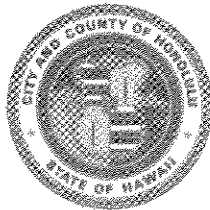


DEPARTMENT OF LAND UTILIZATION  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET  
HONOLULU, HAWAII 96813 • (808) 529-4432



EILEEN R. ANDERSON  
MAYOR

MICHAEL M. MCELROY  
DIRECTOR

ROBERT B. JONES  
DEPUTY DIRECTOR

July 19, 1982

81/SMA-82(SM)

Mr. Roy Takemoto, Chairman  
Environmental Quality Commission  
State of Hawaii  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

Dear Mr. Takemoto:

Revised Environmental Impact Statement  
Kawaiiloa Subdivision  
Oceanic Properties, Inc.  
Tax Map Key: 6-1-03: 26

We are notifying you of our acceptance of the above as an adequate fulfillment of Chapter 343, HRS. Attached is a copy of the Acceptance Report.

A. The applicant will be required to submit the following information with the application for a Special Management Area Use Permit:

1. Sewage Treatment & Disposal

The applicant shall provide written documentation from the State Department of Health, City and County Department of Public Works (DPW) and Board of Water Supply (BWS) regarding the acceptability of cesspool disposal of wastewater at the proposed project site.

2. Drainage

The applicant shall provide a preliminary drainage plan, depicting the drainage system and direction of runoff flows on-site. Preliminary approval of the drainage scheme by the DPW will also be required at that time.

Mr. Roy Takemoto, Chairman  
Page 2

3. Shoreline Access

The applicant will provide written documentation from the Department of Parks and Recreation (DPR) regarding the desirability of establishing a public vs. private easement adjacent to Parcel 10.

4. Potential Use of Project Site

The applicant will provide written documentation from the City and County DPR indicating the status of their plans for expansion of parking facilities serving the Waimea Bay Beach Park.

5. Archaeological Sites

The applicant will provide written documentation from the State Historic Preservation Office regarding the minimum measures that would be considered adequate for mitigating the potential adverse effects on archaeological and historic resources at the project site.

B. Other concerns, which will be addressed prior to Department of Land Utilization subdivision approval include:

1. Preliminary water commitment from the BWS.
2. Permit to do construction within the Kamehameha Highway right-of-way from the State Department of Transportation.

If there are any questions, please contact Sampson Mar of our staff at 523-4077.

Very truly yours,



MICHAEL M. McELROY  
Director of Land Utilization

MMM:sl  
attach.

DEPARTMENT OF LAND UTILIZATION (DLU)  
82/SMA-82(SM)  
July 19, 1982

ACCEPTANCE REPORT: CHAPTER 343, HRS  
ENVIRONMENTAL IMPACT STATEMENT (EIS)  
KAWAIILOA SUBDIVISION  
OCEANIC PROPERTIES, INC.  
TAX MAP KEY: 6-1-03: 26

A. BACKGROUND

The EIS was prepared for Oceanic Properties, Inc. by Belt, Collins and Associates. This document describes the anticipated impacts of the implementation of the 19-lot Kawaiiloa Subdivision. The project site is located on the makai side of Kamehameha Highway, approximately 2,000 feet on the Haleiwa side of the entrance to Waimea Bay Beach Park. Haleiwa is located about 4 miles southwest of the project site. The project site is zoned R-6 Residential District; the Detailed Land Use Map (DLUM) designates the site for park use, while the proposed Development Plan designates the site for agricultural use. In January 1979, a Department of Parks and Recreation (DPR) study designated the project site and an adjoining parcel as one of the locations for future expansion of parking facilities for Waimea Beach Park. However, a letter from DPR to DLU, dated June 10, 1982, stated that, "Due to current fiscal shortages, it appears unlikely that the City will be able to acquire this parcel in the immediate future."

The applicant proposes to subdivide the 4.689-acre site into 19 lots, ranging in size from 5500 to 10,900 square feet. The lots will be sold in fee for the construction of single-family residences, in conformance with the Comprehensive Zoning Code (CZC).

The proposed project will include the construction of an on-site roadway system, drainage system, and electrical power and telecommunication system. Installation of individual houselot cesspools will be undertaken by individual owners, when they construct their homes. There are no municipal wastewater treatment facilities in the vicinity of the project site and none proposed in the near future.

The 40-foot Shoreline Setback Area affects subdivision lots 4 - 10; therefore, any subsequent development, which would be proposed within the Shoreline Setback Area, would require an environmental assessment, under Chapter 343, HRS (Environmental Impact Statement Law). The entire site lies within the Special Management Area (SMA), as defined by Ordinance No. 4529, as amended. An EIS was required of the applicant under the provisions of Chapter 343, HRS, because portions of the subdivision include lands within the Shoreline Setback Area. Acceptance of this document will also fulfill the environmental assessment requirements of Ordinance No. 4529, as amended.

B. PROCEDURES

1. An EIS Preparation Notice, prepared by the DLU, appeared in the "EQC (Environmental Quality Commission) Bulletin" of September 8, 1981 under the Register of Chapter 343, HRS Documents. This was distributed to all interested Federal, State, and City and County agencies, as well as community interest groups.
2. Comments from consulted parties were received until October 28, 1981, allowing all parties greater than the 30-day minimum consultation period. Twenty-three (23) parties submitted comments during this period, which were responded to in writing by the applicant.
3. The Draft EIS was received and distributed by EQC on May 24, 1982. The deadline for public review was then set for June 22, 1982. A list of reviewers is attached.
4. Twenty-eight (28) parties made replies to the Draft EIS. The applicant made point-by-point responses to all substantive comments, within the 14-day response period.

C. ISSUES RELATED TO THE CONCERNS OF THE SMA

Written documentation between the applicant and the appropriate governmental agency, regarding the following issues, must be submitted with the application for a SMP:

1. Sewage Treatment & Disposal

The applicant shall provide written documentation from the State Department of Health, City and County Department of Public Works (DPW) and Board of Water Supply (BWS) regarding the acceptability of cesspool disposal of wastewater at the proposed project site.

2. Drainage

The applicant shall provide a preliminary drainage plan, depicting the drainage system and direction of runoff flows on-site. Preliminary approval of the drainage scheme by the DPW will also be required at that time.

The following issues are considered to be unresolved at this time:

1. Shoreline Access

The applicant will provide written documentation from the Department of Parks and Recreation (DPR) regarding the desirability of establishing a public vs. private easement adjacent to Parcel 10.

2. Potential Use of Project Site

The applicant will provide written documentation from the City and County DPR indicating the status of their plans for expansion of parking facilities serving the Waimea Bay Beach Park.

3. Archaeological Sites

The applicant will provide written documentation from the State Historic Preservation Office regarding the minimum measures that would be considered adequate for mitigating the potential adverse effects on archaeological and historic resources at the project site.

D. UNRESOLVED ISSUES TO BE ADDRESSED BY OTHER PERMIT PROCESSES

Prior to the DLU approval of the subdivision application for the proposed project, the following issues will be resolved:

1. Water Commitment

The applicant will obtain a commitment for a specified amount of water for the proposed project from the Honolulu Board of Water Supply.

2. Highway Improvements

All construction within the Kamehameha Highway right-of-way will require a permit from the State Department of Transportation.

In addition, any subsequent activity within the 40-foot Shoreline Setback Area will be subject to the provisions of the Shoreline Setback Rules and Regulations, HRS, 205-32.

E. RESPONSE

The applicant made adequate point-by-point responses to all comments, and included them in the Revised EIS. Conditions which must be fulfilled prior to the submittal of a SMP application have been specified in Section C of this report.

F. DETERMINATION

The Revised EIS is determined to be acceptable under the procedures established in Chapter 343, HRS. This determination in no way implies a favorable recommendation on the applicant's request for any subsequent permits required by this department for this project, where applicable.

APPROVED

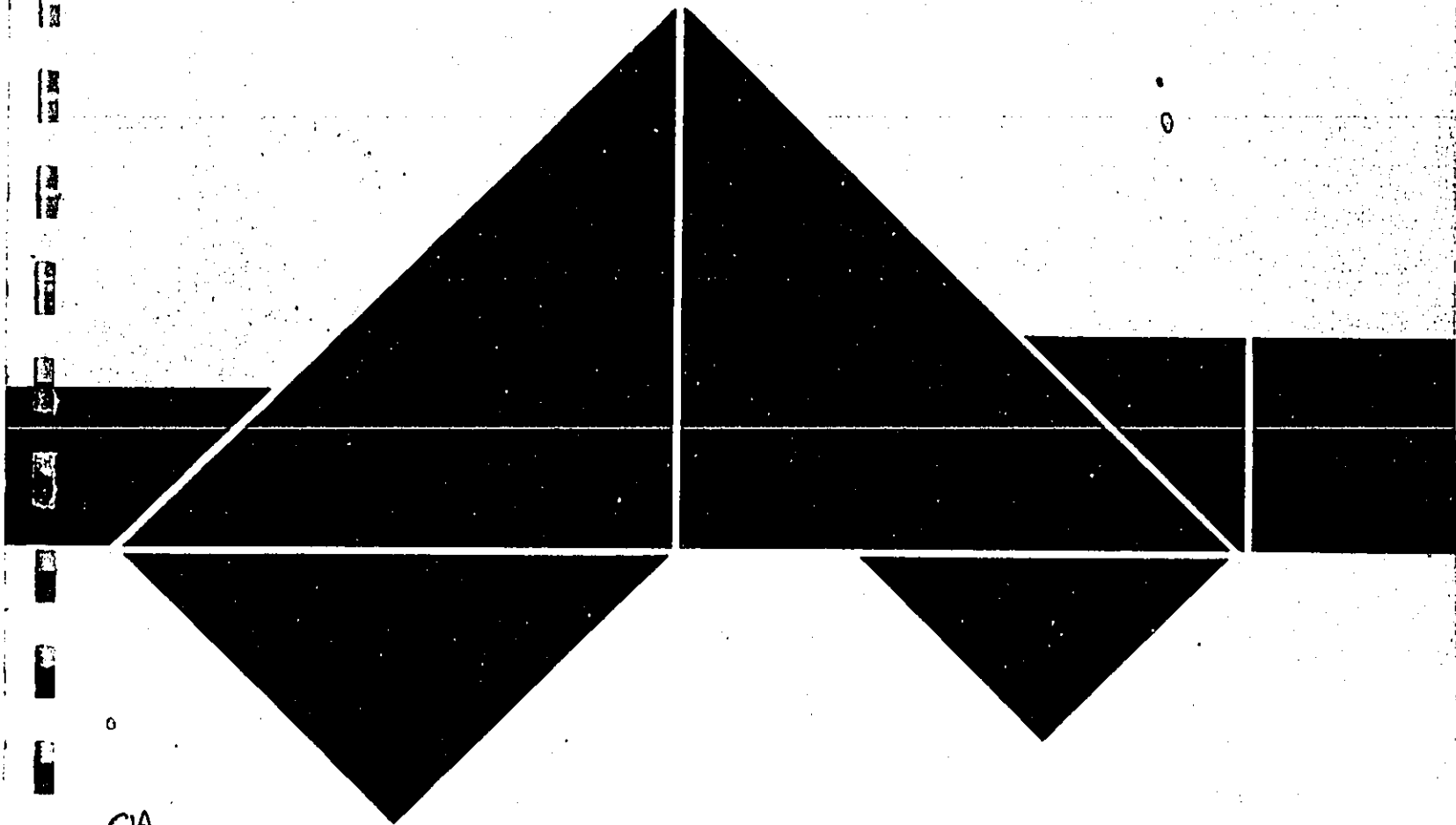
  
\_\_\_\_\_  
MICHAEL M. McELROY  
Director of Land Utilization

MMM:sl

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# Kawailoa Subdivision



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## Environmental Impact Statement

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Environmental Impact Statement

for the Proposed

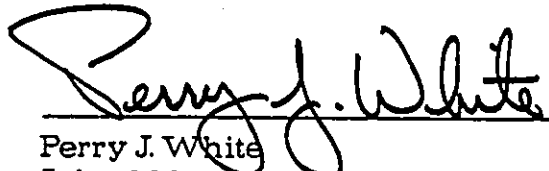
**Kawailoa Subdivision**

Kawailoa, Oahu TMK 6-1-03:26

For Submission to: City and County of Honolulu  
Department of Land Utilization

Prepared for: Oceanic Properties, Inc.

By: Belt, Collins & Associates

  
Perry J. White  
July 1982

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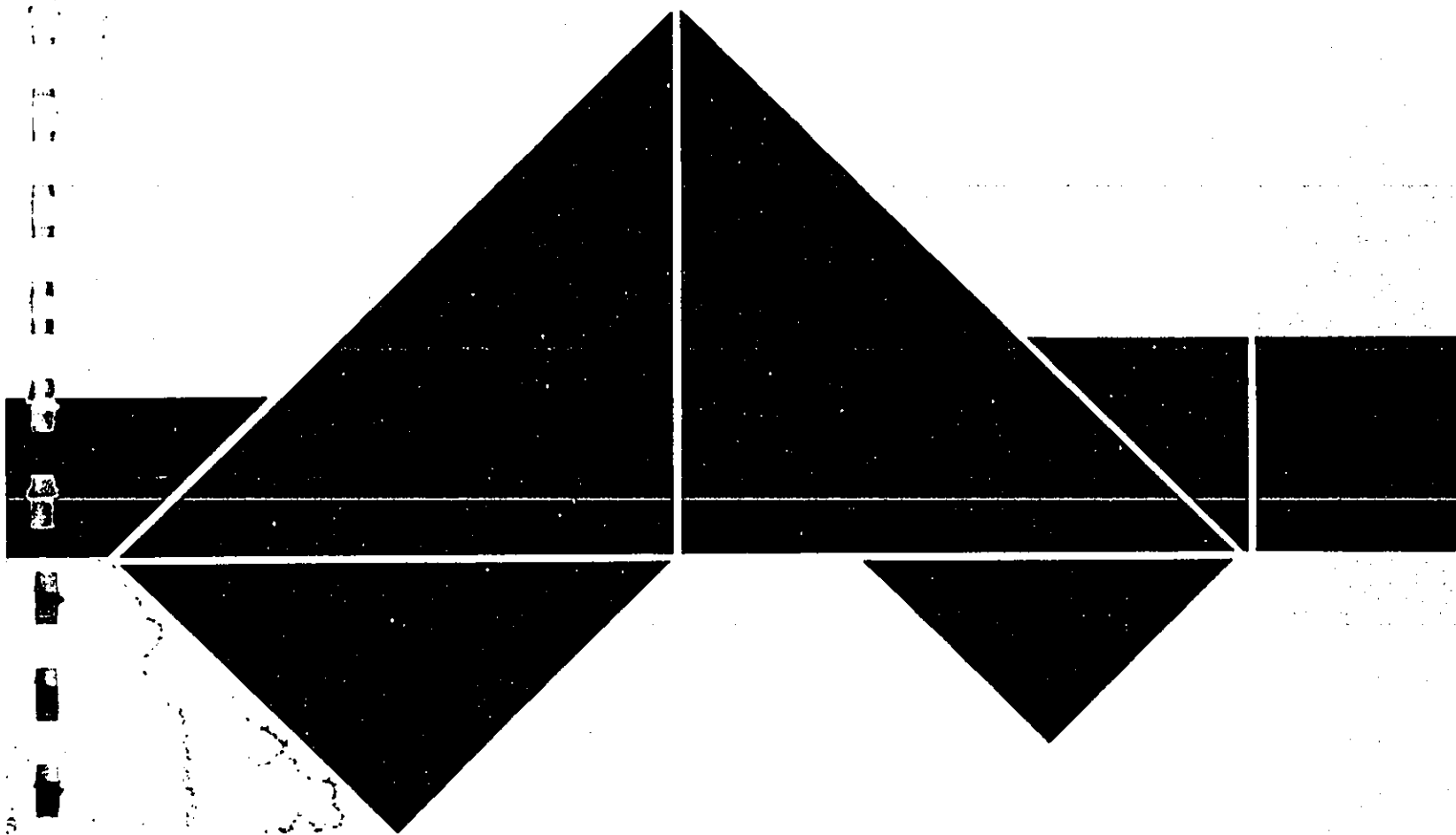
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# **Kawaiiloa Subdivision**



**Environmental Impact Statement**

## CHAPTER I PROJECT DESCRIPTION

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle & Cooke, Inc., is proposing development of a 19-lot subdivision in the Waialua District of O'ahu. The project has tentatively been named the Kawailoa Subdivision. The remainder of this chapter describes the site and its surroundings, the major features of the proposed subdivision, and the market at which the project is aimed.

### 1.0 DESCRIPTION OF THE SITE

#### 1.1 Location

The site of the proposed Kawailoa Subdivision is a 4.689-acre parcel (TMK No. 6-1-03:26) on O'ahu's north shore (see Figure I-1). It is situated on the makai side of Kamehameha Highway approximately 2,000 feet southwest of the entrance to Waimea Bay Beach Park. The nearest town is Hale'iwa, approximately four miles to the southwest.

#### 1.2 Physiography

The project site lies between Kamehameha Highway and the Pacific Ocean (see Figure I-2). In general, the slope is from east to west and averages about five percent. Steeper land is situated near the parcel's eastern corner and around a small promontory located midway along the northern property line. The makai third of the site is much flatter, with slopes averaging two to three percent. There are two other obvious topographic features. The first is an old narrow-gauge railroad roadbed that runs north-south through the middle of the parcel; the second is the moderately steep (approximately 30 percent slope) boulder-strewn shoreline just makai of the property's seaward boundary where the land drops off sharply to the ocean.

#### 1.3 Land Use

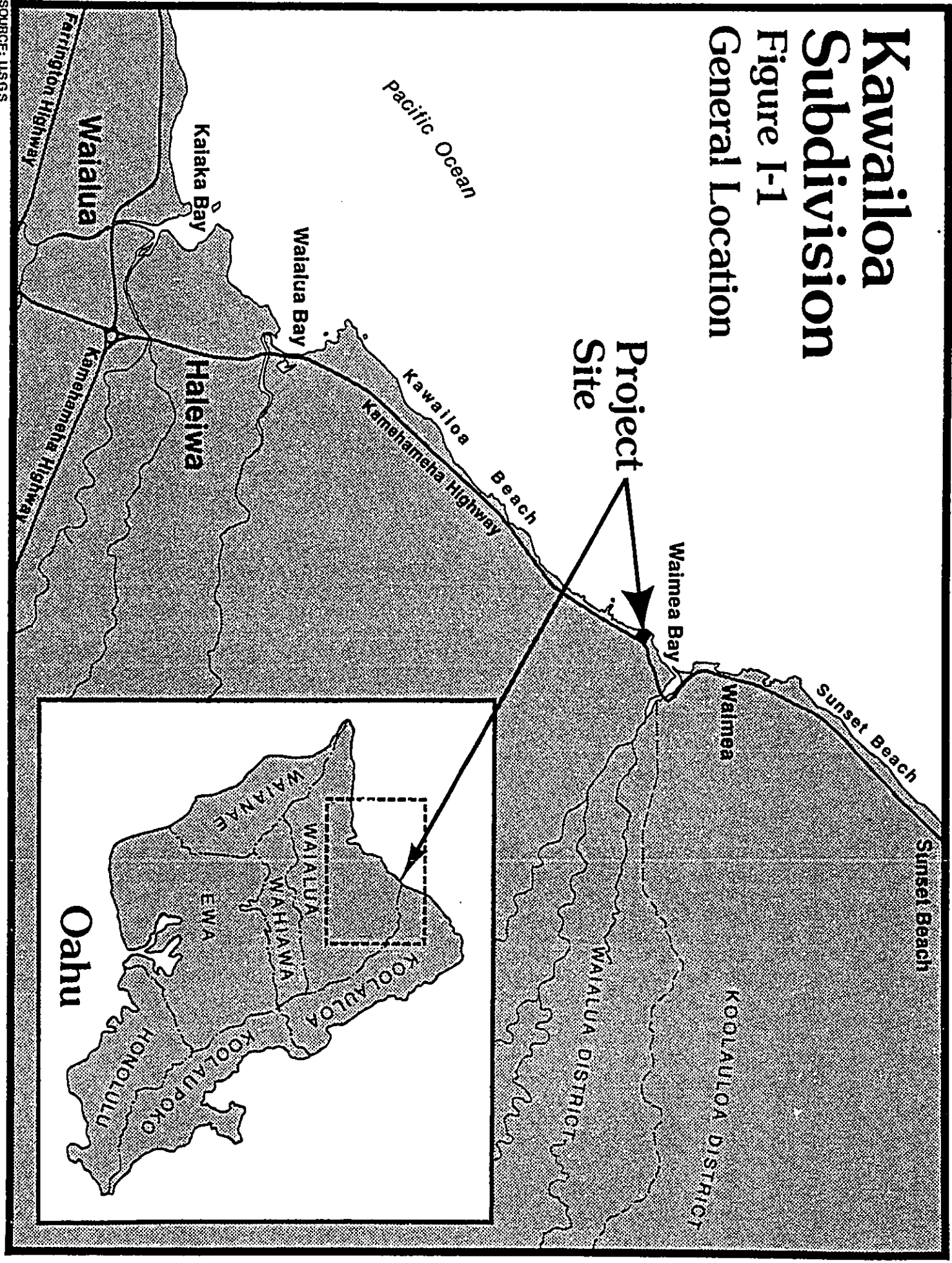
At the present time, the site is not in use. A barbed-wire fence with a locked gate separates it from Kamehameha Highway and the parcel adjoining it on the south. A 40-foot by 12-foot concrete pad is located about 50 feet from the shoreline near its southern boundary, and there are a number of lava rock walls present. An impressive lava rock structure believed to be a heiau or ko'a (fishing shrine) from the pre-contact period straddles the northern property line immediately makai of the rock promontory. McAllister (1933) reported the shrine was known as Keahu o Hapu'u, as told him by Ho'okala during his survey of the island's archaeological sites in 1930; N.B. Emerson also mentioned a "little heiau" on the bluff of Kehu-o-hapu'u [*sic*] in his 1925 book Pele and Hiiaka (Sterling and Summers; 1978: 129).

The railroad roadbed that bisects the site was abandoned in the 1940s, and all of the rails and ties have been removed. A squatter's



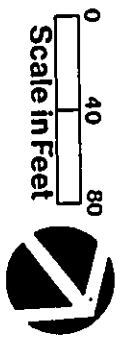
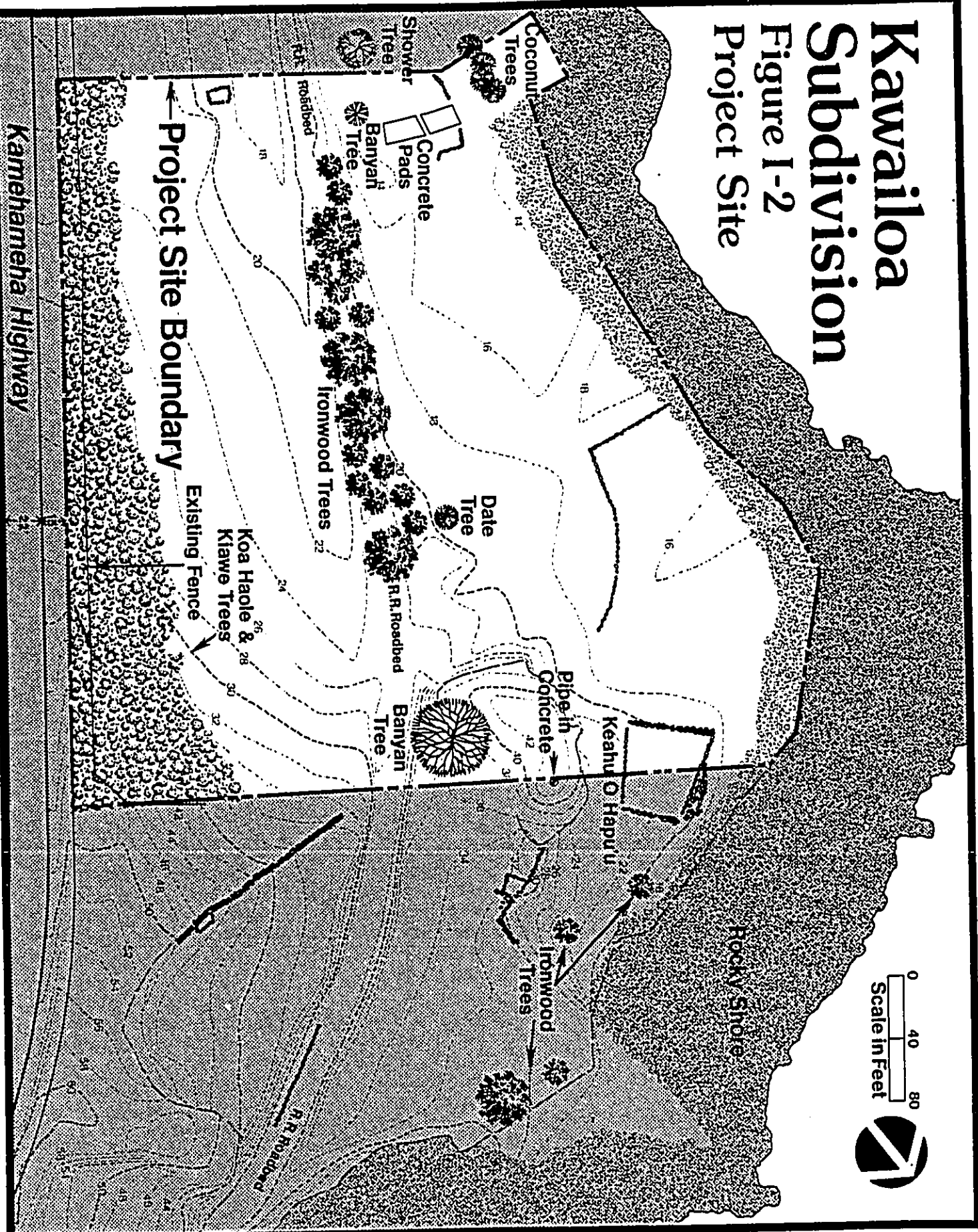
# Kawailoa Subdivision

## Figure I-1 General Location



SOURCE: USGS.

# Kawailoa Subdivision Figure I-2 Project Site



SOURCE: BCA Ltd

small garden site, now seemingly abandoned, lies makai of the railroad right-of-way, and a moderately large banyan tree rises above part of the rock outcrop.

The parcels to the south and east of the project site are owned by the Bishop Estate; the lot immediately north is owned by Castle & Cooke, Inc. All of the land across Kamehameha Highway from the site is vacant and covered with scrub vegetation, as is the parcel abutting the northern boundary of the project site. The five-acre parcel immediately to the south (TMK No. 6-1-03:27) contains one older single-family dwelling, but most of it is overgrown with scrub vegetation.

#### 1.4 Existing Drainage Pattern

As can be seen from Figure I-3, the land immediately mauka of the project site rises sharply (greater than 35 percent slope) to an elevation of about 200 feet. A sharp break in slope occurs at that point and the rise becomes a much more modest seven percent across the Kawaiioa uplands. Runoff from this mauka area which might have affected the project site before Kamehameha Highway was constructed is now intercepted by a swale along the mauka side of the roadway. Once in the swale it moves to the inlet of a culvert situated at a low point in the roadway approximately 200 feet south of the Kawaiioa Subdivision site. The area which drains into this portion of the swale is shown in Figure I-3.

Residents of the area report that the culvert is overtopped during heavy rains so that Kamehameha Highway is covered by several inches of water. However, the Kawaiioa Subdivision site is sufficiently far removed (both horizontally and vertically) that the problem does not directly affect it.

## 2.0 DESCRIPTION OF THE PROPOSED ACTION

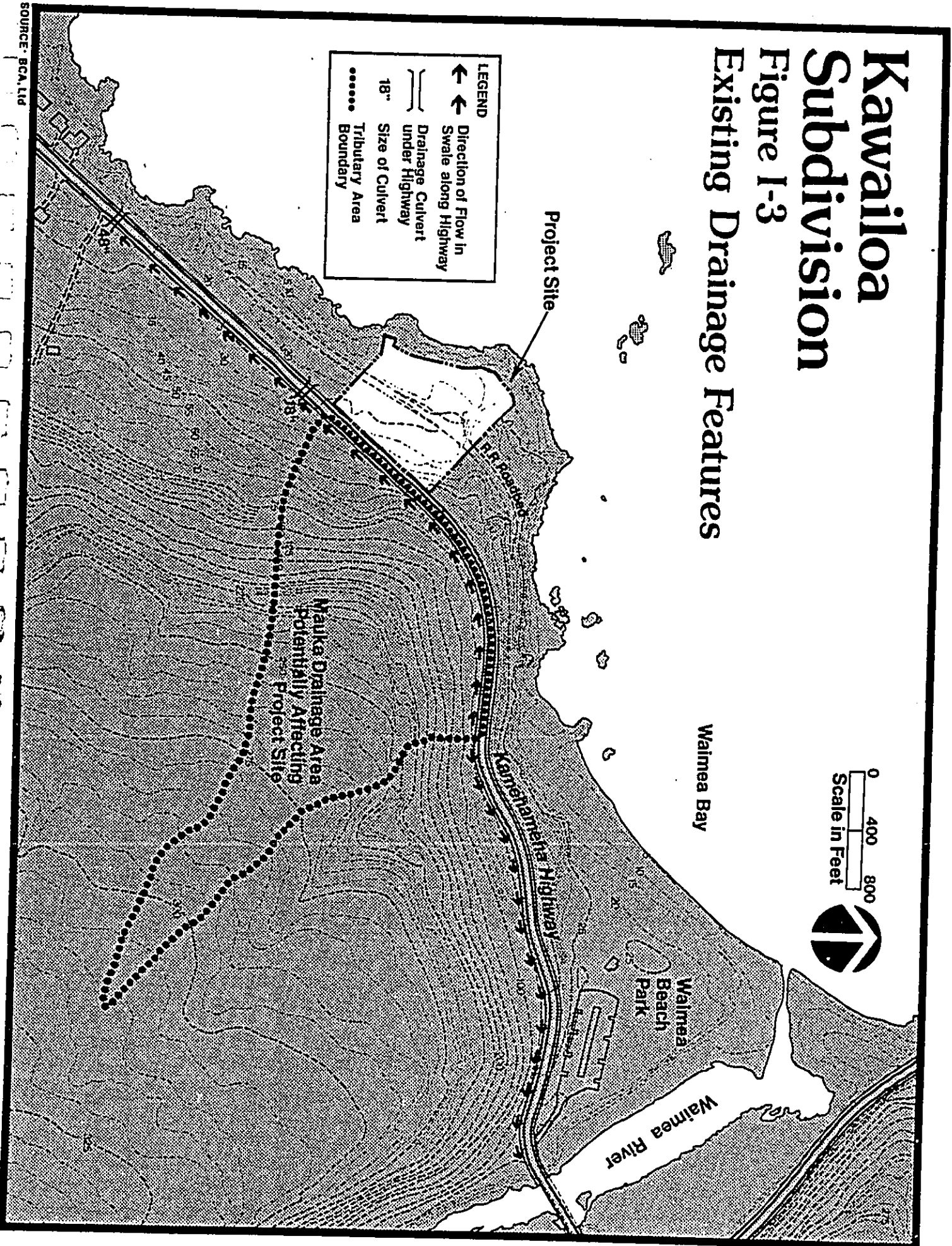
### 2.1 Layout

The proposed subdivision layout is shown on Figure I-4. It involves the creation of 19 residential parcels ranging in size from 5,500 to 10,990 square feet (see Table I-1). In addition, separate parcels would be formed for the roadway, and for the area containing the half of Keahu O Hapu'u within TMK No. 6-1-03:26. The latter, designated parcel 11-A on Figure I-4, would be consolidated with TMK No. 6-1-01:1, which adjoins the project site to the north.

Access from Kamehameha Highway to the proposed lots would be provided by a 400-foot-long road with a 44-foot right-of-way (r.o.w.) ending in a cul-de-sac. Fifteen of the residential lots would front directly onto it; the remaining would be served by a narrower road (26-foot r.o.w.) of 240 feet which branches off the main subdivision roadway and ends in a hammerhead turnaround. The roads would be improved to City and County subdivision standards. The roadway would intersect Kamehameha Highway about 80 feet from the project's

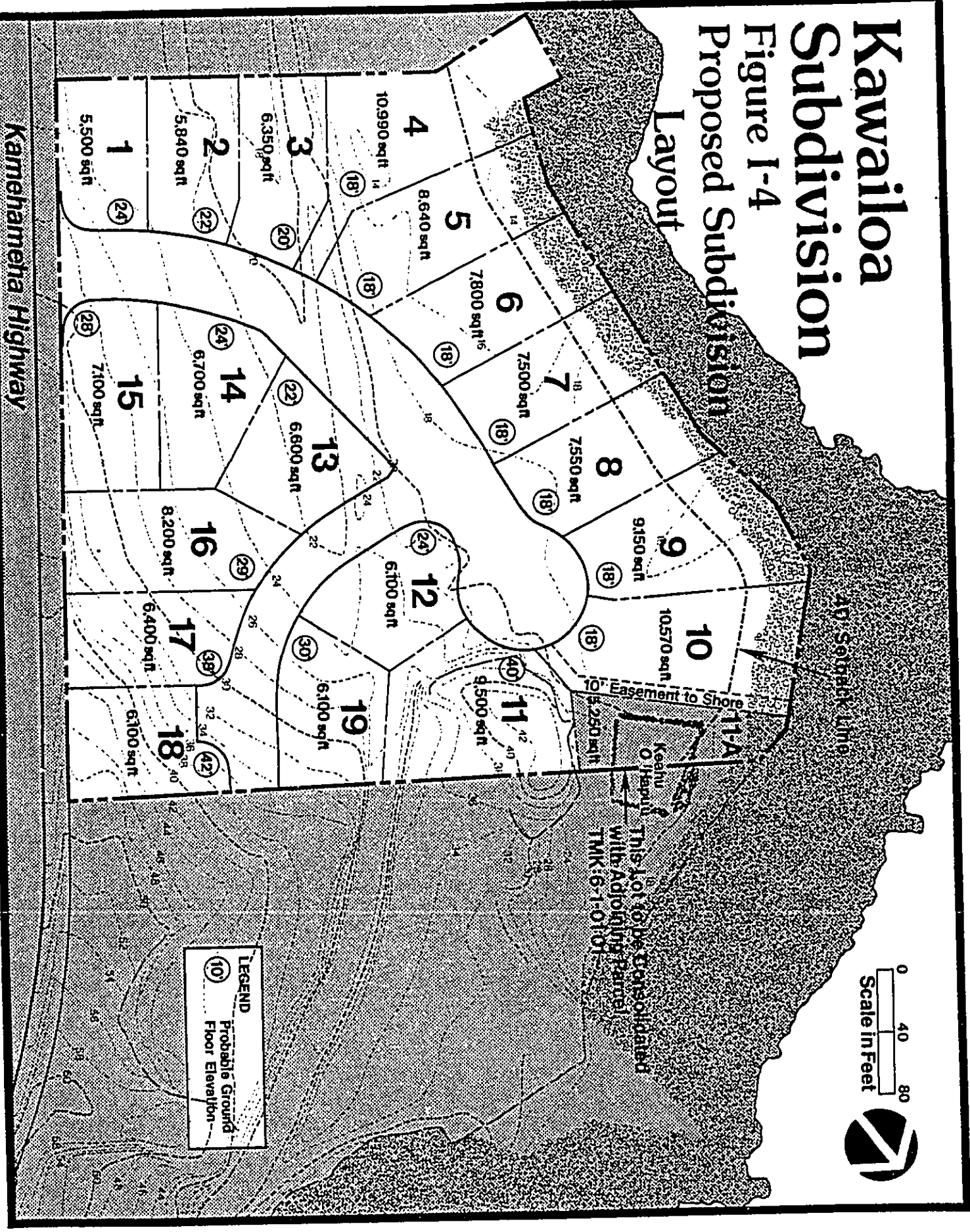
# Kawailoa Subdivision

## Figure 1-3 Existing Drainage Features



# Kawailoa Subdivision

## Figure I-4 Proposed Subdivision Layout



SOURCE: Subdivision Plan Prepared by EDP Hawaii, Inc. 4-14-82

Table I-1. Estimated Slope, Elevation Change, and Land Area by Lot<sup>1</sup>

Lot No.	Approximate Slope (in %)	Approximate Change in Elevation Across Lot (Ft.)	Approximate Land Area (in Sq. Ft.)
1	5	3	5,500
2	7	4	5,840
3	less than 2	1	6,350
4	less than 2	2	10,990
5	less than 2	3	8,640
6	3	3	7,800
7	less than 2	2	7,500
8	less than 2	1	7,550
9	less than 2	2	9,150
10	less than 2	1	10,570
11	more than 35	20	9,500
12	2	2	6,100
13	2	2	6,600
14	5	4	6,700
15	10	6	7,100
16	9	12	8,200
17	12	16	6,400
18	14	14	6,100
19	9	8	6,100
			142,640

<sup>1</sup> See Figure I-5 for lot boundaries.

Source: Belt, Collins & Associates.

southern boundary. This maximizes the sight-distance on the Waimea Bay side of the intersection approach.

Shoreline access would be provided by a ten-foot-wide easement through lot 10. The easement would begin at the cul-de-sac of the primary subdivision road and parallel the boundary between lots 10 and 11-A. It would allow residents of the project to reach the shoreline and to view the archaeological remains on lot 11-A.

As indicated in the discussion of archaeological impacts presented in Section 9.0 of Chapter III, the ko'a or heiau, Keahu O Hapu'u, is a valuable cultural resource. For this reason, lot 11-A will be consolidated with the adjoining parcel.

## 2.2 Site Grading

The grading plan for the proposed project is shown in Figure I-5. Because it is Oceanic Properties' intention to sell only improved lots, rather than house/lot combinations, the only earthmoving that would be undertaken as part of this project would be for roadways. In selecting roadway alignments, care has been taken to minimize the amount of cut and fill that would be required. Nevertheless, a small amount of earth would have to be imported. The greatest change in elevation between existing and finished grade would be approximately four feet; in most places the finished roadway elevation would be within two feet of the existing grade.

Oceanic Properties, Inc. would not grade any of the residential lots prior to their sale and has not, therefore, prepared any grading plan for them. However, individuals who purchase the lots may be expected to undertake grading if that proves necessary for the type of structure they desire. Examination of the proposed grading plan indicates that three-quarters of the lots would have slopes of less than ten percent (see Table I-1). Little, if any, grading would be necessary to site homes comfortably on these lots. Lots 15, 17, and 18 have slopes in the ten to 14 percent range. These are situated along the Kamehameha Highway side of the property, and buyers would have to do at least some grading to make room for driveways and garages. The houses themselves would probably be built on poles or split levels. Lot number 11 sits squarely atop the rock outcrop on the site's northern boundary. The site affords grand views, but it would be difficult to develop. At this time we cannot determine what architectural solution might be used.

## 2.3 Infrastructure

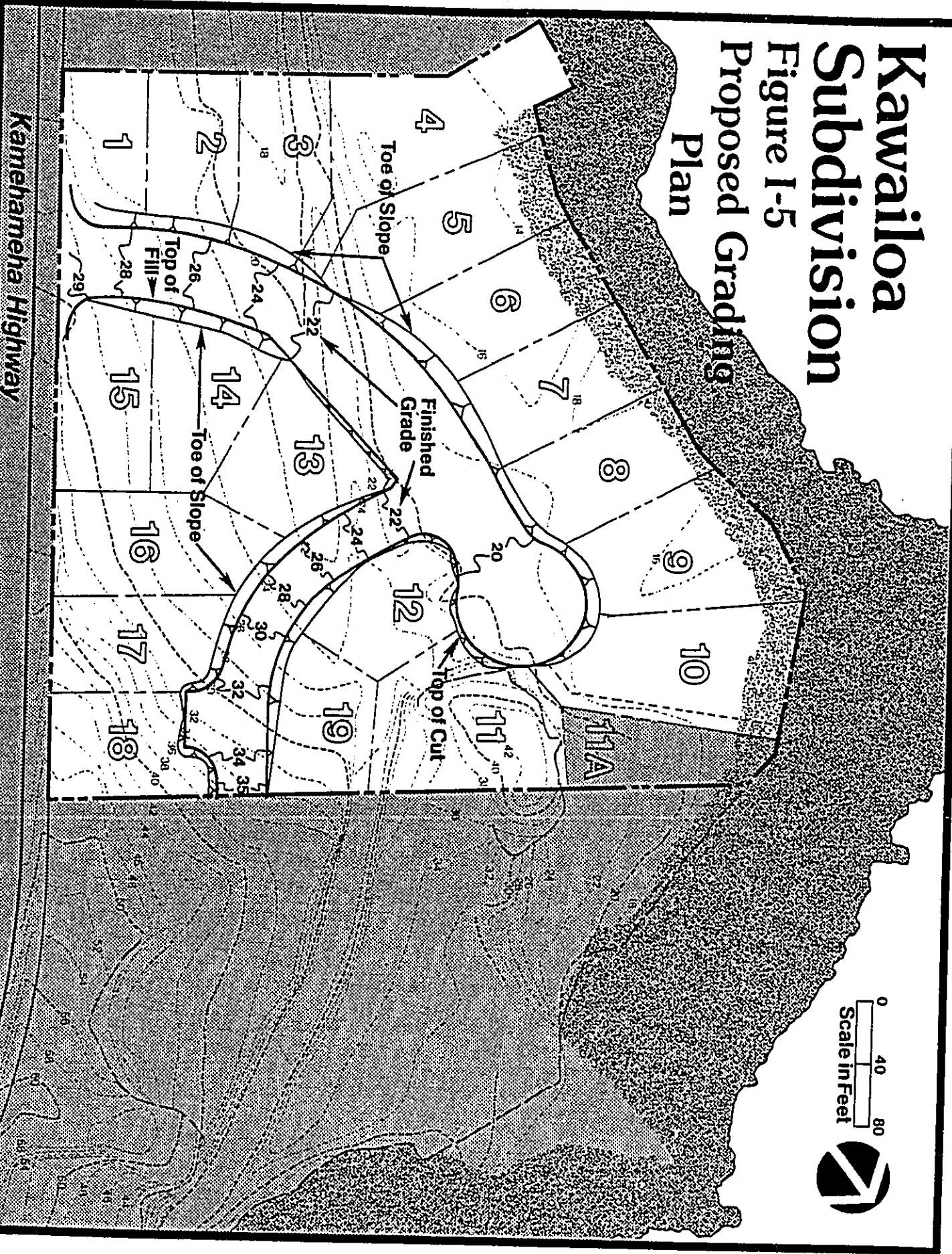
**2.3.1 Water Supply.** A 16-inch waterline along the mauka side of Kamehameha Highway would be tapped to supply water to the lots in the subdivision. The line is part of the Honolulu Board of Water Supply's Waialua system. Water for the system is obtained from the "Waialua and Hale'iwa Wells" about six miles south-southwest of the proposed Waimea Bay Subdivision.

According to the Honolulu Board of Water Supply (October 28, 1981):

Although we can still accommodate a limited number of new projects, we are not making any advance water commitments for proposed development projects. The availability of water for projects are [sic] determined when construction drawings are submitted for our review and approval. However, approvals must first be obtained from the City's Department of Land Utilization before we will take any action on the proposed development.

If water is made available for the project, the developer will be assessed our water development charge covering the [pro

# Kawailoa Subdivision Figure I-5 Proposed Grading Plan



SOURCE: Grading plan prepared by EDP Hawaii, Inc. 4-14-82



rata cost of] development of source, reservoir, and transmission facilities needed to provide water service to the project.

Planning for the subdivision is proceeding on the assumption that sufficient water will be available from Board of Water Supply sources.

The on-site water distribution system would consist of distribution mains beneath the roadways and a lateral for each lot. All Board of Water Supply design standards would be adhered to. Once completed, the system would be dedicated to the City and County.

**2.3.2 Sewage Disposal.** At present there are no municipal wastewater treatment facilities in the Waialua District. Hence, all existing development utilizes on-site treatment and disposal (Hawaii, State of, Department of Health, 1980:10-34). Most of the residential units use cesspools, but newer apartments and the Pa'ala'akai subdivision have their own private treatment plants. Because of the low-density nature of the proposed subdivision, the developer of the Kawailoa Subdivision expects that lot purchasers would install individual cesspools when they construct their homes.

**2.3.3 Storm Drainage.** Present plans call for storm runoff from the coastal tier of lots (4 through 10) to continue to drain by overland flow directly into the ocean. Lots 1 through 3 lie below the level of the proposed roadway; they currently drain into the depression along the mauka side of the old railroad roadbed and thence into the adjoining parcel. This pattern may be retained or, alternately, a small swale may be created down the property line which would carry runoff to the ocean.

Runoff from the remainder of the site would be intercepted by gutters along the roadways and carried to the low point of the road system adjacent to lot 8. Dry wells situated there would receive the runoff and allow percolation into the ground. During the periodic storms which might be expected to produce runoff in excess of the disposal wells' capacity, overflow would be diverted into a swale along the boundary between lots 7 and 8. The swale would discharge at the shoreline.

It should be noted that both points of potential shoreline discharge have relatively steep boulder beaches. Because of this, stormwater will not reach the ocean as a definable stream. Instead it will percolate through the rocks and seep slowly into the ocean along the waterline.

**2.3.4 Electrical Power and Telecommunication Service.** Electrical power for the project would be provided by the Hawaiian Electric Company via an existing overhead powerline that runs past the site along the makai side of Kamehameha Highway. Power distribution on-site to the individual lots would be underground.

Telephone service would be provided by the Hawaiian Telephone Company. As with power, underground lines on-site would link the individual lots with the existing overhead telephone wires along Kamehameha Highway.

