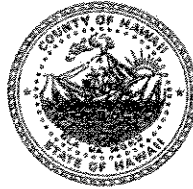


Harry Kim  
Mayor



Christopher J. Yuen  
Director

Roy R. Takemoto  
Deputy Director

County of Hawaii

PLANNING DEPARTMENT

101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720-3043  
(808) 961-8288 • Fax (808) 961-8742

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OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

January 14, 2004

Ms. Genevieve Salmonson, Director  
Office of Environmental Quality Control  
235 South Beretania Street, Room 702  
Honolulu, HI 96813-2437

Dear Ms. Salmonson:

**Subject: Final Environmental Assessment (FONSI)**  
**Project: Kamehameha Investment Corporation Parcel 10A**  
**Request: Development of 16 Multiple-Family Residential Units and Related Improvements**  
**TMK: (3) 7-8-10: 90, Kahaluu and Keauhou 1<sup>st</sup>, North Kona, Hawaii**

The Hawaii County Planning Department has reviewed the comments received during the 30-day public comment period which began on May 23, 2003. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the February 8, 2004 OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form and four copies of the Final EA. Please call Norman Hayashi or Phyllis Fujimoto at 961-8288 if you have any questions.

Sincerely,

Handwritten signature of Christopher Yuen in cursive script.

CHRISTOPHER YUEN  
Planning Director

PF:syw

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Enclosures: OEQC Publication Form  
4 copies of the FEA

cc: Steven S.C. Lim, Esq., Carlsmith Ball LLP  
Norman Hayashi, PC Division

FEB 8 2004

FILE COPY

FINAL ENVIRONMENTAL ASSESSMENT

**KAMEHAMEHA INVESTMENT CORPORATION**  
**Parcel 10A**

TMK: (3) 7-8-10:90 (3.686 acres)

**Prepared for:**  
Kamehameha Investment Corporation

**Prepared by:**  
Steven S.C. Lim  
Carlsmith Ball LLP  
121 Waianuenue Avenue  
Hilo, Hawaii 96720  
Telephone: (808) 935-6644

**December, 2003**

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**SUMMARY OF PROPOSED ACTION**

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**Applicant/Owner:** Kamehameha Investment Corporation, a Hawaii corporation

**Property Location:** Kahaluu and Keauhou 1st, District of North Kona, on the east (mauka) side of Kamehameha III Road, immediately adjacent to and on the south (makai) side of Keauhou Rehabilitation and Healthcare Center (former Hillhaven Healthcare facility).

**Tax Map Key and** 7-8-10:90 (Development Parcel 10A)  
3.686 acres

**Approving Agency:** County of Hawaii Planning Department                      County of Hawaii Planning  
**or Accepting Authority** 101 Pauahi Street, Suite 3                      Commission  
Hilo, Hawaii 96720    101 Pauahi Street, Suite 3  
Hilo, Hawaii 96720

**Consultant:** Carlsmith Ball LLP  
Steven S. C. Lim  
121 Waiianuenue Avenue  
Telephone: 935-6644  
Hilo, Hawaii 96720

**Proposed Action:** Applicant Kamehameha Investment Corporation ("KIC") seeks a Special Management Area Use Permit to allow for the development of up to 16 multiple-family residential units and related improvements on approximately 3.686 acres of land ("Property") located on the east (mauka) side of Kamehameha III Road, immediately adjacent to and on the south (makai) side of Keauhou Rehabilitation and Healthcare Center (former Hillhaven Healthcare facility), at Kahaluu and Keauhou 1st, District of North Kona. The Project site is located approximately 2,800 feet inland from the coastline, and is within the County Special Management Area ("SMA") which extends from the coastline to the east (makai) boundary of the Kuakini Highway right-of-way. The Property is located within the Kahaluu Historic District (SIHP 50-10-37-4150) which was included in the National Register of Historic Places (NRHP) on December 27, 1974. The Kahaluu Historic District was removed from the State Register in March, 1980.

**Anticipated Determination:** The proposed action is expected to have no significant impact on the environment, therefore, a Finding of No Significant Impact ("FONSI") is anticipated, subject to the provisions of Section 11-200-9, Hawaii Administrative Rules.

**Agencies / Community Assn. Consulted**

	<u>State of Hawaii</u>	
	<ul style="list-style-type: none"><li>• Department of Land &amp; Natural Resources, Historic Preservation Division, Land Management, Commission on Water Resource Management, Division of Forestry and Wildlife, Engineering Division</li><li>• Department of Transportation, STP Branch</li><li>• Department of Health, Environmental Planning Office and Office of Environmental &amp; Quality Control</li><li>• Office of State Planning</li><li>• Office of Hawaiian Affairs</li></ul>	
	<u>County of Hawaii</u>	<u>Community Associations/Adjacent Property Owners</u>
	<ul style="list-style-type: none"><li>• Planning Department</li><li>• Department of Water Supply</li><li>• Department of Public Works</li><li>• Fire Department</li><li>• Police Department</li><li>• Parks &amp; Recreation</li></ul>	<ul style="list-style-type: none"><li>• Keauhou Outreach Group (Exhibit 5)</li><li>• Environment Hawaii, Inc.</li><li>• Keauhou Cultural Advisory Committee</li></ul>

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Identification of Applicant and Ownership

The Applicant is Kamehameha Investment Corporation ("KIC"), a Hawaii corporation, whose mailing address is 567 South King Street, Suite 600, Honolulu, Hawaii 96813. The Applicant is the fee owner of the Property, being Lot 3-B-1, Development Parcel 10A, more particularly identified as tax map key parcel: (3) 7-8-10:90 (Figures 1 and 2).

#### 1.2 Project Overview

The Applicant is proposing to develop up to 16 multiple-family residential units and related improvements on approximately 3.686 acres of land, located in Kahaluu and Keauhou 1<sup>st</sup>, about seven miles north of Kailua-Kona. The Property is located on the east (mauka) side of Kamehameha III Road, immediately adjacent to and on the south (makai) side of Keauhou Rehabilitation and Healthcare Center (former Hillhaven Healthcare facility). The Property is located 2,800 feet inland from the shoreline and is approximately 290 feet at the highest point and approximately 220 to 270 feet in elevation along Kamehameha III Road. The components of the Proposed Action (Figure 3) are as follows:

- Two (2) 3-story buildings comprising 6 units per building; and
- One (1) 2-story building comprising of 4 units, for a total of 16 units. The maximum density for this area is approximately 53 units. The proposed units will be approximately 1,200 to 2,200 square feet in area (Figure 4-building elevation map).

The Keauhou Resort lands were master-planned in the 1960's and 1970's to allow for the orderly development of residential communities within a resort setting. Residential sales within the Keauhou Resort have been relatively strong due in large part to the well-planned resort-residential community environment, the range and quality of residential products being offered, and the wealth of nearby commercial and recreational amenities. The purpose of the Proposed Action is to provide a broad mix of residential opportunities in the North Kona region in response to existing and projected market demands for retirement, second home, and vacation rental units, as well as primary and local housing units.

The Property is located mauka of the existing Keauhou Shopping Village complex and will offer residents with readily available infrastructure and public support services within close proximity. The Proposed Action has been planned to respond to the topographical characteristics of the site and sensitivity to the environmental and cultural considerations of the Property.

### 1.3 Purpose and Contents of this Document

This Final Environmental Assessment ("FEA") has been prepared in accordance with the provisions of the Hawaii Revised Statutes ("HRS"), Chapter 343, and Title 11, Department of Health ("DOH"), Chapter 200, Environmental Impact Rules, Sections 11-200-6 through 11-200-13. Section 11-200-6(b) establishes certain classes of action which subject the Applicant to compliance with Chapter 343, HRS. These classes include:

- Use of State or County lands;
- Use of lands classified within the Conservation District;
- Use of the shoreline area;
- Use of any historic site, as designated within National or Hawaii Registers;
- Use within the Waikiki/Diamond Head area of Oahu;
- Any amendment to existing County General Plan that would result in designations other than Agriculture, Conservation, or Preservation;
- Use of State or County funds; and
- Construction of new, or expansion or modification of helicopter facilities.

The Property is located within the Kahalu'u Historic District, which is listed on the National Register of Historic Places ("NRHP"). The proposed use within the Kahalu'u Historic District requires compliance with the provisions of Chapter 343, HRS. Therefore, this document serves as the FEA for the Proposed Action at Keauhou. A description of the affected environment, the alternatives considered to date, proposed mitigation measures, preliminary impact determinations based on the information contained herein, and the reasons supporting those determinations are provided.

This DEA has been prepared in support of the Special Management Area ("SMA") Use Permit application to allow for the development of the proposed multiple-family residential project of up to 16 units and related improvements within the Keauhou Resort area on the island of Hawaii.

For purposes of this DEA, the improvements being proposed by the Applicant will be called either the "Project Site" or the "Proposed Action", and the lands on which the Project is proposed will be called the "Property."

#### 1.4 Identification of Approving Agency

The governmental permits and approvals needed to implement the Proposed Action are listed as follows:

	<u>Approvals Needed</u>	<u>Agency</u>
Hawaii County:	HRS Chapter 343 compliance Special Management Area (SMA) Permit Final Plan Approval Building Permits	Planning Department/ Planning Commission Planning Department Dept. of Public Works
State of Hawaii:	NPDES	Department of Health
Federal Government:	None	

This FEA is being submitted in conjunction with a Special Management Area Use Permit application to the Planning Department, in accordance with Rule 9-11, Planning Commission Rules of Practice and Procedure. The approving agency for this environmental assessment is the Planning Department.

#### 1.5 Identification of Agencies Consulted in Making Assessment

The following agencies provided assistance or information in preparing this assessment:

##### State Agencies

- DLNR, State Historic Preservation Division, Land Management, Commission on Water Resource Management, Division of Forestry and Wildlife, Engineering Division
- Department of Transportation, STP Branch
- Department of Health, Environmental Planning Office and Office of Environmental & Quality Control
- Office of State Planning
- Office of Hawaiian Affairs

##### County Agencies

- |                              |                              |
|------------------------------|------------------------------|
| • Planning Department        | • Department of Water Supply |
| • Department of Public Works | • Fire Department            |
| • Police Department          | • Parks & Recreation         |

##### Community Associations / Adjacent Property Owners

- Keauhou Outreach Group (Exhibit 5)
- Environment Hawaii, Inc.
- Keauhou Cultural Advisory Committee



## CHAPTER 2

### DESCRIPTION OF THE PROPOSED ACTION

#### 2.1 Project Location

The Property is located on the east (mauka) side of Kamehameha III Road, immediately adjacent to and on the south (makai) side of Keauhou Rehabilitation and Healthcare Center (former Hillhaven Healthcare facility) at Kahaluu and Keauhou 1st, District of North Kona, approximately seven miles north of the Kailua-Kona (Figure 2). The Keauhou Shopping Center complex is located makai (southwest) of Kamehameha III Road (Exhibit 6-photographs).

#### 2.2 Existing Conditions

The Property is classified "Urban" by the State Land Use Commission. The Urban District is generally defined as lands in urban use with sufficient reserve to accommodate foreseeable growth. Land uses within the Urban Districts are administered by the counties in which they are located.

The County General Plan LUPAG map designation for the Property is "Alternate Urban Expansion". The Urban Expansion Area allows for a mix of high density, medium density, low density, industrial and/or open designations in areas where new settlements may be desirable, but where the specific settlement pattern and mix of uses have not yet been determined. Within areas defined as resorts, portions of the resort area may be included in the urban expansion area. The General Plan also identifies Keauhou-Kahaluu as a Major Resort Area. A Major Resort Area is a self-contained resort destination area which provides basic and support facilities for the needs of the entire development.

The County zoning designation classifies the Property as Multiple-Family Residential (RM-3.0).

The Property is located approximately 2,800 feet inland from the coastline, and is within the Special Management Area, which extends from the coastline to the east (makai) boundary of the Kuakini Highway right-of-way, and subject to the SMA Rules and Regulations of the County of Hawaii.

#### 2.3 Existing Uses and Activities

The Property is an undeveloped parcel, characterized by open scrub grassland and kiawe thickets with exposed pahoehoe and a'ala lava outcroppings (Exhibit 6-photographs). The Property is located within the Kahaluu Historic District (SIHP 50-10-37-4150) which was included in the NRHP in December, 1974, and removed from the Hawaii Register of Historic Places in March, 1980.

## **2.4 Surrounding Uses and Activities**

The surrounding areas encompass the master-planned Keauhou Resort lands. The Property is located on the east (mauka) side of Kamehameha III Road, immediately adjacent to and on the south (makai) side of Keauhou Rehabilitation and Healthcare Center (former Hillhaven Healthcare facility) and Kona Country Club Golf Course (mountain course) on its southeastern boundary. The Keauhou Shopping Center complex is located to the southwest (makai) and zoned Village Commercial (CV-7.5). The Kaulana at Kona condominiums abut the Property on its southern boundary and is zoned Multiple-Family Residential (RM-3). The Project site will take access from the signalized intersection along Kamehameha III Road with the Wendy's Restaurant and Circus Shop'Us Gas Service Station located directly across and makai from the Project site (Exhibit 6-photographs).

## **2.5 Timetable for Development**

The Applicant proposes to begin work on the proposed improvements upon receipt of all required permits from the County and State.

## CHAPTER 3

### DESCRIPTION OF THE ENVIRONMENTAL CHARACTERISTICS OF THE PROPOSED ACTION - Impacts and Mitigation

#### 3.1 Physical Characteristics

##### 3.1.1 Geology, Physiography and Climate

*Setting.* The Property is located 2,800 feet inland from the shoreline, and is approximately 290 feet at the highest point and approximately 220 to 270 feet in elevation along Kamehameha III Road (Exhibit 6-photographs). Located on remnants of lava flows from Hualalai, the Property is geographically similar to other sites within the Keauhou Resort which are characterized primarily by exposed a'a lava rockland and scattered pahoehoe exposures. The little soil present consists almost entirely of shallow, small pockets of slowly decaying organic matter. The general slope of the Property is approximately 10 to 17%.

Winds in this region are often light and variable due to the wind shadow effect caused by Hualalai and Mauna Loa, though, storms from the south during winter months can bring in very strong winds for brief periods. Temperatures range from the low 60° to a maximum in the high 80 to lower 90°. Average annual rainfall is approximately 30 inches.

##### 3.1.2 Soils and Agricultural Potential

Soils in Hawaii are commonly rated in terms of three classifications systems: (1) Land Study Bureau-Detailed Land Classifications, (2) USDA-SCS Soil Survey, and (3) Agricultural Lands of Importance to the State of Hawaii. These are discussed as follows:

Detailed Land Classification. Based on the five-level productivity rating system from the Land Study Bureau's 1967 Detailed Land Classifications, Island of Hawaii (Baker, et al., 1965), where A represents the highest rating and E the lowest, the soil within the Property is classified as "E," or "Very Poorly Suited," to agricultural productivity. None of the Properties are categorized as A or B soils, which are considered important for agricultural purposes under Hawaii Revised Statutes, Section 205-4.5.

Soil Survey. Soils on the Property are identified by the Soil Survey of the Island of Hawaii (USDA-SCS 1973) as follows:

"rLV", lava flows, A'a

This lava has practically no soil covering and is bare of vegetation, except for mosses, lichens, ferns, and small ohia trees.

"rLV", lava flows, Pahoehoe This lava has a predominate billowy and smooth surface, although it can be rough and broken, and has no soil covering.

These soils are rated as poorly suited for agriculture due to their rocky character, relatively thin depths, and rapid permeability.

Agricultural Lands of Importance to the State of Hawaii. The Agricultural Lands of Importance to the State of Hawaii (ALISH) classification system identifies three types of agricultural lands, based on characteristics such as soil quality, growing season and moisture supply. The three classifications used are Prime, Unique, and Other Important Lands. None of the land within the Property is classified in the ALISH system.

*Impacts and Mitigation.* The Proposed Action would not result in loss of any valuable agricultural lands, since the soils are poor, and the Property is currently not in agricultural use.

### 3.1.3 Natural Hazards

#### *Setting.*

Surface Water and Drainage. The Property is situated within an area of relatively low rainfall amounts and intensities (20 to 30 inches annually). The land is comprised of porous and unweathered lava and has sparse soil cover, which allow much of the rainfall to percolate to the water table. There are no discernible streams or drainage ways at the Property and runoff is unlikely due to the high permeability rate. No naturally occurring or well-defined drainage ways or drainage outlets are found on-site, and surface water run-off occurs only at rare times of intense rainfall. Development of the Project site will not have any significant adverse effect on the drainage patterns off- and on-site.

Flood and Coastal Hazards. The Property is located outside of the tsunami inundation area and therefore, will be minimally impacted by storm wave and tsunami hazards. In addition, the Property is designated as "X" or outside of the 500-year flood plain per Federal Emergency Management Agency (FEMA) and therefore not shown on Flood Insurance Rate Maps (FIRM) on file with the County Department of Public Works. Additionally, no serious flood problems or natural drainage features are found in the area. All development within the Project site shall comply with the requirements of Chapter 27, Flood Control, of the Hawaii County Code.

Volcanic and Earthquake Hazards. The U.S. Geological Survey divides the Island into zones that are ranked from 1 through 9 based on the probability of lava coverage. The USGS Lava Flow Hazard Maps show the Property to be within Lava Flow Hazard Zone 4. Zone 4 includes all of Hualalai, where the frequency of eruptions is lower than on

Kilauea and Mauna Loa. In the last 3,000 years, Hualalai has erupted near its summit, along the northwest and south-southwest rift zones, and from vents on the north flank of the volcano. Twenty-five percent of the volcano is covered by flows less than 1,000 years old.

*Impacts and Mitigation.* The Property is not located within the coastal high hazard area, and thus the degree of risk to human life is minimal. The placement of the proposed improvements is sufficiently inland from the shoreline. All development generated runoff will be disposed on-site. In order to minimize potential damage to structures as a result of earthquakes, all buildings and structures within the Project site will be designed and constructed in compliance with applicable Building Codes and Standards.

#### 3.1.4 Flora

*Setting.* No plant species listed by the U.S. Fish & Wildlife Services or State protected plant species as threatened or endangered, proposed, or a candidate species or "species of concern" occur on the Property or immediate vicinity. Vegetation surrounding the area is typical of that found in dry leeward areas, where kiawe, koa haole and exotic weeds and grasses have replaced most native species.

*Impacts and Mitigation.* The Proposed Action is not expected to significantly impact existing flora and vegetation since all the dominant species now on the Property are common xerophytic exotics such as kiawe.

#### 3.1.5 Fauna

*Setting.* No endangered or otherwise rare bird or mammal species were observed within the Project site. The Property is not included within the critical habitat for protected species. Known occupied fauna within the Property consists predominantly of lowland urban birds, such as common mynah (*Acridotheres tristis*), house finch (*Carpodacus mexicanus*), northern cardinal (*Cardinalis cardinalis*) and Japanese white-eye (*Zosterops japonica*). None of these species are rare or endangered. Additionally, no resident endemic and indigenous land birds, resident indigenous seabirds, resident endemic and indigenous water birds and migratory indigenous birds have been recorded on the Property. Mammal species which are expected to occur on the Property include mongoose, feral cat, mouse and rat. These are common species which are found throughout the island.

*Impacts and Mitigation.* The Proposed Action would also not impact existing avifauna and feral mammal habitat as no rare, endangered or threatened species have been evidenced within the Property or surrounding area. The present environment provides a moderate range of habitats which are utilized by an array of exotic species of birds.

#### 3.1.6 Valued Cultural, Historical and Natural Resources

*Setting.* The Property is located within the Kahalu'u Historic District (SIHP 50-10-37-4150; a district with multiple sites) which was nominated for inclusion into the National Register of Historic Places on December 27, 1974 (Exhibit 1). The Historic District was placed on the NRHP because of the following: (1) the numerous heiau in the area, (2) the unique architecture of several of the heiau, (3) the intrinsic value of petroglyphs in the area (including that of Keeku Heiau), and (4) the district's association with important traditional political and religious activities. The Kahalu'u Historic District was removed from the State Register in March, 1980 due to insufficient notice requirements to private landowners that their properties were nominated for inclusion into the State Register. A number of archaeological investigations and surveys have been conducted within the Property and surrounding areas.

In 1980, Archaeological Research Center Hawaii, Inc. (ARCH) conducted an archaeological survey, Phase II.1 for portions within the Keauhou-Kona Resort. Subsequently, ARCH prepared a Plan for Archaeological Salvage Research, Keauhou-Kona Resort Area, dated August, 1981. Four archaeological sites within the 35-acre KIC Development Parcel Area 10 (which includes Area 10A) were identified: Site 4633 (agricultural feature), Site 4634 (ahu), Site 4624 (animal enclosure), and Site 4619 (foot trail). The Plan suggested further testing of Site 4624 during archaeological salvage to retrieve datable material and to confirm its suggested function as an animal enclosure (Exhibit 2). The other sites were determined to be minimal for research potential.

The Cultural Resource Management Plan (CRMP) for the Keauhou Resort Area was prepared by PHRI in August, 1985 to comply with the archaeological/historic interpretative management plan requirement pursuant to Ordinance No. 820 (Exhibit 3). The CRMP addressed the archaeological and historical resources in the context of the continuing development of the 43 development parcels of the Keauou Resort area, including the subject Property. The report identified the nature and extent of cultural resources in the Keauhou Resort area and assessed the significance of these cultural resources and established criteria for assessing the significance of specific sites. The CRMP describes and evaluates the cultural resources in each development parcel at the Keauhou Resort. Of the four previously identified archaeological sites within KIC Development Area 10 (which incorporates the subject project) two sites were further investigated (Sites 4624 and 4626), and Site 4624 was recommended for preservation.

The former Hillhaven facility obtained SMA approval (SMA 256 issued March 31, 1987) for its facility subject to the requirement that preservation of Site 4624 be approved by the Planning Director prior to final subdivision approval. Final subdivision approval (Sub. No. 5821) was granted on November 13, 1989 and incorporates an archaeological easement (A-1) on Hillhaven's Lot 3-A-1 (TMK: 7-8-10:91). A minuscule portion of the buffer area of Site 4624 is located on the northern corner of the Property (Exhibit 4).

Preconsultation by the Applicant with the Keauhou Cultural Advisory Committee and Keauhou Outreach Group (which consists of neighboring property owners, kupuna and community members in the Kahaluu district) revealed no traditional and customary native Hawaiian cultural or historical resources on the Property. This preconsultation revealed no observable traditional and customary native Hawaiian practices being exercised on the Property.

Should any previously unidentified archaeological or historic sites such as artifacts, marine shell concentrations, charcoal deposits, stone platforms, pavings or walls be found, the Applicant shall stop work in the immediate vicinity and contact the State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources. The significance of these finds shall then be determined and approved by the SHPD and subsequent work shall proceed upon an archaeological clearance when SHPD finds that satisfactory mitigative measures have been implemented. In addition, should any previously unidentified human burials be found, the Applicant shall stop work in the immediate vicinity and contact the Hawaii Island Burial Council.

Pursuant to the requirements of Hawaii Revised Statutes, Section 205A-4, and the Hawaii Supreme Court ruling in the Ka Pa'akai O Ka 'Aina case, the Planning Commission is required to make specific findings and conclusions relating to the following:

The identity and scope of "valued, cultural, historical, or natural resources" in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area;

**Discussion:** The Property is located within the Kahalu'u Historic District (SIHP 50-10-37-4150). The CRMP for the Keauhou Resort Area was prepared by PHRI in August, 1985 to comply with the archaeological/historic interpretative management plan requirement pursuant to Ordinance No. 820. Site 4624, which was recommended for preservation in the CRMP, has been preserved in place as an archaeological easement (A-1) on Hillhaven's Lot 3-A-1 (TMK: 7-8-10:91), with a minuscule portion of the buffer area of Site 4624 is located on the northern corner of the Property. The Applicant's preconsultation with the Keauhou Cultural Advisory Committee and Keauhou Outreach Group (which consists of neighboring property owners, kupuna and community members in the Kahaluu district) revealed no traditional and customary native Hawaiian cultural or historical resources on the Property. In light of the protocol established between Kamehameha Investment Corporation and the Keauhou Cultural Advisory Committee, no formal cultural impact assessment has been conducted for the proposed Project. This preconsultation revealed no observable traditional and customary native Hawaiian practices being exercised on the Property.

1. The extent to which those resources - including traditional and customary native Hawaiian rights - will be affected or impaired by the proposed action; and

**Discussion:** The cultural, historical and natural resources within the Project site will not be affected or impaired by the proposed use as there is no evidence of any valued cultural, historical, natural resources and traditional or customary native Hawaiian rights on the Property. Should traditional and/or customary native Hawaiian rights be discovered, provisions will be made by the Applicant to allow continued use of those resources.

2. The feasible action, if any, to be taken by the Planning Commission to reasonably protect native Hawaiian rights if they are found to exist.

**Discussion:** There is no feasible action to be taken by the Planning Commission other than to require that if in the future, any valued cultural, historical, natural resources and/or traditional and customary native Hawaiian rights are discovered in the Project site, the Applicant will report the discovery to the Department of Land and Natural Resources, SHPD for review and assessment.

*Impacts and Mitigation.* The Property is located within the Kahalu'u Historic District. A number of archaeological investigations and surveys have been conducted within the Project site and surrounding areas. The CRMP for the Keauhou Resort Area was prepared by PHRI in August, 1985 to comply with the archaeological/historic interpretative management plan requirement pursuant to Ordinance No. 820. Site 4624 which was recommended for preservation in the CRMP has been preserved in place as an archaeological easement (A-1) on Hillhaven's Lot 3-A-1 (TMK: 7-8-10:91), with a minuscule portion of the buffer area of Site 4624 is located on the northern corner of the Property (Exhibit 4). Any buffers from Site 4624 within the Property to be recommended by SHPD will be adhered to. In addition, preconsultation by the Applicant with the Keauhou Cultural Advisory Committee and Keauhou Outreach Group revealed no native Hawaiian resources on the Property.

### 3.1.7 Air and Noise Quality

#### *Setting.*

**Air.** Generally, air quality is affected by regional and local climates, together with the amount and type of human activity in a given location. Prevailing northeast trade winds and diurnal land and sea breezes sculpted by the region's topography forms air circulation patterns that can create local concentrations of pollutants. Air quality in the Property vicinity is most affected by emissions from natural and vehicular sources. The dominant factor for the past several years has been the volcanic haze (vog) from Kilauea Volcano. Another natural source of air pollution that may affect the air-quality at the site is windblown dust. Although there is little air quality monitoring data



currently available for the area, it appears that both State and Federal ambient air quality standards are currently being met, despite the persistent vog.

The Proposed Action would increase traffic in the area very slightly, although the projected level of project generated traffic at build-out is not expected to generate significant levels of air pollutants. There could be short-term air quality impacts due to construction activities, especially during clearing and grubbing operations. However, these impacts can be mitigated through utilization of best management practices such as, covering transported materials, water spraying, and planting of ground cover as soon as practical.

**Noise.** The noise generated in the vicinity of the Property is associated with existing vehicular sources. Other noises at the Property come from natural sources (ocean and wind) and wildlife. The Proposed Action will not employ visually offensive structures or equipment, nor produce unpleasant noise.

**Impacts and Mitigation.** Minor short-term increase in noise level may be experienced due to construction activities, especially during clearing and grubbing operations. However, these impacts can be mitigated through scheduling work during the daytime and by ensuring that construction equipment complies with County and State Department of Health noise regulations during the construction phase of the Proposed Action. When fully developed, the Proposed Action is not expected to add significantly to current noise levels.

### **3.1.8 Scenic and Open Space Resources**

**Setting.** The Property is not listed in the County of Hawaii General Plan as an example of natural beauty in the North Kona District. The present landscape of the Property is characterized by scrub grasslands of no particular outstanding aesthetic value.

**Impacts and Mitigation.** The Proposed Action is similar in character to the surrounding area and is not likely to result in any substantial adverse impact on the surrounding environment. The Proposed Action will not adversely affect views to and along the shoreline due to the integration of the sloping property with the 2- and 3-story residential development. Therefore, the Proposed Action will not negatively impact the scenic and open space resources of the Property.

### **3.1.9 Coastal Resources**

**Setting.** There are no public recreational resources being affected by the Proposed Action. The Property is located approximately 2,800 feet inland from the coastline, is not tied directly with the recreational resources of the coastal areas, and will not reduce the size of the coastline or other areas used for public recreational uses. Further, the

Property is located outside of the County of Hawaii Civil Defense Agency's evacuation area for hazards due to tsunami and possible surges from hurricanes.

*Impacts and Mitigation.* The Proposed Action is not anticipated to have any direct adverse impact on the shoreline resources, and will not reduce the size of the coastline or negatively impact other areas used for public recreational activities, and should not impact upon recreational resources. Alterations to the existing land forms should cause minimal adverse impact to the water resources, scenic and recreational amenities. There is no change that would affect the amount of wave energy striking the shoreline since the Property is located a significant distance from the coastline. The Proposed Action should not adversely impact upon coastal or high water hazards, since the Property is located outside of the County of Hawaii Civil Defense Agency's evacuation area. Overall, the Keauhou Resort does provide beneficial recreational opportunities, such as golf, boating, and beach activities that are available to its guests, visitors and Hawaii Island residents.

### **3.2 Socioeconomic Considerations**

The Proposed Action will provide temporary construction-related job opportunities for local residents and positively affect the economy through construction industry purchases from local suppliers. Property, income, excise and other taxes will be generated, resulting in an increase in State and County revenues which in turn can be used to provide needed public services and facilities. Further, a multiplier effect takes place when these employees spend their income for food, housing, and other living expenses in the retail sector of the economy. Such activities are in keeping with the overall economic development of the island. The Proposed Action will retain the overall Keauhou Resort master-planned concept and will provide new housing opportunities for residents in a well planned and secure neighborhood environment within a resort setting.

### **3.3 Public Facilities and Services**

#### **3.3.1 Access**

*Setting.* Primary access to the Project site will be via Kamehameha III Road, a County roadway that is channelized and has turning lanes and traffic lights. The Kamehameha III Road has a pavement width of 24 feet, with an 8-foot wide gravel and paved shoulders within a 100-foot wide right-of-way. The pavement width widens to approximately 36 feet at the traffic signal/existing private roadway intersection. Secondary access will be via an existing private roadway with a 20-foot wide pavement within a 50-foot wide right-of-way, and internal roadways. The private roadway also serves as the main access to the Keauhou Rehabilitation and Healthcare Center. In no event shall the Phase II, Land Area 10 and/or Land Area 10A take access to Kaluna Street through the adjacent Kaulana at Kona project.

*Impacts and Mitigation.* The Proposed Action is not anticipated to have an adverse impact since improvements to the Kamehameha III Road and the private roadway are completed. All roadways within the proposed development shall be constructed in a manner as required by the Planning Department in consultation with the Department of Public Works. The Applicant will work with the Department of Public Works on the issues of right-of-entry and slope construction easements.

### 3.3.2 Water Resources

*Setting.* The North Kona district receives most of its water from the four Kahaluu wells and the Kahaluu Shaft, located in the mauka lands above Kahaluu Bay. The Applicant has entered into the October 17, 1983 Water Commitment Agreement with the County to provide the necessary water commitments required for the proposed 16-unit multiple-family development on the Project site. The Project site will be connected to an existing 8-inch DWS water line along Kamehameha III Road.

*Impacts and Mitigation.* Available water units for the Proposed Action will adequately serve the Project site. The landscaping will consider native endemic, indigenous and Polynesian introduced species. Plant species being considered are pohinahina, 'akia, hinahina kukahakai, ma'o, naupaka kahakai, nehe, wililwili, 'ilima, a'ali'i and 'ulei.

### 3.3.3 Utilities

*Setting.*

Wastewater System. The Keauhou-Kona sewer system consists of gravity lines, force mains, pumping facilities and the Heeia Waste Water Treatment Plant (WWTP) near Heeia Bay, and is sufficient to handle the proposed Project. An existing 8-inch sanitary sewer force main connection to the Project site is located along Kamehameha III Road and is linked to the expanded Kahaluu Park pump station and the Kahaluu pump station, as well as the Heeia WWTP.

Solid Waste Disposal. The Project will be a source of solid waste, which will be collected by commercial haulers and disposed of at the Puuanahulu landfill. The Applicant is committed to reducing the overall project waste stream through on-site composting and reuse of green waste, and the encouragement of recycling efforts during the construction and operational phases of the Project. Solid waste would be collected and disposed of in compliance with all applicable Federal, State, and County laws, ordinances, rules and regulations.

Electrical Power, Telephone and Cable Service. Electrical power service would be provided by Hawaii Electric Light Company (HELCO). The power lines for the Proposed Action will connect with the existing lines which run along Kamehameha III Road and will meet HELCO's design and installation standards. Coordination with the

utility's engineers well in advance of development will ensure that the provisions of electrical power are integrated with planned utility system improvements in the area. Verizon Hawaii provides telephone and other telecommunication services to the Keauhou area.

*Impacts and Mitigation.* The expansion of the waste water facilities is adequate to handle the Proposed Action. In addition, because the Proposed Action will not cause a change in the manner of collection and disposal, and because there is ample capacity at the County landfill to accommodate the projected waste generated from the Proposed Action, no adverse impacts are expected relative to solid waste disposal. Utilities services are available to the Project site.

#### **3.3.4 Protective Services**

*Setting.*

The nearest available public health facility is the Kona Hospital, located in Kealahou, a secondary healthcare facility. Kona Hospital is intended to provide major secondary care for the North Kona district and serves as a major referral center and key support for shared services, emergency services, specialty care and long-term care.

Police protection is provided from its Kealahou station. Fire protection is provided from the Keauhou, Kailua-Kona and Kealahou stations. In addition, emergency medical and paramedical services are provided by the Hawaii County Fire Department.

*Impacts and Mitigation.* The existing fire, emergency medical and police protection services should adequately accommodate the increase in anticipated demand generated by the Proposed Action.

## CHAPTER 4

### RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES AND CONTROLS FOR THE AFFECTED AREA

#### 4.1 Chapter 205, Hawaii Revised Statutes, State Land Use Law

Under the State Land Use Law (Chapter 205, Hawaii Revised Statutes) all lands in the State are classified in one of four land use districts: Urban, Rural, Agricultural, or Conservation. The Property lies within the Urban District. The Proposed Action is a permitted use under this designation.

#### 4.2 Hawaii State Plan, Chapter 226, Hawaii Revised Statutes

The Hawaii State Plan, Chapter 226, HRS, consists of goals, objectives, policies and priority directions to guide the future long-range development of the State. The goals of the Hawaii State Plan and their relationship to the Proposed Action are as follows:

##### **State Goal**

*Section 226-4, HRS sets forth three components to this plan:*

- (1) To achieve a strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawaii's present and future generations;*
- (2) To achieve a desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people; and*
- (3) To achieve physical, social, and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring, and of participation in community life.*

**Discussion:** The Proposed Action would contribute to the attainment of the three goals in that the Proposed Action would expand the availability of residential products available to Hawaii residents and would contribute to the stability, diversity and growth of the local and regional economies. More specifically, the Proposed Action would provide housing opportunities in a planned setting wherein the design, operation, maintenance and provisions for environmental protection can be effectively, efficiently and economically controlled. By providing residential opportunities within a planned setting with nearby opportunities for employment, recreation and access to community services, the Proposed Action would encourage a sense of community responsibility and participation in family life.

## Objectives and policies for socio-cultural advancement -- housing

### Objective:

- The orderly development of residential areas sensitive to community needs and other land uses.

### Policies:

- *Effectively accommodate the housing needs of Hawaii's people.*
- *Increase home ownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.*
- *Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.*
- *Facilitate the use of available vacant, developable, and underutilized urban lands for housing.*

**Discussion:** The Hawaii State Plan, Socio-Cultural Advancement-Housing element encourages the orderly development of residential areas sensitive to community needs and other land uses, and the promotion of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas. The Proposed Action is anticipated to meet demands for retirement, second home, and vacation rental units, as well as primary and local housing units. The Proposed Action will allow for the expansion within the Keauhou Resort area and will help to meet the growing demand for multiple-family residential units in an orderly and cost-effective manner.

### 4.3 Hawaii County General Plan

The Hawaii County General Plan is the County's comprehensive land use policy for guiding long-range development on the Island of Hawaii. It specifies goals, policies, and standards of development for the most desirable land uses on the island, and includes the Land Use Pattern Allocation Guide ("LUPAG") Map which indicates the general location of designated land utilization. The LUPAG map designates the Project site as "Alternate Urban Expansion". The Urban Expansion Area allows for a mix of high density, medium density, low density, industrial and/or open designations in areas where new settlements may be desirable, but where the specific settlement pattern and mix of uses have not yet been determined. Within areas is defined as resorts, portions of the resort area may be included in the urban expansion area. The General Plan also identifies Keauhou-Kahaluu as a Major Resort Area. A Major Resort Area is a self-contained resort destination area which provides basic and support facilities for the needs of the entire development.

Under this designation, the Proposed Action is consistent with the Hawaii County General Plan LUPAG map. The Proposed Action is consistent with the goals, policies, standards and recommended courses of action of several functional areas or elements of the General Plan as follows:

## Economic

### Goals:

- *Provide residents with opportunities to improve their quality of life.*
- *Economic development and improvement shall be in balance with the physical and social environments of the island of Hawaii.*
- *The County of Hawaii shall strive for diversity and stability in its economic system.*
- *The County shall provide an economic environment which allows new, expanded, or improved economic opportunities that are compatible with the County's natural and social environment.*

### Policies:

- *The County of Hawaii shall strive for an economic climate which provides its residents an opportunity for choice of occupation.*
- *The County of Hawaii shall strive for diversification of its economy by strengthening existing industries and attracting new endeavors.*
- *The County shall promote a distinctive identity for the island of Hawaii to enable government, business and travel industries to promote the County of Hawaii as an entity separate and unique within the State of Hawaii.*

### Standard:

- *The island of Hawaii should be developed into a unique scientific and cultural model. The island should become a model of living where economic gains are in balance with social and physical amenities. Development should be reviewed on the basis of total impact on the residents of the County, not only in terms of immediate short run economic benefits.*

**Discussion:** The Proposed Action will provide temporary construction-related job opportunities for local residents and positively affect the economy through construction industry purchases from local suppliers. Property, income, excise and other taxes will be generated, resulting in an increase in State and County revenues which in turn can be used to provide needed public services and facilities. Further, a multiplier effect takes place when these employees spend their income for food, housing, and other living expenses in the retail sector of the economy. Such activities are in keeping with the overall economic development of the island. The Proposed Action will retain the overall Keauhou Resort master-planned concept and will provide new housing opportunities for residents in a well planned and secure neighborhood environment within a resort setting.

