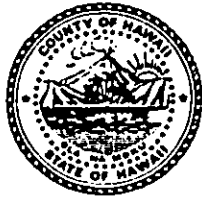


Alae Cemetery Exp.

Stephen K. Yamashiro  
Mayor



George Yoshida  
Director

Juliette M. Tulang  
Deputy Director

County of Hawaii RECEIVED  
DEPARTMENT OF PARKS AND RECREATION JUL 16 P3:25  
25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252  
(808) 961-8311

OFC. OF ENVIRONMENTAL  
QUALITY CONTROL

July 9, 1997

Mr. Gary Gill, Director  
Office of Environmental Quality Control  
220 South King Street  
Honolulu, Hawaii 96813

Subject: Final Environmental Assessment and Finding of No  
Significant Impact for the Alae Cemetery Expansion,  
South Hilo, Hawaii

Dear Mr. Gill:

The Department of Parks and Recreation, County of Hawaii, has reviewed the comment letters received during the 30-day public comment period which began on May 8, 1997 and has determined that this project will not have any significant environmental effects.

The Department has therefore issued a Finding of No Significant Impact (FONSI). Please publish this notice in the next edition of the OEQC Environmental Notice.

Enclosed is a completed OEQC Environmental Notice Publication Form and four copies of the final EA.

Please contact Glenn Miyao at 961-8311 if any questions arise.

Thank you.

Sincerely,

  
George Yoshida  
Director

encls

76

1997-08-08-HI-~~FEA~~ Alae Cemetery  
Expansion

AUG 8 1997

**FILE COPY**

**FINAL ENVIRONMENTAL ASSESSMENT  
AND FINDING OF NO SIGNIFICANT IMPACT  
ALAE CEMETERY EXPANSION**

TMK (3rd): 2-6-12:18 (por.)  
Alae, South Hilo District, Hawaii Island, State of Hawaii

July 1997

County of Hawaii  
25 Aupuni Street  
Hilo Hawaii 96720

**FINAL ENVIRONMENTAL ASSESSMENT  
AND FINDING OF NO SIGNIFICANT IMPACT  
ALAE CEMETERY EXPANSION**

TMK 2-6-12:18 (por.)  
Alae, South Hilo, Hawaii Island, Hawaii

**APPLICANT:**

Hawaii County Department of Parks and Recreation  
25 Aupuni Street  
Hilo, Hawaii 96720

**CONSULTANT:**

Ron Terry Ph.D.  
HCR 9575  
Keaau, Hawaii 96749

**APPROVING AGENCY:**

Office of the Mayor  
County of Hawaii  
25 Aupuni Street  
Hilo, Hawaii 96720

**CLASS OF ACTION:**

Use of County Lands and Funds

This document is prepared pursuant to the Hawaii Environmental Protection Act,  
Chapter 343, Hawaii Revised Statutes (HRS), and  
Title 11, Chapter 200, Hawaii Department of Health Administrative Rules (HAR).

## **SUMMARY OF PROJECT, IMPACTS AND MITIGATION MEASURES**

### **Project Summary**

The County Department of Parks and Recreation plans to expand Alae Cemetery near Hilo by acquiring an approximately 13.5-acre portion of an adjacent parcel, 2-6-12:18, from owner Kamehameha Schools/Bishop Estate.

### **Short Term Impacts**

*Construction Impacts and Mitigation:* Landclearing and construction activities during periods of expansion will produce short-term impacts to noise and air quality. Because the area to be expanded is remote from any residential, commercial or recreational areas, impacts will be minimal. Air quality concerns are being mitigated by control of fugitive dust.

### **Long Term Impacts**

No appreciable adverse long-term effects are expected to result from the proposed action. The provision of needed cemetery space represents a benefit.

### **Mitigation Measures**

A 50-foot buffer zone between the cemetery and the edge of the gulch slope will be maintained in order to minimize impacts to the stream related to sedimentation and unauthorized dumping.

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**PART 1: ACTION DESCRIPTION**

1.1 Project Location

The Hawaii County Department of Parks and Recreation (P&R) plans to expand Alae Cemetery by acquiring an approximately 13.5-acre portion of an adjacent parcel, TMK 2-6-12:18, from owner Kamehameha Schools/Bishop Estate (KSBE) (Fig. 1). The latitude and longitude for the site are 19° 45.5' N. Lat., 155° 06.3' W. Long.

1.2 Purpose and Objectives of Action

The existing 17.8 acre cemetery, containing approximately 9,200 plots, is operated and maintained by P&R. Cemetery expansion is necessary in order to meet the demand for approximately 125 burials and an equal number of reservations every year. The area is expected to accommodate about 500 plots per acre, or ultimately as many as 5-6,000 new plots, assuming about 10-12 acres of usable space within the 13.5 acres.

1.3 Project Description

The actual expansion would take place incrementally over a period of several decades, in step with demand for new plots. The property would be grubbed, graded, grassed, and provided with water service. Construction of an interior roadway system will be required to service the new property. Eventually, the existing circulation within the cemetery is planned to be modified to better serve existing and future traffic. Also included in long-term plans for the cemetery is a pavilion in the upper area similar to the existing pavilion.

1.4 Alternatives

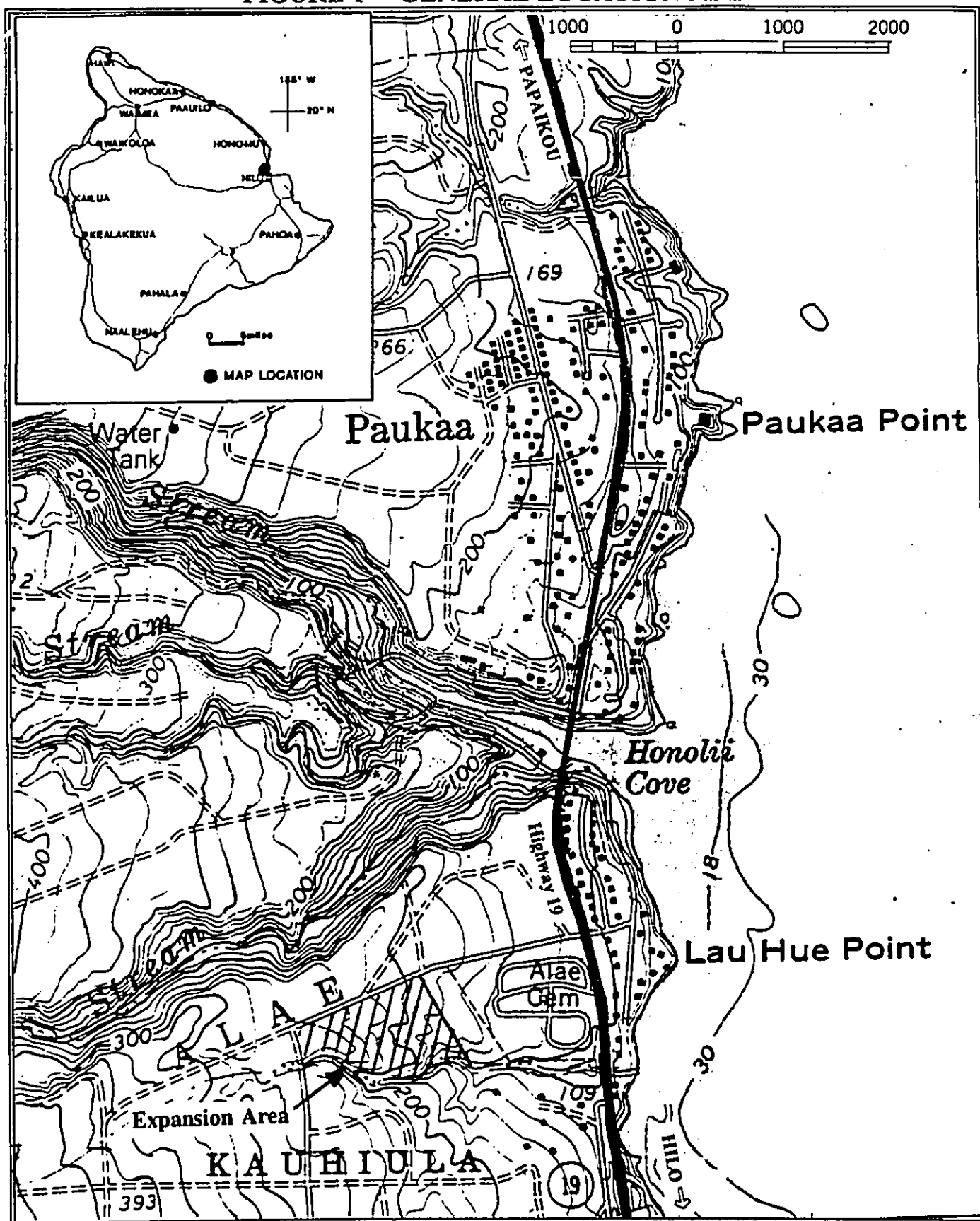
1.4.1 No Action

If no action is taken, P&R will not be able to satisfy the demand for burials at Alae, and burials will have to be accommodated at other public or private cemeteries.

1.4.2 Alternative Site Locations

Of the three other public cemeteries that exist in South Hilo, the two at Ponahawai are for veterans and the 0.5 acre Waiakea Uka facility is non-conforming and is unsuitable for expansion because of access and land acquisition constraints. In reviewing options for additional areas for cemeteries, P&R determined that Alae offers the most feasible and suitable site for cemetery expansion in terms of land use compatibility, land availability and price, and environmental impacts.

FIGURE 1 GENERAL LOCATION MAP



Source: USGS 7 1/2 minute Papaikou Quad



1.5 Ownership

The property is a portion of a parcel owned in fee simple by Kamehameha Schools/Bishop Estate (KSBE). Title to the property would be transferred to the County of Hawaii by purchase or land exchange.<sup>1</sup>

1.6 Land Use Designation and Controls

The parcel is zoned A-20a (Agriculture, minimum lot size 20 acres) by the County of Hawaii and is located in the State Land Use Agricultural District. Zoning and Land Use Districts for surrounding properties are identical. During the subdivision process the 13.5 acre expansion area would be consolidated with parcel 2-6-12:10 (the existing cemetery), yielding a parcel of approximately 30 acres, which conforms with the zoning designation.

The expansion area is outside the Special Management Area (SMA), but transportation improvements proposed for the future in the front of the existing cemetery are within the SMA and may require SMA permits.

1.7 Consultation With Agencies and Organizations

The following agencies, organizations and individuals have been consulted during the Environmental Assessment Process:

County:

Planning Department  
County Council

Department of Public Works  
Police Department

State:

Department of Land and Natural Resources: Historic Preservation Division  
Department of Transportation: Highways Division

The Paukaa Community Association was provided with maps and a basic description of the proposed expansion, and the item was discussed at their 16 February 1997 meeting. This group will review and may comment upon the Draft EA.

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<sup>1</sup>The County parcels potentially subject to land exchange have not yet been identified, and therefore analysis or discussion of potential environmental effects on such parcels is not included within this Environmental Assessment (EA). A follow-up EA may be necessary in order to address impacts, if any, associated with the land exchange.

## **PART 2: ENVIRONMENTAL SETTING, IMPACTS AND PROPOSED MITIGATION MEASURES**

### **2.1 Basic Geographic Setting**

Alae Cemetery is located on gently sloping, north-facing land just mauka of State Highway 19, 1.7 miles north of Hilo (Fig. 1). The land is completely covered in regrowth sugar cane, except in the gulch which forms the southern boundary, where the cover is alien riparian vegetation. The elevation of the existing cemetery ranges between approximately 100 and 140 feet above mean sea level. The expansion area is just mauka, at elevations between 140 and 270 feet. The lower quarter and upper two quarters of the expansion area exhibit moderate slopes of the order of 10 percent, while the second lowest quarter is somewhat steeper.

The geologic substrate is Pahala Ash overlying Pleistocene lava flows from Mauna Kea (Wolfe and Morris 1996). Soil on these deeply weathered ash deposits is classified Hilo Silty Clay Loam. This soil has a dark-brown, highly acidic surface layer about 12 inches thick overlying a subsoil that may be as deep as 48 inches. Rock outcrops may also be present (U.S. Soil Conservation Service 1973).

The existing cemetery is approximately 200 feet from the coastal cliffs at the closest point. The expansion area begins approximately 1,200 feet from the shoreline. A cane-haul road borders the existing cemetery and expansion area to the north and west (mauka). An unnamed intermittent stream borders the cemetery and expansion area to the south.