**2.3.5 Solid Waste.** The City and County of Honolulu would assume responsibility for curbside refuse pickup once the project is completed. Disposal would be at the Kawaihoa landfill and/or such other sites as are designated by the City.

**2.4 Development Objectives/Expected Market**

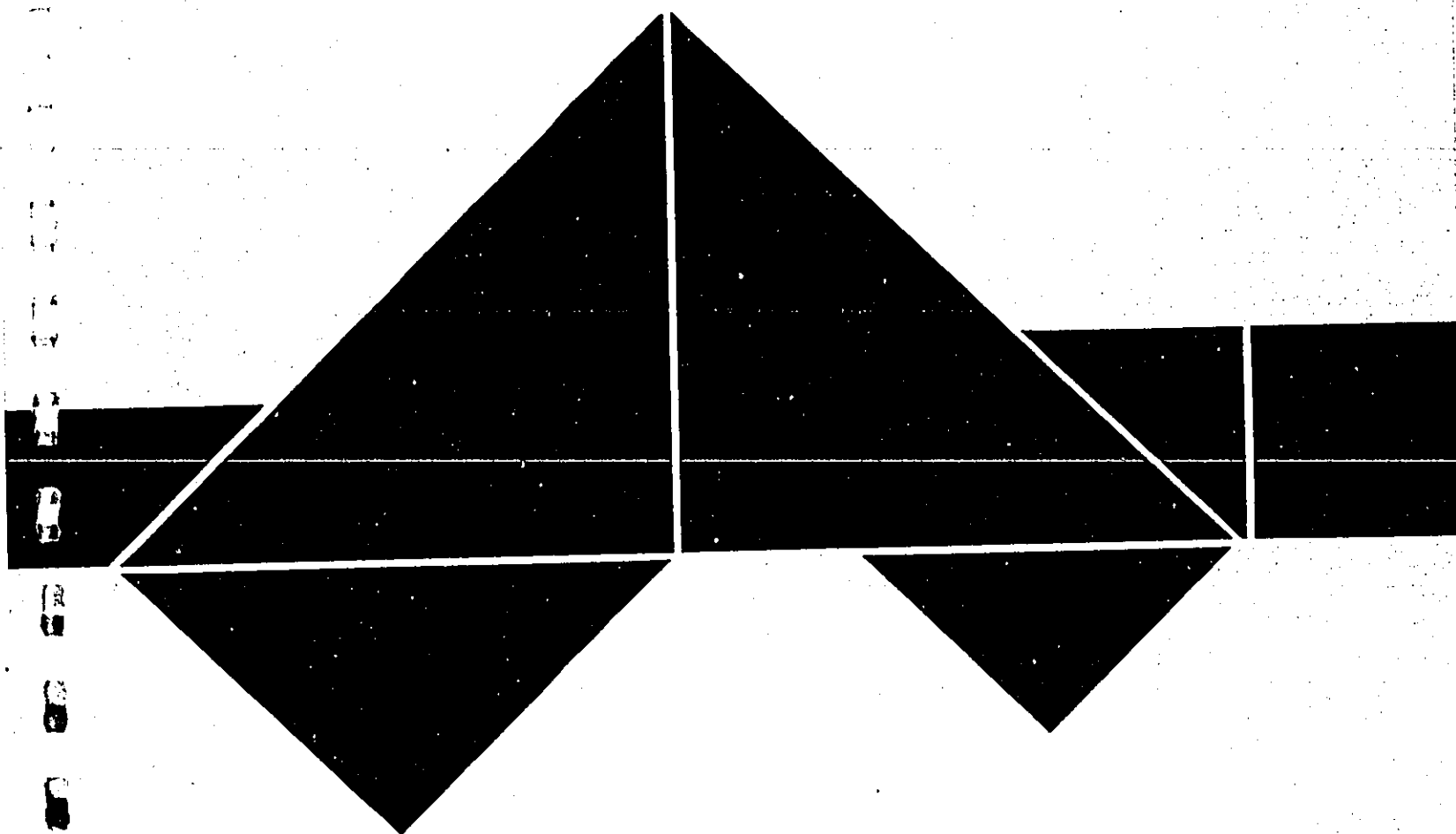
In its "Request for Assessment" for the project, Oceanic Properties, Inc. (July 2, 1981) stated:

The objective of the proposed development is to convert a presently unused and vacant parcel of land into a residential subdivision consisting of 19 moderate sized lots. The proposed development represents a more productive use of the site as authorized under its current zoning (R-6) and will provide some market supply relief for individuals or families desiring to build their own home in this area.

In the same document (page 8), the fair market value of the project was estimated at \$2,425,000. This is equivalent to approximately \$125,000 per lot, or a little less than \$12.00 per square foot.

Oceanic Properties, Inc. believes that buyers for the lots in the proposed subdivision will be predominantly O'ahu residents who already live in the central and north shore areas.

# **Kawaiiloa Subdivision**



**Environmental Impact Statement**

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

There are a number of different State and County plans, policies, and controls that bear some relationship to the proposed Kawaiioa Subdivision. These fall into three categories: (1) policy plans, (2) land use plans, and (3) other programs and controls. The proposed project's consistency with them is discussed below.

### 1.0 POLICY PLANS

Both the State of Hawaii and the City and County of Honolulu have adopted policy plans to guide the physical, social, and economic development of the islands and O'ahu. These plans contain general objectives and policies which establish a framework for more detailed land use planning of regions and communities. They are also intended as the basis for functional plans covering such topics as transportation, housing, and economic development. Policy plans do not contain land use maps and, therefore, rarely become specific in their recommendations regarding a particular site. Hence, our discussion of them is necessarily general.

#### 1.1 The O'ahu General Plan

In 1977, the City and County of Honolulu adopted a new O'ahu General Plan containing 180 policies designed to guide physical development, government operations, and social and economic programs for the island of O'ahu through the year 2000. The General Plan has since been amended to include 18 additional policies concerning energy use and conservation. Many of the policies in the General Plan have little or no relationship to the proposed Kawaiioa Subdivision. Listed below are those policies which do have a bearing on the proposed project. Each is followed by a discussion of the extent to which the proposed development is consistent with the stated policy.

Policy: Reduce, or at most maintain, the 1975 proportions of the island's rural and urban-fringe populations (Population, Objective C, Policy 3).

Policy: Seek a year 2000 distribution of O'ahu's residential population which would be in accord with the following table: [the table shows a year 2000 population for the North Shore Development Plan Area of 11,500] (Population, Objective C, Policy 4).

Discussion: A number of factors make it impossible to determine the project's consistency with the population objective directly. The most important of these include (i) a change in the official year 2000 island-wide population projections (reduced from the 1,039,000 shown in the General Plan to 917,000); (ii) the General Plan's provision that "the population figures may be adjusted to accommodate housing necessary to support resort industry in the various areas of the island" (e.g., Kulima), and (iii) the fact that

the 1975 population estimates on which the General Plan's year 2000 population allocations were based have proven to be erroneous.

However, as part of its work on the Development Plans for the island, the Department of General Planning did prepare updated population targets for the North Shore planning area that it believes are consistent with the intent of the General Plan. These revised population figures were then used in developing the land use allocation map that forms a major component of the North Shore Development Plan (NSDP). Since the Kawaiiloa Subdivision site is designated for residential use on the proposed NSDP adopted by the Council and vetoed by the mayor, we must presume that the City Council (which authorized the General Plan) believes the project is consistent with the General Plan.

Policy: Preserve sufficient agricultural land in Ewa, in Central O'ahu, and along the North Shore to ensure the continuation of sugar and pineapple as viable industries (Economic Activity, Objective C, Policy 3).

Discussion: The project site is zoned for residential use and is adjacent to other property so designated. It has not been used for the cultivation of sugar or pineapple, and surveys by the Soil Conservation Service and Land Study Bureau indicate that the soils present are not well-suited to such use. Hence, urban development on this parcel would not affect the viability of the sugar and pineapple industries.

Policy: Protect Oahu's natural environment, especially the shoreline, valleys, and ridges, from incompatible development (Natural Environment, Objective A, Policy 1).

Policy: Require development projects to give due consideration to natural features such as slope, flood and erosion hazards, and water recharge areas (Natural Environment, Objective A, Policy 2).

Policy: Protect the natural environment from damaging levels of air, water, and noise pollution (Natural Environment, Objective A, Policy 6).

Policy: Protect plants, birds, and other animals that are unique to the State of Hawai'i and the island of O'ahu (Natural Environment, Objective A, Policy 7).

Discussion: The proposed project would extend residential development along the Kawaiiloa shoreline. Its density would be similar to that already present along the area's shore. No development would occur within the 40-foot setback area.

The project would not cause damaging levels of air, water, or noise pollution. Neither would it harm unique biological systems. The design takes into account natural features and would not significantly degrade the natural environment.

Policy: Protect the Island's well-known resources: its mountains and craters; forests and watershed areas; marshes, rivers, and streams;

shoreline, fishponds, and bays; and reefs and offshore islands (Natural Environment, Objective B, Policy 1).

Policy: Protect Oahu's scenic views, especially those seen from highly developed and heavily travelled areas (Natural Environment, Objective B, Policy 2).

Discussion: The proposed project would not directly affect any well-known natural resources. Houses built on the project site would be highly visible from Kamehameha Highway but, since existing vegetation already blocks the line of sight to the shoreline and ocean from the roadway, they would not significantly affect views. Visual impacts are discussed in detail in Section 8.0 of Chapter III.

Policy: Encourage residential developments that offer a variety of homes to people of different income levels and to families of various sizes (Housing, Objective C, Policy 1).

Policy: Encourage residential development in areas where existing roads, utilities, and other community facilities are not being used to capacity (Housing, Objective C, Policy 4).

Discussion: Existing public facilities are capable of accommodating residents of the proposed project. The present proposal involves subdivision and infrastructure improvements only; custom homes would be constructed by purchasers on an individual basis. However, the projected selling price of the improved lots alone dictates that they would not be used to meet the need for moderately priced housing units. While the custom homes would vary in size and character, they would be affordable only by households in the upper-income groups.

Policy: Plan for the timely and orderly expansion of utility systems (Transportation and Utilities, Objective C, Policy 3).

Policy: Require the installation of underground utility lines wherever possible (Transportation and Utilities, Objective D, Policy 5).

Policy: Phase the construction of new developments so that they do not require more regional supporting services than are available (Physical Development and Urban Design, Objective A, Policy 3).

Policy: Require new developments to provide or pay the cost of all essential community services, including roads, utilities, schools, parks, and emergency facilities.

Discussion: Regional utility systems and supporting services would not be overstressed by the proposed project. The on-site infrastructure costs would be paid for by the developer, and on-site utility lines would be underground. The developer would also contribute to the costs of off-site improvements which benefit this project through the park dedication fee, water development charge, etc. Other essential community services would be paid for through tax revenues generated by the project's residents.

Policy: Require all development in areas subject to floods and tsunamis to be located and constructed in a manner that will not create any health or safety hazard (Public Safety, Objective B, Policy 5).

Discussion: The only natural hazard of any significant import for the proposed project is the possibility of tsunami inundation. The height of the tsunami calculated by the U.S. Army Corps of Engineers as having a recurrence interval of 100 years is 18 feet above mean sea level at this location. This would reach across virtually the entire makai row of lots. However, with the existing ground elevation on these lots being 14 to 18 feet, the flooding would not be deep. By raising the homes on suitable foundations, it will be possible to provide adequate protection against property damage and loss of life.

Policy: Encourage the restoration and preservation of early Hawaiian artifacts and landmarks (Culture and Recreation, Objective A, Policy 4).

Policy: Identify and preserve areas of unique cultural and social significance (Culture and Recreation, Objective A, Policy 2).

Policy: Preserve and restore, to the extent possible, buildings and sites of historic and cultural significance, including those on the State and National registers (Culture and Recreation, Objective A, Policy 3).

Discussion: Oceanic Properties has commissioned two archaeological surveys of the site by the Bishop Museum. These have uncovered remains with significant research value, and one archaeological feature, the ko'a on parcel 11-A, which deserves preservation. Steps which could be taken to recover this information, to preserve the ko'a, and to minimize potential adverse impacts on archaeological remains located on nearby land are discussed in Section 9.0 of Chapter III of this report. At this time, no formal commitment to implement further mitigation measures (except avoidance of the ko'a) has been made.

## 1.2 Coastal Zone Management Plan

The Hawai'i Coastal Zone Management (CZM) Act (188/SLH 1977) establishes goals for actions affecting the coastal zone. The State Department of Planning and Economic Development, which is the lead agency for the CZM program, has indicated that six CZM policies are relevant to the proposed Kawaihoa Subdivision. These policies are listed below; accompanying each is a brief discussion of the proposed project's consistency with it.

Policy: Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by encouraging expanded public recreational use of County, State and Federally owned or controlled shoreline lands and waters having recreational value.

Discussion: Because of the rocky nature of the site's coastline, recreational activities here are limited. Therefore, no public access

has been provided in the subdivision plan; however, an easement across lot 10, would allow residents of the subdivision access to the shoreline. Development of the proposed project would preclude the construction of an additional parking lot for Waimea Bay Beach Park on this site, which was one of three alternative sites identified in the Urban Engineering Consultants, Inc. report (January 3, 1978) for the City and County Department of Parks and Recreation. Further discussion of this issue can be found in Section 11.6 of Chapter III and Section 4 of Chapter IV.

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

Discussion: See Section 9 in Chapter III for a description of the archaeological features that are present, an assessment of their significance, and a summary of proposed mitigation measures.

Policy: Identify valued scenic resources in the coastal zone management area.

Discussion: Existing views and the proposed project's impacts on them are described in Section 8 of Chapter III.

Policy: Encourage those developments which are not coastal dependent to locate farther inland.

Discussion: Although a residential subdivision is not coastal dependent, the zoning and Development Plan maps both designate the site for residential use. Since people like to live near the shore, even if this project is not implemented it is likely that residences would eventually be built here unless the parcel is acquired by the Department of Parks and Recreation for a parking lot for Waimea Bay Beach Park. To preserve the site as an open space resource would probably require acquisition by the State or City and County; the parcels to the north and mauka of the site would probably remain in open space indefinitely, given their rough topography and preservation and agricultural zoning.

Policy: Preserve valuable coastal ecosystems of significant biological or economic importance.

Discussion: The ocean bottom fronting the site consists almost entirely of barren lava flows and basalt boulders. Because the wave stress along here is so high, very little coral has become established and therefore, no ecosystem based on coral is possible here. The impacts of grading and cesspool waste disposal, as discussed in Section 3.2 of Chapter III, are not expected to be significant.

Policy: Control development in areas subject to storm wave, tsunami, flood, erosion, and subsidence hazard; ensure that developments comply with the requirements of the Federal flood insurance plan.



Discussion: The proposed development would adhere fully to the restrictions of the Federal flood insurance program. All the houses on the makai tier of lots would be required to be raised above the 18-foot elevation and would have to conform to structural standards intended to protect them against the expected forces of the design tsunami. This issue is discussed further in Section 4 of Chapter III. Erosion, flooding from storm runoff, and subsidence are not significant hazards on this site.

### 1.3 The Hawai'i State Plan

The Hawai'i State Plan, adopted in 1978, consists of a series of broad goals, objectives, and policies which are to act as guidelines for future programs that will determine the growth and development of the State. Because the goals, objectives, and policies are broadly stated, it is difficult to say conclusively that the proposed project is or is not in conformance with any given policy. However, as indicated by the following listing, the discussion of impacts found in this report touches on all of the issues addressed by State Plan policies that are relevant to the proposed Kawailoa Subdivision:

<u>State Plan Reference</u>	<u>Section(s) of EIS where Discussion is Located (in Chapter III unless otherwise noted)</u>
Section 7 Agriculture	Section 2.2
Section 11 Shoreline and Marine Resources	Sections 3.2, 5.0, and 11.7
Section 12 Scenic and Historic Resources	Sections 8.0 and 9.0
Section 13 Land, Air, and Water Quality	Sections 3.2, 4.0, and 7.0
Section 15 Solid and Liquid Wastes	Sections 3.2.6 and 11.6
Section 16 Water Supply	Section 10.1
Section 19 Housing	Section 11.0 and Section 2.4 of Chapter I
Section 21 Education	Sections 11.1 and 11.3
Section 23 Leisure	Sections 9.0 and 11.7
Section 25 Culture	Section 9.0
Section 26 Public Safety	Section 4.0

### 1.4 State Functional Plans

State Functional Plans are intended to provide more detail to the State Plan by addressing specific topics such as energy, water resources, conservation, and housing on a statewide basis. As defined in the 1978 Hawai'i State Planning Act, a functional plan is to set forth "the policies, programs and projects designed to implement the objectives of a specific field of activity when such activity or program is proposed, administered, or funded by any agency of the State." Adoption of the State Functional Plans has been delayed until the 1983 Legislature.

## 2.0 LAND USE PLANS

Land use plans are much more specific than policy plans, primarily because they contain maps relating to the particular area of concern.

Three relatively specific land use plans and controls affect the development of the project. These are: The State Land Use Law, the County Development Plans/Detailed Land Use Maps, and County Zoning.

## 2.1 State Land Use Law

The State of Hawai'i adopted a statewide land use law in 1961 (Act 187/SLH 1961). The law, which underwent major revisions in 1975, forms Chapter 205 of the Hawai'i Revised Statutes. It establishes a State Land Use Commission charged with preserving, protecting, and encouraging the development of lands in the State for those uses to which they are best suited and which would contribute to the health and welfare of the people of Hawai'i.

The law requires the designation of all land into one of four land use districts: Urban, Rural, Agricultural, and Conservation. The Urban District is intended to include "those lands that are now in urban use and a sufficient reserve area for foreseeable growth." The law further stipulates that, "Urban districts shall include activities or uses as provided by ordinances or regulations of the county within which the urban district is situated."

The site of the proposed Kawailoa Subdivision is in the Urban District. As such, any and all uses permitted by the City and County of Honolulu are allowed.

## 2.2 Detailed Land Use Maps/North Shore Development Plan

Prior to the adoption of the new O'ahu General Plan in 1977, a series of land use maps covering most of the island of O'ahu had been adopted as implementation tools for the old (1964) General Plan. Since the new General Plan contains no maps, the old maps were to be retained as guidelines for land use development until the Development Plans for each region of the island were adopted. These old maps, called Detailed Land Use Maps (DLUMs), represented a formal commitment by the City and County to allow the future development of the areas designed on the maps for the uses noted. DLUMs were adopted for essentially all urban areas, but large tracts of land in the State Conservation and Agricultural Districts were not always included in the mapping. The Kawailoa Subdivision site is designated for "Park" use on the DLUM.

For the past several years the County has been preparing Development Plans (DPs) that would replace the DLUMs, as mandated by the 1972 revisions to County Charter. Development Plans for the eight planning areas of the island were adopted by the City Council in November 1981, but all were vetoed by the mayor. The Council overrode the veto on two of the DPs, but not on the North Shore Development Plan and five others. These six DPs have been returned to the Department of General Planning for further work.

According to the City and County of Honolulu Department of Land Utilization (October 14, 1981:2), "the Detailed Land Use Maps (DLUM) are recognized as the official maps until the Development Plans (DPs)

are adopted." However, the Department goes on to note that, "the 'Park' DLUM designation does not affect the owner's ability to develop the parcel because the current R-6 zoning has priority over the DLUM."

### 2.3 Zoning and Subdivision Ordinances

The site of the proposed subdivision is zoned R-6 Residential District. The project would be consistent with all aspects of the Comprehensive Zoning Code and Subdivision Ordinances.

### 3.0 SPECIAL MANAGEMENT AREA ORDINANCE

Pursuant to the provisions of Chapter 205A, Hawai'i Revised Statutes, as amended by Act 176/1975, in November 1975, the Honolulu City Council adopted Ordinance No. 4529 establishing a Special Management Area (SMA). This ordinance contains maps which clearly define the geographic boundaries of the SMA, outlines procedures to be followed in granting permits for development within the management area, and establishes guidelines to be used in deciding upon the acceptability of a proposed action.

The site of the proposed Kawailoa Subdivision lies entirely within the Special Management Area, and it was the Department of Land Utilization's response to a "request for assessment" submitted in compliance with that ordinance that led to the preparation of this EIS.

#### 3.1 Objectives and Policies

Ordinance 4529 was amended in October 19, 1977 to include the objectives and policies of Chapter 205A, HRS (the State's coastal zone management act) as the objectives and policies of this ordinance. A summary of the relevant objectives and policies and a discussion of the proposed project's consistency with them is located in Section 1.2 of this Chapter.

#### 3.2 Guidelines

The ordinance establishing the SMA contains guidelines to be used by the Department of Land Utilization and the City Council in reviewing proposed developments. These are summarized below; the brief comments accompanying them note the relationship of the project to the guidelines.

Guideline A(1): To insure adequate access to beaches, recreation areas and public reserves, the Council may attach conditions to development in the SMA.

Comment: Access to the shoreline for project residents has been provided by an easement through lot 10. Although a condition to provide public access may be attached to subdivision approval, present plans do not propose a public right-of-way because the shoreline fronting the site is rocky and has little recreation potential.

Guideline A(2): This aims to insure that adequate public recreation areas and wildlife preserves are maintained.

Comment: The site has little potential for either of these uses. The site's shoreline is composed of lava boulders, and the amount of wave energy which is focused there is very high. As a result, it is difficult to utilize for recreation. The site does not support an abundance of wildlife or any unusual species and, therefore, does not appear to be suited for a wildlife preserve.

Guideline A(3): This guideline concerns solid and liquid waste management.

Comment: Solid waste generated by the houses in the subdivision would be collected by the City and County Department of Public Works. Disposal would be at the Department's Kawaiiloa landfill or other sites designated by the City. It is expected that individual lot owners would install cesspools for wastewater disposal, although there is a possibility that other approved individual wastewater treatment systems could be employed. The soils have been found suitable for cesspools (Walter Lum Associates, Inc., March 1981), and no adverse impacts on water quality or marine life are anticipated to result from use of cesspools. The State Department of Health has indicated that disposal of sewage into the ground is acceptable subject to satisfactory results from test borings and percolation tests.

Guideline A(4): Landform alterations and building construction should cause minimum adverse effects on water resources, scenic and recreational amenities, and minimum damage from floods, landslides, erosion, siltation and earthquakes.

Comment: Although the erosion rate would increase during construction of the subdivision, no adverse effects on nearshore waters is expected. The nearshore environment is characterized by high wave energy and rapid mixing. Hence, no buildup of sediment or other pollutants along this shoreline would occur. A detailed grading plan, with erosion control measures specified, would be submitted for approval before construction begins. Also, because of the rapid mixing which occurs along this coast, any shoreline discharge of effluent from the cesspools on the site would be effectively diluted. Thus, no adverse impacts on ocean water resources are anticipated.

The recreational amenities of the site are limited. The existing view makai from the highway is blocked by vegetation. The shoreline is rocky and is not suitable for most recreational activities; even walking along it is difficult. Buildings constructed in the subdivision would not be visible from Waimea Bay Beach Park except for the one on lot 11, and the one on lot 10 if a two-story home is built there.

The risks of tsunami inundation for the buildings on the makai tier of lots would be minimized by following the provisions of Chapter 11 of the CZC. There is little danger of landslides or earthquakes affecting the site.

Guideline B(1): This guideline states that development shall be approved only if it has no substantial adverse environmental effect unless such effects are clearly outweighed by benefits to public health and safety.

Comment: As this EIS demonstrates, the adverse effects likely to result from development of the Kawailoa subdivision are relatively minor.

Guideline B(2): The development must be consistent with the policies in Section 3 (which incorporates the Chapter 205A, HRS policies).

Comment: The project's consistency with the relevant policies of the Coastal Zone Management Act (Chapter 205A, HRS) is discussed in Section 1.2 of this Chapter.

Guideline C(1): Dredging, filling, or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon is to be minimized.

Comment: The project does not involve any changes to such water bodies; neither would the shoreline of the site be altered.

Guidelines C(2) and (3): These guidelines seek to minimize reductions in beach or other public recreation areas, or reductions in public access to shoreline areas.

Comment: The coastline of the site is rocky and not suited for use as a public recreation area. Currently, few people utilize this shoreline area, and development of the project would probably not greatly reduce their numbers. The Department of Parks and Recreation has expressed interest in this parcel, but for use as a parking lot, not a recreational site. Other parcels nearby could be used for the proposed expansion of parking facilities for Waimea Bay Beach Park.

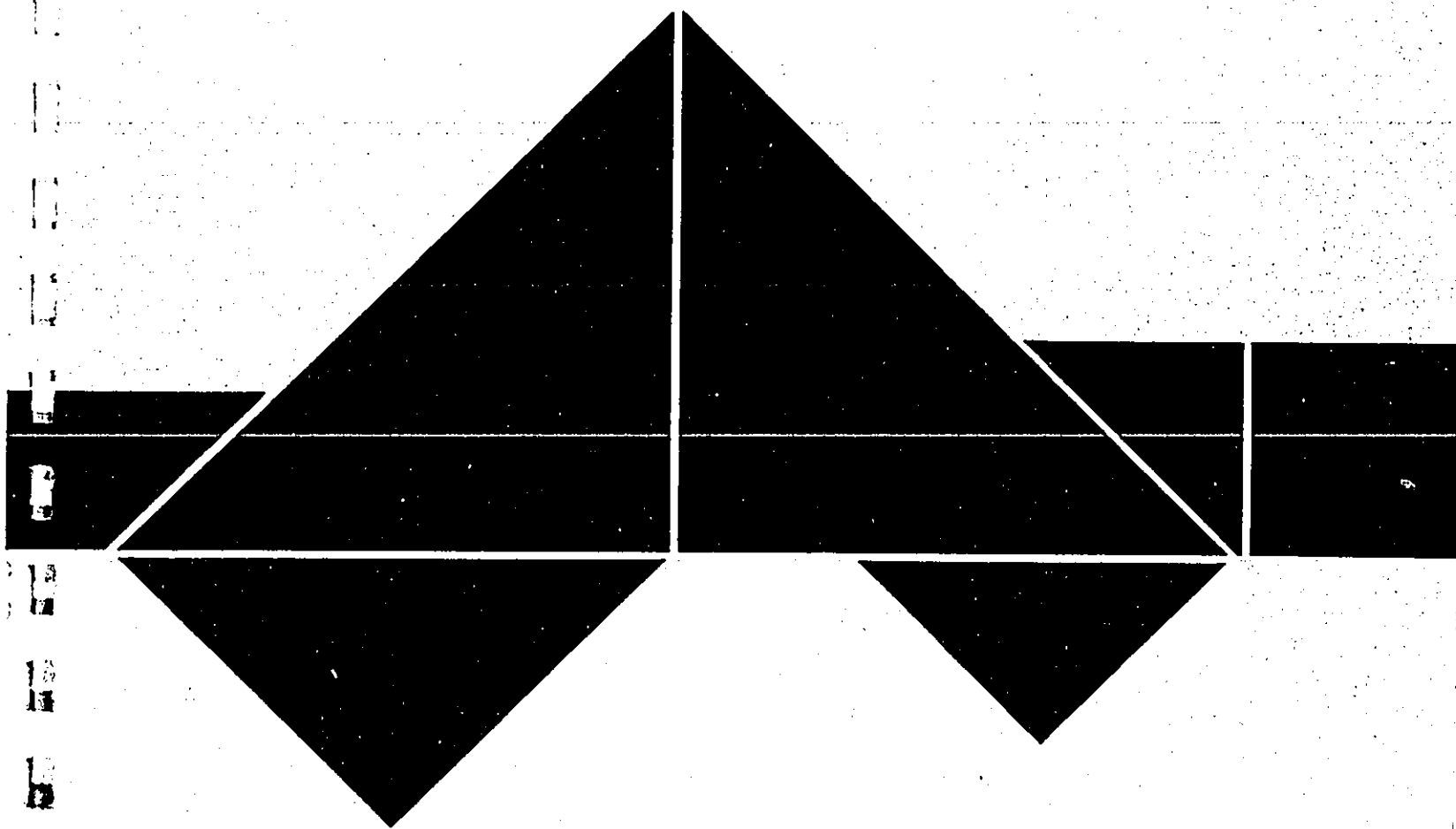
Guideline C(4): Development which interferes with the line of sight toward the sea from the State highway nearest the ocean is to be minimized.

Comment: The thicket of koa haole and kiawe along the site's boundary adjacent to Kamehameha Highway is generally too dense to permit any views makai. There is one "window" of relatively sparse vegetation which allows a glimpse of the distant sea to occupants of southbound vehicles who know where and when to look. The shoreline of the site is not visible. Development of the proposed project would result in the substitution of a lava rock wall for the natural vegetative barrier.

Guideline C(5): This guideline aims at minimizing development which adversely impacts water quality or water resources (including their scenic and biological aspects), wildlife habitats, or potential or existing agricultural uses.

Comment: As shown above and in Chapter III, the project would not adversely impact water quality, water resources, or wildlife habitats. The site is not presently cultivated, and, due to the soil's stoniness, the absence of an economical source of irrigation water, and other factors, the site is not well-suited for agricultural use.

# **Kawaiiloa Subdivision**



**Environmental Impact Statement**

## CHAPTER III PROBABLE IMPACTS

### 1.0 PHYSIOGRAPHIC IMPACTS

The existing physiography of the site is described in Chapter I, Section 1.2. As noted in our description of the project (see Section 2.2 in that same chapter), only minor grading would be required. It would be limited to the proposed roadway alignments, and the greatest change in elevation from existing to proposed would be four feet. In most instances, the grade change for the roadway would be even less. Only a small amount of earth would have to be imported.

The only really significant physiographic change that could result from the project would occur not as a result of the subdivision improvements, but as a result of house construction. And it is only on lot 11, which encompasses the rock promontory on the northern edge of the site, that the construction of a house might involve substantial change to the existing landform. Until a specific design for the site is prepared, it is impossible to determine what the eventual changes might be.

#### 1.1 Mitigation Measures

In view of the minimal topographic changes that are proposed as part of the subdivision improvements, no special mitigation measures are necessary. With respect to the effects that might occur during development of parcel 11, it cannot be ascertained at this time what mitigation measures might be necessary or appropriate. However, leaving the parcel in its present state would result in a number of benefits discussed further in subsequent sections of this report.

### 2.0 SOILS IMPACTS

Preliminary soils investigations and comments received during the preparation of the EIS indicated that there were four major areas of soil-related concerns with respect to the Kawaiioa Subdivision:

- o Its effect on the availability of productive agricultural land;
- o The suitability of the soil for urban use;
- o The suitability of the soils for cesspools; and
- o The degree to which the project might increase erosion and consequently sedimentation in nearshore waters.

The first three of these potential impacts are discussed below. Preceding that is a brief summary of the results of past soil surveys that have included the property. The fourth impact, i.e., the project's effects on erosion and sedimentation, is discussed later in this chapter under the heading "Hydrologic Impacts/Water Quality Effects."



## 2.1 Description of Existing Soils

Two island-wide soil surveys completed in the past 20 years have included the Kawaihoa Subdivision site. The first is by the University of Hawai'i Land Study Bureau. The second is the U.S. Department of Agriculture Soil Conservation Service's survey published in August, 1972. In addition, a site-specific soil analysis was conducted by Walter Lum Associates, Inc. (April 1981) for the proposed project.

2.1.1 Land Study Bureau. In 1972, the University of Hawai'i Land Study Bureau (LSB) published a report entitled Detailed Land Classification - Island of O'ahu. It was intended as a compilation and interpretation of data pertinent to land use decisions regarding the agricultural potential of soils.

Agricultural ratings for the land type on the project site, under both irrigated and non-irrigated conditions, are shown in Table III-1.

Table III-1. Land Study Bureau Soil Productivity Ratings

Land Type	Productivity Class Rating by Use <sup>1</sup>						Overall Suitability
	Pine-apple	Vegetables	Sugar Cane	Forage	Grazing	Orchard	
125	d	d	c	c	d	d	D
125i <sup>2</sup>	d	b	a	b	a	a	B

<sup>1</sup> A and a - very good suitability  
 B and b - good suitability  
 C and c - fair to marginal suitability  
 D and d - poor suitability  
 E and e - very poor suitability

<sup>2</sup> Land types whose symbols include a lower case "i" are the irrigated equivalents of non-irrigated land types with identical numbers.

Source: Hawai'i, University of, Land Study Bureau (December 1972). Detailed Land Classification - Island of O'ahu.

2.1.2 Soil Conservation Service. Unlike the LSB, the Soil Conservation Service (SCS) has identified two soil types on the project site, Waialua stony silty clay, three to eight percent slope, and Kaena stony clay, two to six percent slope (U.S. Department of Agriculture, January 5, 1982; August 1972). Waialua stony clay is shown as occupying

the northern three-quarters of the site with Kaena stony clay situated on the remainder.

The two soils have similar characteristics. Both are very sticky and very plastic, have low shear-strength, and are stony in places. They contain sizeable fractions of montmorillonite clays. As a result, their shrink-swell potential is moderate to high. The SCS gave both these soils a capability classification of III under irrigated conditions; this rating means the "soils have severe limitations that reduce the choice of plants, require special conservation practices or both" (U.S. Department of Agriculture; August 1972:154). The soils have even further limitations if not irrigated.

2.1.3 Walter Lum Associates, Inc. As part of the engineering work for the proposed project, Walter Lum Associates, Inc. prepared a preliminary soil report detailing results of their field and laboratory investigations of the site's soils. The report (April 1981, p. 5) describes the soils as follows:

Surface layers of gray-brown to reddish brown clay (CH soil) and boulders about 5 to 10 feet thick over decomposed rock and clinkers to about 7 to 35-foot depths. Lava rock underlies the surface soil from about 15 to 48 feet, the maximum depths drilled.

## 2.2 Effects on the Availability of Productive Agricultural Land

The project site is not in commercial agricultural use at present. There is evidence of a small garden plot, but this has been abandoned for some time. Inquiries of the State Department of Agriculture and of local residents suggest it has not been farmed within anyone's memory.

The Land Study Bureau rates the soils as being poor for agriculture unless irrigated. The Soil Conservation Service describes the soils as having severe limitations which reduce the choice of crops and/or require special conservation practices. Their stoniness makes them difficult to work with machines, and their high plasticity also tends to hamper tillage. The site has not been designated as land of agricultural importance to the State of Hawai'i. Almost any serious agricultural use would require relatively inexpensive irrigation water, a commodity which is not likely to be available there.

Residential development on the site would not reduce existing agricultural production. In view of the relatively low productivity of the soil, the fact that it is difficult to work, and the absence of irrigation water, it is unlikely that it would be put to agricultural use in the foreseeable future. Hence, the project is not expected to adversely affect the availability of productive agricultural land. Portions of the site are marginally suited for selected crops, however, and the proposed subdivision would preclude their cultivation.

### 2.3 Suitability for Urban Use

Results of the soil investigations conducted by Walter Lum Associates (April 1981) and the information contained in the Soil Conservation Service's survey indicate that the soils on the site have moderate to high shrink-swell potential and relatively low permeability. In addition, a considerable number of boulders would probably be encountered during grading, particularly in the area below the old railroad right-of-way.

The shrink-swell potential of the soil, together with the presence of boulders, constitutes a condition in which heave and differential settling can occur. Care would have to be exercised in designing foundations for homes, and roadways would require a somewhat thicker subbase than is used on non-expansive soils. However, with proper design, no extraordinary problems are expected.

### 2.4 Suitability for Cesspools

Percolation tests conducted by Walter Lum Associates, Inc. (April 1981) showed very good permeability at depths of 15 to 25 feet; they did not directly measure permeability above that point. Information is available from the SCS on permeability in the upper soil zone, however; it indicates that soils in the Waialua series (the soil type which covers most of the project site) are well suited for cesspools. Kaena stony clay, which the SCS has mapped on the surface of lots 1 through 4, is less well suited for cesspools. However, boring data from the Walter Lum study indicates that the soil layer is relatively shallow and is underlain by basalt.

Based on the preceding information, Walter Lum Associates concluded that cesspools are an appropriate means of waste disposal for the project. However, they also noted that generous safety factors and the use of a rock filter between the cesspool lining and the excavation walls should be considered as a means of retarding clogging and extending the cesspool's useful life.

### 3.0 HYDROLOGIC IMPACTS

Residential development can affect the hydrology of an area in a number of ways. After review of plans for the Kawailoa Subdivision and examination of the area's existing hydrologic environment, the following topics were selected for detailed investigation:

- o The site's susceptibility to flooding by stormwater runoff originating mauka of the project site;
- o The development's effect on stormwater runoff volumes and routing;
- o Possible changes in soil erosion and sedimentation in nearshore waters resulting from the proposed new land use; and

- o Potential changes in the quality of coastal waters associated with the use of cesspools for sewage disposal.

These subjects are discussed at length in the paragraphs which follow. The effect of the project on potable water use is discussed in Section 10.1 of this chapter.

### 3.1 Storm Runoff

**3.1.1 General.** The "coastal high hazard area" that is susceptible to tsunami inundation is discussed in Section 4.1 of this chapter. Portions of the Kawaihoa Subdivision site that lie outside of the coastal high hazard area are designated "Zone D" on the U.S. Department of Housing and Urban Development, Federal Insurance Administration's Flood Insurance Rate Map (FIRM) of the area. Zone D is defined as "areas of undetermined, but possible, flood hazards." The designation is given where no significant flooding is known to have occurred, but where detailed hydrologic analyses have not been conducted.

For at least two reasons it is believed that the Zone D designation given the project site can be interpreted as meaning no significant flood hazard. First, and most importantly, a swale along the mauka side of Kamehameha Highway intercepts runoff originating mauka of the project site and carries it to a culvert that crosses beneath the highway about 200 feet southwest of the property (see Figure 1-3). This protects the property from off-site runoff. Second, since detailed hydrologic analyses have been conducted in most settled areas with a record of significant flooding, the very fact that the site has not been studied in sufficient detail to assign more than a Zone D rating suggests the absence of a flood problem.

**3.1.2 On-Site Runoff.** At present, the fill on which the old railroad line was constructed splits the site into two distinct parts (see Figure 1-3). Makai of the roadbed the parcel drains via overland flow directly into the ocean. Runoff originating mauka of the roadbed is diverted along its mauka side into the sump located in the parcel immediately to the south. From there it percolates into the ground.

Grading for the proposed subdivision roads would alter this drainage pattern substantially (see Figure 1-5). Runoff from the makai tier of lots (numbers 4 through 11) would continue to flow directly into the ocean. However, the remainder of the parcel would be affected as follows:

- o The old railroad bed would be breached by the subdivision roads, and runoff originating on lots 12 through 19 would be collected in the roadside gutter and carried to drain inlets;
- o Stormwater from the drains would be channeled into dry wells with overflow discharging into a drainage swale along the boundary between lots 7 and 8 for disposal;

- o A drainage swale would be constructed down the site's southern boundary that would intercept runoff from lots 1, 2, and 3 and prevent it from reaching the adjoining parcel; and
- o As a result of the above, stormwater runoff to the south would be greatly reduced.

In addition to changing the drainage pattern, the project would also affect runoff volumes. It would do this by increasing the percentage of the site covered by impermeable surface, by altering several of the features (e.g., the railroad roadbed, dense vegetation, etc.) which currently tend to retard runoff and increase infiltration. Based on estimates of the hydrologic characteristics of the soils that are present, and the type of development that is proposed, runoff from the site is expected to increase by about 50 to 75 percent (U.S. Department of Agriculture, Soil Conservation Service; August 1972a:7.15, 7.25, and Section 9) as a result of the proposed project.

The subdivision's storm drainage system would be designed to meet the City and County of Honolulu's Storm Drainage Standards. It would reduce, rather than increase, the amount of runoff draining onto adjoining properties. Overland flow from the makai tier of lots and overflow from the proposed dry wells would result in greater discharge along the site's shoreline than is presently the case. However, even for the 100-year storm, the increase in total runoff would probably amount to only six cubic feet per second (cfs) or less during the peak hour, a relatively small flow.

Because of the re-routing that would occur, the increase in runoff entering the water immediately fronting the site would be somewhat greater than this, probably on the order of ten cfs for the 100-year storm event; the increase would be nearly evenly split between overland flow from the makai lots and overflow from the subdivision's dry well disposal system. At the same time, runoff from the site onto the adjoining parcel to the south would be decreased. In view of the fact that this parcel and the adjacent segment of Kamehameha Highway are now subject to periodic flooding, this change appears to be beneficial.

### 3.2 Water Quality Effects

Previous studies have identified many different ways in which a residential project such as the proposed Kawailoa Subdivision can affect the quality of ground, surface, and ocean water. Increased sediment loads may occur as a result of changes made to the drainage network and to the topography and groundcover. Effluent from cesspools can affect the chemical and biological character of groundwater. Surface runoff from the urbanized areas may contain traces of pollutants associated with residential use; these include petroleum and rubber products washed from roadways, and fertilizer, herbicides, and pesticides used in household gardens.

There are no significant surface water bodies (streams, ponds, etc.) on the project site. While the project would probably lead to small increases in roadway pollutants and in the use of fertilizers and

chemical pest controls, the magnitude of the change would be too small to have any significant adverse effect. In view of this, the water quality investigations conducted as part of this study focused on the two areas where a significant potential for adverse effect was believed most likely to exist:

- o Changes in on-site erosion and sedimentation in nearby waters that could accompany development of the Kawaiioa Subdivision; and
- o Changes in the quality of nearshore water produced by discharge from the cesspools serving the project.

**3.2.1 Soil Erosion: Existing Conditions.** Soil loss from the site under current conditions was estimated using the Universal Soil Loss Equation developed by the U.S. Department of Agriculture's Soil Conservation Service (March 1981:53-78). The calculations are summarized in Table III-2.

The estimated average soil loss from the site is believed to average between 0.6 tons and 1.9 tons per acre per year under current conditions. Erosion on the moderately steep eastern corner of the site is probably at least ten times this amount, but most of the material that becomes water-borne as runoff rushes down the steep slopes there is redeposited when the stormwater reaches the much flatter terrain adjacent to the old railroad roadbed.

**3.2.2 Soil Erosion: Construction Period.** As noted elsewhere in this report, the proposed project involves only the subdivision of the land and development of the required infrastructure. House construction will be undertaken by individual buyers and would stretch over a period of years. From the point of view of erosion hazard, then, it is the infrastructure construction phase of the project that constitutes the greatest threat.

Based on the preliminary subdivision plan, it appears that grading might disturb the existing cover on about 1.7 acres of the site. It would also increase the slope length along which sheet and rill erosion could occur. As a result, soil loss during the period of greatest disruption to the groundcover would increase markedly to a rate (calculated on an annual basis) of nearly 15 tons per acre per year. This period would last for less than one year. After that, the regrowth of vegetation would reduce erosion rates.

**3.2.3 Soil Erosion: Completed Development.** It is difficult to make accurate estimates of soil erosion following house construction and landscaping without detailed plans. A rough calculation assuming that 38 percent of the site is covered by artificial, essentially non-erodible surfaces and a "C" factor for the remainder averaging 0.05 indicates that it would probably amount to about 1.2 tons per acre per year. This is only eight percent of the rate estimated for the construction period, but about double the existing rate.

Table III-2. Estimated Soil Loss: Existing Conditions and Construction Period<sup>1</sup>

Location	Area (Acres)	Average Soil Loss Rate (Tons/Acre/Year)	Average Soil Loss (Tons/Year)
<u>Existing Conditions:</u>			
Makai portion of site	2.348	0.46	1.08
Mauka portion of site:			
Eastern corner	0.796	8.48	6.75
Remainder	1.545	<u>0.67</u>	<u>1.04</u>
Total site: No allowance for deposition =		1.89	8.87
Allowance for deposition =		0.56	2.63
<u>Construction Period:</u>			
Makai portion of site	2.348	10.44	24.51
Mauka portion of site:			
Eastern corner	0.796	9.05	7.20
Remainder	1.545	<u>24.12</u>	<u>37.22</u>
Total site: No allowance for deposition =		14.70	68.93

<sup>1</sup> Estimates based on the Universal Soil Loss Equation:  
 $A = (R) \times (K) \times (LS) \times (C) \times (P)$

Where: A = the computed soil loss per unit acre (tons/acre/year)  
R = the erosive rainfall factor  
LS = factor accounting for slope length and gradient  
C = the ground cover and management factor  
P = the erosion control practice factor

Source: Compiled by Belt, Collins & Associates using equations and factors developed by the U.S. Department of Agriculture, Soil Conservation Service (March 1981:53-78).

**3.2.4 Soil Erosion: Mitigation Measures.** The erosion rates reported above for the construction period are on an annual basis. Because erosion is a function of rainfall and because rainfall tends to vary seasonally through the year, soil loss can be limited by scheduling site grading for the dry season. The following example illustrates the effect that timing can have.

It is estimated that roadway construction and re-establishment of groundcover would require approximately six months. The six consecutive months of the year with the highest rainfall (November through April) have nearly three times the average erosive rainfall as the six driest months (May through October). Hence, by starting construction in the spring, it is possible to significantly reduce soil erosion.

Before construction begins, a detailed grading plan would be prepared in compliance with the City and County of Honolulu's grading ordinance. It would identify all erosion control measures that would be taken.

**3.2.5 Sedimentation.** The dry wells that would be used for disposal of stormwater runoff would also act as sediment traps. However, during periods of intense rain when erosion is at its peak, it is likely that runoff would exceed the capacity of the wells and some runoff would find its way to the ocean. At such times the stormwater's average residence time in the dry wells would be too short to allow much of the sediment to settle out. In terms of maintaining their effectiveness for stormwater disposal this is desirable, since sediment deposits within the wells tend to reduce their capacity. However, it means that most of the soil that is eroded would eventually reach the shoreline.

