William P. Kenoi
Mayor

William T. Takaba
Managing Director

Warren H. W. Lee
Director

County of Hawai'i
DEPARTMENT OF PUBLIC WORKS
Aupuni Center
101 Pauahi Street, Suite 7 · Hilo, Hawai'i 96720-4224
(808) 961-8321 · Fax (808) 961-8630
www.co hawaii.hi us

December 22, 2010

Director
Office of Environmental Quality Control
235 South Beretania Street Suite 702
Honolulu HI 96813

Subject: Draft Environmental Assessment for Ali'i Drive Banyans Parking Lot, Banyans, TMKs (3rd) 7-6-015:012 and 013, North Kona District, Island of Hawai'i

Dear Director:

The Department of Public Works, County of Hawai'i, has reviewed the draft environmental assessment for the subject project, and anticipates a Finding of No Significant Impact (FONSI) determination. Please publish notice of availability for this project in the next available edition of the Environmental Notice. We have enclosed the following:

- One paper copy of the Draft EA
- A CD containing the .pdf file for the EA and a WORD file with the OEQC transmittal documents, including OEQC Environmental Notice Publication Form, project summary, the distribution list for the Draft EA, and a sample "Dear Participant" letter
- Hardcopies of the OEQC transmittal material

If you have any questions, please contact Allan Simeon of the Engineering Division at 961-8925.

Sincerely,

Warren H. W. Lee, P.E.
Director

Enclosures: As noted above

cc: Ron Terry, Ph. D, Project Environmental Consultant (w/o attach)
Allan Simeon, DPW Engineering Division

10-05134

OEQC Publication Form
The Environmental Notice

Name of Project:	Ali'i Drive Banyans Parking Lot
Applicable Law:	Chapter 343, HRS
Type of Document:	Draft EA
Island:	Hawai`i
District:	North Kona
TMK:	TMK (3rd.) 7-6-015:012 and 013
Permits Required:	County of Hawai'i, Department of Public Works: Grubbing and Grading Permits, Building Division Approval and Building Permit, Permit for Work in County ROW County of Hawai'i, Planning Department Plan Approval
Name of Applicant or Proposing Agency:	Hawai`i County Department of Public Works
Address	101 Pauhi Street, Suite 7
City, State, Zip	Hilo HI 96720
Contact and Phone	Alan Simeon, P.E., 961-8925
Approving Agency:	Hawai`i County Department of Public Works
Address	101 Pauhi Street, Suite 7
City, State, Zip	Hilo HI 96720
Contact and Phone	Alan Simeon, P.E., 961-8925
Consultant	Geometrician Associates
Address	PO Box 396
City, State, Zip	Hilo HI 96721
Contact and Phone	Ron Terry 969-7090

Project Summary

The Hawai'i County Department of Public Works intends to construct a 17-space paved parking lot near Banyans surf site on Ali'i Drive to alleviate congestion and safety issues caused by excessive roadside parking. The properties will be leased by the County of Hawai'i for a term of eight years, after which the landowner and County may negotiate to continue the lease. The project will include clearing and grubbing, excavation/grading, paving, fencing, and installation of ADA parking stalls. The site for the lot is on the *mauka* side of Ali'i Drive. The parking lot will be fenced and gated and locked at night. Construction of the parking lot is expected to have no more than a minor and temporary effect on traffic. The site has previously been disturbed and no significant biological, archaeological or cultural resources are present.

Distribution List for Ali'i Drive Banyans Parking Lot Draft EA

Teresa Donham, Acting Archaeology Branch Chief
State Historic Pres. Div.
601 Kamokila Blvd., Rm. 555
Kapolei HI 96707

Russell Tsuji, Administrator
Hawai'i State DLNR Land Div.
P.O. Box 621
Honolulu HI 96809

Deputy Director
Environmental Health Administration
Hawai'i State Department of Health
P.O. Box 3378
Honolulu HI 96801

Clyde Nāmu'o, Administrator
Office of Hawaiian Affairs
711 Kapiolani Blvd., Suite 1250
Honolulu HI 96813

Ruby McDonald
Office of Hawaiian Affairs
75-5706 Hanama Place, Ste. 107
Kailua-Kona HI 96740

Bobby Jean Leithead-Todd, Director
Hawai'i County Planning Dept.
101 Aupuni Street, Suite 3
Hilo HI 96720

Hawai'i County Council
25 Aupuni Street
Hilo HI 96720

Harry Kubojiri, Chief
Hawai'i County Police Department
349 Kapiolani Street
Hilo HI 96720

Manager
Kona Bali Kai
76-6246 Alii Drive
Kailua-Kona, Hawaii 96740

Librarian
Kailua-Kona Public Library
75-140 Hualalai Road
Kailua-Kona HI 96740

Dear Participant:

Attached for your review is a Draft Environmental Assessment (DEA) prepared pursuant to the EIS law (Hawaii Revised Statutes, Chapter 343) and the EIS rules (Administrative Rules, Title 11, Chapter 200).

Project Name: **Ali'i Drive Banyans Parking Lot**

Location: Island: **Hawai`i** District: **North Kona**
Tax Map Key Number: **TMKs (3rd.) 7-6-015:012 and 013**

Your comments must be received or postmarked by: **to be determined**

Please send original comments to the:

Consultant: **Geometrician Associates**
Address: **PO Box 396**
Hilo HI 96721
Contact: **Ron Terry** Phone: **969-7090**

Copies of the comments should be sent to:

Proposing/Approving
Agency: **Hawai`i County Department of Public Works**
Address: **101 Pauhi Street, Suite 7**
Hilo HI 96720
Contact: **Alan Simeon, P.E** Phone: **961-8925**

If you no longer need the Draft EA, please recycle it. Thank you for your participation in the Environmental Assessment process.

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DRAFT ENVIRONMENTAL ASSESSMENT

Ali‘i Drive Banyans Parking Lot

TMKs: (3rd) 7-6-015:012 and 013
North Kona District, Hawai‘i Island, State of Hawai‘i
County Job No. E-4034

January 2011

Prepared for:

County of Hawai‘i
Department of Public Works
101 Pauahi Street, Suite 7
Hilo, Hawai‘i 96720

DRAFT ENVIRONMENTAL ASSESSMENT

Ali‘i Drive Banyans Parking Lot

TMK: (3rd) 7-6-015:012 and 013
North Kona District, Hawai‘i Island, State of Hawai‘i
County Job No. E-4034

PROPOSING/
APPROVING AGENCY:

County of Hawai‘i
Department of Public Works
101 Pauahi Street, Suite 7
Hilo, Hawai‘i 96720

CONSULTANT:

Geometrician Associates LLC
PO Box 396
Hilo, HI 96721

CLASS OF ACTION:

Use of County Funds

This document is prepared pursuant to:

The Hawai‘i Environmental Protection Act,
Chapter 343, Hawai‘i Revised Statutes (HRS), and
Title 11, Chapter 200, Hawai‘i Department of Health Administrative Rules (HAR).

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The Hawai‘i County Department of Public Works intends to construct a 17-space paved parking lot near Banyans surf site on Ali‘i Drive to alleviate congestion and safety issues caused by excessive roadside parking. The properties will be leased by the County of Hawai‘i for a term of eight years, after which the landowner and County may negotiate to continue the lease. The project will include clearing and grubbing, excavation/grading, paving, fencing, and installation of ADA parking stalls. The site for the lot is on the *mauka* side of Ali‘i Drive. The parking lot will be fenced and gated and locked at night. Construction of the parking lot is expected to have no more than a minor and temporary effect on traffic. The site has previously been disturbed and no significant biological, archaeological or cultural resources are present.

PART 1: PROJECT DESCRIPTION, PURPOSE AND NEED AND ENVIRONMENTAL ASSESSMENT PROCESS

1.1 Project Location and Description

The Hawai‘i County Department of Public Works (DPW) intends to construct a 17-space paved parking lot near Banyans surf site on the *mauka* side of Ali‘i Drive to alleviate congestion and safety issues caused by excessive roadside parking. The parking lot would be constructed on properties identified as TMKs 7-6-015:012 and 7-6-015:013 (see Figures 1-4 for maps and photos), which have been disturbed by construction activities including house construction and demolition in the past. The properties will be leased by the County of Hawai‘i (the County) for a term of eight years, after which the landowner and County may negotiate to continue the lease.

The project will include clearing and grubbing of the site, excavation/grading, paving, and fencing. Several existing trees and portions of the rock walls currently present on the site will be left in place. The parking lot will be fenced and gated and locked at night. It will include two parking stalls designed in accordance with guidelines of the Americans with Disabilities Act (ADA).

The County plans to finish design of the parking lot in March 2011, after which it will proceed with construction, either in-house or through a contractor. Construction would take about 30 to 40 working days, and the value of the improvements will be $124,000 or less. The monthly lease rent on the property will be $500.00.

1.2 Purpose and Need

The Hawai‘i County Department of Public Works is undertaking this project in order to resolve problems associated with roadside parking by surfers, spectators and beachgoers at the surf site known as Banyans on the north side of Hōlualoa Bay. The area has a long history of surfing, as Hōlualoa Bay was a favorite surfing spot for the Hawaiian Ali‘i, including Kamehameha I. There are many surfers in West Hawai‘i but relatively few surf sites, and Banyans is one of the most popular not only because of the quality of the wave when it breaks but also because it responds to various swell directions and thus breaks frequently. The County prohibits parking along the narrow right-of-way of two-lane Ali‘i Drive in order to keep the heavily used bike lanes clear. The shortage of available parking frustrates surfers and can lead to conflicts with private property owners, blocking of the bike lanes, congestion, and safety problems. Construction of the 17-space parking lot will not solve all parking, congestion or safety problems in the area but it will generally contribute to a safer and less congested area.

1.3 Environmental Assessment Process

This Environmental Assessment (EA) process is being conducted in accordance with Chapter 343 of the Hawai‘i Revised Statutes (HRS). This law, along with its implementing regulations, Title 11, Chapter 200, of the Hawai‘i Administrative Rules (HAR), is the basis for the environmental impact

Figure 1a Location Maps

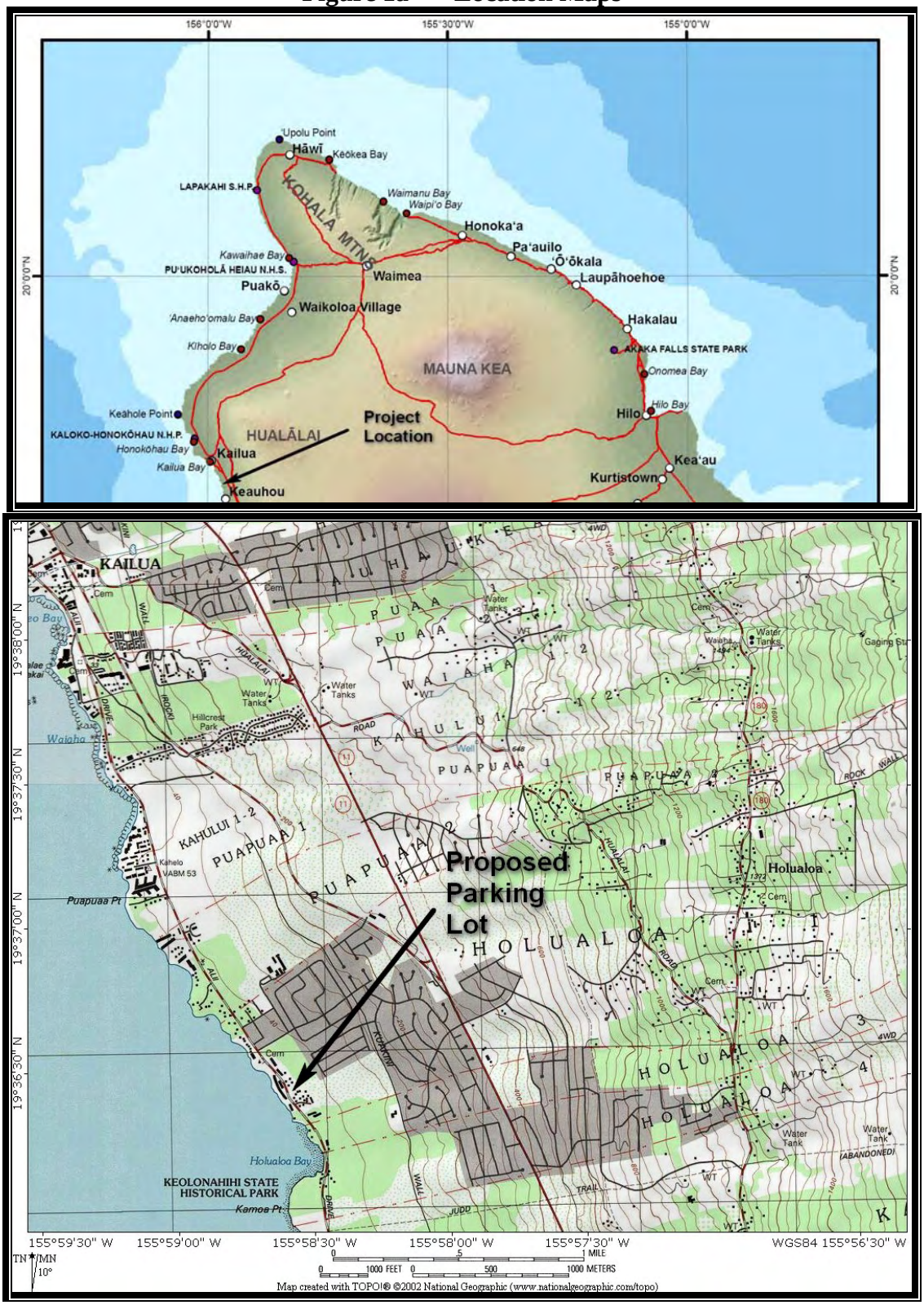
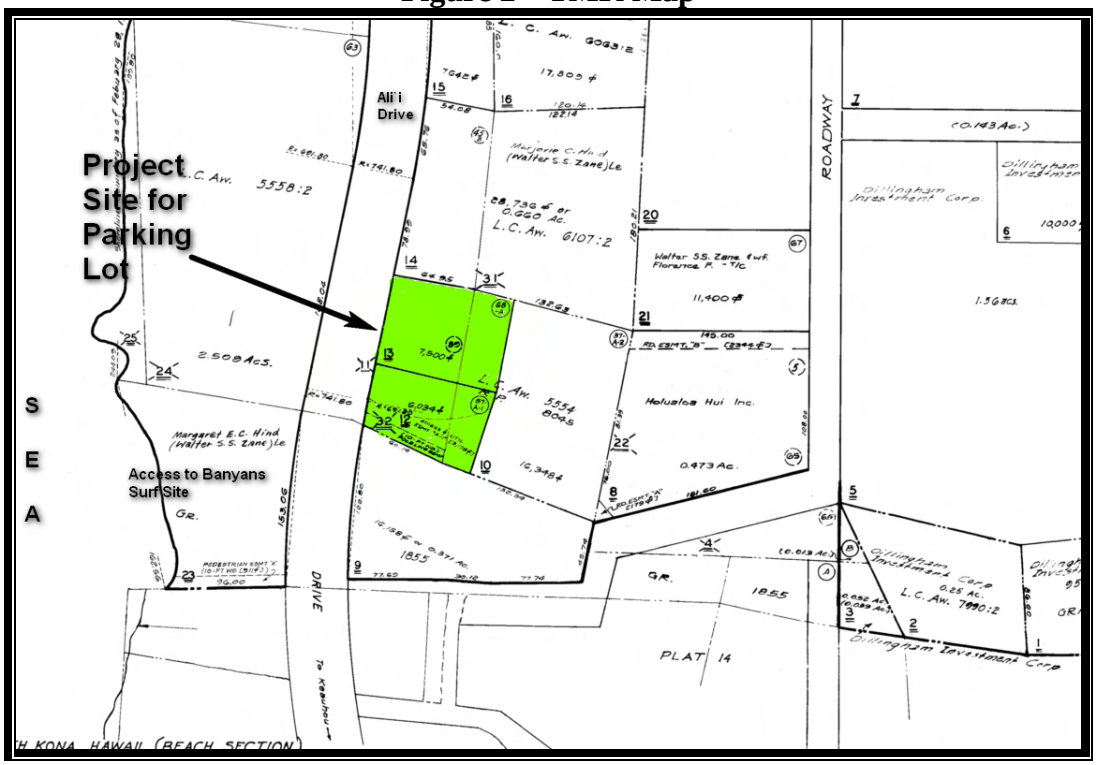


Figure 2 TMK Map



Source: Hawai'i County Real Property Tax Maps, portion of Plat Map. Some labels added.