### **2.2 Physical Environment**

#### **2.2.1 Drainage**

##### *Environmental Setting*

No Flood Insurance Rate map (FIRM) is published for the project area. No flooding problems are known from the area. The gulch forming the southern border of the expansion area flows intermittently. On the Hilo Silty Clay Loam soil covering the site, the soil erosion is slight to moderate, increasing with slope. Permeability is rapid and runoff is medium (U.S. Soil Conservation Service 1973).

Runoff from the cemetery is usually not substantial because of the relatively high permeability of the land cover, which is mostly lawn. During high rainfall events, runoff is channeled in culverts towards the makai end of the cemetery, where a drainage ditch slopes into the gulch.

### *Impacts and Mitigation Measures*

The cemetery expansion will include drainage improvements that will dispose of all runoff onsite, in conformance with Chapter 27 of the Hawaii County Code. A system of drainage swales, culverts and drywells will be employed.

No activities in the gulch are planned. However, grading associated with preparing the cemetery has the potential to cause sedimentation in the gulch. In order to avoid such impacts, a 50-foot buffer zone between the gulch edge and the cemetery will be maintained.

#### 2.2.2 Lava Flow and Earthquake Hazards

##### *Environmental Setting and Impacts*

The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes. Areas north of the Wailuku River near Hilo have a rating of Lava Flow Hazard Zone 8 (on a scale of ascending risk 9 to 1). Zone 8 areas have been free of lava flows for the last 750 years and have had only a few percent covered during the last 10,000 years (see Heliker 1990). As such, there is minimal risk of lava inundation over human time scales.

The entire island of Hawaii is in Zone 3 on a scale of ascending risk 1 to 4 in the Seismic Probability Rating (Furumoto et al 1973:34). Major damage corresponding to a score of 7 or above on the Modified Mercalli Scale is possible.

In sum, geologic hazards impose no constraints on the project, and no impacts are expected.

#### 2.2.3 Flora, Fauna and Ecosystems

##### *Environmental Setting: Flora*

The parcel is nearly completely covered with regrowth sugar cane (Saccharum officinarum). Coming up between cane stalks are individuals of a number of alien species: sourbush (Pluchea odorata), California grass (Brachiara mutica), thimbleberry (Rubus rosifolius), vervain (Verbena bonariensis), Spanish clover (Desmodium spp.), Melochia umbellata, guinea grass (Panicum maximum) and comb hyptis (Hyptis pectata). The common indigene morning glory (Ipomoea congesta) is also widespread in the cane.

The gulch area includes all of the species listed above, and a number of species adapted to shade and moisture as well. In the section adjacent to the existing cemetery and immediately upstream, the gulch is over 50 feet deep. Royal palms

(Roystonea regia) and Alexander palms (Archontophoenix alexandrae) are common. Also found in this section are various gingers, chinese banyan (Ficus microphylla), bananas (Musa spp.), African tulips (Spathodea campanulata), gunpowder tree (Trema orientalis), ti (Cordyline fruticosa), honohono grass (Commelina diffusa), and breadfruit (Artocarpus altilis). Ferns and mosses are present on the steep banks adjacent to the gulch itself. The stream appears to tap springs or shallow groundwater percolating from areas upstream.

Moving further uphill in the property, the gulch becomes less than half as deep and wide, and grass obscures the channel. On the day of the field survey, water was flowing rapidly in the lower gulch but was found only in stagnant pools in the upper gulch. A culvert located about 15 feet below the road level passes gulch flow under the cane road that borders the western (mauka) end of the property.

#### *Environmental Setting: Flora*

Native forest birds would not be expected on the parcel due to its low elevation and lack of appropriate habitat. The Hawaiian raptors 'io (Buteo solitarius) and the Hawaiian owl or pueo (Asio flammeus sandwichensis) are extremely adaptable and may make occasional use of the area. Little is known about the habitat requirements of Hawaii's only land mammal, Lasiurus cinereus semotus (the 'ope'ape'a or Hawaiian hoary bat), but it is doubtful that the parcel would provide habitat for this species.

No native aquatic species were observed in or near the gulch. Tahitian prawns (Macrobrachium lar) were the only aquatic invertebrates in evidence.

#### *Impacts and Mitigation Measures*

No listed, candidate or proposed endangered animal or plant species are found on the property. In terms of conservation value, no botanical or zoological resources requiring special protection are present.

Although the stream does not appear to support native flora or provide high quality habitat for native aquatic fauna, it does support food species (Tahitian prawns) and channels water to the ocean, where native species may be affected. In keeping with concerns regarding drainage, a 50-foot buffer zone between the cemetery and the edge of the gulch slope will be maintained in order to minimize impacts to the stream related to sedimentation and unauthorized dumping.

#### 2.2.4 Air Quality, Noise, and Scenic Resources

##### *Environmental Setting*

Air pollution in rural South Hilo is minimal. Volcanic emissions of sulfur dioxide convert into particulate sulfate that causes a volcanic haze (vog) to blanket the area during occasional episodes when trade winds are not present. Ambient noise in the expansion area is low, derived mainly from distant highway and agricultural activities. The visual character of the expansion area is typical of an abandoned sugar cane field, and has value principally as open space.

##### *Impacts and Mitigation Measures*

The proposed cemetery expansion would have negligible impacts to air quality and noise, much less than those that would occur under agricultural use. The essential scenic value of the area - as open space - will be preserved and enhanced.

### 2.3 Socioeconomic and Cultural

#### 2.3.1 Socioeconomic

##### *Environmental Setting*

Table 1 displays basic socioeconomic data from the 1990 U.S. Census of Population for Hawaii County, the South Hilo District, and the Census Tract including and surrounding the cemetery.

Hilo has been the major population center on the island for centuries. Formerly centered on the sugar cane industry, agriculture around Hilo has become more diversified with the growth of macadamia, papaya, orchid and foliage industries. These enterprises are rapidly expanding in rural South Hilo. The economy as a whole in the district is now more dependent on the business and government functions headquartered in Hilo, including the University of Hawaii at Hilo. It is the major commercial center on the island of Hawaii and also supports several industrial and commercial districts. Hilo International Airport and the deep draft harbor anchor the major shipping center on the island.

Paukaa, the neighborhood closest to the cemetery, is a small suburb spread out along and near the coast 3 to 4 miles north of Hilo. The portion of Paukaa known as Alae Point, which contains several dozen houses and the popular Honoli'i County Beach Park, is located across Highway 19 from the cemetery. The former cane camp of Lower Wainaku is approximately one-half mile south. The cemetery is mostly surrounded by agricultural land and is not directly connected with any community.

**Table 1**  
**Selected Socioeconomic Characteristics**

CHARACTERISTIC	GEOGRAPHIC AREAS		
	Hawaii Island	South Hilo	Tract 202
Total Population	120,317	39,537	1,871
Average Household Size	2.90	2.80	3.01
Percent Caucasian	39.9	26.7	29.2
Percent Asian	37.0	59.4	50.9
Percent Pacific Islander	20.0	12.6	15.8
Percent Under 18 Years	28.7	27.2	25.7
Percent Over 65 Years	12.6	14.7	16.2
Percent Who Lived in State of Hawaii in 1985	84.5	91.4	86.9
Percent Over 25 Years With High School Diploma	77.7	78.4	64.2
Percent Adults in Labor Force	64.2	62.1	49.9
Median Family Income	\$33,186	\$35,579	\$35,147
Percent in Poverty	14.2	14.3	10.5
Percent Housing Vacant	14.1	5.7	4.9
Median Home Price	\$113,000	\$110,800	\$84,200

Source: U.S. Bureau of the Census: *1990 Census of Population and Housing*. STF 1-A, STF 3-A. Tract 202 includes Wainaku and the portion of Paukaa nearest the cemetery.

### *Impacts*

The cemetery expansion would serve and benefit the entire population of the Big Island, especially East Hawaii, and particularly the South Hilo area. The relative shortage of available, affordable burial sites is of concern in a population with a large number of elderly and/or low-income residents.

### 2.3.2 Archaeology and Historic Sites

#### *Environmental Setting*

The expansion area is entirely within former sugar cane land. Over a hundred years of clearing and deep ground disturbance have essentially eliminated any archaeological sites or artifacts that may once have been present.

#### *Impacts and Mitigation Measures*

In response to pre-consultation before site reconnaissance, the State Historic Preservation Division judged that:

“It is thus highly unlikely that significant historic sites remain on this parcel. The cemetery expansion will thus probably have “no effect” on significant historic sites, but we will wait the results of the studies you mention in your letter before reaching a final conclusion [full text in Appendix 1]”

The site was subsequently walked and checked for historic sites or artifacts, with particular attention to the gulch area, where the greatest likelihood for finding undisturbed ground was. No sites were found, and although the dense covering of sugar cane and other weedy vegetation made full survey impossible, it appears unlikely that archaeological sites are present. It is thus reasonable to conclude that no effect on historic sites would result from the proposed expansion.

However, if any artifacts, charcoal deposits, or human remains are discovered during grading or excavation, work will immediately cease and SHPD will be consulted to determine the appropriate mitigation, in accordance with State and County laws and policies.

## 2.4 Public Facilities and Services

### 2.4.1 Roads and Traffic

#### *Existing Facilities*

The cemetery is accessed from a single entrance/exit from State Highway 19. No turn deceleration or acceleration lanes are present.

In 1994 (the latest year for which traffic statistics are available), the average daily traffic (ADT) on State Highway 19 on the 5 mile stretch between Wainaku and Papaikou was estimated at 13,628. Of this number, 7.5 percent was concentrated in the AM peak hour, and 9.0 percent in the PM peak hour. Trucks make up approximately 3-5 percent of peak hour and total traffic. ADT has risen about 20 percent since 1986, a rate of increase that will probably continue into the future (Hawaii State DOT 1995:32).

No statistics for bicycles or pedestrians are collected for Highway 19. Observation of the cemetery traffic described below also noted bicycles and pedestrian traffic. Based on these observations, it appears that a minimal amount of traffic (less than 3 bicycles/hour and 1 pedestrian/hour) pass by the cemetery on Highway 19, on the average, during daylight hours.

In order to estimate current traffic generated by the cemetery and predict future increases, traffic counts were taken. Half-hour counts were taken on eight separate days for 1 to 2 hour periods. The intervals were chosen to correspond with the maximum traffic on Highway 19 (i.e., the AM and PM peak hours) and the maximum traffic in the cemetery (weekend mid-morning to mid-afternoon). Table 2 presents the results of the sample observations and estimates a likely range of actual traffic.



**Table 2**  
**Traffic Generated by Cemetery**

TIME PERIOD	NUMBER OF VEHICLES ENTERING, PER HOUR, EXISTING (1997)		NUMBER OF VEHICLES ENTERING, PER HOUR, FUTURE (FULL EXPANSION)
	RANGE	MEAN	PROBABLE MEAN
1) Weekday AM Peak	8-18 <sup>1</sup>	12.4	19
2) Weekday PM Peak	8-16 <sup>2</sup>	12.0	18
3) Weekday, Noon	10-14 <sup>3</sup>	12.5	19
4) Saturday/Sunday, 9:00 AM - 2:00 PM	6-28 <sup>4</sup>	16.5	25

Notes: <sup>1</sup> Based on 5 independent half-hour samples. <sup>2</sup> Based on 6 independent half-hour samples. <sup>3</sup> Based on 4 independent half-hour samples. <sup>4</sup> Based on 10 independent half-hour samples. Projection to future buildout assumes an increase in visitation of 50 percent by the year 2030. This is based on average rate of 200 burials/year over 30 years, for an ultimate increase in plot numbers of 50-70 percent (a considerable falloff of visitation to older grave sites is expected by 2030).

The busiest time at the cemetery is mid-day on weekends, which corresponds to a relatively light time of traffic on Highway 19. About 12 vehicles per hour enter the facility (and an equal amount exit). Visitation to the cemetery is 70 percent or less during peak AM or PM hours than during the weekend mid-day, when as many as 16 vehicles per hour enter. In general, cemetery-bound traffic accounts for less than 1 percent of highway traffic, and an even smaller proportion during peak hours. Funerals and holidays such as Mother's Day, Father's Day, Memorial Day, Christmas, Easter, New Year's, and certain days within festivals such as Obon generate larger volumes.