## Housing

### Goals:

- *Attain safe, sanitary, and livable housing for the residents of the County of Hawaii.*
- *Attain a diversity of socio-economic housing mix throughout the different parts of the County.*
- *Maintain a housing supply which allows a variety of choice.*
- *Develop better places to live in Hawaii County by creating viable communities with decent housing and suitable living environments for our people.*
- *Improve and maintain the quality and affordability of the existing housing stock.*
- *Seek sufficient production of new affordable rental and fee-simple housing in the County in a variety of sizes to satisfactorily accommodate the needs and desires of families and individuals.*
- *Ensure that housing is available to all persons regardless of age, sex, marital status, ethnic background, and income.*

### Policy:

- *The County shall encourage a volume of construction and rehabilitation of housing sufficient to meet growth needs and correct existing deficiencies.*

### Standard:

- *Standards of the single-family and multiple residential land use elements.*

### Course of Action:

- *Aid and encourage the development of a wide variety of housing for this area to attain a diversity of socio-economic housing mix.*

**Discussion:** The Proposed Action will implement the Housing element goals, policy and standards, as the Proposed Action is intended to supplement the existing inventory of residential units in Keauhou. This will allow the market to have a continued, as well as, diverse supply of quality resort multiple-family residential units. The Proposed Action will be constructed in accordance with the standards and requirements of the Department of Public Works and other applicable standards related to housing construction.

## Environmental Quality

### Goal:

- *Maintain and, if feasible, improve the existing environmental quality of the island.*

### Policies:

- *The County of Hawaii shall take positive action to further maintain the quality of the environment for residents both in the present and in the future.*
- *Minimum controls are established by the Federal and State governments; through its powers the County shall reinforce and strengthen established standards where it is*



*necessary, principally by initiating, recommending, and adopting ordinances pertaining to the control of pollutants which affect the environment.*

*Standards:*

- *Pollution shall be prevented, abated, and controlled at levels which will protect and preserve the public health and well-being, through the enforcement of appropriate Federal, State and County standards.*
- *Federal and State environmental regulations shall be adhered to.*

**Discussion:** An environmental quality policy of the Hawaii County General Plan is to maintain the quality of the environment for present and future residents. The proposed Action will not have a substantial adverse effect on the environment. It will not diminish the valuable archaeological and natural resources of the region. The Proposed Action will not result in any significant adverse effect on the environment. Mitigative measures would be employed to protect environmentally sensitive areas. In addition, those potential short-term adverse effects on the surrounding area associated with construction activities, such as potential noise, air quality, or drainage impacts, would be reduced or eliminated through the implementation of appropriate mitigative measures.

### **Historical Sites**

*Goals:*

- *Protect and enhance the sites, buildings and objects of significant historical and cultural importance to Hawaii.*
- *Access to significant historic sites, buildings and objects of public interest should be made available.*

*Policies:*

- *Agencies and organizations, either public or private, pursuing knowledge about historic sites should keep the public apprised of projects.*
- *The County of Hawaii shall require both public and private developers of land to provide a historical survey prior to the clearing or development of land when there are indications that the land under consideration has historical significance.*
- *Public access to significant historic sites and objects shall be acquired.*
- *The County of Hawaii shall encourage the restoration of significant sites on private lands.*
- *Signs explaining historic sites, buildings and objects shall be in keeping with the character of the area or the cultural aspects of the feature.*

**Discussion:** The Property is located within the Kahalu'u Historic District. A number of archaeological investigations and surveys have been conducted within the Project site and surrounding areas. The CRMP for the Keauhou Resort Area was prepared by PHRI in August, 1985 to comply with the archaeological/historic interpretative management plan requirement pursuant to Ordinance No. 820. Site 4624 which was recommended for preservation in the CRMP has been preserved in place as an archaeological

easement (A-1) on Hillhaven's Lot 3-A-1 (TMK: 7-8-10:91), with a minuscule portion located on the northern corner of the Property. Any buffers from Site 4624 within the Property to be recommended by SHPD will be adhered to.

### **Flood Control and Drainage:**

#### *Goals:*

- *Conserve scenic and natural resources.*
- *Protect human life.*
- *Prevent damage to man-made improvements.*
- *Control pollution.*
- *Prevent damage from inundation.*
- *Reduce surface water and sediment runoff.*

#### *Policies:*

- *All development-generated runoff shall be disposed of in a manner acceptable to the Department of Public Works.*
- *It is the responsibility of both the government and the private sector to maintain and improve existing drainage systems and to construct new drainage facilities.*
- *Applicable standards and regulations of Chapter 27, "Flood Control," of the Hawaii County Code.*
- *Applicable standards and regulations of the Federal Emergency Management Agency (FEMA).*
- *Applicable standards and regulations of Chapter 10, "Erosion and Sedimentation Control," of the Hawaii County Code.*

**Discussion:** The Property is not located within any flood way or flood plain. Surface water runoff and sedimentation will be minimized by methods in compliance with Chapter 10, Erosion and Sediment Control, and Chapter 11-15, Water Pollution Control, HAR. In addition, the Property is located in Zone X according to the Flood Insurance Rate Maps (FIRM) prepared by FEMA. Grading and landscaping will be designed to minimize need for fertilizers and maximize entrapment and containment of storm water runoff. If required, the Applicant will obtain a NPDES permit for the Proposed Action.

### **Natural Beauty:**

#### *Goals:*

- *Protect, preserve and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources.*
- *Protect scenic vistas and view planes from becoming obstructed.*
- *Maximize opportunities for present and future generations to appreciate and enjoy natural and scenic beauty.*

#### *Policy:*

- *Increase public pedestrian access opportunities to scenic places and vistas.*

**Discussion:** The scenic and natural beauty of Hawaii is recognized as an irreplaceable asset, which needs to be protected. A goal of the Hawaii County General Plan is to preserve the quality of coastal scenic resources and to protect scenic vistas and view planes from being obstructed. Scenic view planes toward the shoreline will not be obstructed by the Proposed Action. The Property is not listed in the County of Hawaii General Plan as an example of natural beauty in the North Kona District, and the Proposed Action will not adversely affect views to and along the shoreline due to the integration of the sloping property with 2- and 3-story maximum heights of the residential development.

### **Natural Resources and Shorelines:**

#### *Goals:*

- *Protect and conserve the natural resources of the County of Hawaii from undue exploitation, encroachment and damage.*
- *Provide opportunities for the public to fulfill recreational, economic, and educational needs without despoiling or endangering natural resources.*
- *Protect and promote the prudent use of Hawaii's unique, fragile, and significant environmental and natural resources.*
- *Ensure that alterations to existing land forms and vegetation, except crops, and construction of structures cause minimum adverse effect to water resources, and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation, or failure in the event of earthquake.*

#### *Policies:*

- *The County of Hawaii should require users of natural resources to conduct their activities in a manner that avoids or minimizes adverse effects on the environment.*
- *Encourage the use of native plants for screening and landscaping.*

**Discussion:** The Proposed Action is located approximately 2,800 feet inland from the shoreline and is not anticipated to have any direct adverse impact on the shoreline resources, will not reduce the size of the coastline or negatively impact other areas used for public recreational activities, and should not impact upon recreational resources. Overall, the Keauhou Resort does provide beneficial recreational opportunities, such as golf, boating, and beach activities that are available to its guests, visitors and Hawaii Island residents.

### **Public Utilities:**

#### *Goal:*

- *To have public utility facility which are designed to fit into their surroundings or concealed from public view.*

#### *Policy:*

- *All water systems shall be designed and built to Department of Water Supply standards.*

**Discussion:** All utilities to the Project site will be installed underground and constructed in accordance with State and County design standards and requirements. A private wastewater treatment system currently serves the Keauhou Resort area and has sufficient existing capacity to service the planned development.

### **Recreation:**

#### *Goals:*

- *Provide a wide variety of recreational opportunities for the residents and visitors of the County.*
- *Maintain the natural beauty of recreation areas.*
- *Provide a diversity of environments for active and passive pursuits.*

#### *Policy:*

- *Public access to the shoreline shall be provided in accordance with an adopted program of the County of Hawaii.*

**Discussion:** The Proposed Action does not contemplate significant recreational facilities. The Keauhou Resort, however, offers recreational opportunities such as golf, boating and beach activities that are available to its guests, visitors and Hawaii Island residents. All of the recreational facilities within Keauhou have been developed to maintain the natural beauty of the area. All new projects within the resort include, to some extent, opportunities for beach or shoreline accesses for public use.

### **Land Use - General:**

#### *Goal:*

- *Designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County.*

#### *Policies:*

- *Promote and encourage the rehabilitation and use of urban and rural areas which are serviced by basic community facilities and utilities.*
- *Allocate appropriate requested zoning in accordance with the existing or projected needs of neighborhood, community, region and County.*
- *The County shall encourage the development and maintenance of communities meeting the needs of its residents in balance with the physical and social environment.*

### **Land Use - Multiple Residential:**

#### *Goals:*

- *To provide for multiple residential developments that maximize convenience for its occupants.*
- *To provide for suitable living environments which accommodate the physical, social and economic needs of the island residents.*

#### *Standard:*

- *Provide adequate access to arterial streets, shopping facilities, schools, employment center and other services.*

**Discussion:** The Proposed Action is one of several residential projects that will help to supplement the existing inventory of apartments and house lots in Keauhou, thus providing a continued choice of residential units in the area. The Keauhou Resort is a major visitor destination area that has been carefully planned and programmed as a quality resort and residential community consisting of public and private services, shopping centers, and community facilities.

Under Section 25-5-30, Hawaii County Code, the Multiple-Family Residential (RM) district provides for medium and high density residential use. It includes areas with full community facilities and services.

#### 4.4 **Hawaii County Zoning Code**

The Hawaii County Zoning Map for the North Kona District designates the Project site as Multiple-Family Residential (RM-3.0). The Proposed Action is a permitted use within the RM designation pursuant to Section 25-5-303(a)(9), Hawaii County Code. The Proposed Action will conform to the requirements of the zone district relative to maximum allowable height, minimum yard setbacks, minimum off-street parking, and landscaping.

#### 4.5 **County Special Management Area**

The Property is located within the Special Management Area which is located along the makai boundary of the Kuakini Highway right-of-way, and is, therefore, subject to the Special Management Area (SMA) Rules and Regulations of the County of Hawaii.

Chapter 205A, HRS, is the Coastal Zone Management Act ("CZMA") for the State of Hawaii which seeks "to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawaii" by "maintaining, restoring, and enhancing the overall quality of the coastal zone environment . . . its amenities and aesthetic values, and to provide adequate public access to publicly owned or used beaches, recreation areas and national reserves" by controlling development within an area along the shoreline, the County SMA.

The following addresses the Proposed Action's relationship to the objectives and policies of Chapter 205A related to Coastal Zone Management and the SMA guidelines as contained within Rule 9 of the County of Hawaii Planning Commission Rules and Regulations.

**Recreational Resources:***Objective:*

- *Provide coastal recreational opportunities accessible to the public.*

*Policies:*

- *Improve coordination and funding of coastal recreational planning and management*
- *Provide adequate, accessible and diverse recreational opportunities in the coastal zone management area.*

**Discussion:** There are no public recreational resources being affected by the Proposed Action. The Property is located approximately 2,800 feet inland from the coastline, is not tied directly with the recreational resources of the coastal areas, and will not reduce the size of the coastline or other areas used for public recreational uses. Accordingly, the Proposed Action is consistent with the recreational resources objectives and policies in that the Proposed Action does not preclude recreational opportunities to the general public.

**Historic Resources:***Objective:*

- *Protect, preserve and, where desirable, restore those natural and man made historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*

*Policies:*

- *Identify and analyze significant archaeological resources.*
- *Maximize information retention through preservation of remains and artifacts or salvage operations.*
- *Support state goals for protection, restoration, interpretation and display of historic resources.*

**Discussion:** The Property is located within the Kahalu'u Historic District. A number of archaeological investigations and surveys have been conducted within the Project site and surrounding areas. The CRMP for the Keauhou Resort Area was prepared by PHRI in August, 1985 to comply with the archaeological/historic interpretative management plan requirement pursuant to Ordinance No. 820. Site 4624, which was recommended for preservation in the CRMP, has been preserved in place as an archaeological easement (A-1) on Hillhaven's Lot 3-A-1 (TMK: 7-8-10:91), with a minuscule portion located on the northern corner of the Property. Any buffers from Site 4624 within the Property to be recommended by SHPD will be adhered to.

### Scenic and Open Space Resources:

*Objective:*

- *Protect preserve and where desirable, restore or improve the quality of coastal scenic and open space resources.*

*Policies:*

- *Identify valued scenic resources in the coastal zone management area.*
- *Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural land forms and existing public views to and along the shoreline.*
- *Preserve, maintain and, where desirable, improve and restore shoreline open space and scenic resources.*
- *Encourage those developments which are not coastal dependent to locate in inland areas.*

**Discussion:** The Proposed Action is similar in character to the surrounding area and is not likely to result in any substantial adverse impact on the surrounding environment. Based on the reduced density and the siting of the three buildings, the view planes to and along the shoreline towards the Property will not be adversely impacted. Therefore, the Proposed Action is consistent with the policies of ensuring that new developments are compatible with their visual environment.

### Coastal Ecosystems:

*Objective:*

- *Protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems.*

*Policies:*

- *Improve the technical basis for natural resource management.*
- *Preserve valuable coastal ecosystems of significant biological or economic importance.*
- *Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs.*
- *Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibits land and water uses which violate state water quality standards.*

**Discussion:** There are no coastal ecosystems being affected by the Proposed Action as the Property is located approximately 2,800 feet inland from the shoreline. Accordingly, the Proposed Action is consistent with the coastal ecosystem objective and policies which aim to protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems.

There is no change that would affect the amount of wave energy striking the shoreline. The Proposed Action should not adversely impact upon coastal or high water hazards,

since the Property is located outside of the County of Hawaii Civil Defense Agency's evacuation area for hazards due to tsunami and possible surges from hurricanes. Therefore, the proposed subdivision is consistent with the coastal ecosystem objectives and policies which aim to protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems.

### **Economic Uses:**

#### *Objective:*

- *Provide public or private facilities and improvements important to the State's economy in suitable locations.*

#### *Policies:*

- *Concentrate in appropriate areas the location of coastal dependent development necessary to the State's economy.*
- *Ensure that coastal dependent development such as harbors and ports, visitor industry facilities, and energy generating facilities are located, designed, and constructed to minimize adverse social, visual and environmental impacts in the coastal zone management area.*

**Discussion:** The Proposed Action is not a coastal dependent development. The Proposed Action proposes private improvements that will be important to the State's economy as the Proposed Action is in a suitable location with the proper zoning, and is in conformance with State and County plans. Further, the Proposed Action will provide temporary economic benefits by supporting local construction industry and construction related employment opportunities, and long-term economic benefits by increasing the economic base on the island. The Proposed Action does not conflict with the economic uses, objectives and policies which recommend providing public or private facilities and improvements important to the State's economy in suitable locations.

### **Coastal Hazards:**

#### *Objective:*

- *Reduce hazards to life and property from tsunami, storm waves, stream flooding, erosion and subsidence.*

#### *Policies:*

- *Develop and communicate adequate information on storm wave, tsunami, flood, erosion and subsidence hazard.*
- *Ensure that developments comply with requirements of the Federal Flood Insurance Program.*
- *Prevent coastal flooding from inland projects.*

**Discussion:** The Property is located approximately 2,800 feet inland from the shoreline and is separated from the coastline by existing resort development and Alii Drive. Therefore, the Property is not subject to coastal hazards. In addition, the Flood



Insurance Rate Maps (FIRM) prepared by FEMA delineate the Property in Zone "X " or outside the 500-year flood plane. The Proposed Action would not create an increase in coastal flooding under normal rainfall conditions, and on-site drainage systems will be developed to completely contain and adequately dispose of development generated surface runoff. Accordingly, the proposed improvements are consistent with the coastal hazards objectives and policies which provide for the control of development in areas subject to tsunami, flood, erosion and subsistence hazards.

**Managing Development:***Objective:*

- *Improve the development review process, communication, and public participation in the management of coastal resources and hazards.*

*Policies:*

- *Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development.*
- *Facilitate timely processing of application for development permits and resolve overlapping or conflicting permit requirements.*
- *Communicate the potential short and long term-impacts of proposed significant coastal developments early in their life-cycle and in terms understandable to the general public to facilitate public participation in the planning and review process.*

**Discussion:** The Applicant will notify the surrounding property owners within 300 feet of the perimeter of the Property as required by Planning Commission Rule No. 9 (Special Management Area) public hearing notification requirements. The Applicant is required to serve a First Notice to the surrounding property owners of the Proposed Action at the time the Special Management Area Use Permit Application is submitted to the Planning Director. The First Notice informs the surrounding property owners of the opportunity to participate in the evaluation of the Applicant's request in the Special Management Area Use Permit Application. The public participation process also includes the Contested Case Hearing process. As such, the public's participation begins as soon as the Application is submitted to the Planning Department. The public is able to submit their comments and provide information to the Planning Director, prior to the scheduling of the Special Management Area Use Permit Application for a public hearing. This initial and the subsequent public notice and hearing process improves the development review process, communication, and public participation in the management of coastal resources and hazards.

**Public Participation:***Objective:*

- *Stimulate public awareness, education, and participation in coastal management.*

*Policies:*

- *Maintain a public advisory body to identify coastal management problems, and to provide policy advice and assistance to the coastal management program.*
- *Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal-related issues, developments, and government activities.*

**Discussion:** The County of Hawaii Planning Commission must hold a public hearing on the Applicant's Special Management Area Use Permit Application. At the public hearing, the public is free to participate in this open hearing forum and to provide their comments to the Planning Commission. The Planning Commission public hearing and if required, the Contested Case Process, provides the vehicle for stimulating public awareness, education of this process and more importantly, participation in the coastal management decision making.

**Beach Protection:***Objective:*

- *Protect beaches for public use and recreation.*

*Policies:*

- *Locate new structures inland from the shoreline setback to conserve open space and to minimize loss of improvements due to erosion.*
- *Prohibit construction of private erosion structures seaward of the shoreline; except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities.*
- *Minimize the construction of public erosion-protection structures seaward of the shoreline.*

**Discussion:** The Property is located approximately 2,800 feet inland from the shoreline and will not cause any erosion activities and/or interfere with existing recreational and shoreline-dependent activities. Therefore, the Proposed Action will not affect any public beaches nor adversely affect public use and recreation of the shoreline in this area.

**Marine Resources:***Objective:*

- *Implement the State's ocean resources management plan.*

*Policies:*

- *Exercise an overall conservation ethic, and practice stewardship in the protection, use and development of marine and coastal resources.*
- *Assure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial.*
- *Coordinate the management of marine and coastal resources and activities management to improve effectiveness and efficiency.*
- *Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone.*
- *Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources.*
- *Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.*

**Discussion:** The Property is located approximately 2,800 feet inland from the shoreline and there will be no structures near the shoreline which would affect any use and development of marine and coastal resources.

#### 4.6 Special Management Area Guidelines

The Proposed Action is consistent with the County of Hawaii Special Management Area (SMA) guidelines pursuant to Hawaii Revised Statutes, Chapter 205A-26, as amended.

- (1) *All development in the special management area shall be subject to reasonable terms and conditions set by the Authority in order to ensure:*
  - (A) *Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles;*
  - (B) *Adequate and properly located public recreation areas and wildlife preserves are reserved;*
  - (C) *Provisions are made for solid and liquid waste treatment, disposition, and management which will minimize adverse effects upon Special Management Area resources; and*
  - (D) *Alterations to existing land forms and vegetation, except crops and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, wind damage, storm surge, landslides, erosion, siltation, or failure in the event of earthquake*

**Discussion:** The Proposed Action will not reduce the size of the coastline or other areas used for public recreational activities, and should not impact upon recreational resources, since mauka-makai public shoreline access is available to the shoreline, which is coordinated with existing Keauhou Resort development makai of Alii Drive.

The Keauhou-Kona sewer system consists of gravity lines, force mains, pumping facilities and the Heeia Waste Water Treatment Plant (WWTP) near Heeia Bay that is sufficient to handle the Proposed Action. The existing sewer connection for the Project site is at Alii Drive and is linked to the expanded Kahaluu Park pump station and the Kahaluu pump station, as well as the Heeia WWTP. The expansion of these facilities is adequate to handle the Proposed Action.

The siting of the buildings will be configured and engineered to minimize altering of terrain, so as not to increase any potential flood hazards within the Project site or divert runoff to other properties. Furthermore, the view planes to and along the shoreline towards the Property will not be adversely impacted as the lands in the immediate area are developed with existing resort and multiple family residential development. The Proposed Action will also conform to the Uniform Building, Plumbing and Electrical Codes. Based on these requirements, the Proposed Action shall cause minimal or no adverse effect to water resources, and scenic and recreational amenities. The Proposed Action will pose a minimal danger of floods, wind damage, storm surge, landslides, erosion, siltation, or failure in the event of earthquake.

- (2) *No development shall be approved unless the Authority or the Director has first found:*
- (A) *The development will not have any substantial adverse environmental or ecological effect, except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, or compelling public interest. Such adverse effect shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect and the elimination of planning options;*
  - (B) *The development is consistent with the objectives and policies and Special Management Area guidelines of this chapter and any guidelines enacted by the legislature; and*
  - (C) *The development is consistent with the General Plan, zoning and subdivision codes, and other applicable ordinances.*

**Discussion:** The Proposed Action will not have any substantial adverse environmental or ecological effect, and mitigating measures will be employed, wherever possible, to reduce or lessen any adverse environmental impacts as described in this environmental report. There are also compelling public interest factors that would be supported by the Proposed Action. The Proposed Action does not involve the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect, and it does not significantly curtail other planning options, especially with regard to coastal resources.

The Proposed Action is consistent with the public policies of the County of Hawaii, including the Hawaii County General Plan, Kona Regional Plan and West Hawaii

Regional Plan, and objectives and policies as provided by Chapter 205A, Hawaii Revised Statutes. The Proposed Action will not interfere with any existing or planned public accesses to the shoreline. Provisions will be made in accordance with the State and County rules and regulations for solid and liquid waste treatment and disposition. Water resources, scenic and recreational resources will not be adversely impacted.

There is adequate access from the Project site to recreation areas within the area. There are adequate and properly located public recreation areas relative to the subject Property. Wildlife preserves will not be affected by the Proposed Action. There are adequate provisions for solid and liquid waste treatment, disposition, and management for the Proposed Action that will minimize adverse effects upon Special Management Area resources. Alterations to existing land forms and vegetation will have no measurable effect on water resources and scenic and recreational amenities; the Property is not located in any area prone to flooding, landslides, erosion, siltation or failure in the event of an earthquake and thus, will not increase the danger or risk to human life. Erosion and siltation will be dealt with by erosion control and other mitigating measures approved by the Department of Public Works of the County of Hawaii. Adverse environmental or ecological impacts will be minimized to the extent practicable, as discussed in this environmental report. The Applicant will comply with the requirements of the Zoning and Subdivision Codes relative to the Proposed Action. The Proposed Action will comply with the County of Hawaii's Uniform Building, Plumbing and Electrical Codes. The Proposed Action is also consistent with the goals, policies and standards of the General Plan, as detailed above.

- (3) *The Authority shall seek to minimize, where reasonable:*
- (A) *Dredging, filling or otherwise altering any bay, estuaries, salt marsh, river mouth, slough, or lagoon;*
  - (B) *Any development which would reduce the size of any beach or other area usable for public recreation;*
  - (C) *Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the Special Management Area and the mean high tide line where there is no beach;*
  - (D) *Any development which would substantially interfere with or detract from the line of sight toward the sea from the State Highway nearest the coast; and*
  - (E) *Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.*

**Discussion:** The Proposed Action does not involve any dredging, filling, or other alteration of any bay, estuary, salt marsh, river mouth, slough or lagoon, and will not

involve any development that would reduce the size of any beach or other area usable for public recreation. The Proposed Action does not involve any development that would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, and portions of rivers and streams within the Special Management Area, and the mean high tide line where there is no beach. The Proposed Action does not involve any development that would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast or from other scenic areas identified in the County General Plan. The Proposed Action does not involve any development that would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, estuaries sanctuaries, potential or existing agricultural uses of land.

#### 4.7 Chapter 343, HRS, Environmental Impact Statement Regulations

The Property is located within the Kahaluu Historic District (SIHP 50-10-37-4150; a district with multiple sites) which was included in the National Register of Historic Places (NRHP) on December 27, 1974. The Historic District was placed on the NRHP because of the following: (1) the numerous heiau in the area, (2) the unique architecture of several of the heiau, (3) the intrinsic value of petroglyphs in the area (including that of Keeku Heiau), and (4) the district's association with important traditional political and religious activities. The Kahaluu Historic District was removed from the State Register in March, 1980 due to insufficient notice requirements to private landowners that their properties were nominated for inclusion into the State Register.

Pursuant to Section 343-5(a)(4), HRS, an environmental assessment shall be required for actions which "propose any use within any historic site as designated in the National Register or Hawaii Register as provided for in the Historic Preservation Act of 1966, Public Law 89-665, or chapter 6E. "Historic Sites" are those sites where an important event or activity transpired, or where a person of note is identified with the entire landscape ensemble (1993 Haw. Sess. Laws, Act 156, . . . 1 and 2, effective July 1, 1993). An example of historic sites in this context would be the imprisonment of Queen Liliuokalani at Iolani Palace.

Applicant has further obtained verbal confirmation from the Department of Land and Natural Resources, State Historic Preservation Division (SHPD), that a proposed use within the Historic District may not require the preparation of an environmental assessment, so long as adequate measures are taken to preserve and protect the historic sites in the vicinity of the Project site. The CRMP for the Keauhou Resort Area was prepared by PHRI in August, 1985 to comply with the archaeological/historic interpretative management plan requirement pursuant to Ordinance No. 820. Site 4624 which was recommended for preservation in the CRMP has been preserved in place as an archaeological easement (A-1) on Hillhaven's Lot 3-A-1 (TMK: 7-8-10:91), with a minuscule portion located on the northern corner of the Property. Any buffers from Site 4624 within the Property to be recommended by SHPD will be adhered to.

This environmental assessment has been prepared to fulfill these requirements.

#### **4.8 Kona Regional Plan**

The objectives of the Kona Regional Plan are to provide current socio-economic assumptions (updating those in the General Plan); to delineate areas of urban use and the pattern and relationship of such uses to other uses, such as open space and agriculture; and to provide an implementation strategy for directing the expenditure of public funds for capital improvements, and for coordinating priorities for urban growth.

The draft Kona Regional Plan, initially adopted in July 1982, was revised in 1983. The County Planning Commission adopted the plan on April 10, 1984. Planned land uses presented in the Kona Regional Plan are shown on the Conceptual Land Use (CLU) Map. The Property is designated for transient residential use. Surrounding land uses shown on the CLU Map include: Open, Residential and Village Commercial. The Proposed Action is consistent with the land use designated on the CLU Map for the Property, and is compatible with surrounding designated uses.

#### **4.9 West Hawaii Regional Plan**

The West Hawaii Regional Plan prepared by the Office of State Planning dated November 1989, addresses critical issues of State concern in North Kohala, South Kohala, and North Kona. Relevant issues as it relates to the proposed Project include the location, development, preservation, management, provision, utilization, and promotion of resort areas, new residential communities, outdoor recreation and open space, public infrastructure and special resource areas. The Plan is intended to complement the County's General Plan and Community Development Plans through the use of Special Resource Areas.

Special Resource areas include heritage or cultural resource areas. The Plan cites the need to more comprehensively inventory historical sites, to manage areas of cultural importance, to enhance and promote an appreciation of Hawaii's cultural heritage, and to enhance interpretation of sites within a regional context to provide cultural continuity and a quality visitor industry.

The Property is located within the Kahalu'u Historic District. A number of archaeological investigations and surveys have been conducted within the Project site and surrounding areas. The CRMP for the Keauhou Resort Area was prepared by PHRI in August, 1985 to comply with the archaeological/historic interpretative management plan requirement pursuant to Ordinance No. 820. Site 4624 which was recommended for preservation in the CRMP has been preserved in place as an archaeological easement (A-1) on Hillhaven's Lot 3-A-1 (TMK: 7-8-10:91), with a minuscule portion located on the northern corner of the Property. The Applicant will ensure coordination and communication with the Department of Land and Natural Resources, SHPD to



provide the most appropriate protection of Site 4624. Any buffers from Site 4624 within the Property to be recommended by SHPD will be adhered to.



## CHAPTER 5

### IDENTIFICATION OF MAJOR IMPACTS AND ALTERNATIVES CONSIDERED

#### 5.1 Major Impacts

**Impact:** Visual impact of residential development from Kamehameha III Road

**Mitigation:** The visual character of the area will change, but not in a negative manner. The existing scrub vegetation will be replaced with a residential landscape. Buildings will be low rise and will not significantly obstruct views from major roadways. The Applicant proposes implementation of project design and construction guidelines aimed at achieving visual cohesion with the Proposed Action, and visual compatibility with the surrounding environment.

**Impact:** The potential effects of sedimentation on coastal waters during construction.

**Mitigation:** The Property is located approximately 2,800 feet inland from the shoreline. However, during the construction phase, use of temporary settlement basins, filter berms, erosion control measures, and erosion barriers will minimize erosion potential and surface runoff. Approval of sedimentation and erosion control plans will be required prior to construction.

**Impact:** The Proposed Action will increase traffic at build out.

**Mitigation:** Applicant will implement the necessary roadway improvements in conjunction with development phasing to offset project related impacts.

**Impact:** Potential loss of historical, archaeological and cultural sites.

**Mitigation:** The significance of archaeological sites on the Property has been determined. The CRMP for the Keauhou Resort Area was prepared by PHRI in August, 1985 to comply with the archaeological/historic interpretative management plan requirement pursuant to Ordinance No. 820. Site 4624 which was recommended for preservation in the CRMP has been preserved in place as an archaeological easement (A-1) on Hillhaven's Lot 3-A-1 (TMK: 7-8-10:91), with a minuscule portion located on the northern corner of the Property. The Applicant will ensure coordination and communication with the Department of Land and Natural Resources, SHPD to provide the most appropriate protection of Site 4624. Any buffers from Site 4624 within the Property to be recommended by SHPD will be adhered to.

#### 5.2 Alternatives to the Proposed Action

"No Action" Alternative. The "no action" alternative would retain the Property in its present use. This alternative would deny the community the potential public benefits associated with the development proposal by providing housing to meet projected housing demands, planned in concert with long-term community plans, and for efficient integration of existing infrastructure with the present system to more efficiently accommodate existing and future needs of the community.

Higher and Lower Density Alternatives. Although the proposed site might be suitable for alternate uses permitted under the zoning, its location, topography and surrounding residential character heavily favor development of the Proposed Action. The alternative to the Proposed Action would not be in keeping with the County General Plan LUPAG map designation of Alternate Urban Expansion and the Kona Regional Plan CLU Map of transient residential designation. Residential sales within the Keauhou Resort have been relatively strong due in large part to the well-planned resort-residential community environment, the range and quality of residential products being offered, and the wealth of nearby commercial and recreational amenities. The Proposed Action is anticipated to meet demands for retirement, second home, and vacation rental units, as well as primary and local housing units. The Proposed Action will allow for the expansion within the Keauhou Resort area and will help to meet the growing demand for multiple-family residential units in an orderly and cost-effective manner. Under the Proposed Action, the density has been reduced from the maximum allowed of 53 to 16 units. The further scale-down would not represent an efficient use of existing infrastructure and services. Similarly, the higher density alternative would not allow for as sensitive a design in relation to the existing character of the site and sensitive treatment and preservation of views.

## **CHAPTER 6**

### **WRITTEN COMMENTS AND RESPONSES DURING PUBLIC REVIEW PERIOD**

Agency comments on the Draft Environmental Assessment were received from the Office of Hawaiian Affairs, DLNR-Commission on Water Resource Management, DLNR-Land Division, DLNR-Division of Forestry and Wildlife, DLNR-Engineering Division, County of Hawaii Department of Parks & Recreation and County of Hawaii Department of Public Works (Exhibit 7, agency comments and Applicant's responsive letters).

## CHAPTER 7

### AGENCY ANTICIPATED DETERMINATION AND FINDINGS AND REASONS SUPPORTING ANTICIPATED DETERMINATION

Based on the information described herein, the Proposed Action will not result in significant social, economic, cultural or environmental impacts. Consequently, a Finding of No Significant Impact ("FONSI") is anticipated, subject to the public review provisions of Section 11-200-9.1, HAR.

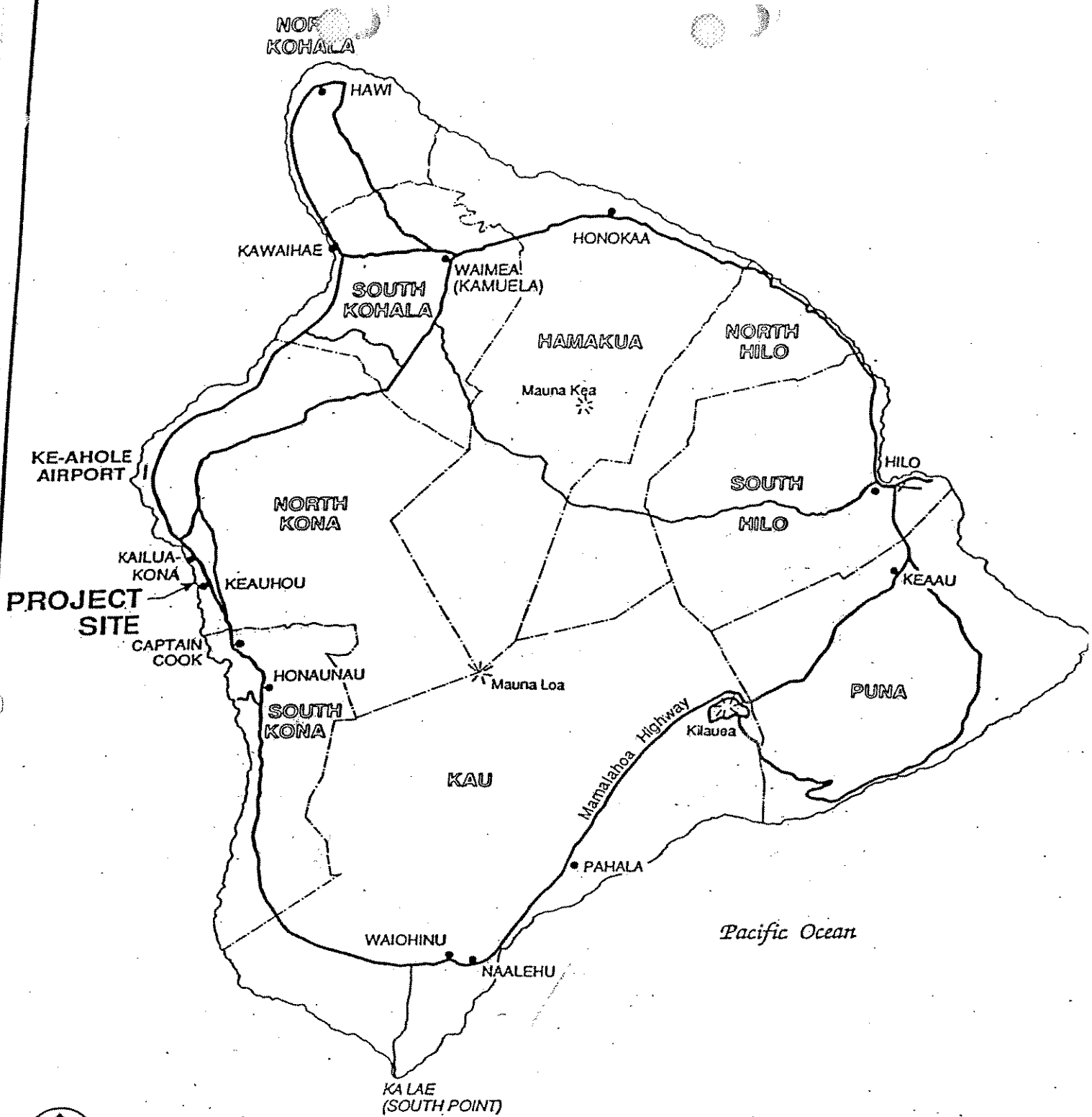
In considering the significance of potential environmental effects, the Applicant has considered the sum of effects on the quality of the environment and evaluated the overall cumulative effects of the proposed action. The Applicant has considered the expected consequences, both primary and secondary, and the cumulative, as well as, the short- and long-term effects of the Proposed Action.

