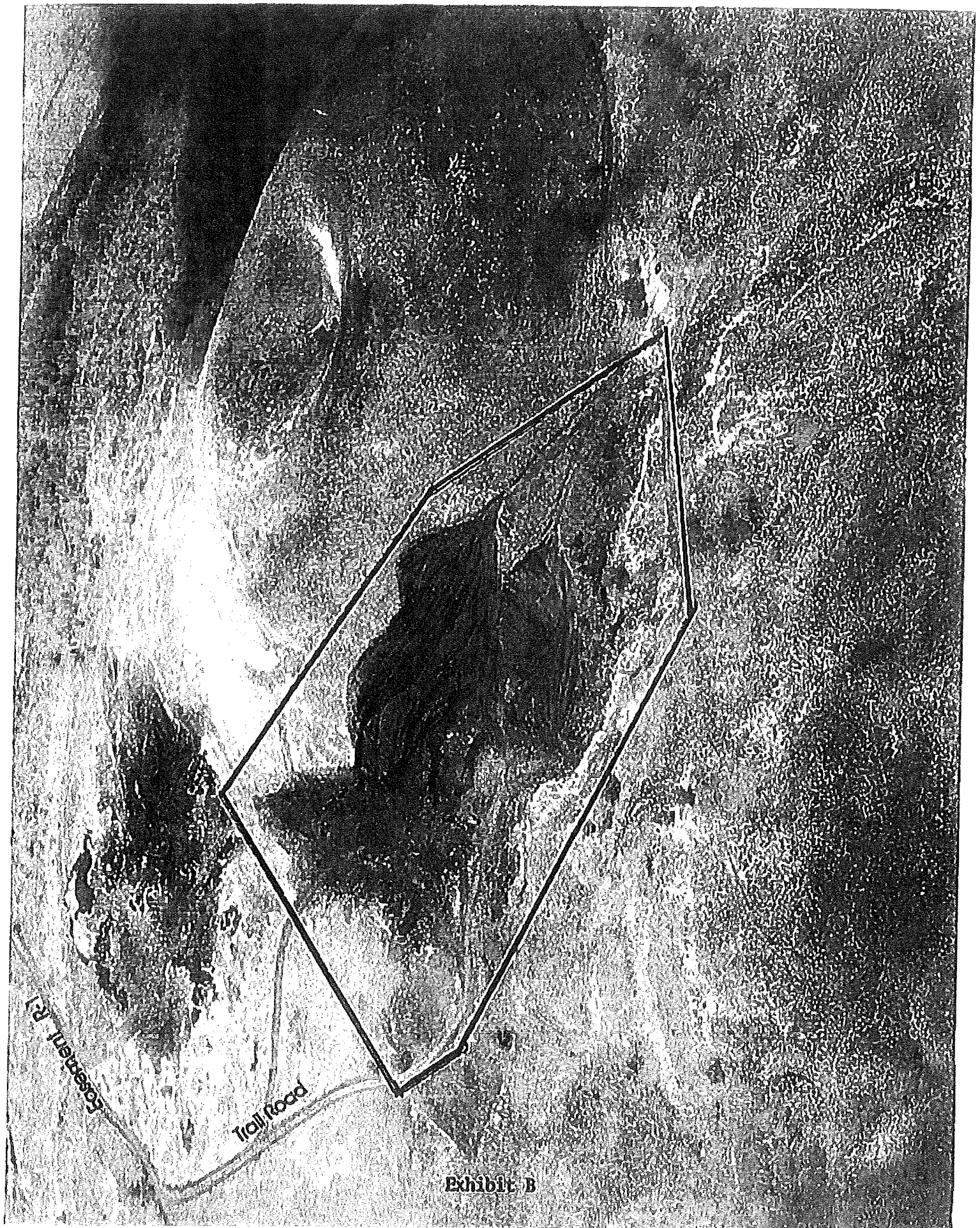


Exhibit B



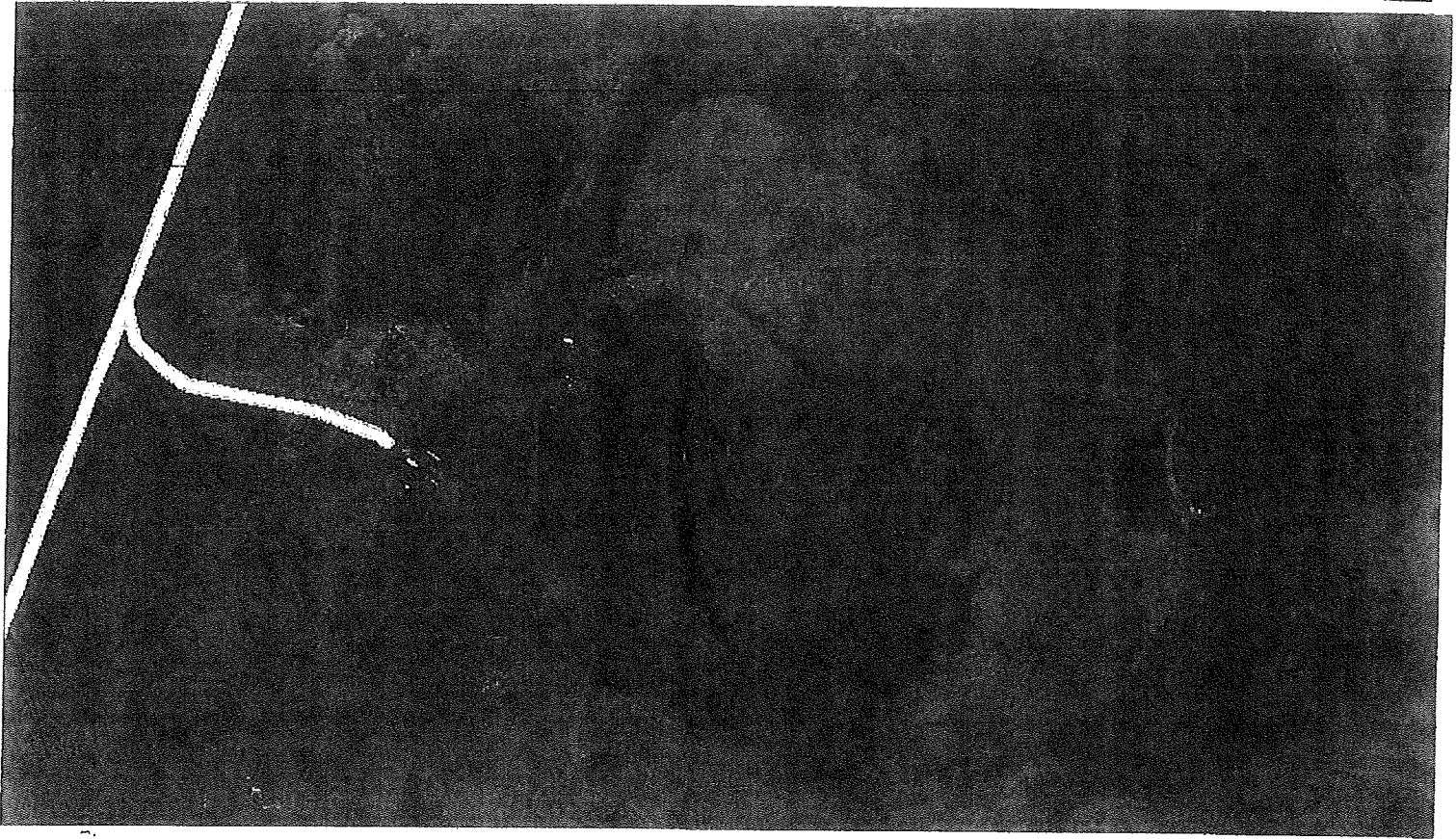