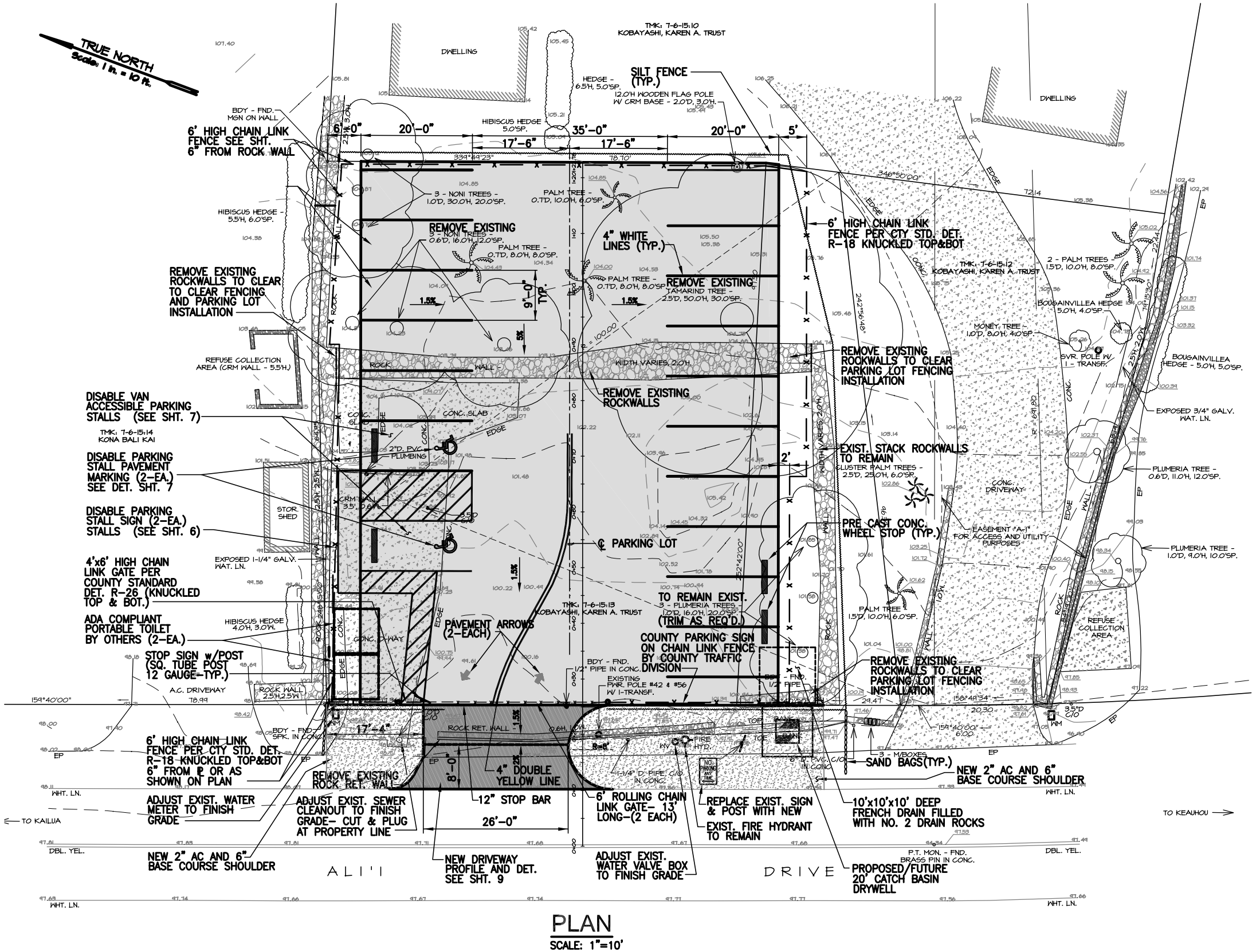
Figure 3 Project Site Photographs

3a Airphoto

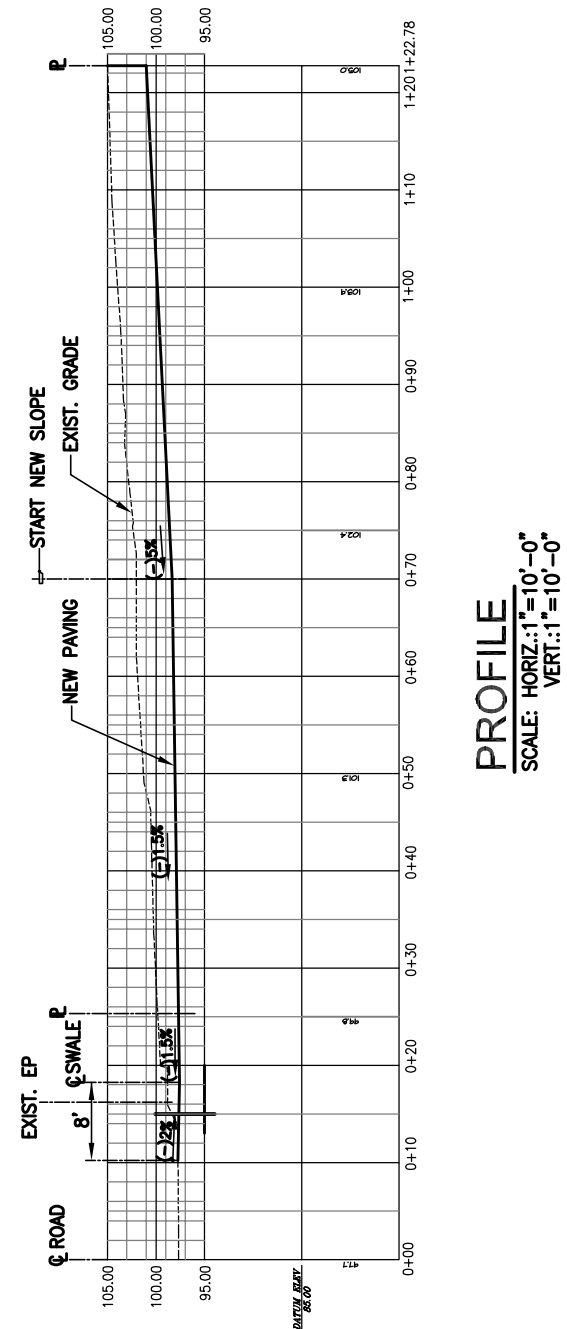
Figure 3 Project Site Photographs, continued

3b Project Site from Ali‘i Drive

3c View from South to North Across Project Site



PLAN
SCALE: 1"=10'



PROFILE
SCALE: HORIZ.:1"=10'-0"
VERT.:1"=10'-0"

REVISION	DATE	BRIEF	MADE BY	APPROVED

DEPT. OF PUBLIC WORKS, COUNTY OF HAWAII
ENGINEERING DIVISION HILO, HAWAII

ALI'I DRIVE PARKING LOT - BANYANS,
TMK: 7-6-15:12 & 13
JOB NO. E-4034

PLAN AND PROFILE

NORTH KONA, HAWAII

APPROVED

Date

Division Chief

Survey	
Design	A.S.
Drawn	P.S.
Checked	A.S.

Sheet 5 of 10

ALII DRIVE PARKING LOT - BANYANS

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process in the State of Hawai‘i. According to Chapter 343, an EA is prepared to determine impacts associated with an action, to develop mitigation measures for adverse impacts, and to determine whether any of the impacts are significant according to thirteen specific criteria.

Part 4 of this document states the finding (anticipated in the Draft EA) that no significant impacts are expected to occur; Part 5 lists each criterion and presents the findings by the Hawai‘i County Department of Public Works, the proposing/approving agency. In the EA process, if the approving agency determines after considering comments to the Draft EA that no significant impacts would likely occur, then the agency issues a Finding of No Significant Impact (FONSI), and the action is permitted to occur. If the agency concludes that significant impacts are expected to occur as a result of the proposed action, then an Environmental Impact Statement (EIS) is prepared.

1.4 Public Involvement and Agency Coordination

The following agencies and organizations were consulted in development of the environmental assessment:

State:
- Department of Land and Natural Resources
- Office of Hawaiian Affairs, Honolulu and West Hawai‘i Offices

County:
- Hawai‘i County Council
- Department of Environmental Management
- Planning Department
- Police Department
- Fire Department

Private:
- Sierra Club
- Kona Outdoor Circle
- Kona Hawaiian Civic Club
- Betty Kanuha Foundation
- West Hawai‘i Surfing Association
- Neighboring property owners

Copies of communications received during early consultation are contained in Appendix 1a.

PART 2: ALTERNATIVES

2.1 No Action

Under the No Action Alternative, the property on Ali‘i Drive at Banyans surf site would not be leased and the parking lot would not be constructed. Neither the public nor the neighboring landowners would benefit from the increased safety and reduction of traffic congestion that is caused by excessive roadside parking for a period of eight and possibly more years. This EA considers the No Action Alternative as the baseline by which to compare environmental effects from the project.

2.2 Alternative Locations or Strategies

The properties identified as TMKs 7-6-015:012 and 013 are to be leased specifically to provide an area to construct the parking lot. County searches determined that no County properties and very few private properties are available close enough to efficiently serve as parking for Banyans surf site. As the owner is not willing to sell to the County at this time, there was no option to purchase the property. Balancing the expected cost of the lease and the proposed improvements with the substantial need for public parking for this important surf site, the County considers the project a worthwhile undertaking.

Although it is recognized that there are neighboring residential uses that require consideration in design and construction activities, particularly in regard to visual and noise impacts, there do not appear to be severe environmental or other disadvantages associated with the particular proposed site. Almost any other legal use for the currently vacant property, which is zoned Resort-Hotel (V-1.25; minimum dwelling unit size of 1,250 square feet) and might therefore support condominium or hotel uses, would produce equivalent or greater impacts to neighboring residents. The property is well suited to the proposed use, and there are no apparent reasonable alternatives. Therefore, no alternative sites have been advanced in this Environmental Assessment.

PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Basic Geographic Setting

The properties upon which the new parking lot on Aliʻi Drive would be developed are referred to throughout this EA as the *project site*. The project site consists of two private properties: 1) TMK 7-6-015:012, a 6,034-square-foot lot located at 76-6253 Aliʻi Drive; and 2) TMK 7-6-015:013, a 7,500-square-foot lot located at 76-6255 Aliʻi Drive. Both are owned by the Karen A. Kobayashi Trust. The term *project area* is used to describe the general environs of this part of North Kona between the communities of Kailua and Keauhou.

The main access path for Banyans surfing site is located approximately 100 feet southwest and across Aliʻi Drive from the project site. Various buildings of the Kona Bali Kai condominium are located across Aliʻi Drive from the project site and also on the north and south. To the east, on the mauka side, are rental homes also owned by the Karen A. Kobayashi Trust.

3.1 Physical Environment

3.1.1 Climate, Geology, Soils and Geologic Hazards

Environmental Setting

The climate in the area is mild, with a mean annual temperature of 75 degrees (Armstrong 1983) and annual rainfall averaging approximately 30 inches (U.H. Hilo-Geography 1998:57). Geologically, the site is located on the flanks of Hualālai volcano, and the surface consists of weathered basalt soils derived from Pleistocene-epoch (more than 10,000 years old) lava flows (Wolfe and Morris 1996). Slopes on the project site are mild. The project site soil is classified by the U.S. Natural Resources Conservation Service (formerly Soil Conservation Service) as Punaluʻu extremely rocky peat (rPYD), a well-drained thin organic soil over pahoehoe lava bedrock on 6 to 20 percent slopes. Roughly 40 to 50 percent of its surface is occupied by rock outcroppings. Permeability for this soil is rapid, runoff is slow, and erosion hazard slight. The Capability Subclass is VIIs, and it is mainly used for pasturing (U.S. Soil Conservation Service 1973).

The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes. Volcanic hazard as assessed by the U.S. Geological Survey in this area of North Kona is Zone 4, on a scale of ascending risk from 9 to 1 (Heliker 1990:23). The hazard risk is based on the fact that Hualālai has steep slopes and is the third most historically active volcano on the island. Volcanic hazard Zone 4 areas have about 5 percent of their land area covered by lava or ash flows since the year 1800 and less than 15 percent of their land area covered by lava in the past 750 years. They are at lower risk

than Zone 3 areas because the frequency of Hualālai eruptions is lower than those of Kilauea and Mauna Loa.

In terms of seismic risk, the entire Island of Hawai‘i is rated Zone 4 Seismic Hazard (*Uniform Building Code, 1997 Edition*, Figure 16-2). Zone 4 areas are at risk from major earthquake damage, especially to structures that are poorly designed or built, as the 6.7-magnitude quake of October 15, 2006, demonstrated. That earthquake, and a magnitude 6.0 aftershock, caused no damage to the project site. The project site does not appear to be subject to subsidence, landslides or other forms of mass wasting.

Impacts and Mitigation Measures

In general, geologic conditions impose no constraints on the proposed action and the parking lot, which will be designed in accordance with regulations related to its seismic setting, is not imprudent to construct.

3.1.2 Drainage, Water Features and Water Quality

Existing Environment

The project area has no perennial surface water bodies and no known areas of local (non-stream related) flooding. The Federal Emergency Management Agency's Flood Insurance Rate Map (FIRM) FM1551660926E (6/2/1995) (Appendix 3) shows that the project site is in Flood Zone AE at approximately 15 feet in elevation.

Maps printed by the Pacific Tsunami Warning Center and the Hawai‘i County Civil Defense Agency locate the project site within an area that should be evacuated during a tsunami warning (http://www5.hawaii.gov/tsunami/maps.asp). Large extents of Hawai‘i Island, including the project area, have been struck by highly destructive tsunami in historic times. The April 1, 1946 tsunami had a runup of 13 feet in the area of the project site (*Atlas of Hawai‘i*, 3rd edition).

Impacts and Mitigation Measure

Parking lots, gates and signs are generally allowed uses within the AE flood zone. All designs must undergo internal DPW review to ensure conformance with Chapter 27 of the Hawai‘i County Code.

Because of the limited scale of construction, additional risks for flooding or impacts to water quality associated with the project appear to be negligible. The project will be required to contain any increase in runoff due to the construction of impermeable surfaces onsite, in conformance with Chapter 10 of the Hawai‘i County Code, by directing runoff toward a drainage pit with overflow to a drywell. The drywell is planned by the County of Hawai‘i within the Ali‘i Drive right-of-way near the parking lot in order to deal with existing road runoff.

In order to minimize the potential for construction phase sedimentation and erosion, the contractor shall perform all earthwork and grading in conformance with Chapter 10, Erosion and Sediment Control, Hawai‘i County Code. The SWPPP shall describe the emplacement of a number of best management practices (BMPs) for the project. These BMPs may include, but would not be limited to, the following:

- Minimization of sediment loss by emplacement of structural controls possibly including silt fences and gravel bags;
- Minimizing disturbance of soil during periods of heavy rain;
- Phasing of the project in order to disturb a minimum necessary area of soil at a particular time;
- Application of protective covers to soil and material stockpiles;
- Construction and use of a stabilized construction vehicle entrance, with designated vehicle wash area that discharges to a sediment pond;
- Washing of vehicles in the designated wash area before they egress the project site;
- Use of drip pans beneath vehicles not in use in order to trap vehicle fluids;
- Routine maintenance of BMPs by adequately trained personnel;
- Coordination of storm water BMPs and wind erosion BMPs whenever possible; and
- Cleanup and disposal at an approved site of significant leaks or spills, if they occur.

The National Weather Service of the National Oceanic and Atmospheric Administration operates the Pacific Tsunami Warning Center and Alaska Tsunami Warning Center, which monitors sudden earth movements throughout the Pacific Basin. Tsunamis generated from earth movements on the Pacific Rim, including South America, Japan, California and Alaska, would allow for warning times between 4 and 15 hours, sufficient time for evacuation of Ali‘i Drive. Sudden movement along faults close to Hawai‘i are unpredictable, allowing only minutes or perhaps an hour of warning time, and evacuation would be more problematic. Coastal recreational areas in Hawai‘i cannot avoid the tsunami hazard because the entire coast is vulnerable to tsunami. Warning sirens are present and easily audible at the project site.

3.1.3 Flora, Fauna and Ecosystems

Existing Environment, Impacts and Mitigation Measures

The original vegetation of the general area was probably Coastal Dry/Mesic Forest, per Gagne and Cuddihy (1990), consisting of an open canopy forest of various trees, shrubs, herbs, vines and ferns. The landscape of the Kailua-Kona area has been radically altered by centuries of settlements, over a century of grazing, and particularly the development since 1960 of hotels, condominiums, resort homes, commercial centers and associated infrastructure. The vegetation has also been fundamentally altered by alien species invasion to the point that in many locations native species are few to none. The aliens *kiawe* (*Prosopis pallida*) and *koa haole* (*Leucaena leucocephala*) long ago became dominant in the coastal dry forest. The vegetation at the project site and nearby project area is now mainly managed vegetation in the form of resort, residential, and commercial landscaping,

interspersed with patches of weeds, along with the occasional undeveloped lot infested with *kiawe* and *koa haole*.

A botanical reconnaissance of the project site was performed in October 2010 by Dr. Ron Terry of Geometrician Associates. The species list (Table 1) includes a number of cultivated species as well as weeds. Only a few common native plant species were found. No rare, threatened or endangered native species were present or would be expected in this small, highly disturbed site.