As a result of these considerations, the Applicant has determined that the approval of the Proposed Action:

1. Will not involve a loss or destruction of any significant natural or cultural resources. Based upon the Cultural Resource Management Plan, Site 4624 which was recommended for preservation, has been preserved in place as an archaeological easement (A-1) on Hillhaven's Lot 3-A-1 (TMK: 7-8-10:91), with a minuscule portion located on the northern corner of the Property. The Applicant will ensure coordination and communication with SHPD to provide the most appropriate protection of Site 4624. In addition, preconsultation by the Applicant with the Keauhou Cultural Advisory Committee and Keauhou Outreach Group revealed no additional native Hawaiian resources on the Property;
2. The beneficial uses of the environment for recreational and access purposes will not be curtailed since the Proposed Action is consistent with providing beneficial recreational opportunities, such as beach parks and public shoreline accesses for the general public;
3. The preparation of the environmental assessment is in compliance with Chapter 344, HRS, and the proposed action does not conflict with the short or long term policies, goals and guidelines of Chapter 343, HRS;
4. The economic or social welfare of the community will be positively affected from the creation of construction related jobs;
5. Public health will not be affected since mitigative measures would be employed to protect environmentally sensitive areas;

6. The Proposed Action will not cause substantial secondary impacts, nor adversely affect population changes on public facilities access and utility services which are available to the Project site;
7. The Proposed Action does not involve a substantial degradation of environmental quality as the proposed improvements do not compromise the character of the Property and surrounding area, but will improve the resources of the land by maintaining and preserving cultural sites through proper management;
8. The Property will remain consistent in character and size with other developed property in the area, and will neither conflict with or intensify existing land uses, nor burden existing area resources and available public services, and therefore does not have a cumulative effect upon the environment or involve a commitment for larger action;
9. There are no known rare, threatened, or endangered plant or animal species or habitats on the Property or immediate vicinity;
10. The Proposed Action will not detrimentally affect air or water quality or ambient noise levels since the air quality in the area is largely affected by air pollutants from vehicular rather than natural sources, does not involve any direct or chemical modifications to the nearshore environment nor change the amount of wave energy striking the shoreline, and any minor short-term increase in noise level during development will be confined to normal daylight hours;
11. The Proposed Action does not substantially affect environmentally sensitive areas such as flood plains, tsunami zone, erosion-prone areas, and geologically hazardous land;
12. The Proposed Action is consistent with the character and size of other developed parcels in the area, does not substantially impact upon the scenic vistas and viewplanes of surrounding properties, and will enhance the scenic and open space resources of the Project site; and
13. No energy consumption will be required for the Proposed Action.

Based on these findings, the Proposed Action will not result in significant environmental impacts and will not require preparation of an EIS in accordance with Chapter 343, HRS.



NORTH



SCALE IN MILES

FIGURE 2-1  
**ISLAND OF HAWAII**  
 KONA BEACH RESORT  
 Keauhou, Hawaii

Prepared by: BELT COLLINS & ASSOCIATES

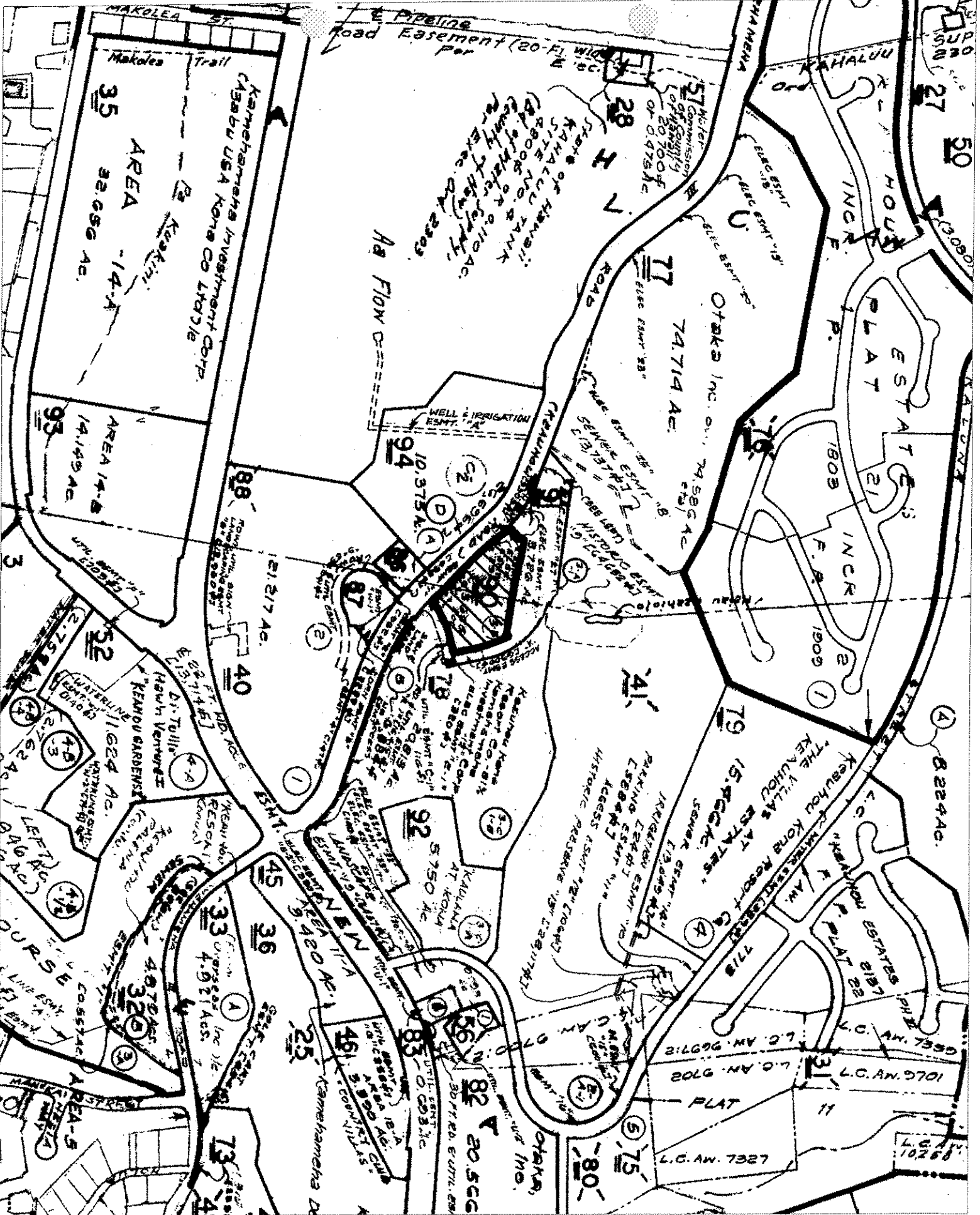


FIGURE 2

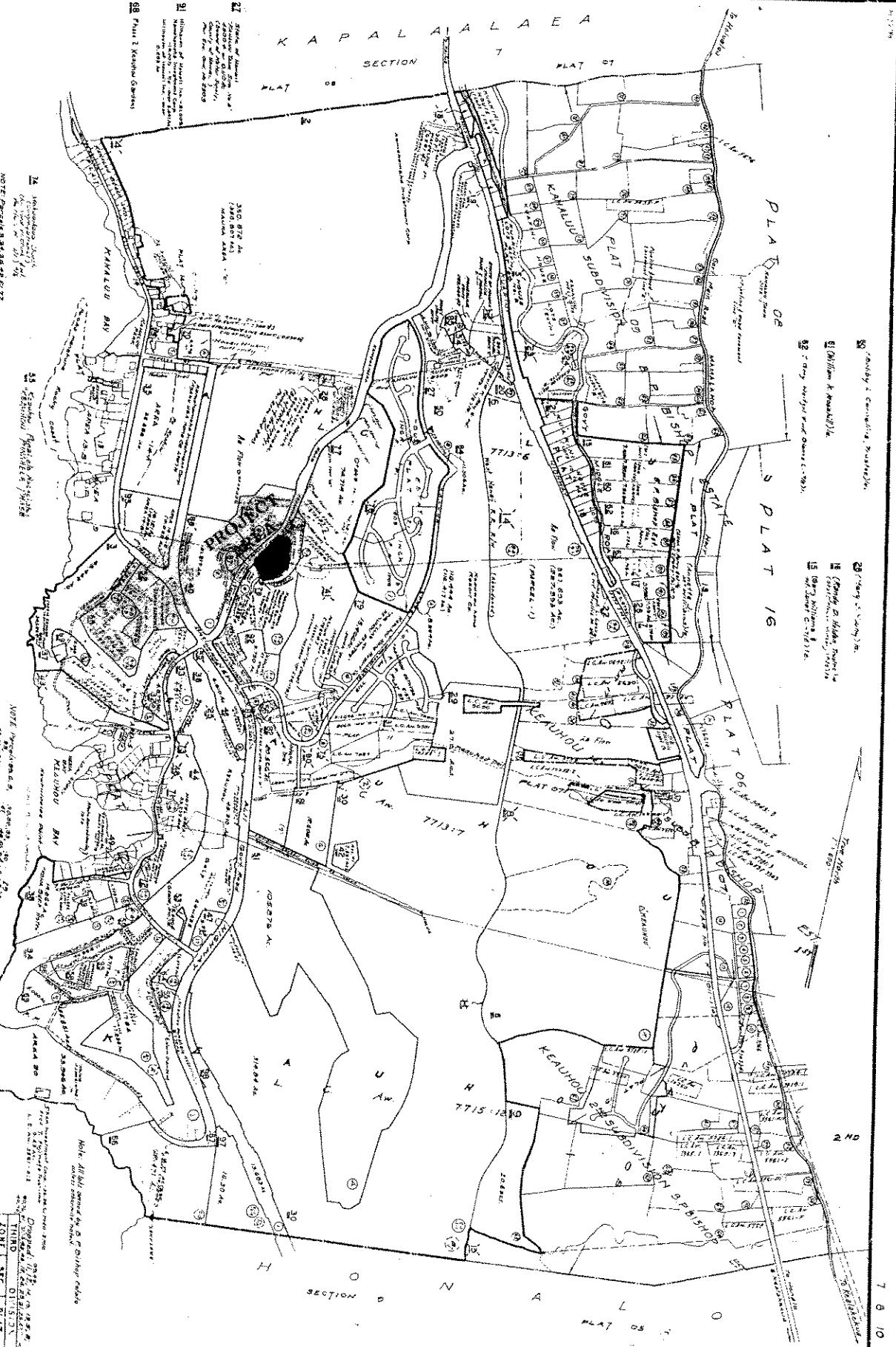
Orig. No. 1171  
 Date Dec. 19 1907  
 Source B.P. Bishop Estate Maps

KAHALOU - KEAUNOHU INT. NORTH KOHA HAWAII

NOTE: Original map of this tract was owned by George W. Bishop and is now owned by the Bishop Estate.

NOTE: Original map of this tract was owned by George W. Bishop and is now owned by the Bishop Estate.

THIS SHEET CONTAINS PARCELS 7 8 10



- 28 (Henry S. Young) Sr.
- 29 (George B. Miles, Trustee)
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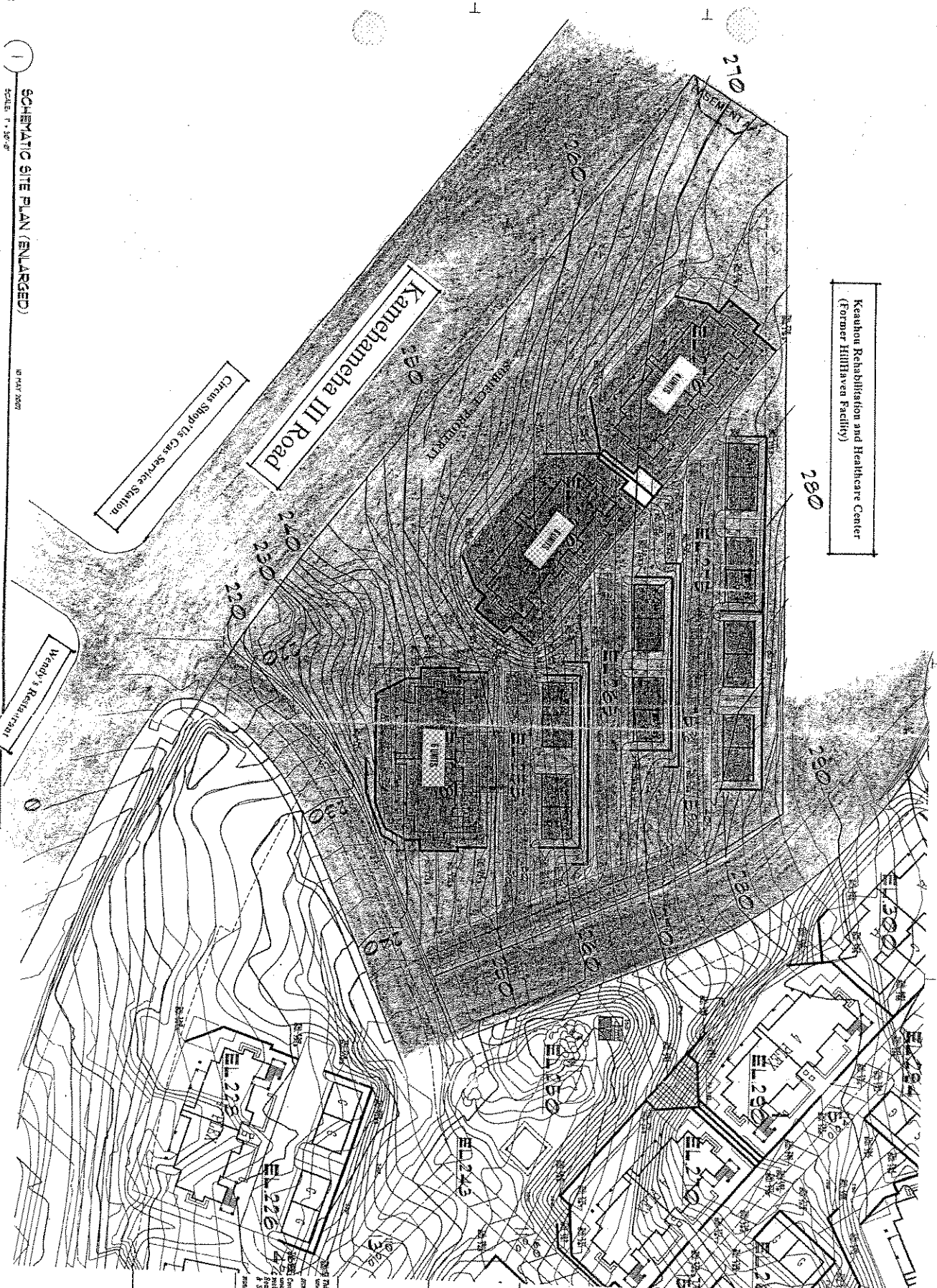
PRINTED BY...



1 SCHEMATIC SITE PLAN (ENLARGED)

DATE: 20 MAY 2002

SCALE: 1" = 30'-0"



Koaheou Rehabilitation and Healthcare Center  
(Former Hillhaven Facility)

ISSUE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_

FIGURE 3

PROJECT:

OWNER:

**DINMORE-GISCO LABER**  
INTERNATIONAL, INC.  
ARCHITECTS  
1000 KALANANĀ'ĀHE  
ROAD, SUITE 200  
HONOLULU, HAWAII 96813  
TEL: (808) 528-3100  
FAX: (808) 528-1188

**PICNIC ATTILIER**  
INTERNATIONAL, INC.  
ARCHITECTS & PLANNING  
1000 KALANANĀ'ĀHE  
ROAD, SUITE 200  
HONOLULU, HAWAII 96813  
TEL: (808) 528-3100  
FAX: (808) 528-1188

This work was prepared by me or under my supervision.  
I am a duly Licensed Professional Engineer in the State of Hawaii.  
I am duly Licensed Professional Architect in the State of Hawaii.  
I am duly Licensed Professional Planner in the State of Hawaii.  
I am duly Licensed Professional Surveyor in the State of Hawaii.  
I am duly Licensed Professional Geologist in the State of Hawaii.  
I am duly Licensed Professional Environmental Engineer in the State of Hawaii.  
I am duly Licensed Professional Environmental Scientist in the State of Hawaii.  
I am duly Licensed Professional Environmental Planner in the State of Hawaii.  
I am duly Licensed Professional Environmental Scientist in the State of Hawaii.  
I am duly Licensed Professional Environmental Planner in the State of Hawaii.

CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY SUPERVISION AS SET FORTH IN THE CONTRACT DOCUMENTS. I AM A DULY LICENSED PROFESSIONAL ARCHITECT IN THE STATE OF HAWAII.

SHEET TITLE:  
FIGURE 3

SHEET NUMBER:  
A2

DATE: 20 MAY 2002

Keauhou Sands

Feb. 2003

Pinnac Media Fire

FRONT ELEVATION

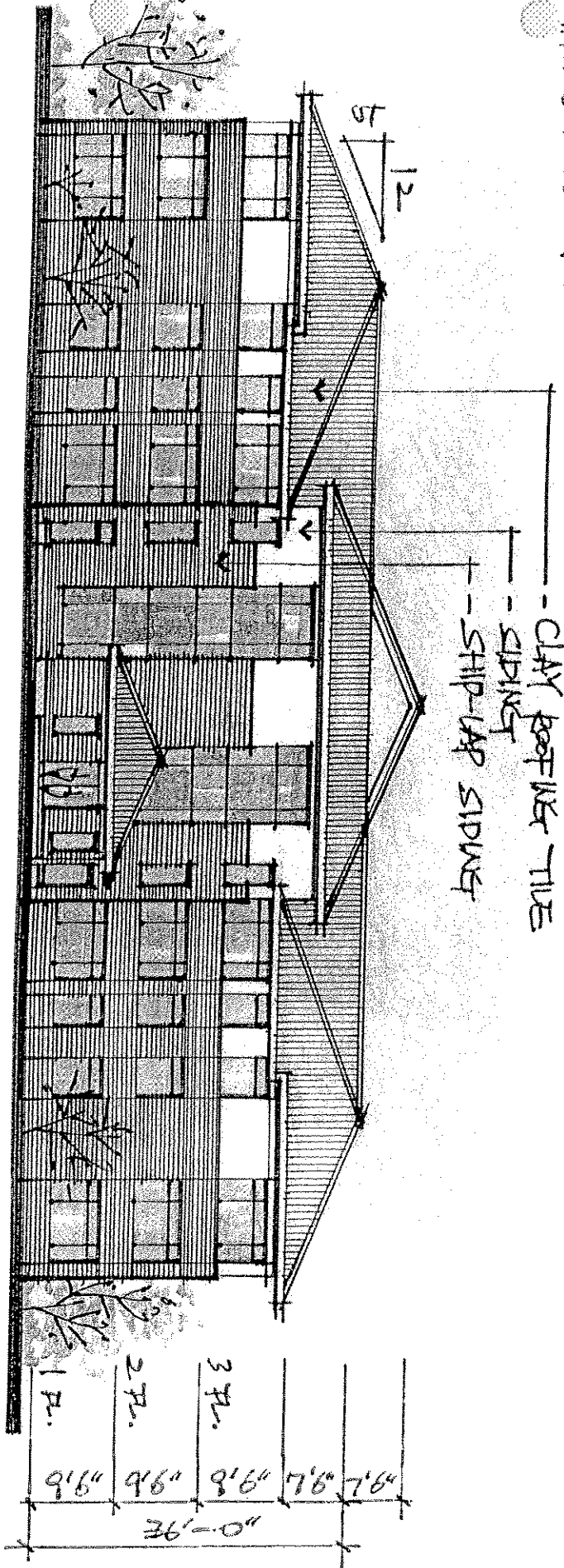
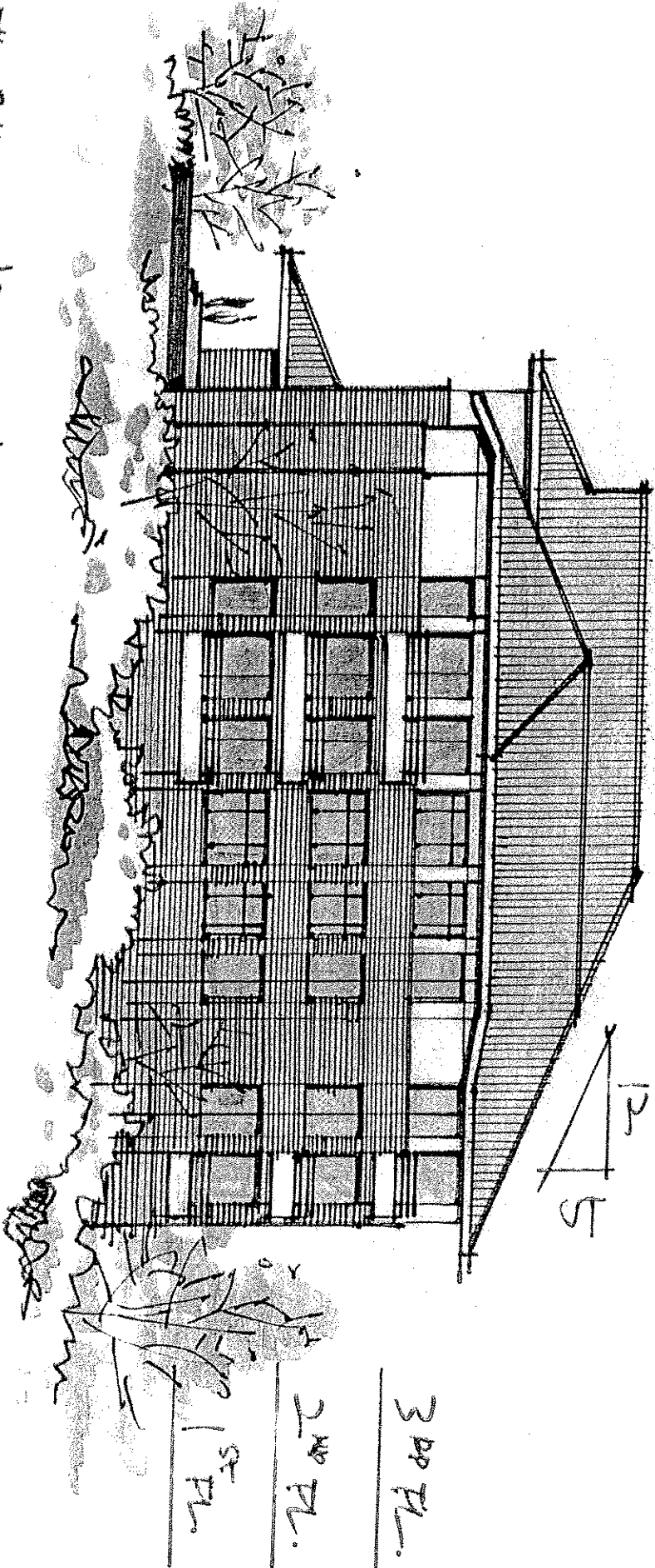


FIGURE 4

Kenulpu Sando  
Feb. 2003  
Dumant Media Five



RIGHT-SIDE ELEVATION

Certification of Property  
THE HAWAII REGISTER OF HISTORIC PLACES

Submitted to the Hawaii Foundation for History and the Humanities, Historic  
Places Review Board on July 14, 1972  
(date)

(10-37-4150)  
Kahalu'u Historic District is hereby placed on the Hawaii Register  
(name)  
of Historic Places and found to be in local significance  
Available - National Register  
(category)

William K. Hibino  
Archaeologist

John H. Mott  
Architect

T. Jackson  
Historian

Richard Paglinawan

Bernard L. ...

March 19, 1973  
(date)

Transmitted by the Trustees, Hawaii Foundation for History and the  
Humanities at their meeting on March 20, 1973 to the State  
(date)  
Liaison Officer.

Samuel H. ...  
Chairman, Board of Trustees  
Hawaii Foundation for History and  
the Humanities

COVER SHEET

HAWAII REGISTER OF HISTORIC PLACES

50 - 10 - 37 - 4150

SITE NAME/TYPE KAHALU'U Historic District

DISTRICT NORTH KONA

SITE IDENTIFICATION NUMBER

AREA \_\_\_\_\_ square \_\_\_\_\_ s

2 1 PRE-1778  
TO 11 DATE/PERIOD

CATEGORY Single Feature  Complex  Place

OWNERSHIP Public  Private

PRESENT LAND USE(S) URBAN, PARK, GRAZING KNOWN PRESSURES ON SITE URBAN development, highways

DESTRUCTION:  No Known Future Danger  Possible Future Danger  Future Danger Certain  Present Danger  Presently Being Destroyed

STATUS  Occupied  Unoccupied CONDITION Excellent  Good  Fair  Deteriorated

INTEGRITY  Unaltered, Orig Loc  Unaltered, Moved  Altered, Orig Loc  Altered, Moved

ACCESSIBILITY  Unrestricted  Restricted  Inaccessible

LEGENDARY MATERIALS KNOWN  Yes  NO WRITTEN HISTORICAL MATERIALS  Yes  No

SUSCEPTIBILITY TO INTERPRETATION  Good  Moderate  Poor

IMPORTANCE AS EXAMPLE OF TYPE SITE  Good  Moderate  Poor

RESEARCH POTENTIAL  Good  Moderate  Poor

LOCAL ATTITUDES ABOUT SITE  Valuable  Moderate Value  Low Value  Ambivalent  Unknown

BRIEF DESCRIPTION OF SITE (Columns 21-80)  
Complex of ten heiau, Petroglyphs, habitations, fields, etc.

STAFF EVALUATION High Value  Valuable  Reserve  Marginal

SUGGESTED THEME(S) Hawaiian site Religion, Agriculture, Settlement patterns, Recreation, Vestiges of Past

DATE SUBMITTED TO REVIEW BOARD JUL 14 1972

REVIEWER'S RECORD AND EVALUATION

NAME \_\_\_\_\_ Date Reviewed \_\_\_\_\_

CATEGORY High Value  Valuable  Reserve  Marginal

SIGNIFICANCE National  State  Local

RECOMMENDED DISPOSITION  Nominate National Register  State Register  Staff Files

RECOMMENDED THEMES:  
REVIEWER'S COMMENTS:

REVIEW BOARD EVALUATION RECORD

DATE REVIEWED 3/19/73 RECORDER \_\_\_\_\_

OFFICIAL CATEGORY High Value  Valuable  Reserve  Marginal

OFFICIAL SIGNIFICANCE National  State  Local

OFFICIAL THEMES Hawaiian site Religion, agriculture, settlement patterns, Recreation

OFFICIAL DISPOSITION  National Register Nomination  State Register  Staff Files Kofo

REVIEW BOARD COMMENTS:

VOTING RECORD: Cliver \_\_\_\_\_ Daws \_\_\_\_\_ Hormann \_\_\_\_\_ Jackson \_\_\_\_\_  
Kikuchi \_\_\_\_\_ Lind \_\_\_\_\_ Nagata \_\_\_\_\_ Paglinawan \_\_\_\_\_  
Poche \_\_\_\_\_ Tuggle \_\_\_\_\_



HAWAII REGISTER OF HISTORIC PLACES  
ARCHAEOLOGICAL FORMS

FORM 01: FIELD SURVEY

12  
4 CORNER

2 N. / E.  
13 14 15 16 17 18 / 19 20 21 22 23  
SINGLE POINT COORDINATE LOCATION

17 26 27 28 29 30 31 01 18  
4 25 LOC FACTOR AREA SQUARE CATEGORY SIG 1 SIG 2

3 1 TSN 01 07 72  
6 37 38 39 40 41 42 43 44 45 46 47 48 49  
ESTR LAND CLASS PHOTOS INITIALS INSTITUTION MONTH YEAR

HISTORICAL OR COMMON NAME: KAHALU'U HIST DIST  
50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67

<u>68 69 70 71 72 73 74 75 76 77</u> FEATURE CLASSIFICATION CODE	<u>78</u> COND	<u>79</u> INTG	<u>80</u> PERIOD
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FORM 11: FOUR CORNER LOCATION

CORNER: 12 13 2 N. / E.  
14 15 16 17 / 18 19 / 20 21 22 / 23 24

CORNER: 25 26 2 N. / E.  
27 28 29 30 / 31 32 / 33 34 35 / 36 37

CORNER: 38 39 2 N. / E.  
40 41 42 43 / 44 45 / 46 47 48 / 49 50

CORNER: 51 52 2 N. / E.  
53 54 55 56 / 57 58 / 59 60 61 / 62 63  
QUAD NORTH GRID COORDINATE EAST GRID COORDINATE

CLASS:

NRHP

HRHP

Keypunched

ISLAND 50 - 10  
QUAD 3 - 32  
IDENTIFICATION NO. 4 - 150



HAWAII REGISTER OF HISTORIC PLACES

ARCHAEOLOGICAL FORMS

FORM 01: FIELD SURVEY

12  
4 CORNER

2 N. / E.  
13 14 15 16 17 18 19 20 21 22 23  
SINGLE POINT COORDINATE LOCATION

17  
24 25 26 27 28 29 30 31 32 33 34 35  
DISTRICT LOC FACTOR AREA SQUARE CATEGORY SIG 1 SIG 2

3  
36 37 38 39 40 41 42 43 44 45 46 47 48 49  
DESTR LAND CLASS PHOTOS INITIALS INSTITUTION MONTH YEAR

HISTORICAL OR COMMON NAME: KAHALU'U HIST DIST  
50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67

68 69 70 71 72 73 74 75 76 77 FEATURE CLASSIFICATION CODE	78 COND	79 INTG	80 PERIOD
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CLASS:  
NRHP  
HRHP  
Keypunched

FORM 11: FOUR CORNER LOCATION

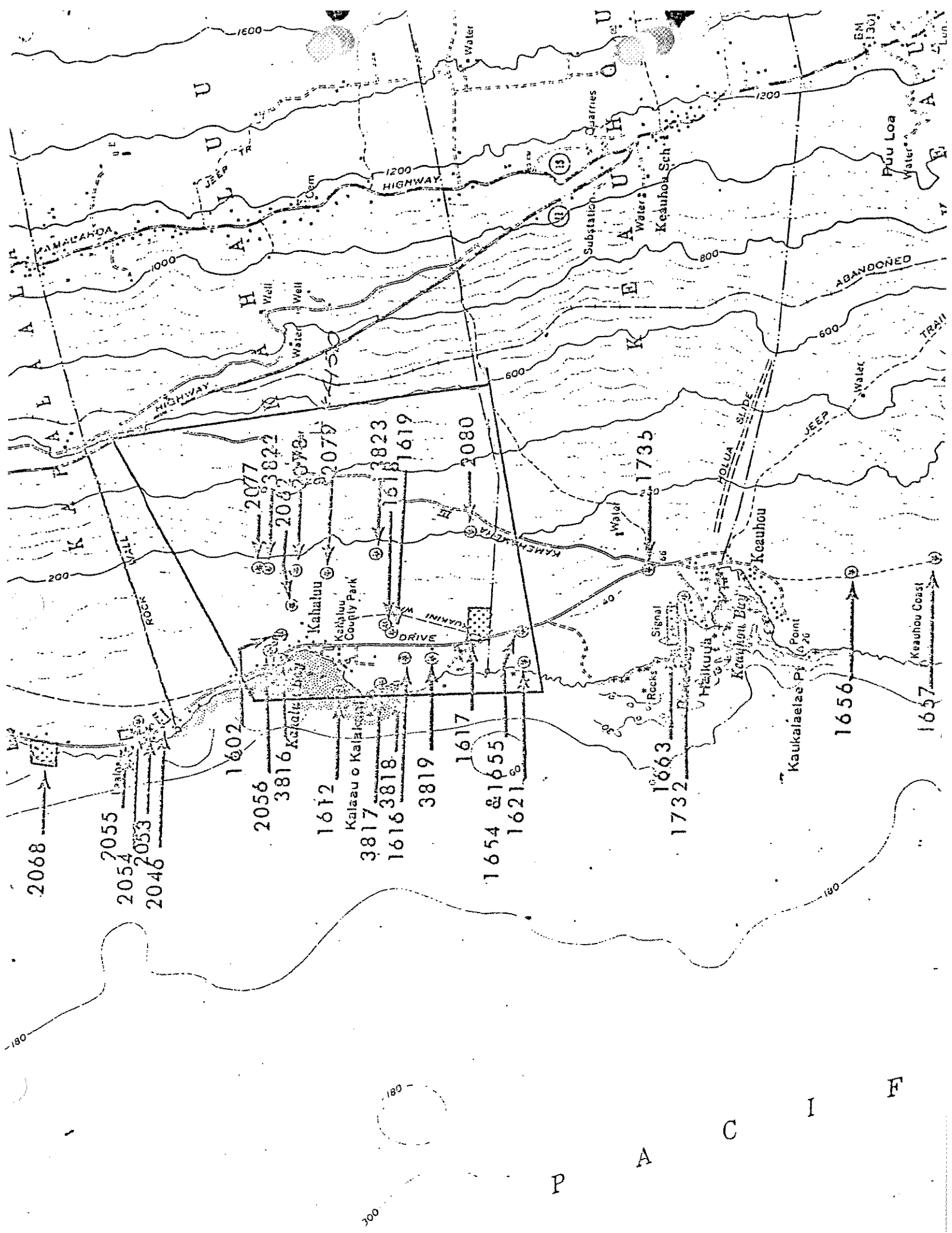
NW CORNER: 12 13 2 14 15 16 17 18 19 N. / 20 21 22 23 24 E.

NE CORNER: 25 26 2 27 28 29 30 31 32 N. / 33 34 35 36 37 E.

SE CORNER: 38 39 2 40 41 42 43 44 45 N. / 46 47 48 49 50 E.

SW CORNER: 51 52 2 53 54 55 56 57 58 N. / 59 60 61 62 63 E.  
QUAD NORTH GRID COORDINATE EAST GRID COORDINATE

50 - 10 - 32 - 7 - 4150  
ISLAND 3 4  
QUAD 5 6  
IDENTIFICATION NO. 7 8 9 10 11





M 31: PROPERTY OWNERSHIP

50 - 10 - 37 - 4150  
3 4 5 6 7 8 9 10 11  
ISLAND QUAD IDENTIFICATION NO.

1 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27  
USE 1 USE 2 STAT OWNR ATTD ACCS zone sect plat parcel  
TAX MAP KEY  
VARIED, but main one is:

PROPERTY OWNER: B I S H O D E S T A T E  
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

STREET ADDRESS: 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

TOWN OR CITY: 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
STATE ZIP CODE

FORM 41: BACKGROUND DATA

50 - 10 - 37 - 4150  
3 4 5 6 7 8 9 10 11  
ISLAND QUAD IDENTIFICATION NO.

AHUPUA'A

K A H A L U ' U  
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

PREVIOUS SURVEYS:

M U L T I D L E  
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44

PREVIOUS SITE DESIGNATION(S):

M U L T I P L E  
45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62

LAST NAME OF SURVEYOR:

M U L T I P L E  
63 64 65 66 67 68 69 70 71 72 73 74

0 5 7 1 0 5  
75 76 77 78 79 80  
INSTITUTION YEAR FILED AT

## FEATURE DESCRIPTION FORM

DESCRIPTION OF ANY PERTINENT DATA NOT ELSEWHERE RECORDED: 1-bearings and sources used to locate feature; 2-size; 3-shape; 4-construction technique; 5-materials used; 6-terrain features; 7-condition; 8-surface artifacts; 9-midden; 10-unusual or important characteristics; 11-evaluation of its importance as a representative of its particular class; 12-probable function and 13-how certain this function is for the feature

Kahalu'u ahupua'a, or native land division, lies to the south of Kailua on the western coast of Hawaii Island. Today it is being developed as a major resort area with one hotel already erected and others under construction. In addition, a County Park is found at Kahalu'u Bay.

This historic district is noteworthy because detailed survey efforts by the Bishop Museum and others have located and recorded some ten heiau, the massive stone religious structures built by the ancient Hawaiians. Many of these heiau, are named and have both legendary and historic materials associated with them. Almost all are in good condition and have been relatively untouched by the ravages of time and urban development.

Among the most important heiau in the district is Kuemanu, a heiau dedicated to surfing. Kuemanu is a large structure constructed of piled stones immediately behind the sea at Kahalu'u Bay. It is the only known major heiau for surfers to be found in the state, and, as such, draws much of its importance from this for surfing has become an international sport after springing from its Hawaiian origins. Kuemanu is being acquired by the County of Hawaii at this time.

Other important heiau include Makole-'a, Ke'eku, Hapaiali'i, Ke'eku, Pa o umi, Halelaau, and Papakoholua, while nearby just over the ahupua'a boundary and included in this district are the Inikiwai and Kavaliilii heiau.

Although the Kahalu'u Historic District is primarily a recognition of the clustering of significant heiau, the District also contains numerous other important historic places and remains. These include other important historic places and remains. These include an old stone church behind Kahalu'u Bay, a breakwater built by the chief Kalai-kini that encloses part of the Bay, portions of the ancient Hawaiian field system in the upland area, numerous habitation areas, caves, burial platforms, wells, midden sites, enclosures, petroglyph fields, and numerous walls. Sites within the District but not individually recorded by the Statewide Inventory Team are described in the Bishop Museum Anthropology Dept Reports 71-4, 71-5, 71-10, and 71-11.

Significance

The basic significance and value to Hawaiian culture history is the concentration of such a number of heiau within a relatively small area. No other area on Hawaii Island has a comparable number of heiau in the same area, and in fact, this concentration is only exceeded by those of the Southeast Molokai Historic District.

Heiau are important to modern Hawaii for they illustrate the dominant role of religion in ancient Hawaiian society. Constructed of hundreds of thousands of large rocks, these heiau stand as a visible reminder of the complexities of Hawaiian society which could command and direct the labors of hundreds of workers for public works projects.

Heiau, such as these important ones at Kahalu'u, are treated with respect by modern residents for the ancient way of life does not lie so far behind in Hawaii.

SUPPLEMENTARY FEATURE DESCRIPTION FORM

10  
ISLAND

37  
QUAD

4150  
IDENTIFICATION NO.

\_\_\_\_\_  
FEATURE NUMBER

FEATURE DESCRIPTION OF ANY PERTINENT DATA NOT RECORDED ELSEWHERE: 1-beaings and sources used to locate feature; 2-size; 3-shape; 4-construction technique; 5-materials used; 6-terrain features; 7-condition; 8-surface artifacts; 9-midden; 10-unusual or important characteristics; 11-evaluation of its importance as a representative of its particular class; 12-probable function and 13-how certain this function is for the feature

Significance - Cont'd

Kuemanu heiau, especially, is of importance within this District because it was a heiau used by surfers, who would make offerings to ensure good surfriding conditions. It is the only such heiau known to still be in existence in the State, and it is especially important that Kuemanu be preserved, stabilized, restored, and interpreted. Surfing originated in Hawaii with the ancient Hawaiians, and has now spread throughout the world to become an international sport. It is altogether fitting that Kuemanu be preserved for the role it played in surfing in the past.