The amount of sediment reaching the ocean from the coastal tier of lots would not change measurably from existing conditions. However, additional soil particles would enter the water off the makai end of the main access road as a result of overflow from the project's storm drainage system. There are a number of reasons why this is unlikely to have a significant effect on the marine environment. The most important of these are:

- o The fact that the change in the volume of sediment is extremely small in comparison with the total amount that reaches the coastline in this area;
- o Coastal currents will spread the slowly settling soil particles over a wide area; and
- o The high wave-energy characteristic of the nearshore environment fronting the project site will periodically remove the small (clay and silt) particles of which the soil is composed, thereby preventing a sediment build-up which could permanently alter the bottom environment;
- o The fact that organisms in the area are already adapted to periodic fluctuations in suspended solids/sedimentation that result from stormwater discharge by the nearby Waimea River.



3.2.6 Water Quality Effects of Cesspools. Present plans call for sewage from the project to be disposed of on-site using individual treatment units. For the purposes of this analysis, we assumed these would be cesspools. These would be installed by lot owners at the time homes are constructed, not by Oceanic Properties, Inc. Hence, it is impossible to state exactly what type of systems will be used. However, since virtually all such units serving other residential development in the region are cesspools, and because cesspools are the least sophisticated treatment system that might be used, this was a conservative assumption with respect to the assessment of water quality effects.

Regulatory Control of Cesspools. The State of Hawai'i Department of Health (DOH) regulates the use of individual wastewater treatment systems. Before approving use of a cesspool, the Department must: (1) determine that the proposed cesspool meets the provisions in Section 7, Chapter 38 of its Public Health Regulations; (2) be shown evidence that the permeability of the soil and water table conditions will permit adequate percolation of effluent; and (3) obtain a determination from the Honolulu Board of Water Supply (BWS) that potable groundwater resources will not be adversely affected.

With respect to the first of these, a letter dated October 1, 1981 from Melvin Koizumi, Deputy Director for Environmental Health, to Belt, Collins & Associates, DOH stated that disposal of sewage into the ground was acceptable for the proposed residential subdivision. This preliminary ruling was made contingent upon the submission and evaluation of data from test borings and percolation tests.

The necessary borings and percolation tests have been made by Walter Lum Associates (April 1981). Results indicate that cesspools will perform adequately in the material that is present.

Finally, with respect to BWS concurrence, a letter from the BWS to Oceanic Properties, Inc. dated December 30, 1981 states that the Board has no objection to the use of cesspools. BWS' nearest wells are more than four miles distant (in Hale'iwa to the south and Waiale'e to the north). A BWS well site in Kawaihoa has been proposed. If the well is installed, it would be 1.6 miles south of the residential subdivision; the quality of the groundwater at the well site would in no way be adversely affected by cesspools in the proposed subdivision. Distance, direction of groundwater flow, and relative groundwater table elevations assure that this will be the case.

DOH is presently formulating Underground Injection Control (UIC) regulations which would determine where wastewater injection wells could be installed. The regulations are in a draft form, will soon undergo a public review, and may be enacted within the year. It is expected that cesspools, rather than injection wells, would be used for wastewater disposal in this project. Also, the basic regulatory intention of the UIC controls - protection of groundwater resources - is already reflected in the current DOH-BWS regulations and approval process described above. For these reasons, adoption of the proposed UIC controls would not significantly alter the status of the proposed project.

Hydrologic Factors. Groundwater beneath the project flows from upland recharge areas toward the ocean. Based on groundwater measurements made at a bore hole approximately 300 feet from the shoreline, it is estimated that the water table beneath the middle of the site stands at an elevation of about 1.6 feet above mean sea level. Water samples taken there showed chloride levels of 500 to 550 mg/l; fluctuations in water levels related to tidal movements showed that there is a direct hydraulic connection between the water table and the ocean via geologic strata of moderate permeability.

Data from bore holes on the site indicate that the underlying rock has an effective porosity of about 0.10 and that pore-space velocity is on the order of 60 feet per day. No "caprock" or other impermeable material is present in the area. Hence, it is believed that water percolating to the water table from cesspools would discharge at or just below the shoreline rather than some distance offshore. Based on the nature of the lavas beneath the site and the absence of any indication of large-scale freshwater discharge along the shoreline, it is estimated that the total groundwater flux in the vicinity of the project site is quite modest.

Summary of Probable Impacts. The available evidence suggests that effluent from on-site cesspools would find its way into nearshore waters, albeit only after undergoing considerable decomposition and filtration while moving through the intervening soil and porous rock. Several factors suggest that this would not have a substantial effect on either nearshore water quality or aquatic life forms.

First, the bottom fronting the site consists almost entirely of lava flows and basalt boulders out to a distance of 600 feet. The only benthic (bottom dwelling) life consists of scattered colonies of porites coral and encrusting coralline algae; together they cover no more than five percent of the surface area. These hardy species are common in Hawaiian waters subject to high stresses from wave action. In short, little marine life is present and what little there is tends to be quite resistant to environmental stress.

Second, and related to the above, wave energy, dramatically attested to by the basalt boulder beach, is the dominant environmental factor in the nearshore region. It accounts for the relative paucity of benthic organisms noted above. Moreover, it insures a high level of mixing in nearshore waters and, therefore, the effective dilution of any cesspool effluent that may be discharged at the shoreline. Because of this, it is extremely unlikely that the effluent would have a measurable effect on water quality or on the limited marine life that is present.

Finally, in comparison to the water quality changes produced by periodic discharges of silt-laden stormwater from the Waimea River which ocean currents carry past the site toward Hale'iwa, the effects of cesspool effluent would be negligible.

#### 4.0 PHYSICAL HAZARDS

The project site was investigated to determine the extent to which it might be subject to physical hazards. Both the topography immediately mauka of the site and the buffer zone created by Kamehameha Highway indicate that landslides and earth slumps are not a problem. This conclusion is supported by records kept by the State Department of Transportation which show there have been no slides across the highway in this location. O'ahu is relatively free of serious earthquakes (it is designated as Zone 1 on a scale beginning at zero and rising to four). New structures which conform to the City and County of Honolulu's Building Code (which they must do in order to receive a building permit) are capable of withstanding the forces that may be expected in such areas.

The North Shore of O'ahu is famous for its large winter storms, and the fact that the "beach" along the project site consists solely of large boulders attests to the high wave energy present there. The sharp transition in slope and groundcover (from vegetated soil to barren rock) that occurs at an elevation of approximately 14 feet above sea level reflects the approximate limit of storm wave effects on the site. Moreover, studies by the U.S. Army Corps of Engineers indicate a run-up from the tsunami with a recurrence interval of 100 years is greater than this. Hence, tsunamis, rather than storm waves, are the controlling factor with respect to residential development. At the same time, it should be recognized that the beach becomes a very dangerous area during periods of high surf and that residents will need to exercise good judgment in their use of it.

#### 4.1 Tsunami Inundation

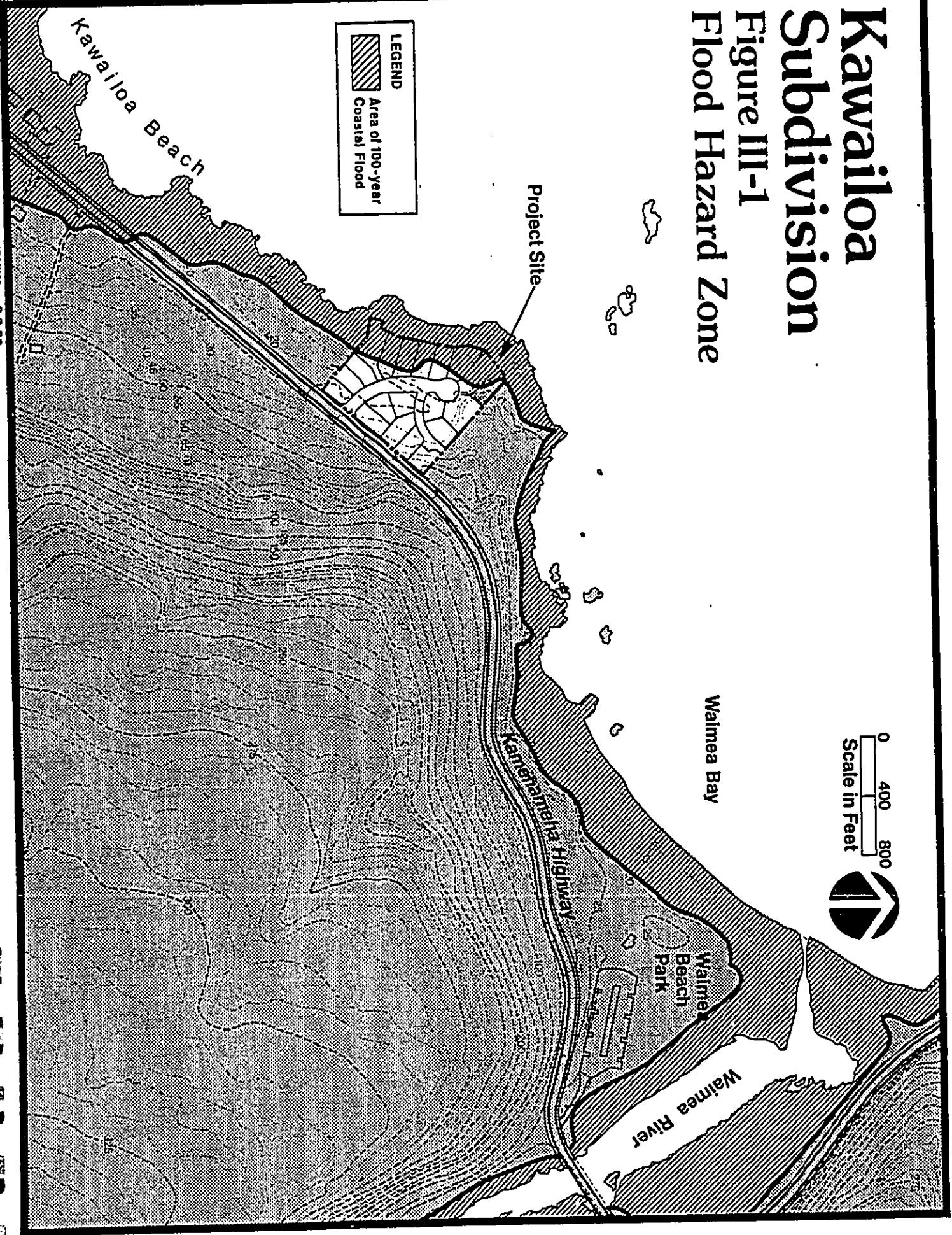
Portions of the project site are subject to inundation by tsunamis which periodically strike O'ahu. Based on studies conducted by Houston, et al. (August 1977 as revised), the U.S. Department of Housing and Urban Development's Federal Insurance Administration has issued maps (dated September 3, 1980) which depict the area that would be inundated an average of once or more every 100 years. This area has been termed the "Coastal High Hazard Area." The map covering the project site indicates that the approximate 100-year tsunami elevation at the Kawaihoa Subdivision site is 18 feet above mean sea level (see Figure III-1). As shown on the grading plan contained in Figure I-5, this is essentially the elevation of the mauka boundary of proposed parcels 4 through 10, and means that, for all practical purposes, those lots fall entirely within the Coastal High Hazard Area.

#### 4.2 Mitigation Measures

In view of the above, the design of structures built on the coastal tier of lots will have to conform to Article 11 of the Comprehensive Zoning Code of the City and County of Honolulu (relating to flood hazard districts). The lowest habitable floor elevation must be at or above the 18-foot flood elevation; construction methods, materials, and practices must be chosen so as to minimize damage from the 18-foot design tsunami; and the use of fill for structural support of buildings is prohibited.

# Kawailoa Subdivision

## Figure III-1 Flood Hazard Zone



SOURCE: Federal Insurance Administration "FIRM" Map 9-3-80

The lots affected by the design tsunami are relatively flat. Their elevation ranges from 14 to 16 feet at the mandatory 40-foot shoreline setback line to 18 feet at their mauka boundary along the road. Hence, homes will need to be raised no more than four feet above the existing grade to meet the conditions of the ordinance. Compliance with the ordinance should afford a reasonable degree of safety for residents and their homes.

## 5.0 BIOLOGICAL IMPACTS

The proposed subdivision involves the urbanization of land that is currently in a natural, albeit disturbed, state. It would lead to the clearing of much of the existing vegetation and its replacement with homes, pavement, and landscaping. The result of this would be a significant change in the ecology of the site. To determine whether or not the change in vegetative cover would cause any significant adverse impacts, a survey of the site was conducted in January 1982 by members of Earthwatch, a Honolulu-based consulting firm. On the advice of the U.S. Fish and Wildlife Service, which noted that no significant native terrestrial animals or birds are known from the area, the survey was conducted by botanists. Only qualitative data regarding the incidence of fauna were gathered.

### 5.1 Vegetation Types

The plants present on the Kawaihoa Subdivision site may be grouped into four general vegetation types. The following subsections discuss each of these types' floristic composition and geographic distribution within the parcel.

Besides the general vegetation cover types, there is one large specimen tree present on the site. It is a Chinese banyan, situated on the mauka side of the rock outcrop that straddles the parcel's north-eastern boundary. The tree has a trunk diameter of approximately six feet, and is a fine example of its type.

**5.1.1 Grassy Shrub Clearings.** The grassy shrub clearings occur primarily on relatively flat land above the old railroad roadbed. This vegetation type is also present along the side of Kamehameha Highway. Tall grasses -- averaging four to six feet in height and dominated by elephant grass (Pennisetum purpureum), California grass (Brachiaria mutica) and guinea grass (Panicum maximum) -- characterize this cover type. Shorter grasses such as wilder grass (Andropogon aristatus), wire grass (Eleusine indica) and Chloris spp. are found in more disturbed areas such as the overgrown road. Shrubs and forbs such as koa-haole (Leucaena leucocephala), pluchea (Pluchea odorata), fuzzy rattlepod (Crotalaria incana), false mallow (Malvastrum coromandelium) and hi'aloa (Waltheria americana) are scattered among the grasses, but they provide less than ten percent cover. The plant species found in this cover type are primarily weedy exotics. The few indigenous species such as hi'aloa and koali-'awania (Ipomoea congesta) which it contains are common native species often found in disturbed coastal areas.

5.1.2 Ironwood Grove. The slightly elevated old railroad roadbed is occupied by a large stand of ironwood trees (Casuarina equisetifolia). They average 25 to 30 feet in height and provide approximately 90 percent canopy cover. The shaded understory is very sparse, with a few weedy forbs and grasses such as pua-lele (Sonchus oleraceus), yellow wood sorrel (Oxalis corniculata) and Chloris spp., and numerous ironwood seedlings. The endemic species huehue (Cocculus ferrandianus) also occurs under the ironwood. Although this species is not rare, again, like many endemics, it is becoming less common in Hawai'i. It is one of the few definitely poisonous native plants - the roots being toxic (Carlquist, 1970).

5.1.3 Shrub Thickets. This cover type is characterized by dense, eight- to 12-foot-high, usually monotypic stands of Indian pluchea (Pluchea indica), Christmas berry (Schinus terebinthifolius) or koa-haole. These thickets generally extend from the coastal strand inland to the ironwood grove or rocky outcrops. A small lantana (Lantana camara) thicket also occurs on the edge of the ironwood grove. Thickets near the highway are characterized primarily by koa-haole with some Christmas berry and kiawe (Prosopis pallida). The few species found in this cover type are weedy exotics, with the exception of 'anapanapa (Colubrina asiatica). This indigenous, shiny-leaved shrub sprawls to form a large stand on the coastal edge of a pluchea shrub thicket. Although it is not a rare plant, it is, like many other native species, becoming less common in Hawai'i. Its leaves lather in water and were used in Hawai'i and elsewhere in the Pacific as a soap.

5.1.4 Coastal Strand. While most of the rocky boulder shore toward the Waimea Bay side of the parcel has little or no vegetation, the coastal area toward the Hale'iwa side is characterized by coastal strand vegetation growing on the coral outcrops. Several indigenous coastal species were found abundantly within this cover type, including ohelo-kai (Lycium sandwicense), hinahina ku-kahakai (Heliotropium anomalum var. argenteum), 'akulikuli (Sesuvium portulacastrum), button fimbriatylis (Fimbristylis pycnocephala), and beach naupaka (Scaevola taccada). Ohelo-kai and hinahina are rare species listed in Fosberg and Herbst (1975), but are not listed in the Federal Register List of Endangered Species. Both of the species are depleted, much less common over their range than formerly, with the depletion being directly or indirectly the result of human activities (Fosberg and Herbst, 1975).

## 5.2 Impacts on Vegetation

As already noted, subdivision and development of the site would normally result in the removal of most of the existing vegetation. However, in view of the fact that the vegetation on the property consists primarily of weedy exotic species common to disturbed low-elevation areas throughout the State, the adverse impact of residential development is expected to be limited to the following:

- o The possible loss of the Chinese banyan tree growing on parcel 11;

- o The destruction of the line of ironwood trees along the abandoned railroad roadbed; and
- o The possible loss and disruption of coastal strand vegetation containing an abundance of native Hawaiian coastal plant species.

5.2.1 Mitigation. Given the topography of parcel 11, it would be extremely difficult to construct a house there without removing the banyan tree. Hence, while leaving the lot in its present state is the surest way to insure preservation of the tree, it is possible that a sensitive architectural design could allow a residence and the tree to co-exist there.

Construction of the proposed roadway requires the breaching of the old railroad roadbed and the ironwood stand which it supports. Because it bisects the site, and because other characteristics of the property (e.g., the rock outcrop, the steepness of its northeastern corner, the limited flexibility with respect to the location of the Kamehameha Highway access road) seriously constrain the number of viable subdivision configurations, maintenance of the ironwoods would require a drastic cutback in the density of development. The developer believes that this would make the project unfeasible.

The lots in the coastal tier are relatively large. It would be possible to insist that homes on them be constructed on their far mauka edge, thereby maximizing the amount of space available to the strand vegetation. (It should be noted that the legal 40-foot shoreline setback requirement already partially provides for this.) Even were this to be done, however, there is virtually no means of insuring that the strand vegetation would be retained as part of the landscaping by the eventual homeowners. Another possible approach to preserving the strand vegetation is to reconfigure the project so that this vegetation type is situated in a common area that is owned and maintained by a homeowners' association, under a deed covenant that protects these plants. However, even this extreme measure is not a sure guarantee of protection because enforcement of the covenant is dependent upon civil action being brought by an aggrieved party rather than on exercise of the government's police powers. Because the coastal strand vegetation does not contain any endangered species, because none of the available preservation techniques appear to be highly effective, and because all of the protective measures would adversely affect the marketability of the lots, no extraordinary mitigation measures are planned.

### 5.3 Impacts on Fauna

As previously noted, the absence of any indication that the site might be a significant wildlife habitat led us to forego a formal survey of the site's fauna. However, mongoose (Herpestes auropunctatus) and house mice (Mus musculus) were seen on several occasions during our site visits. Rats are probably present as well. The scrub vegetation provides shelter and food for common introduced species of birds such as the barred dove (Geopelia striata), northern cardinal (Cardinalis cardinalis), common mynah (Acridotheres tristis), and the house finch (Carpodacus mexicanus). None of the species believed to be present

are rare or endangered, and the reduction and/or change in habitat associated with the proposed project would not have a significant adverse effect on the wildlife population.

## 6.0 TRAFFIC IMPACTS

### 6.1 Existing Conditions

Vehicular access to the entrance of the proposed Kawailoa Subdivision is via Kamehameha Highway. This two-way, two-lane roadway links the town of Kailua with Honolulu via a route that winds along O'ahu's windward and northern coasts to Hale'iwa and then runs across the island's central plateau to Pearl Harbor. In the vicinity of the proposed project it has a 22-foot pavement width and four- to six-foot-wide grass shoulders; the right-of-way width is 50 feet.

The State Department of Transportation estimated that in 1978 the average daily traffic on Kamehameha Highway through Hale'iwa was approximately 14,000 (Hawaii, State of, Department of Transportation, March 1979). Peak traffic typically occurs on weekends between 12:00 p.m. and 3:00 p.m. and is fairly evenly distributed with respect to direction during this period, i.e., 50 percent northbound and 50 percent southbound (Hawaii, State of, Department of Transportation, 1981:C-4). In 1978 peak traffic was 1,580 vehicles per hour (Hawaii, State of, Department of Transportation, 1981:C-6).

Existing traffic volume on weekdays (the only period for which counts closer to the project site are available) are very much lower. The best indication of this is the traffic count made by the State Department of Transportation at Station C-23-E near Kawailoa Road on July 2 and 3, 1979. The 24-hour total was 10,359 vehicles. This is 900 and 1,400 lower than were counted at the same location in the spring and fall of 1978, respectively. The decline is somewhat surprising in view of the fact that July traffic is normally higher than traffic in the other months. It is not known whether the difference represents sampling error or indicates a decline in traffic volume as a result of increased gasoline costs.

Morning peak-hour volume in 1979 at Station C-23-E was 666 and occurred between 11:00 a.m. and 12:00 p.m. The afternoon peak-hour volume of 856 vehicles per hour was experienced between 4:00 p.m. and 5:00 p.m. These are equivalent to 6.4 percent and 8.3 percent of the 24-hour total, respectively. If we assume the 1.12 to 0.95 ratio of average weekend traffic to average weekday traffic reported by the Hawaii State Department of Transportation (1981:I-8), and apply it to the November 1978 total at Station C-23-E, we arrive at an estimated peak-hour volume at that location of about 1,150 vehicles per hour. Allowing for vehicles turning off over the three miles of roadway between the traffic count station and the project site, present peak-hour volume is estimated at 1,000 to 1,100.

The estimated capacity (Service Level E) of the highway is about 1,440 vehicles per hour. Hence, peak-hour traffic is a little over



three-quarters of the roadway's capacity at this point. It should be noted, however, that volume is higher and capacity is lower in Hale'iwa (especially at the narrow Anahulu River Bridge). Construction of the Hale'iwa By-Pass will remove this bottleneck.

## 6.2 Project-Related Traffic

The proposed subdivision would contain 19 single-family homes when completed. Per-unit traffic generation rates vary tremendously between different residential areas depending upon their location, the average number of bedrooms, the socio-economic class of the residents, and other factors. Based on national and local studies (Arizona, State of, Department of Transportation, July 1976; Institute of Transportation Engineers, 1976; Henry Tuck Au - Consulting Engineer, June 1981), it is estimated that the proposed project would generate eight to ten vehicle-trips per unit per day, or 150 to 190 trips per day for the entire 19-unit subdivision. Given the concentration of schools, stores, and other destinations present in Hale'iwa and the fact that persons commuting to work in Honolulu usually travel via Central O'ahu, as much as 60 percent of this traffic will probably be to and from the southwest.

Peak traffic generation is expected to be 15 to 20 trips per hour or about eleven percent of the daily total; this would not occur at the same time as peak traffic on Kamehameha Highway, however. During the weekend afternoons when traffic volume on Kamehameha is at its highest, it is expected that no more than 10 to 15 vehicles would enter or leave the proposed Kawaihoa subdivision. It is estimated that this traffic would be about evenly split between inbound and outbound from the subdivision and between trips to and from the north and trips to and from the south. As a result, the proposed project would add very few peak-hour trips at any one location on the highway.

## 6.3 Impact of the Proposed Project

The proposed project will not add substantially to traffic volumes on Kamehameha Highway. Nevertheless, the fact that peak-hour weekend traffic is already in excess of the roadway's capacity in nearby Hale'iwa is cause for some concern. In fact, the Hawai'i State Department of Transportation's traffic projections for 1985 (March 1979) indicate that continuing development of the area (including the Kawaihoa Subdivision) will increase traffic through Hale'iwa an average of 2.5 percent per year through 1985. Assuming traffic past the project site increases at the same rate, the peak volume in 1985 would be about 1,300 vehicles per hour, or about 150 below the estimated capacity. The proposed project would contribute less than one-two-hundredth of this total.

The entrance road to the proposed project would intersect Kamehameha Highway a short distance before that roadway begins to curve to the right and descend toward the Waimea River. Cars stopped on the subdivision access road waiting to turn onto the highway have essentially unlimited sight distance toward Hale'iwa. However, the available sight-distance in the direction of Waimea Bay is only a bit

over 500 feet. The minimum desirable intersection sight-distance established by the American Association of State Highway Officials and incorporated in the City and County of Honolulu Department of Transportation Services' Traffic Standards Manual (July 1976:19) is 400 feet for a design speed of 40 miles per hour and 500 feet for a design speed of 50 miles per hour. The speed limit on the northern approach to the intersection is 35 miles per hour. Hence, it appears that the location of the proposed intersection is consistent with accepted design standards. By inference, we may conclude that its construction and use would not create an unsafe condition.

#### 6.4 Mitigation Measures

As noted above, traffic from the proposed project would not significantly affect traffic volumes on Kamehameha Highway, and the intersection design is consistent with applicable standards. Hence, there are no adverse effects attributable primarily to the project which require mitigation. Mitigation of problems created by increased traffic from other sources and its implications for the Kawaihoa Subdivision are discussed below.

The most severe traffic congestion in the area at the present time occurs as a result of the very narrow bridge across the Anahulu River at the entrance to Hale'iwa. Construction of the proposed Hale'iwa Bypass would eliminate this bottleneck and significantly improve traffic flow. Traffic generated by other projects along the Ko'olauloa and Kawaihoa coastlines, especially the proposed expansion of the Kuilima Resort, is likely to push the total number of vehicles trying to use Kamehameha Highway far above its capacity by the year 2000. If this traffic is to be accommodated, major improvements to Kamehameha Highway will be required. The nature or extent of these improvements would not be altered significantly by the proposed Kawaihoa Subdivision. However, its development could make it more expensive to widen the highway should that course of action be necessary. This constraint could be reduced or eliminated if additional setback area was provided along the mauka tier of lots, but such an action would have a serious adverse effect on the project and would still leave tremendous problems in obtaining an increased right-of-way along the remainder of the roadway requiring widening.

#### 7.0 AIR QUALITY IMPACTS

The proposed project would affect air quality in a variety of ways:

- o Vehicular traffic to and from the site and construction equipment operating on it would emit pollutants such as carbon monoxide, hydrocarbons, nitrous oxides, lead, particulates, and sulfur oxides;
- o Grading of the site would produce elevated atmospheric particulate concentrations during the construction period; and

- o Electricity consumption by the occupied residential units would lead to increased electrical power generation, fuel consumption, and pollutant emissions at Hawaiian Electric Company's generating plants.

As suggested by the following comparisons, in all three instances the contribution of the proposed subdivision is so small as to be inconsequential.

### 7.1 Vehicular Traffic

The proposed project is expected to generate about 15 to 20 vehicle trips during the peak hours. Since they are expected to be evenly split with respect to direction, traffic on the highway segments north and south of the project would increase by only half this amount, i.e., by eight to ten trips per hour. Total peak-hour traffic on Kamehameha Highway is expected to be over 200 times this amount. Hence, vehicular traffic generated by the proposed project would have an extremely minor effect on total emissions in the area. In view of this, no attempt was made to model the Kawaiiloa Subdivision's effect on air quality.

Air quality modeling was conducted by the State Department of Transportation for the Hale'iwa Bypass Final Environmental Impact Statement. Traffic projections made as part of that study take into account residential growth such as the Kawaiiloa Subdivision. The air quality impact analysis conducted for that study is based on traffic projections for the bypass route. Since traffic on that roadway segment is greater than the traffic volume projected at the project site, pollutant concentrations reported for that segment are higher than they would be along the project boundary. Nevertheless, the figures it presents provide a useful indicator of air quality at the subdivision site.

Results of the air quality modeling conducted using the projected 1985 peak-hour volume of 1,870 vehicles per hour, indicate that, under "worst-case" meteorological conditions, traffic on Kamehameha Highway through Hale'iwa could cause violations of the ten million grams per cubic meter ( $\text{mg}/\text{m}^3$ ) State ambient air quality standard for carbon monoxide (see Table III-3) in Hale'iwa. The less stringent Federal standard of  $40 \text{ mg}/\text{m}^3$  would not be exceeded. Despite projected increases in traffic after that year, pollutant concentrations would actually decline (assuming no relaxation in the standards) as the proportion of vehicles meeting the latest emission standards increases.

Roadway characteristics and meteorological conditions near the proposed project are similar to those in the vicinity of Hale'iwa. However, traffic volumes in the vicinity of the Kawaiiloa Subdivision are considerably lower. Hence, we may assume that violations of the State ambient air quality standard for CO are less likely there than in Hale'iwa. A joint-probability analysis of peak traffic hours and the meteorological conditions needed to produce the highest pollutant concentrations indicates that the peak concentrations reported for Hale'iwa in Table III-3 would occur very infrequently, but they are a theoretical

Table III-3. Projected Carbon Monoxide Concentrations Adjacent to Kamehameha Highway between Weed Junction and Hale'iwa Beach Park

Distance from Highway	Range of Maximum (Worst-Case) One-Hour CO Concentration (mg/m <sup>3</sup> )				
	1978	1985	2001	Amount by which 1985 Concentration Exceeds Existing Standards (mg/m <sup>3</sup> )	
				State <sup>1</sup>	Federal <sup>1,2</sup>
25 feet	10.0-30.7	12.8-40.0	9.5-29.0	2.8-30.0	(27.2)- 0.0
50 feet	12.2-21.1	15.5-27.3	11.1-19.9	5.5-17.3	(24.5)-(12.7)
100 feet	9.6-20.1	12.2-26.0	9.6-20.1	2.2-16.0	(27.8)-(14.0)
225 feet	11.0	14.2	10.2	4.2	(25.8)
300 feet	8.9	11.4	8.6	1.4	(28.6)

<sup>1</sup> The existing State one-hour standard for CO is 10 mg/m<sup>3</sup>; the Federal one-hour standard is 40 mg/m<sup>3</sup>.

<sup>2</sup> Figures in parentheses show the extent to which projected concentrations are below the Federal one-hour standard.

Source: Hawai'i, State of, Department of Transportation, 1981:C-25.

possibility. Pollutant concentrations on the segment of Kamehameha Highway fronting the proposed subdivision would be lower than those reported for Hale'iwa, but very infrequent violations of State standards are still a possibility. It should be noted, however, that these are not expected to have significant adverse health effects. Federal standards would be met by a wide margin.

The number of construction vehicles operating on the site would be small and they would be active over only a short time period; hence, their effect on air quality would not be significant.

## 7.2 Site Grading

As described in Chapter 1, Section 2.2, relatively little grading would be required for the proposed project. Moreover, nearly all of what is required is for on-site roadways rather than house pads. Hence, it would be covered with an impermeable surface very shortly

after being bared. Cut and fill slopes would be stabilized and grassed. As a result, the project is expected to have little effect on airborne particulate levels. Because of its distance from other urban development, dust from construction would not significantly affect other residents.

### 7.3 Electrical Power Generation

Residents of the proposed project would consume electricity from the Hawaiian Electric Company power grid. However, it should be noted that a residential project such as the Kawailoa Subdivision accommodates, rather than produces, population growth. In view of this, it is likely that the total size of the island's population would not be affected by the project. This being the case, electrical power consumption and power plant emissions would not be affected by this development.

Moreover, before Hawaiian Electric Company was permitted to operate its generating facilities it had to demonstrate to appropriate government agencies that the generating units would not cause air quality standards to be violated, even when operating at full capacity. Hence, we may presume that the proposed project would not contribute to air quality problems in the vicinity of the island's electrical power plants.

## 8.0 VISUAL IMPACTS

### 8.1 Introduction

Comments received on the EIS Preparation Notice that was circulated for the proposed Kawailoa Subdivision indicated considerable public concern over the potential visual effects of the project. Because of this, a particularly extensive investigation of possible visual impacts was conducted as part of this study. The analysis had the following objectives:

- o To describe the nature of existing views makai from Kamehameha Highway across the site, of views along the shoreline (especially from public places), and of views toward the site from Waimea Bay Beach Park;
- o To determine ways in which the views identified above would be affected by the proposed project;
- o To assess the project's visual compatibility with surrounding areas and development; and
- o To identify ways in which the proposed subdivision might affect the aesthetic value of the adjacent ko'a.

Each of the subsections which follows focuses on a particular aspect of the issues identified above.

Before closing this introduction, it should be noted that the assessment of visual impacts was complicated by the fact that the "action" proposed by Oceanic Properties, Inc. consists solely of land subdivision and site improvements, whereas the visual impacts of the proposed project would be caused primarily by the structures that are built on the lots. On individual lots, particularly ones located along the shoreline, it may be expected that the individual homes would be architect-designed and would exhibit a range of styles, textures, sizes, etc. Without actual construction plans, it is impossible to know exactly what kind of appearance they would have. In view of this, our analysis focused primarily on fundamental design attributes such as bulk, height, siting, etc. Where it has been necessary to make assumptions in order to reach meaningful conclusions, these have been identified and the basis for them stated.

## 8.2 Views from Kamehameha Highway

8.2.1 Existing. Average daily traffic on Kamehameha Highway near the project site in 1978 was about 14,000. The majority of these trips are made by local residents, but a sizeable fraction are by visitors making scenic tours of the island. Moreover, the periods of heaviest traffic are weekends, and many of the travellers then are local residents on recreational excursions. As a result, maintenance of the quality of views from the highway is of great concern.

The project site currently presents an unremarkable face to highway travellers. The road's shoulder varies from 10 to 15 feet wide; for most of the frontage it is grassed, but a short segment adjacent to the northern boundary consists of crushed coral. Creosoted wooden utility poles approximately 35 feet high carry electrical power and telephone wires. The edge of the shoulder is marked by a dense to moderately dense thicket of 8- to 12-foot-high koa haole interspersed with several larger kiawe trees. Persons in vehicles moving toward Waimea Bay have their views effectively blocked at the roadside by this vegetation and by the bank of the highway cut at the northern end of the property. Occupants of southbound vehicles can, if they know exactly when it is coming and pay close attention, catch a fleeting glimpse of the ocean (but not of the shoreline) through a relatively sparsely vegetated "window" about mid-way along the property boundary. It is probable that most persons do not see it.

8.2.2 Impacts. Development of the proposed subdivision, by which we mean construction of homes and rock walls as well as roads and utility lines, would replace the existing natural barrier with a man-made one. Most significantly, the existing curtain of koa haole and kiawe would be cleared, and it is contemplated that a six-foot-high lava rock wall would be constructed along the mauka boundary of the property. The only break in the wall would occur at the entrance road location. Present plans call for the rock wall to extend around each corner of the project site and to run about ten feet down the side property lines. No decision has been made as yet with regard to landscaping along the wall. However, due to the fact that the wall would lie on five different parcels, and there would be no community association charged with

maintenance of public areas, it appears unlikely that any major landscape planting program would be undertaken by the developer along the wall.

Because the site's natural vegetation already precludes essentially all mauka-makai views, the proposed wall would not significantly change the existing situation in terms of view opportunities. It would alter the visual character of the roadside views because a rock wall would be substituted for a screen of vegetation and tops of single-family homes would be seen against the skyline instead of the tops of the existing trees.

The one opening in the proposed lava rock wall would accommodate the subdivision's entrance road. Occupants of cars passing it would be afforded a brief glimpse (about two seconds if they were travelling at the 35-mile-per-hour speed limit) of homes. The topography is such that even without homes being constructed, the interesting nearshore area is blocked from view out to the distance of at least 600 feet from the shoreline. Once houses are built, ocean views would be completely obscured.

Other sight lines were taken from locations where potential views (i.e., views that are not present now because of the existing vegetation, but which would open up if the roadside trees and brush were cleared) might exist. They indicate that the shoreline of the site itself would be invisible from all locations on the highway even if the area were stripped of all substantial vegetation, but that extensive shoreline areas would be visible in the middle and far distances. Once homes are constructed, however, these views would be lost. Hence, views of the shoreline and ocean would not be improved by omitting the proposed lava rock wall.

### 8.3 Views from Waimea Bay Beach Park

At its closest, the project site is about one-fifth of a mile south of Waimea Bay Beach Park. A number of homes have been constructed along the outer portion of the point that forms Waimea Bay's northern shoreline. The southern part of the bay is totally undeveloped, however, and part of the beach park's charm stems from the relatively limited amount of development that is visible from it. Because of this, a comprehensive analysis was conducted of the impact that the proposed Kawaihoa Subdivision would have on views from it.

**8.3.1 Assumptions.** As we have emphasized elsewhere in this report, the action currently proposed involves only land subdivision and infrastructure development. No house plans are available. Hence, it was necessary to make assumptions regarding these structures in order to conduct our analysis:

- o First floor or pad elevations would be as shown in Figure 1-4;
- o Standard setback requirements of the Comprehensive Zoning Code would be adhered to;

- o Buildings may occupy up to 50 percent of each lot;
- o One-story buildings would be 14 feet high and two-story buildings would be 24 feet high; and
- o Only structures on the nearest tier of lots (i.e., numbers 10, 11, 18 and 19) might be visible - buildings on other lots would be obscured by this line of houses;
- o The buildings were assumed to be sited in such a way as to maximize their adverse effects on views.

These assumptions are severe in that they tend to produce the greatest apparent impact. In reality, the buildings are likely to consist primarily of one-story structures, to have setbacks greater than the minimum, to have roof lines which de-emphasize their height, and could be sited to reduce adverse effects on views.

8.3.2 Impacts. Figure III-2 translates the view toward the project site, from a point at the northern end of Waimea Bay Beach Park, into a silhouette upon which the outline of residential units that could be constructed in the proposed subdivision has been superimposed. Figure III-3 does the same thing for a centrally located viewpoint in the beach park. The northern viewpoint was included because more of the project site is visible from here than from elsewhere on the beach (albeit at 600 feet greater distance than the central viewpoint).

Figures III-2 and III-3 make it clear that structures on the two mauka lots (18 and 19) would be hidden behind the ridge that extends makai from a point on Kamehameha Highway 200 feet to the northeast of the project site. A one-story structure on parcel 10 would be completely hidden as well; but the top few feet of a two-story home on this parcel might be visible depending upon its exact siting and the presence or absence of shrubs along the top of the intervening ridge. Most beach users would probably not detect the structure.

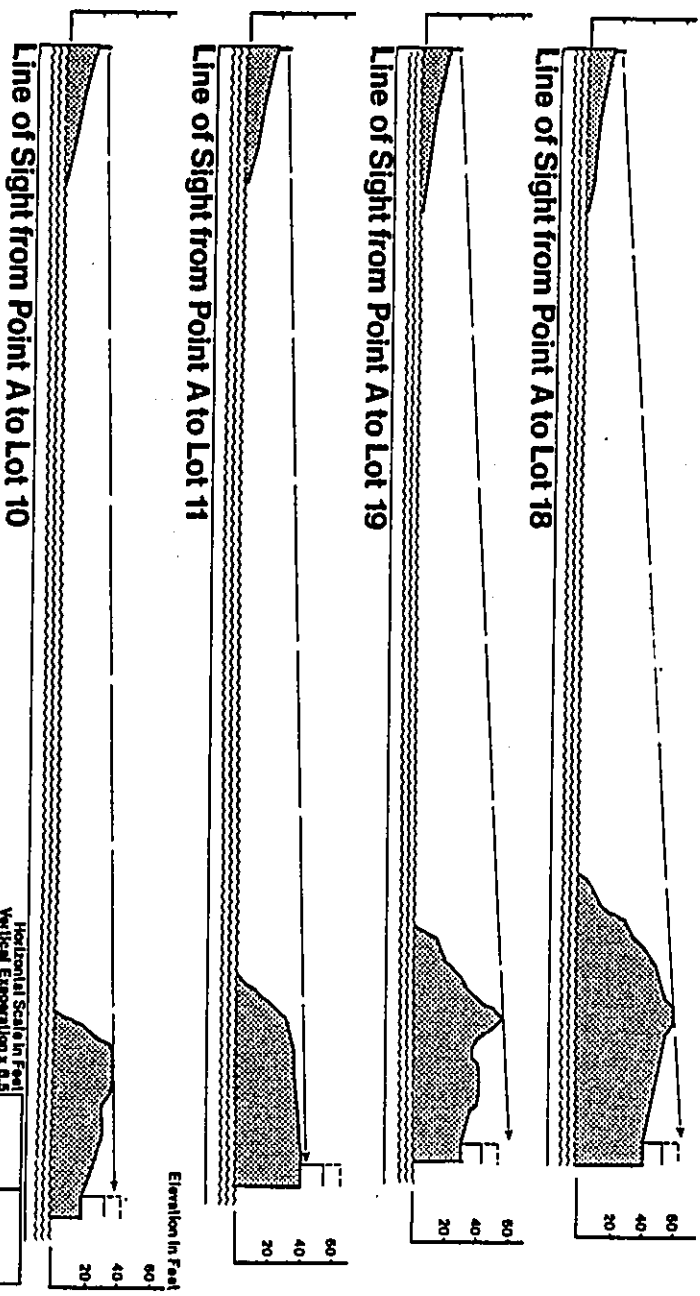
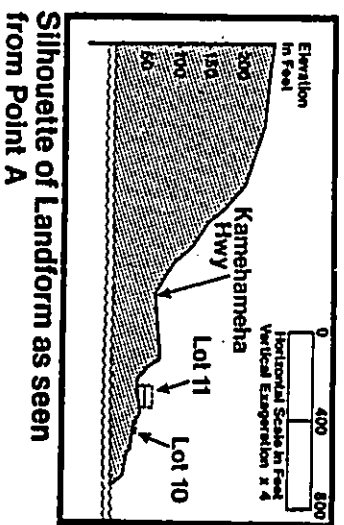
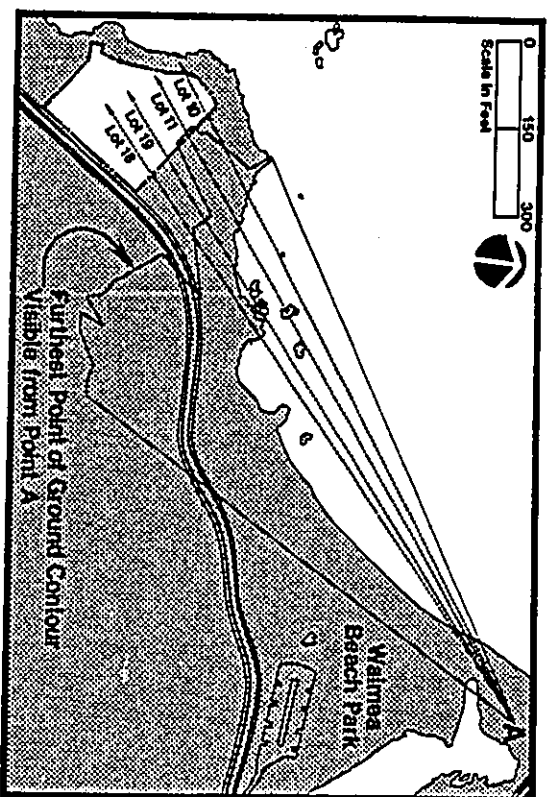
The situation with respect to development on lot 11 is quite different. This lot encompasses nearly all of a rock outcrop which juts about 20 feet above the surrounding terrain (see Figure 1-2). It is a difficult site and would be expensive to develop, but it is also one which affords truly spectacular views. Hence, it is reasonable to assume that it would be developed. Almost without a doubt, at least part of the resulting home would be built on the relatively level area at the top of the rock outcrop. Removal of the large banyan tree on the site would very likely be necessary as well. Thus, the residence would be clearly visible from Waimea Bay Beach Park. The distance that is involved (1,700 to 2,300 feet) would keep the house from being visually dominating, but its presence would be felt. Its effects could be largely mitigated by appropriate tree plantings, but these would tend to obstruct views from the home toward the bay. In view of this, its owner might be unwilling support such a vegetative screen as a mitigative measure.