Table 1 Plant Species on Project Site

Scientific Name	Family	Common Name	Life Form	Status
Aloe vera	Agavaceae	Aloe	Shrub	A
Asystasia gangetica	Acanthaceae	Chinese violet	Herb	A
Boerhavia coccinea	Nyctaginaceae	Boerhavia	Herb	A
Bougainvillea sp.	Nyctaginaceae	Bougainvillea	Shrub/ Vine	A
Carica papaya	Caricaceae	Papaya	Tree	A
Chamaesyce hirta	Euphorbiaceae	Garden spurge	Herb	A
Cleome gynandra	Capparaceae	Spider flower	Herb	A
Clusia rosea	Clusiaceae	Autograph tree	Tree	A
Coffea arabica	Rubiaceae	Coffee	Shrub	A
Dracaena marginata	Agavaceae	Money tree	Tree	A
Dracaena massangeana	Agavaceae	Corn plant	Tree	A
Eleusine indica	Poaceae	Wire grass	Herb	A
Eragrostis tenella	Poaceae	Lovegrass	Herb	A
Ficus microcarpa	Moraceae	Chinese banyan	Tree	A
Hibiscus sp.	Malvaceae	Ornamental hibiscus	Shrub	A
Leucaena leucocephala	Fabaceae	Haole koa	Shrub	A
Macfadyena unguis-cati	Bignoniaceae	Cat's caw-climber	Vine	A
Momordica charantia	Cucurbitaceae	Wild bittermelon	Vine	A
Morinda citrifolia	Rubiaceae	Noni	Tree	A
Phymatosorus grossus	Polypodiaceae	Maile scented fern	Fern	A
Portulaca oleracea	Portulacaceae	Pigweed	Herb	A
Pritchardia thurstonii	Arecaceae	Fiji fan palm	Tree	A
Ravenala madagascariensis	Musaceae	Travelers palm	Tree	A
Schefflera actinophylla	Araliaceae	Octopus tree	Tree	A
Schinus terebinthifolius	Anacardiaceae	Christmas-berry	Shrub	A
Senna occidentalis	Fabaceae	Coffee senna	Tree	A
Sida rhombifolia	Malvaceae	Cuba jute	Herb	A
Strelitzia reginae	Strelitziaceae	Bird of paradise	Herb	A
Tamarindus indica	Fabaceae	Tamarind	Tree	A
Waltheria indica	Sterculiaceae	Uhaloa	Herb	I

Notes: Alien (A), Endemic (E), and Indigenous (I)

The project site does not provide habitat for native animals. Common non-native mammals including cats, dogs, mice, rats and mongooses probably all are occasionally present. A large variety of alien birds makes up the avifauna of this area, particularly Japanese White-eye (*Zosterops japonicus*) and

Mynah (*Acridotheres tristis*). Common native waterbirds such as *ulili* (*Heteroscelus incanus*) and *kolea* (*Pluvialis fulva*) utilize the rocky shelf and tidepools *makai* of the Kona Bali Kai.

No streams, wetlands or special aquatic sites (e.g., anchialine ponds) are present on the project site. However, North Kona coastal waters have excellent marine biota, including healthy coral-based ecosystems. The waters are used by not only surfers but also boaters, swimmers, divers, and fishermen, and good water quality is essential for preservation of natural ecosystems that they utilize.

Because of the lack of threatened or endangered terrestrial species or native terrestrial ecosystems, no direct adverse impacts to biological resources would occur as a result of constructing or utilizing the new parking lot. Although runoff from the very small additional paved area (much of the 16,534-square foot project site is already paved) would be unlikely to measurably affect water quality, given the extremely developed nature of the surrounding area. As discussed above, runoff will be directed towards an adjacent drainage pit with overflow to a drywell planned by the County of Hawai‘i, providing some level of natural treatment through filtration in rock prior to exiting as groundwater.

3.1.4 Air Quality, Noise and Scenic Resources

Environmental Setting

Air pollution in West Hawai‘i is mainly derived from volcanic emissions of sulfur dioxide, which convert into particulate sulfate and produce a volcanic haze (vog) that persistently blankets North and South Kona.

Noise on the project site is moderate and derived mainly from motor vehicles, with occasional higher levels of noise from residential and road maintenance activities.

The project area contains sites that are considered significant for their scenic character in the Hawai‘i County General Plan. In particular, the General Plan names the “Viewplane from Kuakini Highway going mauka & makai” within TMK Sections 7-7 and 7-8 and the “Hōlualoa-Keauhou Viewplane from Kamehameha III Road going mauka & makai” within TMK Plat 7-8-10. Prominent nearby points and bays such as Hōlualoa Bay and Kamoa Point are part of this scenic landscape. However, the project site itself, i.e., the two lots for the proposed parking lot, are not visible from these vantages and contain no scenic resources.

Impacts and Mitigation Measures

The proposed action will not measurably affect air quality or noise levels except minimally during grubbing, grading and construction. Removal of existing vegetation will be required. In order to minimize impacts from dust, DPW will prepare and implement, or require its contractor to prepare and implement, a dust control plan compliant with provisions of Hawai‘i Administrative Rules, Chapter 11-60.1, “Air Pollution Control,” and Section 11-60.1-33, “Fugitive Dust.”

Construction would entail limited grading, compressors, vehicle and equipment engine operation. These activities may generate noise exceeding 95 decibels at times, impacting nearby noise sensitive receptors, including adjacent residences. In cases where construction noise is expected to exceed the Department of Health (DOH) "maximum permissible" property-line noise levels, builders must obtain a permit per Title 11, Chapter 46, HAR (Community Noise Control) prior to construction. DOH reviews the proposed activity, location, equipment, project purpose, and timetable in order to decide upon conditions and mitigation measures, such as restriction of equipment type, maintenance requirements, restricted hours, and portable noise barriers. DPW and/or its contractor will consult with DOH to determine if noise reduction measures are necessary.

No important viewplanes or scenic sites, including those recognized in the Hawai'i County General Plan, would be affected. The parking lot would moderately impact views from the residences *mauka* of the parking lot.

It should be noted that although in the absence of any development there might be no potential air quality, noise or scenic impacts to nearby areas, but if the County does not lease the property from the landowner, two homes or commercial structures could be built, which might also produce such impacts.

3.1.5 Hazardous Substances, Toxic Waste and Hazardous Conditions

Environmental Setting, Impacts and Mitigation Measures

No systematic assessment of the lots has been conducted to determine if hazardous materials, toxic waste or other hazardous conditions may have been present on the site. Reconnaissance of the site during topographic, botanical and design surveys did not reveal any evidence of such conditions, nor have there been reports of such conditions. Because there is no evidence that the subject property has been previously used or developed other than for homes, the potential for use or storage of regulated or hazardous chemicals onsite is low. Based on this, there does not appear at this time to be any outstanding concern related to these issues. If evidence of suspicious materials or conditions appears during excavation or other construction, the County may undertake a systematic assessment of the area in question to determine if remediation is required.

3.2 Socioeconomic and Cultural

3.2.1 Socioeconomic Characteristics

By improving safety and reducing traffic congestion along Ali'i Drive, the proposed project would benefit public welfare in North Kona. Table 2 provides information on the socioeconomic characteristics of Kailua-Kona along with those of North Kona and Hawai'i County as a whole for comparison, from the 2000 U.S. Census of Population.

Table 2 Selected Socioeconomic Characteristics

Characteristic	Hawai'i County	North Kona	Kailua -Kona	Characteristic	Hawai'i County	North Kona	Kailua -Kona
Total Population	148,677	28,543	9,870	21 to 64 Years, Disabled (%)	19.2	17.4	18.7
Median Age	38.6	39.4	35.5	Employed and Disabled, 21 to 64 Years, (%)	51.8	64.1	67.0
Older Than 65 Years (%)	13.5	11.8	10.0	65 Years or Older, Disabled (%)	40.3	38.1	38.3
Race (%)				Employment in:			
White	31.5	47.1	38.7	Management and professional	30.2	26.6	20.3
Asian	26.7	16.3	18.3	Service	22.2	24.3	27.7
Hawaiian	9.7	8.9	10.8	Sales and offices	25.1	27.8	31.2
Other Pacific Islander	1.5	1.8	2.4	Construction	9.9	10.4	9.4
Two or More Races	28.4	23.5	27.1	Farming, Fishing and Forestry	3.8	2.2	2.3
Hispanic (Any Race)	9.5	7.9	10.2	Production and Transportation	8.9	8.8	9.1
Family Households (%)	69.6	68.6	68.7	Families Below Poverty Line (%)	11.0	5.6	6.5
Households with Female Householder, no Husband, With Children (%)	7.7	6.7	8.8	Households with Female Householder, no Husband, With Children, Below Poverty Line (%)	28.1	22.0	26.3
Householder Lives Alone (%)	23.1	22.2	22.6	Individuals Below Poverty Line (%)	15.7	9.7	10.8
Average Household Size	2.75	2.70	2.78	65 and Over Below Poverty Line	7.2	5.3	3.9
Average Family Size	3.24	3.13	3.26	Median Household Income ($)	39,805	47,610	40,874
Over 25 Years Old With High School Diploma (%)	84.6	87.7	84.5	Housing Owner-Occupied (%)	64.5	58.5	51.3
Married Now (%)	52.0	53.9	48.7	Housing Rented (%)	35.5	41.5	48.7
Widowed (%)	6.3	4.9	5.2	Housing Vacant (%)	15.5	19.7	18.2
Divorced Now (%)	10.7	11.4	11.9	Median Home Value, 1999 ($)	153,700	233,900	190,900
Veterans (%)	14.5	14.8	13.2	Median Rent, 1999 ($)	645	745	686
Over 16 in Labor Market (%)	61.7	69.2	69.5	Rent is Greater Than 25% of Income (%)	46.0	47.2	51.8
Residence 5 Years Ago (%)				Poverty by Race:			
Same Home	57.7	49.9	46.2	White	14.5	8.8	9.9
Different Home, Same County	26.5	28.8	34.9	Asian	7.3	6.2	5.3
Different County in Hawai`i	4.8	3.5	4.1	Native Hawaiian/Pacific Islander	26.4	15.8	12.4
Different State/Country	11.0	17.8	14.8	Two or More Races	20.4	10.3	12.8

Source: U.S. Bureau of the Census May 2001. *Profiles of General Demographic Characteristics, 2000 Census of Population and Housing, Hawai'i.* (U.S. Census Bureau Web Page).

Impacts

The proposed project action would enhance safety. No relocation of businesses or homes, disruption of local traffic patterns, substantial effects to neighborhood character or integrity, or any other social impacts are involved in the proposed action. To the contrary, the action would reduce existing traffic congestion by providing a parking area for vehicles currently parking along Ali'i Drive.

While the No Action Alternative would not require the expenditure of public funds and would not produce any neighborhood impacts, it would obviate public benefit from the project.

3.2.2 Cultural and Historic Resources

Background

The project site is located near the boundary of two *ahupua‘a*, Hōlualoa 2 and Hōlualoa 3, in the North Kona District on the west side of the Island and County of Hawai‘i. “Hōlualoa” in the Hawaiian language is literally translated “long sled course” (Pukui and Elbert 1974), which may be related to the presence of a nearby *hōlua* or sled courses.

The first colonization of Hawai‘i Island is believed to have occurred on the eastern or windward side by 300 A.D. Early settlers are thought to have first come to the leeward side of the Hawai‘i Island for the procurement of resources during the Early Expansion period from 600-1100 A.D. (Cordy 1995). Permanent habitation of Kona began toward the end of that period (Cordy 1981, 1995; Schilt 1984).

The project area is located at the coastal edge of the *kula* zone of the Kona Field System, a dryland agricultural complex that extends from the coast to the forested slopes of Kona (Cordy 1995). The system was a nearly continuous series of fields stretching from the Kau Ahupua‘a in North Kona to Ho‘okena in South Kona. Typically used for the cultivation of sweet potatoes, paper mulberry (*wauke)* and gourds, this zone is often marked by mounds from clearing and planting, modified outcrops and planting terraces and depressions (Hammatt and Clark 1980, Hammatt and Folk 1980, Schilt 1984). Habitation areas are scattered through the *kula* zone but are more typically found along the shoreline (Cordy 1995) along with burial, canoe storage, rituals and marine exploitation activities. The shoreline area was also the typical location for homes for royalty and their supporting activities including *heiau*, *holua* slides and *pu‘uhonua*, or places of refuge.

The project site is located immediately north of the Keakealaniwahine and Kamoa Point complexes, which make up the Hōlualoa Royal Center in the *ahupua‘a* of Hōlualoa 4th, one of several such centers in Kona (McEldowney 1980, Cordy 1995, Haun et al. 1998). Hōlualoa Ahupua‘a has a particularly interesting and important history, having served as a royal center during the reign of many generations of paramount *ali‘i* in the dynastic line of Hawai‘i Island. It is celebrated for its association with various chiefesses, including Keolonahihi, who is said to have built the first important complex in Hōlualoa around A.D. 1300. Keakamahana and her daughter Keakealaniwahine, who were the highest ranking *ali‘i* of their dynastic line and generation, are associated with the royal center from the period between A.D. 1600-1800, when six other such centers were developed along the Kona coast: Kamakahonu near the present day Kailua Pier, Kahalu‘u, Keauhou, Ka‘awaloa, Kealakekua and Honaunau. *Ali‘i* would travel between these royal centers throughout the year for resources and recreation. Areas with good surfing and canoe landings such as Hōlualoa were favored by the *ali‘i* as royal centers. Kamehameha became adept at board and canoe surfing at Hōlualoa Bay.

The National Park Service recently listed the Hōlualoa 4 Archaeological District on the National Register of Historic Places (http://www.state.hi.us/dlnr/chair/pio/HtmlNR/05-N79.htm.) The site consists of Keolonahihi State Historical Park, which has two parts: Keolonahihi Complex, encompassing 12 acres on the *makai* side of Ali‘i Drive, and the Keakealaniwahine Complex,

making up 16 acres on the *mauka* side. The district contains a total of eight *heiau* structures that were constructed and dedicated for a range of religious functions representative of the Hawaiian culture, including surfing (Hale ʻAʻama), warrior training (Kanekaheilani Heiau), medicine and healing (Hualani Heiau), fertility (Moʻipe Heiau), and preparation of *aliʻi* for burial.

Some of the earliest events documented in the Kona regional traditional history are associated with ʻUmi-a-Liloa, whose father was the first to unify rule there. Kona was a popular dwelling place of chiefs (Kamakau 1961), and traditional Hawaiian political authority was centered in the area from Kailua to Keauhou from at least the 15th century to the reign of Kamehameha I, who spent time in the Hōlualoa Royal Center as a child. According to the Haun & Associates archaeological inventory survey (2002), Kamehameha was said to have visited two *heaiu* at Kamoa Point for religious purposes. The complex was visited by missionary William Ellis in 1823:

> "After traveling some time, we came to Kanekaheilani, a large heiau more than two hundred feet square. In the midst of it was a clear pool of brackish water, which natives told us was the favorite bathing place of Tamehameha, and which he allowed no other person to use. A rude figure, carved in stone, standing on one side of the gateway by which we entered, was the only image we saw here" (Ellis 1969:118).

William Stokes described the same area in 1919, giving the *heiau* a different name:

> "Heiau of Keolonahihi, land of Hōlualoa 4th, North Kona: at Kamoa Point, on the south side of the bay; bears 153º 30', 7100 feet. An enclosure containing two compartments, and an approximately octagonal pool of fresh water in the portion on the west. On the north is what remains of a platform nearly destroyed by the sea. There was nothing in the size of construction which suggested a heiau of any importance. Outside to the east was a long platform suggesting a canoe house, and nearby a pit containing a spring of fresh water. There is little doubt of the identity of this place with that described by Ellis ... " (Stokes quoted in Hammatt 1980:19).

Kamehameha embraced foreign trade, including the provisioning of whaling vessels and sandalwood traders (Schilt 1984). Missionaries first arrived in Kailua in 1820 but stayed only a few months. Upon returning three years later they were allotted land for missions and schools. About this time and continuing into the 1840s, subsistence farming began to give way to a market economy with the introduction of coffee, corn, pumpkins, cotton, pineapple and Irish potatoes. Other crops introduced in the Kailua portion of the *kula* zone of the Kona Field System (SIHP [State Inventory of Historic Places] 6601) (Newman 1970, Kelly 1983, Schilt 1984, Cordy 1995), which extended from the shoreline to the 500-foot elevation and in which the project site lies, included melons, cabbage, onions, oranges and tobacco.

In the particular area of the proposed parking lot there are two *kuleana* awards (farm or residence lots for commoners). An additional six *kuleana* were awarded in close proximity to the project site. Land Commission Award 5554 was registered by Keawekolohe on January 28, 1848 (Native Register: vol. 8, p. 389). Keawekolohe claimed two *apana* in the *ʻili* land at Kaʻōhiʻa of Hōlualoa 1 Ahupuaʻa,

but was only awarded his house lot (Section 1). Land Commission Award 5558:2 was registered by D. Kawaihoa on January 24, 1848 (Native Register: vol. 8, p. 389-90). Kawaihoa appears to be an individual of some importance. Relative to his Hōlualoa 1 award he recounts:

> "Greetings to the Land Commissioners: I hereby tell you of the circumference of my lots. Lot 1 is in Hōlualoa at Poamaka of Victoria, 202 fathoms in circumference. The things growing there which were planted are some kou trees and a coconut tree planted by the ancients. I planted one kou tree and a loulu palm, and also other people have planted in this lot. Furthermore there are some stone houses for Leleiohoku. . . . My makuas occupied these lands when Keeaumoku was the Haku`aina and when he died it was Hoapili, who died, then Kuakini, who died, then Auhea, who died, then Lunalilo. If Lunalilo should die - this is my ancient land."