The other features in the District are also of importance for most are in good condition and have both high research and interpretive potential. Settlement pattern studies would be particularly rewarding, as would detailed excavations in midden and habitation areas. This area is already developing into a major visitor center and the many heiau and other sites could be stabilized and interpreted, perhaps through the use of a trail system.

SIGNED: \_\_\_\_\_

DATE: \_\_\_\_\_

7. DESCRIPTION

CONDITION	(Check One)					
	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Deteriorated	<input type="checkbox"/> Ruins	<input type="checkbox"/> Unexposed
	(Check One)			(Check One)		
	<input type="checkbox"/> Altered	<input checked="" type="checkbox"/> Unaltered		<input type="checkbox"/> Moved	<input checked="" type="checkbox"/> Original Site	

DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE

The Kahalu'u Historical District encompasses the seaward half of the Kahalu'u ahupua'a (an ancient Hawaiian land division) and a small portion of Keauhou ahupua'a. The land is generally fairly flat for several hundred meters behind the sea, with perhaps a quarter covered by rough lava which supports a sparse vegetation of small shrubs and thorny kiawe trees. The remaining portion has been developed into urban resort areas and a county beach park. The major north-south coastal road, Alii Drive, separates the developed urban areas along the sea from the thickly vegetated sloping lands inland in the northern two-thirds, and the continuation of the barren lava flows of the southern third.

The historic district is most noteworthy because of the concentration of some ten major Hawaiian heiau within the area. Hawaiian heiau are massive structures of stacked stone constructed and dedicated to the worship and propitiation of the Hawaiian gods. It is very unusual, and highly significant, that so many major heiau are to be found in this rather small area. A number of these heiau have important associations with major events of traditional Hawaiian history and with occurrences in Hawaiian legend. Almost all are in good condition and have been relatively untouched by the ravages of time and urban development.

Among the most important heiau in the district is Kuemanu, a heiau dedicated to the ancient Hawaiian sport of surfing. Kuemanu is located immediately seaward of Alii Drive at the northern end of Kahalu'u Bay. It is one of the few remaining major heiau dedicated to surfing in the state, and draws much of its importance from this association with what has become an international sport.

Other important heiau include Makole-'a, Ke'eku, Hapaiali'i, Pa o umi, Halelaau and Papakoholua, while nearby, but just over the ahupua'a boundary in Keauhou are found Inikiwai and Kawaliilii heiau.

The district is also remarkable for a number of other historic places and remains, such as an old stone church behind Kahalu'u Bay; a breakwater built by the chief, Kalai'kini, that encloses part of the Bay; portions of the ancient Hawaiian field system in the upland area, numerous habitation areas, caves, walls, burial platforms, wells, midden sites, enclosures, and petroglyph fields. These are well described in a series of survey reports by the Bishop Museum (Anthropology Department Reports 71-4, 71-5, 71-10, and 71-11).

**A. SIGNIFICANCE**

PERIOD (Check One or More as Appropriate)

- |  |                                       |                                       |  |
|--|---------------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Pre-Columbian | <input type="checkbox"/> 16th Century | <input type="checkbox"/> 18th Century | <input type="checkbox"/> 20th Century          |
| <input type="checkbox"/> 15th Century  | <input type="checkbox"/> 17th Century | <input type="checkbox"/> 19th Century | <input checked="" type="checkbox"/> Precontact |

SPECIFIC DATE(S) (If Applicable and Known)

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

- |  |   |   |  |
|--|---|---|--|
| <input type="checkbox"/> Aboriginal              | <input type="checkbox"/> Education              | <input checked="" type="checkbox"/> Political           | <input type="checkbox"/> Urban Planning  |
| <input checked="" type="checkbox"/> Prehistoric  | <input checked="" type="checkbox"/> Engineering | <input checked="" type="checkbox"/> Religion/Philosophy | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Historic                | <input type="checkbox"/> Industry               | <input type="checkbox"/> Science                        | _____                                    |
| <input checked="" type="checkbox"/> Agriculture  | <input type="checkbox"/> Invention              | <input type="checkbox"/> Sculpture                      | _____                                    |
| <input checked="" type="checkbox"/> Architecture | <input type="checkbox"/> Landscape Architecture | <input type="checkbox"/> Social/Humanitarian            | _____                                    |
| <input checked="" type="checkbox"/> Art          | <input type="checkbox"/> Literature             | <input type="checkbox"/> Theater                        | _____                                    |
| <input type="checkbox"/> Commerce                | <input type="checkbox"/> Military               | <input type="checkbox"/> Transportation                 | _____                                    |
| <input type="checkbox"/> Communications          | <input type="checkbox"/> Music                  |   | _____                                    |
| <input type="checkbox"/> Conservation            |   |   | _____                                    |

STATEMENT OF SIGNIFICANCE

As indicated in the description statement, the Kahalu'u Historical District draws much of its significance from the rare occurrence of a number of major heiau within a relatively small geographical area. This indicates that the Kahalu'u ahupua'a was one of major importance in Hawaiian culture and history during the times before European contact, for heiau are built only after careful consideration of all geographical social, political and supernatural factors. Important historical events in ancient Hawaii are closely associated with the construction, dedication, or use of these heiau, for Kahalu'u appears to have been a major seat of political power; perhaps a place where ruling chiefs held their courts. Many of the heiau are hundreds of years old, to judge from traditional history and legends, yet stand grandly above the now desolate terrain in fine condition. The mere fact that so many heiau exist in this district shows the complexity of Hawaiian society, for it must have taken literally thousands and thousands of man days to build them, since all are massive engineering feats of mortarless stonework.

The heiau also show the central role of religion in ancient Hawaiian society, and illustrate the lengths to which the ancient rulers would go to ensure proper respect, worship, and propitiation of the Hawaiian gods.

Although many of the coastal remains other than heiau have now disappeared beneath the bulldozers of modern hotel development, sufficient remains are still to be found to indicate the high population density and complexity of habitation patterns found in the district. It is especially significant that associated with the many heiau are the other types of ancient Hawaiian sites, such as petroglyphs, walls, enclosures, habitation areas, caves, and so forth. Since all, except a very few lying within Keauhou, are to be found within a single ancient Hawaiian land division, Kahalu'u ahupua'a, an excellent opportunity exists for detailed research on

SEE INSTRUCTIONS

NATIONAL REGISTER OF HISTORIC PLACES  
INVENTORY - NOMINATION FORM

(Continuation Sheet)

STATE	
Hawaii	
COUNTY	
Hawaii	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

(Number all entries)

8. SIGNIFICANCE (Page Two)

Hawaiian settlement patterns and social interaction processes. It is known that socially recognized kinship groupings controlled lands within each ahupua'a, and that each ahupua'a encompassed many different types of ecozones because it extended from the sea to the mountains, in a generally pie-shaped wedge. Thus, in the Kahalu'u historical district, it is known that the peoples using the heiau and the coastal sites had close social and kinship connections with those living several miles inland in the massive agricultural field system. In many respects, the Kahalu'u historical district parallels the Lapakahi Complex of North Kohala, which is an entire ahupua'a with innumerable ancient remains and a well developed dryland field system. The difference is that few identifiable religious structures were found at Lapakahi and the area did not seem to have been central in the social or political history of Hawaii Island, as was Kahalu'u. The two districts, therefore, make an excellent foil and counterfoil for the intensive study of ancient Hawaiian culture and human ecology.

A further reason for the significance of Kahalu'u historical district is the existence of excellent petroglyphs, the enduring form of Hawaiian art whereby figures are pecked, carved, or abraded into rock. The most important group of petroglyphs actually lies underwater at high tide, illustrating the gradual subsidence of the Kona coastline.

The high density of culturally interrelated ancient Hawaiian remains and the concentration of major religious structures combine to make the Kahalu'u Historical District an area of great historical significance, easily meeting the criteria for entry onto the National Register of Historic Places.

(July 1969)

NATIONAL PARK SERVICE  
NATIONAL REGISTER OF HISTORIC PLACES  
INVENTORY - NOMINATION FORM

(Continuation Sheet)

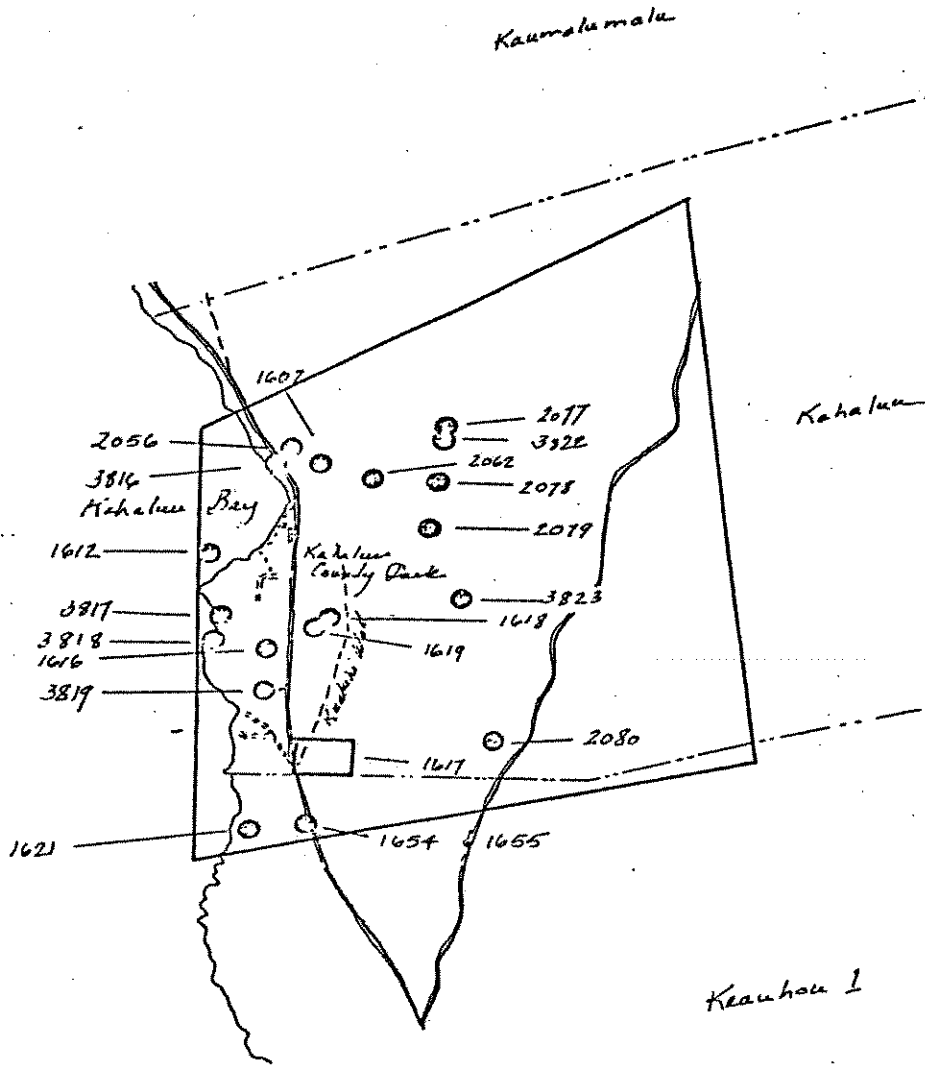
COUNTY

FOR NPS USE ONLY

ENTRY NUMBER

DATE

(Number all entries)



Complex 4150  
Individual site locations  
Scale 1:24,000  
Taken from USGS 7 1/2 min

A PLAN FOR ARCHAEOLOGICAL SALVAGE RESEARCH  
KEAUHOU-KONA RESORT AREA  
KEAUHOU AND KAHALU'U, KONA, HAWAII ISLAND

by

Hallett H. Hammatt, PhD.

William H. Folk II, B.A.

Gerald Kamahu Ida, B.A.

prepared by

ARCHAEOLOGICAL RESEARCH CENTER HAWAII, INC.

for

KAMEHAMEHA INVESTMENT CORPORATION

Lāwā'i

August 1981

ARCH 14-177 III.1

EXHIBIT 2

47-57



these sites. Little or no midden is visible on the surface and artifacts are scarce. Nevertheless, comprehensive test excavations should be conducted during the archaeological salvage phase primarily to recover datable material and to insure that burials are not present. There are no sites in Parcel 8 requiring special treatment. *is that special*

#### Development Parcel 10 (Table 4) (Multifamily Residential)

Area 10, a 34 acre parcel comprised almost predominantly of very irregular, steeply sloping aa, is located on the mauka side of Ali'i Drive and Kamehameha III Road at their point of intersection. The north section is located in Kahalu'u and the southern in Keauhou. Only four (4) archaeological sites are situated in development Parcel 10. Excavation potential of the sites in area 10 is nil except in the case of Site-4624. This enclosure deserves testing during archaeological salvage to retrieve datable material and to confirm its suggested function as an animal enclosure.

#### Development Parcel 14B and C (Table 5) (Multifamily Residential)

Area 14B and C is a 30 acre parcel located immediately mauka of the new Kona Gardens. These development parcels are bounded on the north by separate properties, on the east by the proposed Ali'i Highway realignment corridor (presently bulldozed) and on the south by the existing Ali'i Drive. The northern two-thirds of this parcel consists of pahoehoe lava while the southern part extends onto aa makai of development Parcel 8 (above). The pahoehoe lavas are older than the aa and also have a soil mantle, considerably greater ground moisture and have the most dense site concentrations. Two (2) areas of high density site aggregations in development Parcel 14 B and C have been set aside as historic preserve areas. Table 5 is divided into three (3) parts as follows: the sites in the development area that will be

TABLE 4

Accession List of Archaeological Sites  
Development Parcel 10

Site Type	Permanent Site Number	Research Potential
Agricultural Feature	4633	Minimal.
Ahu	4634	Minimal. Dismantle.
Animal Enclosure	4624	Minimal.
Foot Trail	4619*	Minimal. Additional photgraphing recommended.

\*Indicates that the archaeological site crosses site development parcel boundaries.

# **CULTURAL RESOURCE MANAGEMENT PLAN**

## **Cultural Resource Management at the Keauhou Resort**

August 1985

## INTRODUCTION

Keauhou and Kahalu'u have long been noted as places along the Kona coast of Hawai'i which retain a special character of antiquity, where "there remains a hint of the old Hawaii" (Franck 1937). Until the 1950s, that "hint of old Hawaii" was exemplified by an extensive and impressive archaeological landscape; but since then, resort and housing development have inexorably encroached on these remnants of Hawaiian life.

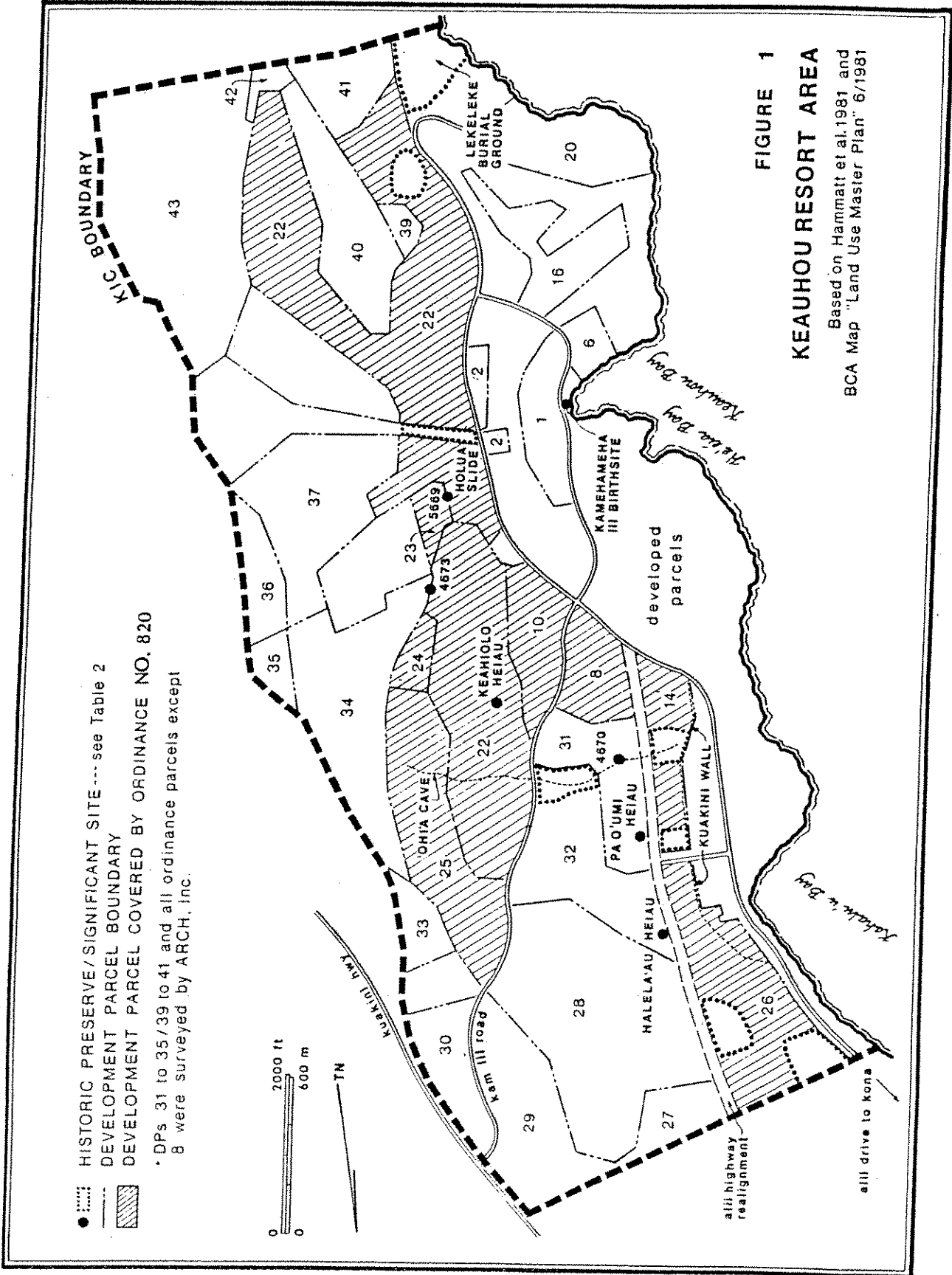
On-going plans of the Kamehameha Investment Corporation (KIC) call presently for residential, commercial, and recreational development of over 750 acres across inland portions of coastal Keauhou and Kahalu'u (Figure 1).<sup>\*</sup> A preliminary survey which was carried out in 1980 indicated extensive and significant archaeological remains, including more than 300 sites in 14 of 16 parcels which have been designated for development.

This document is a cultural resource management plan (CRMP), which is structured to deal with archaeological and historical resources in the context of the continuing development of the Keauhou Resort. The objectives of this plan are as follows:

1. Identify the nature and extent of cultural resources in the Keauhou Resort area;
2. Assess, in general terms, the significance of these cultural resources, and set criteria for assessing the significance of specific sites;
3. Discuss the various alternatives available to KIC for management of the cultural resources on its lands; and
4. Identify specific actions which must be taken by KIC to implement effectively CRMP alternatives.

---

<sup>\*</sup>The 43 development parcels at the Keauhou Resort can be divided into three categories: those that (1) have been developed or (2) are proposed for development, and are covered by county ordinance (see following section on "Background to the Present Project"); and those that (3) are projected for development in the unspecified future. The 1980 archaeological survey focused on the ordinance parcels, but also included parcels in the last category. Figure 1, which is based on a 1981 version of the "Exhibit 7. Land Use Master Plan Map", identifies the various parcel categories, as well as the limits of the 1980 survey.



● HISTORIC PRESERVE/SIGNIFICANT SITE --- see Table 2  
 - - - DEVELOPMENT PARCEL BOUNDARY  
 ▨ DEVELOPMENT PARCEL COVERED BY ORDINANCE NO. 820  
 \* DPs 31 to 35/39 to 41 and all ordinance parcels except 8 were surveyed by ARCH, Inc.

**FIGURE 1**  
**KEAUHOU RESORT AREA**  
 Based on Hammatt et al. 1981 and  
 BCA Map "Land Use Master Plan" 6/1981

## BACKGROUND TO THE PRESENT PROJECT

In 1982, KIC applied to the County of Hawaii for a change of zoning for portions of its lands at Keauhou and Kahalu'u, in preparation for development of those areas. The Hawaii County Council addressed the zoning request through the passage of Ordinance No. 820, sections of which call for measures to preserve and protect archaeological sites or the information contained within them. Sections M through S of the ordinance (see Appendix A) deal specifically with the cultural resources:

- M. Preparation of an overall archaeological/ historical interpretive management plan;
- N. Implementation of a three-phase archaeological salvage program prior to the development of areas not designated for preservation;
- O. Research, treatment, and interpretation of the Kamehameha III birthsite;
- P. Preservation and restoration of significant sections of the Kuakini Wall;
- Q. Declaration to property lessees or buyers of possible constraints to development due to historical remains;
- R. Proper reinterment of all prehistoric burials;
- S. Cessation of grading and/or grubbing should any unanticipated archaeological sites be uncovered.

In response to the ordinance, KIC requested the preparation of two plans which directly address sections M and N: (1) an interpretive management plan to deal with preservation and management needs in the resort area, and (2) a salvage/data recovery plan to organize the collection of archaeological data from sites which will not be preserved.

At the request of KIC, Paul H. Rosendahl, Ph.D., Inc. (PHRI) undertook preliminary planning to meet the conditions set by Ordinance No. 820 concerning cultural resources (Tomonari-Tuggle 1983a). Based on new information collected after the ordinance was passed in 1982, and on a reassessment of the earlier survey and recommendations (Hammatt and Folk 1980; Hammatt et al. 1981), a decision was made by KIC, in consultation with State and County review agency staff, to revise the two-plan approach. Several recommendations were made in this respect:

1. Combine both plans into a single cultural resource management plan (CRMP) which sees management as the networking of three components--interpretation, conservation, and research/data recovery. As proposed, the CRMP would provide for better coordination and implementation of the ordinance requirements than would be allowed by separate plans.

2. Expand the area of concern beyond the boundaries delimited by ordinance to include all KIC lands in Keauhou and Kahalu'u (see Figure 1). Such action looks beyond strict legal requirements and recognizes sites in the ordinance area as a part of, rather than separate from, the archaeological totality of Keauhou-Kahalu'u.
3. Consider modifications of ordinance-designated preservation areas, in terms of adding sites to preservation status and reassessing recommended preserve areas.
4. Establish a structure to add new sites, as they are discovered, to preservation and/or interpretation status.
5. Incorporate non-site-oriented options into interpretation and conservation programs, in addition to the more conventional, site-specific aspects of resource management.

#### CULTURAL RESOURCE MANAGEMENT: AN OVERVIEW

The basic premise of cultural resource management is that cultural resources are nonrenewable and are becoming increasingly endangered by activities that modify the landscape (McGimsey and Davis 1977:22). Generated largely by federal, state, and local laws which require the mitigation of adverse impacts on cultural resources, CRM involves a delicate balance between the immediate needs of today and the long-term benefits of caring for one's history and cultural past. In this sense, archaeologists take responsibility for resource conservation in the larger context of present day concerns for progress and development.

It has been only in the last ten years that cultural resource management has become an integral part of public and private planning (Hester 1982). And in Hawai'i, it has been only in the last few years that cultural resource management has been explicitly verbalized in plans written by professional archaeologists (Tomonari-Tuggle 1980, Weisler and Kirch 1982, SMI 1982, a CRMP is presently being prepared by the U.S. Navy for the Island of Kaho'olawe).

In 1981, an initial attempt was made to prepare a general resource management plan for the Keauhou Resort. Archaeological Research Center Hawaii, Inc. (ARCH) was contracted by KIC to prepare a plan for archaeological salvage work in the resort area. The plan was intended to set:

...guidelines and procedures to insure continuity and comparability, as well as quality of research in spite of the fact that a number of archaeological consultants may be involved in salvage of specific development parcels (Hammatt et al. 1981:1).

The ARCH plan includes a statement of significance for Kahalu'u and Keauhou (in terms of two archaeological/historical themes), several cultural historical hypotheses to frame future data recovery programs, historical background for the area, results of test excavations, and guidelines for salvage in specific development parcels. It also includes guidelines for dealing with special problem sites and for field and laboratory methods (Hammatt et al. 1981).

Although the report is an ambitious undertaking which can be a starting point for a viable data recovery plan, there are weak links among some subject areas, particularly in moving from broad research goals and hypotheses to actual salvage recommendations. Furthermore, it does not consider alternative forms of site management other than those recommended in the preceding 1980 survey report (Hammatt and Folk 1980).

Most problematic is the data base upon which the plan is founded. The data base is the result of reconnaissance survey, a level of archaeological inquiry which is generally carried out to determine the presence or absence of archaeological sites, but not necessarily to locate all sites. Thus, the resource inventory based on the survey is incomplete for management purposes, which requires more detailed information on size, configuration, and location of structures, around which modern features will be constructed.

The present CRMP project builds on the work which has already been done (Hammatt and Folk 1980, Hammatt et al. 1981) but recognizes the problems with the data base and the need for a review of the recommendations in light of expanded management considerations. It further draws on the cultural resource management plans which have been prepared for other locales in Hawai'i (North Kohala, Hawai'i, in Tomonari-Tuggle 1980; Kawela, Moloka'i, in Weisler and Kirch 1982; Mauna Lani Resort, Hawai'i, in SMI 1982). The Hawaii County Cultural Resource Management Plan, which is presently in preparation (BCA n.d.; cf. Rosendahl n.d.), also serves as a basic source.

These CRMPs were initiated in response to specific development proposals which would have adverse effects on archaeological resources. They address the competing interests of specific forms of development and of archaeology, and present a number of recommendations to integrate archaeological site management needs with development plans (Table 1). Three general categories of management programs can be deduced from the recommendations expressed in these CRMPs--conservation, research, and interpretation (cf. Rosendahl n.d.:12-20). These categories, which are not mutually exclusive, are applied to the Keauhou Resort CRMP as integral components of resource management.

#### THE APPROACH OF THE KEAUHOU CRMP

The approach of the Keauhou Resort CRMP is to focus on development parcels (DPs) as geographical units of management (see Figure 1). These



Table 1.

## EXAMPLES OF CRM RECOMMENDATIONS

Parks Development and Land Management (Tomonari-Tuggle 1981)

1. Historical parks and monuments
2. Recreational parks
3. Wildlands areas
4. Resource banking
5. Adaptive reuse of historical structures
6. Continuing research
7. Education and oral history programs
8. Mitigation of adverse impacts

Resort Development (SMI 1982)

1. Interpretation through trails with signs, illustrative material, exhibits, and leaflets
2. Preservation
3. On-site and on-going monitoring to ensure continuing site protection
4. Restoration
5. Mitigation of adverse impacts
6. Exhumation and reinterment of endangered human burials
7. In situ preservation of petroglyphs or, if not possible, removal and use in landscaping

Agricultural-Housing Development (Weisler and Kirch 1982)

1. Easements for significant archaeological sites, with buffer zones
2. Nomination of significant sites to Hawaii Register of Historic Places
3. Access for bonafide research
4. Access for cultural, education, and religious purposes for native Hawaiians
5. Artifact curation, and availability of artifacts for study, exhibit, and enjoyment by local residents
6. Monitoring of all construction activities near preservation areas
7. Periodic monitoring of all preservation areas (6-month intervals)
8. Designation of developer representative to coordinate historic preservation activities
9. Building restrictions on houselots and common areas adjacent to preservation areas

parcels have been delineated on the basis of development plans for residential, commercial, and recreational activities. As organizational units used by planners and developers, the DPs are the essential landscape which archaeology consultants must deal. As each parcel is brought into active development, the archaeologist, to be fully effective, must be able to enter the process with an idea of the nature, extent, and significance of the resource base for that particular area.

It is possible that existing development parcels may be further subdivided, or that new DPs may be formed in areas outside of the area covered by ordinance. While this CRMP cannot anticipate specific future changes in land designations, it is not inflexible or unadaptable to such modifications. As information is collected about individual sites, management considerations can be made at more specific levels.

The approach of the CRMP is a three-stage process for dealing with archaeological and historical resources. Figure 2 diagrams this CRMP management process.

Stage One is carried out during plan preparation. It entails the compilation of DP profiles which include environmental, historical, and archaeological information. The profile is used to evaluate the significance of the DP area and its archaeological resources and predict the kinds of resource management options which may be applicable. The profiles for non-ordinance parcels can be used by developers and planners to anticipate future resource management needs; the profiles for ordinance parcels provide a framework for planning specific management actions. The numerous known sites which have been evaluated as significant (Table 2) are viewed simultaneously as (a) a basis for evaluating parcel significance, and (b) important independent entities which need to be managed. An overview/evaluation survey of portions of the 750 acres was undertaken as part of the management plan preparation to provide information on terrain, vegetation, site density, and variation. Such information was used in making preliminary evaluations of significance and recommendations for preservation and/or additional archaeological work. Results are summarized in Appendix C, "Development Parcel Profiles".

Stage Two is carried out during plan implementation. It entails the identification and evaluation of all sites in development parcels not covered by Ordinance No. 820. It is carried out in the early phases of parcel-specific planning, prior to the design of buildings, landscaping, and infrastructure. The level of archaeological survey to identify and evaluate sites is based on the parcel profile prepared in Stage One. At the conclusion of Stage Two, specific sites are recommended for additional management considerations while the development of the parcel as a whole proceeds.

Stage Three is also carried out during plan implementation. It deals with the management of specific sites in terms of the three management program categories--conservation, interpretation, or data recovery. A periodic review of program effectiveness is incorporated into this stage.

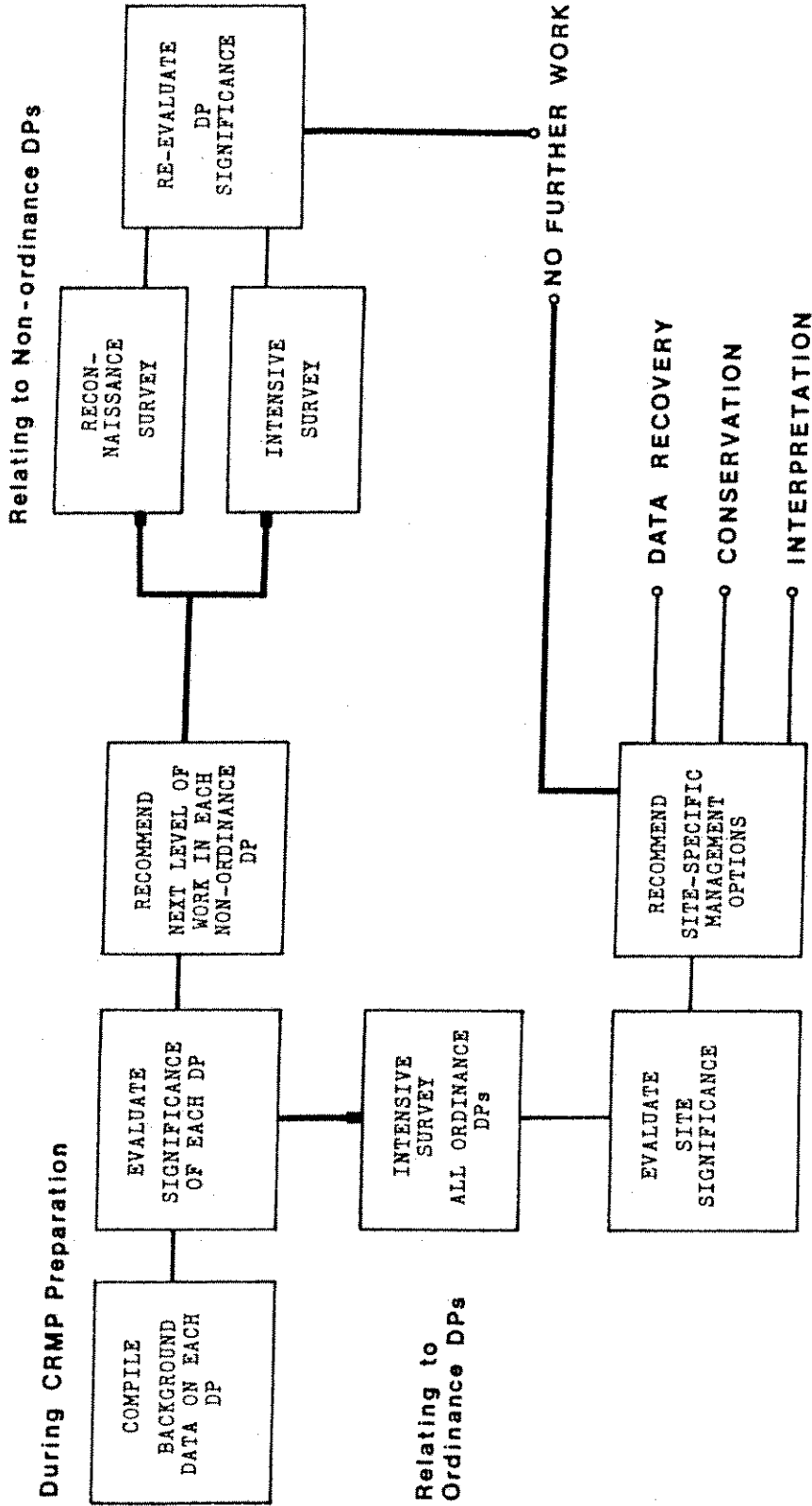


FIGURE 2

CRMP MANAGEMENT PROCESS

Table 2.

## SIGNIFICANT SITES IN THE KEAUKOU RESORT AREA

DP No.	Site No.	Name/Description	Significance		
			Scientific	Cultural	Interpretive
1	7278	Kamehameha III Birthplace	-	NR	NR
7	1663	He'eia Bay Complex	SF	-	SF
	1660	Kumaha'ula Heiau	-	SF	SF
	1664	Bluff Shelter	SF	-	-
9	1576	Lono-i-ka-makahiki Residence	-	NR	NR
10	4624	Walled platform	x	x	-
13	3818	Ke'eku Heiau	-	NR	NR
	3819	Nakole'a Heiau	-	NR	-
	D4-34	Petroglyphs	-	NR	-
14A	1619	Papakohoua Heiau	-	NR	NR
	7276	Kuakini Wall	-	NR-e	NR-e
	Not Numbered	Terraces/midden deposits at south end of parcel	x	-	-
14B/C	7276	Kuakini Wall	-	NR-e	NR-e
	7827	Multi-feature complex	x	-	-
	7828	Multi-feature complex	x	-	x
	7829	Multi-feature complex	x	-	-
	7845	Burial	x	x	-
	Variable	Residential features in 14B	x	-	-
	7848	Lava tube site	x	-	-
	Variable	South Historic Preserve	x	x	x
	Variable	North Historic Preserve	x	-	x
22	1669	Hōlua Slide	-	NL	NL
22A/B	4621	Keahlolo Heiau	-	x	-
	4625	Multi-feature complex	x	-	-
	4629	Multi-feature complex	x	-	x
	4637	Multi-feature complex	x	-	x
	4673	Platform (possible heiau)	-	x	-
	5669	Upper part of historical house complex	x	-	x
	5671	Lower part of historical house complex	x	-	-
	7962	'Ōhi'a Cave	x	x	x
22C	1669	Hōlua Slide	-	NL	NL
	4699	Historical cart road	-	-	x
	7627	Historical cart road	-	-	x
	7630	Burial	x	x	-
	7673	Burial	x	x	-
	Variable	Lava tube caves and sinks	x	-	-
	Variable	Open preserve	x	-	-
	Variable	Agricultural features	x	-	-
23	4686	Multi-feature complex	x	-	-
	5669	Lower part of historical house complex	x	-	-
	W-3	Dirt terrace	x	-	-
25	7954	Walled platform complex	x	x	x
	7962	'Ōhi'a Cave	x	x	x
	VB-9/10/11	Gulch agricultural features	x	-	x
	VB-14	Paved terraces in arched lava tube opening	x	-	-
	VB-19A	Collapsed lava tube	x	-	-
26	2077	Halelā'au Cave	NR	NR	NR
	3822	Halelā'au Heiau	-	NR	NR
	4639	Lava tube cave	x	-	-
	7276	Kuakini Wall	-	NR-e	NR-e
	6389	Lava tube cave	x	-	-
	6408	Burial platforms	x	x	-
	6414	Platform (with Halelā'au Heiau)	x	x	x

KEY: NL = National Landmark  
 NR = National Register  
 SF = State Files

NR-e = National Register-eligible  
 x = Significance evaluation based on work done to date

Table 2. (Cont.)