# Kawailoa Subdivision

## Figure III-2

### View Analysis: Northern Viewpoint

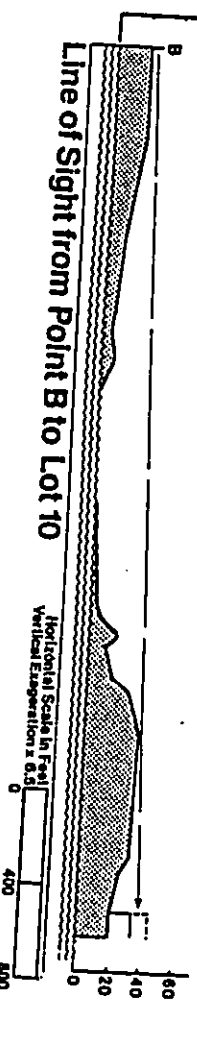
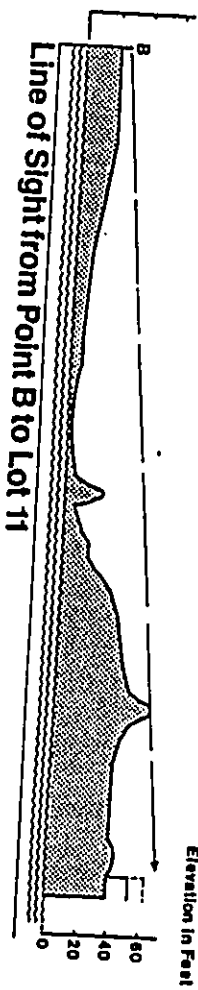
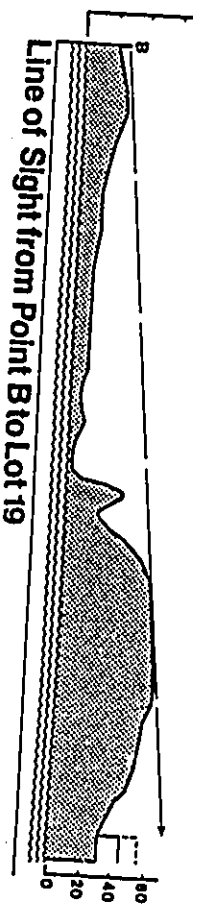
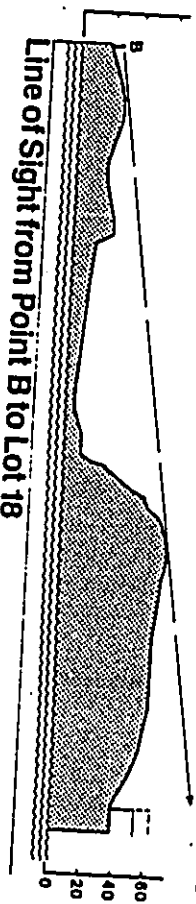
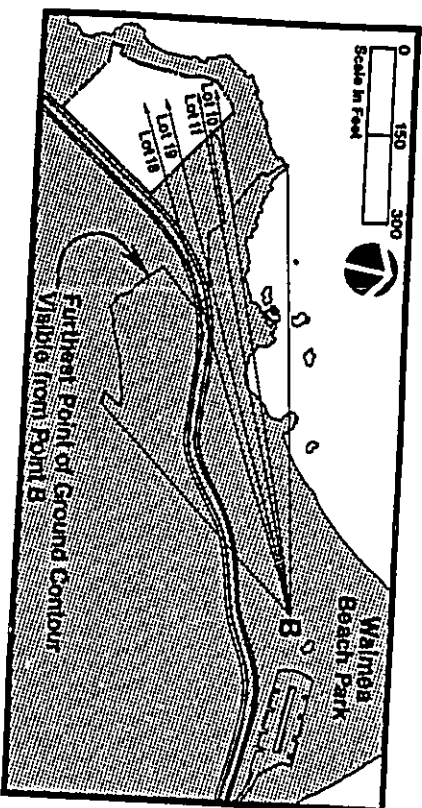
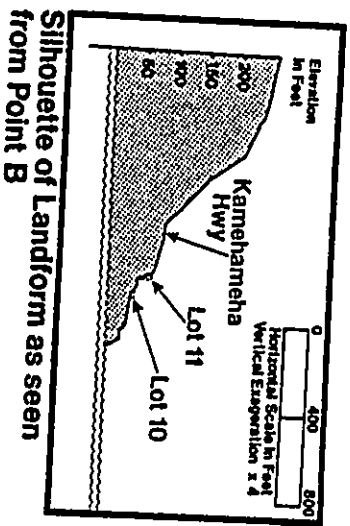


SOURCE: BCA, LTD

# Kawailoa Subdivision

## Figure III-3

### View Analysis: Central Viewpoint



#### 8.4 Views along the Shoreline

The shoreline in the vicinity of the proposed project is composed of large boulders. As a result, there is little use of the shoreline area by recreators, fishermen, or others. Hence, close-up views along the shoreline are not a meaningful consideration. Homes in the subdivision would be visible from some sandy beaches southwest of the property, but the nearest of these is nearly a mile away, and the project's effect on views from them would be negligible.

#### 8.5 Visual Compatibility with Surrounding Development

Except for one house just south of the proposed subdivision, there is no development on the parcels adjacent to the project site at the present time. The parcels to the north and west are likely to remain undeveloped in perpetuity. There is a chance that the parcel on the Hale'iwa side of the property may eventually be developed. Single-family houses similar to those that would be constructed by buyers of the proposed subdivision lots are present along most of the makai side of Kamehameha Highway between Kawaihoa Drive and the project site. Similar homes are found in several clusters situated mauka of the highway beginning a few hundred yards to the south. The proposed Kawaihoa Subdivision would have a visual character similar to this existing development.

### 9.0 ARCHAEOLOGICAL IMPACTS

#### 9.1 Introduction

Clearing, grubbing, grading, and other construction activities associated with the proposed project have the potential to seriously disturb any surface and sub-surface archaeological remains present on the site. To determine the extent of these impacts, Oceanic Properties, Inc. has funded two surveys by archaeologists working for the Bishop Museum. The first of these was a reconnaissance-level survey covering the site of the proposed Kawaihoa Subdivision and the 3.8-acre parcel (TMK 6-1-1:1) adjoining it to the northeast (Welch, April 1981). It was intended primarily to identify any cultural remains that might be present and to recommend a program of preservation and/or archaeological salvage that would insure adequate data recovery or protection for the archaeological sites. The second survey (Athens and Shun, February 1982) was confined to the parcel on which the Kawaihoa Subdivision would be located. It was more intensive than the first and concentrated on the five sites which appeared to have research potential. The remainder of this section summarizes the findings which resulted from that survey.

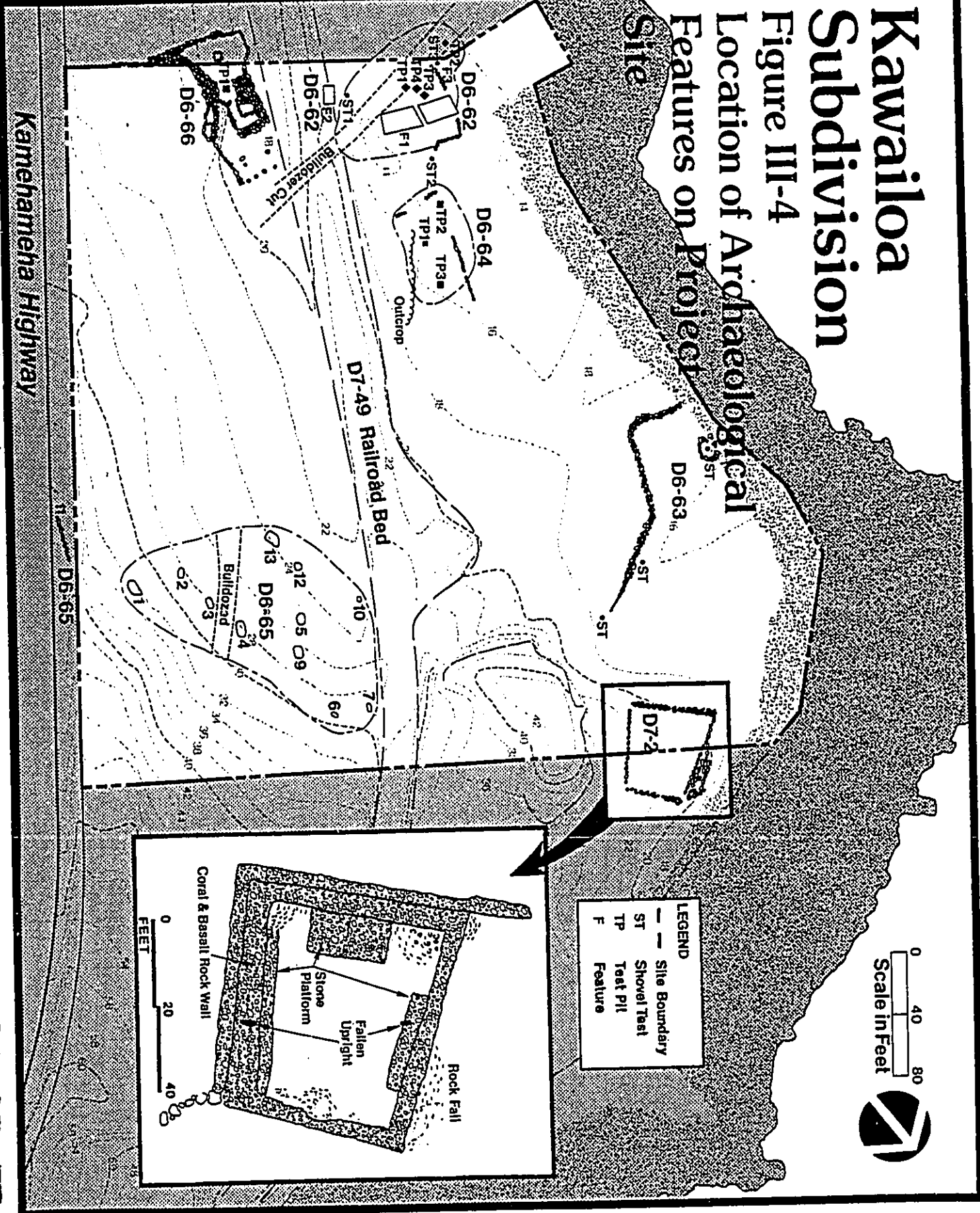
#### 9.2 Description of Archaeological Remains

The locations of the archaeological remains that have been located on the Kawaihoa Subdivision site are shown in Figure III-4. On the basis of information derived from investigation of these remains, Athens and Shun have drawn a number of conclusions regarding previous use

# Kawailoa Subdivision

## Figure III-4

### Location of Archaeological Features on Project Site



SOURCE: Athens, Stephen J. and Kalani Shun (February 1982)

**Kamehameha Highway**

of the project site. These are discussed below. (Note that the site numbers used here were assigned by the Bishop Museum according to their system, where: 50 = State of Hawai'i; Oa = island of O'ahu; D = Waialua District, 7 = ahupua'a of Waimea or 6 = ahupua'a of Kawailoa; the last digit or two represent the unique site number.)

9.2.1 Sites 50-0a-D6-62 and -64. These sites contain midden deposits ("midden" consists of cultural material such as animal bones and shells) left over from previous human use of an area. For the most part, these remains were encountered below, rather than at, the surface. The midden deposits located at sites D6-62 and D6-64 cover about 2,700 and 3,000 square feet, respectively. Site D6-62 was identified as the major area of occupation, and remains found there placed the earliest occupation at least as far back as the 15th century. The midden deposits on site D6-64 are fewer, shallower, and have probably been disturbed by later activities; however, in conjunction with site D6-62 they provide useful information on the nature and extent of the historic occupation of the area.

According to the Bishop Museum's report:

A study of the stratigraphic distribution of the remains indicates that fishing and shellfish collection were important activities throughout the occupation of Site D6-62. Additionally, it is extremely interesting to note that a considerable number of polished basalt flakes and fragments . . . were found [at] site D6-62. They were also a common component of site D6-64. . . . [They provide] evidence for differential use of the same site through time.

Based on their findings, the Bishop Museum concluded that these sites have considerable potential for providing information relevant to important anthropological research questions. Among the topics mentioned were:

- o The reasons for the apparent importance of basalt tool manufacture at this site and the relationship (if any) of this craft specialization with the nearby heiau.
- o The nature of the Hawaiians' exploitation of coastal resources at this site and information useful for typological studies of fishhook manufacture.
- o The kinds of subsistence practices followed in leeward areas of O'ahu.

9.2.2 Site 50-0a-D6-63. This site consists of two elements. The first is a 165-foot-long wall made of stacked coral, basalt boulders, and basalt cobbles. The second is a sixteen- by ten-foot rectangular enclosure created by a low rock wall made of similar material. Their location is shown in Figure III-4. It is not known when these were constructed or what purpose they may have served.

9.2.3 Site 50-0a-D6-65. This site includes 12 stone piles. The first Bishop Museum survey (Welch, April 1981) divided these into four different types: (1) low, rectangular, boulder platforms; (2) low, rounded piles of boulders and cobbles; (3) large piles of cobbles on boulder outcrops; and (4) small piles of cobbles on boulder outcrops. The dimensions of the piles varied considerably: the large ones being about ten by eight by three feet and the smaller piles about five by four by one foot. The archaeological study team investigated one feature of each type but failed to uncover any material that would confirm a prehistoric origin for these features. They concluded that at least some of the piles were constructed during the historic period, possibly during agricultural clearing or in relation to railroad bed construction. A prehistoric origin for other piles could not be ruled out, and the possibility that they could have been used as shrines, boundary markers, or as repositories for stones removed to permit cultivation was mentioned. The Bishop Museum's report concluded that the "undiagnostic nature [of the piles] will probably make it difficult to ascertain indigenous Hawaiian use with any certainty."

9.2.4 Site 50-0a-D6-66. Three probable platforms comprise this site, which covers approximately 6,500 square feet. Some of the walls of the platforms have collapsed, and there are boulders which display machine-drilled blasting holes. Historic artifacts, including barbed wire, concrete, a metal drum, and wooden planks were found on this site. Excavation of a 1.65-foot-square test pit revealed only four items: two glass fragments, an unmodified basaltic glass flake, and a limestone microcore. The last item is a "highly unusual indigenous artifact" (Athens and Shun, February 1982). The historic artifacts and orientation of the site to the old railroad embankment (site 50-0a-07-49 - see description in Table III-4) indicate the platforms were built and used during the historic period. Further research was suggested to determine the construction date, period of use, and function of the platforms, as well as the relationship of the cultural deposit to these.

9.2.5 Site 50-0a-D7-2. This feature is a large, roughly rectangular area enclosed within walls of basalt and coral (see Figure III-4). This site was recorded by McAllister (1933:146-147) as site 244 and identified as a ko'a or fishing shrine. It has not deteriorated significantly since his visit in 1930. Only half of the ko'a is within the project site; the remainder is situated within the parcel which adjoins it to the northeast (TMK 6-1-1:1). According to Welch (April 1981:7), it has always been considered to lie within the ahupua'a of Waimea, although it appears that the ahupua'a boundary passes through the site.

The inner walls of the structure enclose an area of approximately 1,600 square feet. Their length, orientation, and average thickness are as follows:

Wall	Outer Length (ft.)	Orientation	Inner Length (ft.)	Orientation	Avg. Thickness (ft.)
Southeast	54	N37°E	42	N42°E	5.9
Northwest	59	N46°E	47	N47°E	4.9
Northeast	44	N44°W	35	N44°E	5.9
Southwest	51	N46°W	41	N46°W	6.2

The walls are in a generally good condition. Grass covers most of the interior space and land to the south. Low shrubs adjoin it on the remaining three sides; they are also present on the rock platforms and rubble along the interior walls.

According to Welch (April 1981:11-13):

McAllister (1933:146-147) describes this site as Keahu-o-Hapuu, a name that may also refer to the rock bluff and/or lookout. Several legends (or alternate versions of the same legend) refer to the building of this structure by two fishermen to enclose a sacred stone, the image of the god Kaneaukai, that they had caught while fishing (Sterling & Summers, 1978:126-127). According to one of McAllister's informants, this is the sacred stone (Site 242, D7-13) found in a rock shelter above Kupopolu heiau (McAllister 1933:242). Because of the legends concerning this site, it has always been referred to in the literature as a ko'a, a fishing shrine. However, in terms of its physical characteristics, this structure differs from all other fishing shrines on the island of O'ahu. It is far larger than any other ko'a on O'ahu. McAllister (1933:16) points out that only four ko'a on O'ahu are enclosed. Two at Koko Head, built of coral, are about 5 m square; the one at Kahana Bay is 7 by 4 m, and open on the ocean side. In terms of size and form, Site D7-2 structure corresponds more closely with another class of heiau, small walled and terraced temples. Without further investigation, proper classification of this structure is difficult. If Site D7-2 is indeed a ko'a, it is the only one of its kind on O'ahu and probably in the Hawaiian Islands.

9.2.6 Sites on Adjoining Parcel. Oceanic Properties, Inc. also owns the parcel immediately northeast of the project site (TMK 6-1-1:1). This parcel would not be developed as part of the Kawailoa Subdivision project, but it could be indirectly affected. For this reason it was included within the area covered by the Bishop Museum's original reconnaissance survey (Welch, April 1981). Brief descriptions of the sites located on it are given in Table III-4. The locations of the sites are shown on Figure III-5.

### 9.3 Probable Impacts and Mitigation Measures

9.3.1 Direct. Development of the proposed subdivision would result in the destruction or permanent burial of essentially all of the cultural remains present on parcel TMK 6-1-3:26 except for the fishing ko'a (Site 50-0a-D6-2) on lot 11-A. As shown on Figure I-4, that site would be subdivided out of the parcel and consolidated with land in TMK 6-1-1:1.

Table III-4. Sites Recorded on TMK 6-1-1:01 during Previous Surveys

Site No. <sup>1</sup> (50-Oa-__)	Description <sup>2</sup>
D7-1	A tongue-shaped sacred stone embedded in the ground near Kamehameha Highway on the former boundary between the Waialua and Ko'olauloa Districts. Recorded by McAllister in 1930, it was not located by Welch.
D7-2	Ko'a or heiau straddling the parcel boundary. See text.
D7-48	A natural basin in the basalt outcrop, this depression forms a collecting spot for water. It is about 10 by 13 feet.
D7-49	This railbed of the abandoned O'ahu Railway and Land Company line was blasted out of the rock in 1898. Portions have eroded away and fallen into the sea.
D7-50	This feature consists of a nearly circular enclosure formed of basalt rock walls three to five feet high. It may have been an animal enclosure. A line of cobbles, possibly forming a pathway, extends for about 15 feet from the enclosure.
D7-51	This stone wall is approximately 185 feet long and extends in an east-west direction from the railroad bed toward the highway. It probably dates from before 1900. The wall may have been built to restrict the movement of animals.
D7-52	This site consists of two small rock shelters in the makai face of the rock bluff. Some midden deposits are present.

<sup>1</sup> Site numbers were assigned by the Bishop Museum. All numbers are prefaced by 50-Oa- which is the code for State of Hawai'i (50-), island of O'ahu (Oa-). The D = Waialua District, 6 = ahupua'a of Waimea and 7 = ahupua'a of Kawaioloa. The last digit or two represent the unique site number.

<sup>2</sup> Locations of the sites are shown on Figure III-5, except D7-1.

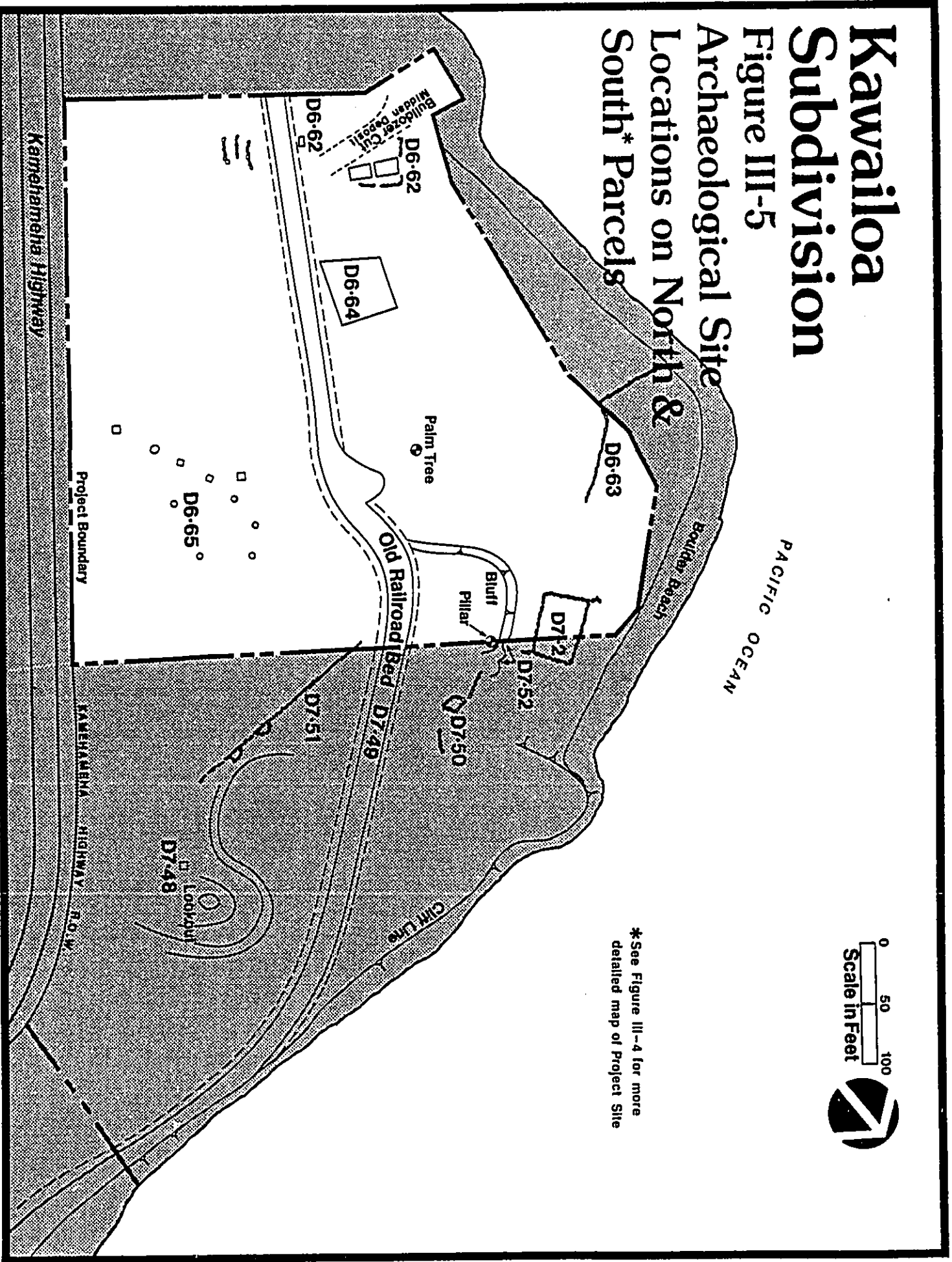
Source: Compiled by Belt, Collins & Associates from Welch (April 1981:7-16).



# Kawailoa Subdivision

## Figure III-5

### Archaeological Site Locations on North & South\* Parcels



\*See Figure III-4 for more detailed map of Project Site

SOURCE: Welch, David A. (April 1981)

Results of the two Bishop Museum studies indicate that, with the exception of the ko'a, all of the known archaeological features on the property derive their significance from the fact that they may yield data relevant to the resolution of certain research questions. In some cases this information can be obtained only by more intensive field surveys and laboratory testing. However, so long as this research is completed prior to the beginning of construction, development of the project would not have any significant direct adverse impacts on archaeological resources. To the extent that they are not undertaken, the Bishop Museum's archaeological study team believes the loss would be substantial.

The Bishop Museum report covering its Phase I archaeological test excavations (Athens and Shun, February 1982:31-33) recommended a number of actions which, if undertaken, would adequately mitigate the potential impacts of the proposed subdivision. Those concerning archaeological remains within the boundaries of the proposed subdivision are reproduced below. Two additional recommendations which are related to the entire property rather than to a single site within it are also listed.

(1) Site 50-Oa-D7-2. This is a heiau or ko'a possessing ethnic, historic, and archaeological significance (see discussion by Welch 1981:28-29). The site must be cleared of vegetation, instrument mapped, and test-excavated (at least 2 or 3 square meters). The determination of the age of this site, along with its structural and artifactual characteristics, is of considerable importance for the understanding of Sites 50-Oa-D6-62 and D6-64 in the south parcel. In addition, to insure protection and preservation, the developer must enclose the entire site with a fence. It is suggested that the fence not be placed less than 10 meters from the site's walls. The developer may wish to consider structural stabilization and restoration as possible options that would further enhance the preservation of this site, besides affording the opportunity for greater public enjoyment.

(2) Site 50-Oa-D6-62. This site is highly significant for the information it may provide on a variety of questions concerning Hawaiian prehistory. In order to obtain a sufficiently large sample of midden and artifacts, at least 25 square meters should be excavated (approximately 16% of the estimated 150 square meters of remaining archaeological deposits). In addition, Features 2 [stone-lined depression] and 3 [low stone wall] should be test-excavated or trenched. Prior to the initiation of the excavation project, the cement foundation (Feature 1) should be removed to enable excavations in this area.

(3) Site 50-Oa-D6-63. Both the wall and the enclosure should be trenched. Additional field investigations need not be undertaken.

(4) Site 50-Oa-D6-64. This site is highly significant for the information it may contain concerning Hawaiian pre-history. However, as the archaeological deposits appear to be disturbed by recent activities, it is suggested that excavations of 10 square meters would provide an adequate sample of archaeological materials (this would amount to approximately 4% of the deposits).

(5) Site 50-Oa-D6-65. Phase I archaeological investigations have suggested the likelihood of recent historic construction of some of the stone piles, and the probable indeterminate nature of others. As such, it is felt that further extensive field investigations are unwarranted; however, a few more piles should be dismantled to confirm previous results.

(6) Site 50-Oa-D6-66. Pending the results of the . . . recommended historical investigations, it may be necessary to conduct excavations at this site. Specific recommendations for field investigations, therefore, must be deferred until after completion of the historical study.

(7) A study of historical documents, publications, and other source material (possibly including informant interviews) should be undertaken to obtain information on prior land-use activities at the two parcels. Such a study may prove especially useful for understanding Site 50-Oa-D6-66, but it may also be helpful in providing information about other possible historic features on the parcels (for example, Features 1, 2, and 3 of Site 50-Oa-D6-62, Site D6-63, and Site D6-65).

(8) An archaeologist should be present as a monitor at all times when land modification is being undertaken (i.e., bulldozing, grubbing, grading, trenching, etc.). This monitor would have the authority to halt construction activities should it be his or her opinion that further archaeological investigations are necessary as the result of disclosure of previously unsuspected archaeological deposits.

Implementation of all of the Bishop Museum's recommendations would be extremely costly. The bill for additional research alone has been estimated at \$50,000; fencing the ko'a, providing continuous monitoring during construction, restoration activities, and other items recommended by the Bishop Museum would push the total costs far higher. Because of this, a commitment to a specific mitigation plan will not be made until its cost has been fixed and its effect on the financial viability of the project more fully explored. Based on the fact that the Bishop Museum's recommendations may not be fully implemented, it appears that the project could affect some of the archaeological remains that are present. At the same time, it should be noted that it is unlikely that the research value of any of the sites would be realized if

the subdivision is not implemented. This is so because Oceanic Properties, Inc. will not pay for further archaeological work unless it is allowed to pursue its development plans and because funding from public sources is not available.

9.3.2 Indirect. The effects listed above concern remains that are present (in whole or in part) on the project site. Arguing that sites on the adjoining parcel (TMK 6-1-1:3) ". . . will undoubtedly be affected indirectly by the south parcel (TMK 6-1-3:26) development," the Bishop Museum's report (Athens and Shun, February 1982:31) also discussed the sites located on it, and where appropriate, recommended mitigation measures for them.

(1) Site 50-Oa-D7-48. This site is a natural water hole (Welch 1980:13). No further archaeological investigations are necessary.

(2) Site 50-Oa-D7-49. This site is the railroad bed. It has been adequately mapped and described by Welch (1981) and further investigations are not necessary.

(3) Site 50-Oa-D7-50. This site consists of a stone enclosure and pathway. As the enclosure could be either a prehistoric or early historic structure, instrument mapping and test-excavation should be undertaken.

(4) Site 50-Oa-D7-51. Stone wall with two connecting enclosures. Welch's research (1981:16) indicates that this site was probably constructed prior to 1898. It should be instrument-mapped and test-excavated.

(5) Site 50-Oa-D7-52. This site consists of two small rock shelters. As there are indications that they could contain archaeological deposits, they should be instrument-mapped and test-excavated.

Athens' and Shun's (February 1982:31) recommendations concerning mitigation of adverse indirect impacts are based on Welch's (April 1981:27-28) finding that a residential community on the south parcel (TMK 6-1-3:26):

will afford easier access to the sites on the north parcel, thereby increasing "the danger of vandalism, either willful or through non-malicious activities of adult visitors or of children playing at the site."

The effects referred to above are clearly possible, but it is not practical to accurately estimate the magnitude of the risk.

Oceanic Properties, Inc. believes that the risk is small and that its only obligations regarding the archaeological remains on this adjoining parcel are (1) to take reasonable steps to insure that persons do not trespass on the property and (2) to make the sites available to qualified archaeologists who might wish to undertake legitimate research there at their own expense. This could mean that the potentially adverse indirect effects would be unmitigated and that, over time, the remains would be damaged or lost. It should be noted that such indirect effects are a common consequence of all development, and the attention that was given to features on parcel 6-1-1:1 was largely a function of the fact that Oceanic Properties, Inc. happened to have included it in the scope of work for the reconnaissance survey of the Kawaihoa Sub-division site.

**9.3.3 Unresolved Issues.** If all of the mitigation measures recommended by the Bishop Museum were performed, the adverse impacts of the development would presumably be satisfactorily alleviated. Since the developer has not agreed to implement any of the recommendations at this time, it is likely that there will be some adverse impacts on the area's archaeological resources. The developer is willing to meet with responsible City and State agencies to resolve what further work should be done, and a final assessment of the project's impacts must await the outcome of these negotiations.

## 10.0 IMPACTS ON PUBLIC UTILITIES

### 10.1 Water Supply

As indicated in Chapter I, it is expected that the proposed project would tie into the Honolulu Board of Water Supply's existing water system. More specifically, it would tap the existing 16-inch water main that runs along the mauka side of Kamehameha Highway. Based on the Board's standard planning figure of 500 gallons per unit per day, it is estimated that average water consumption by the project would be a little less than 10,000 gallons per day.

On February 27, 1981, the State Board of Land and Natural Resources designated the Waialua District as a Ground Water Control Area (GWCA). The Waialua GWCA was divided into three subareas, one of which, the Kawaihoa Subarea, contains the site of the proposed Kawaihoa Subdivision.

The Board of Water Supply has two certified sources in the Waialua GWCA -- the Waialua and Hale'iwa wells. Their respective "preserved uses" are 1.73 mgd and 1.00 mgd. In 1980, average pumping was 1.67 mgd (Honolulu, City and County of, Board of Water Supply, October 28, 1981). Hence, approximately one mgd of additional water is available from existing sources.

The Board of Water Supply is not making any advance water commitments for proposed developments. Instead, the availability of water is being determined on a case-by-case basis when construction drawings are submitted to it for review and approval. Moreover, the Board is insisting that all necessary land use approvals be obtained from the Department of Land Utilization (DLU) before it will act on applications. Since the SMA permit application for the Kawailoa Subdivision will not be processed until an EIS has been accepted, it is not possible to obtain final Board approval at this time.

The GWCA regulations insure that pumpage of groundwater will not exceed the sustainable yield of the aquifer. In view of this, we may presume that BWS approval for the Kawailoa Subdivision would only be granted after it has first been determined that no adverse impact on the groundwater resource would result.

### 10.2 Sewage Disposal

According to the City and County of Honolulu Department of Public Works (October 8, 1981), there are no plans to provide municipal sewer service in the project area in the foreseeable future. Hence, Oceanic Properties, Inc., is proposing the use of cesspools to dispose of sewage from homes constructed in the Kawailoa Subdivision. Letters have been received from both the Hawai'i State Department of Health (October 1, 1981) and the Honolulu Board of Water Supply (December 30, 1981) indicating that subsurface disposal of sewage from the project via cesspools is acceptable to them.

Potential water quality effects of cesspool effluent have been analyzed in some detail by Belt, Collins & Associates (December 1981). Results of this analysis are summarized in section 3.2.6 of this chapter. They indicate that no significant adverse effects are likely from this form of sewage disposal, a conclusion which supports the judgments made by the Department of Health and the Board of Water Supply. Percolation tests conducted by Walter Lum Associates (April 1981), consulting soils engineers, indicate that cesspools will function satisfactorily in the soils that are present.

### 10.3 Electrical Power and Telecommunications

The existing overhead lines along Kamehameha Highway will bring power and telephone service to the project site. On-site distribution would be underground. The systems have sufficient capacity to accommodate the extremely minor increase in demand that would result. Moreover, since the project is expected to accommodate population growth rather than to generate it, it would not affect the overall demand for service or the amount of electrical power that would have to be generated.

The proposed project involves only land subdivision and infrastructure improvements. Nearly all of the electrical power requirements are determined by the characteristics of the homes that are eventually constructed on the individual lots, particularly the extent to which they incorporate solar water-heating units and other energy-saving devices.

Since the design of the homes is not presently known, a more detailed analysis of this subject cannot be made at this time.

## 11.0 IMPACTS ON PUBLIC FACILITIES AND SERVICES

### 11.1 Schools

The Kawaiiloa Subdivision would be served by Hale'iwa Elementary School for grades kindergarten through six and by Waialua Intermediate and High School for grades seven through twelve. According to the State of Hawaii Department of Education, the proposed 19-lot Kawaiiloa Subdivision "will have a negligible effect on student enrollment for schools in the area." In quantitative terms, the Department estimated that it would generate from two to six elementary school students, or from 0.4 to 1.1 percent of Hale'iwa Elementary School's projected enrollment for the 1985-1990 period. The projected enrollment impact on Waialua Intermediate and High School was zero to four, or less than 0.4 percent of the total enrollment that is expected. Other figures supplied by the Department of Education indicate that projected enrollment with the proposed project would be at or below current (1981-82) levels. In view of the above, no adverse impacts on schools are expected.

### 11.2 Health Care Facilities

Regular medical services are available at clinics and doctors' offices in Waialua and Hale'iwa. A small private hospital is situated in Kahuku, about eight miles to the northeast; Wahiawa General Hospital is about 14 miles from the site and can meet residents' needs for acute-care facilities.

### 11.3 Library Services

The nearest public library is situated in Waialua, about six miles southwest of the project site. Operated by the State Department of Education, it is classified as a regional library. Through the inter-library loan system, users have access to any book in the State system. The library can meet the needs of the project's residents without difficulty.

### 11.4 Police Protection

Police service for the proposed subdivision would be provided primarily by officers operating out of the District police station in Wahiawa. This district encompasses Mililani, Wahiawa, and the North Shore. In a letter dated October 2, 1981, Police Chief Francis Keala stated that the Department's only concern was that the entrance road be situated as near to the Hale'iwa end of the parcel as possible in order to avoid possibly hazardous movements of vehicles onto Kamehameha Highway near the curve by Waimea Bay. As can be seen from Figure I-4, this has been done.

### 11.5 Fire Protection

Fire protection for the site is provided by the Honolulu Fire Department. The Department's Sunset Beach Fire Station is situated on Kamehameha Highway about 1.3 road miles north of the Kawaihoa Subdivision site. The response time was estimated by Fire Chief Melvin Nonaka (October 7, 1981) at three to four minutes. This makes it one of the better-protected areas on the North Shore. Supportive service would be provided by the Waialua Fire Station.

Water for fire fighting would be provided by on-site fire hydrants installed at the same time as the other subdivision improvements. These hydrants would meet minimum standards specified by the Honolulu Board of Water Supply (March 1977).

In view of the provisions noted above, it appears that adequate fire protection is available from existing facilities.

### 11.6 Solid Waste Collection and Disposal

Solid waste is expected to be generated by the eventual residents of the subdivision at a rate of about 3.5 pounds per person per day, or approximately 250 pounds per day for the entire project. The refuse would be collected at curbside by the City and County of Honolulu Department of Public Works (October 8, 1981). Initially, refuse would be disposed of at the Kawaihoa sanitary landfill. It is expected that disposal would eventually be at a resource recovery facility located in leeward O'ahu. No significant adverse impacts are expected.

### 11.7 Recreational Facilities

The proposed project would increase the resident population of the North Shore by approximately 60 to 75 persons. As a result, use of existing neighborhood recreational facilities would increase slightly. The developer intends to make a cash payment to the City and County pursuant to the Park Dedication Ordinance. This money may be used to improve or expand public recreational facilities. In addition, a private easement would be established along the edge of parcel 10 to provide residents of the subdivision direct access to the shoreline (see Figure I-4).

Because of its natural beauty, wide beach, and other attributes, Waimea Bay Beach Park has become one of the island's most popular recreational areas. The belief that expansion of the park might one day be desirable is reflected by the "Park" designation given a 10- to 15-acre coastal area southwest of the existing park on the old Detailed Land Use Map (DLUM) of the area. The site of the proposed Kawaihoa Subdivision lies within the area designated for park use on that map.

As a result of Waimea Bay Beach Park's popularity, its 84-stall parking lot is unable to accommodate many of the park's users. Consequently, many recreationists must park along Kamehameha Highway and walk a considerable distance along the roadway's shoulder to reach the park. In recognition of this problem, the City and County of Honolulu



Department of Parks and Recreation commissioned the consulting firm of Urban Engineering Consultants, Inc. to conduct a study of the feasibility of expanding the parking facilities at the park. The study report (dated January 3, 1979) identified three sites that could be developed to provide additional parking (see Figure III-6). One of these, "Site A," includes the Kawaiiloa Subdivision site, as well as the 3.8-acre parcel adjoining it to the north and approximately 1.2 acres of land immediately to the south. "Site A" was estimated to have the highest total cost of any of the alternatives, but it was also found to have a number of offsetting advantages.

Because of the DLUM designation and the recommendation made in the parking lot feasibility study, the following question was included in the request for comments transmitted to the Department of Parks and Recreation together with the EIS Preparation Notice/Environmental Impact Assessment for the Kawaiiloa Subdivision project:

The old Detailed Land Use Map (DLUM) for the site designates the area for "Park" use. However, the existing County zoning is R-6 Residential. . . . Does your Department expect that the site of the proposed subdivision would be acquired and/or used for park purposes within the foreseeable future? If so, would you please describe the nature of your plans for it? [Belt, Collins & Associates, September 25, 1981.]

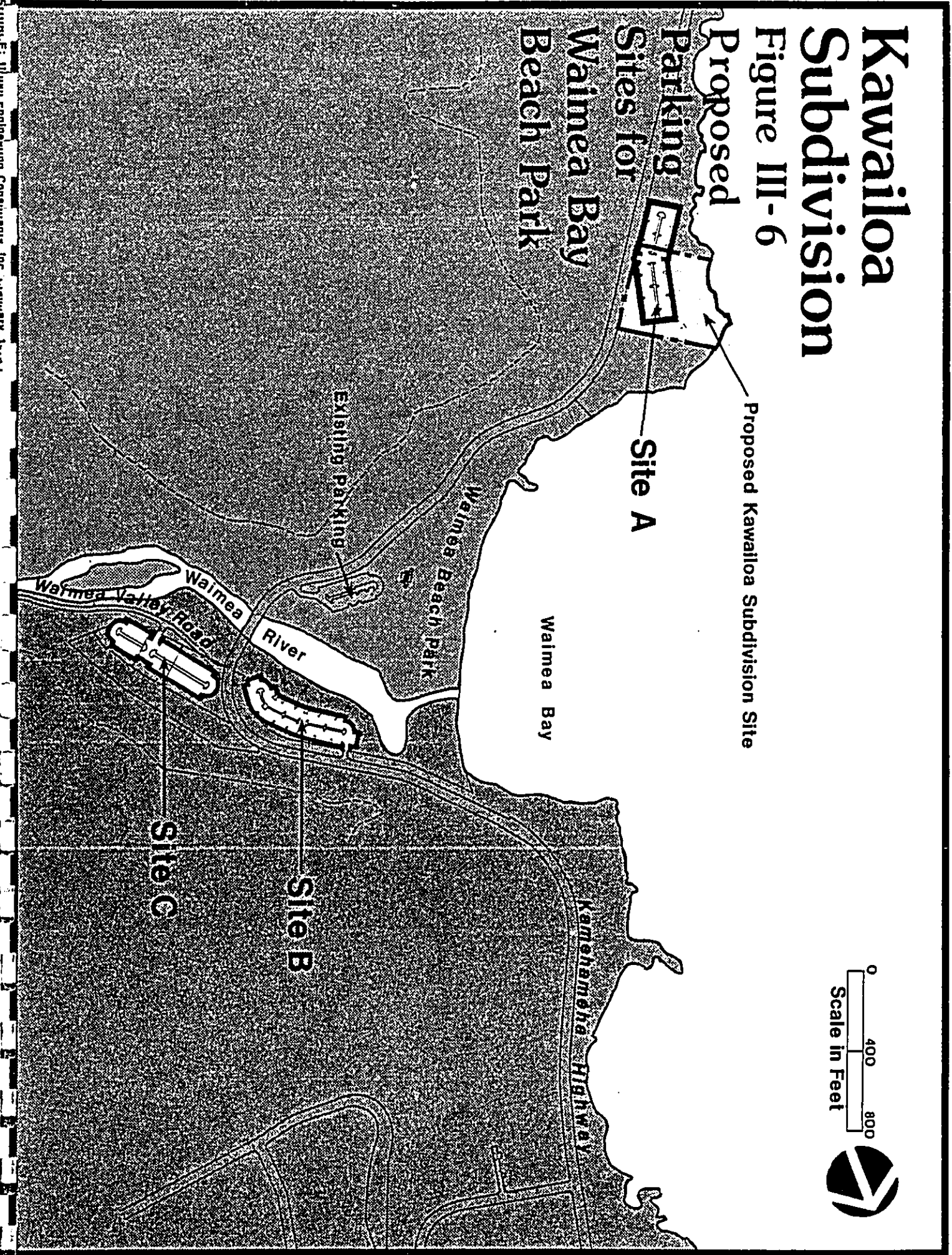
In addition, a meeting was held on October 21, 1981 with representatives of the Department to discuss the proposed subdivision as it related to any plans they might have for expansion of Waimea Bay Beach Park. The Department also received a copy of the draft EIS for review and comment.

No written response to our letter of September 25, 1981 was received. However, at our October 21, 1982 meeting with staff of the Department of Parks and Recreation, we were informed that the area identified as "Site A" in the Urban Engineering Consultants, Inc. report (January 3, 1978) was tentatively scheduled for acquisition during the City's 1983-1984 fiscal year and that construction of a parking lot would be initiated as soon thereafter as funding permitted. Oceanic Properties, Inc. expressed a willingness to enter discussions immediately regarding the terms of acquisition, but was told that the Department was unable to make any formal commitment concerning the property at that time. In view of this, the developer indicated that it would be necessary to continue with efforts to implement the proposed 19-lot subdivision. In response to a request for comments on the draft EIS, the Department of Parks and Recreation wrote to the Department of Land Utilization on June 10, 1982 indicating that they still plan to acquire and develop the Kawaiiloa subdivision parcel but that owing "to current fiscal shortages, it appears unlikely that the City will be able to acquire this parcel in the immediate future."

If the proposed Kawaiiloa Subdivision is constructed as now proposed, the option of using "Site A" to expand the number of parking stalls available to users of Waimea Bay Beach Park will be eliminated.

# Kawailoa Subdivision

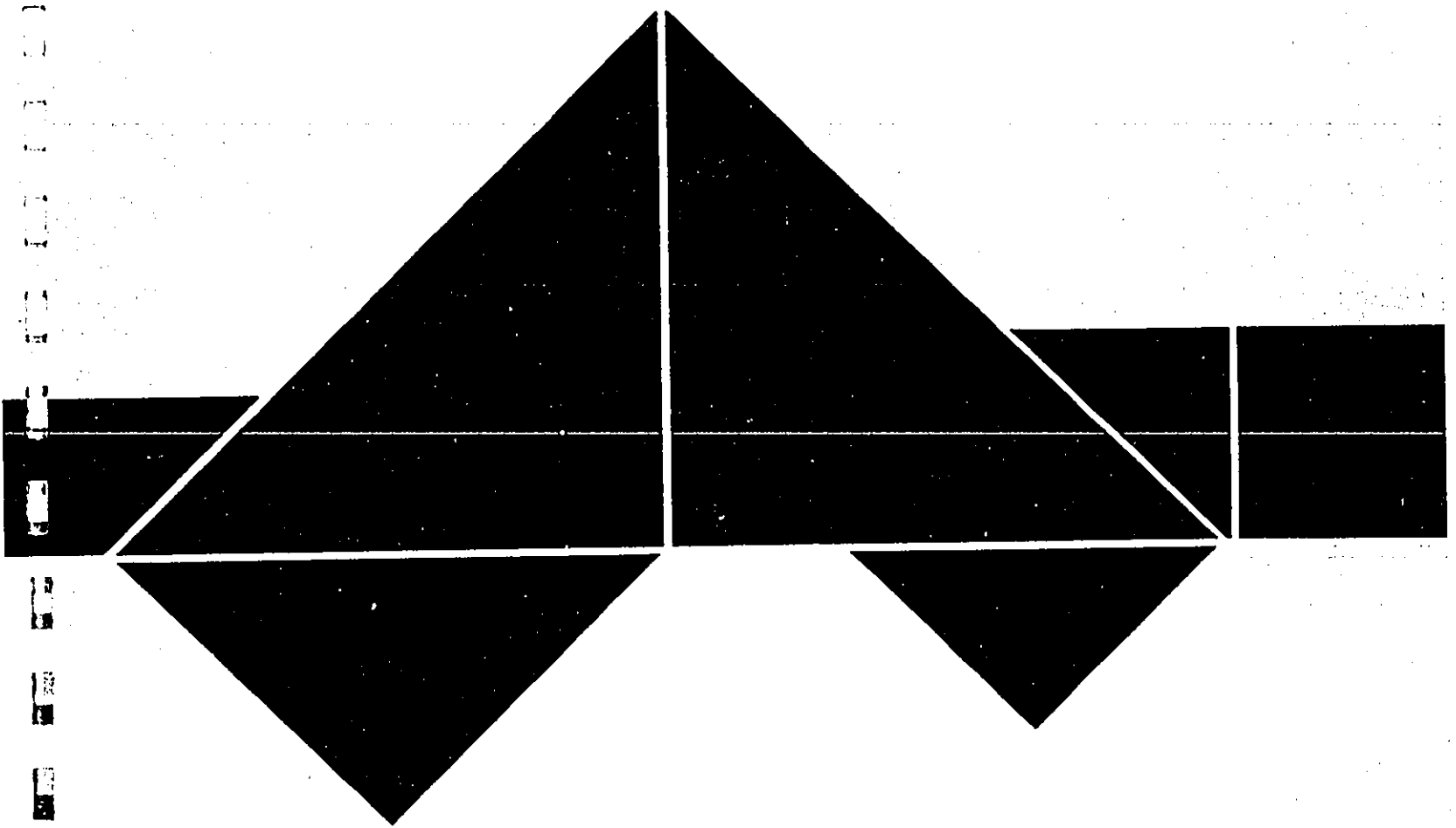
Figure III-6



SOURCE: Ulman engineering Consultants, Inc. January 1997

Recreational use of the portion of "Site A" north of the proposed subdivision will still be possible, however. "Site B" along the makai side of Kamehameha Highway just north of the Waimea River, or "Site C" mauka of the highway north of the river, could be used to provide the desired number of parking stalls for the park.