The LCAw. records for these and adjacent claims (see Appendix 2) provide information on land-use in the immediate vicinity of the survey area in the mid-1800s. The data suggest a dense clustering of commoner residences in the immediate shoreline area. Another pattern that seems evident is that all these requests to the Land Commission list a house plot in the *kula* zone, plus farm plots in various *mauka* places in the *ahupua'a*. Fortunately for the claimants in Hōlualoa 1, there agricultural lands were awarded, which is not the usually pattern for the Kona region where agricultural plots were not awarded as often as house lots; leaving the awardees at a distinct disadvantage in providing for themselves and their families through traditional agricultural practices.

The later 19th century brought increasingly rapid changes to all of Hawai'i, even the relatively sleepy district of Kona. Cattle ranching and commercial coffee production, which also began in the mid-1800s, changed traditional agricultural practices and necessitated construction of rock walls to control the movement of livestock. One of the better-known examples is the Great Wall of Kuakini, which runs roughly parallel to the coastline in this area of Kona and is found about 4,000 feet south of the project site at about the 80-foot elevation. Construction of the wall began in the early 1800s and was completed in the 1850s under the direction of Governor Kuakini.

The next significant change for Kona was the beginning of tourism in the district, marked by the construction of Kona's first major hotel, the Kona Inn, in 1928 (Menton 1994). Starting in the 1960s, the area between Kailua-Kona and Keauhou became increasingly dedicated to resort residential land use, as is the case today at the project site, which is almost surrounded by the Kona Bali Kai complex. The original Hawaiian habitations at the project site gave way to 20th century homes which in turn were demolished, leaving a vacant lot with only some low lava rock walls and cement foundations dated from various eras as testament to the serial occupation. The current parcel boundaries were created by a modern consolidation/resubdivision action, which has obscured the original boundaries. The rich cultural associations of Hōlualoa are no longer particularly evident on the project site, although they are markedly expressed not far south at Kamoa Point, as discussed above.

Archaeological Resources

An archaeological inventory survey (AIS) of the property was conducted by Rechtman Consulting. The fieldwork included a 100 percent surface survey of the project site along with the excavation of shovel test pit at selected locations. The report is briefly summarized below and attached in full as Appendix 2.

The degree of modern/Historic disturbance that has already occurred on the project site – including grading, fill with gravel and construction of modern homes, concrete foundations and driveways, has almost completely obliterated evidence of this former land use. Nevertheless, one archaeological site (SIHP Site 28583), a Historic Period boundary wall, was recorded. Site 28583 is the remnant of a dry stacked core-filled wall (see Figures in Appendix 2 for photos and maps of wall) that seems to correspond to portions of western and northern the boundary of LCAw. 5554. Middle 19th century house lots such as this were commonly walled. The wall extends east along the northern study area boundary from a point roughly two-thirds of the way *mauka* of the *makai* project site boundary and beyond. Here the wall is the most intact, measuring about three feet tall and one foot wide. Its intactness may be due to maintenance by the neighboring resort development. This wall also extends south across the study area in the vicinity of the western boundary of former LCAw. 5554. This north/south section of wall is mostly collapsed (Figure 11) measuring about a foot wide and less than a foot high. It extends south from the northern wall segment for about 100 feet, where it was truncated and a modern western running wall added to enclose the former modern house lot. While new rock walls were added, the portions of the older rock walls indicate the former parcel boundaries. SIHP site 28583 does retain integrity of location and design, but setting, materials, workmanship, and feeling have been severely compromised.

Five shovel test pits (STPs) were excavated in a *mauka/makai* linear pattern across the center of the project site; STP-1, -2, and -3 were placed makai of Site 28583 and STP-4 and -5 mauka of Site 28583. The collective excavation of these pits did not reveal the presence of any buried cultural deposits; items encountered in the shallow soil included glass, plastic, metal, coral, cow bone, and shell.

Archaeological Impacts and Mitigation Measures

SIHP Site 28583, a Historic Period wall remnant, is considered significant under Criterion D, and has provided information relative to middle nineteenth century use of the project area. The information recorded from this site has sufficiently mitigated any potential impact that may be caused by the construction and use of the parking lot. No further work is recommended. The State Historic Preservation Division (SHPD) is currently reviewing the archaeological inventory survey.

However, as a further precaution, in the unlikely event that human skeletal remains, undocumented archaeological resources, or cultural or traditional remains are encountered during construction of the parking lot site, work in the immediate area of the discovery shall be halted and SHPD contacted as outlined in Hawai‘i Administrative Rules 13§13-275-12.

Cultural Resources and Traditional and Customary Practices

As discussed in the previous section, no significant archaeological remains reflecting cultural history or supporting cultural values are present. The project site does not appear to contain the quality and quantity or botanical resources that would be important for native gathering. Furthermore, no caves, springs, *pu‘u*, native forest groves, or other natural features with potential ceremonial or cultural value are present on or near the project site. The project site does not support any known traditional resource uses, nor are there any Hawaiian customary and traditional rights or practices known to be associated with the project site. To date, no information has been received that would indicate any cultural resources or practices taking place on the property. In summary, it would appear that no valuable natural, cultural or historical resources are present.

Cultural Impacts and Mitigation Measures

Although there are no indications so far from literature review or consultation with the SHPD, the Office of Hawaiian Affairs, or local residents knowledgeable about Hawaiian cultural practices that there are any traditional cultural properties or practices on or near the small residential lots that make up the project site, various parties including the Office of Hawaiian Affairs and SHPD were supplied a copy of the Draft EA in order to help finalize this finding.

3.3 Infrastructure

3.3.1 Utilities

Existing Facilities and Services

Electrical power to the project area is supplied by Hawai‘i Electric Light Company (HELCO) via its island-wide distribution network. Telephone service is provided to the site by Hawaiian Telcom via electrical poles, which also house cable TV lines from Time Warner Oceanic Cable. Municipal water and sewer lines are present along Ali‘i Drive. However, no utilities will be required for the construction or use of the parking lot.

Impacts and Mitigation Measures

In order to avoid disruption to utilities, the County of Hawai‘i Department of Public Works and/or its contractors will coordinate with HELCO, Hawaiian Telcom, and Time Warner Oceanic Cable, as well as the County Department of Water Supply and Department of Environmental Management.

3.3.2 Roadways and Traffic

Existing Facilities

Access to the new parking lot would be from Ali‘i Drive, which is a two-lane facility with a speed limit of 25 MPH. A STOP-sign is 0.2 miles north at Royal Poinciana Drive. Surfers and beachgoers

at Banyans surf site currently park alongside Ali‘i Drive, which creates congestions and, at times, traffic hazards. Sight distance from the planned driveway, which will be shifted about 25 feet south from its current location, is several hundred feet in both directions.

Impacts and Mitigation Measures

The new parking lot will increase safety and reduce traffic congestion by reducing the amount of roadside parking in the vicinity of the Banyans Surfing Site. The Department of Public Works has determined that considering the low level of traffic generated by a 17-space parking lot, along with the narrow available right-of-way, dedicated turn lanes are not necessary or advisable. All turning movements in and out of the parking lot will be allowed, as sight distance is adequate and speed limits appropriate. In a letter of October 11, 2010 (see Appendix 1a), the Hawai‘i County Police Department indicated after reviewing the project location and description that it did not have any objections at this time. As with all driveways on Ali‘i Drive, motorists will need to take precautions to avoid interfering with or even injuring pedestrians and bicyclists in the heavily used bike lanes (which double as running lanes and sidewalks).

3.4 Secondary and Cumulative Impacts

Construction and use of a 17-space parking lot would not involve secondary impacts, such as population changes or effects on public facilities. Although the project would provide short-term construction jobs, these would largely be filled by local residents (and perhaps by existing County workers) and would not induce in-migration.

Cumulative impacts result when implementation of several projects that individually have limited impacts combine to produce more severe impacts or conflicts in mitigation measures.

While development of residential projects of relatively small scale takes place periodically in North Kona, these actions would not appear to have impacts that would potentially combine with those of the proposed project in such a way as to produce adverse cumulative effects or involve a commitment for larger actions.

Review of projects in the Office of Environmental Quality Control’s *Environmental Notice* and local newspapers indicate that the only currently proposed project in the direct area is the Kona Makaha Condominiums project. This four-story building consisting of 16 vacation-rental units with partially underground parking would be built on a property on the north side of Hōlualoa Bay, about a quarter mile south of the parking lot. Permits and approvals for the development have not yet been obtained and final design not complete. It is unlikely that construction of the parking lot, which is scheduled for early 2011, would coincide with construction of the Kona Makaha Condominiums, if the project is allowed to proceed.

The adverse effects of the project – minor and temporary disturbance to air quality, noise or visual quality during construction – are very limited in severity, nature and geographic scale.

3.5 Required Permits and Approvals

The following permits and approvals would be required:

- County of Hawai‘i, Department of Public Works: Grubbing and Grading Permits, Building Division Approval and Building Permit, Permit for Work in County ROW
- County of Hawai‘i, Planning Department Plan Approval

3.6 Consistency With Government Plans and Policies

3.6.1 Hawai‘i State Plan

Adopted in 1978 and last revised in 1991 (Hawai‘i Revised Statutes, Chapter 226, as amended), the Plan establishes a set of themes, goals, objectives and policies that are meant to guide the State's long-run growth and development activities. The three themes that express the basic purpose of the *Hawai‘i State Plan* are individual and family self-sufficiency, social and economic mobility and community or social well-being. The proposed project would promote these goals by enhancing public safety on the Island of Hawai‘i, thereby enhancing quality-of-life and community and social well-being.

3.6.2 Hawai‘i State Land Use Law

All land in the State of Hawai‘i is classified into one of four land use categories – Urban, Rural, Agricultural, or Conservation – by the State Land Use Commission, pursuant to Chapter 205, HRS. The property is in the State Land Use Urban District. The proposed use is consistent with intended uses for this Land Use District.

3.6.3 Hawai‘i County Zoning and General Plan

Hawai‘i County General Plan Land Use Pattern Allocation Guide (LUPAG). The LUPAG map component of the *General Plan* is a graphic representation of the Plan's goals, policies, and standards as well as of the physical relationship between land uses. It also establishes the basic urban and non-urban form for areas within the planned public and cultural facilities, public utilities and safety features, and transportation corridors. The General Plan LUPAG maps indicate that the project site is generally designated Open and Medium-Density Urban. Open allows for parks and other recreational areas. Medium-Density Urban is described as "village and neighborhood commercial and single family and multiple family residential and related functions (multiple-family residential – up to 35 units per acre)." Public parking lots for recreational purposes are appropriate facilities in these LUPAG categories, and no General Plan amendment is necessary.

Hawai‘i County Zoning and SMA. County zoning is Resort-Hotel (V-1.25; minimum dwelling unit size of 1,250 square feet) The Hawai‘i County Code, Chapter 25, Section 25-4-11(c) states: that "Public uses, structures and buildings and community buildings are permitted uses in any district,

provided that the director has issued plan approval for such use." Therefore, the proposed facility would be allowed. Plan Approval from the Planning Department is required. The project site is situated within the County's Special Management Area (SMA), and because the cost of the project is expected to be less than $125,000, the Department of Public Works anticipates applying for an SMA Minor permit.

The *General Plan* for the County of Hawai'i is a policy document expressing the broad goals and policies for the long-range development of the Island of Hawai'i. The plan was adopted by ordinance in 1989 and revised in 2005 (Hawai'i County Department of Planning). The *General Plan* itself is organized into thirteen elements, with policies, objectives, standards, and principles for each. There are also discussions of the specific applicability of each element to the nine judicial districts comprising the County of Hawai'i. Most relevant to the proposed project are the following Policies, Standards, Goals, and Courses of Action:

RECREATION – GOALS

- Provide a wide variety of recreational opportunities for the residents and visitors of the County.
- Provide a diversity of environments for active and passive pursuits.

RECREATION – POLICIES

- Improve existing public facilities for optimum usage.
- The use of land adjoining recreation areas shall be compatible with community values, physical resources, and recreation potential.
- Develop short and long range capital improvement programs and plans for recreational facilities that are consistent with the General Plan.
- Provide facilities and a broad recreational program for all age groups, with special considerations for the handicapped, the elderly, and young children.
- Coordinate recreational programs and facilities with governmental and private agencies and organizations. Innovative ideas for improving recreational facilities and opportunities shall be considered.
- Adopt an on-going program of identification, designation, and acquisition of areas with existing or potential recreational resources, such as land with sandy beaches and other prime areas for shoreline recreation in cooperation with appropriate governmental agencies.
- Public access to the shoreline shall be provided in accordance with an adopted program of the County of Hawaii.

RECREATION – STANDARDS

- Beach parks provide opportunities for swimming/sunbathing, surfing, camping, fishing, boating, nature study, and other pastimes. Every section of the island should be adequately served. Facilities depend on size and intensity of use but should include: restrooms with showers; picnic facilities; a defined tent camping area when allowed; drinking water; adequate parking; pavilions of various sizes; and lifeguard facilities.

Discussion: The proposed project satisfies relevant goals, policies, and courses of action related to recreation facilities in Hawai‘i County. The proposed new Banyans surf site parking lot will expand access to recreational facilities in North Kona through an increase in the parking opportunities in the vicinity.

TRANSPORTATION – POLICIES

- A framework of transportation facilities that will promote and influence desired land use shall be established by concerned agencies.
- The agencies concerned with transportation systems shall provide for present traffic and future demands, including the programmed development of mass transit programs for high growth areas by both the private and public sectors.
- The improvement of transportation service shall be encouraged.

Discussion: The establishment of new parking facilities near a popular surfing spot where only roadside parking is currently available to the public represents an improvement to the area’s transportation system.

3.6.3 Kona Community Development Plan

The Kona Community Development Plan (CDP) encompasses the judicial districts of North and South Kona, and was developed under the framework of the February 2005 County of Hawai‘i General Plan. Community Development Plans are intended to translate broad General Plan Goals, Policies, and Standards into implementation actions as they apply to specific geographical regions around the County. CDPs are also intended to serve as a forum for community input into land-use, delivery of government services and any other matters relating to the planning area.

The General Plan now requires that a Community Development Plan shall be adopted by the County Council as an “ordinance,” giving the CDP the force of law. This is in contrast to plans created over past years, adopted by “resolution” that served only as guidelines or reference documents to decision-makers. The Kona CDP was adopted in September 2008 by the County Council. The version referenced in this Environmental Assessment is at:
http://www.hcrc.info/community-planning/north-and-south-kona-cdp/cdp-final-drafts/Final%20KCDP_Sept%202008_text.pdf

The Plan has many elements and wide-ranging implications, but there are several major strategies that embody the guiding principles related to the economy, energy, environmental quality, flooding and other natural hazards, historic sites, natural beauty, natural resources and shoreline, housing, public facilities, public utilities, recreation, transportation and land use.

The Ali‘i Drive Parking Lot is generally consistent with all aspects of the Kona CDP. It is in keeping with the plan’s guiding principles in Chapter 3, including item No. 4:

> **Provide recreation opportunities.** Future growth should provide a diversity of recreational opportunities that are well-maintained, attractive, and *easily accessible to the community*.” (emphasis added)

It also conforms with item No. 6:

> **Provide infrastructure and essential facilities concurrent with growth.** Future growth shall occur where infrastructure (roads and utilities) and essential facilities (i.e. police, fire and schools) are already in place. These facilities should be maintained at a level that will enhance the quality of life for Kona residents.

And No. 8:

> **Promote effective governance:** An effective and accountable regional government structure that improves the quality of life for Kona residents should manage the impacts of growth and meet the needs of the Kona community by encouraging cooperation among public, private, and civic partners, ensuring equitable distribution of resources, and instituting policies and regulations in a predictable and consistent manner.

The project is also consistent with Section 4.2.2, Overall Strategy for Land Use, which states that “growth would be directed to compact villages located along proposed transit routes or to infill areas within, or adjacent to, existing development.”

The project is proposed for the developed area between Kailua and Keauhou, and the resulting increase in public safety will enhance the lifestyle of that area.

The project, which is proposed for land designated by the General Plan’s LUPAG maps as combination of Open and Medium Density Urban, is in keeping with other parts of that section regarding urban areas, including:

> **Policy LU-1.2: Urban Area. Consistency with Land Use Pattern Allocation Guide (LUPAG).** The majority of future growth in Kona shall be directed to the Kona Urban Area…which spans from the Kona International Airport to Keauhou…

Policy LU-1.4: Consistency with Land Use Pattern Allocation Guide (LUPAG). The current LUPAG accommodates the vision and needs for the Kona CDP area planning horizon and should be amended only for compelling reasons. Any rezoning application should be consistent with the LUPAG.

Objective LU-2: Urban Area Growth Management. Recognizing that the LUPAG Urban Area is larger than needed in order to accommodate the projected growth within the planning horizon, future growth within the Urban Area shall be encouraged in a pattern of compact villages at densities that support public transit.

The project, which will include ADA parking stalls, is consistent with Section 4.6, Public Facilities, Infrastructure, and Services:

Policy PUB-3.4: Universal Access. As its expression of compassion and caring, the Kona community shall take pride in having all public facilities accessible to the disabled and respectful of the accessible parking stalls.

It is also consistent with Objective PUB-6, Quality of Life, which calls for the fostering of a sense of community and health through the public realm such as gathering places, parks, pedestrian networks, and open spaces, as well as Policy PUB-6.2, which dictates that a range of recreational opportunities shall be provided to encourage physical activity and interaction among residents and visitors to Kona.