*Impacts*

It is estimated that traffic increase generated by the expansion will be about 50 percent (see Table 2). Because traffic is normally extremely light within the cemetery, such an increase will usually generate between 12 to 16 additional vehicle entries per hour. It is expected that the proportion of highway traffic bound for the cemetery will remain at 1 percent or less. With the current moderate levels of traffic at peak hour times on Highway 19, the cemetery expansion is not expected to increase traffic congestion appreciably or decrease safety conditions. No impact to pedestrians or bicycles is expected.

### *Mitigation Measures*

Currently, and for the period in which the initial 1-acre expansion would occur, the Hawaii County Department of Parks and Recreation judges that the road and intersection infrastructure adequately conducts traffic in, around, and out of the cemetery.

The proposed expansion will occur gradually over the course of several decades, in keeping with the expected steady growth in demand. The County Department of Parks and Recreation will evaluate the traffic situation (both internal and external) prior to increments of expansion. When justified, a master plan for traffic circulation and a schedule for individual improvements will be developed.

#### 2.4.2 Utilities

##### *Existing Facilities and Impacts*

The pavilion at the lower end of the cemetery is served by electricity and phone lines. No expansion of electricity or phone lines is currently contemplated, and no impact to these services would occur.

#### 2.4.3 Water Supply

##### *Existing Facilities*

Water service to the facility is currently provided by the Hawaii County Department of Water Supply. Water is used mainly for maintenance purposes and by cemetery users for flower arrangements.

##### *Impacts*

No adverse impact to water supply is expected to result from the proposed action. The Hawaii State Department of Health (DOH) requires that the County Department of Water Supply certify that any establishment or expansion of a cemetery will not contaminate potable water supply. The Department of Water Supply determined that the expansion would have no adverse impact on the nearest drinking water well, which is located in Papaikou (see Appendix 1 for letter).

#### 2.4.4 Wastewater

##### *Existing Facilities*

The pavilion at the cemetery has a bathroom served by a cesspool.

##### *Impacts and Mitigation Measures*

When a pavilion and restroom are ultimately constructed in the expansion area, a septic system in conformance with Hawaii State Department of Health rules will be constructed.

#### 2.5 Required Permits and Approvals

##### 2.5.1 Hawaii County Council

Section 6-1 of the Hawaii County Code requires that the County Council must express its approval of any cemetery establishment or expansion through a resolution. Resolution 174-95, filed October 4, 1995, but never voted upon, authorized the acquisition of land for expansion of Alae Cemetery (see Appendix 2). A similar resolution must be refiled and passed before the acquisition can be authorized. The results of the Environmental Assessment process will be considered by the County Council prior to adoption of such resolution.

##### 2.5.2 Hawaii State Department of Health Approval

Section 6-2 of the Hawaii County code requires that any person requesting the establishing, enlarging, or extending of a cemetery shall submit a certificate of approval from the State Department of Health as evidence of compliance with its regulations. The Department of Health granted this approval on 4 December 1996 (see Appendix 2).

##### 2.5.3 Hawaii County Planning Commission Actions

Section 6-3 of the Hawaii County code requires that any application to establish or expand a cemetery be referred to the Planning Commission. The Commission will study the proposed project in relation to zoning ordinances, statutes, the General Plan, and other criteria, and make a recommendation to the County Council. A public hearing before the Planning Commission is required.

The expansion area itself is outside the Special Management Area (SMA), but transportation improvements proposed for the future in the front of the existing cemetery are within the SMA and may require SMA permits.

### **PART 3: DETERMINATION**

The Hawaii County Department of Parks and Recreation (P&R) has determined that impacts from the proposed project will be minimal and that the project will not significantly alter the environment. Therefore, (P&R) has issued a Finding of No Significant Impact (FONSI), which means that an Environmental Impact Statement is not warranted and will not be prepared (see cover letter).

### **PART 4: FINDINGS AND REASONS**

Chapter 11-200-12, Hawaii Administrative Rules, outlines those factors agencies must consider when determining whether a project has significant effects:

1. *The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.*

No natural or cultural resources are present on the site, which is an abandoned sugar cane field.

2. *The proposed project will not curtail the range of beneficial uses of the environment.*

No restriction of beneficial uses would occur.

3. *The proposed project will not conflict with the State's long-term environmental policies.*

The State's long term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. A number of specific guidelines support these goals. The project is environmentally benign and is consistent with all elements of the State's long-term environmental policies as expressed in Chapter 344, HRS.. The project supports a number of guidelines, including those calling for establishing and maintaining historic, cultural, and recreation areas.

4. *The proposed project will not substantially affect the economic or social welfare of the community or State.*

No substantial effect, either adverse or beneficial, would occur as a result of the cemetery expansion.

5. *The proposed project does not substantially affect public health in any detrimental way.*

that the expansion would have no adverse impact on the nearest drinking water well, which is located in Papaikou, over three miles from the cemetery.

6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities.*

No secondary effects whatsoever are expected to result from the project.

7. *The proposed project will not involve a substantial degradation of environmental quality.*

The project would not degrade environmental quality.

8. *The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat.*

No rare, threatened or endangered species of flora or fauna are known to exist on the project site, other than the possibility of use by the wide-ranging species Hawaiian hawk or 'io (Buteo solitarius), and the 'ope'ape'a or Hawaiian hoary bat. (Lasiurus cinereus semotus), which would not be affected by any project activities.

9. *The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.*

The project is not related to other activities in the region in such a way as to produce adverse cumulative effects or involve a commitment for larger actions.

10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.*

No substantial effects to air, water, or ambient noise would occur. Brief, temporary effects will occur during construction, but because the area to be expanded is remote from any residential, commercial or recreational areas, impacts will be minimal

11. *The project does not affect an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.*

The project is not located near coastal or inland waters. Although the proposed project is located in an zone exposed to some earthquake and volcanic hazard, there are no reasonable alternatives.

For the reasons above, the proposed project will not have any significant effect in the context of Chapter 343, Hawaii Revised Statutes and section 11-200-12 of the State Administrative Rules.

#### REFERENCES

- Furumoto, A.S., N.N. Nielsen, and W.R. Phillips. 1973. *A Study of Past Earthquakes, Isoseismic Zones of Intensity, and Recommended Zones for Structural Design for Hawaii*. Honolulu: Hawaii Institute of Geophysics.
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**APPENDIX 1**

**COMMENT LETTERS**

**FROM AGENCIES AND ORGANIZATIONS**

**IN RESPONSE TO PRE-CONSULTATION**

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
33 SOUTH KING STREET, 6TH FLOOR  
HONOLULU, HAWAII 96813

February 5, 1997

MICHAEL D. WILSON, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT  
PROGRAM

AQUATIC RESOURCES  
CONSERVATION AND

RESOURCES ENFORCEMENT  
CONVEYANCES

FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION

DIVISION  
LAND DIVISION

STATE PARKS  
WATER AND LAND DEVELOPMENT

Dr. Ron Terry  
HCR 1, Box 9575  
Keaau, Hawaii 96749

LOG NO: 18880 ✓  
DOC NO: 9702PM03

Dear Dr. Terry:

**SUBJECT: Environmental Assessment for Proposed Expansion of Alae Cemetery  
Alae, South Hilo, Hawaii Island  
TMK: 2-6-012: 18**

---

Thank you for your letter of January 30, 1997, and the opportunity to comment on the Environmental Assessment that you will be preparing for the proposed expansion of Alae Cemetery.

The 13.5 acres that are being considered for the expansion is old sugarcane cropland. It is thus highly unlikely that any significant historic sites remain on this parcel. The cemetery expansion will thus probably have "no effect" on significant historic sites, but we will wait the results of the studies you mention in your letter before reaching a final conclusion.

Please send us a copy of the EA when it is completed so that we can complete our review. If you have any questions about historic sites in this area please contact either Patrick McCoy (587-0006) or Marc Smith (933-4346).

Sincerely,

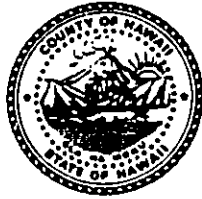
A handwritten signature in black ink, appearing to read "Don Hibbard".

DON HIBBARD, Administrator  
State Historic Preservation Division

PM:jk



Stephen K. Yamashiro  
Mayor



Wayne G. Carvalho  
Police Chief

James S. Correa  
Deputy Police Chief

**County of Hawaii**  
**POLICE DEPARTMENT**

349 Kapiolani Street • Hilo, Hawaii 96720-3998  
(808) 935-3311 • Fax (808) 961-2702

February 6, 1997

Mr. Ron Terry, Ph.D.  
HCR 1, Box 9575  
Keaau, HI 96749

Dear Dr. Terry:

**SUBJECT: ENVIRONMENTAL ASSESSMENT FOR PROPOSED EXPANSION OF  
ALAE CEMETERY BY ACQUISITION OF 13.5-ACRE PORTION OF  
PARCEL 2-6-012:018**

This is in response to your request for comments on any special environmental conditions or impacts related to the proposed expansion of Alae Cemetery.

We have no comments or objections to offer at this time.

Please send us a copy of the environmental assessment upon its completion.

Thank you for the opportunity to comment.

Sincerely

WAYNE G. CARVALHO  
POLICE CHIEF

  
JAMES S. CORREA  
DEPUTY POLICE CHIEF  
ACTING POLICE CHIEF

CMC:lk

BENJAMIN J. CAYETANO  
GOVERNOR



**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
**HIGHWAYS DIVISION**  
HAWAII DISTRICT  
50 MAKAALA STREET  
P.O. BOX 4277  
HILO, HAWAII 96720  
TELEPHONE (808) 933-4640 • FAX (808) 933-4738

KAZU HAYASHIDA  
DIRECTOR

DEPUTY DIRECTORS  
JERRY M. MATSUDA  
GLENN M. OKIMOTO

IN REPLY REFER TO:

HWY-H  
97-2.0124

February 11, 1997

Dr. Ron Terry  
HCR 1, Box 9575  
Kea'au, Hawai'i 96749

Dear Mr. Terry:

**SUBJECT:** Environmental Assessment for Alae Cemetery Expansion  
Tax Map Key: 2-6-12: 018  
Hawai'i Belt Road, Project No. SDR 3(1)

Thank you for your letter of January 30, 1997 regarding the draft assessment and our comments are:

1. The existing cemetery access is inadequate. Traffic from Pāpa'ikou is forced to execute a virtual U-turn onto the cemetery road parallel with the highway. This problem can be solved by creating a new access for a one-way in and one-way out circulation pattern. Separation of ingress and egress points will also mitigate the lack of a left-turn deceleration lane on the highway.
2. The existing cemetery traffic circulation pattern is inadequate. There are insufficient signs and pavement arrows to indicate which direction traffic should be flowing on the narrow (approximately 10-foot wide) internal roads, nor which direction has the right-of-way at intersections.
3. The proposed expansion may adversely impact the traffic conditions. We understand that the immediate need for 125 burial sites constitutes only a small portion of the total number of the potential sites that will be made available on the 13.5 acre parcel. A traffic assessment will be required. The assessment should consider bicycle and pedestrian traffic, as well as vehicular traffic.

Dr. Ron Terry  
February 11, 1997  
Page 2

HWY-H  
97-2.0124

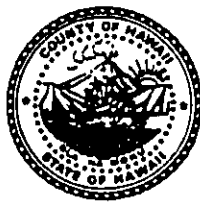
Should you have any questions, please call Mr. Robert Taira at telephone number 933-4640.

Very truly yours,



BRUCE C. McCLURE  
Hawai'i District Engineer

Stephen K. Yamashiro  
Mayor



Donna Fay K. Kiyosaki  
Chief Engineer

Jiro A. Sumada  
Deputy Chief Engineer

**County of Hawaii**  
**DEPARTMENT OF PUBLIC WORKS**  
25 Aupuni Street, Room 202 • Hilo, Hawaii 96720-4252  
(808) 961-8321 • Fax (808) 969-7138

February 13, 1997

RON TERRY PHD  
HCR 1 BOX 9575  
KEAAU HAWAII 96749

**SUBJECT : DRAFT ENVIRONMENTAL ASSESSMENT  
PROPOSED EXPANSION OF ALAE CEMETERY  
TMK: 2-6-12: 18**

We acknowledge receipt of your letter concerning the subject matter, and provide you with our comments as follows:

1. All development generated runoff shall be disposed on site and shall not be directed toward any adjacent properties.
2. All earthwork and grading shall be in conformance with Chapter 10, Erosion and Sediment Control, of the Hawaii County Code.
3. Any construction within known watercourses shall be in conformance with Chapter 27, Flood Control, of the Hawaii County Code.