# **Kawaiiloa Subdivision**



**Environmental Impact Statement**

## CHAPTER IV ALTERNATIVES TO THE PROPOSED ACTION

### 1.0 INTRODUCTION

Subpart E, Section 1:42.g. of the Environmental Quality Commission's Environmental Statement Regulations requires that: "Any known alternatives for the action which could feasibly attain the objectives of the action -- even though more costly -- shall be described and explained as to why they were rejected."

The intent of this requirement is fairly clear insofar as projects initiated by public agencies are concerned. In contrast, its implications for projects initiated by private organizations, such as Oceanic Properties, Inc., are not. Hence, before formulating alternatives to the proposed project, it is first necessary to define two key phrases: (i) "objectives of the action," and (ii) "feasibly attain."

Oceanic Properties' primary reason for undertaking the proposed Kawaiiloa Subdivision project is its desire to earn a reasonable return on its investment. This is its principal "objective" in pursuing the project. Like any private enterprise, the company also pursues other objectives, both financial and social in nature, in response to explicit and implicit company policies.

As used in the EIS Regulations, the term "feasibly attain" means practical or capable of being successfully brought about. Hence, for an action to constitute a genuine alternative to the action now being proposed, it must have a reasonable expectation of meeting the company's obligations to manage its shareholders' investments in such a way as to achieve these objectives. In short, to constitute a viable alternative, a proposed use must be profitable. (Clearly, there are occasions when even the best alternative open to a company involves a loss. However, no individual company can sustain itself for long by engaging in unprofitable actions. Therefore, we have not treated this situation as a viable alternative.)

### 2.0 ALTERNATIVES CONSIDERED BUT NOT EVALUATED IN DEPTH

As noted above, not all of the "actions" which could be hypothesized with respect to the property are ones that could "feasibly attain the objectives of the action," i.e., they would not provide the return on investment or the financial security that is necessary. There are, however, some alternatives which cannot be dismissed out of hand, and these are discussed below.

#### 2.1 Sale of the Property

Sale of the property to another party is always an option. However, in order to make this an attractive alternative to the owner, it would be necessary to find a buyer willing to pay a price comparable to its value if developed as a residential subdivision as now permitted by

the site's R-6 zoning. With the possible exception of condemnation by the County or State for park use, which is discussed later in this chapter, it is almost certain that any buyer who would pay such a price would expect to recoup the investment by developing the land for urban use. Hence, while sale of the property represents an alternative to Oceanic Properties, Inc., it would probably not lead to significantly different uses or impacts than the current proposal. For this reason, it has not been analyzed in depth for this report.

## 2.2 Alternative Types of Urban Development

Residential use is obviously not the only type of development possible on urban-classified land. However, given the property's location and other factors, the alternatives -- industrial, resort, or commercial uses -- do not appear to be practical:

- o Its distance from other industrial areas (with resulting high transportation costs), its high visibility from the roadway, and its proximity to Waimea Bay make industrial use of the site undesirable from a public standpoint.
- o The property's shoreline location and proximity to Waimea Bay give it some potential for resort/vacation use, particularly if it were developed in conjunction with the parcel adjoining it to the north which is also owned by Castle & Cooke, Inc. (Oceanic Properties, Inc.'s parent company). However, it is too small to support a first-class project of this nature. Moreover, existing public plans make it unlikely that permission to do so would be granted.
- o Commercial use would require rezoning. Moreover, adequate commercial facilities already exist in Hale'iwa making it unlikely that commercial use would be financially viable.

## 2.3 Agricultural Use

Agricultural or aquacultural activities of some sort are technically possible almost anywhere. However, the site's soils have been determined to be relatively unproductive. Hence, its value when put to this use is extremely limited, a fact attested to by the absence of any recorded commercial agricultural activities on it. Since there is no reliable source for the large amounts of water needed for aquaculture, this is not a feasible option either.

## 3.0 NO-PROJECT ALTERNATIVE

The "no-project" or "no-action" alternative would allow the site to remain in its present state. Vegetation changes would occur as a result of natural succession, and surface archaeological remains would continue to deteriorate. O'ahu residents would not benefit from the homes that would be developed on the subdivided lots. Project-related changes in such things as traffic volume, air quality, etc., could not occur, although similar effects would probably be produced by the residential units that would have to be constructed elsewhere on the island in

order to insure an adequate housing supply. Because the property currently incurs a tax liability while producing no income, the present status is not economically viable over the long term.

#### 4.0 RECREATIONAL USE

As discussed in Section 11.7 of Chapter III, the site of the proposed project is part of a ten-acre area that has been tentatively identified by the City and County of Honolulu Department of Parks and Recreation for acquisition and development, principally as a parking area supporting nearby Waimea Bay Beach Park. The parking area would be virtually invisible from off-site, but in nearly all other respects its potential adverse impacts are equal to or exceed those projected for the Kawaihoa Subdivision. For example:

- o The amount of impermeable surface and stormwater runoff would be significantly greater;
- o Emissions of air pollutants and vehicle-related noise generation would be higher;
- o The number of persons brought into proximity to the ko'a and other archaeological remains would be greatly increased;
- o Because of the larger number of vehicles using the entrance road to the parking lot, interference with through traffic would be more likely than with the proposed subdivision; and
- o The subdivision avoids the depressed area in the adjoining parcel that floods during storms, whereas the parking lot extends into this depression and might be subject to localized flooding.

#### 5.0 "CLUSTER DEVELOPMENT" AND "PLANNED DEVELOPMENT" ALTERNATIVES

Before deciding to pursue the Kawaihoa Subdivision project as now proposed, Oceanic Properties, Inc. evaluated a number of different development possibilities. Their analysis took into account several interrelated factors, including:

- o The net profit (i.e. sales income less land and development costs) that would be realized;
- o The amount of risk that would be involved;
- o The amount of time that would be required for completion; and
- o The cash-flow characteristics.

The results of Oceanic Properties' evaluation led it to the conclusion that, while a conventional residential subdivision and sale of improved lots as now proposed would not maximize the number of units that might

be developed on the property or the gross sales value, it was the alternative which would maximize benefits to the company. Moreover, it was judged that it was clearly consistent with applicable public land use regulations.

Before deciding to undertake the conventional R-6 subdivision now proposed, Oceanic Properties, Inc. investigated the possibility of utilizing either the "Cluster Development" or "Planned Development-Housing" (PD-H) provisions of the City and County of Honolulu's Comprehensive Zoning Code. No change in the underlying zoning would be required for these. In return for submitting to a prescribed review and approval process, designers are allowed more flexibility in laying out their projects and, in some instances, a density bonus as well when compared to the level that can be achieved in an ordinary subdivision. The Cluster Development and PD-H approaches allow better utilization of sites that would otherwise be difficult to develop. They also permit the concentration of structures within a site in order to preserve views, to create more usable public open space, or to achieve other public objectives.

Under the Cluster Development provisions of the CZC, Oceanic Properties would be permitted to develop up to 39 single-family units. This is twice as many as are now proposed. The PD-H section of the CZC expresses the density limit as a floor area ratio (FAR) rather than a lot size. Hence, it is not directly comparable. However, if we assume that homes will have from 2,000 to 2,500 square feet of floor area each, the FAR of 0.35 that is permitted in an R-6 zone would allow 28 to 35 units to be constructed in a PDH. Again, this is significantly more than are now proposed. However, in order to take advantage of either the Cluster Development or PD-H provisions, Oceanic Properties would have to develop detailed site and building plans for the project. This, in turn, would require that the company either act as developer of the units or secure an agreement with some other entity willing to play this role. At this time, Oceanic does not believe that market conditions warrant this; hence, its preference for a straight subdivision and the sale of improved lots rather than house/lot packages.

Oceanic Properties' market analysis also indicates that the shoreline location of the project will command a premium price and that households in this market desire and are able to pay for more land than the minimum required by the regulations. Because of this, lots in the proposed subdivision average about 50 percent larger than the 5,000-square-foot minimum for R-6 zones. In order to take advantage of the density bonus offered by the Cluster Development or the PD-H, the average per-unit land area would need to be reduced. In the opinion of Oceanic Properties, Inc., this would lower the net return from the property.

Thus far our discussion has centered on the reasons why Oceanic Properties, Inc. has chosen to attempt a conventional subdivision rather than a Cluster Development or a PD-H. It is nevertheless appropriate to consider whether or not these alternatives have attributes which, while not improving the financial return to the developer, would result in an improved project from the viewpoint of the general public. In



order to do this, it is first necessary to identify those aspects of the proposed project that are less than optimal in terms of their overall effect. Once that has been accomplished it is possible to explore ways in which these could be improved by altering the layout.

As indicated in Chapter III of this report, the proposed project is expected to have few significant adverse impacts. Public facilities and utility service are adequate, no significant biota would be disturbed, and the impact on soils, air and water quality, and other natural systems would be quite limited. Some archaeological sites would be disturbed, but surveys and salvage conducted as part of the project could recover important data before this occurs. Because of this, there are only a few ways the general public might benefit from an alternative development scheme under the Cluster Development or PD-H provisions of the CZC. These are:

- o Improved protection for the ko'a on lot 11-A;
- o The protection of project residents from highway noise;
- o The improvement of views from Kamehameha Highway;
- o The maintenance of existing views from Waimea Bay Beach Park; and
- o The avoidance of the Coastal High Hazard Area that encompasses the portion of the site below 18 feet in elevation.

These are discussed below.

#### 5.1 Protection of Ko'a

As it is now configured, a structure could be built within approximately 30 feet of the ko'a on lot 11-A, and the edge of lot 10 is only ten feet from the nearest wall of the ko'a. The makai side of lot 11 is only slightly farther away, but in this instance there is also a low cliff (about 20 feet in height) that offers protection to the ko'a.

The proposed subdivision layout allows sufficient room for a fence around the ko'a, but there is no way that the feature could be subtly screened from the surrounding lots. By utilizing the Cluster Development or PD-H approach, it would be possible to enlarge the buffer zone around the ko'a to the point where an effective vegetative screen might be established around it. Such buffer would probably have to include the knoll in lot 11 and most of lot 10 in order to be effective. Hence, the developable area would be reduced by about ten percent. To offset this, i.e. to maintain the same overall density, units elsewhere on the site would have to be closer together.

As already noted in our discussion, the lots in the proposed subdivision have purposely been made substantially larger than required by the CZC in order to satisfy the desires of the expected market. Because of this, Oceanic Properties, Inc. is reluctant to decrease the average per-unit land area substantially. In view of this, the total

number of units would probably be reduced from 19 to 17. This being the case, the same objective of enlarging the buffer around the ko'a could be achieved by simply dropping lots 10 and 11 from the subdivision and consolidating that land with lot 11-A, rather than building a PD-H or Cluster Development. It is worth noting that deletion of these two lots would make the project invisible to users of Waimea Bay Beach Park.

## 5.2 Protection from Highway Noise

Because of this proximity to Kamehameha Highway, homes constructed on the mauka tier of lots (i.e. on lots 1, and 15 through 18) would be subject to moderate traffic noise levels. The six-foot-high lava rock wall that is proposed would provide some attenuation of the noise, especially on lot 18 where the building pad elevation is several feet below the roadway grade. But it would not be of great assistance to other residences, particularly if they should have two stories.

From the point of view of noise attenuation, a higher wall would be desirable. However, in order to exceed six feet, it would be necessary to obtain a variance from the Planning Commission.

Another means of reducing potential noise levels would be to undertake a cluster development in which homes are placed farther from the highway than is now proposed. This would result in increased attenuation of highway noise because of the greater distance from noise sources. The cluster development would also make the rock wall a more effective noise barrier by dropping the homes below its top (due to the sloping topography of the site). Specific designs would need to be developed before the significance of such a layout adjustment could be made. However, several negative side effects of such a change are readily apparent. First, a 50-foot-wide buffer would consume at least a half acre of land. Moreover, it would necessitate a radically different roadway layout that would make it impossible to develop an upper tier of detached homes with good views over houses built on the coastal portion of the parcel. Whether or not these penalties are outweighed by the positive effects is conjectural.

## 5.3 Views from Kamehameha Highway

The visual impacts section of this report (Section 8.0 in Chapter III) shows that existing vegetation and topography preclude significant mauka-makai views from Kamehameha Highway across the site at the present time. In light of this, the only visual effect of the proposed roadside wall would be to slightly alter the character of the area immediately adjacent to the highway. If one did wish to create a visual corridor through the project it could be accomplished under either the Cluster Development or PD-H provisions of the CZC. However, opening up views from the highway by deleting the proposed wall would also subject homes within the project to the noise and visual intrusion of the highway.

#### 5.4 Views from Waimea Bay Beach Park

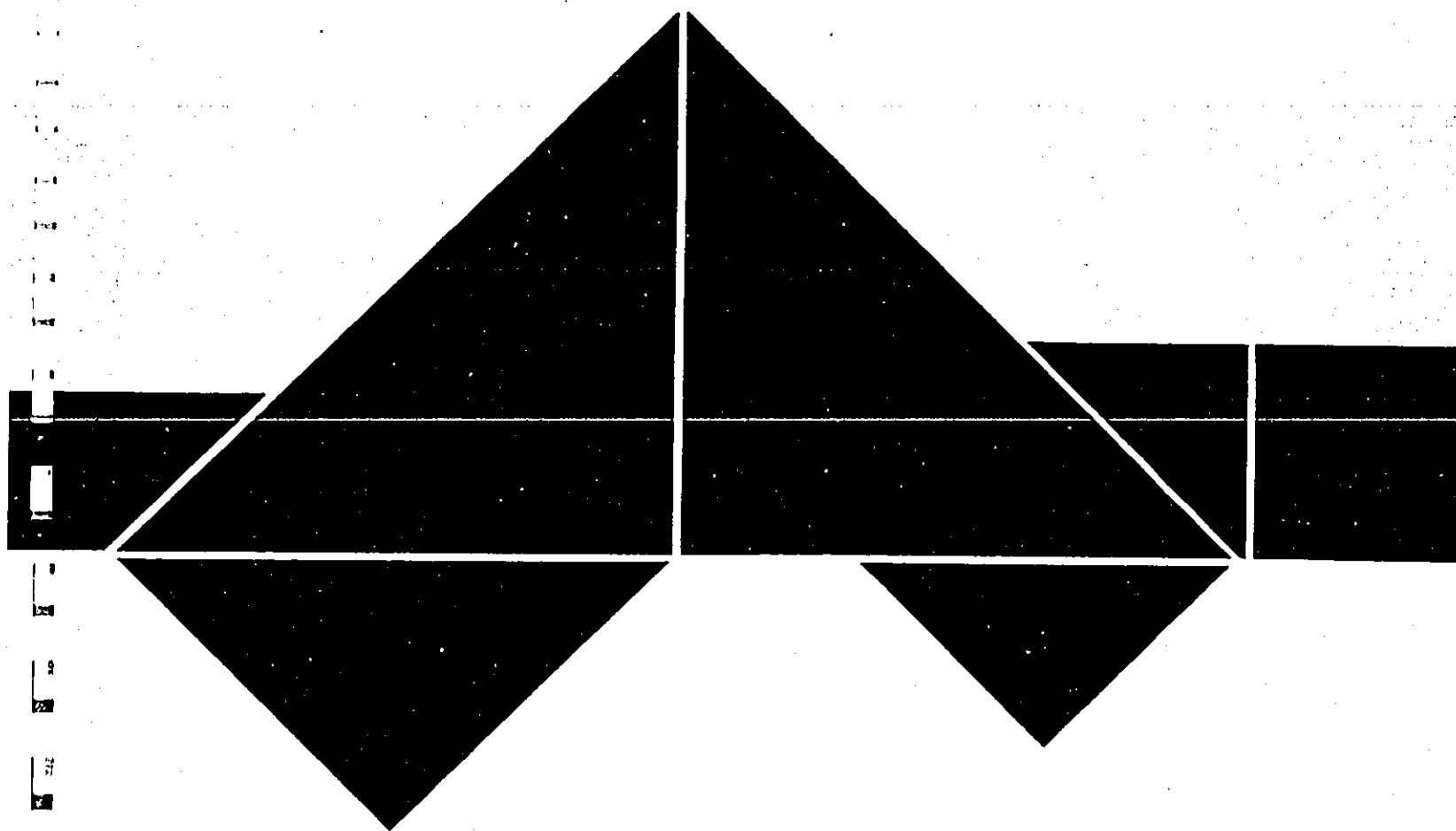
The only homes that would be visible from Waimea Bay Beach Park are those situated on lots 10 and 11. If these were eliminated and a vegetative screen established in their place, the proposed project would not be visible from the park. As noted previously, using the Cluster Development or PD-H provisions of the zoning ordinance would not result in a superior solution.

#### 5.5 Avoidance of Coastal High Hazard Area

As noted in Section 4.1 of Chapter III, the portion of the property below 18 feet in elevation is within the Coastal High Hazard Area identified on the U.S. Department of Housing and Urban Development, Flood Insurance Agency's Flood Insurance Rate Map (FIRM) for the area. A comparison of the projected height of the tsunami having a recurrence interval of 100 years (18 feet above mean sea level) with the surveyed ground elevation shows that the coastal tier of lots would be inundated to a depth of from one to three feet. In order to comply with the flood hazard district requirements of the Comprehensive Zoning Code (CZC), the homes on these lots will have to be elevated above the flood level and utilize foundations which securely anchor them against flotation, collapse, or lateral movement due to the forces of the design flood.

Approximately 1.5 acres of the site fall within the Coastal High Hazard Area. This is one-third of the entire site and nearly 45 percent of the development area exclusive of roadways. If all homes were to be clustered outside of the high hazard area, the developable area would be reduced by approximately that amount. Hence, homes would need to be very tightly grouped on the upper portions of the site; to accomplish this it might be necessary to change to attached units. In the opinion of Oceanic Properties, Inc. the net result would be to significantly reduce the marketability of the units. It would also tend to increase adverse impacts on views from the highway. If we presume that compliance with the CZC and Building Code requirements will provide adequate protection against flood damage, there seems to be no overriding public interest served by totally eliminating development within the Coastal High Hazard Area.

# **Kawaiiloa Subdivision**

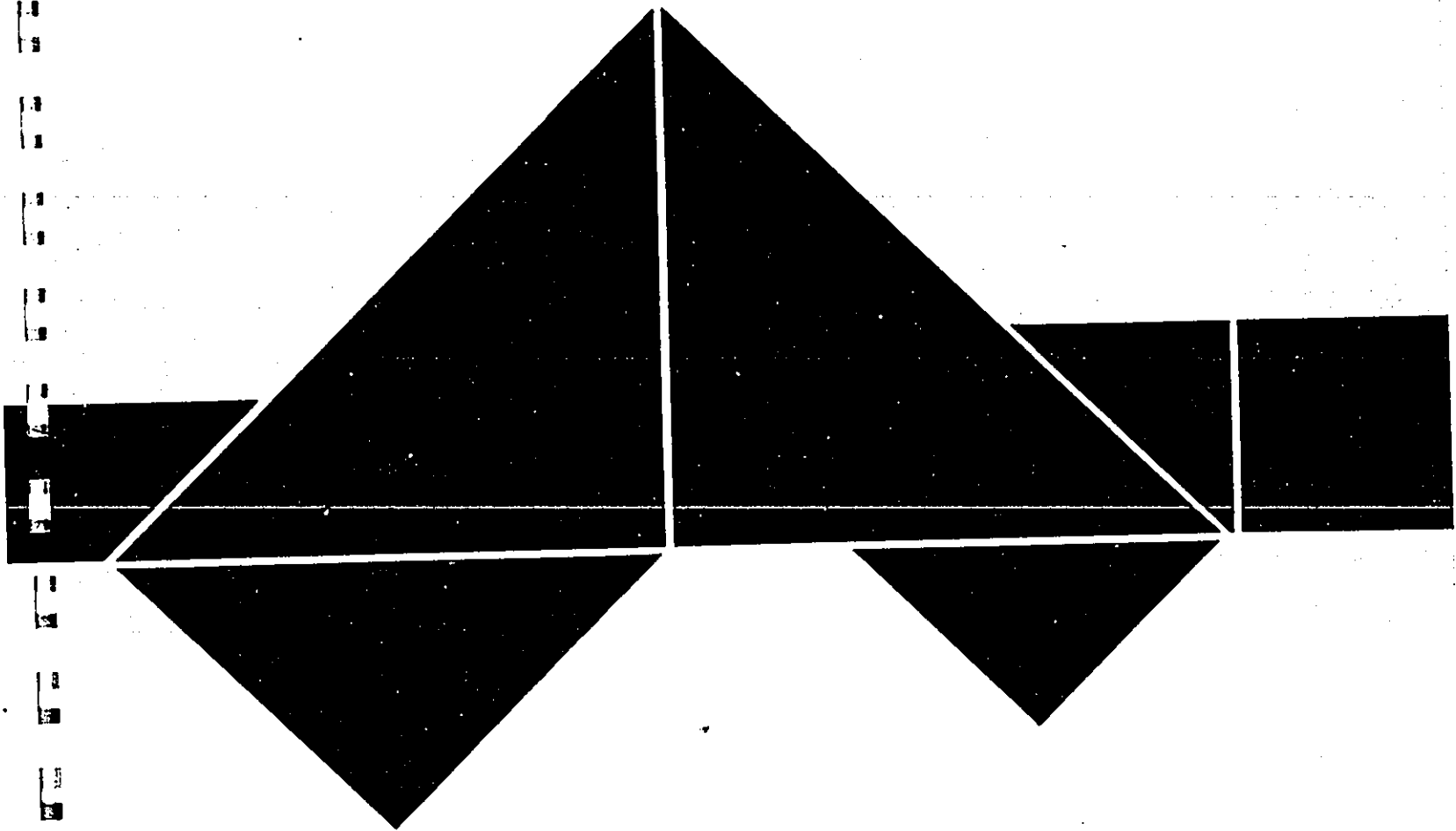


**Environmental Impact Statement**

# **CORRECTION**

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

# **Kawaiiloa Subdivision**



**Environmental Impact Statement**

**CHAPTER V**  
**LIST OF NECESSARY APPROVALS AND UNRESOLVED ISSUES**

**1.0 LIST OF NECESSARY APPROVALS**

The following is a general list of approvals needed to complete the development of the Kawaihoa Subdivision. None of the permits listed have been applied for yet. This is because the EIS must be accepted before applying for a Special Management Area Use Permit (SMP), and the SMP must be obtained before any other permits can be issued. Further studies may be completed for submission with the applications for the following permits and approvals.

<u>Approval Needed</u>	<u>Approving Agency or Body</u>
Special Management Area Use Permit	C&C Department of Land Utilization
Subdivision Approval:	
(1) Tentative Approval of Preliminary Map	C&C Department of Land Utilization
(2) Approval of Final Map	C&C Department of Land Utilization
(3) Approval of Stamped Map	State Surveyor, Land Court
Grading Permit	C&C Department of Land Utilization C&C Department of Public Works
Drainage Plan Approval	C&C Department of Public Works
Water Connection Approval Approval of Fire Hydrant Installation Plan	C&C Board of Water Supply
Street Construction, Signing, Lighting and Pavement Markings	C&C Department of Transportation Services
Electrical Connection Approval	Hawaiian Electric Company
Telephone Connection Approval	Hawaiian Telephone Company
Street Tree Plan	C&C Department of Parks and Recreation C&C Department of Transportation Services
Park Dedication Ordinance Compliance	C&C Department of Parks and Recreation
Approval of Private Sewage Disposal Systems	State Department of Health C&C Board of Water Supply
National Flood Insurance Program Conformance	C&C Department of Land Utilization
Historic Sites Review	State Department of Land and Natural Resources

<u>Approval Needed</u>	<u>Approving Agency or Body</u>
Permit to Perform Work within State Highways	State Department of Transportation
Street Names	C&C Department of Land Utilization
Conditional Use Permit for Construction Activities	State Department of Health

## 2.0 UNRESOLVED ISSUES

During the course of planning for the project, a conscientious effort has been made to identify and provide for the mitigation of adverse impacts that could result from development of Oceanic Properties' Kawaiiloa property. However, some potentially adverse impacts remain. As approval is sought for the numerous permits identified above, it is possible that public agencies may attach conditions to their approval and that Oceanic Properties, Inc. may adjust its plans to abide by these rather than abandon the project entirely. These "unresolved issues" are discussed below.

### 2.1 Archaeological Work

In preparing its plans for the subject property, Oceanic Properties, Inc. has commissioned two archaeological surveys by the Bishop Museum of the proposed subdivision site. Results of these investigations indicate that the project would not significantly affect archaeological remains if sufficient archaeological salvage work is conducted prior to construction and if an adequate buffer zone is left around the fishing ko'a or heiau that straddles the northeastern boundary of the property. Oceanic Properties, Inc. has not yet committed itself to undertake this archaeological work. Instead it has taken the position that no binding commitment should be made until the SMA permit application is being processed and there is an opportunity for a public hearing. Conditions attached to the SMA permit can assure that adequate mitigation is provided.

### 2.2 Water Availability

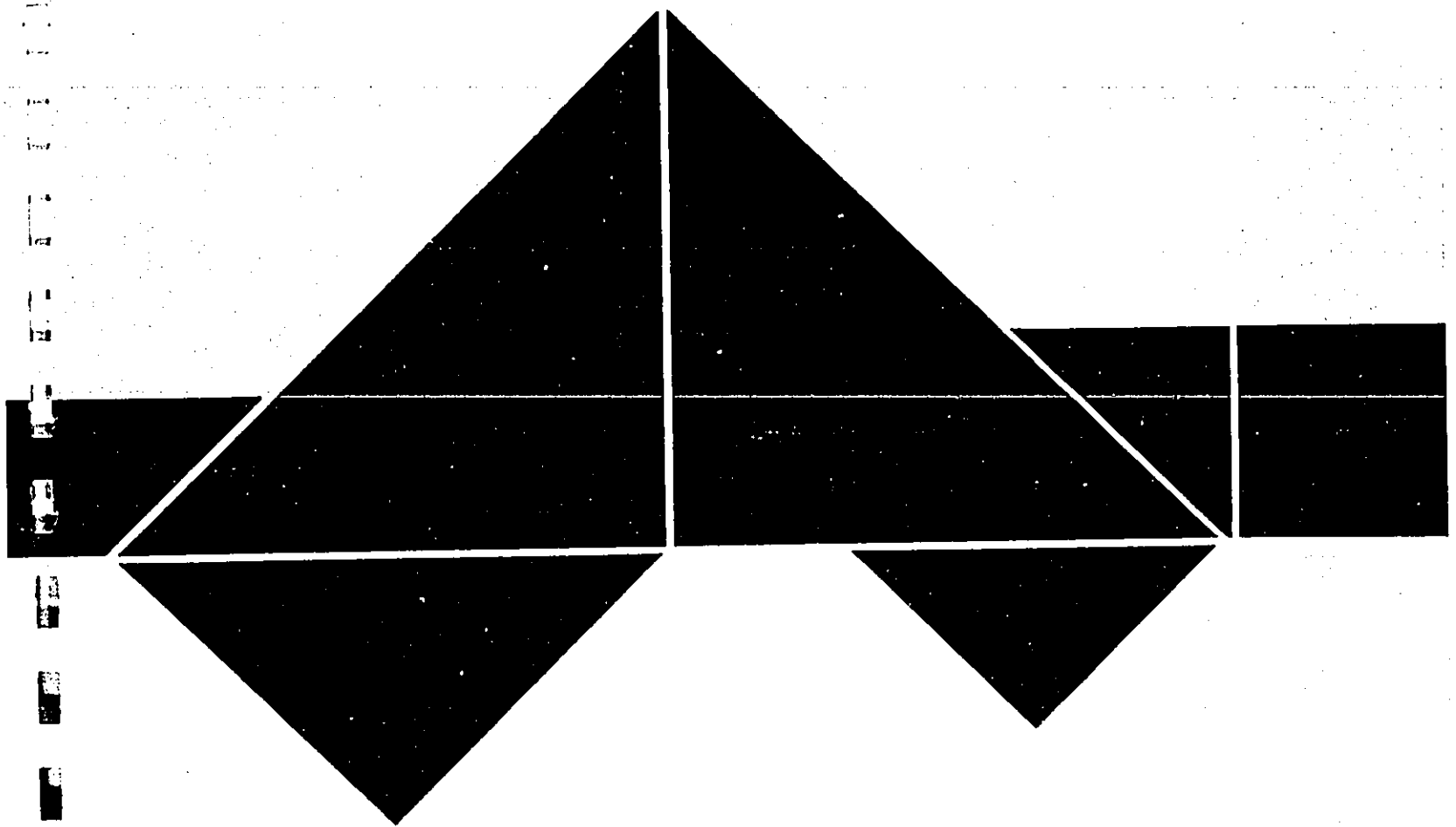
As noted in Section 10.1 of Chapter III, the Honolulu Board of Water Supply is not making any advance commitments for potable water supply in the Waialua District. Instead it is approving requests for new water hook-ups on a case-by-case basis at the time construction plans are submitted to it for review and approval. Moreover, it will not review construction plans until after an SMA permit for the proposed subdivision is issued. Because of this, no formal water supply commitment for the proposed Kawaiiloa Subdivision can be obtained at this time. However, Board approval must be obtained before the final subdivision approval is granted. This insures that the project will only be implemented if it is first determined that it can be served adequately by the Board's system.



### 2.3 Park Use of the Site

The City and County of Honolulu, Department of Parks and Recreation has expressed an interest in acquiring the project site and other surrounding land for use as a parking lot for users of Waimea Bay Beach Park. In view of this, a representative of Oceanic Properties, Inc. met with Parks and Recreation staff members early in the planning process to discuss the Department's plans for the property and to determine whether or not any move to acquire it was imminent. The response was that the Department was not in a position to make a formal acquisition proposal at the present time. Because of this, the company has proceeded with its development plans. The Department of Parks and Recreation is, of course, free to initiate negotiations on the matter at any time, and there appears to be no reason why it could not reach a decision on the matter prior to implementation of the company's plans.

# **Kawaiiloa Subdivision**



**Environmental Impact Statement**

CHAPTER VI  
ORGANIZATIONS AND PERSONS CONSULTED AND THOSE WHO  
PARTICIPATED IN THE PREPARATION OF THIS EIS

1.0 CONSULTED PARTIES

The notice of availability of the EIS Preparation Notice (EISPN) for the proposed Kawaiiloa Subdivision was published in the Environmental Quality Commission Bulletin on September 8, 1981. The agencies and organizations below were sent copies of the EISPN and asked to comment on the project. Everyone who we believed might have an interest in the project or who requested consulted party status was included.

Federal Agencies

U.S. Department of Agriculture, Soil Conservation Service  
U.S. Army Corps of Engineers  
U.S. Department of the Interior, Fish and Wildlife Service

State Agencies

Department of Agriculture  
Department of Education  
Department of Land and Natural Resources, Historic Sites Section  
Department of Health  
Department of Planning and Economic Development  
Department of Transportation  
Office of Environmental Quality Control

University of Hawaii

Environmental Center  
Office of Marine Programs  
Water Resources Research Center

City and County Agencies

Board of Water Supply  
Department of General Planning  
Department of Housing and Community Development  
Department of Land Utilization  
Department of Parks and Recreation  
Department of Public Works  
Department of Transportation Services  
Fire Department  
Police Department

Public Interest Groups

American Lung Association  
Life of the Land  
Outdoor Circle  
Sierra Club

Community Associations

Hale'iwa Community Association  
North Shore Neighborhood Board No. 27  
Sunset Beach Community Association  
Waialua Community Association

Other

GMP Associates, Inc.  
Waimea Falls Park

## 2.0 ORGANIZATIONS AND INDIVIDUALS WHO ASSISTED IN THE PREPARATION OF THIS EIS

The Environmental Impact Statement was prepared for Oceanic Properties by Belt, Collins & Associates. The following individuals were involved:

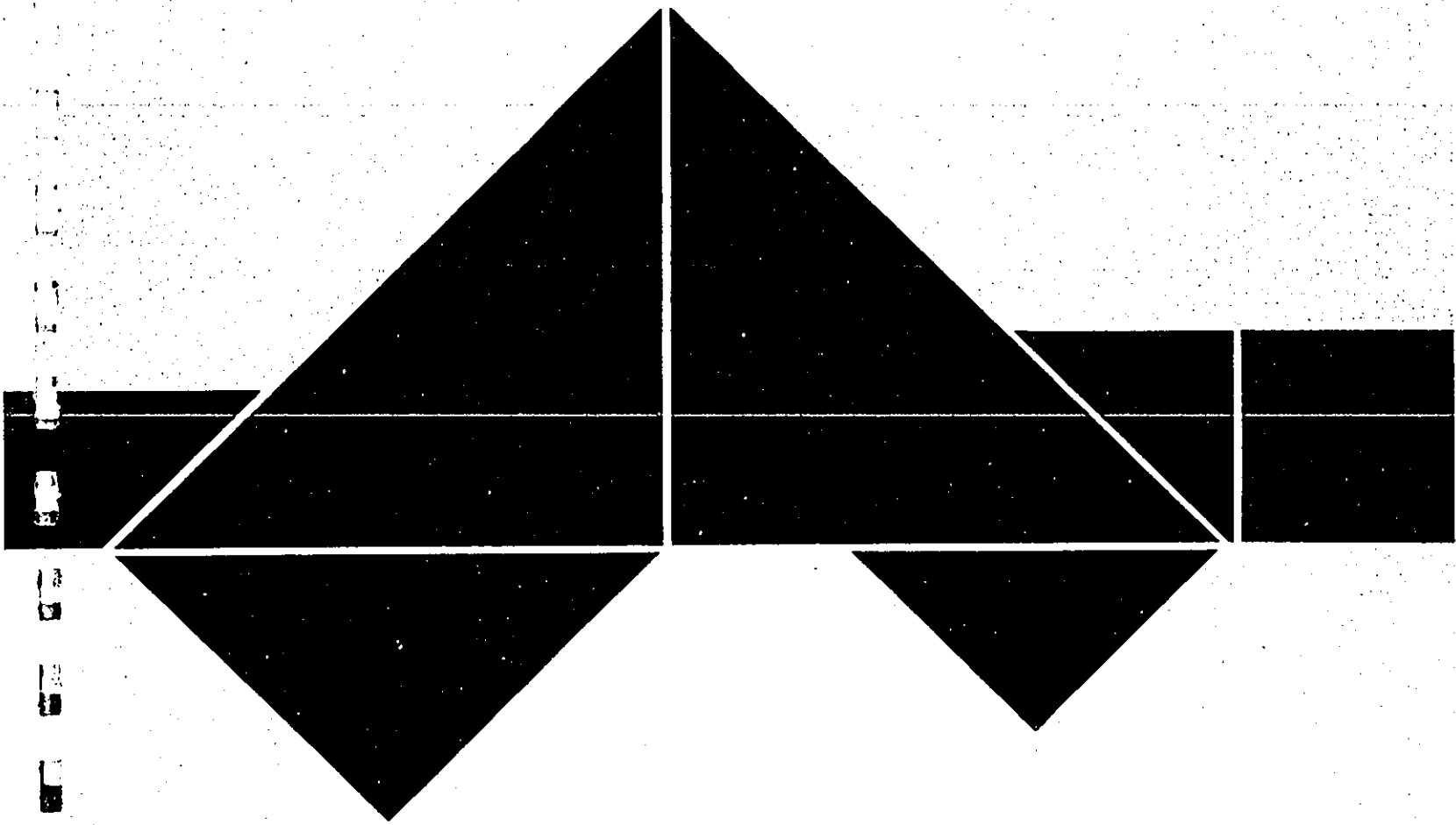
### Belt, Collins & Associates

Perry J. White - Project Manager and Principal Author  
Ann K. Yoklavich - Contributor, Editor, Production Coordinator  
Thomas F. Nance - Wastewater Disposal Study  
Dan Jones - Graphic Artist

### Sub-Consultants/Sub-Contractors

Bishop Museum, Department of Anthropology - Archaeological Work  
Erin Hall and Margaret Elliott (Earthwatch) - Vegetation Survey  
The Out Basket - Word Processing  
Logan White - Cover Design

# **Kawaiiloa Subdivision**



**Environmental Impact Statement**

**CHAPTER VII  
COMMENTS AND RESPONSES DURING THE CONSULTATION PERIOD**

The agencies and organizations listed in Chapter VI were all sent copies of the Environmental Impact Statement Preparation Notice (EISPN) with a transmittal letter requesting comments. Copies of the EISPN and the transmittal letters sent to these groups are reproduced along with copies of comment letters received from consulted parties and copies of our responses to them. Some agencies received individualized transmittal letters, requesting specified information relative to their agency's activities and/or responsibilities. Letters to and from these agencies are reproduced after the group of letters from and to the agencies and organizations responding to the standard transmittal letter.

Standard Transmittal Letter Requesting Comments	VII-3
Environmental Impact Statement Preparation Notice	VII-4

**AGENCIES AND ORGANIZATIONS RESPONDING TO STANDARD TRANSMITTAL LETTER**

Federal Agencies

U.S. Army Corps of Engineers	VII-8
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State Agencies

Department of Health	VII-11
Department of Housing and Community Development	VII-12
Department of Land and Natural Resources	VII-14

University of Hawaii

Environmental Center	VII-16
Water Resources Research Center	VII-18

City and County Agencies

Department of Transportation Services	VII-19
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Public Interest Groups

American Lung Association	VII-20
Sierra Club	VII-21

Community Organizations

North Shore Neighborhood Board No. 27	VI-23
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**AGENCIES SENT INDIVIDUALIZED TRANSMITTAL LETTER**

(Transmittal letters are reproduced before each comment and response pair.)

Federal Agencies

U.S. Department of Agriculture, Soil Conservation Service	VII-24
U.S. Department of the Interior, Fish and Wildlife Service	VII-26

State Agencies

Department of Agriculture	VII-28
Department of Education	VII-32
Department of Planning and Economic Development	VII-34
Department of Transportation	VII-37

City and County Agencies

Board of Water Supply	VII-40
Department of General Planning	VII-44
Department of Land Utilization	VII-47
Department of Parks and Recreation*	VII-50
Department of Public Works	VII-51
Fire Department	VII-54
Police Department	VII-57

\*No response to transmittal letter received.



## Belt, Collins & Associates

Engineers  
Landscape Architects  
Planners  
1100 Kalia Road, Suite 1107, Honolulu, Hawaii 96813  
Phone: (808) 521-5761  
Telex: 111171M21

Date

Address

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear \_\_\_\_\_:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle & Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just southwest of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISP/N) issued by the Department is attached to this letter. It provides a brief description of the proposed project, and existing environment of the area which it would affect, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort towards those issues which are of greatest concern. The list provided in Section III of the EISP/N provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you need.

As you probably know, the State Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that written responses to requests for comments must be made within 30 days of the receipt of the request unless this is extended by the accepting agency upon good cause shown. . . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as we intend it should, the report will provide all of

BCA, LTD. Principals: James K. Bell, Paul M. Elliott, Raymond E. Cain, Joseph Verra, Jr., Thomas F. Espandrew

the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,

Perry J. White

PJW:lsf  
Attachment

DEPARTMENT OF LAND UTILIZATION  
81/SMA-82(MK)  
August 24, 1981

CHAPTER 343, HRS  
ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EIS)

Approving Agency : City & County of Honolulu  
Department of Land Utilization  
Applicant/Recorded Owner : Castle & Cooke, Inc.  
Agent : Oceanic Properties, Inc.  
Project Location : Kamehameha Highway-southwest  
of Waimea Bay  
Kawailoa, Waialua, Oahu  
Tax Map Key : 6-1-03: 26  
Request : To subdivide a 4.689-acre parcel into 19 residential lots within the Special Management Area (SMA) and Shoreline Setback Area  
Determination : EIS Is Required

VII-4

PROPOSED ACTION

The applicant proposes to subdivide a vacant 4.689-acre parcel into 19 lots ranging in size from 5,500 to 10,900 square feet. The lots will be sold in fee.

AFFECTED ENVIRONMENT

The parcel, located southwest of Waimea Bay on Kamehameha Highway in Waialua, is zoned R-6 Residential. It is designated for Park Use on the Detailed Land Use Map and Agricultural Use on the proposed Development Plan.

The site is undeveloped, rocky land covered with haole koa, medium high grass, and shrubs. It slopes from the highway to the shoreline, where rounded basalt boulders extend inland approximately 20 feet. Offshore coastal waters are designated Class A by the State Department of Health. A railroad bed covered with haole koa and ironwood bisects the parcel parallel to the highway.

Surrounding land uses include a vacant and undeveloped parcel also owned by the applicant on the northeast; Kamehameha Highway and more vacant land on the southeast; residential homes on the southwest; and the ocean on the northwest. Any future plans for the adjacent parcel owned by the applicant were not discussed.

The entire site lies within the SMA and requires a Special Management Area Use Permit. A portion of the proposed development falls within the Shoreline Setback Area, thus the project is subject to an assessment under the provisions of Chapter 343, HRS.

A. Technical Characteristics

- Seven (7) lots will directly abut the shoreline. The depths of these lots range between 115 feet and 141 feet from the certified shoreline to the subdivision roadway. An additional shoreline lot, Lot 11-A, will not be developed and will be consolidated with an adjoining parcel owned by the applicant, Tax Map Key: 6-2-01: 01.
- Vehicular access to 15 of the lots will be via a 400-foot long, 44-foot wide roadway connecting the subdivision to Kamehameha Highway. A short secondary 24-foot wide roadway, approximately 136 feet in length, will serve the four remaining lots. The roads will be improved to City and County subdivision standards.

- The applicant proposes to provide shoreline access via a 10-foot wide easement. It is not known whether the easement would be private or public.

B. Socio-Economic Characteristics

- The estimated population of the subdivision when completely developed will be between 48 to 76 people, based on two to four persons per dwelling unit. (It should be noted that more than one home would be permitted on some of the larger lots, so this estimated population could be higher.) The applicant anticipates that most of the lot purchasers will come from the Central and North Shore areas of Oahu and that the lots will be developed as primary residences.



2. The applicant indicates that the proposed development, because of its small size, does not warrant the creation of any recreation facilities or new park land. A park dedication fee will be paid instead.
3. The estimated fair market value of the proposed development as of June 29, 1981 is \$2,425,000.

C. Environmental Characteristics

1. Topography of the site ranges from 14 feet to 32 feet above Mean Sea Level (MSL). A portion of the proposed development is located within a 100-year coastal flood hazard area which means that the first habitable floor of all structures must be elevated 18 feet above MSL. The remainder of the parcel is designated Zone D, an area of undetermined, but possible, flood hazards.
2. The applicant proposes to install catch basins within the roadway of the subdivision to intercept surface runoff; however, information submitted by the applicant does not indicate where the stormwater will be conveyed. The method of surface runoff disposal and the impact of runoff on coastal water quality should be addressed.
3. An archaeological reconnaissance survey of two parcels owned by the applicant was conducted by Bishop Museum. The survey revealed the presence of several archaeological sites located both within the parcel proposed for development and on the adjacent parcel. Bishop Museum is currently preparing a preservation plan to protect those sites located within the proposed subdivision.
4. The area in which the project site is located is not connected to the municipal sewage treatment system. The applicant is proposing individual lot cesspools to be installed by the lot owners when they develop their parcels. The impacts of this method of sewage disposal and its effect on offshore coastal waters should be addressed.

5. Traffic impacts are expected to be minimal. According to the State Highways Planning and Research Department, Kamehameha Highway in the vicinity of the proposed project has a capacity to handle 1400 vehicles per hour. The most recent traffic count available for the area (July 2-3, 1979) showed a morning peak hour traffic count of 666 vehicles and an afternoon peak hour traffic count of 856 vehicles.

III. MAJOR IMPACTS

The potential environmental impacts, as related to the significance criteria set forth in Chapter 343, HRS, are briefly identified in the following discussion. These and other impacts will be thoroughly addressed in the final EIS document.

1. The effects of cesspool waste disposal on offshore water quality should be discussed.
2. The applicant indicates that grading will be minimal but provides no information on estimated volume or finished grade.
3. The potential impact of the subdivision on the view plane from the highway to the sea should be discussed. The discussion should address the visual impact of those structures which are proposed in the coastal flood hazard area and would have to be elevated.
4. No information regarding biological impacts was submitted by the applicant. Since the site is vacant, a flora and fauna survey should be conducted by a qualified biologist and the information included in the EIS.
5. Several archaeological sites have been identified on or near the project site in the survey conducted by the Bishop Museum. It is not known whether any of these sites appear on the Hawaii or National Register of Historic Sites. A preservation plan for these sites should be discussed.

FEDERAL AGENCIES  
U.S. Army Corps of Engineers  
U.S. Dept. of the Interior, Fish & Wildlife Service  
U.S. Dept. of Agriculture, Soil Conservation Service

CITY & COUNTY OF HONOLULU AGENCIES

Dept. of General Planning  
Dept. of Land Utilization  
Dept. of Transportation Services  
Dept. of Parks & Recreation  
Dept. of Public Works  
Board of Water Supply  
Dept. of Housing & Community Development  
Building Dept.  
Police Dept.  
Honolulu Fire Dept.

COMMUNITY ACTION GROUPS

American Lung Association of Hawaii  
Sierra Club →  
Life of the Land  
Outdoor Circle

NEIGHBORHOOD BOARDS

North Shore Neighborhood Board. No. 27 →  
OTHER COMMUNITY ASSOCIATIONS

Maialoa Community Association  
Sunset Beach Community Association  
Haleiwa Community Association

APPROVED *Michael M. McElroy*  
MICHAEL M. MCELROY  
Director of Land Utilization

MMH:sl

B. Alternatives to the Proposed Action

Alternatives to the proposed residential subdivision, including cluster development or planned development housing and the reasons for rejecting these alternatives, should be discussed.