PART 4: DETERMINATION

The Hawai‘i County Department of Public Works has preliminarily determined that the proposed parking lot will not significantly alter the environment, as impacts will be minimal, and the agency intends to issue a Finding of No Significant Impact (FONSI). This determination will be reviewed based on comments to the Draft EA, and the Final EA will present the final determination.

PART 5: FINDINGS AND REASONS

Chapter 11-200-12, Hawai‘i Administrative Rules, outlines those factors agencies must consider when determining whether an Action has significant effects:

1. *The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.* No valuable natural or cultural resources would be committed or lost.
2. *The proposed project will not curtail the range of beneficial uses of the environment.* The proposed project expands and in no way curtails beneficial uses of the environment.
3. *The proposed project will not conflict with the State's long-term environmental policies*. The State’s long-term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. The project is not major and fulfills aspects of these policies calling for an improved social and economic

environment. It is thus consistent with all elements of the State's long-term environmental policies.

4. *The proposed project will not substantially affect the economic or social welfare of the community or State.* The project will benefit the economic and social welfare of the community by enhancing the safety of a County road and will benefit residential and recreational uses in the surrounding area.
5. *The proposed project does not substantially affect public health in any detrimental way.* The proposed project will benefit public health by improving public safety and access to recreation.
6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities*. No adverse secondary effects are expected to result from the proposed action. The project will not enable development, but will instead improve public safety.
7. *The proposed project will not involve a substantial degradation of environmental quality*. The implementation of best management practices for construction will ensure that the project will not degrade the environment in any substantial way.
8. *The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat.* No endangered species of flora or fauna are present on the project site or would be affected in any way by the project.
9. *The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.* The project is not related to additional activities in the region in such a way as to produce adverse cumulative effects or involve a commitment for larger actions.
10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* No adverse effects on these resources would occur. Mitigation of construction-phase impacts will preserve water quality. Ambient noise impacts due to construction will be temporary and restricted to reasonable daytime hours. Design features help mitigate permanent noise impacts, which will not be substantial, and views from adjacent homes should not be substantially affected.
11. *The project does not affect nor would it likely to be damaged as a result of being located in environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.* Although the project is located in an area with volcanic and seismic risk, the entire Island of Hawai‘i shares this risk, and the project is not imprudent to construct, and employs design and construction standards appropriate to the seismic zone.
12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* No scenic vistas and viewplanes identified in the Hawai‘i County General Plan will be adversely affected by the project. The parking lot will not contain any structures other than fencing and a gate.
13. *The project will not require substantial energy consumption*. The project involves only minimal energy use during construction and no adverse effects are expected.

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ENVIRONMENTAL ASSESSMENT

Aliʻi Drive Banyans Parking Lot

TMKs: (3rd) 7-6-015:012 and 013
North Kona District, Hawaiʻi Island, State of Hawaiʻi

APPENDIX 1a
Comments in Response to Early Consultation

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William P. Kenoi
Mayor

Harry S. Kubojiri
Police Chief

Paul K. Ferreira
Deputy Police Chief

County of Hawai'i

POLICE DEPARTMENT
349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

October 11, 2010

Mr. Ron Terry
Principal
Geometrician Associates, LLC
P.O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry:

SUBJECT: Early Consultation for Environmental Assessment for Alii Drive Parking Lot, Banyans, TMKs (3rd) 7-6-015:012 and 013, North Kona District, Island of Hawaii

The above-referenced environmental assessment has been reviewed, and we have no comments or objections to offer at this time.

Should you have any questions, please contact Major Randy Apele, Area II Operations, at 326-4646, ext. 270.

Sincerely,

HARRY S. KUBOJIRI
POLICE CHIEF

HENRY J. TAVARES JR.
ASSISTANT POLICE CHIEF
AREA II OPERATIONS

RA:dmv
RS100806

William P. Kenoi
Mayor

William T. Takaba
Managing Director

Frank J. DeMarco, P.E.
Director

Ivan M. Torigoe
Deputy Director

County of Hawai'i
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
25 Aupuni Street • Hilo, Hawai'i 96720
(808) 961-8083 · Fax (808) 961-8086
http://co.hawaii.hi.us/directory/dir_envmng.htm

October 13, 2010

Mr. Ron Terry
Principal
GEOMETRICIAN ASSOCIATES, LLC
P. O. Box 396
Hilo, HI 96721

RE: Early Consultation on Environmental Assessment for Ali`i Drive Parking Lot, Banyans, TMKs 7-6-015:012 and 013, North Kona District, Island of Hawai`i

Dear Mr. Terry,

We offer the following comments:

Wastewater Division
TMK 7-6-015:013 is currently connected to County sewer.
TMK 7-6-015:012 is accessible to County sewer.
TMK 7-6-015:010 is connected to County sewer via TMK 7-6-015:012.

Thank you for allowing us to review and comment on this project.

Sincerely,

Frank DeMarco

Frank J. DeMarco, P.E.
DIRECTOR

cc: WWD

William P. Kenoi
Mayor

Darryl J. Oliveira
Fire Chief

Glen P. I. Honda
Deputy Fire Chief

County of Hawai'i
HAWAI'I FIRE DEPARTMENT
25 Aupuni Street • Suite 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

October 19, 2010

Mr. Ron Terry
Geometrician Associates, LLC
PO Box 396
Hilo, HI 96721

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
PROJECT: ALII DRIVE PARKING LOT, BANYANS
TMK: 7-6-015:012 AND 013, NORTH KONA

In regards to the above-mentioned draft environmental assessment, the following shall be in accordance:

Fire apparatus access roads shall be in accordance with UFC Section 10.207:

"**Fire Apparatus Access Roads**

"**Sec. 10.207.** (a) **General.** Fire apparatus access roads shall be provided and maintained in accordance with the provisions of this section.

"(b) **Where Required.** Fire apparatus access roads shall be required for every building hereafter constructed when any portion of an exterior wall of the first story is located more than 150 feet from fire department vehicle access as measured by an unobstructed route around the exterior of the building.

"**EXCEPTIONS:** 1. When buildings are completely protected with an approved automatic fire sprinkler system, the provisions of this section may be modified.

"2. When access roadways cannot be installed due to topography, waterways, nonnegotiable grades or other similar conditions, the chief may require additional fire protection as specified in Section 10.301 (b).

> "3. When there are not more than two Group R, Division 3 or Group M Occupancies, the requirements of this section may be modified, provided, in the opinion of the chief, fire-fighting or rescue operations would not be impaired.

"More than one fire apparatus road may be required when it is determined by the chief that access by a single road may be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

"For high-piled combustible storage, see Section 81.109.

"(c) **Width.** The unobstructed width of a fire apparatus access road shall meet the requirements of the appropriate county jurisdiction.

"(d) **Vertical Clearance.** Fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches.

> "**EXCEPTION:** Upon approval vertical clearance may be reduced, provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance.

"(e) **Permissible Modifications.** Vertical clearances or widths required by this section may be increased when, in the opinion of the chief, vertical clearances or widths are not adequate to provide fire apparatus access.

"(f) **Surface.** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities." (20 tons)

"(g) **Turning Radius.** The turning radius of a fire apparatus access road shall be as approved by the chief." (45 feet)

"(h) **Turnarounds.** All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with approved provisions for the turning around of fire apparatus.

"(i) **Bridges.** When a bridge is required to be used as access under this section, it shall be constructed and maintained in accordance with the applicable sections of the Building Code and using designed live loading sufficient to carry the imposed loads of fire apparatus.

"(j) **Grade.** The gradient for a fire apparatus access road shall not exceed the maximum approved by the chief." (15%)

"(k) **Obstruction.** The required width of any fire apparatus access road shall not be obstructed in any manner, including parking of vehicles. Minimum required widths and clearances established under this section shall be maintained at all times.

"(l) **Signs.** When required by the fire chief, approved signs or other approved notices shall be provided and maintained for fire apparatus access roads to identify such roads and prohibit the obstruction thereof or both."

DARRYL OLIVEIRA
Fire Chief

RP:lpc

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 3, 2010

Geometrician Associates, LLC
Box 396
Hilo, Hawaii 96721

Attention: Mr. Ron Terry, Principal

Ladies and Gentlemen:

Subject: Early Consultation for Environmental Assessment for Ali'I Drive Parking Lot

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Division of Aquatic Resources, Office of Conservation & Coastal Lands, Engineering Division, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0414. Thank you.

Sincerely,

Russell Y. Tsuji
Administrator

LD

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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LAND DIVISION

2010 NOV -3 P 12:05

DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 12, 2010

DAR 3422

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
x Office of Conservation & Coastal Lands
__Land Division –
x Historic Preservation

RECEIVED
OCT 13 2010
AQUATIC RESOURCES

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Early Consultation for an Environmental Assessment for Ali'I Drive Parking Lot
LOCATION: Island of Hawaii
APPLICANT: Geometrician Associates, LLC on behalf of the County of Hawaii, Department of Public Works

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by October 29, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: W Walsh
Date: 27 Oct 2010

ROBERT T. NISHIMOTO, Ph.D.
Aquatic Resources Program Manager

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 12, 2010

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2010 OCT 22 P 1:47
DEPT OF LAND & NATURAL RESOURCES
STATE OF HAWAII

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
x Office of Conservation & Coastal Lands
__Land Division –
x Historic Preservation

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Early Consultation for an Environmental Assessment for Ali'I Drive Parking Lot
LOCATION: Island of Hawaii
APPLICANT: Geometrician Associates, LLC on behalf of the County of Hawaii, Department of Public Works

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by October 29, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(X) Comments are attached.

Signed:
Date: 10/20/10

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/CharleneUnoki
RE:EarlyConsultEAAliiDriveParkingLot
Maui.520

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

(X) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zones X. The Flood Insurance Program does not have any regulations for developments within Flood Zones X.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Carter Romero at (808) 961-8943 of the County of Hawaii, Department of Public Works.

( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.

( ) Ms. Wynne Ushigome at (808) 241-4890 of the County of Kauai, Department of Public Works.

( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

_____

( ) Other: _____

_____

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 10/20/10

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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OFFICE OF CONSERVATION
AND COASTAL LANDS
2010 OCT 12 P 2:49
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NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 12, 2010

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
x Office of Conservation & Coastal Lands
__~~Land Division~~ –
x Historic Preservation

RECEIVED
LAND DIVISION
2010 OCT 13 P 3:05
DEPT OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Early Consultation for an Environmental Assessment for Ali'I Drive Parking Lot
LOCATION: Island of Hawaii
APPLICANT: Geometrician Associates, LLC on behalf of the County of Hawaii, Department of Public Works

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by October 29, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: [signature]
Date: 10-13-2010

Not in the Conservation District

William P. Kenoi
Mayor

BJ Leithead Todd
Director

Margaret K. Masunaga
Deputy

County of Hawai'i

PLANNING DEPARTMENT
Aupuni Center • 101 Pauahi Street, Suite 3 • Hilo, Hawai'i 96720
Phone (808) 961-8288 • Fax (808) 961-8742

November 29, 2010

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo, HI 96721

Dear Mr. Terry:

SUBJECT: Pre-Environmental Assessment Consultation
Applicant: County of Hawai'i, Department of Public Works
Land Owner: Karen A. Kobayashi Trust
Project: Paved Parking Lot on Ali'i Drive Near the Banyans Surf Site
TMK: 7-6-15:12 & 13, North Kona, , Hawaii

This is in response to your request for comments on the above-referenced project.

The Department of Public Works intends to construct a paved parking lot near the Banyans Surf Site on Ali'i Drive to alleviate congestion and safety issues caused by excessive roadside parking. The project will include clearing and grubbing, excavation/grading, paving, drainage improvements, rock walls, fencing, and installing ADA parking stalls on the mauka side of Ali'i Drive. The lots would be fenced and gated and locked at night.

We have the following to offer on the subject parcels:

1. Parcel 12 consists of 6,034 square feet.

2. Parcel 13 consists of 7,500 square feet.

3. Both are designated Urban by the State Land Use Commission.

4. Both are zoned Resort-Hotel (V-1.25) by the County. According to the Hawai'i County Code, Chapter 25, Zoning:
   a. Section 25-5-92(a)(29): Permitted uses include "Public uses and structures, as permitted under section 25-4 11".
   b. Section 25-1-5(b), "Public use", "public building" and "public structure" means a use conducted by or a structure or building owned or managed by the federal government, the State of Hawaii or the County to fulfill a governmental function, activity or service for public benefit and in accordance with public policy. Excluded are uses which are not purely a function, activity or service of government and structures leased by government to private entrepreneurs or to nonprofit organizations.
   c. Section 25-4-11(c): "Public uses, structures and buildings and community buildings are permitted uses in any district, provided that the director has issued plan approval for such use." Therefore, Plan Approval is required for the parking lot.

5. The General Plan designation for both parcels are Open and Medium Density Urban. Open allows for parks and other recreational areas, historic sites, and open shoreline areas. Medium Density Urban is characterized by Village and neighborhood commercial and single family and multiple family residential and related functions (multiple family residential – up to 35 units per acre).

6. The Kona Community Development Plan was adopted by the County of Hawai'i as Ordinance No. 08-131, effective September 25, 2008. A discussion of the proposed project as it relates to this project must be included in the Environmental Assessment.

7. The project is located within the County's Special Management Area. According to Planning Commission Rule 9, Special Management Area, Section 9-10(a), *"The Department shall assess all uses, activities or operations proposed in the Special Management Area except in cases in which the applicant determines that the proposed use, activity or operation will: a) exceed $125,000 in valuation; or b) have a cumulative impact, or a significant adverse environmental or ecological effect on the Special Management Area. In this case, the assessment procedures may be waived and the applicant shall petition the Commission for a Special Management Area Use Permit pursuant to Section 9-11".*

Please provide us with a copy of the Environmental Assessment for our review and file.

If you have questions, please feel free to contact Esther Imamura of this office at 961-8139.

Sincerely,

for BJ LEITHEAD TODD
Planning Department

ETI:cs
P:\Public\Wpwin60\ETI\Eadraftpre-Consul\Terry Parking Lot Banyans.Rtf

cc: Planning Department, Kona

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ENVIRONMENTAL ASSESSMENT

Aliʻi Drive Banyans Parking Lot

TMKs: (3rd) 7-6-015:012 and 013
North Kona District, Hawaiʻi Island, State of Hawaiʻi

APPENDIX 2
Archaeological Inventory Survey

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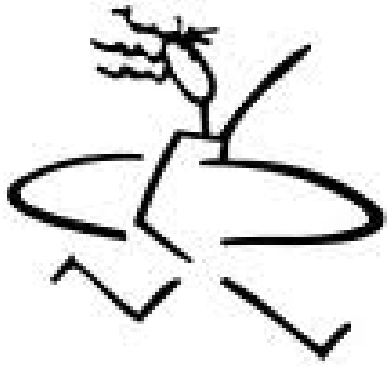
RC-0721

An Archaeological Inventory Survey of TMK: 3-7-6-015:012 and 013



Hōlualoa 1st Ahupua‘a
North Kona District
Island of Hawai‘i

DRAFT VERSION

PREPARED BY:

Robert B. Rechtman, Ph.D.

PREPARED FOR:

Ron Terry, Ph.D.
Geometrician Associates, LLC
P.O. Box 396
Hilo, HI 96721

December 2010

RECHTMAN CONSULTING, LLC
507-A E. Lanikaula St. Hilo, Hawaii 96720
phone: (808) 969-6066 fax: (808) 443-0065
e-mail: bob@rechtmanconsulting.com
ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL STUDIES

An Archaeological Inventory Survey of TMK: 3-7-6-015:012 and 013

Hōlualoa 1st Ahupuaʻa

North Kona District

Island of Hawaiʻi

RECHTMAN CONSULTING

Executive Summary

At the request of Ron Terry, Ph. D. of Geometrician Associates, LLC, on behalf of his client the County of Hawai‘i Department of Public Works, Rechtman Consulting, LLC conducted an archaeological inventory survey of a 13,534 square foot property (TMKs 3-7-6-015:012 and 003) in Hōlualoa 1 Ahupua‘*a*, North Kona District, Island of Hawai‘i. The County of Hawai‘i will be leasing this property from the Kobayashi Trust and converting it into a parking area for the nearby Banyan beach and surfing spot. The study area comprises portion of two former *kuleana* parcels (LCAw. 5554 and 5558:2) awarded during the *Māhele*. As a result of intensive field examination of the study area, one archaeological site (SIHP Site 28583), a Historic Period boundary wall, was recorded. Site 28583 is the remnant of a dry stacked core-filled wall that seems to correspond to portions of western and northern the boundary of LCAw. 5554. SIHP Site 28583 is considered significant under Criterion D, and has provided information relative to middle nineteenth century use of the project area. The information recorded from this site has sufficiently mitigated any potential impact that may be caused by the County of Hawai‘i’s proposed parking lot development. No further work is recommended.

CONTENTS

FIGURES

TABLES

INTRODUCTION

At the request of Ron Terry, Ph. D. of Geometrician Associates, LLC, on behalf of his client the County of Hawai‘i Department of Public Works, Rechtman Consulting, LLC conducted an archaeological inventory survey of a 13,534 square foot property (TMKs 3-7-6-015:012 and 003) in Hōlualoa 1 Ahupua‘*a*, North Kona District, Island of Hawai‘i (Figures 1 and 2). The County of Hawai‘i will be leasing this property from the Kobayashi Trust and converting it into a parking area for the nearby Banyan beach and surfing spot. This survey was undertaken in accordance with Hawai‘i Administrative Rules 13§13-275 and was performed in compliance with the Rules Governing Minimal Standards for Archaeological Inventory Surveys and Reports as contained in Hawai‘i Administrative Rules 13§13-276. Compliance with the above standards is sufficient for meeting the initial historic preservation review process requirements of both the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD) and the County of Hawai‘i Planning Department.