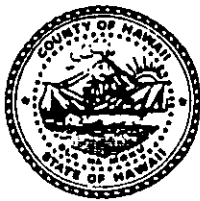
We do not wish to receive a copy of the EA when completed.

Should there be any questions concerning this matter, please feel free to contact Mr. Casey Yanagihara in our Engineering Division at (808)961-8327.

  
Galen M. Kuba, Division Chief  
Engineering Division

CKY

Stephen K. Yamashiro  
Mayor



Virginia Goldstein  
Director

Norman Olesen  
Deputy Director

February 21, 1997

## County of Hawaii

### PLANNING DEPARTMENT

25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252  
(808) 961-8288 • Fax (808) 961-9615

Dr. Ron Terry, Ph.D.  
HCR 1, Box 9575  
Keaau, HI 96749

Dear Dr. Terry:

**Proposed Expansion of Alae Cemetery  
Preliminary Comments Regarding the Preparation of a Draft Environmental  
Assessment for the Proposed 13.5-acre Expansion of Alae Cemetery  
TMK: 2-6-12; Portion of 18; Kikala-Papaa, South Hilo, Hawaii**


Thank you for your letter dated January 30, 1997, providing our office with the opportunity to offer comments regarding the preparation of a draft environmental assessment for the proposed land acquisition and expansion of Alae Cemetery.

We have no objections or comments regarding the proposed 13.5-acre land acquisition by purchase or land exchange. However, we do have comments regarding the proposed 13.5-acre expansion of the Alae Cemetery on lands designated as Agricultural by the State Land Use Commission and zoned Agricultural-20 acres (A-20a) by the County. The State Land Use Law (Chapter 205, HRS) requires that a Special Permit be secured from the Planning Commission to allow the proposed expansion of the cemetery on lands designated Agricultural. The proposed expansion area is not situated within the County's Special Management Area (SMA).

Additionally, the requirements of Chapter 6 of the County Code relating to Cemeteries need to be complied with.

Once again, thank you for allowing our office the opportunity to comment. Should you have any questions, please feel free to contact Daryn Arai of this office.

Sincerely,

  
VIRGINIA GOLDSTEIN  
Planning Director

DSA:cmr:pak



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

25 AUPUNI STREET • HILO, HAWAII 96720  
TELEPHONE (808) 969-1421 • FAX (808) 969-6996

November 18, 1996

RECEIVED  
NOV 19 PM 3:20  
COUNTY OF HAWAII

TO: Mr. George Yoshida, Director  
Department of Parks and Recreation

FROM: Milton D. Pavao, Manager

SUBJECT: EXPANSION OF ALAE CEMETERY  
SOUTH HILO, HAWAII  
TAX MAP KEY 2-6-12:PORTION OF 18

The Department of Water Supply has reviewed the expansion of Alae Cemetery proposal and found that this proposal will not have an adverse impact on the nearest existing drinking water well, Papaikou Well.

Enclosed you will find test results on Papaikou Well. Both Chemical and Bacteriological reports indicate non-contamination.

If more information is needed, please contact Mr. Dennis Lee at 961-8670.

Milton D. Pavao, P.E.  
Manager

DL:dms

Encs.

*... Water brings progress...*

**APPENDIX 2**

**PERMITS AND AUTHORIZATIONS**

BENJAMIN J. CAYETANO  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 916  
HILO, HAWAII 96721-0916

LAWRENCE MIKE  
DIRECTOR OF HEALTH

*Hei y*

December 4, 1996

RECEIVED  
97 JUN 28 AM 9 29  
COUNTY OF HAWAII


Honorable Stephen K. Yamashiro  
Mayor, County of Hawaii  
25 Aupuni Street, Room 215  
Hilo, Hawaii 96720-4252

Subject: Expansion of Alae Cemetery  
South Hilo, Hawaii

Dear Mayor Yamashiro:

Upon review of your proposed expansion of the Alae Cemetery, the Department of Health finds no objection to the request for expansion. Enclosed is a certificate of approval for proposed expansion which should satisfy Section 6-2 of the Hawaii County Code.

Respectfully Submitted,

  
AARON UENO  
Chief Sanitarian, Hawaii District

Enclosure

1 2024



STATE OF HAWAII  
DEPARTMENT OF HEALTH

ENVIRONMENTAL HEALTH DIVISION  
SANITATION BRANCH

**Certificate** for CEMETARY  
EXPANSION No. 61633  
DECEMBER 4, 1996

I, the undersigned, Agent of the Department of Health, State of Hawaii, do hereby certify that an agent of the said Department has examined the PREMISES of ALAE CEMETARY

Situated at THK:2-6-12-10

District of SOUTH HILO City and County

of HILO, HAWAII and that the said place or building is in a fit and sanitary condition and suitable for the purpose for which it is intended in accordance with the requirements of State Statutes and Rules and Regulations of the Department of Health.

No. \_\_\_\_\_



AGENT OF THE STATE DEPARTMENT OF HEALTH

KEIKO BONK-ABRAMSON  
Chairman & Presiding Officer

BRIAN J. DE LIMA  
Vice-Chairman



COUNTY COUNCIL

County of Hawaii  
Hawaii County Building  
25 Aupuni Street  
Hilo, Hawaii 96720

RECEIVED

5 OCT 5 PM 4 10

PARKS & RECREATION  
COUNTY OF HAWAII

JAMES Y. ARAKAKI  
KEOLA CHILDS  
TAKASHI DOMINGO  
ELROY OSORIO  
JIM RATH  
JOHN RAY  
AL SMITH

October 5, 1995

Re: C-666

TO: Mayor Stephen K. Yamashiro  
County of Hawaii

SUBJ: Resolution 174-95: Land acquisition - Alae Cemetery,  
Alae, South Hilo, Hawaii

The Hawaii County Council at its meeting held Wednesday, October 4, 1995, filed Resolution 174-95, which provided for the acquisition of land for the expansion of Alae Cemetery, Alae, District of South Hilo, County and State of Hawaii.

Keiko Bonk-Abramson  
Council Chairwoman

KBA:BB/hkmd

cc: ✓ Parks & Recreation Department  
Corporation Counsel

A handwritten signature in cursive script, appearing to read "Keiko Bonk-Abramson".

94 ✓  
9m —

Stephen K. Yamashiro  
Mayor



George Yoshida  
Director

Juliette M. Tulang  
Deputy Director

County of Hawaii  
DEPARTMENT OF PARKS AND RECREATION  
25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252  
(808) 961-8311

August 21, 1995

Honorable Keiko Bonk-Abramson  
Chairwoman and Members  
Hawaii County Council  
25 Aupuni St.  
Hilo, HI 96720

Subject: Eminent Domain Resolution  
Alae Cemetery Expansion Project  
TMK: (3) 2-6-12:18 (por.), Alae, South Hilo, Hawaii

Enclosed for the Council's consideration is an Eminent Domain  
Resolution for Alae Cemetery Expansion Project.

Please call me if you have any questions.

  
George Yoshida  
DIRECTOR

Enc.

cc: Mayor Yamashiro

  
**COUNTY OF HAWAII STATE OF HAWAII**

RESOLUTION No. \_\_\_\_\_

RESOLUTION PROVIDING FOR THE ACQUISITION OF LAND FOR THE EXPANSION OF ALAE CEMETERY, ALAE, DISTRICT OF SOUTH HILO, COUNTY AND STATE OF HAWAII.

WHEREAS, the County of Hawaii owns and maintains the Alae Cemetery; and

WHEREAS, the County has provided members of the public with burial plots in Alae Cemetery; and

WHEREAS, Alae Cemetery is rapidly approaching its maximum capacity; and

WHEREAS, it has become necessary for the County to expand Alae Cemetery to continue to provide public burial plots; and

WHEREAS, the County has deemed it necessary to exercise its right of eminent domain in acquiring that certain undeveloped parcel of land adjacent to and immediately west of Alae Cemetery for the purpose of expanding Alae Cemetery; and

WHEREAS, Section 101-13 of the Hawaii Revised Statutes requires that a condemnation action by the County must be authorized by a resolution of the County Council.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE COUNTY OF HAWAII, that it is necessary for the public use and purpose, to wit: the expansion and improvement of the Alae Cemetery, situate at Alae, District of South Hilo, County and State of Hawaii, to take, acquire and condemn that certain parcel of land generally described as that 13.6 acres, more or less, bounded by the existing Alae Cemetery on the east, the Waiaea Stream on the south, and that former cane hauling road which forms the mauka extension of Nahala Street on the north and west, identified as Tax Map Key No. (3) 2-6-12:18 (por.).

BE IT FURTHER RESOLVED that the Corporation Counsel of the County of Hawaii be and is hereby authorized and empowered to

initiate proceedings in eminent domain, as provided by law, for the taking, acquisition, and condemnation of the aforesaid parcel of land.

BE IT FURTHER RESOLVED that in the process of said proceedings in eminent domain, the Corporation Counsel be and is hereby authorized and empowered to negotiate terms of settlement, subject to the approval of this Council and the court before which such proceedings are prosecuted.

BE IT FURTHER RESOLVED that the Clerk of the County of Hawaii is directed to transmit copies of this Resolution to the Honorable Stephen K. Yamashiro, Mayor of the County of Hawaii, the Director of the Department of Parks and Recreation and the Office of the Corporation Counsel.

Dated: Hilo, Hawaii, this \_\_\_\_\_ day of \_\_\_\_\_, 1995.

INTRODUCED BY:

\_\_\_\_\_  
COUNCIL MEMBER, COUNTY OF HAWAII

COUNTY COUNCIL  
County of Hawaii  
Hilo, Hawaii

I hereby certify that the foregoing RESOLUTION was by the vote indicated to the right hereof adopted by the COUNCIL of the County of Hawaii on \_\_\_\_\_.

ATTEST:

COUNTY CLERK

CHAIRMAN & PRESIDING OFFICER

ROLL CALL VOTE

	AYES	NOES	ABS	EX
Arakaki				
Bonk-Abramson				
Childs				
De Lima				
Domingo				
Osorio				
Rath				
Ray				
Smith				

Reference \_\_\_\_\_

RESOLUTION NO. \_\_\_\_\_

**APPENDIX 3**

**COMMENT LETTERS TO DRAFT EA**

**AND RESPONSES**

BENJAMIN J. CAYetano  
GOVERNOR



GARY GILL  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

236 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 586-4185  
FACSIMILE (808) 586-4186

May 13, 1997

Mr. Glen Miyao  
Department of Parks and Recreation  
25 Aupuni Street  
Hilo, Hawaii 96720

Dear Mr. Miyao:

Subject: Draft EA for the Alae Cemetery Expansion, Hilo, Hawaii

Thank you for the opportunity to review the subject document. We have the following questions and comments.

1. A pavilion will be built in the upper area of the cemetery. Please illustrate visual impacts of the proposed structure from public places such as roads and lookouts. Photos of existing conditions taken from public view points are extremely helpful in evaluating visual impacts. Renderings of future structures superimposed on photos of existing views should be provided. We recommend constructing and painting the building with materials and colors that blend with the surroundings. We also recommend landscaping with native Hawaiian plants to reduce the visual impacts.
2. Formalin, used to preserve bodies, has the potential to contaminate surrounding soils and groundwater. Please describe if there are resources or facilities such as aquifers and water supply wells that could be affected by the cemetery operations. Please disclose the measures that will be taken to prevent soil and water contamination by formalin.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185. Mahalo.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary Gill".