C. The Relationship of the Proposed Action to Land Use Plans, Policies and Controls for the Affected Area

Since this is a conflict between land use plans and the zoning designation, the EIS should describe the extent to which the applicant has reconciled his proposed action with the land use plans and the reason the applicant has decided to proceed notwithstanding the absence of a full reconciliation.

IV. REASONS SUPPORTING DETERMINATION

The decision to require an EIS is based upon the significance criteria established in Section 1.31 of the EQC Rules and Regulations. A full disclosure document must be prepared in accordance with Chapter 343, HRS.

v. SUGGESTED AGENCIES TO BE CONSULTED IN PREPARATION OF EIS

We recommend, at the minimum, that the following governmental agencies and community groups be contacted during the 30-day consultation period. Solicitation of comments should be accompanied by an EIS Preparation Notice.

STATE AGENCIES

OEOC  
Dept. of Agriculture  
Dept. of Land & Natural Resources (DLNR)  
DLNR State Historic Preservation Officer  
Dept. of Health  
Dept. of Planning & Economic Development  
Dept. of Transportation  
Dept. of Education

UNIVERSITY OF HAWAII

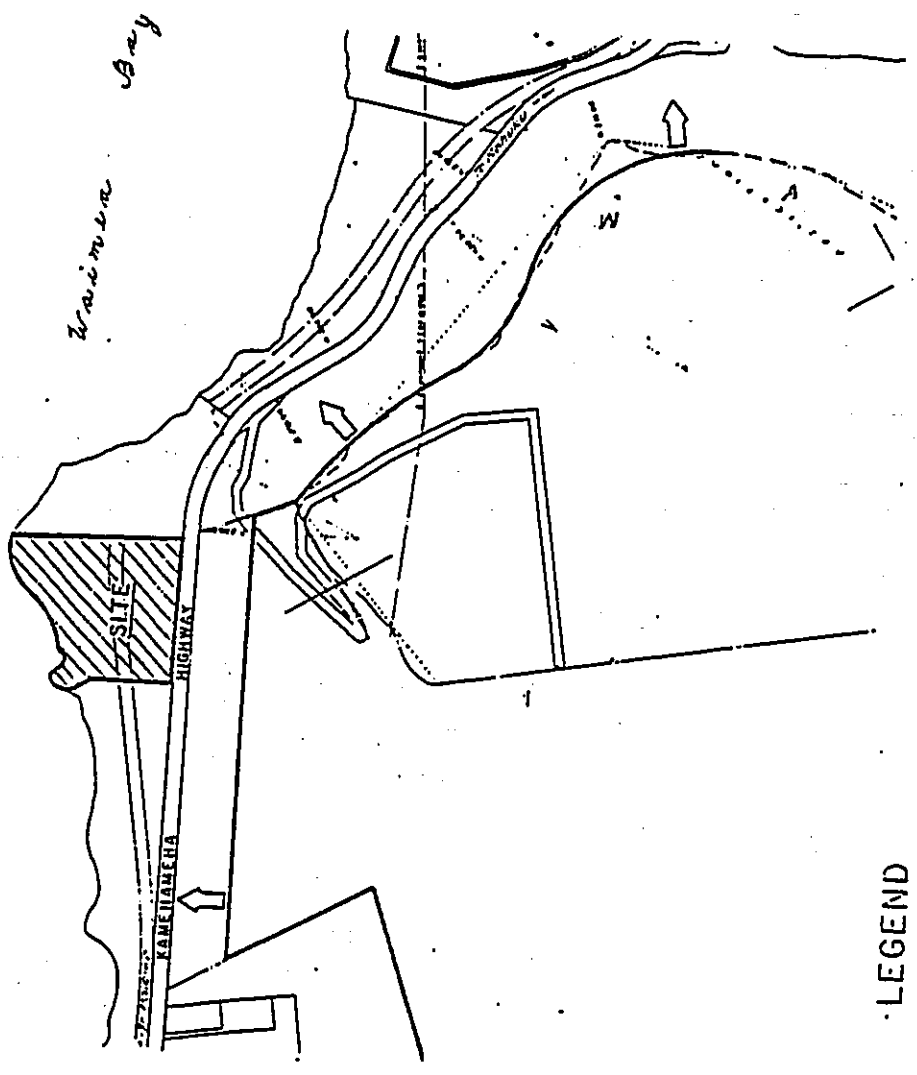
Water Resources Research Center  
Marine Programs



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



LEGEND

— SMA BOUNDARY LINE



LOCATION MAP

TIK: 6-1-03: 26  
Kawailoa, Naialua  
Oahu





DEPARTMENT OF THE ARMY  
U. S. ARMY ENGINEER DISTRICT, HONOLULU  
11 SHALAN, HAWAII 96858

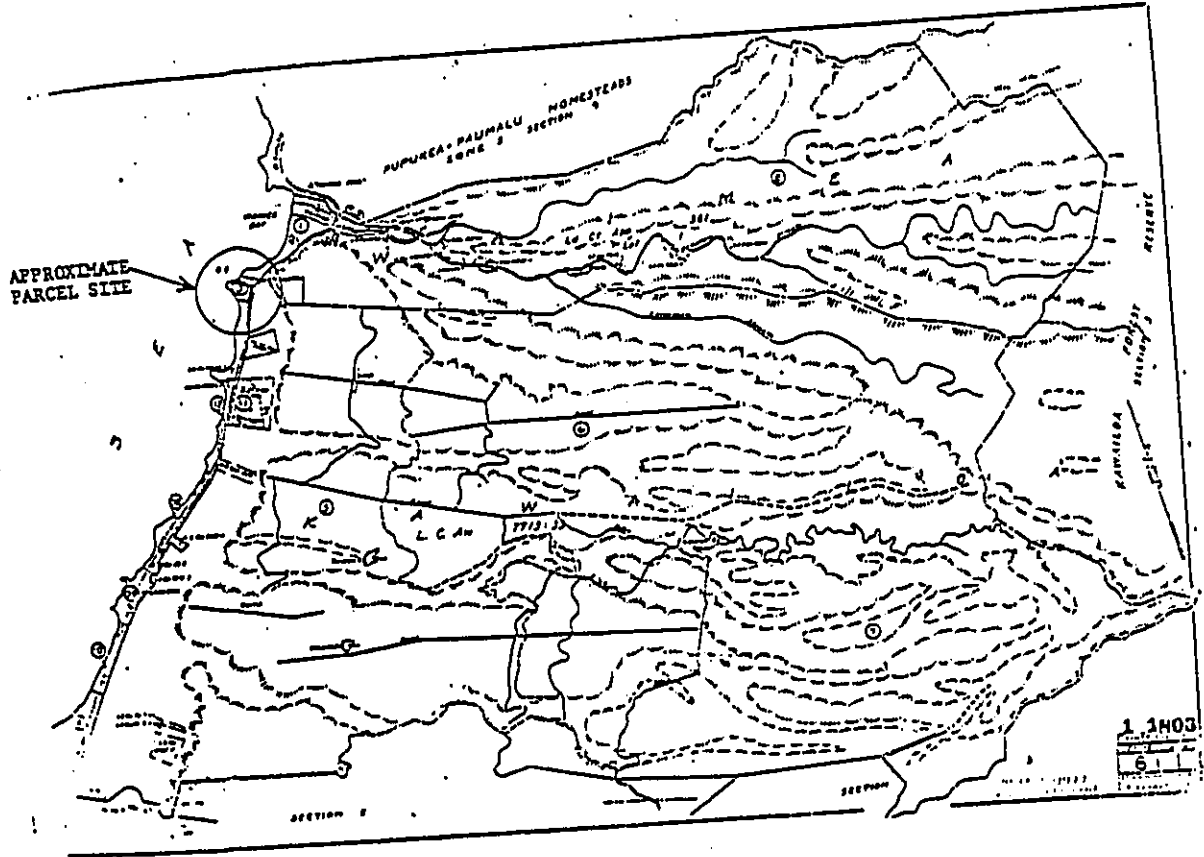
110 (C) 21 1981

BEIT, COLLINS & ASSOCIATES

16 October 1981

FODED-PV

Mr. Perry J. White  
Beit, Collins, & Associates  
745 Fort Street, 4th Floor  
Honolulu, HI 96813



Dear Mr. White:

Thank you for the opportunity to review the Environmental Statement (EIS) Preparation Notice for a Proposed Subdivision of Land Near Waimea Bay, Waialua, Oahu, sent to us on 25 September 1981. Based on our review of the preparation notice, we provide the following comments.

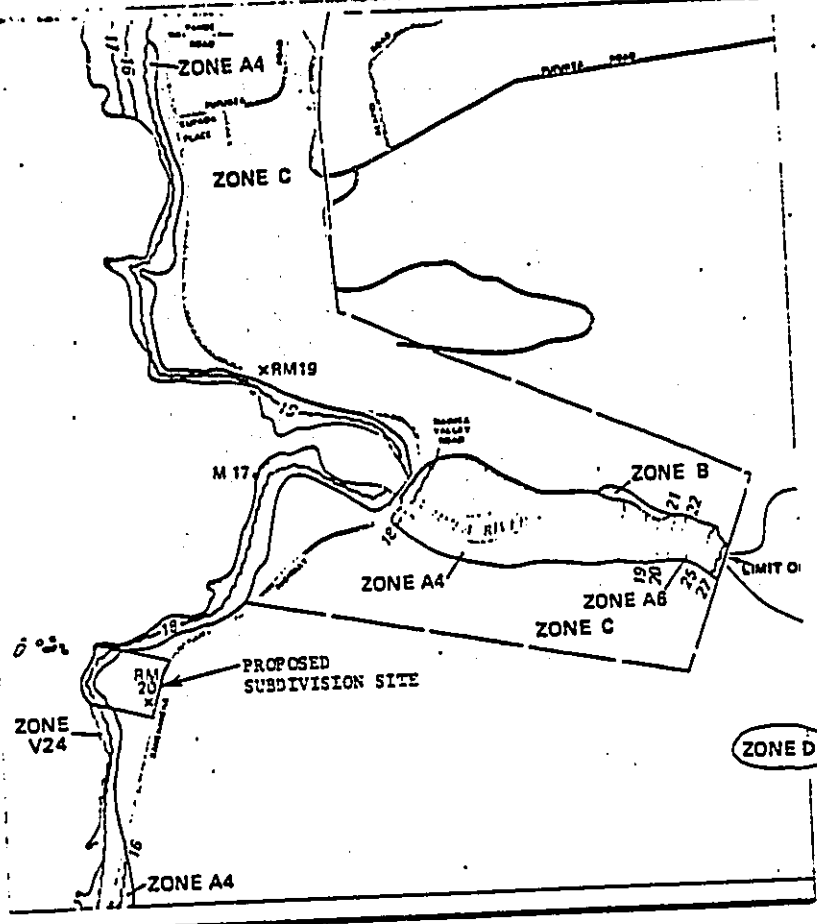
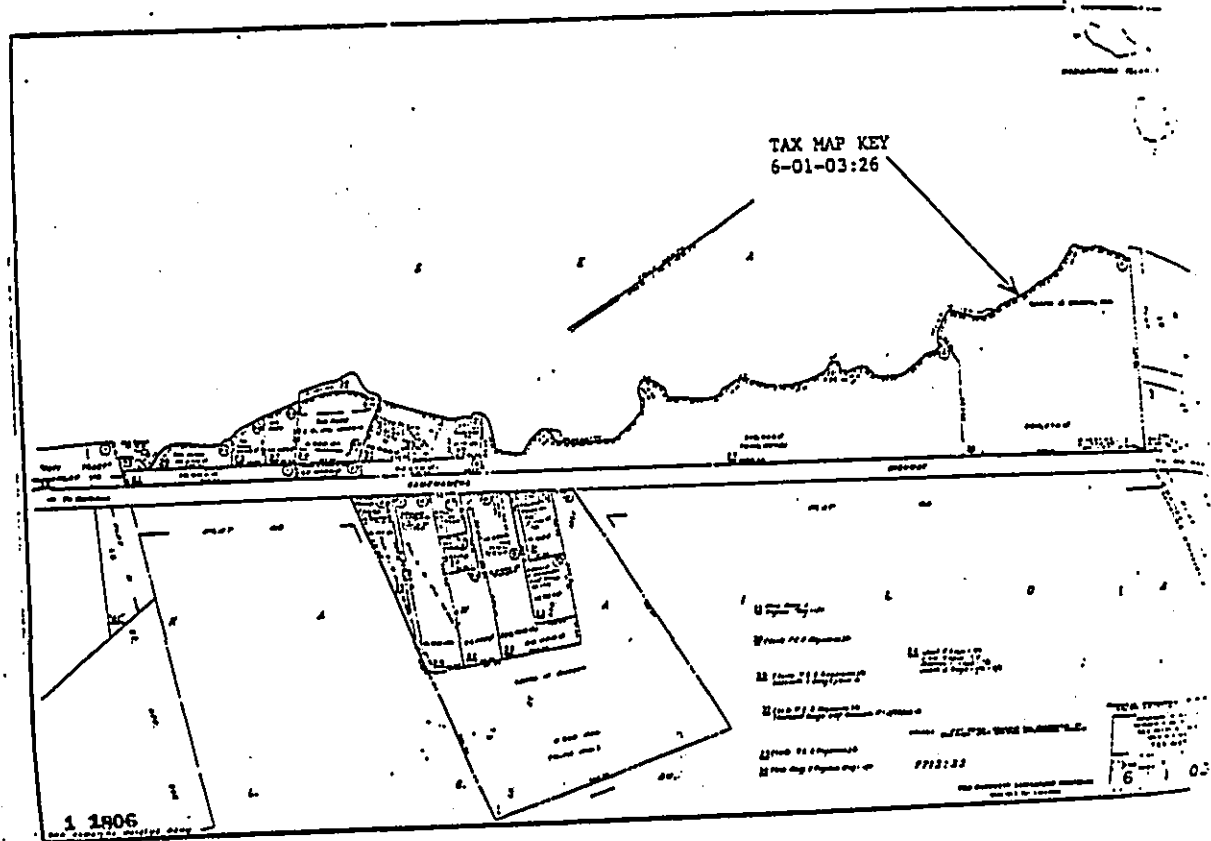
- a. Any work seaward of the mean high water line will require a Department of the Army permit.
  - b. Inclosure 1 shows a portion of the flood hazard map for the Waimea area identifying the flood-prone areas relative to the proposed subdivision site. The coastal portion of the property (100 to 200 feet inland) is situated in the Coastal High Hazard Area and is subject to tsunami floodings (Zone V24 designation), according to the Federal Flood Insurance Study for Oahu. The approximate 100-year tsunami elevation at the project site is 18 feet above Mean Sea Level. The 100-year event has a one percent chance of being equalled or exceeded in any given year. The remainder of the property is located in an area of undetermined but possible flood hazards (Zone D designation).
- We recommend that you avoid developing in tsunami-prone areas whenever there is a practicable alternative. If a structure is to be located in such an area, we recommend that it be elevated to or above the base flood level provided, on adequately anchored pilings or columns. We do not recommend the use of fill for structural support in a V-numbered zone.

The US Army Corps of Engineers will be happy to review the draft EIS when it becomes available.

Sincerely,

*Kisok Cheung*  
KISOK CHEUNG  
Chief, Engineering Division

1 Incl  
As stated



NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP


CITY AND COUNTY OF  
HONOLULU, HAWAII

PANEL 20 OF 135  
(SEE MAP INDEX FOR PANELS NOT PRINTED)

SCALE: 1"=1000 ft.

COMMUNITY-PANEL NUMBER  
150001 0020 A

EFFECTIVE DATE:  
SEPTEMBER 3, 1980



U.S. DEPARTMENT OF HOUSING  
AND URBAN DEVELOPMENT  
FEDERAL INSURANCE ADMINISTRATION

EXPLANATION OF ZONE DESIGNATIONS

EXPLANATION

20:2

- A Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
- AO Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
- AH Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
- AI-A30\* Areas of 100-year flood, base flood elevations and flood hazard factors determined.
- A99 Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
- B Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
- C Areas of minimal flooding. (no shading)
- D Areas of undetermined, but possible, flood hazards.
- V Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
- VI-V30\* Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.
- \* The numerals indicate the magnitude of difference between the 100-year and 10-year flood elevations. For numerals between 1-20, the difference is one half of the value; for values greater than 20, the difference is 10 less than the numerals shown. This information is used in establishing insurance rates.
- 18— 100-year tsunami or riverine elevation line, with elevation in feet above mean sea level.
- Zone boundary line

**Belt, Collins & Associates**  
 Engineers, Planners, Architects  
 1400 Ala Moana Blvd., Suite 1075, Honolulu, Hawaii 96813-3801  
 Telephone: (808) 531-5700

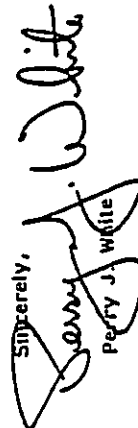
March 8, 1982

Mr. Kisuk Cheung  
 Chief, Engineering Division  
 Department of the Army  
 U.S. Army Engineer District, Honolulu  
 Fort Shafter, Hawaii 96858

Environmental Impact Statement for a Proposed Subdivision  
 of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Cheung:

Thank you for your letter of 16 October 1981 responding to our request for comments on the proposed Kawaioa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice. The information you provided was very helpful to us in preparing the Environmental Impact Statement (EIS). We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
  
 Perry J. White

PJW:AKY:kg  
 cc: Department of Land Utilization  
 Environmental Quality Commission  
 Oceanic Properties, Inc.

M.A. LTD. Principals: James R. Hill, Paul M. Hines, Raymond E. Carr, Joseph V. Vena, Jr., Thomas P. Papadimitriou



CLYDE R. BRIDSON  
ATTORNEY GENERAL



STATE OF HAWAII  
DEPARTMENT OF HEALTH

P.O. BOX 3318  
HONOLULU, HAWAII 96833  
October 1, 1981

Mr. Perry J. White  
Belt, Collins & Associates  
745 Fort Street  
Hawaii Building, 4th Floor  
Honolulu, Hawaii 96813

Dear Mr. White:

Subject: Request for Comments on Proposed Environmental Impact Statement (EIS)  
for Subdivision of Land Near Waimea Bay, Waialua, Oahu

Thank you for allowing us to review and comment on the subject proposed EIS. The following comments are submitted for your information and consideration:

1. This parcel is located in the Board of Water Supply's "pass" zone and consequently, the disposal of sewage into the ground is acceptable by the Department of Health.
2. Since there are no existing structures with cesspools to judge the past performances of cesspools, a submission of test borings and percolation data is requested for our evaluation.
3. In event the use of individual wastewater system is acceptable, these systems should be installed at least 50 feet away from mean sea level.
4. If alternatives to the proposed residential subdivision is contemplated such as a cluster development, the use of individual wastewater systems may not be acceptable.
5. If you should have any questions, please contact Mr. Tsutomu Kubota, Chief, Sanitation Branch at 548-6478.

We realize that the statements are general in nature due to preliminary plans being the sole source of discussion. We, therefore, reserve the right to impose future environmental restrictions on the project at the time final plans are submitted to this office for review.

Sincerely,  
*Beth J. Day*  
for  
MELVIN K. KOIZUMI  
Deputy Director for  
Environmental Health

RECEIVED  
OCT 5 1981

BELT, COLLINS & ASSOCIATES  
ATTORNEYS AT LAW

JOHN F. COLLINS, M.D.  
DEPUTY DIRECTOR OF HEALTH  
HENRY N. THOMPSON, M.A.  
DEPUTY DIRECTOR OF HEALTH  
MELVIN K. KOIZUMI  
DEPUTY DIRECTOR OF HEALTH  
ANTHONY ALDRICH SMITH, M.S., J.D.  
DEPUTY DIRECTOR OF HEALTH

In Reply, Please Refer to  
File: EPHIS-SS

Belt, Collins & Associates  
ATTORNEYS AT LAW  
1405 Ala Moana Blvd., Suite 1425, Honolulu, Hawaii 96813  
Telephone: (808) 521-3361  
Telex: 00111741474

March 8, 1982

Mr. Melvin K. Koizumi  
Deputy Director for Environmental Health  
Department of Health  
State of Hawaii  
P.O. Box 3378  
Honolulu, Hawaii 96801

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Koizumi:

Thank you for your letter of October 1, 1981 (your reference EPHS-SS) responding to our request for comments on the proposed Kawailoa Sub-division near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and preparing your comments on the proposed project. Your comments were helpful to us as we drafted the Environmental Impact Statement (EIS). We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
*Perry J. White*  
Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

RECEIVED  
JAMES R. BELT, PAUL M. THOMPSON, RAYMOND F. CAIN, JOSEPH V. VITTO, H. THOMAS F. PAPANDREOU

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU  
RECEIVED  
OCT 15 1981

840 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE 522-4161

BELT, COLLINS & ASSOCIATES



EILEEN R. ANDERSON  
CLERK

JOSEPH A. CONANT  
DIRECTOR

CHARLES R. TONGCOE  
DEPUTY DIRECTOR

Mr. Perry J. White  
October 8, 1981  
Page 2

2. Would such a housing development adversely affect the aesthetic image of the surrounding area or obstruct any views?

Thank you for allowing us the opportunity to provide input for this draft EIS.

Sincerely,  
  
JOSEPH A. CONANT

October 8, 1981

Mr. Perry J. White  
Belt, Collins and Associates  
Hawaii Building, 4th Floor  
745 Fort Street  
Honolulu, Hawaii 96813

Dear Mr. White:

Subject: Draft Environmental Impact Statement (EIS)  
for a Proposed Subdivision of Land Near  
Waimea Bay, Waialua, Oahu

We have received your notification of intent to prepare an EIS for the subject project and have no objections to the location of the proposed undertaking at this time.

In response to your request for specific questions and topics that should be addressed, we offer the following:

- A. Physical Impacts
  1. Foundation conditions: can excessive deformation of foundations occur because of changes in moisture content; soil swelling or shrinkage; liquefaction; substantial soil loss from construction practices; water and wind erosion; or inadequate weight bearing capacity?
  2. Will the area be more susceptible to erosion because of grading; increased runoff; or inadequate vegetative cover during and after construction?
- B. Aesthetic Impacts
  1. Is the project compatible with the surrounding area in terms of land use; density; scale; mass; texture; and architectural design?

**Belt, Collins & Associates**

Engineers, Planners, Landscape Architects  
Hawaii Reg. No. 18745, Land Reg. No. 18745  
Honolulu Reg. No. 18745, Land Reg. No. 18745  
Honolulu Reg. No. 18745, Land Reg. No. 18745  
Tel: (808) 531-5360

March 8, 1982

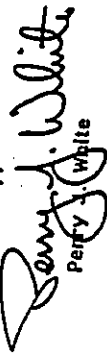
Mr. Joseph K. Conant, Director  
Department of Housing and  
Community Development  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Conant:

Thank you for your letter of October 8, 1981 responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and preparing your comments on the proposed project. Your concerns regarding physical and aesthetic impacts are addressed in the Environmental Impact Statement (EIS) which we expect to submit to the Environmental Impact Statement Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,

  
Perry J. White

PJW:AKY:kg

cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

B/C/A, LTD. Principals: James R. Bell, Paul M. Hinds, Raymond F. Cain, Joseph Vetro, Jr., Thomas F. Papandrew

RECEIVED  
JAN - 7 1982

MIT, COLLINS & ASSOCIATES  
DIVISIONS:  
CONSERVATION AND  
RESTORATION  
PLANNING  
FISH AND GAME  
FORESTRY  
LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

GEORGE B. ARITOMAH  
CHAIRMAN  
BOARD OF LAND & NATURAL RESOURCES



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
P. O. BOX 521  
HONOLULU, HAWAII 96813

EDGAR A. MALLASU  
DIRECTOR  
DIVISIONS:  
CONSERVATION AND RESTORATION  
PLANNING  
FISH AND GAME  
FORESTRY  
LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

January 4, 1982

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF STATE PARKS  
P. O. BOX 521  
HONOLULU, HAWAII 96813

GEORGE B. ARITOMAH  
CHAIRMAN  
BOARD OF LAND & NATURAL RESOURCES

AUG 18 1981

Mr. Perry White  
Belt, Collins & Associates  
Hawaii Building, 4th Floor  
745 Fort Street  
Honolulu, Hawaii 96813

Dear Mr. White:

SUBJECT: EIS for Proposed Subdivision  
Kawaioa and Waimea, Oahu  
TMK: 6-1-03: 26  
6-1-01: 1

Please refer to the attached copy of our letter to the Department of Land Utilization in which our prior comments regarding this proposed undertaking are expressed.

Sincerely yours

*[Signature]*  
Richard Nagata, Director  
Historic Sites Program

Attachment

Mr. Michael McElroy, Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, HI 96813

Dear Mr. McElroy:

SUBJECT: Proposed 19-Lot Subdivision  
Kawaioa and Waimea, Oahu  
TMK 6-1-03: 26, 6-1-01: 1

Thank you for your letter of July 31, 1981, and the Bishop Museum's archaeological reconnaissance survey report covering the proposed development area near Waimea Bay.

The report provides an excellent review of the archaeological resources in the project area and we concur with the evaluations and recommendations made in the report.

It is our understanding that the proposed archaeological study includes the following:

1. Accurate location and mapping of all archaeological features in the project area subject to direct and indirect impacts from the proposed development.
2. Archaeological excavations at selected sites in the project area, the selection to be based on a research design discussing the purpose for conducting the research proposed.
3. Analysis and curation of artifacts recovered at the site.
4. Preparation of a final report discussing what was learned at the project site.

**Belt, Collins & Associates**

Engineers, Planners, Landscapers, Architects  
1000 Ala Moana Blvd., Suite 418, Honolulu, Hawaii 96813-3091  
Telephone: (808) 531-5341 Telex: 083311743074

May 6, 1982

Mr. Susumu Ono  
State Historic Preservation Officer  
Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Ono:

Thank you for your letter dated January 4, 1982 regarding the environmental impact statement for the proposed Kawaloa Subdivision (TMK 6-1-03:26). The copy of your August 18, 1981 letter to the Department of Land Utilization that was transmitted with it clearly outlined your concerns for the archaeological resources on the site.

A copy of the Bishop Museum's final report of archaeological test excavations is attached to this letter for your use. The museum took far longer to complete their work than had originally been anticipated. Hence, the long delay in making it available to you.

The Bishop Museum's report recommends extensive archaeological work prior to the start of construction as a means of mitigating the potentially adverse effects that the project could have on archaeological remains. Oceanic Properties, Inc., the developer, does not agree with all of the recommendations contained in the Bishop Museum's report, primarily because the cost of implementing them appears to exceed the potential benefits that might be produced. In regard to site No. 1195 (Keahu O Hapu'u), plans for the proposed Kawaloa Subdivision project call for an area under and around this feature that now lies within TMK 6-1-03:26 to be subdivided out of that parcel and consolidated with parcel number 6-1-01:1 (see attached figure). Hence the ko'a site would not be directly impacted by the proposed project. However, the potential for indirect effects does exist. These will be noted in the completed EIS. Oceanic Properties, Inc. expects that the exact mitigation measures to be taken will be determined by the results of the SMA hearings.

If you have any questions, please call me at 521-5361.

Sincerely,  
  
Perry J. White

PJW:kg:Attachments  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James R. Bell, Paul M. Hinta, Raymond F. Cain, Joseph Vieira, Jr., Thomas P. Papandrew

Mr. Michael McElroy  
Page 2

We recommend that a copy of the final archaeological report be sent to our office for review and permanent accession in our reference library.

The developer is encouraged to undertake preservation measures at site no. 1195, the heiau or ko'a. Restoring the collapsed portions of the walls, constructing a trail, landscaping the area and planning a plaque at the site could be done in such a way so as to enhance the proposed development and provide passive protection for the site at the same time. If the site is left unattended, it will become obscured by vegetation and again, is more likely to be damaged by future construction activities in the area, and would be more susceptible to the predations of "rock miners." It should be noted that there are not many heiau sites left on Oahu, or conical sites of any kind whatsoever; thus the preservation measures recommended for this site seem to be justified. Site 1195 was placed on the Hawaii Register of Historic Places in 1972, as the Keahu O Hapu'u Complex, but was removed last year for procedural reasons. The site was classified as valuable at the time it was placed on the state register.

Sincerely yours,

78/SUSUM:11070

Susumu Ono  
Chairman of the Board and  
State Historic Preservation  
Officer

PH:ss  




# University of Hawaii at Manoa

Environmental Center  
Crawford 317 • 2550 Campus Road  
Honolulu, Hawaii 96822  
Telephone (808) 918-7301

Office of the Director

Mr. Perry J. White  
Belt, Collins & Associates  
745 Fort Street  
Honolulu, Hawaii 96813

Dear Mr. White:

Preparation Notice  
Environmental Impact Statement  
Waimea Bay Subdivision  
Waialua, Oahu

Thank you for giving us the opportunity to contribute our comments concerning the impacts of the proposed Waimea Bay sub-division. There are six major issues which need to be discussed comprehensively to insure that the EIS contains the information necessary to make it a complete public information document. Areas of concern identified by our staff reviewers, Jacquelin Miller and Robert Rowland, are:

Shoreline Setback

We are very concerned about shoreline setback distances in this notoriously high wave action area. Recent studies here at the University by Dennis Hwang (Beach Changes on Oahu as Revealed by Aerial Photographs, July 1981) indicate that in such areas as Waimea Bay, the 40 feet setback regulation of the City and County might be insufficient to assure adequate protection of structures from cyclical erosion and accretion of this coastline and protection from periodic winter high waves and storm erosion. A full discussion of historical wave heights, storm patterns and proposed lot orientation should be presented in the draft EIS.

Erosion Control

The impact of construction activities on the adjoining marine environment needs to be examined. Waimea Bay is a heavily used recreational area with water quality that should not be unduly compromised. We would suggest that a discussion of construction techniques, soil and geologic characteristics, runoff patterns, offshore currents, and any on-going permanent erosion control features of the project be included in the document.

Mr. Perry J. White

-2-

October 20, 1981

Waste Disposal

The subject of waste disposal deserves a thorough investigation. We agree with the recommendation of the DLU that the effect of cesspool waste disposal on offshore water quality is of prime importance. Other items that would be usefully addressed in the draft EIS are: percolation test results for several locations on the property, a soil profile analysis, and an example of what specific types of cesspool leach-line arrangements would be appropriate for each lot.

View Plane

Waimea Bay is a popular tourist attraction and the visual quality of the immediate area is directly related to this popularity. The visual impact of the sub-division on the Waimea Bay area and its impact on the view plane from the highway to the sea should be addressed in the EIS.

Archaeology

A complete inventory of the archaeological sites found on the property and a discussion of their significance along with a detailed map showing their location with respect to the various lots would be helpful.

Alternatives

Possible alternative proposals for the subject property that might mitigate the impacts of the project on the areas of concern expressed above should be included in the EIS. A discussion of the various alternatives considered in the planning process for this project will be helpful in understanding why this particular option was chosen.

We appreciate the chance to provide our comments on this project and we look forward to receiving the draft EIS.

Sincerely,

Donak C. Cox  
Director

cc: OEQC  
Jacquelin Miller  
Robert Rowland

**Belt, Collins & Associates**

Engineers • Planners • Landscape Architects  
11 Wai'aleale Blvd., Suite 418, 745 Fort St., Hanalei, Hawaii 96721, 3941  
Telephone (808) 521-5361 Telex BEL1117430474

March 8, 1982

Dr. Doak Cox, Director  
Environmental Center  
University of Hawaii  
2550 Campus Road  
Honolulu, Hawaii 96822

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Dr. Cox:

Thank you for your letter of October 20, 1981 (your reference PN-0009) responding to our request for comments on the proposed Kawailoa Sub-division near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and preparing your comments on the proposed project. Your concerns regarding storm waves and tsunamis, erosion control, waste disposal, view planes, and archaeology are addressed in the Environmental Impact Statement (EIS). A chapter on alternatives is also found in the document. We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
  
Perry White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James R. Bell, Paul M. Iinota, Raymond F. Cain, Joseph Vieira, Jr., Thomas P. Papamitrew

RECEIVED  
OCT 5 1981

BELT, COLLINS & ASSOCIATES



University of Hawaii at Manoa

Water Resources Research Center  
Hulmes Hall 203 • 2540 Dole Street  
Honolulu, Hawaii 96822

30 September 1981

Mr. Perry J. White  
Belt, Collins, and Associates  
745 Fort Street  
Honolulu, Hawaii 96813

Dear Mr. White:

Subject: EIS Preparation Notice for Subdivision by Castle &  
Cooke, Inc., Waimea Bay, Oahu, TMK 6-1-03:26,  
September 25, 1981

We have reviewed the subject EIS Preparation Notice and offer  
the following comment. Located on the coast, tsunami and high surf  
hazards should be addressed.

ETH:JM

cc: Y.S. Fok  
H. Gee

Sincerely,  
*Edwin T. Murabayashi*  
Edwin T. Murabayashi  
EIS Coordinator

Belt, Collins & Associates  
Engineers - Planners - Landscape Architects  
(Hawaii Office) - Suite 418 745 Fort St., Honolulu, Hawaii 96813-3891  
Telephone (808) 521-5361  
Telex BEL 111 7400474

March 8, 1982

Mr. Edwin T. Murabayashi  
EIS Coordinator  
Water Resources Research Center  
University of Hawaii  
2540 Dole Street  
Honolulu, Hawaii 96822

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Murabayashi:

Thank you for your letter of September 30, 1981 responding to our re-  
quest for comments on the proposed Kawailoa Subdivision near Waimea  
Bay. We appreciate the time spent by you and your staff reviewing the  
Environmental Impact Statement Preparation Notice and preparing your  
comments on the proposed project. Tsunamis and high surf hazards are  
addressed in the Environmental Impact Statement (EIS). We expect to  
submit the EIS to the Environmental Quality Commission shortly. We  
look forward to your further participation in this EIS process.

Sincerely,  
*Perry J. White*  
Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James R. Bell, Paul M. Umita, Raymond F. Cain, Joseph Vetro, Jr., Thomas P. Papandrew

AN EQUAL OPPORTUNITY EMPLOYER



RECEIVED  
OCT 16 1981  
BILT, COLLINS & ASSOCIATES

DEPARTMENT OF TRANSPORTATION SERVICES  
CITY AND COUNTY OF HONOLULU  
HONOLULU MUNICIPAL BUILDING  
650 SOUTH KING STREET  
HONOLULU, HAWAII 96813



ELLEN M. ANDERSON  
SECRETARY

ROY A. PARKER  
DIRECTOR  
TE9/81-3184

October 13, 1981

Belt, Collins & Associates  
4th Floor Hawaii Building  
745 Fort Street  
Honolulu, Hawaii 96813

Attention: Mr. Perry J. White

Gentlemen:

Subject: Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu  
TMK: 6-1-03: 26

We have the following comments on the project:

1. Roadway access to Kamehameha Highway should be located at a point which provides maximum sight distance (for both directions of travel).
2. Future roadway setback requirements for Kamehameha Highway should be discussed with the State Department of Transportation.

Thank you for providing us this opportunity to review and comment on the project.

Very truly yours,

*Roy A. Parker*  
ROY A. PARKER  
Director

**Belt, Collins & Associates**  
Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAHI 7431989

March 10, 1982

Mr. Roy A. Parker, Director  
Department of Transportation Services  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Parker:

Thank you for your letter of October 13, 1981 (your reference TE9/81-3184) responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and preparing your comments on the proposed project.

Responses to your comments are given below:

1. The access road has been located as far from the curve toward Waimea Bay as possible. The sight distance available exceeds 500 feet to the north and 2,000 feet to the south.
2. Mr. James Hara of EDP, Inc., the civil engineers for the proposed project, discussed possible setback requirements from Kamehameha Highway with several persons at the State Department of Transportation. These included Mr. Harold Yonamine of the Rights-of-Way Branch, Mr. George Shigano of the Highway Planning Branch, and Mr. Mike Miura of the Highway Design Branch. He was informed that currently there are no setbacks which affect the site of the proposed subdivision.

We expect to submit the Environmental Impact Statement (EIS) to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
*Perry J. White*  
Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA LTD. Principals: James R. Bell, Paul M. Hirota, Raymond F. Cain, Joseph Vieira, Jr., Thomas P. Papandrew

245 North Kukui Street, Honolulu, Hawaii 96817. Telephone: 535-1111  
Belt, Collins & Associates  
101 26 1981

AMERICAN LUNG ASSOCIATION of Hawaii

Mr. Perry J. White  
Belt, Collins & Associates  
745 Fort Street  
Honolulu, Hawaii 96813

Dear Mr. White:

Subject: Proposed Subdivision of Land Near Waimea Bay  
We have reviewed your letter and the EIS Preparation Notice for the subject project and have no comments to offer at this time. Thank you for informing us of the proposed subdivision.

VII-20

Sincerely yours,  
*James W. Morrow*  
James W. Morrow  
Director  
Environmental Health

**Belt, Collins & Associates**  
Engineers, Planners, Landscape Architects  
1100 Ala Moana Blvd., Suite 1017, Honolulu, Hawaii 96813  
Telephone: (808) 531-5100

March 8, 1982

Mr. James W. Morrow  
Director of Environmental Health  
American Lung Association of Hawaii  
245 North Kukui Street  
Honolulu, Hawaii 96817

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Morrow:

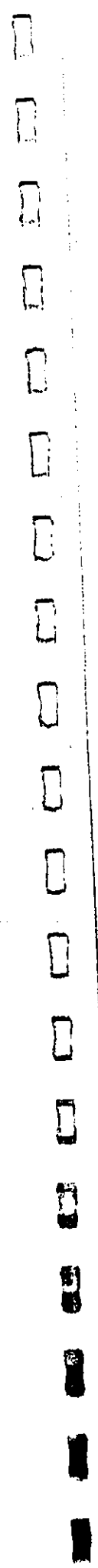
Thank you for your letter of October 23, 1981 responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice. We understand you have no comments to offer at this time. We expect to submit the Environmental Impact Statement (EIS) to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
*Perry J. White*  
Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

RCA, LTD. Principals: James R. Bell, Paul M. Hines, Raymond F. Cain, Joseph Vavra, Jr., Thomas P. Papandrew

Christmas Seals Fight TB, Asthma, Emphysema, Air Pollution



**Belt, Collins & Associates**  
Engineers, Planners, Architects  
Landscape Architects  
Hawaii Office: Suite 410715 Fort St., Honolulu, Hawaii 96813-3691  
Telephone: (808) 521-5761  
Telex: 011111 23 8074

March 8, 1982

Ms. Susan E. Miller  
Conservation Chairman  
The Sierra Club, Hawaii Chapter  
P.O. Box 22897  
Honolulu, Hawaii 96822

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Ms. Miller:

Thank you for your letter of 22 October 1981 responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and your chapter reviewing the Environmental Impact Statement Preparation Notice and preparing your comments on the proposed project. Point-by-point responses to your comments follow.

Shoreline Access

The issue of shoreline access has been the subject of much discussion at Oceanic Properties, Inc. At present, the developer plans that the easement through lot 10 to the shoreline would be private, i.e., open only to the residents of the subdivision. They prefer a private easement for several reasons.

First, in view of the rockiness of the shoreline fronting the site, it seemed unlikely that a public right-of-way would receive much use. Hence, the cost of constructing an improved path, fences, and other facilities required for a public right-of-way did not appear to be justified. Moreover, the creation of a public right-of-way would carry with it several drawbacks that are avoided by the private easement:

- o It would invite persons unfamiliar with this shoreline to a rocky stretch which can be dangerous even when waves are of only moderate height;
- o It would tend to attract non-residents to the ko'a, thereby increasing the potential for damage to those archaeological remains; and
- o It could generate a flow of outside traffic that would decrease the value of surrounding lots.

Although these considerations have led Oceanic Properties, Inc. to propose a private easement for shoreline access, they realize this proposal is subject to review. The City and County Department of Land Utilization could require a public right-of-way as a condition of subdivision approval.

RCA, LTD., Principals: James R. Hill, Paul M. Hines, Raymond E. Cain, Joseph Viera, Jr., Thomas P. Papadimitriou



*Maunaloa, by Fiequet, 1977*

THE SIERRA CLUB, HAWAII CHAPTER  
JUL 16 1981

Post Office Box 22897, Honolulu, HI 96822  
Telephone: (808) 916-8194

22 October 1981

Mr. Perry J. White  
Belt, Collins and Associates  
745 Fort Street, 4th Floor  
Honolulu, Hawaii 96813

Re: Environmental Impact Statement Preparation Notice  
for Oceanic Properties, Inc. Subdivision near Waimea  
Bay, O'ahu (81/SWA-82(HK))

Dear Mr. White:

Your letter of 25 September 1981 and the referenced EISPH were forwarded to me since our kuleana is the island of O'ahu. We appreciate the opportunity to review the EISPH and offer the following comments. (Page references are to the EISPH.)

Page 2: A(3) -- Provision of public shoreline access would be far preferable and might somewhat allay local feelings of intrusion arising from the development.

B(1) -- On what basis does the applicant anticipate "that most of the lot purchasers will come from the Central and North Shore areas of Oahu"? Based on the fair market value quoted on page 3, the average price of the 19 lots would be \$127,500 and the cover letter indicates the expectation that purchasers would build custom-designed homes. Is there really a local market for such acquisitions? Would it not be more likely that the buyers would be from Honolulu or out-of-state?

Page 4: C(5) -- While the traffic impact from this one development may be minimal, should it not be considered in conjunction with other proposed developments in the area, such as Sullivan at Pupukea, expansion of Kuliama resort, and Hokuleia timesteads?

Page 5: C -- We are particularly concerned about the piece-meal development of the North Shore area which this type of project represents. Since neither the Detailed Land Use Map nor the proposed Development Plan support the zoning designation, we shall be most interested to see the results of this discussion.

While potential effect of the development on coastal water quality has been noted as one of the points to be addressed in the EIS, we would wonder also about availability of domestic water.

I hope these comments will be helpful. We will look forward to reviewing the draft EIS when it becomes available.

Sincerely,  
*Susan E. Miller*  
Susan E. Miller, Conservation Chairman  
Honolulu Group

cc: Dept. of Land Utilization

Expected Market

Although the market portion of the EIS has not yet been completed, we believe it is extremely unlikely that marketing efforts would be aimed especially at Mainlanders. However, it is possible that a substantial number could be sold to people now residing outside of the central/North Shore area of O'ahu, and some could be sold to people from outside the state.

Traffic

The discussion in the traffic section of the EIS does take into account growth in traffic due to proposed developments in the area, including Kuliima.

Land Use Plans

As discussed in Chapter II of the EIS, the proposed North Shore Development Plan (NSDP) presently designates the site as residential. Since the NSDP and five other development plans were not adopted in November 1981, they have been returned to the Department of General Planning for further work. The Department of Land Utilization has stated that the zoning "has priority over the DLUM."

Water Availability

This issue is discussed in Section 10, Chapter III of the EIS. We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
  
Perry White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

RECEIVED  
OCT 29 1981

NORTH SHORE NEIGHBORHOOD BOARD NO. 27  
P.O. Box 507  
HALEIWA, HAWAII 96712



BELT, COLLINS & ASSOCIATES

**Belt, Collins & Associates**  
Planners, Landscape Architects  
Interior Designers  
1005 Kalia Road, Honolulu, Hawaii 96813  
Telephone: (808) 531-5301  
Telex: 001111710171

March 8, 1982

Ms. Laura Bolles, Chairman  
North Shore Neighborhood Board No. 27  
P.O. Box 507  
Haleiwa, Hawaii 96712

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Ms. Bolles:

Thank you for your letter of October 27, 1981 responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and other members of the North Shore Neighborhood Board reviewing the Environmental Impact Statement Preparation Notice and preparing your comments on the proposed project. Your concerns regarding water quality impacts, archaeological sites, sight distances at entrance road, land use designation conflicts, and visual impacts are addressed in the Environmental Impact Statement (EIS) which we expect to submit to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
*Randy J. White*  
Randy J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

RCA LTD Principals: James R. Bell, Paul K. Hinda, Raymond F. Carr, Joseph Vena, Jr., Thomas P. Capandrew

October 27, 1981

Belt, Collins and Associates  
745 Fort Street, 4th Floor  
Honolulu, Hawaii 96813

SUBJECT: Environmental Impact Statement Preparation Notice  
for Proposed Subdivision of Castle and Cooke Land  
near Waimea Bay, Waialua, Oahu

Dear Mr. White:

The North Shore Neighborhood Board has reviewed the EISPN. Listed below are our concerns that we would like addressed in the EIS:

- surface run-off water and its affect upon ocean quality
- adjacent or intermingled archaeological sites - recommend a thorough evaluation of the historical importance of the site
- impact of cesspools on quality of offshore coastal waters
- possible lack of visibility of entrance and exit onto Kamehameha Highway - of particular concern is the curve going Kaena Point from Waimea Bay
- conflict of land use designations-area is proposed for a future park
- viewplains in relationship to dwelling heights
- architectural considerations of buildings facing Kamehameha Highway
- design considerations of houses - deed covenants to outline desirable characteristics

Thank you for giving us the opportunity to review the EISPN.

Sincerely,  
*Laura Bolles*  
Laura Bolles  
Chairman NSNB

## Belt, Collins & Associates

Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAHI 7431989

September 25, 1981

Mr. Jack Kanalz, State Conservationist  
Soil Conservation Service  
U.S. Department of Agriculture  
Prince Kuhlo Federal Building, Room 4316  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Mr. Kanalz:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just south-west of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISPN) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISPN provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

It is worth noting that the project site is not identified on the State's ALISH maps as having agricultural lands of importance to the State of Hawaii. Neither is there any historical record of it having been used for agricultural purposes in the past. In view of this, it is our intention to give the possibility of agricultural use of the property only limited attention in the EIS. If you believe this conclusion is unwarranted, or if there are specific soil-related aspects of the site that you would like to call to our attention, I would appreciate knowing about them at this time.