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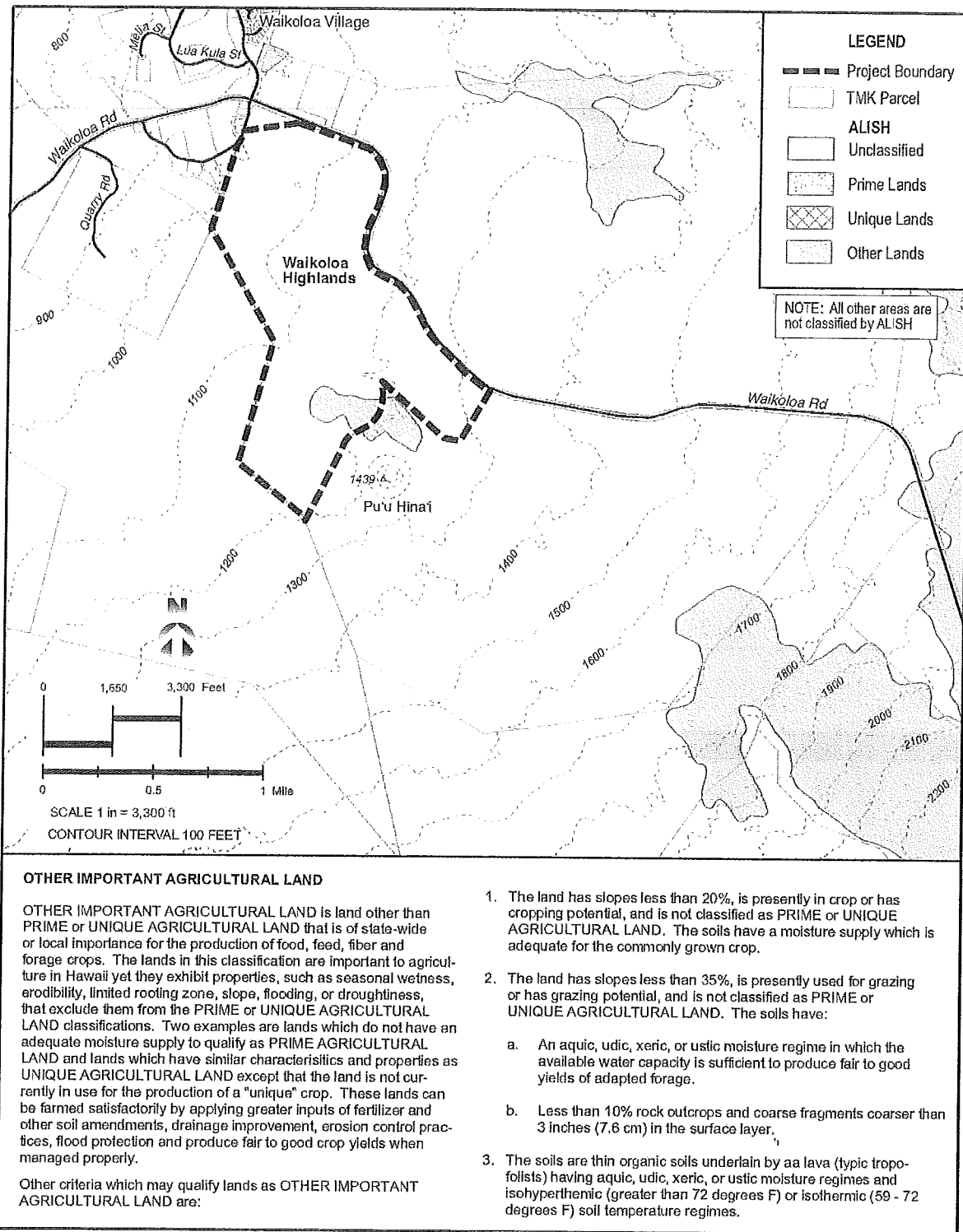
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