Gary Gill  
Director

c: Ron Terry

Stephen K. Yamashiro  
Mayor



George Yoshida  
Director

Juliette M. Tulang  
Deputy Director

## County of Hawaii

### DEPARTMENT OF PARKS AND RECREATION

25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252

(808) 961-8311

June 30, 1997

Gary Gill, Director  
Office of Environmental Quality Control  
235 South Beretania St., Suite 702  
Honolulu, HI 96813

Re: Draft EA for Alae Cemetery Expansion  
South Hilo, Hawaii

Dear Mr. Gill:

Thank you for your comments dated May 13, 1997 on the draft EA for the Alae Cemetery expansion project. These comments are responded to as follows:

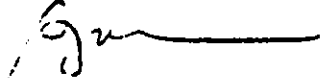
1. Rendering of Pavilion. As stated in the EA, the proposed pavilion will be similar to the existing pavilion, which is an unobtrusive, one-story, open structure, less than 2,000 square feet in size. Construction of this proposed pavilion will likely occur 10-15 years from now. However, in order to dispel concerns related to visual impacts, we have provided a photograph of the cemetery as viewed from State Highway 19, the only public road in the vicinity, and have indicated the approximate location of the proposed pavilion.
2. Soil and Groundwater Contamination: Recognizing the potential of cemeteries to affect public health, the State Department of Health has established regulations governing the location of cemeteries. Section 6-2 of the Hawaii County Code requires that any person requesting the establishing, enlarging, or extending of a cemetery shall submit a certificate of approval from the State Department of Health as evidence of compliance with its regulations. The process includes consultation with local water supply officials in order to determine that no effects on drinking water supplies will occur.



The Hawaii County Department of Water Supply reviewed the project and stated in a letter of November 18, 1996 that the project would not have an adverse impact on the nearest drinking water well, which is several miles away at Papaikou. After reviewing this information and project plans, the Environmental Health Division of the Department of Health granted a certificate for the cemetery expansion project on December 4, 1996. This process is documented in the draft EA in Sections 2.4.3, 2.5.2, and Appendices 1 and 2.

If you have any additional comments, please contact us immediately.

Sincerely,



George Yoshida  
Director

encl

cc/Ron Terry, Environmental Consultant

Alae Cemetery from State Highway 19

Approximate Location,  
Future Pavilion



Attachment to P&R to OEQC Letter, June 1997

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE HISTORIC PRESERVATION DIVISION  
33 SOUTH KING STREET, 6TH FLOOR  
HONOLULU, HAWAII 96813

MICHAEL D. WILSON, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

Gilbert Coloma-Agaran

AQUACULTURE DEVELOPMENT  
PROGRAM  
AQUATIC RESOURCES  
CONSERVATION AND  
ENVIRONMENTAL AFFAIRS  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCE  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
DIVISION  
LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

May 21, 1997

Dr. Ron Terry  
HCR 1, Box 9575  
Keaau, Hawaii 96749

LOG NO: 19499 ✓  
DOC NO: 9705PM12

Dear Dr. Terry:

**SUBJECT: Draft Environmental Assessment for Proposed  
Expansion of Alae Cemetery  
Alae, South Hilo, Hawaii Island  
TMK: 2-6-012: 18**

Thank you for your undated memo, received in our office on May 8, 1997 and the opportunity to comment on the Draft Environmental Assessment for the proposed expansion of Alae Cemetery.

As we indicated in our pre-consultation letter of February 5, 1997, the 13.5 acres that are being considered for the expansion is old sugarcane cropland, which makes it highly unlikely that any significant historic sites remain on this parcel. The field walking that was done subsequent to our letter suggests that this is indeed the case.

On current evidence the cemetery expansion will have "no effect" on significant historic sites. As you indicate in the Draft EA, "if any artifacts, charcoal deposits, or human remains are discovered during grading or excavation, work will immediately cease and SHOD will be consulted to determine the appropriate mitigation, in accordance with State and County laws and policies."

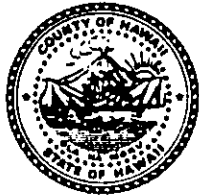
With the "no effect" determination and the above provisos for inadvertent finds we probably do not need to see the Final EA.

Aloha,

A handwritten signature in black ink, appearing to read "Don Hibbard".

DON HIBBARD, Administrator  
State Historic Preservation Division

Stephen K. Yamashiro  
Mayor



Virginia Goldstein  
Director

Norman Olesen  
Deputy Director

## County of Hawaii

### PLANNING DEPARTMENT

25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252  
(808) 961-8288 • Fax (808) 961-9615

May 16, 1997

Dr. Ron Terry, Ph.D.  
HCR 1, Box 9575  
Keaau, HI 96749

Dear Dr. Terry:

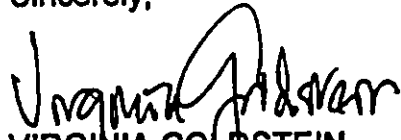
Draft Environmental Assessment for the  
Proposed 13.5-acre Expansion of Alae Cemetery  
TMK: 2-6-12: Portion of 18: Kikala-Papaa, South Hilo, Hawaii

Thank you for your letter dated May 7, 1997, providing our office with the opportunity to offer comments regarding the preparation of a draft environmental assessment for the proposed land acquisition and expansion of Alae Cemetery.

We have no further comments to offer beyond those offered in our February 21, 1997, letter to you regarding this matter.

We look forward to our review of the Final Environmental Assessment. Should you have any questions, please feel free to contact Daryn Arai of this office.

Sincerely,

  
VIRGINIA GOLDSTEIN  
Planning Director

DSA:mim  
f:\wpwin60\marcial\terry

xc: Glenn Miyao, Planner, Department of Parks & Recreation  
Gary Gill, Director, Office of Environmental Quality Control

Stephen K. Yamashiro  
Mayor



Wayne G. Carvalho  
Police Chief

James S. Correa  
Deputy Police Chief

## County of Hawaii

### POLICE DEPARTMENT

349 Kapiolani Street • Hilo, Hawaii 96720-3998  
(808) 935-3311 • Fax (808) 961-2702

May 15, 1997

Mr. Ron Terry, Ph.D.  
HCR 1 Box 9575  
Keaau, HI 96749

Dear Dr. Terry:

**SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR ALAE CEMETERY  
EXPANSION, SOUTH HILO DISTRICT, ISLAND OF HAWAII**

This is in response to your May 7, 1997, request for comments on the draft environmental assessment for the above-proposed project.

We have reviewed the assessment and have no comments or objections to offer at this time.

Thank you for the opportunity to comment.

Sincerely,

WAYNE G. CARVALHO  
POLICE CHIEF

JAMES S. CORREA  
DEPUTY POLICE CHIEF  
ACTING POLICE CHIEF

CMC:lk

cc: Mr. Glenn Miyao, Planner, Parks and Recreation Department  
Mr. Gary Gill, Director, Office of Environmental  
Quality Control

1997-09-23-HI- FEA- Chroman  
Residence

SEP 23 1997

**FINAL ENVIRONMENTAL ASSESSMENT**  
**CHROMAN RESIDENCE & RELATED IMPROVEMENTS**



RECEIVED  
DIVISION OF  
LAND MANAGEMENT  
AUG 27 9 42 AM '97

**Applicant:** Michael Chroman  
2411 Ocean Front Walk  
Venice, CA 90291

**Consultant:** Linda Copman  
P. O. Box 383284  
Waikoloa, HI 96738

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#### E. BACKGROUND INFORMATION

The 4.54-acre project area was bulldozed approximately 35 years ago in order to harvest the mature coconut trees growing on the site. According to long-time resident Mr. Billy Hale, who lives in close proximity to the project site, the trees were removed to landscape the then newly constructed Mauna Kea Beach Hotel. Existing vegetation, including indigenous and endemic plants, and archaeological features were destroyed during the harvest operation, and no significant natural or historic resources are present on the project site. The project site was selected precisely for this reason, since developing this portion of the property for the proposed residence will not detract from the value of the site as a whole.

The remainder of the 17.01-acre parcel does contain native plant colonies, including the rare Hilo *ischaemum* grass, and evidence of ancient remains, including pits and stone mounds. These features were presumably used for agricultural purposes during the prehistoric and historic occupation of the land by the Hawaiian people. Other features present on the undisturbed portion of the property include remnants of the King's Trail, Mahinaakaaaka Heiau located on the shoreline to the east of the parcel, and the Hale family graves (dating between 1927 and 1954) located on the northwestern corner of the parcel. None of these features will be disturbed by the proposed development.

Mr. Chroman purchased the property in 1996 with the intention of constructing a home and small fruit orchard on the previously disturbed portion of the parcel. No work will be conducted outside of this 4.54-acre project site.

#### F. PROPOSED ACTION

The applicant proposes to construct a two-story residence and related improvements on a 4.54-acre portion of the property. (See Figures 6 & 7.) The proposed structures will incorporate a mix of local and Mediterranean-style architectural features to create a low-profile, functional home.

The proposed landscaping plan will maintain the natural flora to the north and south of the project area, as well as along the coastal frontage of the property. No land alteration will occur within 70 feet of the shoreline, and all structures will be located a minimum of 100 feet from the shoreline. (See Figure 5.) Approximately two acres to the west of the residence will be planted as a fruit orchard. The landscaping plan will also introduce a number of native and ornamental trees, shrubs, and ground covers designed to enhance the naturally occurring Hawaiian coastal plants found on the site.

The residence and attached carport will have a total floor area of 3,916 square feet, and a maximum height of 25 feet. The residence and carport will be constructed of a natural-colored stucco with a tile roof.

The proposed development will also include the following related improvements:

- 288 square-foot utility shed/workshop
- 60 square-foot generator storage shed
- Two 12,000-gallon water catchment tanks
- 1,000-gallon septic system and leach field
- Two-acre fruit orchard
- Koi pond and garden
- New cinder driveway

## **G. ALTERNATIVES TO THE PROPOSED ACTION**

### **1. No Action**

The property is ideally suited for a combination of residential and agricultural uses, based on its topographical features and its attractiveness as an oceanfront parcel. Those areas of the property which are suitable for agricultural use will be used for agricultural purposes.

The "no action" alternative would not achieve Mr. Chroman's goal of building a single-family residence and planting a small fruit orchard on the property. The proposed action will enable Mr. Chroman to build a home, while still retaining the majority of the parcel in an undisturbed state. Therefore, the "no action" alternative is less desirable than the proposed action.

### **2. Alternative Siting**

The proposed house site was selected for its relatively level topography and available buildable area. Alternative sites on the property would have required significant grading and filling to accommodate the residence, or clearing of previously undisturbed land.

### **3. Alternative Design Features**

Mr. Chroman will employ a well-respected, capable architect to prepare construction drawings for the proposed residence and related improvements. Mr. Chroman will make every effort to ensure that the residence maintains a low-profile appearance, consistent with island-style architecture.

The size of the proposed residence and the nature of the related improvements were designed based upon Mr. Chroman's desire to permanently relocate to the Big Island. The guest rooms will enable the applicant to provide semi-separate quarters for his parents.

## II. EXISTING CONDITIONS AT THE SITE

### A. PHYSICAL ENVIRONMENT

#### 1. Existing Land Use

The subject property is currently vacant land, covered with dense vegetation. The coastal frontage of the parcel is rocky. The portion of the property proposed for development by Mr. Chroman has been previously grubbed and graded, thereby destroying any potentially significant historical sites.

#### 2. Surrounding Land Uses

The subject property is situated along a rugged and relatively remote stretch of coastline, approximately one (1) mile to the south of Isaac Hale Beach Park. Surrounding land uses reflect the rural character of the property. (See Figures 1 & 2.) Surrounding land uses include the following:

South: The adjacent property has a dilapidated house, with a driveway and related structures in various degrees of disrepair.

North: Properties to the north include residential parcels and Isaac Hale Beach Park.

East: To the east, the property is bounded by the Pacific Ocean.

West: Parcels to the west are developed for a mixture of larger-scale agricultural uses and residential uses.

#### 3. Climate

Similar to most areas in Hawaii, the Big Island has a relatively uniform year-round climate. The subject property experiences mild temperatures year round, and relatively heavy rainfall. Consistent northeasterly trade winds are present at the site during much of the year.

Average temperatures at the site range from lows in the 60's to highs in the mid-80's. August is generally the warmest month, while January and February are the coolest. Rainfall at the site averages 95 inches per year.

#### 4. Topography and Soils

The highest point of the subject property is located at the western end of the site, at the existing roadway. This area is approximately 45 feet above sea level. The property slopes very gradually down from the roadway to the shoreline, which is located approximately 25 feet above sea level. The entire project area has been previously bulldozed and is relatively flat.

The soils underlying the property belong to the Puna soil series. Specifically, the soil type is identified as lava flows, pahoehoe (rLW). This soil is characterized as "poor," with fragmented aa lava at a topsoil depth of less than 10 inches.

**5. Flood Hazard**

The subject property is located in an area which has been designated by the Flood Rate Insurance Map as Zone "X," or outside of the 500-year flood plain.