DP No.	Site No.	Name/Description	Significance		
			Scientific	Cultural	Interpretive
26 cont.	7868	Multi-feature complex	x	x	-
	7875-79	Historical house sites	x	-	x
	7893	Platforms with ramp	x	-	-
	7910	Lava tube cave	x	-	-
	Variable	Lava tube caves	x	-	-
	Variable	Burials	x	x	-
	Variable	South Historic Preserve	x	-	x
	Variable	North Historic Preserve	x	-	x
27/28/ 29	Not Numbered	Agricultural features	x	-	x
30	Not Numbered	Historical residence complexes	x	-	x
	Not Numbered	Railroad berm	-	-	x
31	3823	Pā-o-'Umi Heiau	-	NR	NR
	4604	Possible shrine	-	x	x
	4665	Multi-feature complex	x	-	x
	4668	Multi-feature complex	x	-	x
	4670	Lava tube cave complex	x	x	x
	4671	Multi-feature complex	x	-	x
	Variable	Lava tube cave sites	x	-	-
	Variable	Burials	x	x	-
32	7962	'Ōhi'a Cave	x	x	x
	3822	Halelā'au Heiau	-	NR	NR
	Variable	Lava tube cave sites	x	-	-
	Variable	Historic preserve	x	x	-
33	Not Numbered	Agricultural features	x	-	-
	34	4673	Platform (possible heiau)	-	x
7961		Stepping-stone trail	-	-	x
7962		Cart road/trail	-	-	x
Not Numbered		Agricultural features	x	-	-
Not Numbered		Railroad berm	-	-	x
Not Numbered		Cave sites in south end	x	x	-
35	Not Numbered	Railroad berm	-	-	x
	Not Numbered	Complex related to LCA 9696	x	x	x
36	Not Numbered	Railroad berm	-	-	x
	Not Numbered	Complexes related to LCAs	x	x	x
37	1669	Hōlua Slide	-	NL	NL
38	Not Numbered	Complex in saddle of 3 peaks	x	x	x
	1669	Hōlua Slide	-	NL	NL
40	7621	Stepping-stone trail	-	-	x
	7627	Cart road	-	-	x
	7628	Stepping-stone trail	-	-	x
	Variable	Agricultural features	x	-	-
	Variable	Burials	x	x	-
41	Not Numbered	Multi-feature complex in gulch on north side	x	-	-
	43	Not Numbered	Railroad berm	-	-
Not Numbered		Sites in gulch along south boundary	x	-	x
Outside of DPs	1745	Lekelēke Burial Ground	NR	NR	NR
	3816	Kuemanu Heiau	-	NR	NR

The Keauhou Resort CRMP supplies the user (whether archaeologist, planner, or developer) with the necessary elements for informed decision-making concerning cultural resources in the resort area. It allows for planning and management considerations in anticipation of future, potentially adverse actions, rather than in reaction to on-going impacts.

The CRMP is organized into chapters relating to each management alternative (conservation, interpretation, data recovery). It can be used as a package or by individual chapter segments; background information is presented as a separate unit. The development parcel profiles are included as a removable appendix (Appendix C), although they are best utilized as a part of the entire document.

Chapter I presents the environmental and historical background to the Keauhou Resort area. A brief cultural history of Keauhou and Kahalu'u incorporates traditional history, modern history, and archaeological information.

Chapter II discusses the nature and significance of cultural resources in the resort area.

Chapter III covers the conservation program for preserving significant elements of the cultural resource base.

Chapter IV presents the interpretive program for cultural resource management, with a focus on public information and education in the context of visitor enhancement.

Chapter V presents the data recovery/research program for collecting scientific information about the cultural resources. Included in this section are a research design for Keauhou-Kahalu'u and guidelines for future archaeological activities in the resort area.

Chapter VI is a concluding section which summarizes the recommendations and guidelines of the three management programs and discusses an overall strategy for cultural resource management.

#### ADDENDUM NOTE

A draft CRMP was submitted to Kamehameha Investment Corporation and the County of Hawaii in September 1983 in compliance with Ordinance No. 820. The present document incorporates the reviews and comments on that draft; there has not been a major attempt, however, to update the baseline information from more recent archaeological and historical work.\* For discussions of recent research results, the reader is referred to Hommon

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\*The exception is the development parcel profiles. Recent work has been summarized and recommendations have been incorporated into the CRMP program recommendations.

and Rosendahl 1983, Schilt 1984, and Kelly 1983 for the Kona area in general. For the Keauhou Resort area, the reader is referred to Allen 1984a, b, c; Bath and M. Rosendahl 1984; Hammatt and Shideler 1984; Hammatt et al. 1985; M. Rosendahl 1984, 1983; Rosendahl and Rosendahl 1984; P. Rosendahl 1985; Shun 1984, 1983; and Shun and Walker 1984.

## CHAPTER I.

## KEAUHOU AND KAHALU'U: ENVIRONMENT AND HISTORY

The Keauhou Resort lies along the North Kona coast of the Island of Hawai'i, approximately 8 km (5 miles) south of Kailua town. It stretches from the coast to almost 700 feet above sea level, encompassing much of the coastal segments of two traditional Hawaiian ahupua'a, Kahalu'u and Keauhou.\*

Ordinance No. 820, which covers only portions of the total resort area, covers over 750 acres inland of Alii Drive. The ordinance area is divided into 16 development parcels (DP) which range from 5.5 to over 200 acres (see Figure 1).

Within the resort area are a variety of environments. The coastline is rocky and indented by small coves, the three largest being Kahalu'u, He'eia, and Keauhou Bays. Extending inland from this coastal strip are the remnants of lava flows from Hualalai volcano, which were laid down at different times and under different circumstances in the past. Thus, while Kahalu'u is generally characterized by pahoehoe which has weathered to an arable soil, Keauhou is stark in its barren or thinly vegetated expanse of more recent flows of clinkery aa lava. Only sections of the older, arable pahoehoe surface remain in Keauhou: around and mauka of Keauhou Bay, along the coast south of the bay, and along the southern boundary of the ahupua'a (cf. Hammatt and Folk 1980: Figure 5).

In the ordinance area, the terrain is generally irregular, with shallow gulches cutting downslope across the rough aa and pahoehoe flows. Slopes are steep, ranging up to 20 percent in some areas, although they are more moderate in the coastal areas in DP 14 and 26.

Types and distribution of vegetation are largely a factor of variations in soil and ground surface. The aa flows are generally barren, with some stands of Christmas-berry and, at higher elevations, 'ohi'a-lehua trees (see Appendix E for scientific names). The pahoehoe flows, with weathered surfaces and some soil cover, are dominated by koa-haole. They also support a varied range of vegetation, including Christmas-berry, kiawe, klu, and opiuma. At higher elevations, there is some kukui and

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\*The ahupua'a of Keauhou is listed in mid-19th century land records as Keauhou 1 and Keauhou 2, designations which are used in modern legal descriptions. As there are no earlier documented records of this subdivision, it is interpreted it to be an historical division of lands, and is considered Keauhou in totality as the traditional ahupua'a.



monkey pod, with an understory of vines, grass, and shrubs (Hammatt and Folk 1980:15; M.S. Allen, pers. comm.). Allen (n.d.:5) suggests that the 'ohi'a-lehua in the parcel to the ENE of DP 22 indicates that this was once the dominant native species in this area.

In the overview survey carried out as part of management plan preparation, native species, including 'olapa, were observed in DP 37 and 38. Economic plants, including papaya and coffee, were noted around archaeological sites in DP 33 and 35.

#### A PRELIMINARY CULTURAL HISTORY OF KEAUHOU-KAHALU'U

The cultural landscape of Keauhou and Kahalu'u overlays this physical landscape, and they together indicate a long and intensive history of human adaptation to the Keauhou-Kahalu'u environment. The nature of this adaptation is unclear, clouded in myths, legends, the traditional history of ruling chiefs, and certainly by a dearth of archaeological studies. The following cultural history is a model of the changing human landscape and the forces, both cultural and physical, which may have affected those changes.

##### Information Sources for a Cultural History

The prehistoric segment of this cultural history is based on legends and traditions recorded in the 19th century (primarily Fornander 1969, Kamakau 1961), and on archaeological work carried out in Keauhou and Kahalu'u since the early 20th century (but mostly since 1971). There are two major problems with the data used for this reconstruction. First, broad, centuries-long periods are defined by archaeological and genealogical dating, both of which have inherent problems that preclude a more refined chronology. The genealogical dating, as such, follows the calculations of Hommon (1976). Volcanic glass hydration-rind dates, which have been shown to be extremely problematic (cf. Tuggle et al. 1977, Tuggle and Olsen 1978), are interpreted from the various archaeological reports in which they appear.

The second major problem in reconstructing this cultural history is the uneven distribution of archaeological sites which have been studied. Most of the sites are located at coastal Kahalu'u; no sites at coastal Keauhou have been adequately examined or reported. Only two sites in the upland area have been tested or excavated; both are in Kahalu'u (cf. Crozier 1971a, 1971b). Furthermore, recent development has impacted most of the entire coastal strip, obscuring or obliterating the archaeological record of this environmental zone. Thus, the present cultural historical interpretation is based primarily on Kahalu'u material, which has been expanded to the entire resort area.

The historical segment of the cultural history is based on a variety of documentary sources, including land records, tax books, license applications, the writings of visitors and travellers, and missionary

records. Historical maps were also used for reference. Archaeological study of the historical period has been a much neglected field in Hawai'i and while many reports allude to historical materials in Keauhou or Kahalu'u sites, there is no analysis of the material or integration with documentary records.

#### The Beginnings of Settlement: Pre-AD 1000 to the 1300s

Although the earliest site on the Island of Hawai'i is dated to the 7th century AD, initial settlement of the island is postulated to have occurred two or three centuries earlier, based on data from all islands (Hommon 1976). Initial settlement probably occurred in a hospitable environment which provided access to a variety of marine and terrestrial resources. Such a setting can be found on the windward side of the island, where off-shore, in-shore, and tidal marine environments and streams, swampy areas, dry inland slopes, and upland forest environments would have been relatively accessible.\*

From the 7th to the 14th century, settlements expanded along the coastal strip, with primary dependence on marine resources. Although agricultural activity was generally limited to areas within reach of the coast, there was a beginning expansion of irrigation fields into inland windward valleys. Far inland areas were exploited primarily for forest resources. By at least the 13th century, population had increased to the point that small coastal settlements occurred around the island. Social organization was based on kin relationships, with leaders drawn from senior relatives "whose authority was based to a great extent on institutionalized generosity" (Hommon 1976:230).

Within Keauhou-Kahalu'u, earliest known occupation took place sometime after AD 1000. It was primarily marine resource-oriented, with habitation focused around Kahalu'u Bay; there may have been similar occupation areas around Keauhou and He'eia Bays to the south. As permanent settlements were established along the coast, kin-based social and economic ties linked the different coastal areas.

By AD 1300, agricultural fields were developed in the uplands, at least 4000 ft inland. The site in which this agricultural activity is delineated (Site D4-27) is situated at the lower edge of the postulated prime agricultural area of the Kona Field System; the site could represent the initial efforts at agricultural development, which possibly would have begun as near to coastal residences as possible, with subsequent expansion of fields further inland.

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\*In contrast, the Waiahuakini Shelter, the earliest known site on Hawai'i, is located at South Point, an arid and inhospitable area of the Big Island. It is a specialized site related to marine resource exploitation.

Two archaeological sites have been dated to this period. Site 7702 is a lava tube cave site excavated by Rosendahl in 1980 and 1981. Although the earliest date from this site is in the mid-1100s, the total range of dates from four samples is from AD 1158 to 1266.\* The site is clearly an occupation site, with numerous firepits, two burials, and a quantity of lithic and marine-resource exploitation artifacts.

Site D4-27B is an open site with two fireplaces, associated with a possible upland agricultural system; it was excavated by Crozier in 1973. The earliest date from this site is AD 1130, which makes this the earliest known inland site on the island. However, other dates from the same context range up to AD 1486, which fits the site into the general model of 15th century inland expansion--if the more recent date in the range is taken.

#### Settlement Expansion: The Early Traditional Period

The early traditional period generally dates from the 14th to 16th centuries on the island of Hawai'i. It was a period of relative unity under the control of a succession of ali'i nui or ruling chiefs (Hommon 1976). It was during this period that the settlement pattern and social organization recorded by early Western explorers was initially developed.

The 14th century saw the definite movement of settlement into upland areas, as agricultural systems were expanded toward their maximum limits. The Kona Field System, of which Kahalu'u and Keauhou are a part, was probably established during this century. Residential activities in the dry uplands were probably intermittent or seasonal (Hommon 1976; 1980:8/7).

In the 15th century, occupation of the dry uplands probably became permanent, and social and economic organization along a mauka-makai axis developed (as opposed to the earlier coastal strip orientation). Kin ties within this developing "ahupua'a" structure were formalized by an increasing separation of the chiefly class from the general milieu of commoners (Hommon 1976).

Population growth stabilized in the 16th century and the ahupua'a was established as a self-contained, socio-economic unit. Social classes were clearly defined into chiefs and commoners. Cordy (1981) argues that there were four echelons or levels of social ranking--ruling chief, district chief, ahupua'a chief, and commoners. Chiefly control was based on a demonstration of power; that is, conquest warfare (Hommon 1976).

Data from excavated sites in Kahalu'u support the beginnings of coastal residential complexes and inland agricultural fields during this early traditional period. Four sites around Kahalu'u Bay, whose dates conspic-

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\*Unless otherwise noted, all dates from Keauhou and Kahalu'u sites are based on volcanic glass hydration rind analysis (Figure 3, Table 3).

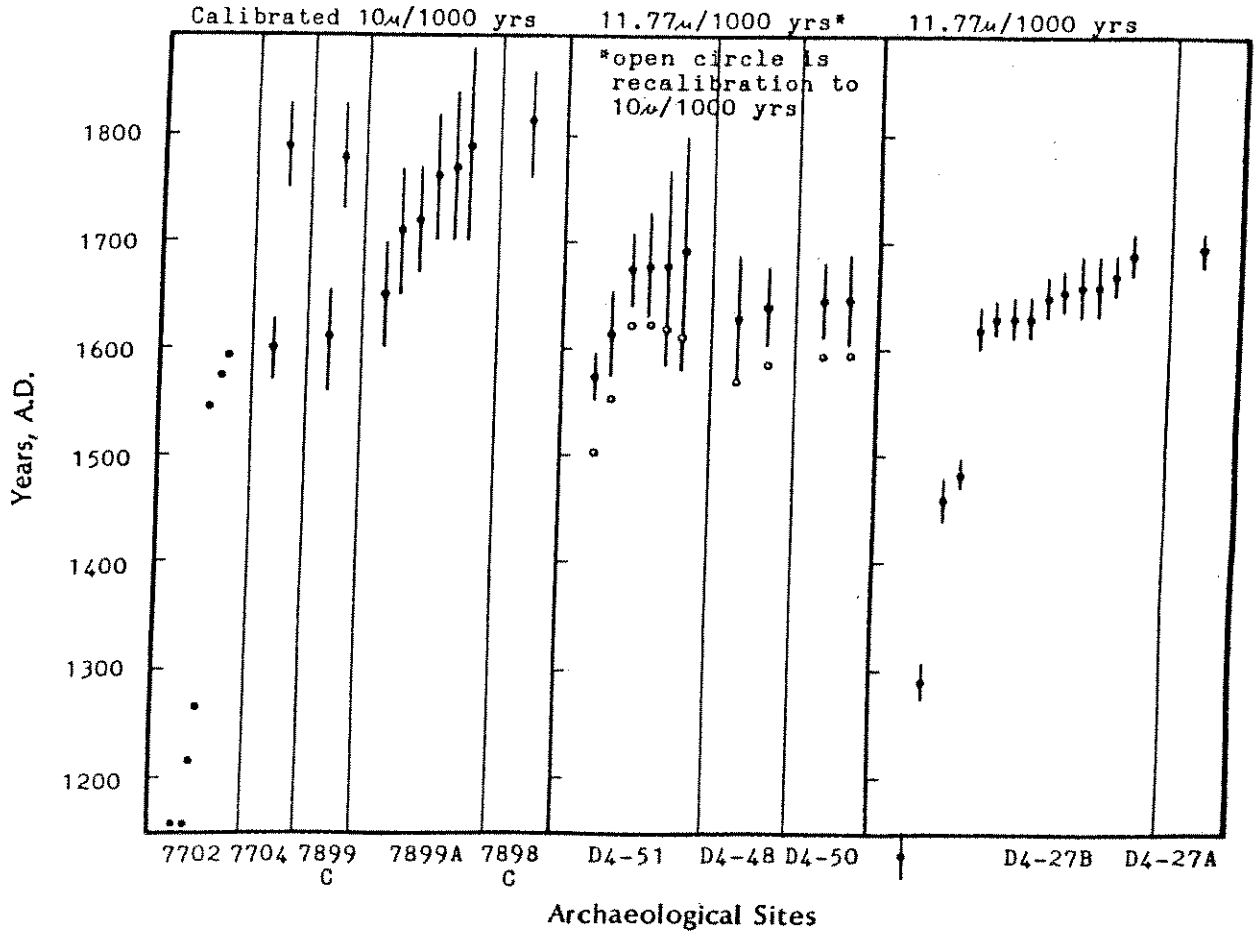


Figure 3

ARCHAEOLOGICAL DATES FROM KEAUHOU SITES

Table 3.

## ARCHAEOLOGICAL DATES FOR KEAHOHU RESORT AREA SITES

Site No.	Type	Excav. Unit	Depth B.S. (cm.)	Age in Years A.D. ±	Source
7702 *	Lava tube cave shelter	6	50-60	1597	Rosendahl 1981
		5	20-30	1579	
		1	20-30	1542	
		3	90-100	1266	
		5	100-110	1213	
		1	60-70	1158	
		1	60-70	1158	
7704 *	Terrace (possible habitation feature)	1	30-40	1792+40	Rosendahl n.d.
		1	40-50	1602±30	
7899C *	Low boulder platform (function unclear)	1	60-70	1782+50	Rosendahl n.d.
		1	50-60	1742±60	
		1	30-40	1612±40	
7899A *	Lava tube cave shelter	2	103-113	1792+90	Rosendahl n.d.
		1	10-20	1772±70	
		1	64-79	1761±60	
		2	64-76	1722±50	
		1	20-30	1712±60	
		1	30-40	1652±50	
7898C *		1	30-40	1792+40	Rosendahl n.d.
D4-51 **	Platform-enclosure complex (possible men's house)	XII	35	1692+110	Kirch 1973
		X	50	1677±49	
		X	70	1676±92	
		X	45	1675±34	
		X	90	1614±43	
		XII	45	1576±21	
D4-48 **	Midden deposit	I-E	45	1640±35	Kirch 1973
		I-E	35	1630±62	
D4-50 **	Midden deposit	I-E	35	1648±35	Kirch 1973
		I-E	35	1648±43	
D4-27A **	Enclosure (possible temporary shelter)	IV	0-25	1696±15	Crozier 1971
D4-27B **	Platform (function unclear)	II	0-25	1690±20	Crozier 1971
		V	0-10	1680±20	
		III	0-10	1660±30	
		I	0-19	1660±30	
		II	0-25	1655±20	
		V	0-10	1650±20	
		V	10-30	1630±20	
		III	10-25	1630±15	
		III	25-50	1630±20	
		V	10-30	1620±20	
D4-27B **	Pavement (possibly shelter-related; beneath platform)	III	25-50	1560±20	Crozier 1971
		III	25-50	1530±20	
D4-27B **	Open site with two firepits (beneath pavement)	Under Plat.	0-50	1486±15	Crozier 1971
		V	30	1486±20	
		Under Plat.	0-50	1291±15	
		V	30	1130±20	

\* Site numbers prefixed by 50-10-37-.

\*\* Site numbers prefixed by 50-HA-.

± All dates are based on hydration-rind analysis of volcanic glass. Rosendahl dates are calculated  $10\mu/1000$  years; Kirch and Crozier dates are calculated  $11.77\mu/1000$  years.

uously cluster from the late 16th century (see Figure 3), appear to be residential features: a lava tube shelter cave (7702), two terraces (7704 and D4-51), and an open midden site (D4-59).

Although no agricultural fields have been directly dated to this period, a residential feature, which may have been associated with upland agricultural activity, was excavated in Site D4-27b. Interpreted as an intermittent or seasonal shelter, this feature is a paving which has been dated to the mid-1500s.

A footnote to this period is the story of Spanish explorers in Hawai'i. Although this proposition has never been substantiated (and is generally discounted in scholarly circles), it was suggested by 19th century writers that a Spaniard, Juan Gaetano, discovered Hawai'i in 1555 (Remy n.d.:237; Fornander 1969:158). In addition, petroglyphs at Kahalu'u have been attributed to Spanish shipwreck survivors:

Three miles south of Kailua are the rock-carvings...crude figures of men cut in the basal blocks that form the beach. This work is believed to have been done by the survivors of a wrecked Spanish vessel some four hundred years ago (Smith 1913:10).

Fornander (1969:106-109) assigns the arrival of these foreigners to the period of the reign of 'Umi-a-liloa's son (see below).

#### 'Umi and Lono: The Late Traditional Period

From the late 16th to 18th centuries, Hawaiian traditions record successive wars and political machinations directed toward the expansion of political boundaries through force. As noted above, population stabilization has been linked to the use of conquest warfare for the aggrandizement of resources and labor (Hommon 1976). This late traditional period extends into the early period of European contact.

This period marks the first specific references to Keauhou or Kahalu'u in the traditional literature. When 'Umi-a-liloa killed his half-brother Hakau, the ruling chief of Hawai'i, most of the district chiefs rose in rebellion. 'Umi conquered each district in turn and consolidated his power as ruling chief or ali'i nui. According to Kamakau, he then "...desired to dwell in Kona where the climate was warm" (1961:19).<sup>\*</sup> Kamakau also notes that "'Umi did two things with his own hands, farming and fishing...farming was done on all the lands. Much of this was done in Kona" (Kamakau 1961:19). The heiau Pa-o-'Umi (Site 3823), which Stokes calls an agricultural heiau, is attributed to this chief.

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<sup>\*</sup>It is also said that 'Umi moved his court to the hinterlands of upland Keauhou, to the site of the heiau Ahu-o-'Umi or Ahua-a-Umi (Fornander 1969:100).

After 'Umi's death, the island was divided between his two sons into northern (Kona/Kohala/Hamakua) and southern (Hilo/Puna/Hamakua) districts. The chief of the southern district, Keawe-nui-a-'Umi, defeated his brother and became ali'i nui. Fornander writes that "a season of internal war, anarchy, and confusion" preceded Keawe-nui-a-Umi's ascension to power, as the district chiefs refused to acknowledge his claim (1969:11).

The early 17th century is the period of Lono-ika-Makahiki, the grandson of 'Umi. Lono was ali'i nui, with direct control of the districts of Ka'u and Puna. The rest of the island was divided into two other districts (Kona/Kohala and Hilo/Hamakua), with their own chiefs. At one point during Lono's reign, most of the district chiefs rose in rebellion against him; Lono, with the help of the Puna chief, put down the rebellion and verified his authority as ali'i nui. Also during this period, the Maui chief Kamalalawalu invaded Hawaii, but was defeated by Lono (Hommon 1976:319). It is said that Kamalalawalu was sacrificed on a Kahalu'u heiau (both 'Ohi'amukumuku and Ke'eku are mentioned in different versions of the story)(Barrere 1971:4).

Fornander (1916) says that Lono lived at Kahalu'u after his wars and travels were over. There are various heiau attributed to this chief: Makole'a (built to acknowledge the gods in victories over district chiefs), Kapuanoni (a pu'uhonua), and Keahiolo (an agricultural heiau).

From the mid-17th century to the early 18th century, the island was split between windward and leeward districts, with sporadic warfare between the two. The ali'i nui was resident in the leeward district, which included Kona.

From the time of 'Umi when Kona became the residence of the ruling chief, the Kahalu'u coastal area appears to have grown in political and religious significance, with concomitant growth of settlements around the main bay and along the coastline. Further, with the probable increased population in Kona, there was probably increased pressures for food production for both subsistence and a court surplus. Agricultural systems were probably expanded or intensified to their maximum capability.

As an example of the pressures of the royal entourage, Fornander says that 'Umi's move to Kona was made:

...in order to check the rapacity of the nobles and retainers attending his court while held in that rich and densely peopled valley of Waipio, and that was the reason which led him to establish his residence on that great and comparatively barren plateau where the Ahua-a-Umi were reared, far from the fruitful and ordinarily inhabited portions of the island (1969: 100).

The political and religious importance of Kahalu'u is supported by the large number of heiau and massive residential features in the area. As noted above, several heiau are specifically related to 'Umi-a-liloa or

Lono-i-ka-Makahiki. The "Lono-i-ka-Makahiki residence" (Site D4-56), an impressive and complex, high-walled structure, is also attributed to the latter chief (Kekahuna 1952).

Site D4-51, located near the described Lono residence, also suggests a high-status residence. Excavated by Kirch in 1973, it showed four periods of construction, dating from AD 1550 to 1630 (only a span of 80 years), interpreted from structural details, stratigraphy, and volcanic glass hydration-rind dating. Kirch notes that:

The architecture of this site, with its rear wall some 83 meters long and in places more than 3 meters high, leaves no doubt that it was constructed by a person of high social status. The close association of D4-56 [the Lono-i-ka-Makahiki residence] and -51 suggests that site -51 may have been an eating and sleeping house for male retainers of the chief's establishment (1973:32).

Land records from the mid-1800s give this site the place name, 'Umihale (Native Register, claim for LCA 5682).

Other residential sites which have been dated to this period include two lava tube shelter caves (7702 and 7899a), a terraced feature (7704), a low boulder platform (7899c), and an open midden deposit (D4-59), all in the vicinity of Kahalu'u Bay. Possible residential features associated with upland agriculture (D4-27a and b) also date to this period; a platform at Site D4-27b suggests permanent occupation related to agricultural activity in this period.

A specialized form of site which may have appeared during this period is the refuge cave. With inter-district warfare for island supremacy (in particular, for those periods of warfare in which Kona itself was the site of battles), some form of refuge may have been necessary for personal protection. For example, Kamakau (1961:63) notes that during warfare between Hilo and Kona chiefs (in the late 17th century), the Hilo chiefs were generally victorious and "Kona's chiefs fled to their fortresses..."; he also notes that "...after they [Hilo chiefs] won the battle of Hu'ehu'e the secret places and burial caves in Kona were broken open". Fornander says that during the reign of Alapa'inui in the early 1700s, the chief of Maui "sailed for the Kona coast of Hawaii, where he harried and burned the coast villages" (1969:133).

Recent survey and testing in the 'Ohi'a Cave site complex (site 7962, and others) suggest a line of inquiry in this direction (Allen 1983; Tomonari-Tuggle and Allen 1983). 'Ohi'a Cave-related features appear to be high-status residential or ceremonial sites constructed around refuge-type openings to the cave. Although there are presently no clear dates for these sites, the sites may relate to this period of inter-district warfare.

Thus, settlement during this late traditional period appears to have developed to its maximum extent. Residences, particularly at Kahalu'u,



were built on an eclectic foundation of caves, terraces, and platforms. At Kahalu'u, such residences were primarily inland of the bay; the peninsula south of the bay, with its extensive in-shore reefs and brackish or fresh water ponds, was the site of the more elaborate chiefly residences and heiau. Habitation probably extended southward along the coast to Keauhou and He'eia Bays. Other residences were scattered among the agricultural fields, which covered the upland slopes to the far mauka forestlands. The extent of residences and fields was limited only by the barren expanses of aa lava that segregated the Kona slopes into productive and non-productive strips. Specially constructed refuges were integrated into residential areas, in preparation for the provocations of warring chiefs, as conquest warfare became a significant mechanism for redistributing resources.

#### Kalaniopu'u and Kamehameha: Last of the Ruling Chiefs

During the first half of the 18th century, Hawai'i was once again united as a single political unit under the rule of Alapa'inui, a member of the Kohala family of chiefs. But, in 1752, Kalaniopu'u, chief of Ka'u and Puna, revolted against Alapa'inui and declared himself independent of the island chief (Fornander 1969:144). After Alapa'inui's death in 1754, Kalaniopu'u defeated the ruling chief's successor and became ali'i nui (Fornander 1969:145).

It was during the reign of Kalaniopu'u that the arrival of James Cook marked the entrance of Westerners into the Hawaiian sphere, thus ending the prehistoric period of Hawaii's past. And within only 25 years after that, Kamehameha assumed rule over all of the islands and established his 19th century dynasty.

Keauhou and Kahalu'u play an intermittent but important role during this period. Kalaniopu'u, as with most of his chiefly predecessors, travelled throughout his domain. After the dispatch of Captain Cook, the ruling chief is said to have "dwelt some time in the Kona district, about Kahaluu and Keauhou, diverting himself with Hula performances" (Fornander 1969:200). Kamakau writes that Kalaniopu'u moved to Keauhou "where he could surf in the waves of Kahalu'u and Holualoa" (1961: 105).

The excesses and demands of his large entourage may have forced some of his travels:

Scarcity of food, after a while, obliged Kalaniopu'u to remove his court into the Kohala district.... Here the same extravagant, laissez-faire, eat and merry policy continued that had been commenced at Kona, and much grumbling and discontent began to manifest itself among the resident chiefs and the cultivators of the land (Fornander 1969:200).

Both Kalaniopu'u and Kamehameha came to Kahalu'u at various times to enlist the support and succor of the Hawaiian gods. In 1775, Kalaniopu'u

retreated to Hawai'i after his defeat by the Maui chief Kahekili and "built heiaus for his war god Ka'ili, 'Ohi'amukumuku at Kahalu'u and Keikipu'ipu'i at Kailua as heiaus against sedition and for vengeance upon the chief of Maui" (Kamakau 1961:85). Kamakau writes that after his rise to power, Kamehameha also built heiau, among them Kama-i-ke'eku and 'Ohi'amukumuku, "for the sacrifice of human beings to his blood thirsty gods" (1961:180).

In 1813, after an absence of several years from the island, Kamehameha returned and "his first object was to pray to the gods and for this purpose he made tabu the heiau of Hikiau and then that of 'Ohi'amukumuku at Kahalu'u" (Kamakau 1961:200). He and his court resided at Kahalu'u for about a year (Ii 1959:113).

From the turn-of-the-century through the first decade of the 1800s, several high-ranking chiefs were born at Keauhou and Kahalu'u. Among them were Kuakini (born 1791; governor of the island of Hawaii from 1820 to 1844), Miriam Kekauluohi (born 1794; premier of Hawaii from 1839 to 1845), and Kauikeaouli (born 1813 or 1814; Kamehameha III). Keopuolani, the "sacred" wife of Kamehameha and mother of Kauikeaouli, resided at Keauhou sometime between 1789 and 1795 (Kamakau 1961).

The area is described in later years as "a picturesque retreat...said to have been a favorite residence of the Queens of olden days, at the periods when in the maturity of events, they were inclined to confer upon the nation new heirs to royalty" (Mackintosh 1838:2). But the reason for the concentration of high-ranking births is probably attributable to Ke'eaumoku rather than Kamehameha, as is implied. The children born at Keauhou and Kahalu'u were the offspring or descendants of Ke'eaumoku and his wife Namahana.

Ke'eaumoku was a fascinating character of this period and a great influence on the success of Kamehameha in his rise to power. He was the district chief of Kona and Kohala during the time of Alapa'inui, but sided with Kalaniopu'u in the latter's battle to become ali'i nui. But being a tempestuous fellow (according to Fornander), he later revolted against Kalaniopu'u and was forced to flee to Maui where he stayed until the death of the Hawai'i chief in 1782. With three other chiefs, Ke'eaumoku played a major role in Kamehameha's political ascent. He, in fact, personally killed Kiwala'o and Keoua, Kamehameha's adversaries for control of Hawai'i.

From the traditional literature, it would seem that among Ke'eaumoku's rewards for his assistance to the king were the two ahupua'a of Keauhou and Kahalu'u. Kalakaua writes that:

With the death of Kiwalao [in 1782]...the victory made Kamehameha master of the districts of Kona, Kohala, and Hamakua ...Keeaumoku's brilliant part in this first of the battles of the period for the sovereignty of Hawaii established him at once in the favor of Kamehameha, and raised him high in the esteem of the distinguished chiefs whose valor ennobled the closing years of barbaric supremacy in the group (1972:363).

By 1794, Keauhou and Kahalu'u were clearly under the control of Ke'eaumoku. Archibald Menzies, surgeon and naturalist on Vancouver's expedition in the 1790s, described Keauhou as "a small cove surrounded by a scattered village belonging to Ke'eaumoku" (1920:149). He recounts that he stopped at the bay at the behest of this high chief, whose son had been wounded in a spear-throwing contest and lay fatally injured.\*

Menzies also noted the ship "Fair American" anchored in the bay and the residence of an American seaman who had been left to make charcoal for any visiting ship which might need some:

This man chose a delightful situation for his dwelling... from which he had a commanding prospect of the village and cove underneath him, of a large extent of country on both sides and of the boundless ocean before him. We dined with him on roasted pork, roasted fowls and vegetables in a very comfortable manner, as he had taught the natives who attended him to cook and serve up his victuals in the English style (1920:150).

In this early period of transition when Western ways were being introduced throughout Hawai'i, the influence of this lone sailor was probably very minor. Keauhou and Kahalu'u probably remained, in large part, characteristically Hawaiian and possibly even, as Mackintosh suggests, a "retreat" for the Hawaiian chiefs. But if the lack of information in the documentary literature is any reflection, this specific locale was not significant to the Westerners who compiled the written records. Kailua and Ka'awaloa were the central places to the explorers from the West; few ventured to Keauhou and Kahalu'u.

The settlement pattern and land use of this period was probably little different from that of late traditional times. The influence of Westerners had probably not yet altered the cultural landscape to a great degree, although barter and exchange with foreign ships and the sandalwood trade were beginning to introduce new elements to the material existence of the Hawaiians.

This period of transition under Kalaniopu'u and Kamehameha ended dramatically at the battle of Kuamo'o, part of which took place at the southern coastline of Keauhou. After Kamehameha's death at Kailua in 1819, his widows Ka'ahumanu and Keopuolani influenced his successor, Liholiho, to break the religious laws. A small band of chiefs who wished to maintain the old religion gathered at Kealakekua. The battle between the old and the new was waged at Kuamo'o and the new way triumphed. Lekeleke Burial Ground in south Keauhou marks the graves of over 300 defeated warriors of this battle.

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\*Menzies informed the chief that he could not do anything for his son, who was later taken to Kealakekua to die.

### The Early 1800s: Merchants and Missionaries

Within a year after the battle of Kuamo'o, the first Protestant missionaries arrived in Hawai'i. Coincident with their arrival was the shift of Liholiho's court to Honolulu. Thus, the focus of political and religious activity was transferred away from the Kona coast. Kuakini was left as governor of the island, a position he held for over 20 years. Kamakau writes that Liholiho told Kuakini as he prepared to leave for O'ahu: "[H]ere is the land of Hawaii; there is food in the upland and fish in the sea; take it and eat, and we will go to Oahu" (1961:390). Thus, with the departure of the king and his court, the commoners were left to till the land and fish the sea, subjected only periodically to the demands of Kuakini or visiting chiefs.

But new pressures replaced the old, as foreign trade became a new source of demands. Mackintosh wrote in 1838 that Keauhou Bay "which affords a comfortable and safe anchorage, is resorted to by vessels for cargoes of firewood, sandal wood and other commodities of produce" (1838:2). New crops, such as yams, coffee, and melons, were cultivated to service the trade. Other introduced crops included Irish potatoes, Indian corn, beans, cotton, figs, oranges, guavas, and grapes (Wilkes 1845, in Kelly and Barrere 1980:24).

Sandalwood collection also became an integral part of local economic activities. The trade began in the 1810s, but was tightly controlled by Kamehameha. After his death, however, it was taken up enthusiastically by other chiefs who, by the mid-1820s, had plunged the nation into debt by drawing credit against future collections of the wood. It was said in 1827 that "a general scarcity for provisions seems to prevail throughout this island. The people have had such a fever here for getting sandalwood that I think this may be considered the cause" (Ely Ms., in Kelly and Barrere 1980:22).

The missionaries who came in the 1820s provide a glimpse of life in the area. William Ellis passed along the coastline in 1823, and counted 610 houses and 19 heiau between Kailua and Keauhou and 443 houses and eight heiau between Keauhou and Ka'awaloa. At Keauhou itself, there were 135 houses; about 150 people came to see Ellis and his companions (1969:120-121). Ellis also described a burial area at Keauhou: "a space surrounded with high stone walls, appearing much like an ancient heiau or temple" (1969:360).

Other missionaries followed Ellis and mission stations were established at Kailua and Ka'awaloa. In the early years of the mission, Artemus Bishop travelled periodically between the two stations, preaching at villages along the way. In 1825, he noted that there were never less than 500 people at each of his stops at Holualoa, Kahalu'u, Keauhou, and Kainaliu (Bishop 1892:18).

During this period, the population of the Kona area was concentrated along the coastline, with a large aggregation at Kailua and smaller ones

at various locales between Holualoa and Napo'opo'o, including Keauhou and Kahalu'u (Holland 1971). During his tour, Ellis remarked on the mile-wide stretch of aa lava over which a steppingstone trail connected the villages of Kahalu'u and Keauhou. Residences were also scattered in the uplands and in making his population estimates for various areas along his itinerary, Ellis allowed for "those who live among the plantations on the sides of the hills" (1969:121).

Agriculture in Kona was divided into planting zones: (1) at a low elevation was a dry area with breadfruit trees, among which were planted sweet potato and wauke; (2) in a middle zone were fields of sweet potatoes and taro, bounded by low walls planted in sugarcane and ti; and (3) in an upland area just below and at the edge of the mountain forest were gardens of bananas and plantains. Each zone merged with the next so that there were no truly sharp divisions (Newman 1970:130; Holland 1971). Elevation and rainfall appear to have been the regulating variables in the development of agriculture in Kona. Although there are no specific descriptions of land use at Keauhou and Kahalu'u, it is highly likely that it fits this model of agricultural development on the Kona slopes.

#### The Mid-Century: Government Land Records

In the mid-1800s, the Hawaiian land tenure system was replaced by a Western model of fee-simple ownership. The traditional system was based on a reciprocal relationship between chiefs and commoners in which chiefs held authority over the land; but land was not owned in any legal sense, as revocable rights to its use were allocated and reallocated from the ruling chief down through a hierarchy of lower chiefs and finally to the commoners.

During the 1830s and 1840s, Westerners pressured the Hawaiian government for a codified system of land ownership which would allow for profitable commercial and agricultural development. The government responded with a series of constitutional changes. In 1840, it was legally established that land was owned by the people and chiefs in common and that the king, as head of the nation, had only the authority of management. In 1848, the Great Mahele clearly defined the division of ownership of ahupua'a between the king and 245 chiefs. Laws enacted in 1850 authorized the sale of land to resident aliens, and the award of kuleana (those lands actually occupied, cultivated, and improved) to native tenants.