This report contains background information outlining the project area’s physical and cultural contexts, a presentation of previous archaeological work in the area and current survey expectations based on that previous work, an explanation of the project methods, detailed description of the one archaeological resource encountered, interpretation and evaluation of that resource, and lastly, treatment recommendations for the documented site.

BACKGROUND

The following section is divided into four parts: 1) a physical description of the subject parcel, 2) a general cultural context for the area, 3) a historical summary of Hōlualoa 1 Ahupua‘a land-use and settlement patterns, 3) a review of Land Commission Awards in the immediate vicinity of the project area, and 4) a review of previous archaeological studies. This background information is then used to generate a set of expectations for the current inventory survey.

Physical Description

The project area is in Hōlualoa 1 Ahupua‘a, located just *mauka* of Ali‘i Drive in the vicinity of the Banyan beach and surfing spot. Elevation within the project area ranges from 20 to 25 feet (6 to 7.5 meters) above sea level; terrain is undulating with frequent *pāhoehoe* outcrops. Roughly 3/4 of the project has seen modern development activity; the *mauka* 1/3 (Figure 3) has been graded and filled, a concrete driveway (Figure 4) and single-family residence (no longer extant; Figure 5) occupied the northern 1/2 of the project area, and a concrete access driveway (Figure 6) exists across the southern 1/3 of the property. Dry stacked and cemented stone walls are present throughout the property along the property perimeters (Figure 7), and one wall also traverses the property in a north/south direction. This latter wall along with a contiguous section along the *mauka* northern boundary is considered to be a historic site. The soil described for the project area is (rPYD) Punalu‘u extremely rocky peat (Sato et al. 1973); a well-drained, thin organic soil over bedrock. The underlying *pāhoehoe* bedrock dates to more than 5,000 years B.P. (Wolfe and Morris 1996).

Despite the seemingly consistent semi-arid condition of this area, seasonality is evident. Throughout the Hawaiian Islands, the warmer and drier summer months, traditionally referenced as *kau*, extend from May to September, and the wetter, cooler months (*ho‘oilo*) extend from October to April (Handy and Handy 1972). The temperatures in the Kona area are generally consistent with this seasonal pattern, ranging between 62-80 degrees in winter and 68-86 degrees in summer (Schilt 1984). However, the typical rainfall pattern differs considerably from that seen elsewhere; in all elevations along the Kona coast, rainfall during *kau* is typically greater than that during *ho‘oilo* (Schilt 1984).

Vegetation within the project area includes the historically introduced *koa haole* (*Leucaena glauca*) along with several introduced ornamental and landscape plants (Figure 8). A variety of grasses, vines, and weeds are also present, although ground visibility was excellent.

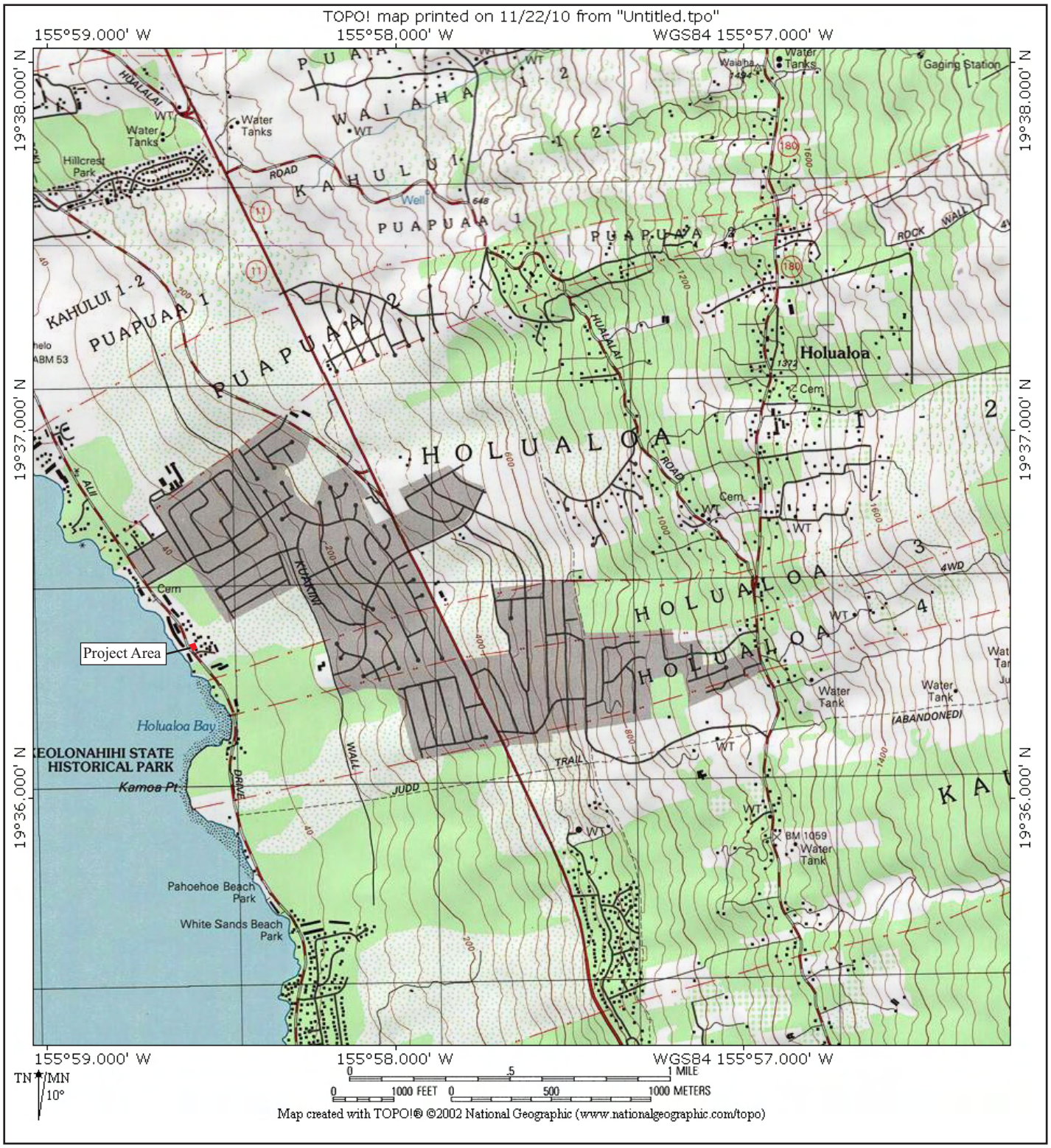


Figure 1. Project area location.

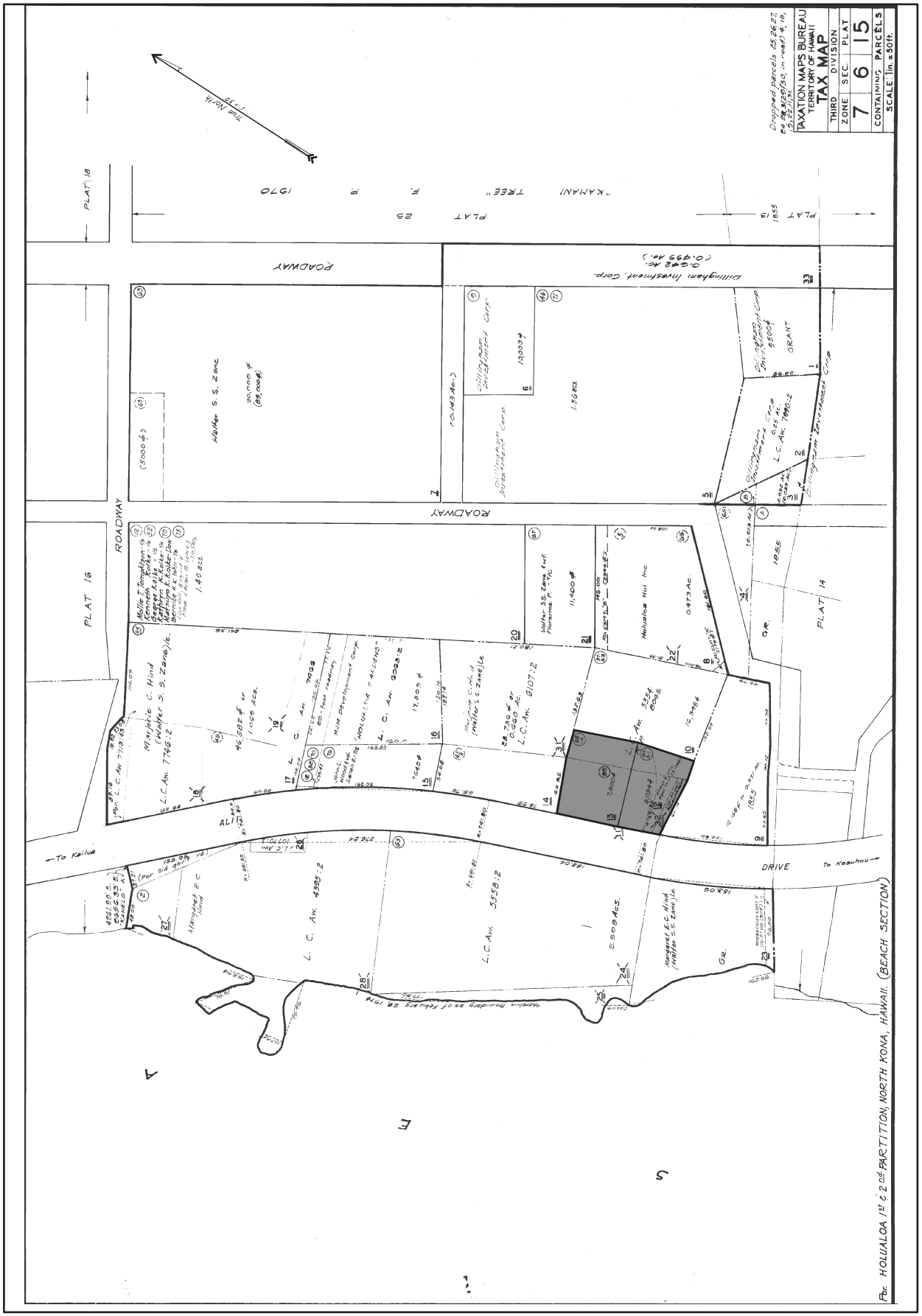


Figure 2. Tax Map Key (TMK) 3-7-6-015 showing study parcels (012 and 103).

Figure 3. Graded and filled portion of study area.

Figure 4. Concrete driveway in northern portion of study area.

Figure 5. Location of former house site in northern portion of study area.

Figure 6. Concrete access driveway in southern portion of study area.

Figure 7. Dry stacked and concreted rock walls in northern portion of study area.

Figure 8. Typical vegetation within project area, note modern stacked wall along Ali‘i Drive.

Historical Context

The project area lies at the coastal edge of the Kona Field System (Cordy 1995, Newman 1970, Schilt 1984). This area extends north at least to Kaū Ahupua‘a and south to Hōnaunau, west from the coastline and east to the forested slopes of Hualālai (Cordy 1995). A large portion of this area is designated in the Hawai‘i Register of Historic Places as Site 50-10-37-6601 and has been determined eligible for inclusion in the National Register of Historic Places. The basic characteristics and elevationally delimited zones within this agricultural/residential system as presented in Newman (1970) have been confirmed and elaborated on by archaeological (Cordy 1995) and ethnohistorical investigations (Kelly 1983). The current study parcel is located within the traditional *kula* zone.

Cordy (1995) presents a summary of archaeological settlement patterns for Kona that is based on previous archaeological work as well as on observations made by explorers and missionaries during the late eighteenth and early nineteenth centuries. Cordy bases his reconstruction on the Hawaiian terms for the major vegetation zones used to define and segregate space within an *ahupua‘a*. It was these native terms (Table 1) that were used during the *Māhele* in the description of land claims. Cordy also describes a narrow shoreline zone within the *kula* that was primarily a residential area.

Table 1. Traditional Hawaiian agricultural zones.

Zone	***Annual Rainfall***	***Description***	***Elevation***	***Primary Crops***
Kula	c. 30-50 in. (0.8-1.2 m)	Plain, open country inland from the coast	Coast-500 ft. (0-150 m)	*Wauke*, gourd and sweet potato
Kalu or *Kalu‘ulu*	c. 40-55 in. (1.00-1.35 m)	Luxuriant, cultivable zone	500-1,000 ft. (150-300 m)	Breadfruit, *wauke*, sweet potato, mountain apple, taro
‘Āpa‘a	c. 55-80 in. (1.35-2.00 m)	Dryland cultivation zone	1,000-2,500 ft. (300-750 m)	Taro, sweet potato, sugar cane, *kī*, and banana
‘Ama‘u	c. 80 in. (2.0 m)	Upland/fern zone	2,000-3,000 ft. (600-900 m)	Banana and *‘ama‘u* (fern)

The *kula* zone is the area from sea level to 150 meters elevation. Annual rainfall in the *kula* zone is 75 to 125 centimeters. This lower elevation zone is traditionally associated with habitation and the cultivation of sweet potatoes, paper mulberry, and gourds. Agricultural features, such as clearing mounds, planting mounds, planting depressions, modified outcrops, pavements, enclosures, and planting terraces, are common throughout much of this zone (Hammatt and Clark 1980, Hammatt and Folk 1980, Haun et al. 1998, Schilt 1984). Dwellings were scattered throughout the agricultural portion of the *kula*, but they are commonly concentrated along the shoreline (Cordy 1981, Hammatt 1980). The shoreline zone, extending inland approximately 200 meters, was used primarily for permanent habitation and other non-agricultural activities, such as canoe storage, ceremonial and burial practices, recreation, and fishing-related activity.

Royal and high chiefly centers were also situated within the shoreline of the *kula*. These complexes included dwellings for chiefs and their entourage, places of refuge, and other structures. Several large and densely populated royal centers were located along the shoreline between Kailua and Hōnaunau (Cordy 1995, Tomonari-Tuggle 1993). Three such centers are situated near the current study area: Keākealaniwahini, Keolonahihi, and Kaumalumalu. Within these specific chiefly centers, *heiau*, *ali‘i* residences, and *pu‘uhonua* have been described (McEldowney 1986; Stokes and Dye 1991) and documented (Hammatt 1994). No less than four *heiau* have been recorded within the shoreline area of Hōlualoa 4th Ahupua‘a (Stokes and Dye 1991). These major sites are all located *makai* and south of the current project area. A variety of non-residential features are present in the *kula* near royal centers, including small agricultural plots, and formal and informal burial features (Cordy 1995, Han et al. 1986, Schilt 1984, Tainter 1973, Tomanari-Tuggle 1993).

Nineteenth century habitation features built on stone platforms were present in the *kula* (Hammatt and Meeker 1979, Schilt 1984). Stone platforms with clearly defined internal divisions are present (O'Hare and Wolforth 1998) and probably reflect a change in residential plans from a complex of multiple, separate, single-function structures (men's sleeping, women's sleeping, cooking) to a single structure with multiple rooms and functions (entire family's quarters and cooking) (Ladefoged 1991). Burial features with historic-era artifacts and architecture (i.e., mortar and corrugated tin) are present in the lower elevations. These are frequently isolated structures, but burial also occurred within residential platforms during the Historic Period (O'Hare and Wolforth 1998).

During the early nineteenth century, following the breakdown of the entire Hawaiian socio-religious system, the older places of worship (*heiau*) no longer held their significance. Many such places were dismantled, and the stones used for other building projects such as the Kuakini Wall and Mokuaikaua Church.

The Missionary William Ellis visited the vicinity of the current project area in 1823 and described the following:

> Leaving Kairua [Kailua], we passed through the villages thickly scattered along the shore to the southward. The country around looked unusually green and cheerful, owing to the frequent rain, which for some months past have fallen on this side of the island. Even the barren lava, over which we traveled, seemed to veil its sterility beneath frequent tufts of tall waving grass, or spreading shrubs and flowers.
>
> The side of the hills, laid out for a considerable extent in gardens and fields, and generally cultivated with potatoes, and other vegetables, were beautiful.
>
> The number of heiaus, and depositories of the dead, which we passed, convinced us that this part of the island must formerly have been populous. The latter were built with fragments of lava, laid up evenly on the outside, generally about eight feet long, from four to six broad, and about four feet high. Some appeared very ancient, others had evidently been standing but a few years. (1963:72–73)

The religious, socioeconomic, and demographic changes that took place in the period between 1790 and the 1840s, promoted the establishment of a Euro-American style of land ownership, and the Great *Māhele* was the vehicle for determining ownership of the native land. During this period (1848-1899), the *Māhele* defined the land interests of the King (Kamehameha III), the high-ranking chiefs, and the low-ranking chiefs, the *konohiki*. The chiefs and *konohiki* were required to present their claims to the Land Commission to receive awards for lands provided to them by Kamehameha III. They were also required to provide commutations to the government in order to receive royal patents on their awards. The lands were identified by name only, with the understanding that the ancient boundaries would prevail until the land could be surveyed. This process expedited the work of the Land Commission and speeded the transfers (Chinen 1961:13).