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request

BCA, LTD. Principals: James R. Bell, Paul M. Hirota, Raymond F. Cain, Joseph Vieira, Jr., Thomas P. Papandrew

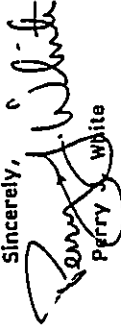
September 25, 1981  
Page 2

for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency. . . upon good cause shown. . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,



Perry J. White

PJW:kg  
Attachment: EISPN  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

RECEIVED  
OCT 13 1981

BELT, COLLINS & ASSOCIATES

P. O. Box 50004  
Honolulu, Hawaii  
96850

Soil  
Conservation  
Service

United States  
Department of  
Agriculture

October 8, 1981

Mr. Perry J. Milre  
Belt, Collins & Associates  
4th Floor Hawaii Building  
745 Fort Street  
Honolulu, HI 96813

Dear Mr. Milre:

Subject: Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

We have reviewed the subject document as you requested.

The proposed environmental impact statement should discuss the need for erosion control measures during the grading operation and revegetation of the area when grading is completed. In addition, any possible sediment pollution to offshore waters should be included.

Thank you for the opportunity to review this document.

Sincerely,

*Jack P. Kanai*  
JACK P. KANAI, Z  
State Conservationist

LCF110

VII-25

**Belt, Collins & Associates**  
Engineers, Planners, Landscapers/Architects  
1145 Ala Moana Blvd., Suite 4107, Honolulu, Hawaii 96813-3941  
Telephone: (808) 521-5361 Telex: BELCOL 7410174

March 8, 1982

Mr. Jack P. Kanai  
State Conservationist  
Soil Conservation Service  
U.S. Department of Agriculture  
P.O. Box 50004  
Honolulu, Hawaii 96850

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Kanai:

Thank you for your letter of October 8, 1981 responding to our request for comments on the proposed Kawaloa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and preparing your comments on the proposed project. Your concerns regarding erosion are addressed in the Environmental Impact Statement (EIS) which we expect to submit to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
*Perry J. Milre*  
Perry J. Milre

PJM:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

The Soil Conservation Service  
is an agency of the  
Department of Agriculture

SCS-AS-1  
10-79

SCA, LTD. Principals: James R. Ivell, Paul M. Hines, Raymond E. Cain, Joseph Vecra, Jr., Thomas P. Papandrew

**Belt, Collins & Associates**  
Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAAHI 7431989

September 25, 1981

Mr. Maurice H. Taylor  
Field Supervisor  
Division of Ecological Services  
Fish and Wildlife Service  
U.S. Department of the Interior  
300 Ala Moana Blvd., Room 5302  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Mr. Taylor:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just south-west of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISPN) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISPN provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

Our preliminary survey of the project site shows it to be vegetated primarily by haole koa, and it is not known to be a significant wildlife habitat. Nevertheless, surveys of both flora and fauna will be conducted as part of our analysis. If you are aware of any aspects of the site's biota that deserve special attention, I would appreciate knowing about them.

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension

BCA LTD. Principals: James R. Belt, Paul M. Hirota, Raymond F. Cain, Joseph Vierra, Jr., Thomas P. Papanikrew

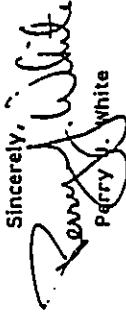
September 25, 1981  
Page 2

is granted by the accepting agency ". . . upon good cause shown . . ." It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,

  
Perry J. White

PJW:kg

Attachment: EISPN  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.





United States Department of the Interior

FISH AND WILDLIFE SERVICE  
300 ALA MOANA BOULEVARD  
P.O. BOX 50147  
HONOLULU, HAWAII 96850

RECEIVED

OCT 14 1981  
BILT, COLLINS & ASSOCIATES

IN REPLY REFER TO:  
ES  
ROOM 6307

OCT 7 1981

Mr. Perry J. White  
Belt, Collins & Associates  
745 Fort Street  
Honolulu, Hawaii 96813

Re: EIS Preparation Notice  
Proposed Subdivision  
Near Waimea Bay  
Waialua, Oahu, Hawaii

Dear Mr. White:

We have reviewed the subject Environmental Impact Statement (EIS) Preparation Notice and offer the following comments. We are particularly concerned about the impact of the project on nearshore water quality from both cesspools and siltation due to site preparation and construction activities. Additionally, we recommend the flora and fauna survey be conducted by a botanist since no significant native terrestrial animals or birds are known from that area.

We appreciate this opportunity to comment.

Sincerely yours,

*Ernest Kosaka*  
Ernest Kosaka  
Project Leader  
Office of Environmental Services

cc: MHFS  
HDF&G  
EPA, San Francisco



Save Energy and You Serve America!

**Belt, Collins & Associates**  
Engineers Planners Landscape Architects  
Hawaii, Inc. Suite 418745 Fort St. Honolulu, Hawaii 96813-3691  
Telephone (808) 521-5341 Telex 0111741074

March 8, 1982

Mr. Ernest Kosaka  
Office of Environmental Services  
Fish and Wildlife Service  
U.S. Department of the Interior  
300 Ala Moana Boulevard  
Honolulu, Hawaii 96850

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Kosaka:

Thank you for your letter of October 7, 1981 (your reference ES Room 6307) responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and preparing your comments on the proposed project. Your concern regarding the impact of the project on nearshore water quality is addressed in the Environmental Impact Statement (EIS). Your recommendation that the site be surveyed by a botanist was followed. We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
*Perry J. White*  
Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James K. Bell, Paul M. Hinata, Raymond F. Cain, Joseph Westra, Jr., Thomas P. Papandrew

## Belt, Collins & Associates

Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAMI 7431989

September 25, 1981

Mr. Jack Suwa, Chairman  
Department of Agriculture  
State of Hawaii  
1428 South King Street  
Honolulu, Hawaii 96814

### Environmental Impact Statement for a Proposed Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Mr. Suwa:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just southwest of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISP) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISP provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

1. It is our understanding that the project site is not on land designated as being of agricultural significance to the State of Hawaii. Is this correct?

BCA, LTD. Principals: James R. Belt, Paul M. Hirota, Raymond F. Cain, Joseph Vierra, Jr., Thomas P. Papandrew

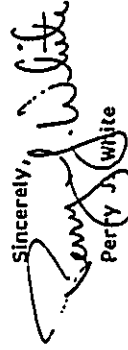
September 25, 1981  
Page 2

2. The owner of the site, Castle and Cooke, Inc., is unaware of any former agricultural use of the parcel. If members of your Department have any information that would either support or contradict this belief, would you please provide it to us?
3. In addition to limitations on agricultural use of the site that are imposed by its soil, we believe that the parcel's configuration, topography, relationship to other uses, and shoreline location make it unlikely that it would ever be put to agricultural use. Do you agree? If not, what are your reasons for believing that the area is suitable for agricultural use?
4. Do you have any special concerns with respect to the proposed residential use of the site? If so, would you please describe them.

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency. . . upon good cause shown. . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,  
  
Perry J. White

PJW:kg  
Attachment: EISP  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

GEORGE R. ANTONIO  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF AGRICULTURE  
1425 SO. KING STREET  
HONOLULU, HAWAII 96814  
October 28, 1981

JOHN FARBER, JR.  
CHAIRMAN BOARD OF AGRICULTURE

RECEIVED  
OCT 29 1981

BEIT, COLLINS & ASSOCIATES

Mr. Perry J. White  
Page -2-  
October 28, 1981

We agree that due to the parcel's location, it is unlikely that the owner would choose to utilize the land for agricultural purposes.

We do not at this time have any special concerns with respect to the proposed residential use of the site.

Thank you for the opportunity to comment.

Sincerely,

*Jack K. Suma*  
JACK K. SUMA  
Chairman, Board of Agriculture

Mr. Perry J. White  
Beit, Collins & Associates  
4th Floor Hawaii Building  
745 Fort Street  
Honolulu, Hawaii 96813

Dear Mr. White:

Re: Environmental Impact Statement for a Proposed  
Subdivision of Land near Waimea Bay, Maialua, Oahu

The Department of Agriculture has reviewed the subject preparation notice and offers the following comments.

The subject parcel was not classified by the Agricultural Lands of Importance to the State of Hawaii system. This is probably because the parcel is part of an area under 10 acres which is in the Urban District and which is characterized by residential uses.

The Land Study Bureau Overall Productivity Class is "D125" (poor) which would have been "B125i" if irrigation had been available at the time the classification was made. The Crop Productivity Ratings are as follows.

	Pineapple	Vegetable	Sugarcane	Forage	Grazing	Orchard
D125	d	d	e	b	c	d
D125i	c	b	b	c	c	a

The Soil Conservation Service Soil Survey classifies the soils as Maialua stony silty clay 3-8 percent slopes which has a good capability class and is used for sugarcane, truck crops, orchards, and pasture, and Kaena very stony clay 3-8 percent slopes which is used for pasture and homesites. These soils should be thoroughly described in the Environmental Impact Statement.

From the Land Study Bureau's and Soil Conservation Service's classification, the soils themselves would not prohibit agricultural activity particularly if irrigation were available.

Our Department does not have any record of former agricultural use of the parcel. Therefore, we cannot support or contradict the owner's information.

**Belt, Collins & Associates**  
Engineers • Planners • Landscape Architects  
Hawaii • Suite 414755 • Honolulu, Hawaii 96813-3891  
Telephone (808) 521-5301 • Telex 001 111 740074

March 8, 1982

Mr. Jack Suwa, Chairman  
Board of Agriculture  
State of Hawaii  
1428 South King Street  
Honolulu, Hawaii 96814

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Suwa:

Thank you for your letter of October 28, 1981 responding to our request for comments on the proposed Kawaloa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and answering the questions in our letter of September 25, 1981. The information you provided was very helpful to us in preparing the Environmental Impact Statement (EIS). We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,

  
Perry D. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James R. Bell, Paul M. Hinds, Raymond F. Cain, Joseph Verza, Jr., Thomas D. Espandrew

## Belt, Collins & Associates

Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAHI 7431989

September 25, 1981

Mr. Charles G. Clark  
Superintendent  
Department of Education  
State of Hawaii  
P.O. Box 2360  
Honolulu, Hawaii 96804

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Mr. Clark

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just southwest of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISPN) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISPN provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

1. What public elementary, junior high, and high schools would serve students from the proposed subdivision? Does the Department have any plans to construct new or expanded educational facilities in the area? If so, would you please describe them?

BCA, LTD. Principals: James R. Belt, Paul M. Hirota, Raymond F. Cain, Joseph Vieira, Jr., Thomas P. Papandrew

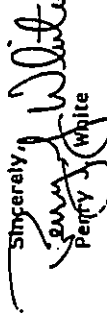
September 25, 1981  
Page 2

2. What is the present enrollment, existing design capacity (for both the buildings and the site, if they are different), and the projected enrollment for the 1985-1990 period for each of the schools listed above?
3. How much space is present at existing or currently proposed facilities to accommodate increased enrollment?
4. What student generation rates (by grade level categories) does the Department believe are most appropriate for three- to four-bedroom, relatively high-priced, single-family homes on the project site? Do these generation factors include all students or only those attending public schools?
5. Does the Department make estimates of the proportion of students who attend private schools? If so, could you provide such estimates to us?
6. Is school bus service available in the area that could be used by children of the proposed project? If so, could you please describe it briefly?

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency. . . . upon good cause shown. . . . it is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,  
  
Perry J. White

PJW:kg  
Attachment: EISPN  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

**Belt, Collins & Associates**  
OCT 14 1981

BELT, COLLINS & ASSOCIATES



STATE OF HAWAII  
DEPARTMENT OF EDUCATION

P. O. BOX 2348  
HONOLULU, HAWAII 96813

October 8, 1981

OFFICE OF THE SUPERINTENDENT

Belt, Collins & Associates  
745 Fort Street, 4th Floor  
Honolulu, Hawaii 96813

ATTN: Mr. Perry J. White

Dear Mr. White:

SUBJECT: EIS Preparation  
4.689 Acres, TMK: 6-1-03:26

The subject project to develop 4.689 acres of land located in Kawaioa, Waialua, Oahu, TMK: 6-1-03:26 into 19 lots will have a negligible effect on student enrollment for schools in the area. The expected student enrollment is as follows:

SCHOOL	GRADE	APPROXIMATE ENROLLMENT
Haleiwa Elementary	K-6	2 - 6
Waialua High-Intermediate	7-12	0 - 4

The response to the inquiries listed in your letter of September 25th are:

- There are no plans to construct new or expanded educational facilities for the subject schools at the present time.
- | Item                            | Haleiwa Elem. | Waialua High-Inter. |
|---------------------------------|---------------|---------------------|
| Current Enrollment              | 556           | 1,118               |
| Design Enrollment               | 550           | 1,000               |
| Projected Enrollment, 1985-1990 | 550           | 1,050               |

AN EQUAL OPPORTUNITY EMPLOYER

Belt, Collins & Associates  
October 8, 1981  
Page 2

- Haleiwa Elementary has sufficient space to accommodate additional enrollment. Waialua High-Intermediate is operating at capacity and has no capacity to accommodate increased enrollment without adding classrooms to its facility inventory.
- The student generation rate for three to four bedrooms, relatively high priced, single family units is 0.20 for K-6 grades and 0.15 for 7-12 grades.
- No, the department does not make estimates of the proportion of students attending private schools. The percentage listed are taken from actual enrollment reports. Approximately 17 percent of Hawaii grade school students attend private schools. This percentage is significantly higher for affluent neighborhoods.
- Yes. Bus service is available in the project area. Details can be obtained by calling the schools servicing the project area or by calling the Central District Office at the appropriate time.

Should there be any further questions, you may contact Mr. Howard Lau at 737-5231.

Sincerely,

CHARLES G. CLARK  
Superintendent

CGC:HL:jl

cc: Mr. James E. Edington  
Central District

**Belt, Collins & Associates**  
Engineers, Planners, Landscape Architects  
Landscape Architects  
Honolulu, Hawaii 96813-3891  
410 245 First St. Honolulu, Hawaii 96813-3891  
Telephone: (808) 521-5301 Telex: BELT01743074

March 8, 1982

Dr. Donn's Thompson  
Superintendent  
Department of Education  
State of Hawaii  
P.O. Box 2360  
Honolulu, Hawaii 96804

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Wai'alua, Oahu (TMK 6-1-03:26)

Dear Dr. Thompson:

Thank you for your department's letter of October 8, 1981 responding to our request for comments on the proposed 4,689-acre Kawai'oa Sub-division near Waimea Bay. We appreciate the time spent by your department reviewing the Environmental Impact Statement Preparation Notice and answering the questions in our letter. The Informal Impact Statement (EIS) we expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,

  
Perry G. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James R. Bell, Paul M. Hinde, Raymond F. Cain, Joseph Vetro, Jr., Thomas F. Papandrew

**Belt, Collins & Associates**  
Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAHI 7431989

September 25, 1981

Mr. Hideto Kono, Director  
Department of Planning and  
Economic Development  
State of Hawaii  
P.O. Box 2359  
Honolulu, Hawaii 96804

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Mr. Kono:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just southwest of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISPN) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISPN provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

1. Are any special permits required from your Department before the proposed project may be implemented? If there are, would you please describe them?

BCA, LTD. Principals: James R. Bell, Paul M. Hirota, Raymond F. Cain, Joseph Vierra, Jr., Thomas P. Papandrew

September 25, 1981  
Page 2

2. Do you foresee any possible conflicts between the proposed project and the policies and objectives of the State's Coastal Zone Management Program or the Hawaii State Plan? If you do, would you please describe them?

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency. . . . upon good cause shown. . . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,

  
Perry J. White

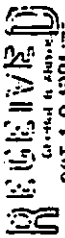
PJW:kg  
Attachment: EISPN  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.





**DEPARTMENT OF PLANNING  
AND ECONOMIC DEVELOPMENT**

Honolulu Building, 270 South King St., Honolulu, Hawaii - Mailing Address, P.O. Box 2335, Honolulu, Hawaii 96801



**BELT, COLLINS & ASSOCIATES**  
INCORPORATED  
1114 Ala, SIOPOWAIKI  
Honolulu, Hawaii

05/19/1981

October 14, 1981

Ref. No. 3745

Mr. Perry J. White  
Belt, Collins & Associates  
745 Fort Street  
Hawaii Building, 4th Floor  
Honolulu, Hawaii 96813

Dear Mr. White:

**SUBJECT:** Environmental Impact Statement Preparation Notice  
for a Proposed Subdivision of Land Near Waimea Bay,  
Maui, Oahu

We have reviewed the subject environmental impact statement (EIS) preparation notice and find that we are in general agreement with the Department of Land Utilization's (DLU) comments regarding the areas of concern which should be addressed in the subsequent EIS.

In addition, we offer the following comments with respect to the relevant objectives and policies of the Hawaii Coastal Zone Management Program.

Recreational Resources

**CZM Policy:** Provide adequate accessible, and diverse recreational opportunities in the coastal zone management area by encouraging expanded public recreational use of County, State and Federally owned or controlled shoreline lands and waters having recreational value.

**Comment:** The proposed project would remove this site from future consideration for public recreational use. Subsequent to discussions with the proper governmental authorities on any planned or current recreational uses in this area, the EIS should discuss in detail: existing recreational resources or activities on the site (e.g., fishing, swimming, etc.); impacts upon these existing recreational resources due to the proposed development; public access to the shore; and any State and County plans for recreational facilities involving the project site. Any plans which involve the project site for recreational use should be included in the discussion on alternatives to the proposed action.

Mr. Perry J. White  
Page 2  
October 14, 1981

Historic Resources

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

**Comment:** The proposed subdivision and adjacent parcel contain archaeological sites as identified through the reconnaissance survey conducted by the Bishop Museum. The EIS should identify and discuss the significance of these archaeological sites, including their significance in association with the archaeological sites contained in the adjacent parcel. Likewise, any proposed preservation measures should address the protection of the sites found in the proposed subdivision as well as any significance of their association with the archaeological sites found in the adjacent parcel.

Scenic and Open Space Resources

**CZM Policy:** Identify valued scenic resources in the coastal zone management area.

**Comment:** The proposed subdivision will result in the development of a site that is currently undeveloped and is surrounded by open space on all except one side. Therefore, the EIS should describe the scenic resources of the site to include existing views makai of the nearest coastal highway (Kamehameha Highway) toward the site and views along the shoreline, particularly from areas generally accessible to the public. There should also be a discussion of the impact that future development would have on these view planes as well as any appropriate mitigation measures which need to be taken.

**CZM Policy:** Encourage those developments which are not coastal dependent to locate in inland areas.

**Comment:** The proposed residential subdivision is not coastal dependent. Accordingly, the EIS should assess the degree to which open space resources in the vicinity of the proposed subdivision will be impacted, both in terms of existing uses and as allowed by current zoning.

Coastal Ecosystems

**CZM Policy:** Preserve valuable coastal ecosystems of significant biological or economic importance.

**Comment:** Because of the proposed subdivision's proximity to the shoreline, the EIS should include a description of the marine life and water quality of the nearshore waters. The impacts of development, particularly those resulting from grading and cesspool waste disposal, upon these marine biota should also be identified and discussed in detail, together with any appropriate mitigation measure which may be necessary.

Mr. Perry J. White  
Page 3  
October 14, 1981

Coastal Hazards

**CZM Policy:** Control development in areas subject to storm wave, tsunami, flood erosion, and subsidence hazard; ensure that developments comply with requirements of the Federal Flood Insurance Plan.

**Comment:** As noted by the DIII, a portion of the project site is located on a 100-year flood plain. Although some mitigation measures have been discussed, further assurances are needed that the development will be in full compliance with the County-implemented requirements of the Federal Flood Insurance Program.

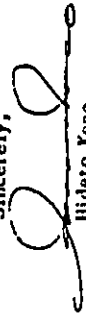
In response to the specific questions posed by you in your letter of September 25, 1981, we offer the following:

1. The Hawaii Coastal Zone Management Program does not require any special permits for development. The Program does, however, review State and County permits issued for development in the CZM area for compliance with the program's objectives and policies. However, if any federal actions, permits or licenses are required in connection with the proposed project, our Department will conduct a separate review for consistency with the Hawaii CZM Program.

2. While there is insufficient information at this time to detail any foreseeable conflicts with the program's objectives and policies, we hope that the previous discussions will serve to guide the preparation of the EIS in addressing potential conflicts.

Thank you for this opportunity to comment on this EIS preparation notice.

Sincerely,



Hidato Kono

cc: Department of Land Utilization  
Office of Environmental Quality Control

**Belt, Collins & Associates**

Engineers, Planners, Landscape Architects  
Architects  
1400 Ala Moana Blvd., Suite 1087, Honolulu, Hawaii 96813-3091  
Telephone: (808) 521-5311 Telex: 01111730074

March 8, 1982


Mr. Hidato Kono, Director  
Department of Planning and  
Economic Development  
State of Hawaii  
P.O. Box 2359  
Honolulu, Hawaii 96804

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Kono:

Thank you for your letter of October 14, 1981 (your reference No. 3745) responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and answering the questions in our letter. The comments you provided on the CZM policies were very helpful to us in preparing the Environmental Impact Statement (EIS). We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,



Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James R. Bell, Paul M. Finora, Raymond F. Cain, Joseph Vieira, Jr., Thomas F. Raymond

**Belt, Collins & Associates**  
Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAAHI 7431989

September 25, 1981

Dr. Ryokichi Higashionna, Director  
Department of Transportation  
State of Hawaii  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Dr. Higashionna:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just southwest of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISP) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISP provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

BCA, LTD. Principals: James R. Bell, Paul M. Hirota, Raymond F. Cain, Joseph Vieira, Jr., Thomas P. Papandrew

September 25, 1981  
Page 2

1. A map showing the general location of the site may be found on the last page of the EIS Preparation Notice that accompanies this letter. I have also attached a map showing the preliminary roadway grading plan for the project. Is the proposed intersection of the main access road with Kamehameha Highway acceptable to you? If not, what changes do you believe should be made?
2. Is your staff aware of any specific traffic or roadway characteristics in the vicinity of the proposed project which should be taken into account in our analysis of the impacts of the proposed project? If so, would you please indicate what they are?
3. Would you please provide or indicate where we may obtain the following items:

- o A map (or maps) of Kamehameha Highway in the vicinity of the proposed project showing the right-of-way width and alignment, pavement and shoulder widths and composition, and posted speed limits;
- o Traffic counts for the three most recent years from the two stations closest to the proposed access road; and
- o A description of any traffic accidents that may have occurred on Kamehameha Highway during the past three years between the Waimea River Bridge and a point two-tenths of a mile southwest of the proposed entrance road.

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency. . . . upon good cause shown. . . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

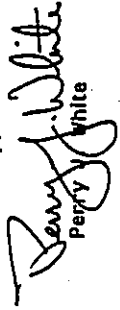
If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which

September 25, 1981  
Page 3

would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,

  
Perry White

PJW:kg  
Attachments:  
EISPN  
Preliminary Roadway Grading Plan  
Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

OCT 21 1981  
BELL, COLLINS & ASSOCIATES

Wayne J. Yamasaki

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION

October 16, 1981

STP 8.7697

Belt, Collins and Associates  
745 Fort Street  
Honolulu, Hawaii 96813

Dear Sirs:

EIS for Proposed Subdivision of Land  
near Waimea Bay, Waialua, Oahu

Thank you for the opportunity to comment on the subject EIS.

We have the following comments and information on your proposal which may assist you in developing the EIS for the development.

1. If there are additional adjoining lands of the developer/parent organization, the overall master plan for the entire area should be discussed to avoid piecemeal planning.
2. The access to all subdivision lots should be by way of the proposed subdivision roadway.
3. The proposed highway intersection with the subdivision road should be designed with adequate intersection sight distance.
4. Accident data can be obtained at the Highways Division Traffic Design Section.
5. Maps for Kamehameha Highway can be obtained at the Highway Design Section.

Belt, Collins and Associates  
Page 2  
October 16, 1981

STP 8.7697

6. Discuss your traffic count needs with our Highway Planning Branch.
7. Highway lighting may be required.

Very truly yours,

*Ryokichi Higashionna*  
Ryokichi Higashionna  
Director of Transportation

## Belt, Collins & Associates

Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCALHH 7431989

April 29, 1982

Mr. Ryokichi Higashionna, Director  
Department of Transportation  
State of Hawaii  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Higashionna:

Thank you for your letter of October 16, 1981 (your reference STP 8.7697) responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and answering the questions in our letter of September 25, 1981. The information you provided was helpful to us in preparing the Environmental Impact Statement (EIS).

With respect to the first two numbered comments in your letter, it should be noted that Castle and Cooke, Inc., the parent company of Oceanic Properties, Inc., is the owner of parcel 6-1-01:1 just to the north of the proposed subdivision site. The Kawailoa Subdivision's internal roadway system provides access to all lots on the project and to this adjoining parcel (see attached map). However, because parcel 6-1-01:1 is currently zoned preservation by the County and lies within the State Land Use Commission's Conservation District, the company does not have any development plans for it at this time. Hence, the EIS assumes that the parcel will remain in its present undeveloped state.

In response to your comment number 3, the proposed subdivision roadway/Kamehameha Highway intersection design meets the state's sight distance standards.

We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,

*Gerry J. White*  
Gerry J. White

PJW:kg  
Attachment

cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCAL:TD (Print job): James R. Bell, Paul M. Hirota, Raymond F. Cain, Joseph Vieira, Jr., Thomas P. Papandrew

**Belt, Collins & Associates**  
Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAHI 7431989

September 25, 1981

Mr. Kazu Hayashida  
Manager and Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waiatua, Oahu

Dear Mr. Hayashida:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just southwest of Waimea Bay in the Waiatua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISPN) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISPN provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

1. Would you please provide us with a map and/or other material that shows the location, size, and capacity of existing and proposed Board of Water Supply water mains, reservoirs, wells, and other facilities that would supply water to the subdivision?

BCA LTD. Principals: James R. Bell, Paul M. Hirota, Raymond F. Cain, Joseph Viera, Jr., Thomas P. Papandrew

September 25, 1981  
Page 2

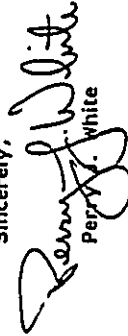
2. To what extent are these facilities fully utilized by existing development? In your reply, would you please indicate what the present withdrawal rate is from the well(s) that would supply the site.
3. What is the location of the Board of Water Supply's recommended "No-Pass" line in the vicinity of the proposed project?
4. Do you foresee any possible conflict between your water supply plans for the area and the use of cesspools to dispose of sewage from the residential units that are likely to be constructed on the subdivided lots? If so, would you please describe it?

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency. . . . upon good cause shown. . . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,

  
Perry J. White

PJW:kg  
Attachment: EISPN  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BOARD OF WATER SUPPLY  
CITY AND COUNTY OF HONOLULU  
77 SOUTH BERETANIA  
HONOLULU, HAWAII 96813

RECEIVED  
NOV - 2 1981

GREEN R. ANDERSON, Mayor  
YOSHIE H. SUINAKA, Chairman  
ROBERTA SUZUKI, Vice Chairman  
MICHAEL J. CHUN  
WALTER A. DODS, JR.  
RYOKICHI HIGASHIONNA  
DONNA M. HOWARD  
DAT OKUNO PANG

October 28, 1981

Mr. Perry J. White  
Belt, Collins & Associates  
Hawaii Building, 4th Floor  
745 Fort Street  
Honolulu, Hawaii 96813

Mr. Perry J. White

October 28, 1981

-2-

If water is made available for the project, the developer will be assessed our water development charge covering the development of source, reservoir, and transmission facilities needed to provide water service to the project.

3. What is the location of the Board of Water Supply's recommended "No-Pass" line in the vicinity of the project?

Oceanic Properties, Inc. Projects Manager, Paul D. Haring, will be transmitting to us the boring logs for the five test holes made within the parcel.

Mr. Haring requested that we review the boring logs before replying to questions 3 and 4.

4. Do you foresee any possible conflict between your water supply plans for the area and the use of cesspools to dispose of sewage from the residential units that are likely to be constructed on the subdivided lots? If so, would you please describe it?

Please refer to reply for question 3.

If you have any questions, please contact Lawrence Whang at 548-5221.

Very truly yours,



KAZU HAYASHIDA  
Manager and Chief Engineer

Attach.

cc: Mr. Paul D. Haring,  
Oceanic Properties, Inc.

Subject: Your Letter of September 25, 1981,  
on the Proposed Subdivision Near  
Waimea Bay, TMK: 6-1-03: 26

Thank you for informing us of the proposed subdivision.

Our comments to your questions are as follows:

1. Would you please provide us with a map and/or other material that shows the location, size, and capacity of existing and proposed Board of Water Supply water mains, reservoirs, wells, and other facilities that would supply water to the subdivision?

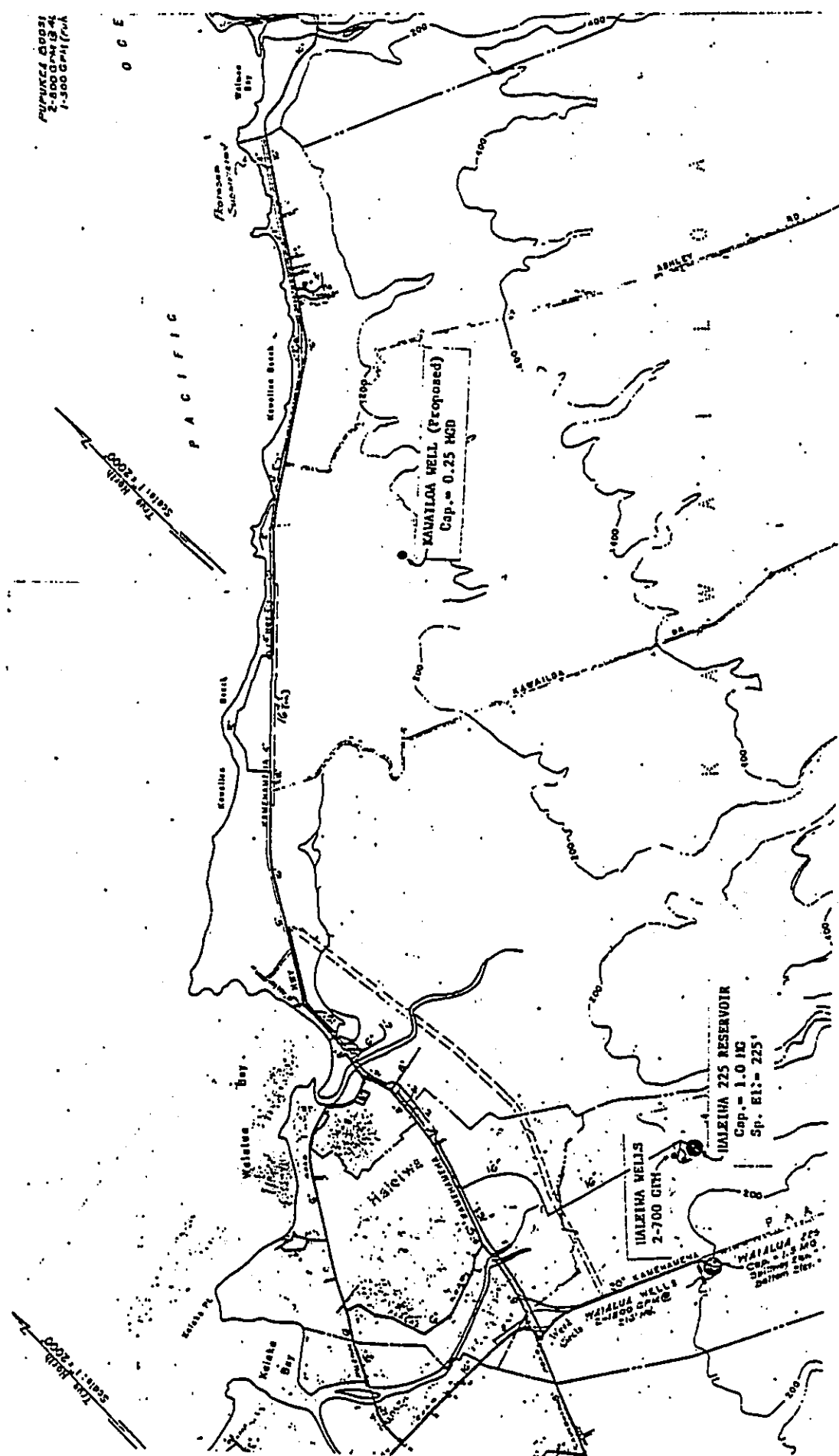
Enclosed is a map showing our existing and proposed facilities.

2. To what extent are these facilities fully utilized by existing developments? In your reply, would you please indicate what the present withdrawal rate is from the well(s) that would supply the site?

The Waialua Ground Water Control Area (GWCA) was designated by the Board of Land and Natural Resources on February 27, 1981. The Waialua GWCA was divided into three subareas: Waialua, Mokuleia, and Kawaihoa subareas.

Our Waialua Wells source is the only certified source we have in the Waialua GWCA. The preserved use for this source is 1.73 million gallons per day (mgd). In 1980, average pumpage from the wells was 1.67 mgd. Although we can still accommodate a limited number of new projects, we are not making any advance water commitments for proposed development projects. The availability of water for projects are determined when construction drawings are submitted for our review and approval. However, approvals must first be obtained from the City's Department of Land Utilization before we will take any action on the proposed development.

HYDRAULIC CAPACITY  
2-500 GPM @ 18.4'  
1-300 GPM @ 17.4'





**Belt, Collins & Associates**

Engineers, Planners, Landscape Architects  
Law Office  
1445 Ala Moana Blvd., Suite 418745 First St., Honolulu, Hawaii 96813-3891  
Telephone: (808) 521-5261 Telex: BELT11743M7A

March 8, 1982

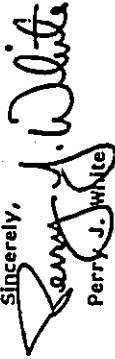
Mr. Kazu Hayashida  
Manager and Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. Hayashida:

Thank you for your letter of October 28, 1981 responding to our request for comments on the proposed Kawaihoa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and answering the questions in our letter of September 25, 1981. The information you provided was very helpful to us in preparing the Environmental Impact Statement (EIS). We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,



Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James R. Bell, Paul M. Hinton, Raymond F. Cain, Joseph Vieira, Jr., Thomas P. Papandrew

# Belt, Collins & Associates

Engineers - Planners - Landscape Architects  
4th Floor-Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAHI 7431989

September 25, 1981

Dr. Willard Chow  
Chief Planning Officer  
Department of General Planning  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Dr. Chow:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just southwest of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISP/N) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISP/N provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

1. The present DLUM designation of the site is "Park," and it is zoned for residential use (R-6). The property is not identified as important agricultural land on the ALISH (Agricultural Lands of Importance to the State of Hawaii) map of the area, and there is no historical record of it

BCA, LTD. Principals: James R. Belt, Paul M. Hirota, Raymond F. Cain, Joseph Vieira, Jr., Thomas F. Papandrew

September 25, 1981  
Page 2

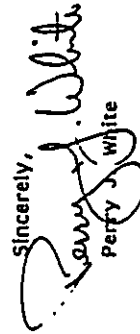
having been used for agricultural purposes in recent times. Nevertheless, the site is designated for Agricultural use on the proposed North Shore Development Plan. On what is the proposed Development Plan's Agricultural designation of the property based?

2. The land use analysis on which the Development Plan land use allocations are partially based assumes that one residential unit will be developed on each presently vacant agriculturally zoned parcel within the North Shore Development Plan Area. While this may be possible from the point of view of zoning legalities, the existence of other legal, physical, and economic constraints on these parcels leads us to question the reasonableness of this assumption. Would you please describe the factual basis for the Development Plan's assumption regarding residential use of now-vacant parcels with agricultural zoning?

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency. . . . upon good cause shown. . . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,  
  
Perry J. White

PJW:kg  
Attachment: EISP/N  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

DEPARTMENT OF GENERAL PLANNING  
**CITY AND COUNTY OF HONOLULU**  
 650 SOUTH KING STREET  
 HONOLULU, HAWAII 96813

DEPARTMENT OF GENERAL PLANNING  
**CITY AND COUNTY OF HONOLULU**  
 650 SOUTH KING STREET  
 HONOLULU, HAWAII 96813



WILLARD T. CHOW  
 CHIEF PLANNING OFFICER

EILEEN R. ANDERSON  
 JUNIOR

WILLARD T. CHOW  
 CHIEF PLANNING OFFICER

EILEEN R. ANDERSON  
 JUNIOR

DGP9/81-3300 (SY)

DGP9/81-3300

November 2, 1981

October 20, 1981

Mr. Perry J. White  
 Beit, Collins & Associates  
 4th Floor, Hawaii Building  
 745 Fort Street  
 Honolulu, Hawaii 96813

Beit, Collins & Associates  
 Hawaii Building, 4th Floor  
 745 Fort Street  
 Honolulu, Hawaii 96813

Dear Mr. White:

Environmental Impact Statement for a Proposed  
 Subdivision of Land Near Waimea Bay, Waialua, Oahu

Environmental Impact Statement for a Proposed  
 Subdivision of Land Near Waimea Bay, Waialua, Oahu

Your letter of September 25, 1981 asked us to "... describe the factual basis for the Development Plan's assumption regarding residential use of now-vacant parcels with agricultural zoning." I hope the following points will address your question and concern.

The preparation notice prepared by the Department of Land Utilization adequately identifies the major environmental impacts on a broad basis. Discussion of these concerns and provisions of measures to minimize adverse effects should constitute an adequate basis for evaluation of the proposed project.

With regard to preparation of the Development Plans, the questions raised in your transmittal letter of September 25, 1981 have been referred to appropriate members of the staff. The planners will forward replies directly to you in the near future. If you wish to contact them or require additional information, the persons and numbers to call are:

Development Plans	Lon Polk	523-4531
	Gene Connell	523-4484
Land Use Analysis	Steven Young	523-4404

Sincerely,  
*Ralph Kawahoto*  
 RALPH KAWAHOTO  
 Planner

APPROVED:  
*Willard T. Chow*  
 WILLARD T. CHOW

1. We assumed that one residential unit per agricultural parcel would be built in the Development Plan Land Use Analysis (DPLUA) because we believed that while not all parcels would be built with one unit, many parcels would accommodate more than one unit because of subdivision. Thus, we considered the assumption to be conservative. I should also point out that we did not assume any residential units would be built on vacant parcels in the State Urban District which are designated for agricultural use in the Development Plans (DPLUA).

2. The DPLUA is often misinterpreted as a forecast of future land use. Your statement that we assumed that "one residential unit will be developed on each . . . parcel" reflects this misinterpretation. We refer you to the first paragraph of Section 2.3.3 in the DPLUA:

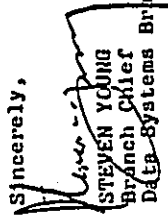
"It must be emphasized that capacity, by definition, describes what can be built, not what will be built. In other words, the dwelling unit capacity is only an expression of supply; it must not be taken as a forecast of housing activities in the future."

Mr. Perry J. White  
Page 2  
November 2, 1981

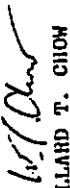
Thus, the DPs did not forecast that one residential unit would occur in each vacant State Agricultural District parcel. We simply asserted that one unit per parcel would be possible, which is in fact the case under current regulations.

If you have further questions, feel free to call me at 523-4404.

Sincerely,

  
STEVEN YOUNG  
Branch Chief  
Data Systems Branch

APPROVED:



WILLARD T. CHOW

VII-46

# Belt, Collins & Associates

Engineers, Planners, Landscape Architects  
1000 Ala Moana Blvd., Suite 407, Honolulu, Hawaii 96813  
Telephone: (808) 521-5101

March 8, 1982

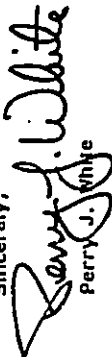
Dr. Willard Chow  
Chief Planning Officer  
Department of General Planning  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Dr. Chow:

Thank you for your department's letters of October 20 and November 2, 1981 (reference Nos. DGP9/81-3300 and DGP9/81-3300 SY) responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and answering the questions in our letter. The information you provided was very helpful to us in preparing the Environmental Impact Statement (EIS). We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,

  
Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

RCA LTD. Principals: James R. Bell, Paul M. Huxley, Raymond F. Cain, Joseph Verra, Jr., Thomas P. Papandrew

**Belt, Collins & Associates**  
Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAAHI 7431989

September 25, 1981  
Page 2

2. The proposed North Shore Development Plan designates the project site for agricultural use. If it is adopted in its present form, what effect will the Development Plan have on the owner's ability to implement the proposed subdivision?

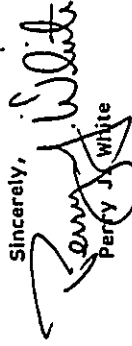
3. Will the Department of Land Utilization automatically institute proceedings to bring the zoning into conformance with the Development Plan, or will some other process be followed? Could you please provide any details of the process that will be used (including its timing) that you are aware of at the present time?

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency upon good cause shown. It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,



Perry J. White

PJW:kg  
Attachment: EISPN  
cc: Environmental Quality Commission  
Oceanic Properties, Inc.

September 25, 1981

Mr. Michael McElroy, Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Mr. McElroy:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just south-west of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISPN) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISPN provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

1. What is the current legal status of the Detailed Land Use Map (DLUM) for the area? What effect, if any, does the "Park" DLUM designation have in terms of the owner's ability to develop the parcel as allowed by its present R-6 zoning?

BCA LTD. Principals: James R. Bell, Paul M. Hirota, Raymond F. Cain, Joseph Vierra, Jr., Thomas P. Papandrew

DEPARTMENT OF LAND UTILIZATION  
CITY AND COUNTY OF HONOLULU  
650 SOUTH KING STREET  
HONOLULU, HAWAII 96813-1001 325-4451

RECEIVED  
OCT 16 1981

SITT, COLLINS & ASSOCIATES



ELLEN M. SANDERSON  
CLERK

MICHAEL M. KELNODY  
DIRECTOR

81/SMA-82(HK)  
LU9/81-5282

October 14, 1981

Mr. Perry J. White  
Belt, Collins & Associates  
745 Fort Street  
Honolulu, Hawaii 96813

Dear Mr. White:

Subdivision of Land Near Maimea Bay, Malalua, Oahu

In your letter of September 25, 1981, you asked that we identify significant issues associated with this project. We believe the major issues have been identified in the Environmental Impact Statement (EIS) Preparation Notice and in discussions with Mr. Paul Haring of Oceanic Properties throughout the assessment period.

To expand the discussion of those concerns expressed in the EIS Prep Notice, we would like the Draft EIS to address the following:

1. The Effects of the Project on Near Shore Water Quality
  - a. We know the area consists of bedrock, which is extremely permeable, and falls within the Board of Water Supply's "No Pass" Zone. The applicant is proposing cesspools as a method of sewage disposal. If cesspools are permitted, the Draft EIS should discuss where the sewage will be going. If cesspools are prohibited, what alternative methods of sewage disposal will be approved by the State Department of Health or the City Department of Public Works?
  - b. We are concerned about the effects of grading and potential erosion problems. We are unable to assess these impacts since the applicant did not provide a grading and drainage plan.

Mr. Perry J. White  
Page 2

2. Historic Resources

The Bishop Museum's preservation plan for the sites located within the subdivision should be discussed. Comments on the plan from the State Historic Preservation Officer, State Department of Land and Natural Resources should also be included.

3. Portions of the parcel are located within the High Coastal Hazard area. Since seven lots fall within this area, the applicant may want to consider other alternatives to the proposed single-lot subdivision, such as a planned development housing or cluster development to avoid constructing within the high coastal hazard area. These alternatives should be discussed in the Draft EIS.

4. The property is located close to a Hawaii Visitor's Bureau scenic designation. The aesthetic aspects should be discussed since the development will be visible from a coastal highway. Some homeowners may be required to elevate their homes to meet the flood control requirements, or they may wish to build pole houses to maximize views. These potential visual impacts should be addressed in the EIS.

Responses to your specific questions regarding the legality of existing and proposed land use designations and zoning are as follows:

1. The Detailed Land Use Maps (DLUM) are recognized as the official maps until the Development Plans (DPs) are adopted. Although the "Park" DLUM designation does not affect the owner's ability to develop the parcel because the current R-6 zoning has priority over the DLUM, the Department of Parks and Recreation's comments on any future plans for park use should be discussed.

2. & 3.

Our Department has drafted eight Interim Development Control (IDC) Ordinances which we are recommending for adoption concurrently with the DPs.

Upon adoption by the City Council, the IDCs will remain in effect until June 30, 1982. Under these new provisions, your application for the SMP may be processed providing that you meet the requirements of the IDC. If the DPs and IDCs

Mr. Perry J. White  
Page 3

are adopted as proposed, the applicant will not be able to put more than one dwelling unit on the parcel since the property is located in a Residential District designated Preservation or Agriculture on the DP.

If you have any questions, please contact Marge Kimmerer of our staff at 523-4077.

Very truly yours,



MICHAEL M. McELROY  
Director of Land Utilization

NMM:sj

**Belt, Collins & Associates**  
Engineers Planners  
Landscape Architects  
1140 Ala Moana Blvd., Suite 410745 Ford St. Honolulu, Hawaii 96813-3891  
Telephone (808) 521-5361  
Telex BIR 111740074


March 8, 1982

Mr. Michael M. McElroy, Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Mr. McElroy:

Thank you for your letter of October 14, 1981 (your reference 81/SMA-82 (MK):LUS/81-5282) responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff preparing your comments on the proposed project. Your responses to our questions were very helpful. Your concerns regarding nearshore water quality, historic resources, the coastal high hazard area, and visual impacts are addressed in the Environmental Impact Statement (EIS) which we expect to submit to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
  
Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James R. Bell, Paul M. Hinna, Raymond F. Cain, Joseph Vicra, Jr., Thomas P. Papandrew

**Belt, Collins & Associates**  
Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAAHI 7431989

September 25, 1981

Mr. Robert Masuda, Director  
Department of Parks and Recreation  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Mr. Masuda:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just south-west of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISPN) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISPN provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

1. The old Detailed Land Use Map (DLUM) for the site designates the area for "park" use. However, the existing County zoning is R-6 Residential, and the proposed North Shore Development Plan shows it as "Agriculture." Does your Department expect that the site of the proposed subdivision would be acquired and/or used for park purposes?