Commoners were required to have their lands surveyed and to have supportive testimony to validate their kuleana claims. These claims and testimonies for Land Commission Awards (LCAs) provide valuable information on the settlement and land use of ahupua'a at mid-century. Chiefs were also required to gain Land Commission Awards for their ahupua'a, but were allowed to claim them by name only, without survey or witnesses.

In Keauhou and Kahalu'u, a total of 126 Land Commission Awards were granted, excluding the chiefs' awards (Figure 4). Victoria Kamamalu received Kahalu'u and half of Keauhou (named Keauhou 1); her brother, Lot Kamehameha, received the other half of Keauhou (named Keauhou 2)(Kalaiheana 1866).\*

It appears that the separation of Keauhou into two parts occurred during this period. The boundary between Keauhou 1 and 2 cuts through several of the kuleana awards, which implies that it post-dates the occupation of those areas. The boundary divides the resource area of Keauhou almost evenly in half: Keauhou 1 encompasses half of Keauhou Bay, all of He'eia Bay, and a relatively fertile strip of lower slope agricultural lands; Keauhou 2 encompasses half of Keauhou Bay, more barren lower slope lands, but a large interior area of forest lands. This interior area stretches between the summits of Hualalai and Mauna Loa and meets the boundaries of Hamakua and Ka'u districts.

There were 56 Land Commission Awards granted in Kahalu'u which range in size from 0.07 to 4.40 acres. They were awarded in one and two parcel allotments.

There were 50 LCAs granted in Keauhou 1 and 19 in Keauhou 2; one award in Keauhou could not be specifically located in either of the two subdivisions. LCAs were awarded in one to three parcel allotments, and parcels ranged from 0.14 to 6.66 acres.

Residences were primarily along the coast, generally occurring as stone wall-enclosed houselots containing up to five houses. Within houselots were a variety of garden plants, including kou, hala, hau, papaya, loulou palm, pineapples, noni, coconut trees, and "some flowers for beautification".

In Kahalu'u, 28 of the houselots are tightly clustered along the north edge of Kahalu'u Bay; the other 15 are scattered on the point of land south of the bay. All lie makai of the Kuakini Wall.

At Keauhou Bay, houselots are located primarily on the promontory between Keauhou and He'eia Bays, with seven situated on the south side of the bay. One lot is isolated on the southern coast of Keauhou 2.

There were at least four trails in Kahalu'u and Keauhou 1 which led to the upland cultivation areas. There do not appear to be any similar trails in Keauhou 2.

Upland agriculture occurred primarily between 1000 to 1700 ft above sea level. It appears to have been structured largely by the location of aa lava flows across the slopes. This is especially clear in Keauhou 2,

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\*V. Kamamalu and L. Kamehameha were great-grandchildren of Ke'eaumoku and Namahana, through their daughter, Kaheiheimalie (wife of Kamehameha), and her daughter, Kina'u.

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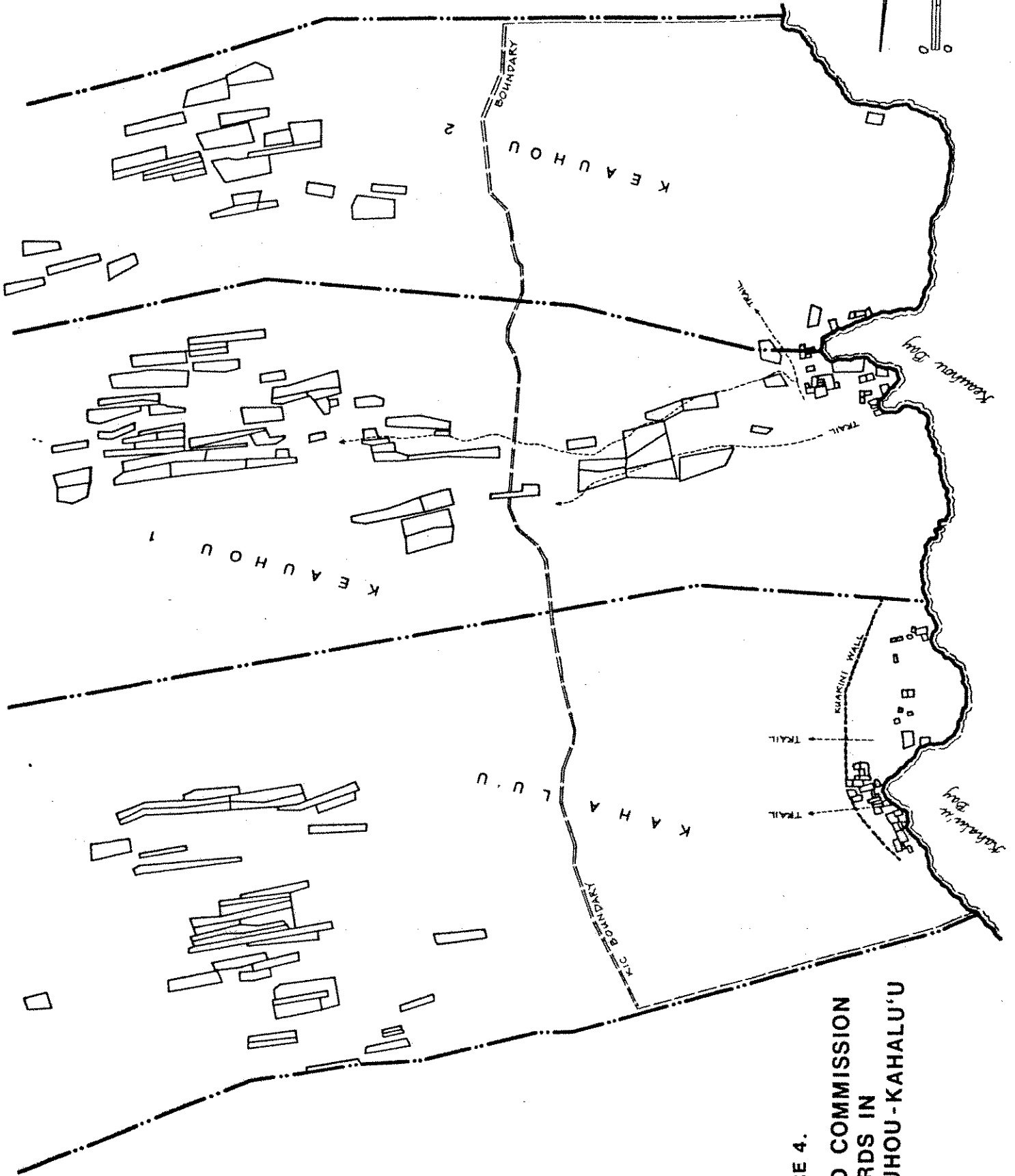
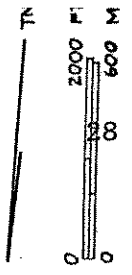


FIGURE 4.  
LAND COMMISSION  
AWARDS IN  
KEAUHOU-KAHALU'U

where a small cluster of parcels is nestled in a narrow, arable strip between two fingers of aa lava. Fields generally occur in areas of "well-drained, silty clay loams formed in volcanic ash" of the Kainaliu and Honuaulu soils (Sato et al. 1973).

Only in Keauhou I do agricultural parcels extend all the way to the coast. This occurs in a strip of shallow gullies with well-drained, thin organic soils overlying an aa base. The boundaries of this area to the north and south are clearly defined by the high cliffs of more recent aa fields.

In all three ahupua'a, the upland fields are long, narrow strips which run perpendicular to the natural contours. Without actually knowing the configuration of the agricultural fields themselves (many of which have been destroyed or disturbed by modern activities), one can still hypothesize the organizational structure of the field system in this area, based on these land awards and what is currently known of the agricultural system in the Kealakekua area (cf. Soehren and Newman 1968, Newman 1970).

In terms of actual crop cultivation, it appears that the uplands were subdivided into four zones: kula, kalu'ulu, a taro area, and an 'ama'uma'u zone. The criteria for zonation is unclear, but elevation and rainfall were probably critical (see above section on land use in the early 1800s). Further, several award claims (e.g., LCA 7362) state that the land extends from the "kula to the 'ama'uma'u zone", which suggests an elevational basis for zonation.

The kula is described as "open country in the coastal region" (Kelly and Barrere 1980). The primary crop grown in this region was the sweet potato, although pumpkin is mentioned in one claim. If the kula is indeed near the coast, it probably encompassed the kuleana parcels in the central portion of Keauhou I. Crops described for this area include yam, coffee, and taro, as well as sweet potato.

The kalu'ulu zone is mentioned in several claims, and is described as either an area where crops were planted among breadfruit trees, or an area of luxuriant growth (i.e., a very cultivatable zone)(translator's note in Volume 8, Native Testimonies for Land Commission Awards). Only sweet potato is mentioned in relation to this zone.

A taro-growing zone is specifically referenced in testimonies. Taro, sweet potato, and coffee are listed as crops cultivated in this area.

The 'ama'uma'u zone is mentioned in testimonies only as a boundary reference. It is interpreted as the uncultivated, but probably exploited, forest zone beyond the upper limits of the field systems.

Other crops mentioned in the award records include orange trees, gourds, and melons.



It is interesting to note that where Newman (1970) and Holland (1971) emphasize the predominance of breadfruit between the elevations of 500 and 1800 ft above sea level in the Kona area, this tree is not mentioned in any claims or testimonies for the Keauhou-Kahalu'u area, almost all of which fall in that elevational range. While one can infer that breadfruit no longer grew in the area by mid-century, it is possible that it was an ubiquitous tree crop among which other crops were consciously cultivated.

Claims and testimonies also present a time frame for residence or land use of the kuleana lands. Many stipulate acquisition from before 1820: usually stated as "since or during the time of Kamehameha I", although one claim specifies that the land was occupied from the time of Mokuohai (a battle in 1782), and another cites Ke'eaumoku as the benefactor of the claim (Ke'eaumoku died in 1804). Many others claim residence during the time of Kuakini (1820 to 1844).

A few claimants appear to have been less than ten years resident in the area, particularly at Kahalu'u. Several claims specifically note that the claim was not from the time of Kamehameha I: "it is not an old lot because it is customary for the people of these islands to live in various places" (e.g., LCAs 5674, 5676, 5684).

This transiency in residence is also reflected in statements by witnesses about vacant lands. Several testimonies attest to claimants' rights by saying "it was a vacant land, so they lived there" (LCA 5684), and "it had been idle land, but he lived there" (LCA 6027). One testimony even states that "it was vacant land at the time of Kamehameha I" (LCA 5831). It is interesting to note that there are no such testimonies for Keauhou lands.

Kahalu'u expresses an intriguing pattern of changing land use. In traditional times and under Ke'eaumoku and Kamehameha, it was a focus of political and religious activities, with chiefly residences and heiau on the point of land south of the bay. Archaeological remains attest to a wide-spread, village-type settlement extending at least 1200 to 1500 ft inland from the shore. By the time of the kuleana awards, however, the settlement had contracted to the immediate environs of the coast, makai of what is now called the Kuakini Wall. This wall, which certainly existed at mid-century, is alternatively described as a mechanism to protect upland fields from village animals, or village areas from straying grazing animals, depending on the source of information (Kelly and Barrere 1980:30).

Testimonies suggest that some, if not much, of the area was vacant, into which new residents moved. The distribution of archaeological remains throughout the Keauhou-Kahalu'u area is not matched by the much more limited extent of land awards. This suggests the retrenchment of settlement and land use into more optimal areas as population decline decreased pressures on land use. The pattern can be seen throughout Hawaii'i.

There are numerous archaeological sites which have been linked to this period, primarily through a locational relationship to mapped kuleana awards. These include Sites 5669 and 5671 which are immediately mauka of Keauhou Bay (in DP 22/23), sites at He'eia Bay (D3-18 to -21, -30, -31), and unnumbered sites observed on the promontory between the two bays. Site D4-51 at coastal Kahalu'u was interpreted as a men's house dating from at least AD 1550; it correlates with LCA 5682.

### The Late 19th Century

The latter half of the 19th century saw a growing quietude around the coastal settlements along the Kona coast. There was a general population decline among native Hawaiians throughout the islands; and while other areas of Hawai'i saw growth through plantation-related immigration, the Kona coast was gradually becoming a backcountry outpost. Still, coastal settlements maintained a sense of community.

At Keauhou and Kahalu'u, population was declining but there were still some small mercantile businesses, and each area had a school and church.\* Both areas are listed as specific entities in government tax and license records, as well as in private business directories.

The settlement at Keauhou appears to have contracted to the north side of the bay, where only 16 structures (probable residences), a store, and a school house were mapped in 1885 (Jackson 1885). Around He'eia Bay were six structures in four enclosures, three of which are identified by occupants' names. None of the names match those of Land Commission awardees.

Tax records for the period from 1857 to 1881 indicate a drop in tax population from 72 to 24 (Kingdom of Hawaii tax ledgers, 1857 to 1893) (Table 4). Only records from 1857, 1860, 1870, 1881, and 1890 were checked. Tax records for the kingdom were initiated in 1857 and discontinued after the 1893 overthrow of the monarchy. The 1890 tax records are so complex relative to the others that they could not be correlated for this study.

The store at Keauhou had at least one predecessor. There was a mercantile establishment at the bay as early as the 1830s, when a traveler noted that:

Here is to be found one of the trading establishments with which an enterprising and industrious merchant has besprinkled the island of Hawaii; by this gentleman the natives have been furnished with numerous facilities for an exchange of produce for foreign merchandise, without which a great share of the fruits of their toil would never find their way to a purchaser (Mackintosh 1838:2).

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\*Both churches were built by J.D. Paris of the Ka'awaloa Protestant Mission, and the one at Kahalu'u was used briefly as a school in the 1880s (Circuit Court 1973a:5). There was a school at Keauhou from 1888 (others were located at Pahoehe, Kailua, and Holualoa).

Table 4.

## TAX RECORDS, KINGDOM OF HAWAII

Year	Ahupua'a	Men	Boys	Horses	Real Property
1857	Keahou	13	2	12	----
	Keauhou 2	51	12	54	----
	Kahalu'u	48	9	34	----
1860	Keauhou 1	42		73	\$3,000.00
	Keauhou 2	14		28	\$4,000.00
	Kahalu'u	48		78	\$4,000.00
1870	Keauhou 1	29		73	\$7,200.00
	Keauhou 2	10		19	\$2,250.00
	Kahalu'u	41		111	\$7,500.00
1881	Keauhou	24		69	\$7,400.00
	Kahalu'u	40		76	\$5,800.00

(Source: Kingdom of Hawaii Tax Ledgers, Hawaii State Archives.)

The writer adds that "Keoho [sic] looks quite like a wooding and watering station on the Ohio and Mississippi rivers...we could at times, scarce resist the fancy that the sound of an approaching steamboat was in our ears."

Government license ledgers indicate similar enterprises from at least 1855 through the end of the century. Between 1855 and 1870, 11 applications (by five individuals) were made for retail outlets in Keauhou. T.N. Travis, J.C. King, and J.W.C. Jones are listed for retail licenses from 1855 to 1869; Chinese names appear in applications in 1867.\* The Keauhou total compares with 25 for Kailua, 10 for Kealakekua, 7 for Napo'opo'o, 4 for Ka'awaloa, and 3 each for Holualoa and Honaunau. This implies that Keauhou may have been one of the more active areas along the coast. The store noted on an 1885 map was possibly run by a man named Pilipo (Jackson 1885); a T.W. Pilipo is also listed as a Keauhou coffee grower around the same time period (Bowser 1880).

\*Only this period of license applications to the Department of Interior, Kingdom of Hawaii, was researched. Each business was required to apply on an annual basis, so the number of applications does not reflect the actual number of businesses. In Keauhou, there were never more than two licenses applications in any one year.

Little is known of Kahalu'u at this time. Unlike Keauhou, it had no functional harbor for interisland vessels, so it lacked that attraction for business enterprises. In the 1855 to 1870 license period, G. Spalding received a retail license in 1857, which he renewed annually in the years between 1864 and 1867. His is the only name listed for this period. During this same period, government records indicate a decline in the taxable population from 57 to 40.

Some documentary evidence for the area appears to contradict the notion that Keauhou Bay, within Keauhou 1 ahupua'a, was the locus for a larger community than Kahalu'u or Keauhou 2. For example, except in the first year when there is no listing for Keauhou 1, there is always a larger tax population indicated for Keauhou 2 than for Keauhou 1. Further, Keauhou as a whole experienced a decline in tax population, while Kahalu'u experienced an increase. An 1890 listing of male workers in Hawai'i shows a similar relative population distribution for the area (Lane 1890); it lists 34 men in Kahalu'u and only 27 in Keauhou.\*

The explanation for this contradictory evidence may lie in the growth of the uplands as centers of community. Even at mid-century, 33 percent of the kuleana land awards were for parcels of upland lands only. Ranching and commercial coffee cultivation were actively practiced throughout this period. Native and "coolie" labor was hired for cultivation and harvest of coffee (Cumings 1854, in Kelly and Barrere 1980:42); the laborers and farmers listed in the 1890 directory probably refer to this work force. In the 1870s, an Englishwoman, Isabella Bird, visited Kona, but while she alluded to places of note along the coast, she chose to spend her time in the cool uplands above Kealakekua Bay and on the high slopes of Hualalai (Bird 1874:277-287). Thus, the uplands in general and upland Kahalu'u specifically may have been growing, as coastal settlements shrank.

By the end of the century, the only noticeable ethnic change was in the Chinese population along the coast. The presence of Chinese at Keauhou and Kahalu'u is supported by government tax records which show one residing at Kahalu'u and two at Keauhou in 1870; one was living at Kahalu'u in 1881. A Chinese retail store was located at Keauhou in 1867 and by the 1890s, it was said that:

...at all the villages along this coast...the Chinese seem to rule the roost. All the largest stores are owned by the enterprising Celestials...most of the white men live back from the coast, on the plantations, so the Chinese have uninterrupted sway along the sea shore (Paradise of the Pacific 1897:3).

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\*Most of these men were laborers (44, with 18 in Keauhou), although farmers (12, with 7 in Keauhou), carpenters (2 in Kahalu'u), policemen (2 in Keauhou), fishermen (one in each ahupua'a), and lawyers (one in each ahupua'a) are also mentioned. By name, they all appear to be Hawaiian, except for Jaao Martins (Lane 1890).

The only excavated archaeological site which can be correlated to this period is Site D4-25, located along Kamehameha III Road. Although there are no chronometric dates for this site, artifacts roughly date it to the middle to late 19th century; these include square-headed nails, a ceramic bottle "which closely resembles early Vermont pottery which made its way to Hawaii in the mid 1800s", and ceramics of the Lokelani style, which was popular in Hawai'i in the 1870s (Crozier 1971a). Recent survey in the same area located three similar complexes with historical material (M.S. Allen, pers. comm.).

Other sites include the Helani church in Kahalu'u (built in 1861), numerous cart roads which connected the coastal areas with the uplands, sites around and at the head of Keauhou Bay, and sites makai of Kuakini Wall.

It is probable that coastal settlements were still largely of traditional appearance. During this period, even Honolulu was still spotted with grass houses (Tomonari-Tuggle 1983c:9), suggesting that a rural area like Kona certainly retained that style of residence. A turn-of-the-century traveller to the Big Island remarked on grass houses all along the coast, from which Hawaiians came out to the steamer in canoes, "laden with fruit, fish, and the products of his hardware, in the shape of mats, fans, etc." (Manson 1896:67).

#### The 20th Century: Quiescence and Revival

By the turn-of-the-century, the Kona uplands were developing into an agricultural haven for small farmers, nurtured by the family-oriented coffee industry (Lind 1967). Settlements strung out and grew along the Belt Highway in the lush uplands, leaving the dry and rocky coastline to a few hardy individuals.

The Kona settlement pattern was an array of small towns, each servicing an integrated community. Main towns (or at least those which are consistently referred to in various records) were located at Kailua, Keauhou, Napoopoo, and Honaunau along the coast, and at Kealakekua, Kainaliu, Holualoa, and Captain Cook along the Belt Highway. Each town had its stores, churches, and schools. Post offices were located at Keauhou, Holualoa, Kailua, Napoopoo, and Kealakekua town (Donn 1901).

Along the coast, Keauhou was the literal "end of the road" from Kailua; the road continued further south as only a trail. Kahalu'u was merely a cluster of houses along the way. But perhaps more important than the coastal road were the carriage roads and paths which connected the coast with the uplands. The changing focus of community life to the uplands is reiterated in a visitor's description of Keauhou Bay as "miles off the beaten path...a place where people used to live in numbers and now live no more" (Schenck 1931:80).

Schenck only slightly miscounted, as a 1928 map (USGS Kailua quadrangle, 15' series) shows 15 structures around He'eia and Keauhou Bays; 12 structures are noted along the coast road in Kahalu'u. However, these are hardly a comparison with the dense upland settlements, particularly mauka of Kealakekua Bay.

A survey of general stores listed in two early 20th century city directories shows the dominance of the upland towns during the early 1900s (Polk-Husted's Directory 1920, 1930). Of 64 stores in North Kona in 1920, 26 were located in Kealakekua, 16 were situated in Holualoa, and seven were noted for Kailua; only one was located in Keauhou (owned or run by a Chinese named Sang Kee). In 1930, there was approximately the same distribution; the Keauhou store was then run by Chong Leong.

Tourism, the mainstay of the present Kona economy, was an adventure before World War II. A traveller's chronicle from the early 1930s paints an idyllic picture of Kona:

The Kona coast has something about it that is not quite describable. It lacks that atmosphere of ball-bearing Big Business so general in the Hawaiian Islands...because the contour of Kona does not play into the hands of the big industrialists...this leaves a chance for things homegrown for the grower's own use, does not reduce Kona to a holding of a big corporation or two...so there remains a hint of the old Hawaii there (Franck 1937:47).

The atmosphere of old Hawai'i was maintained in small hotels scattered around the district. At the turn-of-the-century, Manson (1896:67) described the "elegant hotel" at Kailua. In 1920, there were hotels at Kailua, Holualoa, and Kealakekua. In 1930, there were nine hotels in the district, one each at Holualoa, Kailua, and Honaunau, two at Kealakekua, and four at Captain Cook. The Kona Inn at Kailua was built in 1929 and rapidly became a well-visited Kailua landmark.

After World War II, tourism flourished. In the early 1950s, there was an estimated 18,400 tourists and 60 hotel rooms in Kona. By 1967, that number had risen to 137,000 tourists and 725 hotel rooms. Within one year after that count was made, 204 more hotel rooms were added to the Kona inventory (Lind 1967:30). In the early 1970s, development began in earnest at Keauhou and Kahalu'u, the beginnings of the present Keauhou Resort.

## CHAPTER II.

### THE NATURE AND SIGNIFICANCE OF CULTURAL RESOURCES IN THE KEAUKOU RESORT

On the basis of historical research and review of available archaeological literature, it can easily be said that the Keauhou Resort is a storehouse of archaeological wealth. More than 35 separate survey, mapping, and excavation projects have recorded over 500 sites, covering much of the resort area landscape. The sites which have been recorded (and there are clear indications of many unreported ones) represent a range of activities and time periods, representative of traditional and historical Hawaiian occupation of Keauhou and Kahalu'u.

Analysis of datable material from archaeological sites suggests an occupation of the area from at least the AD 1100s (Rosendahl 1981b), and artifacts from some sites indicate residential activity well into the 20th century. Legendary and historical evidence correlates with this archaeologically derived scheme.

This chapter summarizes archaeological work which has been carried out in the resort area, and discusses the nature and significance of cultural resources in Keauhou and Kahalu'u.

#### PREVIOUS ARCHAEOLOGICAL WORK IN KEAUKOU-KAHALU'U

The earliest archaeological investigations in the Keauhou-Kahalu'u area were carried out by the B.P. Bishop Museum as part of regional or thematic surveys on the Island of Hawai'i. J.F. Stokes in 1906 and J.E. Reinecke in 1929-1930 collected information from this area. Reinecke produced detailed location maps and descriptions of sites in Keauhou and Kahalu'u which, in many cases, can still be correlated with existing sites. K.P. Emory worked intermittently in the area between 1932 and 1971.

An archaeological inventory of B.P. Bishop Estate lands in North and South Kona was made between 1952 and 1956 by Henry Kekahuna and Theodore Kelsey. The information they collected includes place names, oral traditions, and notations on archaeological sites.

Archaeological work in the Kona area became a real and immediate need from the 1950s on, when major impacts from resort development began to adversely affect cultural resources. The tourist industry that developed in Kona after World War II generated a growing demand for the amenities of resort living. Hotels, golf courses, and improved infrastructure consumed the archaeological remains of earlier inhabitants.

The development of Keauhou and Kahalu'u began in the 1970s, and that spurred efforts to rescue information from sites endangered by urbanization. Over 35 parcel-specific studies have been since undertaken,

primarily along the coastal strip where most development has concentrated (see Hammatt and Folk:18-21; and Appendix B of this report, for summaries of archaeological work in the resort area).

The most areally broad survey in Keauhou-Kahalu'u was carried out by Archaeological Research Center Hawaii, Inc. (ARCH) in 1980 as part of KIC's plans for the resort area (Hammatt and Folk 1980). A total of 320 sites and site complexes were located in 14 of 16 development parcels (Table 5). Since then, additional sites have been found which expand the resource base in both numbers and variety.

#### FUNCTIONAL CATEGORIES OF ARCHAEOLOGICAL SITES

The cultural resources of Keauhou and Kahalu'u have an incredibly rich character. The major functional categories which are represented in this area include agricultural features, residential structures, burials, religious sites, and features of miscellaneous or unknown purpose.

##### Agricultural Features

Agricultural features are ubiquitous across most of the inland landscape. Terrace walls, field clearance mounds, and modified outcrops occur in the broad area above the 500 foot elevation and in swales and gullies below that topographic contour. There is noticeable variation in feature types from one swale or gully to the next. Possible cultivation features also occur on aa flows. These consist of artificially constructed depressions encircled by large aa boulders; many of these support noni shrubs today.

The entire Keauhou Resort falls within the Kona Field System, an historical district which has been evaluated as eligible for the National Register of Historic Places. It is an incomparable example of Hawaiian engineering and agricultural technology which covers an area of approximately 3 by 18 miles of the upland Kona slopes. Based on a study of the Kealakekua section (Newman and Soehren 1968), the field system is described as an immense pattern of fields formed by "earthen and rock ridges which enclose rectangular field areas, generally oriented with their long axis perpendicular to the sea" (NRHP n.d.).

Most of the agricultural features found within the Keauhou and Kahalu'u area represent the range of variation in the Kona Field System. They can be divided into four intergrading types:

1. The classic field system--major walls running downslope, with cross-terraces following the natural contours; generally occur in areas with good soil development; exceptional examples found in DP 27/28/29, along the northern boundary of Kahalu'u.



Table 5.

## DISTRIBUTION OF SITES IN DEVELOPMENT PARCELS

Development Parcel	Proposed Development	No. of Acres	No. of Sites
8	Commercial use	23	9
10	Multifamily residence	34	4
14B,14C	Multifamily residence	30	10
14B,14C	Historical preserve	--	25
22A	Golf course	--	20
22A	Historical preserve	--	2
22B	Golf course	--	12
22C	Golf course	--	60
22C	Open and historical preserve	--	16
23	Multifamily residence	5-1/2	5
24	Multifamily residence	14	0
25	Single family residence	63	8
26A,26B	Multifamily residence	28	42
26A,26B	Historical preserve	--	12
26C	Multifamily residence	19	9
26C	Historical preserve	--	8
31	Multifamily residence	39	33
31	Historical preserve	--	2
32	Single family residence	48	59
32	Historical preserve	--	9
33	Single family residence	18	1
34A	Single family residence	24	3
34B	Single family residence	21	3
34C	Single family residence	11	0
35	Single family residence	10	0
39	Multifamily residence	7	2
40	Multifamily residence	43	20
41	Multifamily residence	23	2

Note: List compiled from Hammatt et al. 1981:86-136. Sites which cross over development parcel boundaries are counted as present in each parcel; therefore, the sites total exceeds the actual total number of sites recorded.

2. Complexes of crudely enclosed natural depressions, located on barren aa flows with no or little soil development; examples have been found in DP 22 and 40.
3. An intermediate type of complex consisting of terraces, mounds, modified outcrops, and alignments; structural features are not as well-defined as in the classic system; generally found in localities with some soil development, but with considerable rocks, such as in the area inland of Keauhou Bay.
4. Agricultural features in association with historical kuleana type complexes; appear to be household gardens (M.S. Allen, pers. comm.).

### Residential Features

Residential features also occur throughout the project area. These include small, walled shelters and enclosures, raised platforms, terraces, midden scatters (without associated structural features), lava tube cave sites, and multiple component complexes of two or more of these feature types. Residential function is inferred primarily from location, structural characteristics, and presence of midden and/or artifacts.

Larger complexes of multiple structures are concentrated along the coastline, especially in Kahalu'u (Figure 5). These massive, well-built complexes of platforms and enclosures have been interpreted as compounds for chiefs and their retainers, and thus are an important component of the residential category. For example, Kirch (1973) excavated Site D4-51, which was adjacent to the "Lono-i-ka-Makahiki Residence" (an impressive complex identified as either a heiau or an area within a chief's compound where family gods were worshipped). D4-51 was interpreted as a men's house within the larger chief's compound, and dated from AD 1550 to 1630.

Although there are no comparable residential complexes in Keauhou at present, Reinecke (1930) recorded three extensive village-like concentrations along the coast: one at the northern boundary at Malailena Inlet (Figure 6a), one around Keauhou Bay (Figure 6b), and one at the southern border of the ahupua'a at Kahoe'e (Figure 6c). In 1971, the following was reported by a State Parks archaeologist:

The entire prehistoric village ruins lying north of Heeia Bay--comprising more than 80 sites covering every type of structure which enabled such a village to function, as well as many scattered sites in the vicinity had been wiped out by the golf course (T.S. Newman, cited in Emory et al. 1971:10).

In the inland areas of Keauhou and Kahalu'u, habitation features are scattered and isolated, though often associated with entrances to lava tube caves (Allen n.d.). Crozier (1971a) noted the occurrence of small shelters and enclosures below the 500 ft elevation (i.e., below the area of extensive agricultural features).