During this process all lands were placed in one of three categories: Crown Lands (for the occupant of the throne), Government Lands, and Konohiki Lands. All three types of land were subject to the rights of the native tenants. Commoners could make claims for land, and if substantiated, they would receive awards referred to as *kuleana*, from the Land Commission. During this period, other land grants were also made to individuals directly from the Kingdom. In 1862, the Commission of Boundaries (Boundary Commission) was established in the Kingdom of Hawai'i to legally set the boundaries of all the *ahupua'a* that had been awarded as a part of the *Māhele*. Subsequently, in 1874, the Commissioners of Boundaries was authorized to certify the boundaries for lands brought before them. The primary informants for the boundary descriptions were old native residents of the lands, many of which had also been claimants for *kuleana* during the *Māhele*. The information was collected primarily between 1873 and 1885. The testimonies were generally given in Hawaiian and simultaneously transcribed in English.

In 1848 during the *Māhele* Hōlualoa 1 Ahupua'a was awarded to Victoria Kamamalu, and there was one *kuleana* claimed by Keawekalohe that included the *mauka* third of the current project area, while the remainder of the project area was part of a larger *kuleana* claimed by Kawaihoa. As can be seen on Figure 2, and as will be discussed further below, much of coastal Holualoa 1 was awarded as *kuleana* parcels.

Following the *Māhele*, the kingdom initiated a program of selling parcels of land to interested residents. The land that was reserved as Government lands-those lands given outright by the King, or commuted to the Government in lieu of paying for other parcels retained by the *aliʻi* awardees of the *Māhele*. The grant program was initiated in an effort to encourage more native tenants onto fee-simple parcels of land. The parcels of land sold in the grants were quite large, ranging in size from approximately ten acres to many hundreds of acres. When the sales were agreed upon, Royal Patents were issued and recorded following a numerical system that remains in use today. The area adjoining the study property to the south was purchased as Grant 1855 in the year 1855 to Leleo. No information is available concerning Leleo's use of the property but the large *kula* land grants were typically walled off and used for pasturage.

The native population declined and the foreign population increased in the Kona area during the early twentieth century. Coastal occupation was concentrated in the villages of Kailua and Keauhou, with permanent residences with gardens and animal pens scattered along the shoreline. Upland habitation was associated with agricultural and ranching pursuits. More walls were added to the *kula* as cattle pastures expanded in the lower elevations during this period. The royal centers near the study area became a thing of the past and fell into disuse and disrepair. The memories of their former importance were rekindled when turn-of-the-century archaeologists and historians began documenting the area.

Hōlualoa Ahupuaʻa

The small amount of traditional Hawaiian history available on the several *ahupuaʻa* of Hōlualoa is provided by Kamakau (1961) and Iʻi (1959). It is clear from these sources that, like much of the Kona coast, Hōlualoa was the haunt of chiefs. Hōlualoa Bay, in particular, was noted for its fine surfing. Several months after Captain Cook's demise, Kalaniʻopuʻu is said to have surfed there (Kamakau 1961:105). Kamehameha also surfed at Hōlualoa. According to Iʻi, it was there that he, "learned to surf and to glide with a canoe over the waves" (Iʻi 1959:6). Furthermore, "these lands were occupied by the chiefs because the surfing there was good, and the food abundant in ancient times" (Iʻi 1959:6). In a more general sense, Iʻi also claims that, "it was in the Holualoa lands of Kona that the chiefs dwelt in olden times, from the time of Kamehameha, the great chiefess [Keākealaniwahine] of Hawaiʻi, and earlier" (1959:6). Although it is difficult to verify the antiquity of chiefly presence at Hōlualoa, its shoreline was clearly an attractive draw in the period immediately preceding contact and thereafter.

The particulars of life for the *makaʻāinana* are not recorded for Hōlualoa specifically. It can be surmised, however, that local inhabitants utilized the coastal area for its marine resources. In fact, Hōlualoa Bay was known historically as a habitation place for fishermen and their families (Handy and Handy 1972:287). Occupation was probably relatively dense in the resource-rich coastal area. Ellis (1963) records the bay as the location of the village Kaluaokalani.

As described in the previous section, the inland and upland areas of the *ahupuaʻa* were part of the Kona Field System. It is therefore appropriate to use the major vegetation zones outlined in Table 1 to estimate settlement densities and land-use in this area. Hōlualoa 1 was probably very similar to the many other surrounding *ahupuaʻa* of the Kona Field System. Population was likely concentrated in the lower part of the *kula* zone where one would expect to find agricultural plots, permanent habitations, chiefly residences, and ceremonial centers. Stokes reports no less than nine *heiau* in the land of Hōlualoa 1-4 (Stokes and Dye 1991:55-63). Most of these are built on or near the coast and fall well within the *kula* zone. Two *heiau* are in the coastal portion of Hōlualoa 1 and a third is at approximately 600 ft. elevation (Table 2).

As one moves away from the coast, permanent habitation becomes less frequent and temporary field shelters more common. Agriculture, bird hunting, and plant gathering were practiced at the middle and upper elevations. This pattern of land-use persisted into the early Historic Period, but with the introduction of new crops and rapid population loss in the early 1800s, major changes were well underway. Cattle ranching was introduced in the mid-1800s and persisted well into the twentieth century in much of the Kona District. Coffee was also introduced in the early to mid-1800s and was soon cultivated commercially on small plots. Cattle ranching continued into recent times in Hōlualoa (Soehren 1980a; Fager and Graves 1993).

Table 2. *Heiau* in Hōlualoa 1 Ahupua‘a (from Stokes and Dye 1991:55-57).

Ahupua‘a	Heiau *name*	*Information*
Hōlualoa 1	Pueomanu Ko‘a	Fishing *heiau* on the point.
Hōlualoa 1	Halehau Heiau	Four unconnected platforms; 600 ft above sea level.
Hōlualoa 1	Puhioloolo Heiau	On small rocky point in middle of bay; with graves.

Land Commission Awards

As previously stated portions of two *kuleana* awards make up the current study area. There were an additional six *kuleana* awarded in very close proximity to the current project area. A review of the registration and testimony associated with these eight claims provides information useful for predicting archaeological resources in the project area.

Land Commission Award 5554 was registered by Keawekolohe on January 28, 1848 (Native Register: vol. 8, p. 389). In the Native Register, Keawekolohe that the circumference of my kihapai is 797 fathoms, measured in various places. All these various places which were measured are in Kaohia, Holualoa 1" (Native Register.:vol. 8, p. 389). Keawekolohe claimed two *apana* in the *‘ili* land at Ka‘ōhi‘a of Hōlualoa 1 Ahupua‘a, but was only awarded his house lot (Section 1). In the supportive testimony, Kama provided the following information:

> Section 1:
> Mauka by konohiki
> Ka`u, Makai and Kohala by idle land.
> 3 houses - 2 for Keawekolohe, 1 for Kalapa.
> Kalapa has true interest there in some kihapais and a house.
>
> Section 2:
> Mauka by Konohiki
> Ka`u and Makai by Kama's land.
> Kohala by Hana's land.
> 1 section has been cultivated, no house.
>
> Land was from Kuakini at the time Mokuaikaua was built, no one has objected to him.
> Native Testimony (vol. 4, p. 572-573).

Land Commission Award 5558:2 was registered by D. Kawaihoa on January 24, 1848 (Native Register: vol. 8, p. 389-90). Kawaihoa appears to be an individual of some import. Relative to his Hōlualoa 1 award he recounts, "Greetings to the Land Commissioners: I hereby tell you of the circumference of my lots. Lot 1 is in Holualoa at Poamaka of Victoria, 202 fathoms in circumference. The things growing there which were planted are some kou trees and a coconut tree planted by the ancients. I planted one kou tree and a loulu palm, and also other people have planted in this lot. Furthermore there are some stone houses for Leleiohoku. . . . My makuas occupied these lands when Keeaumoku was the Haku`aina and when he died it was Hoapili, who died, then Kuakini, who died, then Auhea, who died, then Lunalilo. If Lunalilo should die - this is my ancient land."

Land Commission Award 4395:2 is a house lot located at the shore in Pu‘ukoa ‘ili of Hōlualoa 1, Ahupua‘a just north of LCAw. 5558:2, and was registered by Kekoi on January 17, 1848 along with a *mauka* agricultural lands (Native Register: vol. 8, p. 385). Following the supportive testimony offered by Kamahalo and Molulolulo on February 5, 1849, Kekoi was awarded two *apana*. His house lot "has been enclosed, 3 houses for Kamahalo and he lives there. Land had been from Kuakini during the time of Kamehameha I. No one has objected to him to the present time." (Native Testimony vol. 4, p. 578).

Land Commission Award 6107:2 is located immediately north of the project area, and was awarded to Naai. According to the Native Register January 21, 1848 (vol. 8, p. 410) Naai stated, "I hereby tell you the size of my lot, 103 fathoms in circumference. I have three kou trees which are mine and the fourth kou tree is for someone else." Naai claimed seven sections in the *‘ili* land at Ulukukahi of Hōlualoa 1 Ahupua‘a including his coastal house lot. The Land Commission awarded Naai this *kula* house lot, and some *mauka* agricultural lands. In the Native Testimony, February 6, 1849 (vol. 4, p. 593-94), Kekoi states, "Naai has enclosed the lot, 2 houses for him. There are some plants and 4 Kou trees. Old residents of the land since Kamehameha I, no one has objected."

Land Commission Award 6063:2 is located just north of LCAw. 6107:2, and was awarded to Hana. According to the Native Register on January 24, 1848 (vol. 8, pp. 409), Hana claimed four sections in the *ʻili* land of Kamaikikanaka of Hōlualoa 1 Ahupuaʻa, and was awarded two *apana*, a coastal house lot (Section 4) and *mauka* agricultural plots. The supporting testimony provided by Molulolulo and Kekoi on February 5, 1849 (vol. 4, p.581-2) states,

> Section 4 - House lot.
> Mauka by idle land
> Kaʻu by Naai's lot
> Makai by Government road
> Kohala by Kamahalo's lot.
>
> Hana has enclosed lot, 1 house for him. Old land since Kamehameha I to the present time, no one has objected.

Land Commission Award 7466 is located just north of LCAw. 6063:2, and was awarded to Kauhaihao. According to the Native Register on January 24, 1848 (vol. 8, p. 439), Kauhaihao requested six *apana*; he was awarded only his house lot (Section 6) The Native Testimony on February 5, 1849 (vol. 4, pp. 576) by Puuone and Pupuka reported the following relative to Kauhaihao's house lot in *ʻili* land of Pueo of Hōlualoa 1 Ahupuaʻa:

> Section 6 - House lot.
> Mauka and Kaʻu by idle land
> Makai by road
> Kohala by Kamahalo's lot.
>
> Lot is enclosed, 1 house for Puuone, he lives there. Old land since the time of Kamehameha I, no objections.

Land Commission Award 7746:2 is located just northwest LCAw. 7466, and was awarded to Kamahalo. According to the Native Register on January 16, 1848 (vol. 8, p. 447), Kamahalo claimed eight sections, only two *apana* were awarded. His coastal house lot was claimed as Section 8, and he stated, "Greetings to the Land Commissioners: I hereby tell you of my lot and the planted trees. The circumference of the lot, around the fence, is 96 fathoms. There are some planted loulu palms." In the Native Testimony on February 5, 1849 (vol. 4, pp. 579) Molulolulo and Kekoi reported in the *ʻili* land of Puʻukoa of Hōlualoa 1 Ahupuaʻa:

> Section 8 - House lot.
> Mauka by idle land
> Ka`u by Kauhaihao's land
> Makai by Government road
> Kohala by Kaopukanila's land.
>
> Lot is enclosed, 2 houses for Kamahalo where in he is living. 15 palm trees are at another locality. Land has been very old since Kamehameha I to the present time, no one has objected to him.

Land Commission Award 7990:2 is located just northwest of the project area, and was awarded to Pupuka. According to the Native Register on February 12, 1848 (vol. 8, p. 456), Pupuka requested six *apana*. The Native Testimony on February 5, 1849 (vol. 4, pp. 578) reported that he was awarded one house lot with two houses, and one *mauka* agricultural plot.

The LCAw. records provide information on land-use in the immediate vicinity of the survey area in the mid-1800s. The data suggest a dense clustering of commoner residences in the immediate shoreline area. Another pattern that seems evident is that all these requests to the Land Commission list a house plot in the *kula* zone, plus farm plots in various *mauka* places in the *ahupuaʻa*. Fortunately for the claimants in Hōlualoa 1, there agricultural lands were awarded, which is not the usually pattern for the Kona region where agricultural plots were not awarded as often as house lots; leaving the awardees at a distinct disadvantage in providing for themselves and their families through traditional agricultural practices. Perhaps the coastal Hōlualoa 1 residents had more clout than there counterpart neighbors, which supports the contention of the presence of higher status individuals in the coastal Hōlualoa area.

Prior Archaeological Studies

Archaeological investigations previously conducted in Hōlualoa Ahupua‘a have primarily been concentrated within the *kula* zone (see Haun and Henry 2002 for a thorough overview) in which the current project area is also located. Eleven studies have previously been conducted in the general vicinity of the project area (Barrera 1995; Ching et al. 1973; Connolly and Gunness 1979a and 1979b; Dunn and Rosendahl 1991 and 1992; Hammatt 1979; Haun and Henry 2000; Haun et al. 1998; Hommon and Rosendahl 1983; Nelson et al. 2005). Five of the previous projects were associated with the proposed Ali‘i Highway corridor (Ching et al. 1973; Dunn and Rosendahl 1991 and 1992; Haun et al. 1998; Hommon and Rosendahl 1983).

Hammatt (1979) conducted an archaeological survey of a 22-acre parcel located *makai* of Kuakini Highway and northeast of the current study area and ranging in elevation between 125 feet and 260 feet above sea level. Four sites made up of thirteen features were recorded, including temporary habitations (a platform and a cave), a ranch wall, and features associated with agricultural clearing. None of the sites were subjected to archaeological testing.

Connolly and Gunness (1979a and 1979b) investigated four separate parcels for the Komohana Kai subdivision that are located southeast of the current project area. The archaeological survey for this subdivision, which ranges in elevation from 125 feet to 300 feet, identified 136 sites and site complexes. Agricultural features included mounds, modified outcrops, terraces, and modified depressions. Three possible small *heiau* and a large *heiau* were recorded as were 14 Precontact habitation features, three possible burials and a shrine. Eight ranch related features were identified as well. No archaeological subsurface testing was conducted at these sites.

Haun and Henry (2000) conducted an archaeological inventory survey of a seventeen acre parcel ranging in elevation between 35 and 85 feet, to the south of the current study area. Twelve sites composed of 104 features were recorded. Features included modified outcrops, mounds, terraces, platforms, walls, enclosures, a cave, a filled crack, and an upright. Barrera (1995) had previously conducted an archaeological reconnaissance of a portion of the parcel and identified a possible burial, habitation sites, agricultural mounds, and modified outcrops. However, the sites were neither recorded nor their locations mapped.

Nelson et al. (2005) completed an archaeological inventory survey of a 28-acre parcel to the east of the current study area. They recorded twenty-two archaeological sites with over 150 features. Precontact sites recorded included four agricultural sites, four agricultural/habitation complexes, two habitation sites, three burial cave complexes, three burial surface structures, one possible *heiau*, two cobble extraction or construction staging areas, and a trail segment. Two Historic Period walls, including the Kuakini Wall, were also recorded. Thirteen test units were excavated, and the numerous burials were considered to have been of high status individuals. This parcel remains undeveloped at time of the current report.

Five different archaeological surveys were conducted in conjunction with the proposed Ali‘i Highway corridor (Ching et al. 1973; Dunn and Rosendahl 1991 and 1992; Haun et al. 1998; and Hommon and Rosendahl 1983) located between 30 feet and 80 feet in elevation and west of the current project area. Thirty-one sites made up of 143 features were discovered within Hōlualoa Ahupua‘a. Permanent habitation sites composed of terraces, walls, and enclosures; agricultural sites made up of terraces, modified outcrops, and mounds; six burials; a possible heiau; and ten ranch walls were recorded.

Twenty-one additional archaeological investigations have been conducted within the general *kula* zone of the Hōlualoa *ahupua‘a* (Barrera 1981; Fager and Graves 1993; Hammatt 1984, 1994; Hammatt, Folk, and Shideler 1992; Haun 2001; Soehren 1979a, 1979b, 1979c, 1980a, 1980b, 1982; Goldstein 1977; Hammatt, Borthwick, and Chiogioji 1990; MLK Rosendahl 1988; Rosendahl 1979, 1980, 1981, 1989; Sinoto 1979; and Wolforth et al. 1999).

Fager and Graves (1993) investigated a 17-acre parcel (previously investigated by MLK Rosendahl [1988]) south and west of the current project area at an elevation between 311 and 462 feet. Seventeen Precontact agricultural sites composed of twenty-seven features were recorded as well as a *mauka-makai* trail and a ranch related cattle ramp. Agricultural features identified included *kuaiwi*, terraces, enclosures, cleared areas, a mound, a C shape, a modified outcrop, and a platform.