**6. Flora and Fauna**

During a walk-through survey of the property conducted by Bobby Camara on July 8, 1996, a list of plant species found on the subject property was compiled. A list of these plants is contained in *Appendix A*.

Animal life present on the property is typical of the surrounding region. Mammals common to this area include mongoose and rodents. There is also some visual evidence of feral pigs on the property. Avifauna characteristic of this region consists primarily of introduced species which are transient in nature, including cardinals and mynah birds.

The applicant is unaware of any endemic species inhabiting the property, although some endemic birds such as the Pueo and Hawaiian hawk may forage in this area. No unique habitat has been found on that portion of the property which is the subject of this application.

**7. Marine Environment**

The coastline of the subject property consists of rugged wave-eroded cliffs, with an average height of 25 feet above sea level. As a result of exposure to wave activity, near-shore underwater conditions at the site are generally turbulent, especially during the winter months.

**8. Air Quality**

The air quality in this area is considered good, and high concentrations of pollutants have not been detected at the subject property. The parcel's constant exposure to the trade winds helps to disperse any concentrations of emissions which might otherwise linger over the site.

**9. Ambient Noise**

The primary sources of background noise at the project site are due to naturally occurring conditions, such as wind and surf.

#### 10. Visual Resources

The subject property is located between the shoreline and the "Red Road." Portions of Isaac Hale Beach Park are visible along the coastline to the north of the site. The proposed residence will not be visible from the coast, due to the steep drop off at the makai end of the property. Also, mature coconut groves flank both sides of the site, further reducing its visibility from the shoreline. The upper slopes of Kilauea Volcano are visible from the mauka portion of the site.

#### 11. Archaeological/Historical Resources

An Archaeological Inventory Survey of the subject property was conducted by Mr. Terry L. Hunt, Ph.D., in July of 1996. This survey was conducted according to the State Historic Preservation Division's guidelines for an inventory-level survey. The following elements were included in the preparation of this survey:

- Research of historical, archival, and archaeological literature concerning the project area and surrounding area;
- Interviews with local informants knowledgeable with the area, its history, occupation, and use;
- A complete, intensive pedestrian survey of the project area in order to identify all archaeological remains on the property;
- Detailed mapping, written descriptions, and photographs of any identified archaeological remains;
- An analysis of historical, archival, oral history, and field evidence, including an assessment of site/feature function, age and significance;
- Report preparation, with recommendations for impact mitigation and historic preservation.

The Archaeological Inventory Survey is included as *Appendix B*.

### B. SOCIO-ECONOMIC ENVIRONMENT

#### 1. Population

The population of the County of Hawaii has exhibited relatively strong growth during the past decade. Growth in the County, and specifically in the Puna District, is expected to continue throughout the next decade.

#### 2. Economy

The local economy in Puna is primarily based upon small-scale agricultural endeavors. Many Puna residents also commute back and forth daily to service-oriented jobs in Hilo.

### C. PUBLIC SERVICES

#### 1. Recreational Facilities

Recreational opportunities in this area include fishing and other shoreline activities, including surfing and picnicking at nearby Isaac Hale Beach Park. Vehicular and pedestrian accesses to the shoreline about the

subject property's northern boundary. The property itself does not appear to contain any routinely utilized shoreline access trails.

**2. Police and Fire Protection**

The nearest police substation is located in Pahoa town, approximately 7 miles west of the project site.

Fire protection is provided by the County's Pahoa Station, also located 7 miles west of the site in Pahoa town.

**3. Solid Waste Disposal**

Collection of solid waste from the proposed single-family residence shall be provided by an independent rubbish hauling service. Waste shall be disposed of in a municipal landfill, in a manner meeting with the County's requirements.

**4. Health Care**

The nearest major medical facility to the project site is Hilo Hospital, located approximately 22 miles to the northwest. Hilo Hospital provides acute, general, and emergency care services for residents of the Hilo, Puna, and Hamakua Districts of the Big Island.

**5. Schools**

The nearest public schools to the project site are located in Pahoa, approximately 7 miles to the west. The public schools in Pahoa accommodate elementary, intermediate, and high school students.

**D. INFRASTRUCTURE**

**1. Wastewater**

Domestic wastewater generated by the proposed residence will be disposed of via an individual wastewater system, consisting of a 1,000-gallon septic tank and an adjacent absorption bed.

**2. Water**

County water is not available at the project site. Therefore, the applicant will rely on two 12,000-gallon water catchment tanks to supply potable and non-potable water for the residence. The project site receives approximately 95 inches of rain annually, which should be more than adequate to supply the proposed residence. Historical evidence has demonstrated that a single-family residence in the Puna District can easily sustain itself on 75-90 inches of rain per year.

**3. Vehicular Access**

A 50'-wide unimproved government beach road runs adjacent to the western boundary of the project site. This government road, commonly referred to as the "Red Road," provides vehicular access to the coastal properties located between Kapoho in the north and Kalapana in the south. This road is maintained by the County.

#### 4. Drainage

The 4.54-acre building site was selected because it was previously graded and grubbed, and because it is relatively level. Thus, the amount of additional land disturbance necessary to construct the residence will be relatively minimal. The existing basaltic surface of the site is extremely permeable and will continue to accommodate storm-water runoff. No injection wells or dry wells will be constructed on the site to dispose of storm-water runoff. Additional measures to minimize soil erosion and control runoff have been incorporated into the design of the proposed residence; these are discussed in detail on page 12, in the "Marine Resources" section of this Final Environmental Assessment.

### III. PROJECT IMPACT ASSESSMENT

#### A. PHYSICAL ENVIRONMENT

##### 1. Site Conditions

The parcel is undeveloped at this time. A small graveyard is situated at the far northern boundary of the parcel; this site belongs to the Hale family and will not be disturbed since it is outside the 4.54-acre portion of the parcel proposed for development. The 4.54-acre building site was selected because this area was previously disturbed during bulldozing and land clearing activities which occurred there during the early 1960's. The remaining 12.47 acres of the 17.01-acre parcel will not be altered by the proposed development, and the natural vegetation will remain undisturbed.

##### 2. Surrounding Uses

The proposed development of the property for single-family residential and small-scale agricultural use is compatible with existing land uses in the area. Surrounding properties are also being utilized for residential and agricultural purposes, or they are vacant. The 4.54-acre portion of the property proposed for development was selected because it has undergone previous grading and provides a relatively level building site, and because it is adequately buffered from surrounding properties. The majority of the parcel (approximately 12.47 of the 17.01 acres) will be left undisturbed, and the proposed residence and related improvements will be buffered from adjoining properties to the north and south by the existing natural vegetation. A landscaping buffer will be established along the property's shoreline boundary, to minimize potential impacts on the coastal environment. The residence will be buffered from the government beach road by a 60'-wide strip of existing vegetation as well as by the two-acre fruit orchard. No man-made structures should be visible from the road. Therefore, the proposed residence should not have any adverse impacts on surrounding land uses.



### 3. Topography

The highest point on the property is located at the mauka boundary adjacent to the government road. The highest elevation is approximately 45 feet above sea level. The property slopes gradually down from the roadway to the shoreline, where the elevation is approximately 25 feet above sea level. The shoreline at the site is composed of rugged cliffs, which drop off abruptly into the sea.

The applicant proposes to preserve the natural character of the property as much as possible. The proposed residence and related structures will be located on the portion of the property that was previously bulldozed and is, therefore, relatively flat. Only minimal additional grading will be required to construct the residence. The driveway will follow existing contours and avoid any steep grades. The project should, therefore, have no significant impact on existing topographical features.

### 4. Flora and Fauna

Plant life at the site is typical of coastal properties in the Puna district, where the shoreline is constantly exposed to northeast trade winds and salt spray from waves crashing against the rocky coast. Vegetation consists of coconut palms, hala, kukui, Christmas berry, guava, peperomia, and mango. *Hilo ischaemum* grass, a rare and endangered plant, is located along the shoreline of the site - outside of the proposed development area. There are no known significant habitats of rare, endangered, or threatened species of flora located within the project area.

Animal life present on the property is also typical of the surrounding region. Mammals common to this area include mongoose and rodents. There is also some visual evidence of feral pigs on the property. Avifauna characteristic of this region consists primarily of introduced species which are transient in nature, including cardinals and mynah birds. The applicant is unaware of any endemic species inhabiting the property, although some endemic birds such as the Pueo and Hawaiian hawk may forage in this area. No significant habitats of rare, endangered, or threatened species of fauna have been found on that portion of the property which is the subject of this application.

### 5. Marine Resources

Potential short-term impacts to marine resources could occur during construction of the proposed residence due to increased storm-water runoff. Because the project area is less than 5 acres in size, a National Pollution Discharge Elimination System Permit (NPDES) is not required for this project. The applicant paid careful attention to the existing topography of the site in planning his residence. The 4.54-acre building site was selected because it will require minimal additional grading. The applicant will also implement the following measures during construction of the residence to ensure that soil erosion and runoff are minimized:

- The duration of construction will be kept to a minimum.
- Ground covers will be established on active construction areas as soon as possible.
- Graded areas will be thoroughly watered after construction activity has ceased for the day or for the weekend.

After the construction of the proposed residence, impacts to marine water quality could result from increased storm-water runoff due to the creation of impervious surfaces on the site. In order to minimize the potential for increased storm-water runoff, the applicant will establish a landscaping buffer along the shoreline boundary of the project site. Also, gutters and down-spouts will be used to divert runoff from the roofs of the proposed structures into water catchment tanks. The use of a cinder driveway will also help to accommodate storm-water runoff. As a result of these measures, there should be no noticeable increase in the volume of storm-water runoff into the coastal waters at the site as a result of the proposed development.

#### **6. Air Quality**

Dust generated during the construction of the proposed residence might cause short-term impacts to the air quality at the project site. Measures intended to control dust at the site will be implemented as needed to minimize potential wind-blown emissions; these include regular watering of exposed soil when construction activity has ceased for the day or weekend. The proposed residence should have no long-term adverse impacts on the ambient air quality.

#### **7. Noise Impacts**

Short-term impacts to the ambient noise level may occur during construction of the proposed residence due to heavy machinery operating at the site. Once the construction phase is completed, however, the development should have no long-term adverse impacts on the ambient noise level at the site.

#### **8. Visual Resources**

Due to the topography of the site, which slopes gently downward from the government beach road, and the distance of the residence from the road – no man-made structures should be visible to the public traveling along the road. The residence will be buffered from the government beach road by a 60'-wide strip of existing vegetation and by the two-acre fruit orchard, and from the adjoining properties to the north and south by the existing natural vegetation. Therefore, the proposed development should not interfere with any naturally occurring vistas.

The applicant will preserve the existing beauty of the shoreline by establishing a landscaping buffer along the makai boundary of the building site. All landscaping improvements will be situated at least 70 feet makai of the shoreline and all structures will be located at least 100 feet inland. These proposed setbacks will exceed the minimum 40-foot

shoreline setback required by County law. Therefore, the proposed residence should not impinge upon the open character of the shoreline in the area.

#### **9. Archaeological Resources**

An Archaeological Inventory Survey of the project site was conducted on May 31, 1996. This Inventory consisted of a 100% coverage pedestrian ground survey; research of historical, archival, and archaeological literature; interviews with local residents knowledgeable with the area, its history of occupation, and land use; detailed mapping, written descriptions and photography of any identified archaeological remains; analysis of all evidence; and report preparation with recommendations for impact mitigation and historic preservation.

This Survey confirmed that the 4.54-acre portion of the parcel selected for development was previously disturbed by extensive bulldozing in order to harvest coconut trees growing at the site. As a result, no archaeological resources remain within the area proposed for development. No significant sites were found in the course of the Survey, and no significant sites will be impacted by the proposed development. No further study or mitigation action was recommended.

#### **B. SOCIO-ECONOMIC ENVIRONMENT**

In the short term, the proposed development will support the local construction industry and generate construction-related employment opportunities. These opportunities are not expected to continue after the completion of the project, however.

As a single-family residence, this project will not have any significant impact on the local population level.

#### **C. PUBLIC SERVICES**

The proposed residence should not place an undue burden on public services. Police and fire protection are available at the project site, and comprehensive medical services are available in Hilo, located 22 miles northwest of the site. The proposed residence will have a negligible effect on educational and recreational facilities in the Puna District. Solid waste collection will be provided by a private rubbish hauling company, and all waste will be disposed of in a municipal landfill, in a manner meeting with County requirements.