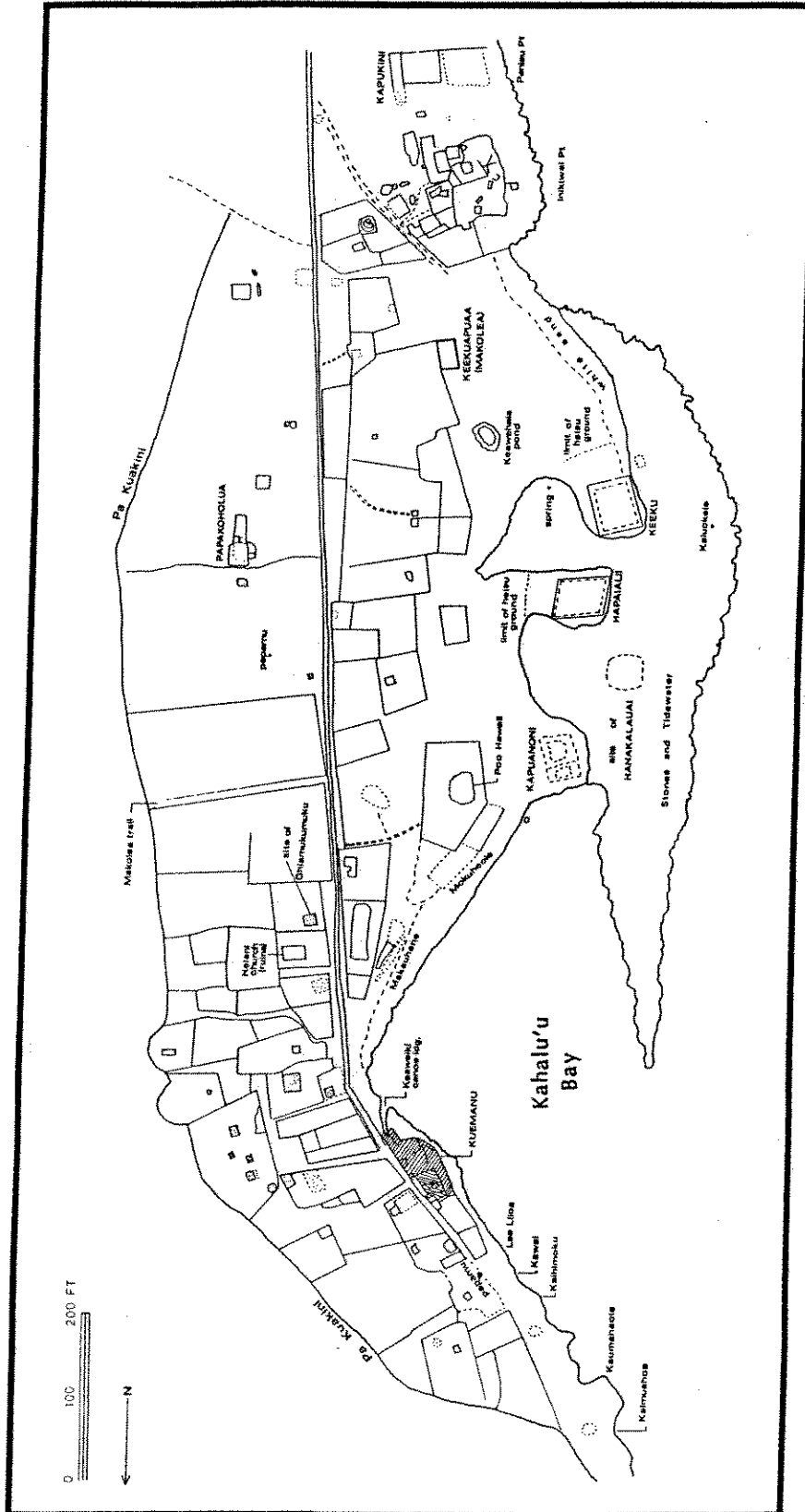


FIGURE 5  
SITES MAPPED BY J.E. REINECKE  
-- COASTAL KAHALU'U

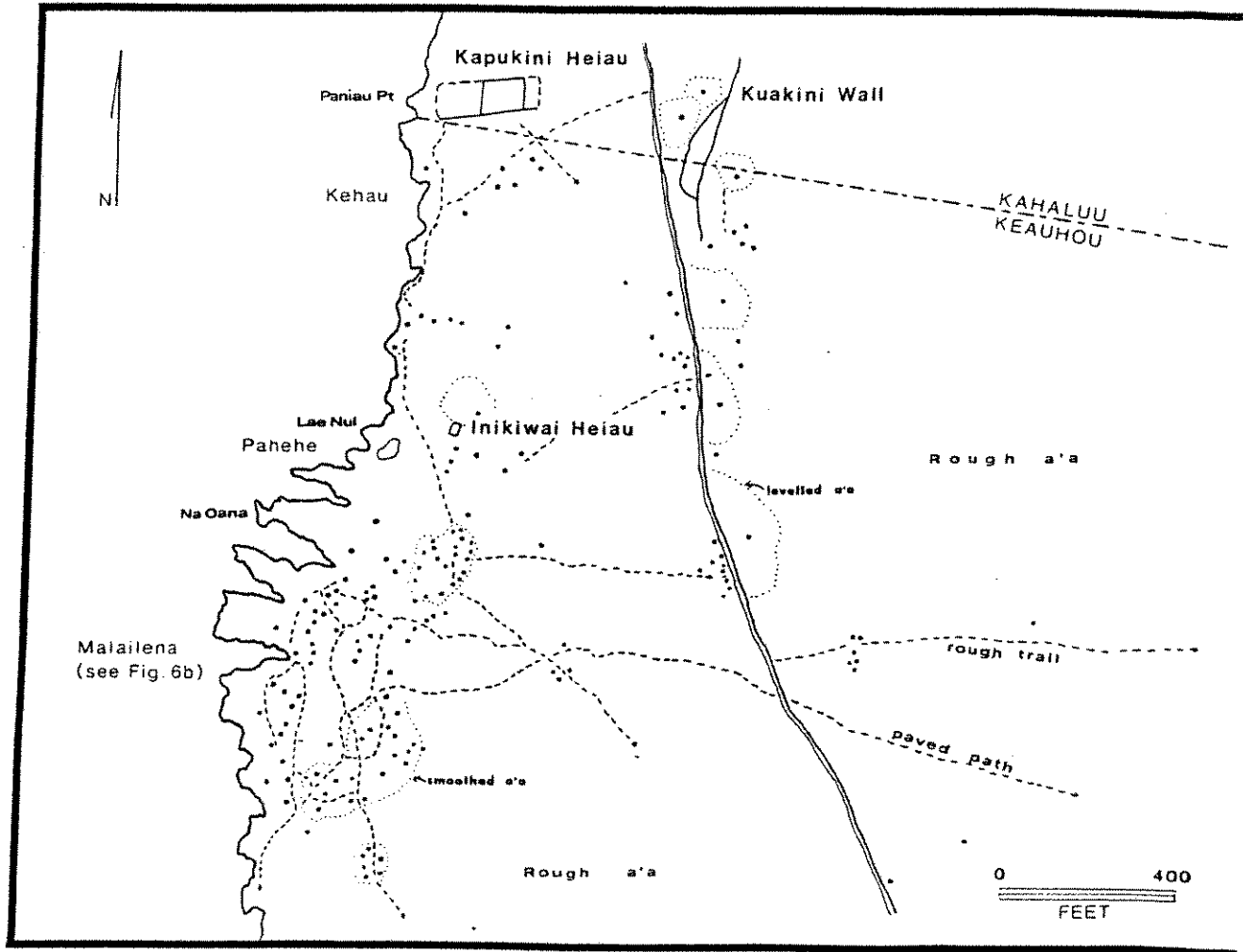


FIGURE 6a  
SITES MAPPED BY J.E. REINECKE  
-- NORTH KEAUHOU

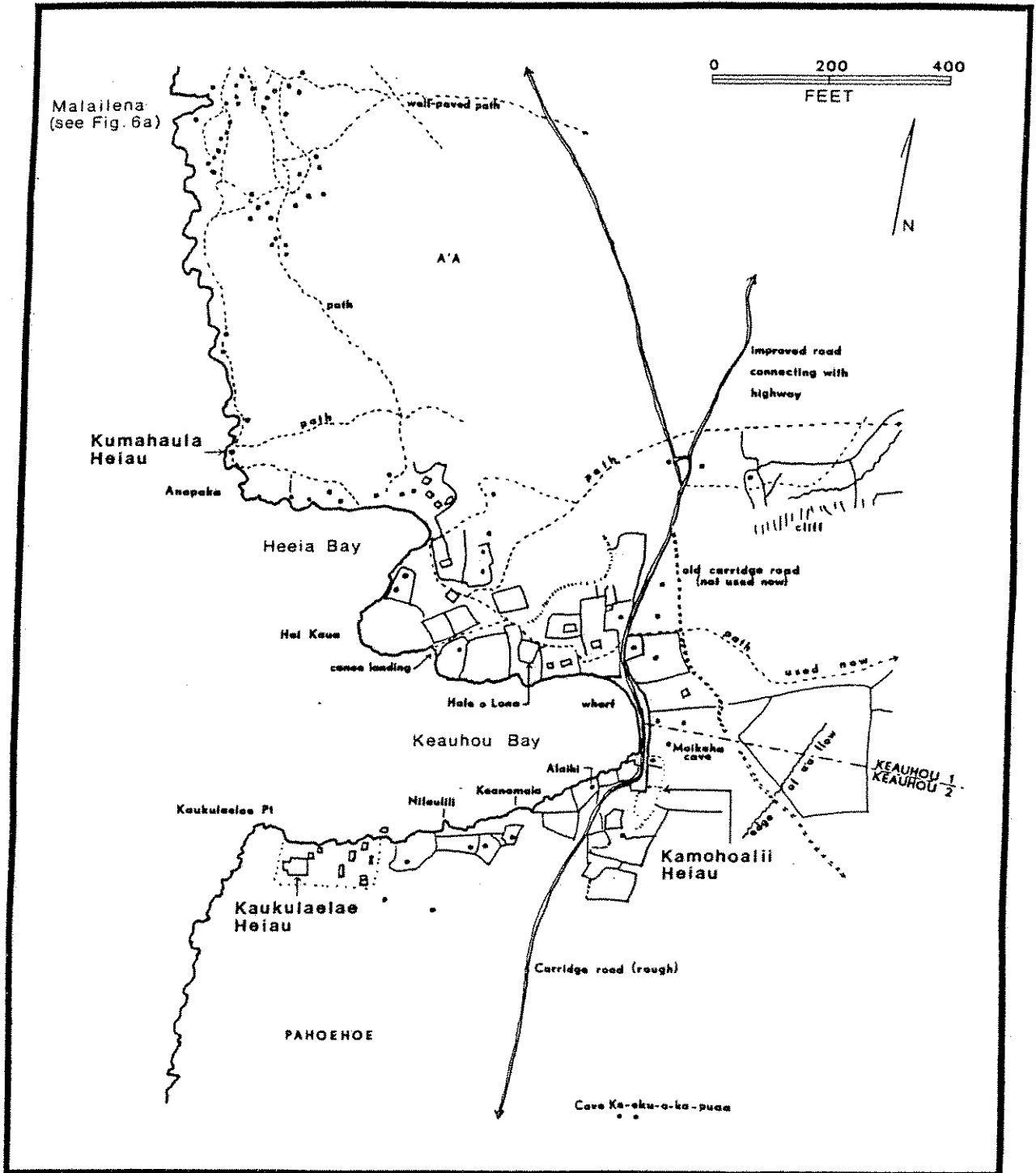


FIGURE 6b  
SITES MAPPED BY J.E. REINECKE  
-- KEAUKOU BAY

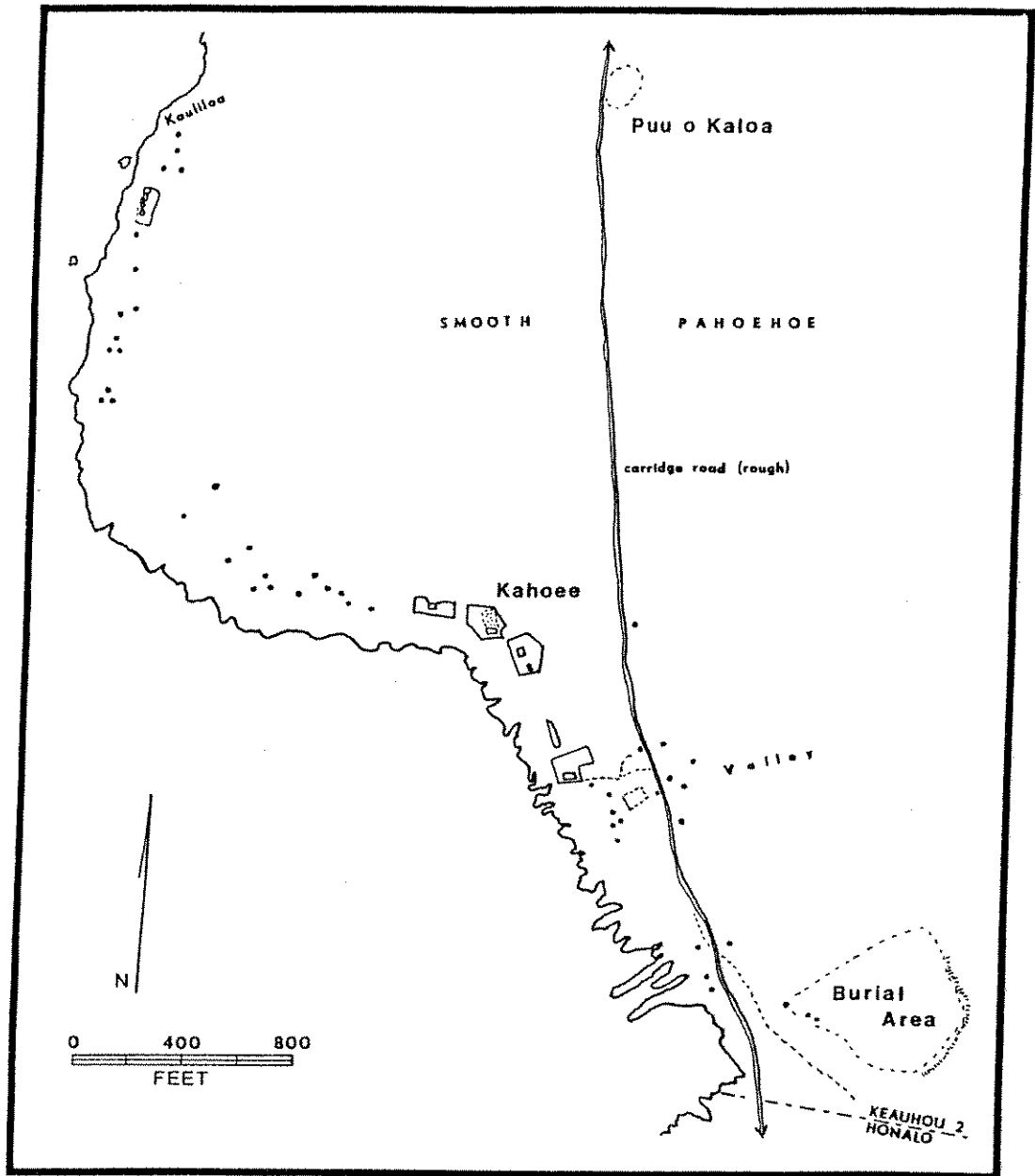


FIGURE 6c  
SITES MAPPED BY J.E. REINECKE  
-- SOUTH KEAUHOU  
(burial area is Lekeleke Burials)

'Ohi'a Cave is the most well-known of the cave sites in this area. It is an extensive complex of lava tubes, with its main entrance along Kamehameha III Road. It has been greatly disturbed by vandals and artifact collectors, and little remains intact of the Hawaiian use of the natural feature. Artifacts in private collections indicate a habitation function (Crozier 1971a).

Two smaller cave sites in coastal Kahalu'u have recently been studied (Rosendahl 1981a, b). Site 7702 contained stratified cultural deposits up to two meters deep, with dates ranging from the AD mid-1100s to the end of the 16th century. Over 13,000 artifacts were collected during testing and subsequent excavation. Site 7899A appears to have been occupied from about the mid-1600s through the late 1700s.

Hammatt and Folk summarize the importance of caves as residential features:

Caves were of substantial import to the human occupants of Kona: virtually every cave encountered in the project area contained some evidence of use...they contain cultural remains, including organic matter (which is for the most part completely decomposed in open air sites) in relatively undisturbed stratified context. Many similar cave sites have been recorded...along the Kona Coast between Ali'i Drive and Kuakini Highway... Together they show a definite tendency of being a focus of large habitation complexes comprised of various surface features situated around or adjacent to the cave (Hammatt and Folk 1980:53).

An additional category of habitation features relates to the historical occupation of Keauhou and Kahalu'u. These sites date from the 19th and 20th centuries, although there is a distinct possibility of earlier deposits underlying the more obvious historical ones. The best example to date is Site 5669, located in DP 22B/23, north of the Holua Slide and mauka of Alii Drive. This site is clearly related to LCA 7487, which was granted to Keamohuli in the mid-1800s. The large enclosing wall of the site complex corresponds to the described boundaries of the award, and the platform house feature is situated at the same locale as a house noted on a 1924-25 Bishop Estate map (Podmore 1924-25). There is a considerable array of historical artifacts, including an antique sewing machine, ceramics, and bottles.

The features makai of Kuakini Wall also reflect historical occupation (see Figure 5), and many can be correlated with mid-19th century land awards.

### Burials

There have been numerous human burials located in Kahalu'u and Keauhou. Various types of interment include burials of single or multiple individuals in platforms, burials in natural lava crevices which are then

filled with rock and sometimes paved, and burials in lava tube caves. Burials also occur as isolated features or in association with other structures.

The most famous burial complex in the resort area is the Lekeleke Burial Ground, which is on the National Register of Historic Places. Located on an aa lava field near the southern boundary of Keauhou, it consists of more than 300 platforms marking the graves of warriors killed in the AD 1819 Battle of Kuamo'o. It was this battle between Liholiho (Kamehameha II) and Kekuaoakalani that decisively ended the traditional kapu system.

'Ohi'a Cave is another well-known burial area which, as noted above, was also used as a habitation site. In his 1930 survey, Reinecke described other caves which were used for interment. He noted that near a slight rise named Pu'u o Kukae near the Kahalu'u-Keauhou boundary was "an entrance to a cave used until recently as a burial cave by Kahalu'u residents, and therefore not shown me" (Reinecke 1930:22).

Although Hammatt and Folk (1980) indicate few burials in Keauhou, earlier writers have noted burial concentrations in that ahupua'a. In his tour of Hawai'i in 1823, Ellis mentions a burial area at Keauhou which was "a space surrounded with high stone walls, appearing much like an ancient heiau or temple" (1969:360). Reinecke (1930) recorded a group of small platforms in Keauhou which were said by his informant to be grave markers (although Reinecke himself thought them to be habitation structures). A Bishop Estate map (Podmore 1924-25) delineates two named cemeteries, Kau and Heoheopueo, both located north of the makai end of the Holua Slide. Unfortunately, subsequent construction of Alii Drive (in the 1950s) and the development of the resort area (since the 1970s) have apparently destroyed all traces of these two complexes.

### Heiau

The heiau of Kahalu'u and Keauhou have long been the most prominent and celebrated archaeological sites in the resort area. They are distinguishable by their massive construction, and many are well-known by name through legends and traditional history. Most are located along the coast, especially around the bays of Kahalu'u, He'eia, and Keauhou. Some occur in the upland areas.

There are at least 20 named heiau, eight in Kahalu'u, ten in coastal Keauhou, one at the boundary between the two ahupua'a, and one located in the far mauka hinterlands of Keauhou, in the saddle between Hualalai and Mauna Loa (Stokes 1919; Thrum 1907). Reinecke's informant, Thomas R. Kahulumu, named 35 heiau in Kahalu'u (1930:67).

Previous historical research for the resort area has traced legendary and traditional material for these religious sites and will not be repeated here. The reader is referred to Barrere (in Emory et al. 1971), Hammatt and Folk (1980), and to the original sources (among others, Thrum 1907; Stokes 1919; Reinecke 1930).



There are several other heiau which do not have documented legendary associations. Four were reported by Reinecke (1930) along the coast, three were noted by Hammatt and Folk (1980) in the resort area, and Allen (n.d.) identified one in DP 22. These features were defined primarily on the basis of internal features, size, and construction style.

The heiau in Kahalu'u were a major consideration in the listing of the Kahalu'u Historical District on the National Register of Historic Places. The nomination form states that the district "draws much of its significance from the rare occurrence of a number of major heiau within a relatively small geographical area" (NRHP 1974). The district officially encompasses 20 individual sites, but recent archaeological work (e.g., Hammatt and Folk 1980; Soehren 1979, 1980a, 1980b; Rosendahl 1981a, 1981b) has indicated considerable variety and density of other archaeological features within the district.

### Miscellaneous Features

This category includes such miscellaneous sites as walls, trails, roads, petroglyphs, cairns, and animal pens, of which numerous examples exist throughout the resort area. Three sites of miscellaneous function have been singled out for national recognition: the Holua Slide, the Kuakini Wall, and the Kamehameha III Birthplace. These three sites, and the Lekeleke Burial Ground, are specifically designated for management consideration under Hawaii County Ordinance No. 820.

The Holua Slide is apparently the largest structures of its kind in the islands. Built for a traditional, toboggan-like sport, it measures more than a mile in length, 15 to 20 meters (50 to 60 feet) wide, and up to 5 meters (15 feet) high. Although it is a famous landmark in Keauhou, little is known of its origin. Baker suggests that it was "built before his reign for Kamehameha III to slide down on sleds, with his friends, over the grass-covered slide made slippery with kukui-nut oil" (1915:82). The site was made a National Landmark in 1962.

The Kuakini Wall runs for more than eight kilometers (5 miles) from the southern boundary of Kahalu'u, north to the ahupua'a of Keahuolu. Its construction has been attributed to Kuakini, governor of Hawai'i from 1820 to 1844, as a boundary between coastal habitation and inland agricultural areas. However, Kelly and Barrere (1980:30) note that the wall was known simply as "Great Wall" by surveyors prior to 1855, and it was not until 1892 that it was first noted as the "Kuakini Great Wall" on a government survey map. In Kahalu'u, the wall appears to demarcate a coastal area which could have functioned as a village residential locale, with agricultural areas mauka. The wall was declared eligible for the National Register of Historic Places in 1978.

The Kamehameha III Birthplace marks the site of the birth of Kauikea-ouli, son of Kamehameha I, and his sacred wife, Keopuolani. Located at the head of Keauhou Bay, the site is marked by a bronze plaque set in concrete on the stone where it is said the seemingly stillborn baby

(Kauikeaouli) was brought miraculously back to life (see Tomonari-Tuggle 1983b, for an account of the birth). The site was placed on the National Register of Historic Places in 1978, and it is maintained by the Daughters of Hawaii through an agreement with Kamehameha Investment Corporation.

#### THE SIGNIFICANCE OF CULTURAL RESOURCES

Without question, the cultural resources of the Keauhou Resort area are of high significance, in spite of considerable damage wrought by modern activities. The specific definition of this evaluation, however, particularly in application to individual sites, is difficult without some criteria.

The criteria of the National Register of Historic Places, which provide national standards by which historical and archaeological sites are evaluated, are used with modification in this plan. These standards are also used by the Hawaii Register of Historic Places. The criteria fall into two categories: (1) the site must possess the integrity of location, design, setting, materials, workmanship, feeling, and association; and (2) it must have any one of the following characteristics:

1. It must be associated with events that made significant contributions to broad patterns of history;
2. It must be associated with the lives of persons significant in the past;
3. It must embody distinctive characteristics of a type, period, or method of construction or represent the work of a master or possess high artistic value or represent a significant and distinguishable entity whose components may lack individual distinction; or
4. It must have yielded, or may be likely to yield, information important in prehistory or history (National Register Division 1977).

Archaeological sites are generally evaluated on the basis of integrity and research value, but criteria for archaeological sites are not limited to these two. For example, the Kahalu'u Historical District was nominated on the basis of the architectural characteristics of several heiau, the artistic merit of associated petroglyphs, the association with important traditional political and religious activities, and high research potential. The Kona Field System was described as without equal in representing the prehistoric modification of the landscape, as well as for its high research value.

The general criteria of the National Register are applied to cultural resources in Keauhou and Kahalu'u through three value modes: scientific, interpretive, and cultural.

### Scientific Value

Scientific value refers to the potential of cultural resources to address archaeological questions concerning the organization of cultures and people in the past, in terms of culture history, past lifeways, and the underlying processes through which cultures function. Criteria for evaluation include the kinds of archaeological sites (formal characteristics, functional attributes, variability within total resource set), their state of preservation or condition, site integrity, the availability of background information (legendary and historical), and the kinds of archaeological data which are retrievable.

The archaeological resources of the Keauhou Resort have high research value. They exist in great numbers and variety across two traditional Hawaiian land units which are characterized by distinctly different environments. Existing knowledge suggests a continuous occupation of the area from at least the AD mid-1100s until well into the 20th century. There is considerable legendary and historical data for the area which can be directly associated with specific sites. Although some sections of the resort area have been considerably disturbed by modern development, those areas which have not been affected (such as the ordinance parcels) contain numerous and little disturbed examples of past occupation.

The Keauhou-Kahalu'u cultural resources provide an opportunity to better understand the long-term Hawaiian adaptation to the environment at both local and regional levels, and in both prehistoric and historical times. There are numerous, more specific research problems or questions which can be addressed by the resources in Keauhou and Kahalu'u; a research design is presented in Chapter V.

### Interpretive Value

Interpretive value refers to the potential of cultural resources for public education, appreciation, and recreation; that is, the ability of a site to inform the non-archaeological public about the past and about how and why that past is studied. It is generally derivative in nature--often, though not always, obtained from the investigation and delineation of scientific value (Rosendahl n.d.).

The archaeological resources of Keauhou and Kahalu'u have a generally high interpretive value. The combination of site variety in both temporal and spatial terms, good preservation, integrity, diversity of environments, and the availability of legendary and documentary material offer numerous avenues for interpretation (for example, see the Hawaii County-CRMP list of interpretive themes in Appendix D).

Although the most obvious theme for interpretation is traditional Hawaiian religion and political organization (as exemplified in the many impressive heiau), other possibilities include the Hawaiian utilization of

caves (for habitation, storage, burial, ceremonial, and refuge functions)\*, Hawaiian settlement and resource exploitation in specific locales (e.g., He'eia Bay), and the historical occupation of the area, with emphasis on well-documented sites (e.g., Site 5669 in Keauhou).

### Cultural Value

Cultural value is measured by the relative importance given a site by a local community, ethnic group, or indigenous group for reinforcing group identity through a consciousness of shared cultural heritage. An awareness of cultural heritage places great import on sites with religious or mythological connections, as well as sites associated with events or persons of historical significance.

The cultural value of archaeological resources in the Keauhou Resort rests primarily in the religious sites and chiefly residences which reflect the political history and power of the Kona district. The legendary associations with many of these sites offer an additional element to their value. Furthermore, some sites can be related directly to figures of historical importance, including Kamehameha I (Ke'eku, 'Ohi'amukumuku, and Hapaiali'i heiau), his war councilor Ke'eaumoku (Po'o Hawai'i in Kahalu'u), and Kamehameha III (the Holua Slide and the Kamehameha III Birthplace). The Lekeleke Burial Ground is intimately tied to a critical event in Hawaiian history, the 1819 Battle of Kuamo'o, which marked the end of the traditional religious system. Burial sites in general are accorded strong cultural values.

In sum, the significance of the cultural resources in the Keauhou Resort is multi-faceted. They are of value in scientific research, interpretive, and cultural contexts, and at local, regional, and national levels (as embodied in the National Register and National Landmark designations for four sites and two districts).

---

\*Reinecke noted that "next to the numerous heiau and the abundant springs, the most noticeable feature of the district is the caves" (1930:50).

**APPENDIX C:**  
**DEVELOPMENT PARCEL PROFILES**

by

M.S. Allen, A. Estioko-Griffin, and M.J. Tomonari-Tuggle

The purpose of this appendix is to describe and evaluate the cultural resources in each development parcel at the Keauhou Resort. The appendix, which is organized into development parcel (DP) profiles, can be used in two ways:

1. By developers and planners to anticipate archaeological consulting needs; and
2. By archaeologist consultants to anticipate the general nature of cultural resources, level of mitigative work needed prior to development, and conditions under which that work will be carried out.

These profiles are also intended as a preliminary data base from which Kamehameha Investment Corporation (KIC) can establish general priorities of cultural resource management, in terms of commitment, costs, and land dedication factors.

The information contained within the individual DP profiles is organized under the following headings:

1. Introduction--describes parcel location, proposed development (based on Land Use Master Plan Map, prepared by Belt, Collins and Associates, revised June 9, 1981); also generally describes archaeological resources present and any designated historical preserves.
2. Environment--describes present environment in terms of ground surface, terrain, elevational range, and vegetation.
3. ARCH Survey--summarizes survey findings; includes the results of overview survey carried out as part of present CRMP preparation to evaluate the ARCH 1980 survey.
4. Previous Surveys--summarizes findings of any other archaeological studies carried out in the DPs.
5. Traditional Associations--presents recorded legendary or traditional associations to sites in the DPs.

6. Historical Occupation--presents historical references to sites in the DPs; also notes relationships to mid-19th century land awards.
7. Evaluation of Significance--evaluates the significance of parcel sites in general; specifies appropriate research problems.
8. Recommendations--based on ARCH survey, recent work by PHRI in the resort area, and the overview/evaluation survey; presents most appropriate next phase of archaeological work and notes specific sites which should be considered for preservation and/or interpretation; all sites selected for preservation and/or interpretation should be mapped in detail.
9. Site Tables--lists sites which have been located in the DPs, by type, function, level of work completed to date, and any published references.

Information on sites and environment come primarily from the ARCH 1980 survey and the overview/evaluation survey. Legendary and historical notes are the result of research carried out in preparing the CRMP (see Chapter I for a cultural history of the Keauhou-Kahalu'u area). Significance evaluations and recommendations were developed from review of the ARCH survey report, other archaeological studies, and the results of the overview survey (see Chapter II for significance evaluation criteria).

The site tables are compiled from the ARCH survey report, in which detailed site descriptions can be found (Hammatt and Folk 1980:61-160). However, many of these descriptions have been found to omit less substantial features within complexes or to be inconsistent (e.g., different sites have been assigned the same number; sites are described by one functional or formal category in one table, and by other categories in other tables). Future consultants working with the ARCH data base should be aware of these problems.

There is considerable repetition in the texts of various profiles, particularly DP 14, 26, 31, and 32 in coastal Kahalu'u. This is because the profiles are intended as self-contained documents, which can be removed from the CRMP for use by individual developers/planners or archaeologists. Ideally, however, the profiles are most appropriately used in conjunction with the overall CRMP.

The following key explains the various abbreviations and notations contained within the site lists provided for the various parcel profiles. If individual profile sections are reviewed, a copy of the key should be attached to each profile.

KEY TO SITE LISTS  
DEVELOPMENT PARCEL PROFILES

Site Function: see Chapter II of the CRMP for discussion of functional site categories and examples--

R = Residential  
A = Agricultural  
B = Burial  
C = Ceremonial  
F = Refuge  
M = Miscellaneous  
U = Unknown

Archaeological Work Completed:

Identified = Plotted on resort map, but not mapped in detail  
Mapped = Plotted on resort map and mapped in detail  
Tested = Test excavated

Report Reference: refer to References section of the CRMP--

ARCH	refers to ARCH 1980, ARCH 1981 (see following)
ARCH 1980	Hammatt and Folk 1980
ARCH 1981	Hammatt et al. 1981
Ching 1973	Ching et al. 1973
Rosendahl	Rosendahl 1982
Soehren	Soehren 1980a
SMI-PHRI	Hommon and Rosendahl 1983

Comments:

NR	National Register Of Historic Places
NRHP-eligible	Eligible for the National Register
HP	Historic Preserve
BPBM	B.P. Bishop Museum
REINECKE	J.E. Reinecke (1929-30 survey)

All four-digit numbers are Hawaii Register of Historic Places (HRHP) site numbers; and are prefixed by 50-10-37 (50 = State of Hawaii, 10 = Island of Hawaii, 37 = USGS 7.5' series quad map ["Kealakekua, Hawaii"]).

## DEVELOPMENT PARCEL 10 PROFILE

Development Parcel 10 is located east of the junction of Kamehameha III Road and Alii Drive. It encompasses a total of 35 acres which are designated for 425 multi-family residential units.

This parcel, which was rezoned through Ordinance No. 820, is a part of a development which incorporates DP 22A/B, 23, 24, and 25. Archaeological testing and excavations were carried out as part of development activities initiated before the CRMP was started. Analysis and report preparation on systematic mapping, testing, and excavation is in progress (Allen 1983b, c; Shun In prep.).

A total of 4 sites were identified by ARCH in 1980 (Hammatt and Folk 1980) and no additional sites were later located by PHRI in 1983. Of these, further investigations were made at Sites 4624 and 4626. Site 4624 is a possible high-status residential complex which has been recommended for preservation.



Table 2.

## SIGNIFICANT SITES IN THE KEAHOHU RESORT AREA

DP No.	Site No.	Name/Description	Significance		
			Scientific	Cultural	Interpretive
1	7278	Kamehameha III Birthplace	-	NR	NR
7	1663	He'eia Bay Complex	SF	-	SF
	1660	Kumaha'ula Heiau	-	SF	SF
	1664	Bluff Shelter	SF	-	-
9	1576	Lono-i-ka-makahiki Residence	-	NR	NR
10	4624	Walled platform	x	x	-
13	3818	Ke'eku Heiau	-	NR	NR
	3819	Makole'a Heiau	-	NR	-
	D4-54	Petroglyphs	-	NR	-
14A	1619	Papakoholua Heiau	-	NR	NR
	7276	Kuakini Wall	-	NR-e	NR-e
	Not Numbered	Terraces/midden deposits at south end of parcel	x	-	-
14B/C	7276	Kuakini Wall	-	NR-e	NR-e
	7827	Multi-feature complex	x	-	-
	7828	Multi-feature complex	x	-	x
	7829	Multi-feature complex	x	-	-
	7845	Burial	x	x	-
	Variable	Residential features in 14B	x	-	-
	7848	Lava tube site	x	-	-
	Variable	South Historic Preserve	x	x	x
	Variable	North Historic Preserve	x	-	x
22	1669	Hōiua Slide	-	NL	NL
22A/B	4621	Keahiolo Heiau	-	x	-
	4625	Multi-feature complex	x	-	-
	4629	Multi-feature complex	x	-	x
	4637	Multi-feature complex	x	-	x
	4673	Platform (possible heiau)	-	x	-
	5669	Upper part of historical house complex	x	-	x
	5671	Lower part of historical house complex	x	-	-
	7962	'Ōhi'a Cave	x	x	x
22C	1669	Hōiua Slide	-	NL	NL
	4699	Historical cart road	-	-	x
	7627	Historical cart road	-	-	x
	7630	Burial	x	x	-
	7673	Burial	x	x	-
	Variable	Lava tube caves and sinks	x	-	-
	Variable	Open preserve	x	-	-
	Variable	Agricultural features	x	-	-
23	4686	Multi-feature complex	x	-	-
	5669	Lower part of historical house complex	x	-	-
	W-3	Dirt terrace	x	-	-
25	7954	Walled platform complex	x	x	x
	7962	'Ōhi'a Cave	x	x	x
	VB-9/10/11	Gulch agricultural features	x	-	x
	VB-14	Paved terraces in arched lava tube opening	x	-	-
	VB-19A	Collapsed lava tube	x	-	-
26	2077	Halelā'au Cave	NR	NR	NR
	3822	Halelā'au Heiau	-	NR	NR
	4639	Lava tube cave	x	-	-
	7276	Kuakini Wall	-	NR-e	NR-e
	6389	Lava tube cave	x	-	-
	6408	Burial platforms	x	x	-
	6414	Platform (with Halelā'au Heiau)	x	x	x

KEY: NL = National Landmark  
NR = National Register  
SF = State Files

NR-e = National Register-eligible  
x = Significance evaluation based on  
work done to date

Table 7.

**ARCHAEOLOGICAL SUMMARY OF ORDINANCE-RELATED DEVELOPMENT  
PARCELS, KEAUHOU RESORT**

DP No.	Proposed Development	No. of Sites	Significance*			Recommendations	References <sup>#</sup> /Comments
			Sc	C	I		
1	Resort	10	Low	High	High	No further work except with Kamehameha III Birthplace	Emory et al. 1971; Hammatt 1979, 1980; Allen 1983 (Kam. III excavation report) Tomonari-Tuggle 1983
8	Commercial	9	Low	Low	Low	No further work	Under development
10	Multi-family	4	Low	Low	Low	Limited testing/excavation; salvage or preservation for 4624	Allen 1983, n.d.; Tomonari-Tuggle and Allen 1983; 4624 possible heiau or high status residence (with high scientific, cultural and interpretive potential); previously designated as Bishop Museum Site D3-10 (Crozier 1971a)
14A	Resort	42+	Mod	High	High	Limited testing/excavation	Largely developed as Kona Gardens, but some historical sites at south end; includes Papakoholua Heiau, Kuakini Wall; Soehren 1979d
14B/C	Multi-family	34+	High	High	High	Recon. survey in 14B, systematic mapping/testing in 14C; reevaluate existing historic preserves; eventual extensive excavation needed; high interpretive potential w/"Alii" theme	Includes 'Ohi'a Cave, Kuakini Wall, numerous burials
22	Clubhouse	Unk.				Reconnaissance survey	
22A/B	Golf Course	27	High	High	High	Extensive excavation needed; preservation of selected sites; salvage or preservation for burials at 5671	Includes preservation area sites, Keahiolo Heiau and unnamed heiau (4673); also 'Ohi'a Cave; Allen 1983, n.d.; Tomonari-Tuggle and Allen 1983
22C	Golf Course	60+	Mod	Low	Mod	Systematic mapping and testing; excavation, if warranted; some interpretive potential w/"Historical-Period" theme	
23	Multi-family	5	High	High	High	Extensive excavation; high interpretive potential with "Historical-Period" theme; salvage or preservation for burials at 4686	Allen 1983, n.d.; includes historical Complex 5669; see Tomonari-Tuggle and Allen 1983
25	Residential	27	High	Low	Low	Extensive excavation; preservation of Site 7954 (north portion)	Allen 1983, n.d.; Tomonari-Tuggle and Allen 1983
26	Multi-family	82+	High	High	High	Limited recon. survey, followed by systematic mapping and testing, eventual extensive excavation needed; high interpretive potential with both "Alii" and "Historical-Period" themes; reevaluation of existing historic preserves	Includes Kuakini Wall, Halela'au Heiau; see Ching et al. 1973; also forthcoming Alii Highway realignment report by Science Management Inc.

\*Significance Key: Sc = Scientific  
C = Cultural  
I = Interpretive

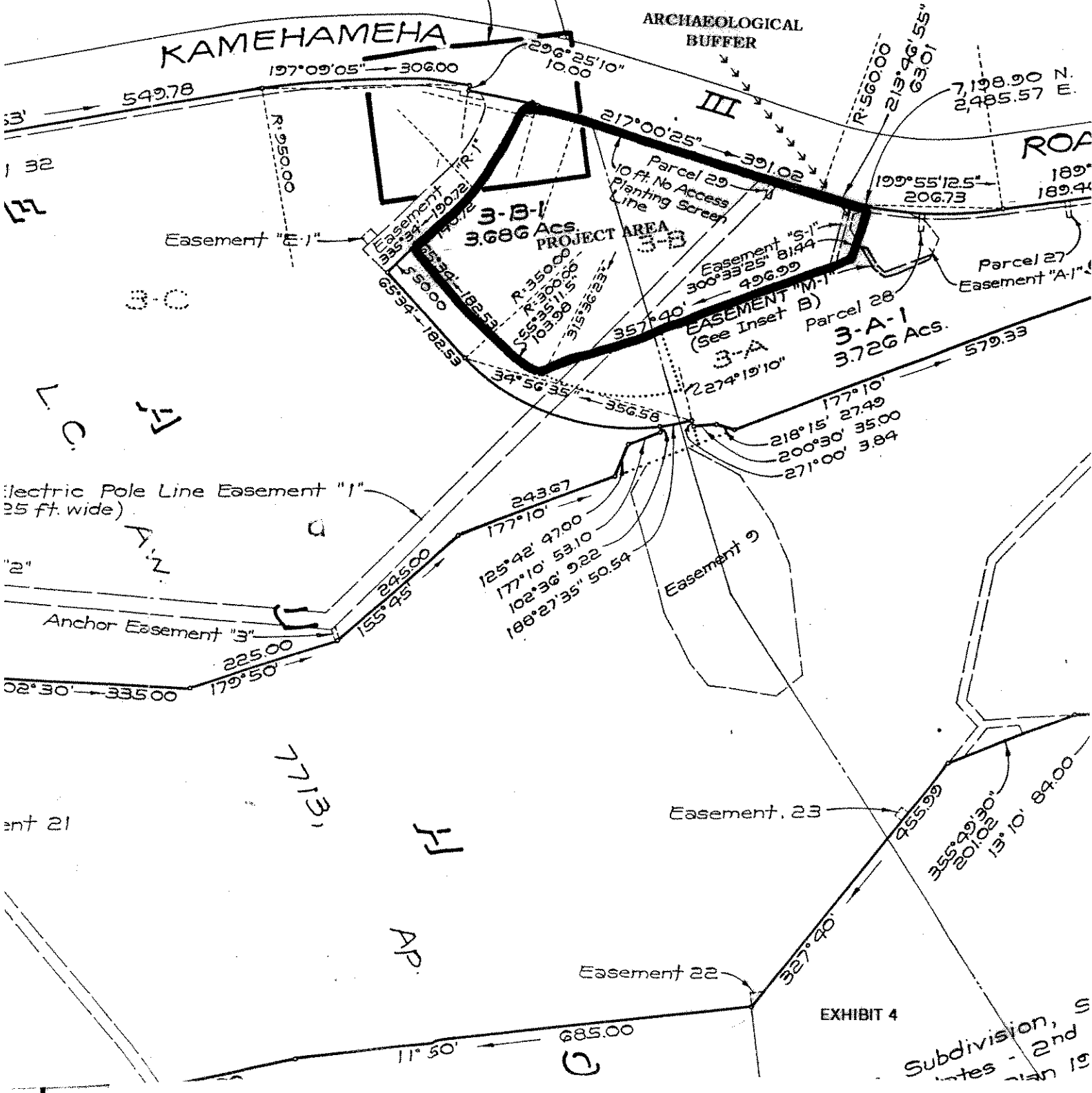
<sup>#</sup>Other than Hammatt and Folk 1980; see Appendix B for bibliographic information.

SEE INSET "A"

KAMEHAMEHA

ARCHAEOLOGICAL BUFFER

ROA



549.78

197°09'05" → 306.00

296°25'10" 10.00

217°00'25" → 391.02

R:56000  
219°49'55" 10.69  
66.01

7,198.90 N.  
2,485.57 E.

Easement "E-1"

3-B-1  
3.686 Acs.  
PROJECT AREA

Easement "S-1"

199°55'12.5" 206.73

Parcel 27  
Easement "A-1"

EASEMENT "M-1"  
(See Inset B)

Parcel 28  
3-A-1  
3.726 Acs.