Hammatt, Folk, and Shideler (1992) conducted an inventory survey, archaeological testing and data recovery within a 174 acre parcel located *mauka* of the current project area at an elevation between 300 feet and 750 feet. Portions of this study parcel had been previously the subject of an archaeological survey by Hammatt (1984). Precontact sites recorded included agricultural sites (terraces and mounds), permanent habitation sites, temporary habitation sites, and burials. Historic sites discovered included walls, enclosures, paddocks, cattle runs, and a railroad bed.

Soehren (1980b) investigated a 16 acre parcel located *makai* of Kuakini Highway and northeast of the current project area. An enclosure wall was the only site recorded. Rosendahl (1989) conducted a field inspection within a 6 acre parcel of Komohana Kai subdivision located *mauka* of the Kuakini Highway and east of the current project area. A "few" modified outcrops were identified. Previous field notes compiled by Goldstein (1977) identified a possible habitation or *heiau* in the same subdivision, however the site had been bulldozed.

Hammatt, Borthwick, and Chiogioji (1990) conducted an archaeological inventory of a 64 acre parcel located between 20 feet and 235 feet elevation and south of the current project area. Two hundred eighty five sites were identified. One hundred Precontact habitation sites consisting of platforms, enclosure, open enclosures, terraces, modified outcrops, caves and pavements were recorded. One hundred twenty eight agricultural sites composed of mounds, modified outcrops, terraces, and *kuaiwi* were recorded. Other sites identified included cupboards, walls, and bulldozer piles. Wolforth, Henry, and Rechtman (1999) conducted an inventory survey of an 8 acre project area located *mauka* of Ali'i Drive and southwest of the current study parcel. Portions of the project area had been previously surveyed by Rosendahl (1979), Soehren (1980a), and Barrera (1981). Seven previously identified sites were recorded including Hikapaia Heiau, three ranch walls, and three habitation sites.

Hammatt (1994) identified a complex of Precontact walls, residential structures, two *heiau* and ranch related wall and pens in a 16 acre project area located southwest of the current study parcel. Rosendahl (1980, 1981) conducted an archaeological survey on a 0.3 acre parcel located *mauka* of Ali'i Drive southwest of the current study parcel. Eight features were identified including platforms, a well, a historic tomb, enclosures, and a rock alignment. Test excavations revealed a mix of Precontact and Historic Period materials. Soehren (1979a) identified a terrace and a paved platform during the survey of a 0.5 acre project area *makai* of Ali'i Drive. He also identified an enclosure wall while conducting a survey of a 0.3 acre parcel *mauka* of Ali'i Drive (Soehren 1979b). Both project areas are west of the current study parcel.

Rosendahl (1979) identified eight features in the course of a reconnaissance survey of a 0.5 acre parcel located *mauka* of Ali'i Drive and west of the current project area. Features identified included platforms, artifacts scatters, a pit, a rock alignment, and a modified outcrop. Sinoto (1979) conducted an archaeological reconnaissance survey of a 6 acre project area located *mauka* of Ali'i Drive and northwest of the current study parcel. The survey identified ranch walls and modern bulldozer push piles.

Haun (2001) identified 28 sites composed of 94 features in the course of an inventory survey of a 13.5 acre parcel located *mauka* of Ali'i Dive and southwest of the current project area. Precontact sites recorded included modified outcrops, mounds, walls, enclosures, pavements, *ahu*, burials, a modified knoll, a cave, and a cupboard.

SURVEY EXPECTATIONS

Based on the previously conducted archaeological studies in the vicinity of the current project area and the background information presented above, a set of field expectations can be generated. Given this information, it is logical to assume that the current study property once contained archaeological features dating to the Precontact and Historic Periods. Given the *Māhele* information it is likely that those resources were residential in nature, associated with LCAws. 5554 and 5558:2. The amount of modern/Historic disturbance that has already occurred on the parcel has no doubt severely, if not completely, obliterated the evidence of this former land use. It is expected that there will be few or no surface expression of any archaeological features. It is possible, however, that surface or subsurface debris scatters associated with the *kuleana* parcels may be present, and that Historic walls may run along the boundaries of the former *kuleana* parcels.

FIELDWORK

On November 13 and 19 2010, Robert B. Rechtman, Ph.D. and Morgan Schmidt, Ph.D. carried out the fieldwork for the current project, which included a 100% surface survey of the project area along with the excavation of shovel test pit at selected locations. Given the size of the study area and the existing conditions, survey transects were not required. A map of the project area had been prepared by a professional surveyor, which identified all of the relevant features and landmarks; and the one recorded site has been plotted on that map (Figure 9). The location of the single historic feature identified during the survey was verified against the surveyor's map and additional recordation included preparing a written description, taking photographs, and making measurements.

In an effort to assess the potential for subsurface cultural deposits, five shovel test pits (STPs) were excavated in a *mauka/makai* linear pattern across the center of the study area. The excavated soil matrix was passed through 1/8 inch mesh screen, no cultural material was collected. Stratigraphy and potential cultural items were noted and Munsell color notations were recorded. Upon reaching bedrock within an STP, photographs were taken and the pit refilled.

FINDINGS

While numerous made-made features (mostly associated with modern residential use) are present within the project area, only one archaeological site (SIHP Site 28583), a Historic Period boundary wall, was recorded. Site 28583 is the remnant of a dry stacked core-filled wall that seems to correspond to portions of western and northern the boundary of LCAw. 5554. Middle nineteenth century house lots such as this were commonly walled (see *Māhele* testimony cited above).

SIHP Site 28583

SIHP Site 28583 is a core-filled wall extends east along the northern study area boundary from a point roughly 2/3 *mauka* of the western study area boundary and beyond (see Figure 9). Here the wall is the most intact, measuring 1 meter tall and 90 centimeters wide (Figure 10), perhaps because it has been maintained by the neighboring resort development. This wall also extends south across the study area in the vicinity of the western boundary of former LCAw. 5554 (see Figure 9). This north/south section of wall is mostly collapsed (Figure 11) measuring 90 centimeters wide and between 30 and 60 centimeters tall. It extends south from the northern wall segment for about 30 meters, where it was truncated and a modern western running wall added (Figure 12) to enclose the former modern house lot. The two study parcels and the parcel behind were created as a result of a modern consolidation/resubdivision action. While new rock walls were added, the older rock walls remain giving testimony to former parcel boundaries. SIHP site 28583 does retain integrity of location and design, but setting, materials, workmanship, and feeling have been severely compromised.

Figure 10. SIHP Site 28583 extending along northern boundary of former LCAw. 5554, view to the north.

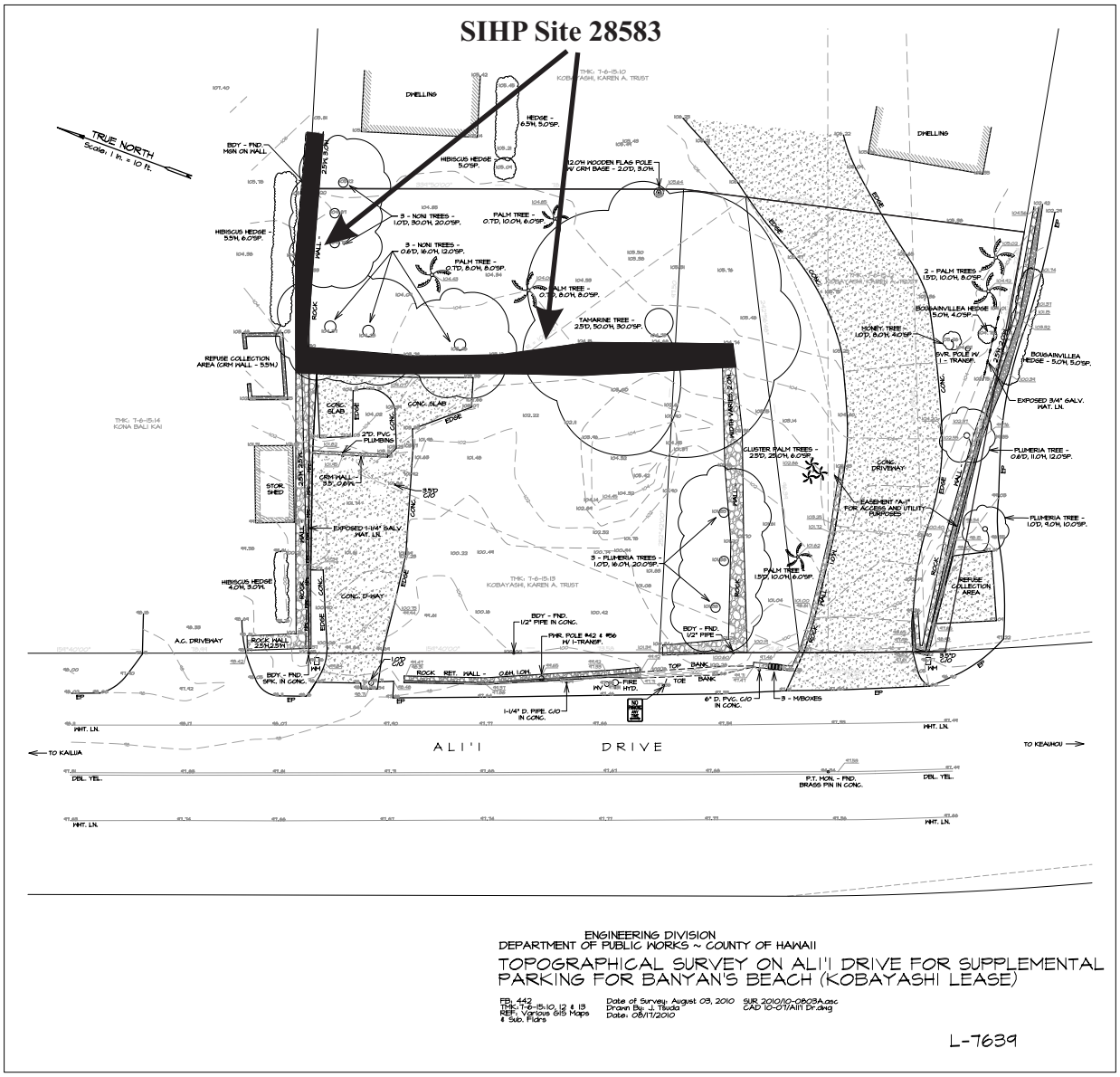


Figure 9. Project area plan view.

Figure 11. SIHP Site 28583 extending along western boundary of former LCAw. 5554, view to the east.

Figure 12. SIHP Site 28583 at southern truncation with modern wall extending to the left (west), view to the north.

Shovel Test Pits

As mentioned above, five shovel test pits (STPs) were excavated in a *mauka/makai* linear pattern across the center of the study area; STP-1, -2, and -3 were placed *makai* of Site 28583 and STP-4 and -5 *mauka* of Site 28583 (see Figure 9). The collective excavation of these pits did not reveal the presence of any buried cultural deposits; items encountered in the shallow soil included glass, plastic, metal, coral, cow bone, and shell. Stratigraphy observed within the STPs is as follows:

STP-1 20 centimeters deep silty loam 10YR 3/2, 7 centimeters deep silty clay loam 10 YR 3/6 on bedrock (Figure 13).

STP-2 20 centimeters deep silty loam 10YR 3/2, 5 centimeters deep silty clay loam 10 YR 3/6 on bedrock (Figure 14).

STP-3 3 centimeters deep silty loam 10YR 3/2 on bedrock (Figure 15).

STP-4 20 centimeters deep gravel fill, 20 centimeters deep silty loam 10 YR 3/2 on bedrock (Figure 16).

STP-5 5 centimeters deep gravel fill on graded bedrock (Figure 17).

Figure 13. STP-1.

Figure 14. STP-2.

Figure 15. STP-3.

Figure 16. STP-4.

Figure 17. STP-5.

SIGNIFICANCE EVALUATION AND TREATMENT RECOMMENDATION

The above-described archaeological site is assessed for its significance based on criteria established and promoted by DLNR-SHPD and contained in the Hawai‘i Administrative Rules 13§13-275-6. This significance evaluation should be considered as preliminary until DLNR-SHPD provides concurrence. For a resource to be considered significant it must possess integrity of location, design, setting, materials, workmanship, feeling, and association and meet one or more of the following criteria:

A. Be associated with events that have made an important contribution to the broad patterns of our history;

B. Be associated with the lives of persons important in our past;

C. Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value;

D. Have yielded, or is likely to yield, information important for research on prehistory or history;

E. Have an important traditional cultural value to the native Hawaiian people or to another ethnic group of the state due to associations with traditional cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts—these associations being important to the group’s history and cultural identity.

The significance and recommended treatment for SIHP Site 28583 is discussed below and presented in Table 3.

Table 3. Site significance and treatment recommendation.

SIHP No.	*Site Type/Function*	*Temporal Association*	*Significance*	*Recommended Treatment*
28583	Boundary wall	Historic	D	No further work

SIHP Site 28583, a Historic Period wall remnant, is considered significant under Criterion D, and has provided information relative to middle nineteenth century use of the project area. The information recorded from this site has sufficiently mitigated any potential impact that may be caused by the County of Hawai‘i’s proposed parking lot development. No further work is recommended.

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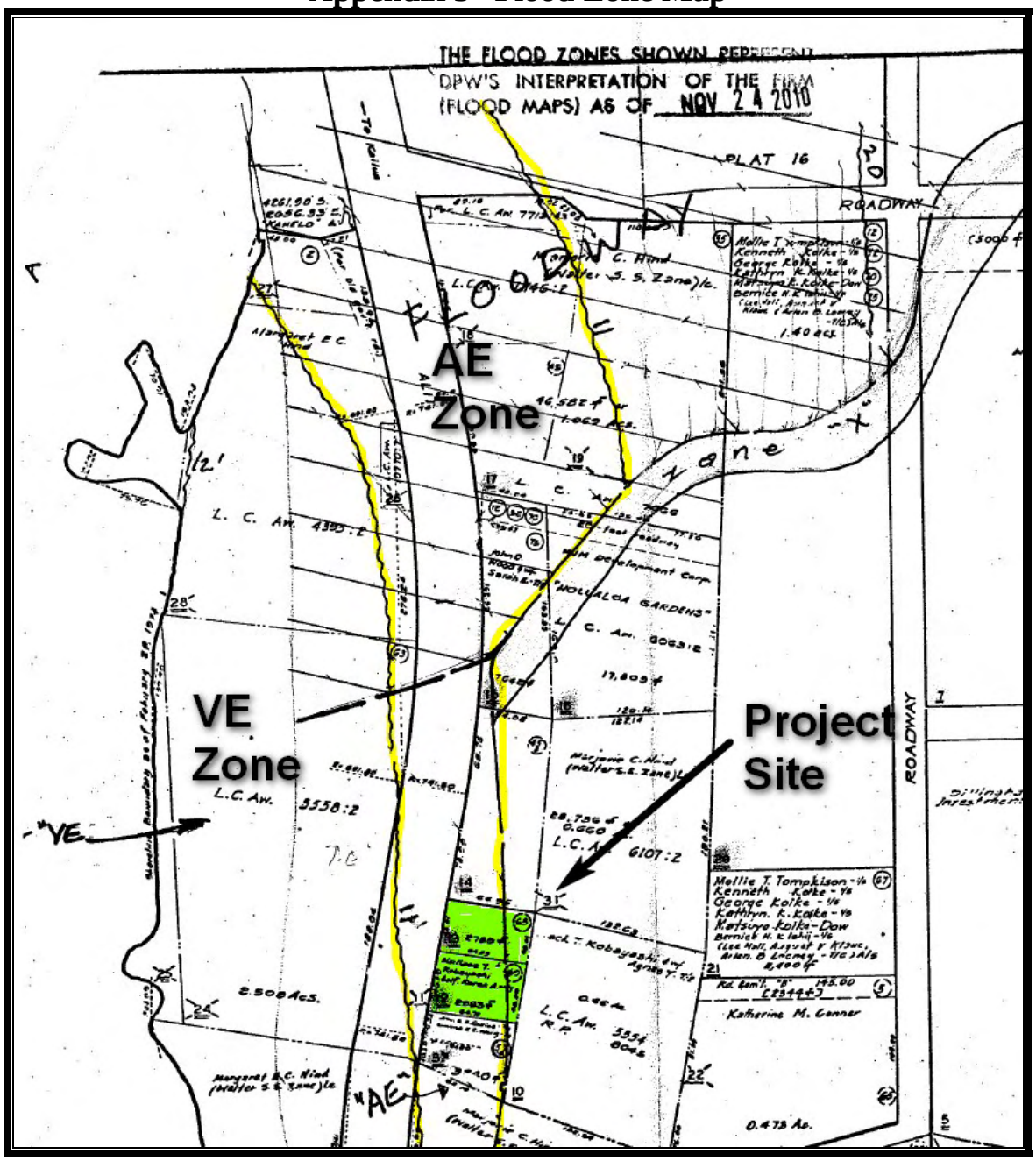
ENVIRONMENTAL ASSESSMENT

Aliʻi Drive Banyans Parking Lot

TMKs: (3rd) 7-6-015:012 and 013
North Kona District, Hawaiʻi Island, State of Hawaiʻi

APPENDIX 3
Flood Zone Map

Appendix 3 Flood Zone Map



Source: Hawai‘i County Department of Public Works, with Additional Notation from Geometrician Associates