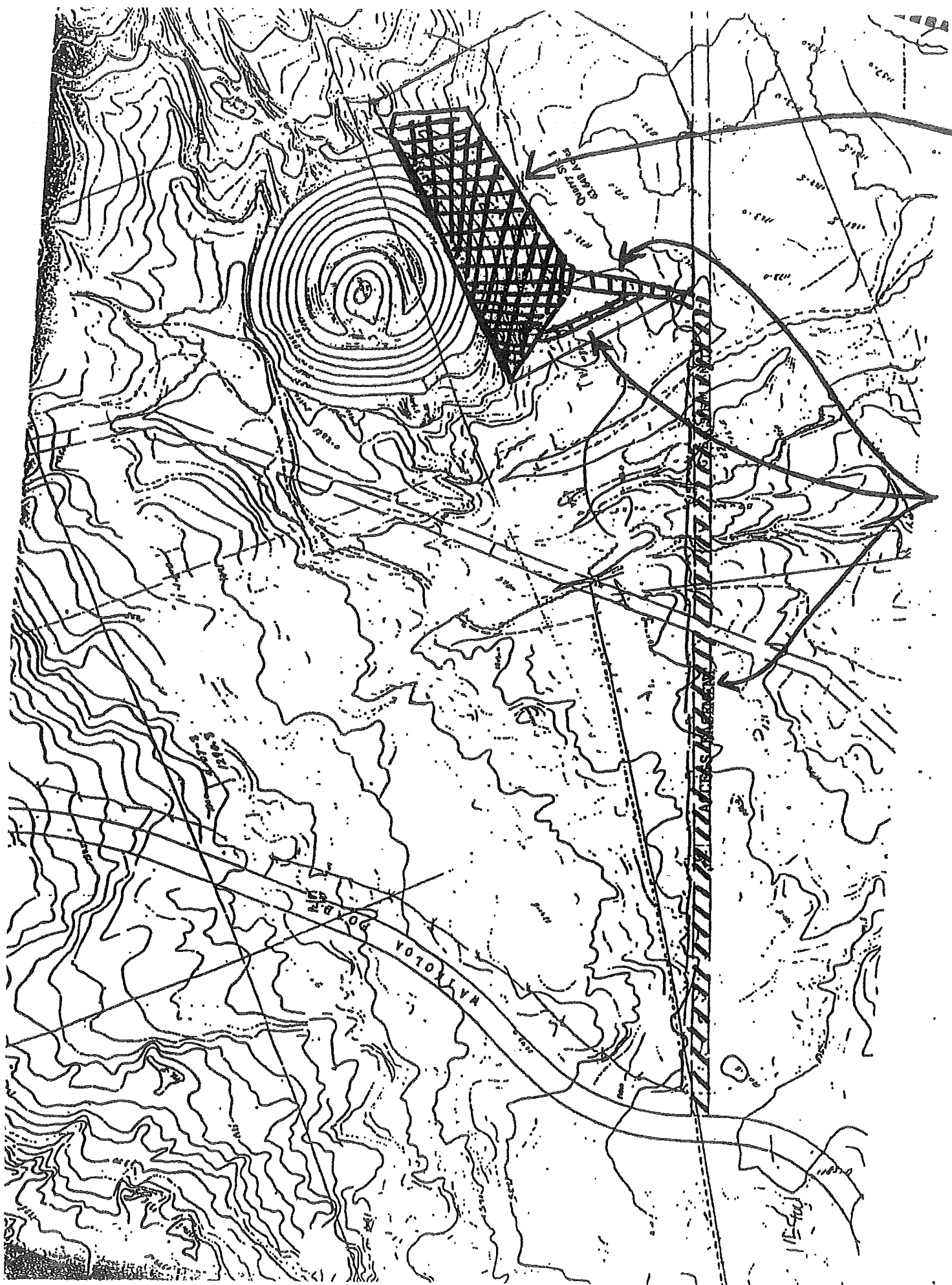
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Source: Hawai'i Statewide GIS Program

Figure 610  
**AGRICULTURAL LANDS of IMPORTANCE  
to the STATE OF HAWAII (ALISH)**



Quarry Site

Access