Electric Pole Line Easement "1"  
(25 ft. wide)

Anchor Easement "3"

243.67  
177°10'  
125°42' 47.00  
177°10' 53.10  
102°36' 9.22  
188°27'35" 50.54

Easement 9

177°10' 27.99  
218°15' 35.00  
271°00' 3.84

Easement 23

Easement 22

EXHIBIT 4

Subdivision, S  
Notes - 2nd  
Plan 19

KEAUHOU OUTREACH GROUP

Bayview Estates	Ross Griffin, Stuart Lowry, Dan Woolley, Lorraine Christy
County Club Villas	John Harris, Erik Sandberg
Hale Kehau	Susan Gregg, Emily Griffith, Kris Johnson, Walt & Sally Bobb
Kanaloa at Kona	Jim Heather, Charlene Davis, Howard Weir
Keauhou Akahi	Jeff Sell, Jean Dickson, Tom Chilvers, Tom Miksch
Keauhou Bay Area 5 Subdivision	Roland Kleger, Paul Catanzaro
Keauhou Estates	Chuck Crowe, James Robinett, Mike Henninger
Keauhou Gardens	Joane Summers, Jere Pennell
Keauhou Kai Condo	Buck Logan
Keauhou Kona S&R Club	Thomas Koontz, Jean Gray, Michael Gardner
Keauhou Palena	Sue West, Ray Kirchner
Keauhou Punahele	Jim Anderson
Keauhou Resort Condo	Robin Elcock, Garrey Peska
Kona Coast Resort	Craig Leeper, Noel Lorenzo
Makolea Condo	Lambert LeeLoy, M.D.
Mauna Loa Village	David Hoopaugh, Chris Breed, Gretchen Watson-Kabei
Villas at Keauhou	Jean Murphy, George LaBroad
G. Rick Robinson	Kamehameha Schools
Keauhou Cultural Advisory Committee	Lilly Kong
Keauhou Master Homeowner Assn.	William Taylor
Lifecare Kona Rehab & Health Center	Lynda Johnson
Keauhou Shopping Center	Marleen Akau
Kona County Club	Greg Molfino
Ohana Keauhou Beach Resort	Wayne Sterling, Sharon Paoa, Roxanne Benson, MayLou Foley Laurie Sokach, Tom Metz
George & Sharon Handgis	
Nancy Pisticchio	
Puhi Dant	
Patrick Cunningham	



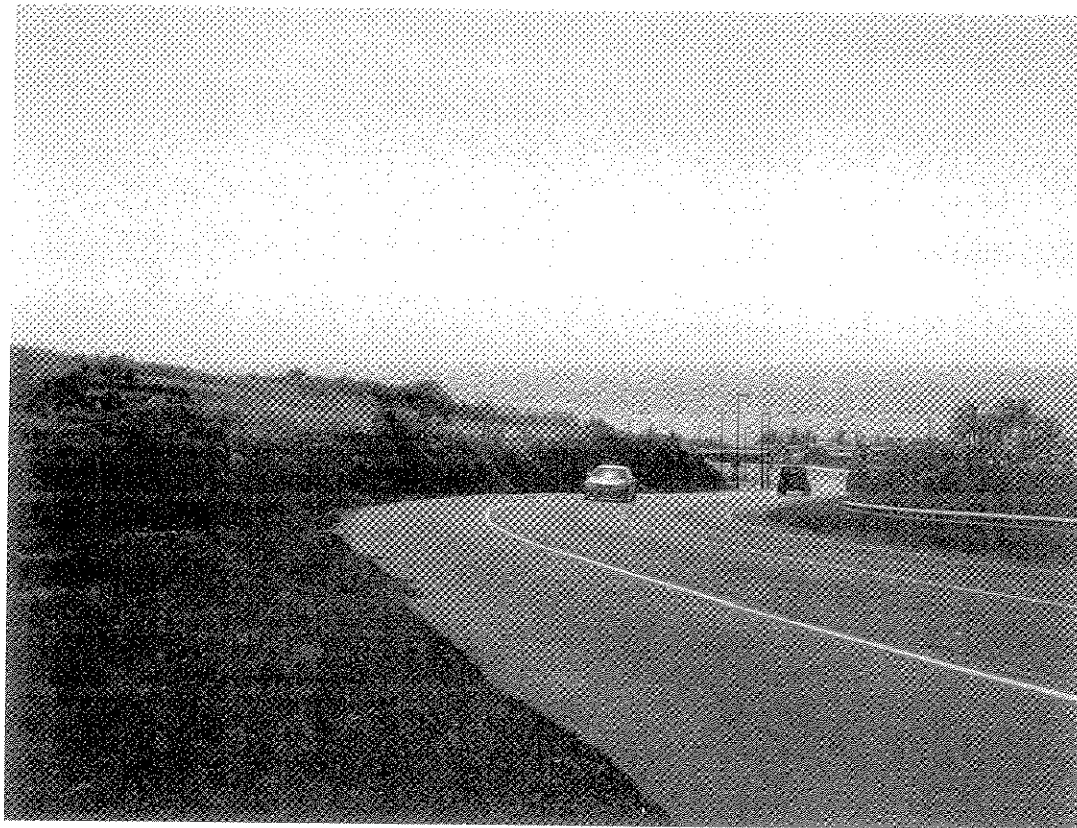
View from Project Site toward Kailua-Kona (northwest).



View from Project Site toward makai area with Keauhou Shopping Center in the foreground.



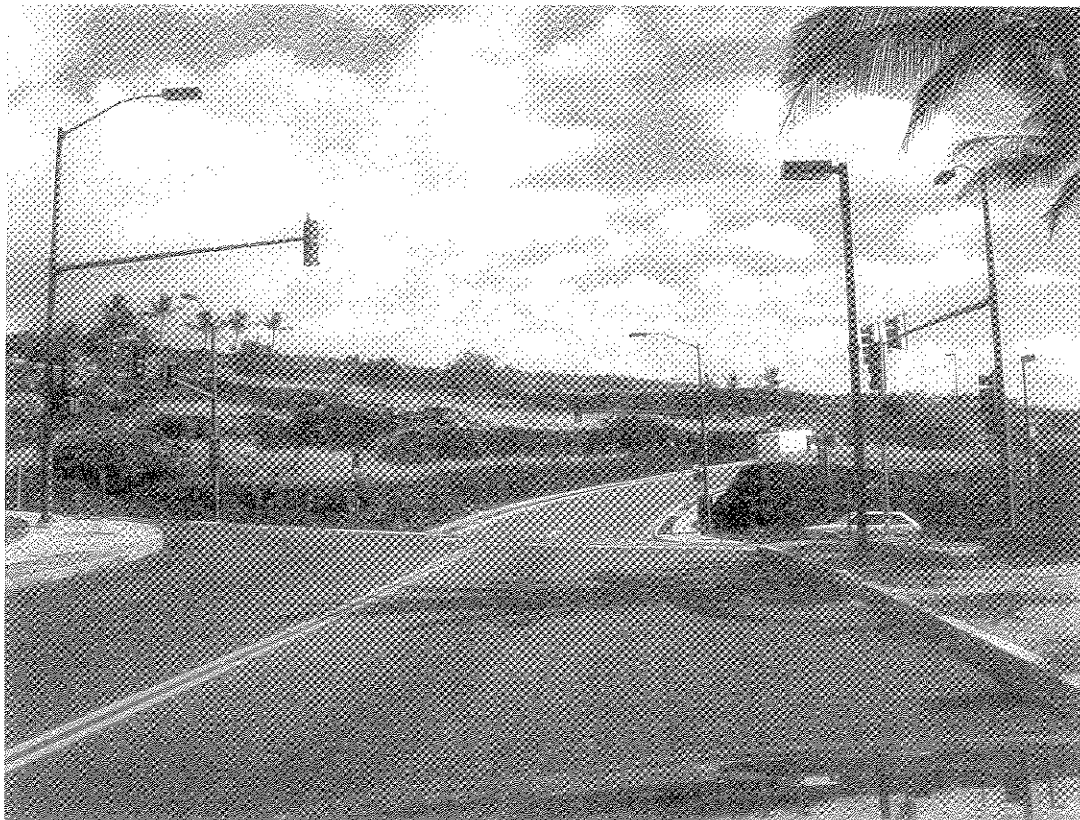
View of Project entry roadway connection built to County dedicable standards.



View of Project Site from Kamehameha III Road looking in the southerly direction.



View from Project entry roadway along Kamehameha III Road.



View of Project Site (upper left corner)  
and intersection of Kamehameha III Road and Project site entry roadway.



View from Kamehameha III Road toward Project Site  
with Keauhou Rehabilitation and Healthcare Center (former Hillhaven Healthcare facility)  
and buffer area of Site 4624 (archaeological easement A-1).





RECEIVED MAY 01 2003

**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

April 29, 2003

Mr. Steven S.C. Lim  
Carlsmith Ball, LLP  
121 Waianuenu Avenue  
Hilo, HI 96720

**SUBJECT: SPECIAL MANAGEMENT AREA (SMA) USE PERMIT  
APPLICATION/DEVELOPMENT PARCEL 10A – KAHALUU  
AND KEAUHOU 1<sup>st</sup>, ISLAND OF HAWAII**

Dear Mr. Lim:

Thank you for the opportunity to review and comment on the above referenced SMA Permit to allow for the construction of up to 16 multiple-family residential units and related improvements.

The Office of Hawaiian Affairs (OHA) agrees with your findings as provided by the Keauhou Cultural Advisory Committee, but request that you obtain written confirmation from the State Historic Preservation Division (SHPD). Further, we request that you amend Section 3.1.6. *Valued Cultural, Historical and Natural Resources* to reflect that if there are any discoveries of artifacts or remains of historic value, all work will stop immediately and that the SHPD as well as the Hawaii Island Burial Council will be contacted

If you have any questions, please contact Jerry B. Norris at 594-1847 or email him at [jerryn@oha.org](mailto:jerryn@oha.org).

Sincerely,

A handwritten signature in black ink, appearing to read "Peter L. Yee".

Peter L. Yee  
Director  
Nationhood and Native Rights Division

# CARLSMITH BALL LLP

A LIMITED LIABILITY LAW PARTNERSHIP

121 WAIALEUENUE AVENUE  
P.O. BOX 686  
HILO, HAWAII 96721-0686  
TELEPHONE (808) 935-6644 FAX (808) 935-7975  
WWW.CARLSMITH.COM

E-MAIL SLIM@CARLSMITH.COM

May 2, 2003

Peter L. Lee  
Director  
Nationhood and Native Rights Division  
Office of Hawaiian Affairs  
711 Kapiolani Boulevard, Suite 500  
Honolulu, Hawaii 96813

Re: Special Management Area (SMA) Use Permit Application  
Applicant: Kamehameha Investment Corporation / Development Parcel 10A  
Kahaluu and Keauhou 1st, District of North Kona, Island, County and State of  
Hawaii  
Tax Map Key Nos.: (3) 7-8-10:90

Dear Mr. Lee:

Thank you for your comments on the Draft Environmental Assessment (DEA) for Kamehameha Investment Corporation who is seeking approval to allow for the development of up to 16 multiple-family residential units and related improvements on approximately 3.686 acres of land. We appreciate your review of the DEA. The environmental assessment has been revised to amend Section 3.1.6. *Valued Cultural, Historical and Natural Resources* to address that the Applicant will stop work in the immediate vicinity and contact SHPD if any archaeological or historic sites are found, and the Hawaii Island Burial Council if any previously unidentified human burials are found.

Your letter and this response will be appended to the final environmental assessment to ensure that the document adequately addresses pertinent development and environmental issues.

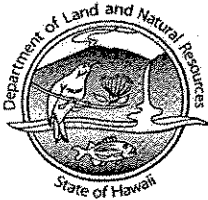
Very truly yours,

  
STEVEN S.C. LIM

SSL:KYL

xc: Kamehameha Investment Corporation  
County of Hawaii Planning Department

LINDA LINGLE  
GOVERNOR OF HAWAII



RECEIVED 1000 6 4 2003

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 20, 2003

HA-2003-013.RCM  
LD-NAV

Carlsmith Ball LLP  
Steven S.C. Lim  
121 Waiianuenu Avenue  
Hilo, Hawaii 96721-0686

Dear Mr. Lim:

Subject: Draft Environmental Assessment - Kamehameha Investment  
Corporation Parcel 10A, Kahaluu and Keauhou 1<sup>st</sup>, North Kona,  
Hawaii, TMK: 7-8-10: 90

Thank you for the opportunity to review and comment on the subject  
matter.

A copy of the document covering the subject matter was distributed  
or made available to the following Department of Land and Natural  
Resources' Divisions for their review and comment:

- Division of Forestry and Wildlife
- Na Ala Hele Trails
- Engineering Division
- Commission on Water Resource Management
- Land - Hawaii District Land Office

Attached is a copy of the Commission on Water Resource Management  
and Engineering Division comments.

Based on the attached responses, the Department of Land and  
Natural Resources has no other comment to offer on the subject matter.

If you have any questions, please feel free to contact Nicholas A.  
Vaccaro of the Land Division Support Services Branch at 1-808-587-0384.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Dierdre S. Mamiya".

DIERDRE S. MAMIYA  
Administrator

C: HDLO

LINDA LINGLE  
GOVERNOR OF HAWAII



MEREDITH J. CHING  
CLAYTON W. DELA CRUZ  
CHIYOME L. FUKINO, M.D.  
BRIAN C. NISHIDA  
HERBERT M. RICHARDS, JR.

ERNEST Y.W. LAU  
DEPUTY DIRECTOR

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

May 6, 2003

TO: Ms. Dede Mamiya, Administrator  
Land Division

FROM: Ernest Y.W. Lau, Deputy Director *EYWL*  
Commission on Water Resource Management (CWRM)

SUBJECT: Draft EA – Kamehameha Investment Corporation Parcel 10A, Kahaluu and Keahou 1<sup>st</sup>, North  
Kona, Hawaii, TMK (3) 7-8-010:090

FILE NO.: HA-2003-013

Thank you for the opportunity to review the subject document. Our comments related to water resources are marked below.

In general, the CWRM strongly promotes the efficient use of our water resources through conservation measures and use of alternative non-potable water resources whenever available, feasible, and there are no harmful effects to the ecosystem. Also, the CWRM encourages the protection of water recharge areas, which are important for the maintenance of streams and the replenishment of aquifers.

- We recommend coordination with the county government to incorporate this project into the county's Water Use and Development Plan.
- We recommend coordination with the Land Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- A Well Construction Permit and/or a Pump Installation Permit from the Commission would be required before ground water is developed as a source of supply for the project.
- The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit from the Commission would be required prior to use of this source.
- Groundwater withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- We are concerned about the potential for degradation of instream uses from development on highly erodible slopes adjacent to streams within or near the project. We recommend that approvals for this project be conditioned upon a review by the corresponding county's Building Department and the developer's acceptance of any resulting requirements related to erosion control.
- If the proposed project includes construction of a stream diversion, the project may require a stream diversion works permit and amend the instream flow standard for the affected stream(s).
- If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.
- OTHER:

If there are any questions, please contact Commission staff at 587-0255.

# CARLSMITH BALL LLP

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121 WAIANUENUE AVENUE  
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WWW.CARLSMITH.COM

E-MAIL SLIM@CARLSMITH.COM

May 22, 2003

Ernest Y.W. Lau  
Deputy Director  
Commission on Water Resource Management  
P.O. Box 621  
Honolulu, Hawaii 96809

Re: Draft Environmental Assessment  
Applicant: Kamehameha Investment Corporation / Development Parcel 10A  
Kahaluu and Keauhou 1st, District of North Kona, Island, County and State of  
Hawaii  
Tax Map Key Nos.: (3) 7-8-10:90

Dear Mr. Lau:

Thank you for your comments on the Draft Environmental Assessment (DEA) for Kamehameha Investment Corporation (KIC) who is seeking approval to allow for the development of up to 16 multiple-family residential units and related improvements on approximately 3.686 acres of land. We appreciate your review of the DEA. The Project site is not located within any water recharge areas. KIC supports water resources through conservation measures and common area landscaping will be developed to minimize the use of potable water.

Your letter and this response will be appended to the final environmental assessment to ensure that the document adequately addresses pertinent development and environmental issues.

Very truly yours,

  
STEVEN S. C. LIM

SSL:KYL  
xc: Kamehameha Investment Corporation  
County of Hawaii Planning Department


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DEPARTMENT OF PUBLIC WORKS  
COUNTY OF HAWAII  
HILO, HAWAII

DATE: June 4, 2003

## Memorandum

TO : Christopher J. Yuen, Planning Director  
Planning Department

FROM : Galen M. Kuba, Division Chief   
Engineering Division

SUBJECT : Draft Environmental Assessment  
for SMA Use Permit Application (SMA )  
Applicant: Kamehameha Investment Corporation  
Location: Kahaluu and Keauhou1st N. Kona, HI  
TMK: 3 / 7-8-010:090

We reviewed the subject application and our comments are as follows:

### DRAINAGE

1. All development generated runoff shall be disposed of on-site and shall not be directed toward any adjacent properties.
2. The applicant shall be informed that if they include drywells in the subject development, an Underground Injection Control (UIC) permit may be required from the Department of Health, State of Hawaii.
3. A drainage study shall be prepared, and the recommended drainage system shall be constructed meeting with the approval of DPW.

### EARTHWORK

1. All earthwork and grading shall conform to Chapter 10, Erosion and Sediment Control, of the Hawaii County Code.
2. The applicant shall comply with chapter 11-55, Water Pollution Control, Hawaii Administrative Rules, Department of Health, which requires an NPDES permit for certain construction activity.

ROADWAYS

The applicant should be required to provide any right-of-entry and slope construction easements as needed for future improvements to Kamehameha III Road when requested by the Director of the Department of Public Works at no cost to the County. Improvements in the slope construction easement would not be compensated or replaced.

Should there be any questions concerning this matter, please feel free to contact Kiran Emler of our Kona Engineering Division office at 327-3530.

KE

copy: Carlsmith Ball LLP Atten: Steven S.C. Lim  
Office of Environmental Quality Control  
ENG-HILO  
PLNG-KONA

# CARLSMITH BALL LLP

A LIMITED LIABILITY LAW PARTNERSHIP

121 WAIANUENUE AVENUE

P.O. BOX 686

HILO, HAWAII 96721-0686

TELEPHONE (808) 935-6644 FAX (808) 935-7975

WWW.CARLSMITH.COM

E-MAIL SLIM@CARLSMITH.COM

June 10, 2003

Galen M. Kuba, Division Chief  
Engineering Division  
Department of Public Works  
101 Pauahi Street  
Hilo, Hawaii 96720

Re: Special Management Area (SMA) Use Permit Application  
Applicant: Kamehameha Investment Corporation / Development Parcel 10A  
Kahaluu and Keauhou 1st, District of North Kona, Island, County and State of  
Hawaii  
Tax Map Key Nos.: (3) 7-8-10:90

Dear Mr. Kuba:

Thank you for your comments on the Draft Environmental Assessment (DEA) for Kamehameha Investment Corporation who is seeking approval to allow for the development of up to 16 multiple-family residential units and related improvements on approximately 3.686 acres of land. We appreciate your review of the DEA.

1. Drainage: No naturally occurring or well-defined drainage ways or drainage outlets are found on-site, and surface water run-off occurs only at rare times of intense rainfall. All development generated runoff will be disposed on-site.
2. Earthwork: The Applicant will comply with Chapter 10, Erosion and Sediment Control, and Chapter 11-15, Water Pollution Control, HAR. If required, the Applicant will obtain a NPDES permit for the Proposed Action.
3. Roadways: The Applicant will work with the Department of Public Works on the issues of right-of-entry and slope construction easements.



Galen Kuba  
June 10, 2003  
Page 2

Your letter and this response will be appended to the final environmental assessment to ensure that the document adequately addresses pertinent development and environmental issues.

Very truly yours,



STEVEN S. C. LIM

SSL:KYL

xc: Kamehameha Investment Corporation  
Planning Department  
Office of Environmental Quality Control

LINDA LINGLE  
GOVERNOR



BOARD OF LANDS

DEPUTY DIRECTOR

ERNEST Y.W.  
DEPUTY DIRECTOR FOR  
THE COMMISSION ON WATER  
RESOURCE MANAGEMENT

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
P.O. Box 621  
HONOLULU, HAWAII 96809

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
COMMISSION ON WATER RESOURCE  
MANAGEMENT  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE  
COMMISSION  
LAND  
STATE PARKS

April 25, 2003

Ref. No.: HA-2003-013

Author: LD-PEM

Suspense Date: May 12, 2003

MEMORANDUM

TO:

RECEIVED  
LAND DIVISION  
HAWAII  
APR 27 11:26  
2003

- Division of Aquatic Resources
- Division of Forestry & Wildlife
- Na Ala Hele Trails
- Division of State Parks
- Division of Boating & Ocean Recreation
- Commission on Water Resource Management
- Engineering Division

Land Division Branches:

- Planning & Technical Services
- Hawaii District Land Office

FROM:

Charlene Unoki, Acting Assistant Administrator *Charlene*

SUBJECT:

Draft Environmental Assessment – Kamehameha Investment Corporation Parcel 10A, Kahaluu and Keauhou 1<sup>st</sup>, North Kona, Hawaii, Tax Map Key: (3) 7-8-10:90

Please review the subject document covering the subject matter and submit your comments (if any) on Division letterhead signed and dated within the time requested above. Should you need more time to review the subject matter, please contact Nick Vacarro at Ext. 7-0384.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments. Thank you.

We have no comments.

Comments are attached.

Signed:

Date:

*Stan York*  
5/1/03

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

Ref. No.: HA-2003-013

Author: LD-PEM

COMMENTS

We confirm that the project site is in Zone X (Not Shaded). This is an area determined to be outside the 500-year flood plain. The National Flood Insurance Program (NFIP) does not have any regulations or guidelines for development within Zone X.

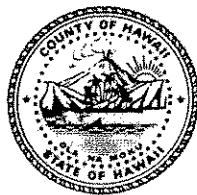
Should you have any questions, please call Mr. Andrew Monden of the Planning Branch at 587-0229.

Signed: Andrew M. Monden  
for ERIC T. HIRANO, CHIEF ENGINEER

Date: 5/14/03

RECEIVED MAY 9 8 2003

Harry Kim  
Mayor



Patricia G. Engelhard  
Director

Pamela N. Mizuno  
Deputy Director

**County of Hawai'i**  
**DEPARTMENT OF PARKS AND RECREATION**  
101 Pauahi Street, Suite 6 • Hilo, Hawai'i 96720  
(808) 961-8311 • Fax (808) 961-8411

May 6, 2003

Kamehameha Investment Corporation  
C/o Steven Lim  
Carlsmith Ball, LLP  
121 Waiianuenue Avenue  
Hilo, HI 96720

Re: Kamehameha Investment Corporation  
SMA Use Permit Application-Development Parcel 10A  
TMK: 7-8-10:90

Dear Mr. Lim:

We have reviewed the application for development of 16 multiple-family residential units and related improvements and we have no adverse comments to offer.

Although no site specific recreational facilities are proposed, it is our understanding that this project is part of the Keauhou Resort development, which offers a variety of recreational opportunities for its guests and the general public. As such, recreational opportunities are being indirectly provided for occupants of the proposed development.

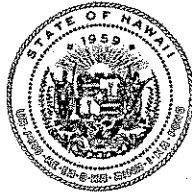
Thank you for the opportunity to review the permit application.

Sincerely,

*Pat Engelhard*  
Patricia Engelhard  
Director

Cc Office of Environmental Quality Control  
Planning Department, County of Hawaii

LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
P.O. Box 621  
HONOLULU, HAWAII 96809

BOARD OF LAND AND NATURAL RESOURCES  
DAN DAVIDSON  
DEPUTY DIRECTOR FOR LAND  
ERNEST Y.W. LAU  
DEPUTY DIRECTOR FOR  
THE COMMISSION ON WATER  
RESOURCE MANAGEMENT

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
COMMISSION ON WATER RESOURCE  
MANAGEMENT  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE  
COMMISSION  
LAND  
STATE PARKS

April 25, 2003

Ref. No.: HA-2003-013  
Author: LD-PEM

Suspense Date: May 12, 2003

MEMORANDUM

TO:  Division of Aquatic Resources  
 Division of Forestry & Wildlife  
 Na Ala Hele Trails  
 Division of State Parks  
 Division of Boating & Ocean Recreation  
 Commission on Water Resource Management  
 Engineering Division

Land Division Branches:  
 Planning & Technical Services  
 Hawaii District Land Office

FROM: Charlene Unoki, Acting Assistant Administrator *Charlene*

SUBJECT: Draft Environmental Assessment – Kamehameha Investment Corporation Parcel 10A, Kahaluu and Keauhou 1<sup>st</sup>, North Kona, Hawaii, Tax Map Key: (3) 7-8-10:90

Please review the subject document covering the subject matter and submit your comments (if any) on Division letterhead signed and dated within the time requested above. Should you need more time to review the subject matter, please contact Nick Vacarro at Ext. 7-0384.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments. Thank you.

We have no comments.

Comments are attached.

Signed: *Michael G. Buck*  
Date: \_\_\_\_\_

**MICHAEL G. BUCK, ADMINISTRATOR  
DIVISION OF FORESTRY AND WILDLIFE**

APR 28

LINDA LINGLE  
GOVERNOR OF HAWAII



GENEVIEVE SALMONSON  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
Telephone (808) 586-4185  
Facsimile (808) 586-4186  
Email: oeqc@health.state.hi.us

June 23, 2002

Kamehameha Investment Corporation  
567 South King Street  
Honolulu, Hawai'i 96793

Mr. Steven S. C. Lim  
Carlsmith Ball LLP  
121 Waiuanu Avenue  
Hilo, Hawai'i 96793

Mr. Norman Hayashi  
Planning Department, County of Hawai'i  
101 Pauahi Street, Room 3  
Hilo, Hawai'i 96720

Dear Kamehameha Investment Corporation and Messrs. Lim and Hayashi:

Having reviewed the draft environmental assessment for the Development of 16-Multiple Family Residential Units and Related Improvements on Kamehameha Investment Corporation Parcel 10A, Tax Map Key: (3) 7-8-10:90, in the judicial district of North Kona, we offer the following comments for your consideration and response:

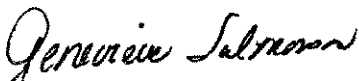
1. **CULTURAL IMPACT ASSESSMENT:** We note that the document contains a discussion of historic and archaeological resources, buttressed by an archaeological inventory survey prepared by the Archaeological Research Center Hawai'i, Inc. While historic and archaeological considerations required by Chapter 6E, Hawai'i Revised Statutes, appear to be adequately covered in the document, cultural considerations pursuant to Act 50, Session Laws of Hawai'i 2000, need to be further expounded upon. The draft environmental assessments notes that pre-consultation with the Keauhou Cultural Advisory Committee took place and that such consultation revealed "no additional traditional and customary native Hawaiian cultural or historical resources on the property." We would like to state that cultural resources and practices need not necessarily be on the property for an action to have cultural impacts under Chapter 343, Hawai'i Revised Statutes. Examples of such resources or practices include but are not limited to: building of structures which would obscure traditional navigation landmarks; or, enclosed fencing around property which would prevent access to traditional activities both mauka or makai of the property. Please clarify whether the additional traditional and customary native Hawaiian cultural or historical resources on the property are those disclosed on Exhibit 3 of the Archaeology report. If so, we believe that contemporary cultural practices and resources need to be disclosed in the draft environmental assessment. Please examine the Cultural Impact Assessment Guidelines adopted by the Environmental Council in 1997 for your use in meeting this requirement prior to submission of a final environmental assessment. This would include contacting neighbors and community members in the Kahalu'u district to ascertain what cultural practices (if any) are occurring in the region encompassing the project and what impacts (if any) the proposed project may have on these cultural practices or resources. A directory of cultural impact assessment providers can also be found on the OEQC website at <http://www.state.hi.us/health/oeqc/index.html>.

Kamehameha Investment Corporation, Messrs. Steven Lim and Norman Hayashi  
Kamehameha Investment Corporation, Carlsmith Ball LLP, and County of Hawai'i Planning Department  
June 23, 2003  
Page 2 of 2

2. *TIME SHARE*: Please disclose if the proposed residential units are time share units.
3. *VIEW PLANE ANALYSIS*: Please discuss visual impacts (if any) of the proposed project.
4. *NATIVE VEGETATION FOR LANDSCAPING*: Please consider the use of native xerophagic vegetation in the landscaping of the project. Please refer to our internet website, above, for more information on native species.
5. *USE OF GLASPHALT IN ROADWAY*: Please discuss the extent to which you will consider using glasphalt in paving the roadway.

If there are any questions, please call Leslie Segundo, Environmental Health Specialist, at (808) 586-4185. Thank you for the opportunity to comment.

Sincerely,

  
GENEVIEVE SALMONSON  
Director

# CARLSMITH BALL LLP

A LIMITED LIABILITY LAW PARTNERSHIP

121 WAIANUENUE AVENUE

P.O. BOX 686

HILO, HAWAII 96721-0686

TELEPHONE 808.935.6644 FAX 808.935.7975

WWW.CARLSMITH.COM

DIRECT DIAL NO.

SLIM@CARLSMITH.COM

December 17, 2003

Genevieve Salmonson  
Director  
Office of Environmental Quality Control  
235 South Beretania Street, Suite 720  
Honolulu, Hawaii 96813

Re: Special Management Area (SMA) Use Permit Application  
Applicant: Kamehameha Investment Corporation / Development Parcel 10A  
Kahaluu and Keauhou 1st, District of North Kona, Island, County and State of  
Hawaii  
Tax Map Key Nos.: (3) 7-8-10:90

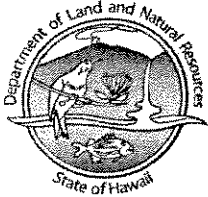
Dear Ms. Salmonson:

Thank you for your comments on the Draft Environmental Assessment (DEA) for Kamehameha Investment Corporation who is seeking approval to allow for the development of up to 16 multiple-family residential units and related improvements on approximately 3.686 acres of land. We appreciate your review of the DEA.

1. Cultural Impact Assessment: The Cultural Resource Management Plan (CRMP) for the Keauhou Resort Area was prepared by PHRI in August, 1985 to comply with the archaeological/historic interpretative management plan requirement pursuant to Ordinance No. 820. The CRMP addressed the archaeological and historical resources in the context of the continuing development of the 43 development parcels of the Keauhou Resort area. The report identified the nature and extent of cultural resources in the Keauhou Resort area and assessed the significance of these cultural resources and established criteria for assessing the significance of specific sites. Appendix C to the CRMP describes and evaluates the cultural resources in each development parcel at the Keauhou Resort, including parcel 10A. In addition, Applicant's preconsultation with the Keauhou Cultural Advisory Committee and Keauhou Outreach Group (which consists of neighboring property owners, kupuna and community members in the Kahaluu district) revealed no traditional and customary native Hawaiian cultural or historical resources on the Property. This preconsultation revealed no observable traditional and customary native Hawaiian practices being exercised on the Property.



LINDA LINGLE  
GOVERNOR OF HAWAII



PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING, ROOM 555  
601 KAMOKILA BOULEVARD  
KAPOLEI, HAWAII 96707

June 26, 2003

Mr. Steven Lim  
Carlsmith Ball LLP  
121 Waianuenu Avenue  
Hilo, Hawaii 96721

LOG: 2003.0959  
DOC: 0306mm12

Dear Mr. Lim:

**SUBJECT: Chapter 6E-42 Historic Preservation Review of a Draft Environment Assessment (DEA) for Kamehameha Investment Corporation Development Parcel 10A and Special Management (SMA) Use Permit Application, Lot 3-B-1 Land of Kahaluu and Keauhou 1<sup>st</sup>, North Kona District, Island of Hawaii  
TMK: (3) 7-8-010:90**

Thank you for submitting a copy of the DEA for the subject property for our review. Your request was received by our Kona office on May 11, 2003. We apologize for the delay in responding and hope our comments will be useful.

The Draft EA states that the subject property comprises a 3.686 acre portion of a 35 acre parcel (Kamehameha Investment Corporation's Parcel 10). Parcel 10 was the subject of an archaeological survey by Archaeological Research Center of Hawaii (ARCH) in 1980. Four sites were identified in the survey: Site 4633 (agricultural feature), Site 4634 (ahu), Site 4624 (animal enclosure), and Site 4619 (foot trail). Please note that there is an inconsistency in the description and evaluation of Site 4624 in the Draft EA. In Exhibit 2 it is described as an animal enclosure with little research potential, in contrast to Exhibit 3, where it is characterized as a walled platform with cultural, scientific, and interpretive significance. This inconsistency should be addressed in the final EA. The ARCH report recommended further work for Site 4624 and preservation of Site 4619.

Preservation of Site 4619 was addressed in Keauhou Resort's Cultural Resource Management Plan (1985), which was prepared to comply with historic preservation requirements in Ordinance No. 820. Site buffers have already been set for the portion of the site located in the Hillhaven facility parcel (TMK: 7-8-10:91). Buffers still need to be established for the small portion of the site located in parcel 10A. The historic preservation review status of the other three sites in the subject parcel is unclear. The Draft EA states that two of the four sites were investigated further, but there is no mention of which sites, the type of investigation, and no reference to a report on

2. Time Share: Under the current development plan, the proposed 16 multiple-family residential units will not be sold as time share units.
3. View Plane Analysis: The Applicant proposes implementation of project design and construction guidelines aimed at achieving visual cohesion with the Proposed Action, and visual compatibility with the surrounding environment. The Proposed Action will not adversely affect views to and along the shoreline due to the integration of the sloping property with 2- and 3-story maximum heights of the residential development. Furthermore, the view planes to and along the shoreline towards the Property will not be adversely impacted as the lands in the immediate area are developed with existing resort and multiple family residential development.
4. Native Vegetation for landscaping: The landscaping will consider native endemic, indigenous and Polynesian introduced species. Plant species being considered are pohinahina, 'akia, hinahina kukahakai, ma'o, naupaka kahakai, nehe, wililwili, 'ilima, a'ali'i and 'ulei.
5. Use of glasphalt in roadway: Roadway improvements to the Kamehameha III Road and the private roadway are completed. All roadways within the proposed development shall be constructed in a manner as required by the Planning Department in consultation with the Department of Public Works. The County of Hawaii Department of Public Works does not require this type of roadway substance for private or public roadways.

Your letter and this response will be appended to the final environmental assessment to ensure that the document adequately addresses pertinent development and environmental issues.

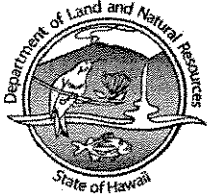
Very truly yours,

  
STEVEN S. C. LIM

SSL:KYL

xc: Kamehameha Investment Corporation  
County of Hawaii Planning Department

LINDA LINGLE  
GOVERNOR OF HAWAII



RECEIVED OCT 07 2003

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU  
DEPUTY DIRECTOR - WATER

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
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AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
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ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

October 6, 2003

Mr. Steven Lim  
Carlsmith Ball LLP  
121 Waianuenue Avenue  
Hilo, Hawaii 96721

LOG NO: 2003.1881  
DOC NO: 310MM02

Dear Mr. Lim:

**SUBJECT: Chapter 6E-42 Historic Preservation Review - Kamehameha Investment Corporation Development Special Management Use Permit Application, Lot 3-B-1 Land of Kahaluu and Keauhou 1<sup>st</sup>, North Kona District Island of Hawaii  
TMK: (3) 7-8-010:90**

This letter is a follow-up to our Review of the Draft Environmental Assessment for Parcel 10A as it pertained to the SMA Use Permit Application for Lot 3-B-1 on the subject property (McEldowney to Lim, June 26, 2003, Log No. 2003.0959, Doc. No. 0306MM12). Based on a site visit to Lot 3-B-1 by our Hawaii Island Assistant Archaeologist MaryAnne Maigret on August 25, 2003, with Mr. Joseph Spencer and Mr. Francis Kauhane of Kamehameha Investment Corporation, we have learned that the majority of Lot 3-B-1 has been grubbed and partially graded in the past.

An archaeological easement "A-1" for Site 4619, established as a requirement of County of Hawaii Ordinance No. 820, is currently situated on the Hillhaven facility parcel to the northeast of Lot 3-B-1. A small portion of this easement lies within Lot 3-B-1 in the extreme northeast corner of the Lot. This small sliver of protective buffer is isolated from the development area proposed for Lot 3-B-1 by a sewer line easement referred to on a May 18, 1989 subdivision map as Easement "S-1".

Since the protected area is separated from the development area by easement "S-1", with the remainder of the lot having been grubbed or graded in the past, we find there are "no historic properties affected" by development of Lot 3-B-1 southwest of Easement "S-1."

Regarding the remainder of Development Area 10A, the concerns expressed in our June 26, 2003 letter should be addressed through an upgraded archaeological assessment or an archaeological inventory survey, as plans for development proceed outside of Lot 3-B-1.

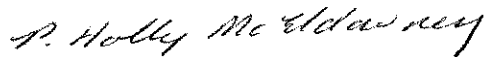
Steven Lim

this work. There is also no indication whether a report on the investigations was ever submitted to our office for review and approval.

The final EA should include a clear summary of the historic preservation review status of all of the historic sites identified in the subject parcel. We suggest that the applicant, Kamehameha Investment Corporation, hire an archaeological consultant to undertake a systematic review of the adequacy of previous work and the need for additional work, including the preparation of a revised preservation plan for Site 4619 to include buffers for Parcel 10A.

If you have any questions regarding this matter, please feel free to contact Dr. Pat McCoy, Hawaii Island Archaeologist at (808) 692-8029, or MaryAnne Maigret, Assistant Hawaii Island Archaeologist at 327-3690.

Aloha,



P. Holly McEldowney, Acting Administrator  
State Historic Preservation Division

c. Chris Yuen, County of Hawaii Planning Department  
OEQC

PM:ak

# CARLSMITH BALL LLP

A LIMITED LIABILITY LAW PARTNERSHIP

121 WAIANUENUE AVENUE

P.O. BOX 686

HILO, HAWAII 96721-0686

TELEPHONE 808.935.6644 FAX 808.935.7975

WWW.CARLSMITH.COM

SLIM@CARLSMITH.COM

DIRECT DIAL NO.

December 17, 2003

P. Holly McEldowney  
Acting Administrator  
State Historic Preservation Division  
601 Kamokila Boulevard  
Kapolei, Hawaii 96707

Re: Final Environmental Assessment (FEA)  
Request: Special Management Area (SMA) Use Permit Application  
Applicant: Kamehameha Investment Corporation / Development Parcel 10A  
Lot 3-B-1 at Kahaluu and Keauhou 1st, District of North Kona, Island, County  
and State of Hawaii  
Tax Map Key No.: (3) 7-8-10:90

Dear Ms. McEldowney:

Thank you for your comments on the Draft Environmental Assessment (DEA) for Kamehameha Investment Corporation ("KIC") who is seeking approval to allow for the development of up to 16 multiple-family residential units and related improvements on approximately 3.686 acres of land. We appreciate your review of the DEA, and your follow-up letter dated October 6, 2003, in which you state that there are "no historic properties affected" by the development of Lot 3-B-1, southwest of Easement "S-1."

Your letter and this response will be appended to the final environmental assessment to ensure that the document adequately addresses pertinent development and environmental issues.

Very truly yours,

  
STEVEN S.C. LIM

SSL/KYL

xc: OEQC

Kamehameha Investment Corporation

4845-8964-9664.1

Mr. Steven Lim  
Page 2

If you have any questions regarding this matter, please feel free to contact Dr. Pat McCoy, Hawaii Island Archaeologist at (808) 692-8029, or MaryAnne Maigret, Assistant Hawaii Island Archaeologist at 327-3690.

Aloha,

*P. Holly McEldowney*

P. Holly McEldowney, Acting Administrator  
State Historic Preservation Division

c. Chris Yuen, Director, County of Hawaii Planning Department

MM:ak