## D. INFRASTRUCTURE

### 1. Wastewater

The disposal of wastewater at the site is regulated by the State Department of Health. The applicant is proposing to construct a 1,000-gallon septic tank and leach field which meets the design and performance standards outlined in Chapter 62, HAR. The leach field will be located at an elevation of approximately 35 feet above sea level. The applicant will obtain a maintenance contract for the septic system, and sludge disposal will be by private pumping at a site approved by the Department of Health. Based upon the system's proposed depth to the water table and its distance from the shoreline, and upon the applicant's adherence to the Department of Health's design and performance standards, the proposed septic system should not have a significant impact on the marine water quality at the site.

### 2. Water

Since the project site is not currently served by a County water system, the proposed residence will rely on natural rainfall to supply potable and irrigation water. The applicant is proposing to construct two 12,000-gallon water catchment tanks to supply water to the site. Therefore, the proposed residence will have no impact on the existing County water system.

### 3. Traffic

The average speed of vehicles traveling along the government beach road fronting the property is 15 miles per hour. Based on a speed limit of 20 miles per hour, the required sight distance at the driveway access to the property is 225 feet to the left and 150 feet to the right. The available sight distances at the proposed driveway access are more than twice the minimum standards. Therefore, the proposed driveway should not create hazards for traffic traveling along the roadway. The proposed single-family residence also will not cause a substantial increase in the volume of traffic traveling along the road.

### 4. Drainage

All necessary measures to control erosion and sedimentation will be implemented during the construction of the proposed residence, to minimize potential short-term impacts to the marine water quality at the site. No injection wells or dry wells will be constructed on site to dispose of storm-water runoff. The existing permeable basaltic surface of the site, the use of a cinder driveway, and the planting of extensive ground covers around all proposed structures will help to accommodate storm-water runoff at the site. The project should, therefore, have a negligible impact on the existing hydrologic characteristics at the site and at the adjoining properties.

#### IV. RELATIONSHIP TO GOVERNMENT PLANS, POLICIES, AND CONTROLS

##### A. STATE LAND USE LAWS

The subject property is located in the "Resource" Sub-zone of the State Land Use "Conservation" District. Single-family residences are identified as a permitted use within the "Resource" Sub-zone, subject to the approval of a Conservation District Use Permit by the Board of Land and Natural Resources. Landscaping, defined as "alteration of plant cover, including trees," is also listed as an identified use, subject to a Departmental permit. Pursuant to Section 13-5-33b, Hawaii Administrative Rules (HAR), "in those applications whose identified land uses require a combination of board permit(s) and departmental permit(s), a board permit shall be required covering all of the proposed uses." Hence, the applicant is requesting a board permit for both the single-family residence and the proposed landscaping improvements.

##### 1. Conservation District Use Application

Pursuant to Section 13-5-30, HAR, all land uses within the Conservation District require a Conservation District Use Permit approved by the Board of Land and Natural Resources. The Board evaluates proposed land uses according to the following criteria, as established in Sub-section 13-5-30c.

##### Criteria No. 1:

*The proposed land use is consistent with the purpose of the Conservation District.*

##### Response:

The purpose of the Conservation District is to conserve, protect, and promote the long-term sustainability of Hawaii's important natural resources through appropriate management strategies. As demonstrated in this Final Environmental Assessment, the proposed development has been designed to minimize potential adverse effects to the area's natural resources. Planning for the project has relied upon sound management principles – in order to promote the long-term sustainability of existing natural resources at the site.

The landscaping plan utilizes elements which are compatible with existing vegetation at the site, and seeks to preserve and enhance native coastal plant species. The use of plants which are well adapted to the windy coastal environment at the site will lessen the need for fertilizers and intensive irrigation. A planting strip along the shoreline boundary of the site will help to minimize potential runoff generated by the creation of additional impervious surfaces at the building site. All proposed structures will have gutter and down-spout systems to divert water runoff into the proposed water catchment tanks. The project will utilize only that 4.54-acre portion of the property that has already been extensively graded and grubbed. The applicant will preserve all previously undisturbed portions of the property, and no construction

activity will occur outside of the designated building site. Based on the foregoing, the proposed development is compatible with the goals of the Conservation District.

**Criteria No. 2:**

*The proposed land use is consistent with the objectives of the sub-zone of the land on which the use will occur.*

**Response:**

The purpose of the Resource Sub-zone is to ensure the sustained use of the natural resources on the lands contained within the Sub-zone. The applicant is proposing to construct a single-family residence and related improvements, as well as to conduct modest agricultural activity, on the previously disturbed portion (4.54 acres) of his property. The remainder of the 17.01-acre site will remain in its current pristine state. The proposed development has incorporated appropriate design and management principles to ensure that the natural resources of the site will be preserved to the fullest extent possible. A landscaping buffer along the shoreline boundary of the project site will minimize potential runoff from the building site, and all structures will use gutters and downspouts to divert runoff into water catchment tanks. The proposed structures have been sensitively sited on the property – to preserve the natural environment to the north, east, and south of the project area. The landscaping plan will utilize native coastal plants to enhance the naturally occurring vegetation at the site. The applicant will comply with Federal and State criteria to ensure the protection of archaeological resources on the property. Pristine areas of the property and the Hale family graveyard will be preserved and protected. In light of the above, the applicant feels that the proposed development is a long-term sustainable use of the property.

**Criteria No. 3:**

*The proposed land use complies with provisions and guidelines contained in Chapter 205A, Hawaii Revised Statutes (HRS), entitled "Coastal Zone Management," where applicable.*

**Response:**

The subject property is located within the County's Special Management Area (SMA). Single-family residences do not require an SMA Permit, and therefore the proposed development does not require an SMA Permit. The project must, however, comply with Shoreline Setback requirements. The County of Hawaii requires that the proposed development be located a minimum of 40 feet from the seasonal high water mark. No land alteration is proposed within 70 feet of the seasonal high water mark, and all structures will be located a minimum of 100 feet from the shoreline.

**Criteria No. 4:**

*The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.*

**Response:**

The Pacific Ocean is the most significant natural resource in proximity to the proposed development. The applicant has exercised great care in planning this project to ensure that the marine environment is not degraded by the construction of his proposed residence. The building site was selected because it was previously graded and grubbed, and because it is relatively level. Thus, the amount of additional land disturbance necessary to construct the residence will be relatively minimal. Because the project area is less than 5 acres in size, a National Pollution Discharge Elimination System Permit (NPDES) is not required. The applicant will, however, implement the following measures during construction of the residence, to ensure that soil erosion and runoff are minimized:

- The duration of construction will be kept to a minimum.
- Ground covers will be established on active construction areas as soon as possible.
- Graded areas will be thoroughly watered after construction activity has ceased for the day or for the weekend.

After the construction of the proposed residence, impacts to marine water quality could result from increased storm-water runoff due to the creation of impervious surfaces on the site. In order to minimize the potential for increased storm-water runoff, the applicant will establish a landscaping buffer along the shoreline boundary of the project site. Also, gutters and down-spouts will be used to divert runoff from the roofs of the proposed structures into water catchment tanks. As a result of these measures, there should be no noticeable increase in the volume of storm-water runoff at the site as a result of the proposed development.

The disposal of wastewater at the site is regulated by the State Department of Health. The applicant is proposing to construct a septic tank and leach field which meets the design and performance standards outlined in Chapter 62, HAR. The leach field will be located at an elevation of approximately 35 feet above sea level. The applicant will obtain a maintenance contract for the septic system, and sludge disposal will be by private pumping at a site approved by the Department of Health. Based upon the system's proposed depth to the water table and its distance from the shoreline, and upon the applicant's adherence to the Department of Health's design and performance standards, the proposed septic system should not have a significant impact on the marine water quality at the site.

To summarize, the mitigation measures described above will ensure that potential adverse impacts to near-shore waters are minimized. It should

also be noted, however, that ocean conditions in the immediate vicinity of the project are generally very turbulent. In the unlikely event that surface runoff or subsurface flows from the septic tank do enter the near-shore waters, they will be rapidly diluted.

**Criteria No. 5:**

*The proposed land use, including buildings, structures and facilities shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

**Response:**

The proposed development of the property for single-family residential and small-scale agricultural use is compatible with existing land uses in the area. Surrounding properties are also being utilized for residential and agricultural purposes, or they are vacant. The 4.54 acre portion of the property proposed for development was selected because it has undergone previous grading and provides a relatively level building site, and because it is adequately buffered from surrounding properties. The majority of the parcel (approximately 12.47 of the 17.01 acres) will be left undisturbed, and the proposed residence and related improvements will be buffered from adjoining properties to the north and south by the existing natural vegetation. A landscaping buffer will be established along the property's shoreline boundary, to minimize potential impacts on the coastal environment. The residence will be buffered from the government beach road by a 60'-wide strip of existing vegetation as well as by the two-acre fruit orchard, so that no man-made structures should be visible from the road.

**Criteria No. 6:**

*The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable.*

**Response:**

The applicant proposes to develop only that portion of the property which has already undergone extensive grading and grubbing as a result of coconut tree harvesting on the site during the 1960's. The remainder of the parcel to the north and south, and along the shoreline to the east, will not be disturbed by construction of the proposed residence; and these areas will retain their existing vegetation. Due to the topography of the site, which slopes gently downward from the government beach road, and the distance of the residence from the road – no man-made structures should be visible to the public traveling along the road. Therefore, the proposed development should not interfere with any naturally occurring vistas.

The applicant will preserve the existing beauty of the shoreline by establishing a landscaping buffer along the makai boundary of the building site. All landscaping improvements will be situated at least 70



feet makai of the shoreline and all structures will be located at least 100 feet inland. These proposed setbacks well exceed the minimum 40-foot shoreline setback required by County law. Therefore, the proposed residence should not impinge upon the open character of the shoreline in the area.

**Criteria No. 7:**

*Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.*

**Response:**

The proposed development involves the construction of a single-family residence and related improvements, and the establishment of a fruit orchard on a pre-existing lot of record. No subdivision of land is required for this project.

**Criteria No. 8:**

*The proposed land use will not be materially detrimental to the public health, safety and welfare.*

**Response:**

As detailed in this Final Environmental Assessment, the proposed development will comply with all applicable County, State, and Federal requirements governing environmental and health concerns during the construction and post-construction phases of the project. The septic system will be designed and operated in accordance with State Department of Health regulations. Appropriate mitigation measures, as identified in this Final Environmental Assessment, will be implemented during the construction of the residence – to minimize potential adverse impacts to air quality, ambient noise levels, and marine water quality. A shoreline landscaping buffer and a system of gutters and drainpipes installed on all structures will ensure that no appreciable increase in runoff is generated by the proposed development. Lastly, the sight distance at the intersection of the government beach road and the proposed driveway is over double the minimum sight distance required by law. In summary, adequate measures will be taken to ensure that the project does not in any way threaten the public health, safety, and welfare.

**B. GENERAL PLAN OF THE COUNTY OF HAWAII**

The 1989 General Plan of the County of Hawaii specifies long-term goals, policies, and standards intended to ensure the improvement of living conditions in the County. The General Plan addresses social, environmental, and economic issues which influence future growth in the County. The proposed development is consistent with the following long-term goals, as expressed in the County's General Plan:

**1. Economic****Goal:**

*Economic development and improvement shall be in balance with the physical and social environments of the island 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.*

**2. Environmental Quality****Goal:**

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

**Standard:**

*Federal and State environmental regulations shall be adhered to.*

**3. Historic Sites****Policy:**

*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.*

**4. Natural Beauty****Goal:**

*Protect, preserve, and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources.*

## 5. Natural Resources and Shoreline

**Goal:**

*Protect and promote the prudent use of Hawaii's unique, fragile, and significant environmental and natural resources.*

**Policy:**

*The shoreline shall be protected from the encroachment of man-made improvements and structures.*

## 6. Housing

**Goal:**

*Maintain a housing supply that allows a variety of choice.*

## 7. Land Use

**Goal:**

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

## **V. FINDINGS AND CONCLUSIONS**

The applicant proposes to construct a single-family residence, accessory structures, and landscaping improvements on a portion of his property. As demonstrated in this Final Environmental Assessment, the proposed single-family residence has been carefully designed to minimize potential adverse impacts to the area's natural resources and to promote long-term sustainability of those resources.

Storm-water runoff will be diverted away from the shoreline and will be disposed on on-site in a manner meeting with County and State requirements. The proposed shoreline planting strip will further protect the shoreline from any non-point source runoff generated by this project. The landscaping plan is compatible with the surrounding area and will preserve and enhance native coastal plant colonies. The use of plants which are well adapted to a windy coastal environment will lessen the need for fertilizers and intensive irrigation. The project has also been designed to minimize alterations to the existing topography, by utilizing the previously graded portion of the property as a building site.

In order to construct the proposed residence, some land clearing and heavy construction activity will be required. In the short-term, this activity may cause minor annoyances typically associated with the construction of a house, such as increased noise and dust levels. All construction activities are anticipated to be limited to daylight hours, and all necessary measures to minimize dust and soil erosion will be implemented on a daily basis. Therefore, negative impacts associated with the short-term construction of the residence should be minimal.

From a long-term perspective, the proposed project is not anticipated to result in adverse environmental impacts. Because of the sloping topography of the site and the distance of the proposed residence from the road, the project will have no impact on existing scenic views from the government beach road. The property is located in Flood Zone "X," or outside the 500-year flood plain. The project will have no significant impacts upon archaeological or historic resources, since these resources were obliterated during the previous clearing of the property in the 1960's. The project will have virtually no effect on long-term employment opportunities or on the local population level. Public services, such as police and fire protection, medical services, and public educational facilities are available in close proximity to the project site, and these services will not be overburdened by construction of the proposed single-family residence. Due to the small size of the proposed development, impacts upon roadways also are not considered significant. The project will have no impact on municipal water, sewer, and drainage systems, since these systems are not available at the project site. Self-contained water, wastewater, and drainage systems will be installed on the site and will be managed in accordance with County and State regulations.

In light of these findings, it is reasonable to conclude that the proposed development will not have any significant adverse impacts on the natural resources and infrastructure of the surrounding area.

#### VI. LIST OF AGENCIES CONSULTED DURING PREPARATION OF FINAL ENVIRONMENTAL ASSESSMENT

##### State of Hawaii

- DLNR, Division of Historic Preservation
- DLNR, Division of Land Management

##### County of Hawaii

- Planning Department
- Department of Public Works, Engineering Division
- Department of Water Supply

#### VII. AGENCY COMMENTS AND APPLICANT'S RESPONSE TO COMMENTS

A copy of a letter dated August 7, 1997, from the State Office of Environmental Quality Control (OEQC) is included on page 24 of this Final Environmental Assessment. The applicant's response to the OEQC letter is included on page 25 of this Final EA.

BENJAMIN J. CAYETANO  
GOVERNOR



GARY GILL  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

236 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 586-4185  
FACSIMILE (808) 586-4188

August 7, 1997

Mr. Michael Chroman  
2411 Ocean Front Walk  
Venice, California 90291

Dear Mr. Chroman:

We submit for your (or your agent's) response (required by Section 343-5(c), Hawai'i Revised Statutes), the following comments on a draft environmental assessment (received May 12, 1997 by the Department of Land and Natural Resources, and received June 13, 1997, by our Office) entitled "Chroman Residence and Related Improvements." The Office published notice of availability of this DEA in the July 8, 1997, edition of the *Environmental Notice*.

1. **PHOTOGRAPHS OF THE SITE.** While Figure 4 in the Appendix provides an indication of the site topography, it would be helpful to have photographs both of the undisturbed and disturbed areas of the parcel. Please include these in the final environmental assessment for the project.

Please include this letter and your response to it in the final environmental assessment for this project. If there are any questions, please call Mr. Leslie Segundo, Environmental Health Specialist, at 586-4185. Thank you for the opportunity to comment.

Sincerely,

for  
GARY GILL  
Director

c: Lauren Tanaka, DLNR Land Division

August 23, 1997

Mr. Gary Gill  
Director  
Office of Environmental Quality Control  
235 South Beretania Street, Suite 702  
Honolulu, HI 96813

Dear Mr. Gill:

**Chroman Residence and Related Improvements**

We received your letter dated August 7, 1997, in which you specifically requested that the applicant provide photographs of both the disturbed and undisturbed portions of the site as part of the Final Environmental Assessment (Final EA) for the proposed residence. We are happy to comply with your request, and we have included the following six photos of the site for your review and as part of the Final EA for the project.

**Photo #1:** View of the disturbed area of the site from the government road, showing the Christmas berry, miniature guava, and various other introduced species of weeds typical of recently bulldozed areas in the vicinity. These species are listed in detail in the Flora/Fauna Survey which was included as Appendix A of the Draft EA for the project.

**Photo #2:** View of the undisturbed area of the site from the government road, showing Hala, mango, and other early introductions and native species to the area as outlined in the Flora/Fauna Survey.

**Photo #3:** View of the disturbed area of the site from the coast, showing old dead coconuts and new coconut regrowth. This is the area where the Mauna Kea Beach Hotel purportedly pirated coconut and kamani trees in the early 1960's.

**Photo #4:** View of the undisturbed area to the north of the disturbed area, showing the healthy coconut and kamani forest which was not pirated by the hotel.

**Photo #5:** View of the kamani trees in the undisturbed area of the site to the north of the proposed residence.

**Photo #6:** View of an old flatbed truck remnant in the disturbed area of the site. The truck is covered with crushed rock; this was identified as bulldozer tracks in the Archaeological Inventory Survey of the site (included as Appendix B of the Draft EA).

Please do not hesitate to contact me at 883-2246 or Mr. Steven Freedman at 966-8943 if you have any further questions regarding Mr. Chroman's application.

Sincerely,



Linda Copman  
Planning Consultant

VIII. PHOTOGRAPHS OF PROJECT SITE

Photo #1

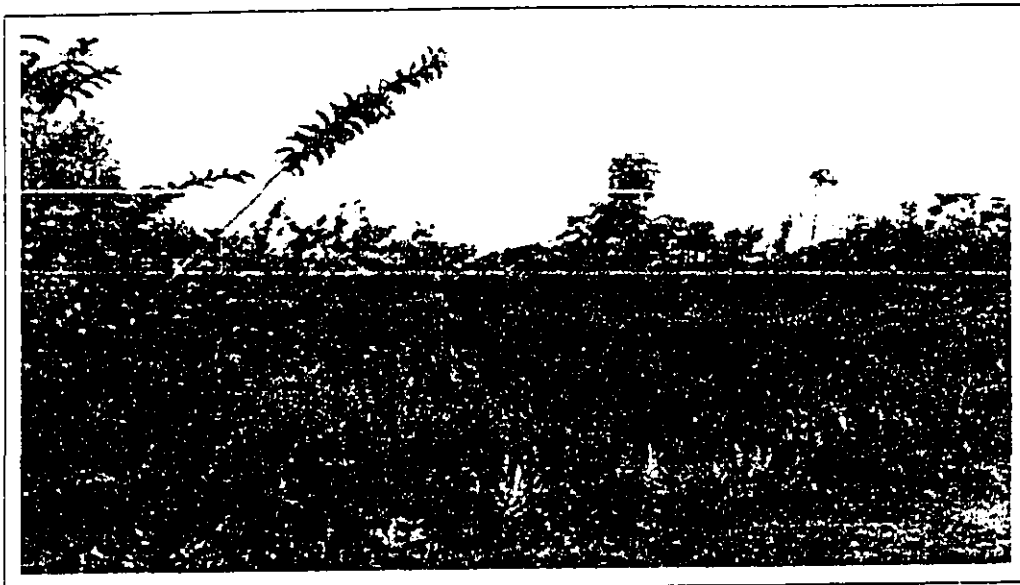


Photo #2

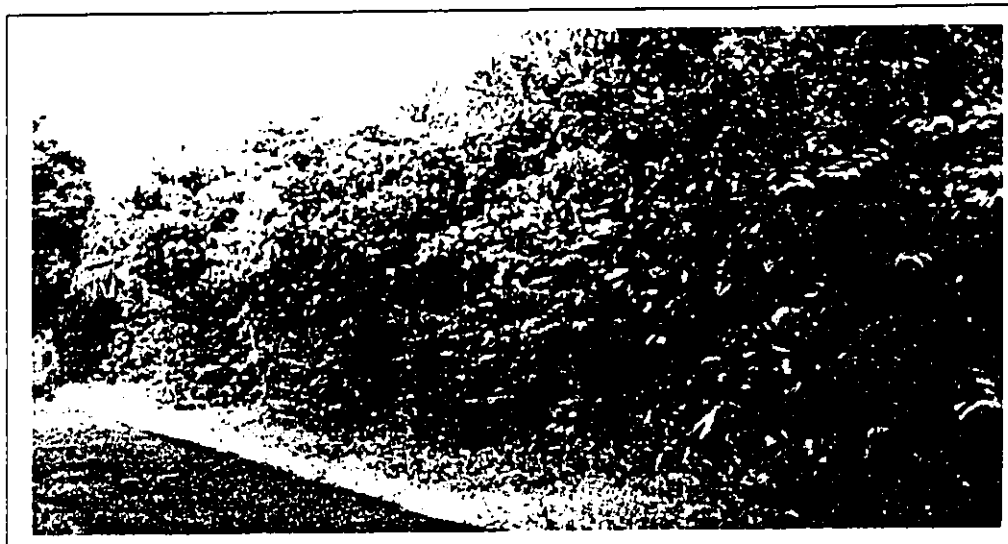


Photo #3



VIII. PHOTOGRAPHS OF PROJECT SITE

Photo #4

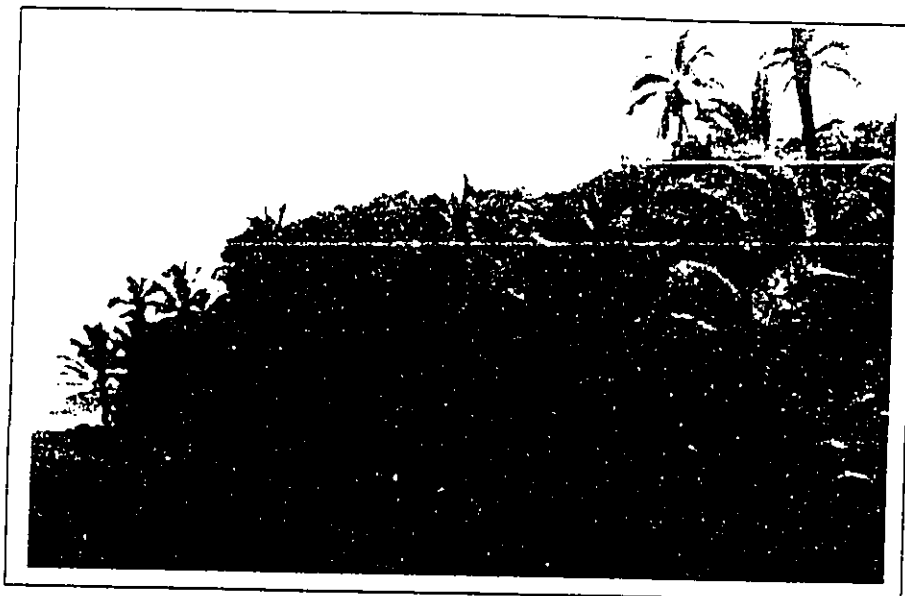


Photo #5



Photo #6





1997-08-08 ~~HI~~ HI- FEA- Clemens  
Single Family Dwelling & Seawall  
Improvements

**FILE COPY**

AUG 8 1997

SINGLE FAMILY RESIDENCE  
of  
DALE LAWRENCE CLEMENS and VERONICA CLEMENS

TMK: (3) 7-8-14:51  
Lot 4-B, North Kahaluu Beach Subdivision  
(0.22± acres/9,583± square feet)  
Kahaluu, North Kona, Hawaii

**FINAL  
ENVIRONMENTAL ASSESSMENT**

Prepared for:

PLANNING DEPARTMENT  
County of Hawaii

July 1997

STEVEN S. C. LIM  
Carlsmith Ball Wichman Case & Ichiki  
121 Waiuanue Avenue  
Hilo, Hawaii 96720  
Telephone: 935-6644

2000326.1.038766-2

# CORRECTION

THE PRECEDING DOCUMENT(S) HAS  
BEEN REPHOTOGRAPHED TO ASSURE  
LEGIBILITY  
SEE FRAME(S)  
IMMEDIATELY FOLLOWING

VIII. PHOTOGRAPHS OF PROJECT SITE

Photo #4



Photo #5



Photo #6