BCA, LTD. Principals: James R. Bell, Paul M. Hiroa, Raymond F. Cain, Joseph Viera, Jr., Thomas P. Papandrew

September 25, 1981  
Page 2

within the foreseeable future? If so, would you please describe the nature of your plans for it?

2. Do you foresee any potential conflicts between the proposed residential subdivision and the public's use of Waimea Bay Beach Park? If the answer is yes, would you please describe them and indicate any ways in which they might be avoided?
3. Do you have any data regarding the number of persons who utilize Waimea Bay Beach Park and/or the number of vehicle-trips in and out of that facility's parking lot that this generates? If so, would you please provide them to us?

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency. . . . upon good cause shown. . . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,

*Raymond F. Cain*  
Raymond F. Cain

PJW:kg  
Attachment: EISPN  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.



**Belt, Collins & Associates**  
Engineers - Planners - Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAAHI 7431989

September 25, 1981

Mr. Michael J. Chun  
Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Mr. Chun:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just southwest of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISPN) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISPN provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

1. It is our understanding that the Refuse Division would be responsible for collection of refuse from single-family homes constructed in the proposed subdivision. Is this correct?

BCA LTD. Principals: James R. Bell, Paul M. Hirota, Raymond F. Cain, Joseph Vierra, Jr., Thomas P. Papandreou

September 25, 1981  
Page 2

2. How and where would the solid waste generated by the project be disposed of over the long run?

3. It is our understanding that the site is unlikely to be served by a municipal wastewater treatment system for the foreseeable future. Is this true? Do you foresee any significant problems if the development is served by cesspools of the type now used for all similar development elsewhere in the region? If you do, would you please describe what problems might be expected and indicate any possible solutions of which you may be aware?

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency . . . upon good cause shown . . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,



Perry J. White

PJW:kg  
Attachment: EISPN  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

DEPARTMENT OF PUBLIC WORKS  
CITY AND COUNTY OF HONOLULU  
650 SOUTH KING STREET  
HONOLULU, HAWAII 96813

RECEIVED  
OCT 13 1981  
BILT, COLLINS & ASSOCIATES

October 8, 1981

Mr. Perry J. White

- 2 -

the drainage system into the ocean should be located so that there are minimal effects on water quality at the Waimea Beach Park.



EILEEN M. ANDERSON  
MAILER

MICHAEL J. CHUM, Ph.D.  
DIRECTOR AND CHIEF ENGINEER

ENV 81-371

Me ke aloha pumehana,

*Michael J. Chum*

MICHAEL J. CHUM  
Director and Chief Engineer

October 8, 1981

cc: Div. of Engineering  
Div. of Refuse  
Div. of Wastewater Management  
Dept. of Land Utilization

Mr. Perry J. White  
Belt, Collins & Associates  
745 Fort Street, 4th Floor  
Honolulu, Hawaii 96813

Dear Mr. White:

Re: EIS Preparation Notice for Proposed Subdivision  
Near Waimea Bay, Waialua, Oahu  
Tax Map Key 6-1-03:26

In response to your letter dated September 25, 1981, we are submitting the following information relative to the subject project.

1. There are no plans to provide municipal sewer service in the project area in the foreseeable future. If cesspools are planned to be used for the disposal of domestic wastes, the Department of Health should be consulted. The project site is within the proposed aquifer area of the Underground Injection Control (UIC) Program. The use of injection wells will probably not be permitted pending the adoption of rules and regulations by the DOH.
2. Municipal refuse collection at the curb side will be provided to single family residences in the proposed subdivision provided road and cul-de-sacs are constructed according to City standards. Refuse will be initially disposed of at the Kawaaloa sanitary landfill and then later at a resource recovery facility located in leeward Oahu.
3. If runoff from the mauka side of Kamehameha Highway crosses the highway into the subdivision, the design of the storm drains should reflect this additional flow. The outlets of

**Belt, Collins & Associates**

Engineers, Planners, Landscape Architects  
Hawaii Office: Suite 40745 Fort St., Honolulu, Hawaii 96813-3891  
Telephone: (808) 521-5361 Telex: H1111710074

March 8, 1982

Dr. Michael J. Chun  
Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Dr. Chun:

Thank you for your letter of October 8, 1981 (your reference ENV 81-371) responding to our request for comments on the proposed Kawailoa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and answering the questions in our letter. The information you provided was very helpful to us in preparing the Environmental Impact Statement (EIS). We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,  
  
Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

RCA LTD. Principals: James R. Bell, Paul M. Finck, Raymond F. Carr, Joseph V. Vetro, Jr., Thomas E. Papandrew

**Belt, Collins & Associates**  
Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAHI 7431989

September 25, 1981

Mr. Melvin Nonaka, Chief  
Fire Department  
City and County of Honolulu  
1455 South Beretania Street  
Honolulu, Hawaii 96814

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Chief Nonaka:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just southwest of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISPN) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISPN provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

1. What station would provide service to the proposed project?
2. Could you provide a brief description of the station's primary service area, of the number of persons who staff it, of its buildings, and of the mobile equipment that is based there?

BGA LTD. Principals: James R. Bell, Paul M. Hirota, Raymond F. Cain, Joseph Vieira, Jr., Thomas P. Papandrew

September 25, 1981  
Page 2

3. Do you foresee any special problems serving the proposed project? If so, would you please describe them and indicate any measures that might be taken to either avoid or remedy them?

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency . . . upon good cause shown . . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,



Perry J. White

PJW:kg  
Attachment: EISPN  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

[09/81/38CA/D/44]

FIRE DEPARTMENT  
CITY AND COUNTY OF HONOLULU  
1455 S. BEGETARIA STREET, ROOM 305  
HONOLULU, HAWAII 96814

11/15/81 # 1715:0  
OCT 9 1981



M. M. MOHAKA  
CHIEF

EILEEN R. ANDERSON  
MAILER

Mr. Perry J. White  
Belt, Collins & Associates  
Page Two; October 7, 1981

3. Do you foresee any problems serving the proposed project?  
If so, would you please describe them and indicate any measures that  
might be taken to either avoid or remedy them?

The front section of this memo should answer the first section of this  
question. The second section of this question should be answered by the  
Board of Water Supply. It is vital that additional fire hydrants be in-  
stalled in the first phase of construction and the installation of addi-  
tional storm drains by the Department of Public Works.

Very truly yours,

Melvin M. Honaka,  
Fire Chief

MMH:ct/LS

Mr. Perry J. White  
Belt, Collins & Associates  
4th Floor, Hawaii Building  
745 Fort Street  
Honolulu, Hawaii 96813

RE: Environmental Impact Statement for a  
Proposed Subdivision of Land near Waimea  
Bay, Waialua, Oahu

October 7, 1981

VII-55

Dear Mr. White:

Our greatest concern is the lack of water supply and fire hydrants  
for the proposed project. At the present time there is only one fire  
hydrant servicing the area. Another concern is the possibility of  
flood hazard during the heavy rain seasons. The following are answers  
to all of your questions.

1. What stations would provide service to the proposed project?  
The Sunset Beach Fire Station is located approximately two miles away  
and between three and four minutes in response time. Supportive ser-  
vice will be provided by the Waialua Fire Station.
2. Could you provide a brief description of the station's primary  
service area, of the number of persons who staff it, of its build-  
ings, and of the mobile equipment that is based there?  
Station personnel will be providing fire suppression, fire prevention,  
emergency rescue operations, and co-responses with ambulance service.  
Station is staffed with one Captain, one Fire Fighter III and three  
Fire Fighter I's. Station is one story wooden structure housing one  
1250 G.P.M. Pumper.

**Belt, Collins & Associates**

Engineers, Planners, Landscape Architects  
Lawyers  
1455 South Beretania Street  
Honolulu, Hawaii 96814  
Telephone: (808) 521-5361  
Telex: 01111743474

March 8, 1982

Chief Melvin M. Nonaka  
Fire Department  
City and County of Honolulu  
1455 South Beretania Street  
Honolulu, Hawaii 96814

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Chief Nonaka:

Thank you for your letter of October 7, 1981 responding to our request for comments on the proposed Kawaioa Subdivision near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and answering the questions in our letter of September 25, 1981. The information you provided was very helpful to us in preparing the Environmental Impact Statement (EIS).

Your concern about flood hazards is addressed in the EIS. Regarding fire hydrants installation - these will be installed in the subdivision in compliance with the Board of Water Supply's standards.

We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

Sincerely,

  
Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James H. Bell, Paul M. Hinola, Raymond E. Cain, Joseph Vercia, Jr., Thomas P. Papandrew

**Belt, Collins & Associates**  
Engineers • Planners • Landscape Architects  
4th Floor Hawaii Building 745 Fort Street Honolulu, Hawaii  
96813 Telephone (808) 521-5361 Telex BCAHI 7431989

September 25, 1981

Mr. Francis Keala, Chief  
Police Department  
City and County of Honolulu  
1455 South Beretania Street  
Honolulu, Hawaii 96814

Environmental Impact Statement for a Proposed  
Subdivision of Land Near Waimea Bay, Waialua, Oahu

Dear Chief Keala:

Oceanic Properties, Inc., a wholly-owned subsidiary of Castle and Cooke, Inc., is proposing to subdivide a 4.7-acre parcel of land situated just south-west of Waimea Bay in the Waialua District of Oahu. The subdivision would result in the creation of 19 lots ranging in size from 5,500 to 10,900 square feet. It is the company's intention to sell the lots in fee to buyers who would construct custom-designed single-family homes on them.

On August 24, 1981 the City and County of Honolulu Department of Land Utilization determined that an Environmental Impact Statement (EIS) for the proposed action is required under the provisions of the State's EIS law, Chapter 343, Hawaii Revised Statutes. A copy of the Environmental Impact Statement Preparation Notice (EISPN) issued by the Department is attached to this letter. It provides a brief description of the proposed project, the existing environment of the area that would be affected, and a summary of the major impacts which must be addressed in the EIS.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort toward those issues which are of greatest concern. The list of "Major Impacts" provided in Section III of the EISPN provides a starting point, but you could help us concentrate on truly significant issues by indicating in writing the questions and topics you believe should be addressed. The more specific you can be, the better the chance that the EIS will provide the information you desire.

In addition to identifying any particular concerns you may have regarding the proposed project, I would also appreciate it if you would answer the following questions relative to your Department's activities and/or responsibilities in the area. The information you provide will be used by us in assessing the potential impacts of the proposed project.

1. What station would provide service to the proposed project?
2. Could you provide a brief description of the station's primary service area, of the number of persons who staff it, of its buildings, and of the mobile equipment that is based there?

BCA, LTD. Principals: James R. Belt, Paul M. Hirota, Raymond F. Cain, Joseph Vierra, Jr., Thomas P. Papandrew

September 25, 1981  
Page 2

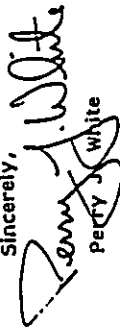
3. Do you foresee any special problems serving the proposed project? If so, would you please describe them and indicate any measures that might be taken to either avoid or remedy them?

As you probably know, the Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that a written response to this request for comments must be made within 30 days of its receipt unless an extension is granted by the accepting agency. . . upon good cause shown. . . It is our hope that you will make every effort to initiate your contact with us within the prescribed time period. This will insure that no issues are given short shrift simply because they are raised belatedly.

If all goes as planned, it is expected that the environmental impact statement will be available in December, 1981. At that time, the document will be circulated for public review and comment. If this consultation process works as intended, the report will provide all of the technical information necessary for a judgment to be made regarding the acceptability of the proposed project on environmental grounds. If, however, you find there are issues that have not been covered in sufficient depth, this final review process will provide you with an opportunity to have the omissions corrected in the revised EIS.

Thank you very much for your cooperation. If you have any questions regarding the project or do not fully understand the kinds of input which would be most helpful, please call me at 521-5361. I would be more than happy to provide any information that I can.

Sincerely,

  
Perry J. White

PJW:kg  
Attachment: EISPN  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

RECEIVED  
CITY AND COUNTY OF HONOLULU OCT 6 1981

POLICE DEPARTMENT

1455 SOUTH WENTZMANA STREET  
HONOLULU, HAWAII 96813

GLENN B. ANDERSON  
MAYOR



OUR REFERENCE EFS-ES

October 2, 1981

Mr. Perry J. White  
Belt, Collins & Associates  
4th Floor, Hawaii Building  
745 Fort Street  
Honolulu, Hawaii 96813

Environmental Impact Statement for a Proposed  
Subdivision of Land near Waimea Bay, Waialua, Oahu

Dear Mr. White:

In answer to the questions posed in your letter of September 25, 1981, police service for the proposed development would be provided primarily by the district station in Wahiawa. This district includes Mililani, Wahiawa, and the north shore area. The present district command numbers 93 officers, the majority of whom are motorized.

We can foresee only one potential problem with the proposed project at this time. That is the possible traffic hazard posed by the movement of vehicles onto Kanehameha Highway near the curve by Waimea Bay. To reduce this hazard, we would ask that the proposed roadway connecting the site to the highway be situated as near to the Haleiwa end of the development as possible.

Sincerely,  
FRANCIS KEALA  
Chief of Police  
By EARL THOMPSON  
Assistant Chief  
Administrative Bureau

Belt, Collins & Associates  
Engineers, Planners, Landscape Architects  
Hawaii Bldg., Suite 410745 Fort St., Honolulu, Hawaii 96813-1801  
Telephone: (808) 521-5261

March 8, 1982

Chief Francis Keala  
Police Department  
City and County of Honolulu  
1455 South Beretania Street  
Honolulu, Hawaii 96814

Environmental Impact Statement for a Proposed Subdivision  
of Land Near Waimea Bay, Waialua, Oahu (TMK 6-1-03:26)

Dear Chief Keala:

Thank you for your letter of October 2, 1981 (your reference EFS-ES) responding to our request for comments on the proposed Kawailoa Sub-division near Waimea Bay. We appreciate the time spent by you and your staff reviewing the Environmental Impact Statement Preparation Notice and answering the questions in our letter. The information you provided was very helpful to us in preparing the Environmental Impact Statement (EIS).

In response to your comment about reducing possible traffic hazards by designing the subdivision roadway intersection with Kanehameha Highway as far to the Haleiwa side as possible, this has been done.

We expect to submit the EIS to the Environmental Quality Commission shortly. We look forward to your further participation in this EIS process.

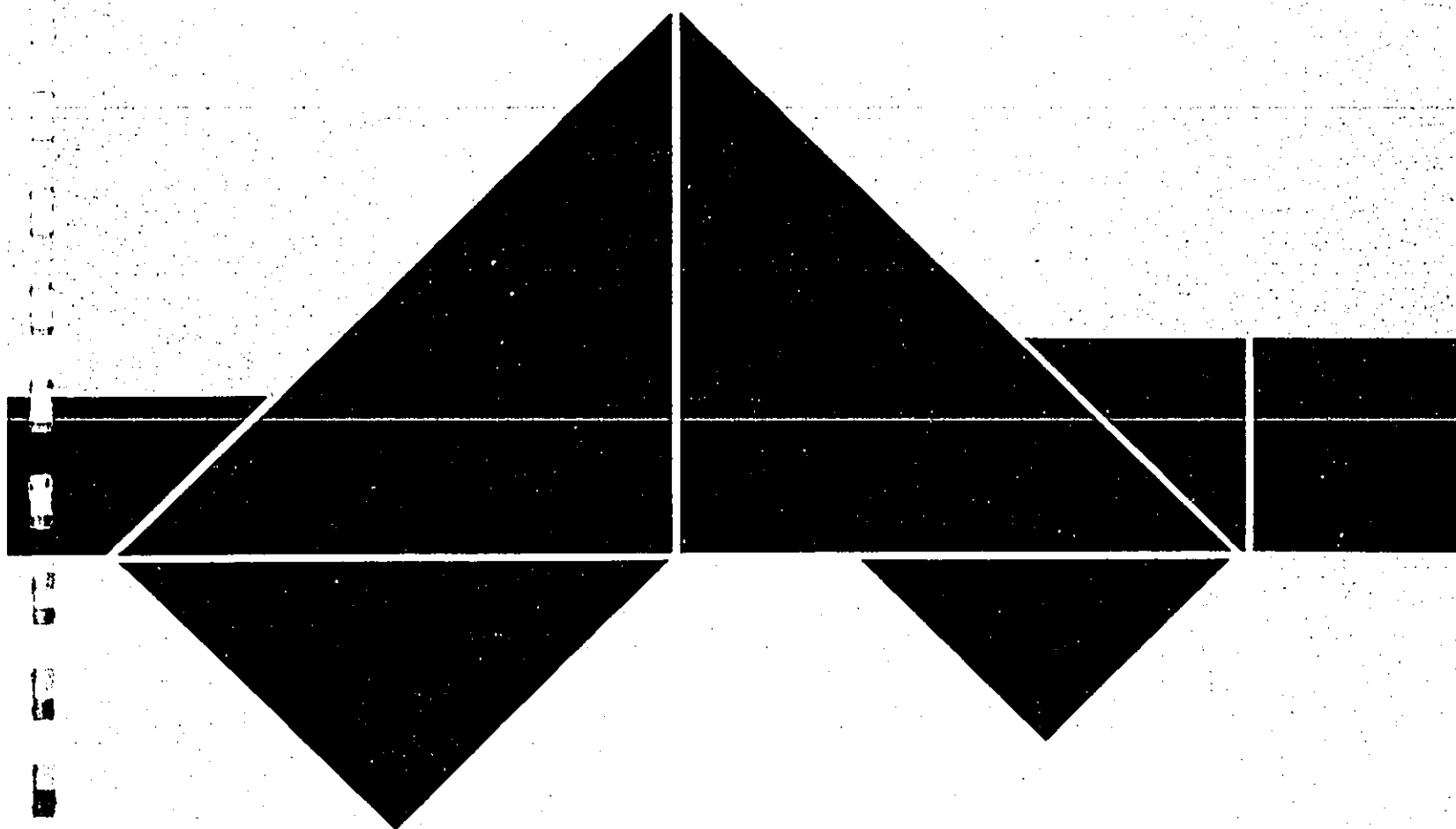
Sincerely,  
Perry J. White

PJW:AKY:kg  
cc: Department of Land Utilization  
Environmental Quality Commission  
Oceanic Properties, Inc.

BCA, LTD. Principals: James R. Bell, Paul M. Hirota, Raymond F. Cain, Joseph Vicera, Jr., Thomas P. Papandrew



# **Kawaiiloa Subdivision**



**Environmental Impact Statement**

CHAPTER VIII  
REFERENCES

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- Arizona, State of, Department of Transportation (July 1976). T.G.I.F. - Trip Generation Intensity Factors. Author: Phoenix, Arizona, var. pag.
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- Athens, Stephen J. and Kanalei Shun (February 1982). Archaeological Test Excavations and Mapping, near Waimea Bay, O'ahu (TMK 6-1-3:26). Prepared for Oceanic Properties, Inc.; Bernice P. Bishop Museum, Department of Anthropology: Honolulu.
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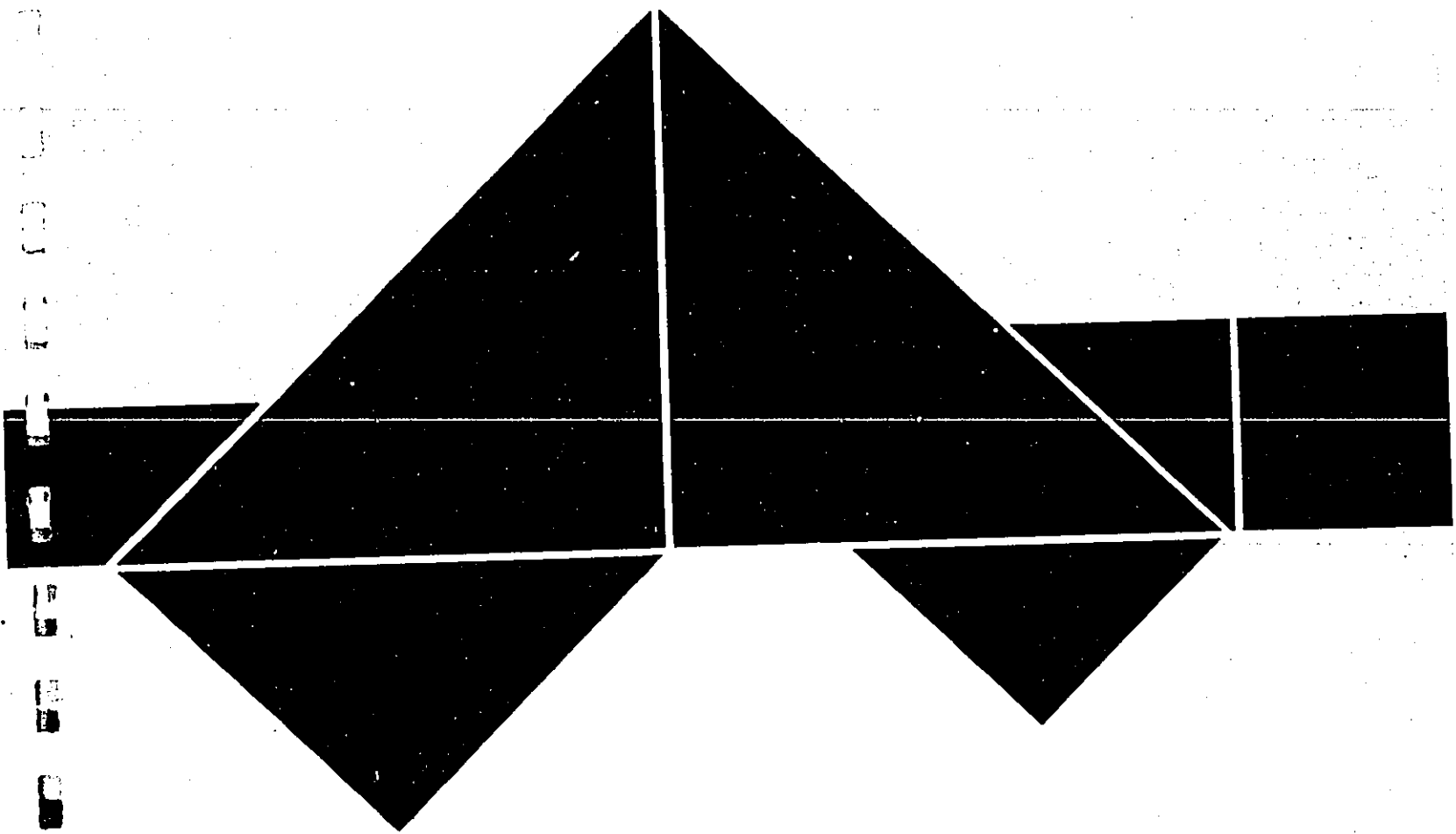
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# **Kawaiiloa Subdivision**



**Environmental Impact Statement**

**CHAPTER IX  
COMMENTS AND RESPONSES  
ON THE ENVIRONMENTAL IMPACT STATEMENT**

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**BELT, COLLINS  
& ASSOCIATES**  
ENGINEERING - PLANNING  
ARCHITECTURE

June 29, 1982  
82-1059

16 June 1982

PODEJ-PV

Mr. Michael M. McElroy, Director  
Director of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, HI 96813

Mr. Kisuik Cheung, Chief  
Engineering Division  
Department of the Army  
U.S. Army Engineer District, Honolulu  
Fort Shafter, Hawaii 96858

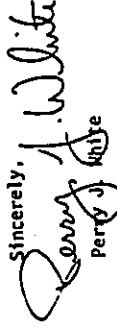
Dear Mr. Cheung:

Environmental Impact Statement for the  
Proposed Kawaioa Subdivision  
Maialua, Oahu (THK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaioa Subdivision, your June 16, 1982 letter (reference PODEJ-PV) to the Department of Land Utilization, City and County of Honolulu is being answered by us. We appreciate the time you and your staff spent reviewing the document.

As indicated in the discussion on page III-12 of the EIS, the project would be consistent with the recommendations contained in both your June 16, 1982 and October 16, 1981 letters regarding the elevation of the lowest habitable floor. Perhaps more importantly, your recommendations regarding design criteria to withstand velocity flood water forces such as surge, impact, drag, buoyant and hydrostatic forces are incorporated into the Building Code of the City and County of Honolulu. Therefore, these design criteria will have to be met before a building permit is issued for houses in the Flood Hazard District.

Thank you again for the time spent reviewing the EIS. If you have any further questions, please call me at 521-5361.

Sincerely,  
  
Perry J. White

PJM:st

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

44th Coral Street, Honolulu, Hawaii 96813 Telephone: (808) 521-5361 Telex: BELCOL 7410474  
RCA 1100 Pineapple, James K. Hali, Post Office Box 1000, Honolulu, Hawaii 96811  
Founded in 1951 by Robert M. Belt and Walter K. Collins

Dear Mr. McElroy:

Thank you for the opportunity to review the Environmental Impact Statement (EIS) for the Kawaioa Subdivision dated April 1982. In addition to our previous comments by letter dated 16 October 1981 on the proposed subdivision site concerning the tsunami flood hazards, we also recommend the following:

- a. The lowest structural member of the lowest habitable floor should be elevated to or above the 100-year tsunami elevation of 18 feet Mean Sea Level.
- b. The structure should be securely anchored to adequately anchored pilings or columns to withstand velocity flood waters.
- c. Design forces, which include surge, impact, drag, buoyant, and hydrostatic forces associated with velocity wave action, should be considered as part of the design criteria for the proposed development.

Sincerely,

KISUK CHEUNG  
Chief, Engineering Division

cc: Oceanic Properties, Inc.  
c/o Perry J. White  
Belt, Collins, and Associates  
606 Coral Street  
Honolulu, HI 96813

**BELT, COLLINS  
& ASSOCIATES**  
Engineering - Planning  
Landscape Architecture

June 29, 1982  
82-1052

Lieutenant Colonel Leonard Hasse, Jr.  
Acting Director of Engineering & Housing  
Headquarters, U.S. Army Support Command, Hawaii  
Fort Shafter, Hawaii 96858

Dear Colonel Hasse:

Environmental Impact Statement for the  
Proposed Kawaioa Subdivision  
Maialua, Oahu (THK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaioa Subdivision, your 9 June 1982 letter (reference APZY-EHV) to the Department of Land Utilization, City and County of Honolulu, is being answered by us. We understand you have no comments to offer. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,  
  
Perry J. White

PJW:gk

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

606 Coral Street Honolulu, Hawaii 96813 Telephone: (808) 531-5100 Telex: 051117-441474  
RE: (EIS) Proposals: James R. Bell, Paul M. Harada, Kawaioa Subdivision, Kawaioa, Oahu, Hawaii  
Forwarded on 6/23 by Robert M. Bell and James R. Collins

9 JUN 1982

Department of Land Utilization  
City and County of Honolulu  
280 South King Street  
Honolulu, Hawaii 96813

Gentlemen:

The Environmental Impact Statement (EIS) for the Kawaioa Subdivision, Kawaioa, Maialua, Oahu has been reviewed and we have no comments to offer. There are no Army installations or activities in the immediate vicinity of the proposed project.

Thank you for the opportunity to comment on the EIS.

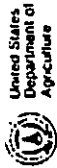
Sincerely,

Original signed by

LEONARD HASSE, Jr.  
LTC, CF  
Acting Director of Engineering and  
Housing

Copy Furnished:  
Oceanic Properties, Inc.  
c/o Perry J. White  
Belt, Collins and Associates  
606 Coral Street  
Honolulu, Hawaii 96813





Soil Conservation Service

P. O. Box 50004  
Honolulu, Hawaii  
96850

**BELL, COLLINS  
& ASSOCIATES**  
Engineering - Planning  
Landscape Architecture

June 8, 1982

June 29, 1982  
82-1058

Mr. Michael M. McElroy, Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, HI 96813

Mr. Francis C.H. Lum  
State Conservationist  
Soil Conservation Service  
U.S. Department of Agriculture  
P.O. Box 50004  
Honolulu, Hawaii 96850

Dear Mr. McElroy:

Subject: Environmental Impact Statement for the Proposed  
Kawailoa Subdivision, Kawailoa, Oahu (TMK 6-1-03:26)

The above-mentioned document has been reviewed as you requested. We note that the recommendations made in our comments of October 8, 1981, have been addressed.

We would offer one comment in regard to the references made to soil loss tolerance values on page 11-9, Guideline A-(4), and page 111-7, Section 3.2.3. The soil loss tolerance values are used by the Soil Conservation Service to evaluate the effectiveness of erosion control practices on agricultural lands and have no applicability on urban sites or grading operations.

Thank you for the opportunity to review this document.

Sincerely,

FRANCIS C. H. LUM  
State Conservationist

cc: Oceanic Properties, Inc.  
c/o Perry J. White  
Bell, Collins and Associates  
606 Coral Street  
Honolulu, HI 96813

Environmental Impact Statement for the  
Proposed Kawailoa Subdivision  
Maialua, Oahu (TMK 6-1-03:26)

Because Bell, Collins and Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawailoa Subdivision, your June 8, 1982 letter to the Department of Land Utilization, City and County of Honolulu is being answered by us. In response to your comments on the applicability of the soil loss tolerance values, we are deleting the sentence on page 11-9 and the one on page 111-7 which make reference to this value.

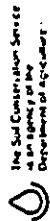
We are pleased you found your comments of October 8, 1981 had been addressed in the document. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,

Perry J. White

PJW:st

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission



The Soil Conservation Service  
is an agency of the  
Department of Agriculture

SCS-AS-1  
10-78

44th Annual Survey of Honolulu Hawaiian Market Telephone: 408-2211 ext. 1011 (HI) 44-7404274  
Rt. 3, 1111 Pennsylvania Avenue, S.W., Wash. DC 20004-4101  
Founded in 1953 by Robert M. Bell and Walter A. Collins



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 15TH AIR BASE WING, PACAF  
HICKAM AIR FORCE BASE, HAWAII 96853

BELL, COLLINS  
& ASSOCIATES  
ENGINEERING - PLANNING  
LANDSCAPE ARCHITECTURE

REPLY TO: OEEV (Mr Yamada, 449-1831)

4 JUN 1982

June 29, 1982  
82-1049

SUBJECT: Environmental Impact Statement for the Kawaiiloa Subdivision

TO: Office of Environmental Quality Control  
550 Halekaunila Street, Room 301  
Honolulu, HI 96813

1. This office has reviewed the subject EIS and has no comment relative to the proposed project.
2. We greatly appreciate your cooperative efforts in keeping the Air Force apprised of your project and thank you for the opportunity to review the document. We are returning the copy of the EIS.

*David L. Grossman*  
DAVID L. GROSSMAN  
Acting Chief, Engrg & Envtl Plng Div  
Directorate of Civil Engineering

1 Atch  
EIS

Cy to:

(no Atch)  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, HI 96813

Oceanic Properties, Inc.  
c/o Perry J. White  
Bell, Collins and Associates  
606 Coral Street  
Honolulu, HI 96813

Mr. David L. Grossman  
Acting Chief  
Engineering & Environmental Planning Division  
Directorate of Civil Engineering  
Headquarters 15th Air Base Wing  
Hickam Air Force Base, Hawaii 96853

Dear Mr. Grossman:

Environmental Impact Statement for the  
Proposed Kawaiiloa Subdivision  
Maialua, Oahu (THK 6-1-03:26)

Because Bell, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiiloa Subdivision, your 4 June 1982 letter to the Department of Land Utilization, City and County of Honolulu, is being answered by us. We understand you have no comments to offer. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,  
*Perry J. White*  
Perry J. White

PJM:gk

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

GENERAL INVESTIGATION DIVISION  
RECEIVED  
JUN 29 1982  
MAIL ROOM  
FEDERAL BUREAU OF INVESTIGATION  
U.S. DEPARTMENT OF JUSTICE  
WASHINGTON, D.C. 20535



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
1601 K STREET, N.W.  
WASHINGTON, D.C. 20540

BILL COLLINS  
& ASSOCIATES  
INCORPORATED  
Landscape Architecture

ES  
Room 6307  
MAY 21, 1982

June 30, 1982  
82-1076

Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Re: Kawaiiloa Subdivision EIS,  
Kawaiiloa, Waiataua, Oahu

Mr. Ernest Kosaka, Project Leader  
Office of Environmental Services  
Fish and Wildlife Services  
U.S. Department of the Interior  
P. O. Box 50167  
Honolulu, Hawaii 96850

Dear Mr. Kosaka:

Gentlemen:

Due to current manpower and budget restrictions, the Office of Environmental Services cannot devote the time necessary to conduct a thorough review of fish and wildlife concerns associated with the referenced action at this time. We strongly recommend that you consult directly with State, Territorial or Commonwealth fishery and wildlife agencies in your area and consider their recommendations in your project planning.

Please be advised that this notification does not abrogate your responsibilities to comply with the requirements of the Fish and Wildlife Coordination Act, nor does it represent Service approval of, or support for, the proposed activity. The Service may review future actions related to this proposal should administrative constraints be alleviated or if adverse impacts to significant fish and wildlife resources are identified. Please continue to keep this office apprised of the project's status.

Sincerely yours,

*Ernest Kosaka*  
Ernest Kosaka  
Project Leader  
Office of Environmental Services

cc: Ocean Properties, Inc., Honolulu, HI  
OEC, Honolulu, HI  
Regional Director, FWS, Portland, OR (AE)



Save Energy and You Save America!

Environmental Impact Statement for the  
Proposed Kawaiiloa Subdivision  
Waiataua, Oahu (TRK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiiloa Subdivision, your May 28, 1982 letter (reference ES Room 6307) to the Department of Land Utilization, City and County of Honolulu, is being answered by us. We understand you cannot comment at this time due to manpower and budget restrictions.

As you suggested, the State Department of Land & Natural Resources, including their Aquatic Resources (formerly Fish and Game) Division, was consulted in the EIS process, and their recommendations will be considered in planning for the project.

No adverse impacts to significant fish and wildlife resources are anticipated. We expect that the Department of Land Utilization will keep you informed of the project's status.

Sincerely,

*Perry J. White*  
Perry J. White

PJW:gk

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

1601 K Street, N.W., Washington, D.C. 20540  
Tel: 202/512-2000  
Fax: 202/512-2001  
Telex: 54101  
OCEANIC PROPERTIES, INC.  
1000 K Street, N.W., Washington, D.C. 20004  
Tel: 202/512-2000  
Fax: 202/512-2001  
Telex: 54101

United States Department of the Interior



WATER RESOURCES DIVISION  
Water Resources Division  
P.O. Box 50166  
Honolulu, Hawaii 96850

June 8, 1982

Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Sir:

The Hawaii District Office of the U.S. Geological Survey, Water Resources Division, would like to extend their appreciation in allowing us to comment on the environmental impact statement on the Kawaihoi Subdivision in Waialua, Oahu; but we have no comments to offer at this time.

Sincerely,

*Benjamin L. Jones*  
Benjamin L. Jones  
District Chief

cc: Oceanic Properties, Inc., c/o Perry J. White, Honolulu, HI

IX-7

BELT, COLLINS  
& ASSOCIATES  
ENGINEERING - PLANNING  
LANDSCAPE ARCHITECTURE

June 29, 1982  
82-1051

Mr. Benjamin L. Jones  
District Chief  
Water Resources Division  
Geological Survey  
U.S. Department of the Interior  
P. O. Box 50166  
Honolulu, Hawaii 96850

Dear Mr. Jones:

Environmental Impact Statement for the  
Proposed Kawaihoi Subdivision  
Waialua, Oahu (TKK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaihoi Subdivision, your June 8, 1982 letter to the Department of Land Utilization, City and County of Honolulu, is being answered by us. We understand you have no comments to offer at present. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,  
*Perry J. White*  
Perry J. White

PJW:gk

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

6465 Central Street, Honolulu, Hawaii 96813 Telephone: (808) 521-5161 Telex: H11111 24 00274  
P.O. Box 12725 Honolulu, Hawaii 96812-0275  
Founded in 1951 by Robert M. Bell and Walter K. Collins



HEADQUARTERS  
NAVAL BASE PEARL HARBOR  
BOX 110  
PEARL HARBOR, HAWAII 96840

IN REPLY REFER TO:  
002B:WKL:jal  
Ser 1259

4 JUN 1982

Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Gentlemen:

Environmental Impact Statement  
Kawailoa Subdivision, Kawailoa, Oahu

The EIS for the Kawailoa Subdivision has been reviewed and the Navy has no comments to offer. As this command has no further use for the EIS, the EIS is being returned.

Thank you for the opportunity to review the EIS.

Sincerely,

M. M. DALLAM  
CAPTAIN, U. S. NAVY  
PROFESSOR, ENGINEER  
BY DIRECTION OF THE COMMANDER

Enclosure

Copy to:  
Oceanic Properties, Inc.

IX-8

**BELT, COLLINS  
& ASSOCIATES**  
Incorporated - Hawaii  
Landscape Architecture

Captain M. M. Dallam  
Facilities Engineer  
Headquarters  
Naval Base Pearl Harbor, Box 110  
Pearl Harbor, Hawaii 96840

Dear Captain Dallam:

Environmental Impact Statement for the  
Proposed Kawailoa Subdivision, Kawailoa, Oahu (THK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawailoa Subdivision, your June 4, 1982 letter (reference 002B:WKL:jal/Ser 1259) to the Department of Land Utilization, City and County of Honolulu is being answered by us. We understand you have no comments to offer. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,

*Perry J. White*  
Perry J. White

PJM:ln

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

NAVAID Card Survey, Hawaiian Islands Telephone (608) 521-5101 Telex H11111 74 0472  
NAVAID Project: James K. Bell, Paul M. Thoma, Kenneth J. Jan, Joseph Ventra, P., Thomas P. Papadimitriou  
Founded in 1953 by Robert M. Bell and Walter K. Collins

**BELT, COLLINS  
& ASSOCIATES**  
Engineering - Planning  
Landscape Architecture

June 29, 1982  
82-1050

Mr. Hideo Murakami  
State Comptroller  
Department of Accounting & General Services  
1151 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Mr. Murakami:

Environmental Impact Statement for the  
Proposed Kawaiaoa Subdivision  
Maialua, Oahu (TK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiaoa Subdivision, your June 7, 1982 letter [reference (p) 1503.2] to the Department of Land Utilization, City and County of Honolulu, is being answered by us. We are pleased to know the project will not have any adverse environmental effect on any existing or planned facilities serviced by your department. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,

*Ronald J. White*  
Perry J. White

PJM:sk

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

7 9K

Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement  
for Kawaiaoa Subdivision,  
Kawaiaoa, Maialua, Oahu

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

The project will not have any adverse environmental effect on any existing or planned facilities serviced by our department.

Very truly yours,

HIDEO MURAKAMI  
State Comptroller

HI:jf

cc: Oceanic Properties, Inc.

IX-9

606, Canal Street, Honolulu, Hawaii 96813 Telephone: (808) 521-5100 Telex: BULOH 7410474  
RCA LTD Printings: James K. Bell, Paul M. Hironaka, Raymond J. Carr, Joseph Ventura, Jr., Thomas P. Papadimitriou  
Founded in 1953 by Robert M. Bell and Walter K. Collins

GEORGE K. ABUOSIN  
GOVERNOR



JACK K. SUMA  
CHAIRMAN, BOARD OF AGRICULTURE

State of Hawaii  
DEPARTMENT OF AGRICULTURE  
1428 So. King Street  
P.O. Box 22159  
Honolulu, Hawaii 96822

**BEIT, COLLINS  
& ASSOCIATES**  
Improving - Planning  
Landscape Architecture

July 1, 1982  
82-1045

Mr. Jack K. Suma, Chairman  
Board of Agriculture  
State of Hawaii  
P.O. Box 22159  
Honolulu, Hawaii 96822

MEMORANDUM

To: Mr. Michael McElroy, Director  
Department of Land Utilization

Subject: Environmental Impact Statement  
Kawailoa Subdivision  
THK: 6-1-03:26 Kawailoa, Oahu

The Department of Agriculture has reviewed the subject statement and offers the following comment.

We believe that the last sentence on page II-11 should be reworded. While the soils may have limitations, it seems somewhat inaccurate to state that they are "not suited for agricultural use." As stated in our letter dated October 28, 1981 and on pages III-2 and 3 of the EIS, the Land Study Bureau Overall Productivity Rating for the particular land type would have been B (good) if water had been available. Also, the Soil Conservation Service Soil Survey Capability Class of III is not considered poor in a scale of I to VIII.

Thank you for the opportunity to comment.

*Jack K. Suma*  
JACK K. SUMA  
Chairman, Board of Agriculture

cc: Oceanic Properties, Inc.  
c/o Perry J. White  
Beit, Collins and Associates

Environmental Impact Statement for the  
Proposed Kawailoa Subdivision, Kawailoa, Oahu (THK 6-1-03:26)

Because Beit, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawailoa Subdivision, your June 10, 1982 memorandum to the Department of Land Utilization, City and County of Honolulu is being answered by us. We agree the last sentence on page II-11 should be reworded. The sentence in the revised EIS will read:

"The site is not presently cultivated, and, due to the soil's stoniness, the absence of an economical source of irrigation water, and other factors, the site is not well-suited for agricultural use."

We are also changing the first sentence of the second paragraph under the heading of "Effects on the Availability of Productive Agricultural Land" on page III-3 to two sentences, as follows:

"The Land Study Bureau rates the soils as being poor for agriculture unless irrigated. The Soil Conservation Service describes the soils as having severe limitations which reduce the choice of crops and/or require special conservation practices."

As a result of these changes, the EIS better describes the limited suitability of the site for agricultural use.

Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,  
*Perry J. White*  
Perry J. White

PJW:ln  
cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

"Support Hawaiian Agricultural Products"

44th Street, Honolulu, Hawaii 96813 Telephone: (808) 521-1111 Telex: 88111740174  
66-5117 Honolulu, Hawaii 96813 Telephone: (808) 521-1111 Telex: 88111740174  
Consultants: Robert M. Bell and Walter K. Collins

ARTHUR HERRICK  
ARCHITECTURAL  
DRAWING  
MAY 1982

STATE OF HAWAII  
DEPARTMENT OF DEFENSE  
OFFICE OF THE ADJUTANT GENERAL  
3949 DIAMOND HEAD ROAD, HONOLULU, HAWAII 96816



STATE OF HAWAII  
DEPARTMENT OF DEFENSE  
OFFICE OF THE ADJUTANT GENERAL  
3949 DIAMOND HEAD ROAD, HONOLULU, HAWAII 96816

21 JUN 1982

HIENG

Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Gentlemen:

Kawaiiloa Subdivision

Thank you for providing us the opportunity to review the proposed project, "Kawaiiloa Subdivision" Environmental Impact Statement.

We have completed our review and have no comments to offer at this time.

Sincerely,

*Jerry M. Matsuda*  
JERRY M. MATSUDA  
Captain, HANG  
Contr & Engr Officer

cc: Oceanic Properties, Inc.  
EQC w/EIS  
SCD

BELL, COLLINS  
& ASSOCIATES  
ENGINEERING - PLANNING  
LANDSCAPE ARCHITECTURE

June 29, 1982  
82-1056

Captain Jerry M. Matsuda  
Contracting & Engineering Officer  
Office of the Adjutant General  
Department of Defense  
State of Hawaii  
3949 Diamond Head Road  
Honolulu, Hawaii 96816

Dear Captain Matsuda:

Environmental Impact Statement for the  
Proposed Kawaiiloa Subdivision  
Maialua, Oahu (TK 6-1-03:26)

Because Bell, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiiloa Subdivision, your 21 June 1982 letter (reference HIENG) to the Department of Land Utilization, City and County of Honolulu, is being answered by us. We understand you have no comments to offer at present. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,

*Perry J. White*  
Perry J. White

PJM:gk

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

16th Canal Street, Honolulu, Hawaii 96813 Telephone (808) 521-5161 Telex B1111 7410474  
BCALUU Honolulu, James R. Bell, Paul M. Lund, Raymond J. Cain, Joseph Veria, Jr., Thomas P. Papadimitriou  
Founded in 1953 by Robert M. Bell and Walter K. Collins





Dept. of Land  
Utilization

-2-

June 22, 1982

Aquatic Resources

Other than on page III-11 which broadly describes the offshore site as consisting of "...almost entirely of lava flows and basalt boulders out to a distance of 600 feet..." with benthic life of "...scattered colonies of porites coral and encrusting coralline algae..." which together covers no more than five percent of the surface area, there is no information on other marine fauna that inhabit the offshore marine environment. The EIS concludes that "...little marine life is present and what little there is tends to be quite resistant to environmental stress." These descriptions of the shoreline area are inadequate and possible impacts of the Kaeolua development upon the area's aquatic resources values cannot be determined.

Access

In response to the applicant's intent to provide public access to the boulder beach only to project residents (p. 11-8, last paragraph), we recommend that such access be expanded for use by the general public as well since occasional fishing from the rocky shoreline has been observed by staff.

Coastal Water Quality

As the project is located along the shoreline, we would like to emphasize the need for the applicant to implement appropriate erosion and sedimentation control measures during and after construction of the project to prevent or minimize degradation of the coastal waters.

Water Resources

The project area is included in the Malua Ground Water Control Area as designated by the Department of Land and Natural Resources under Chapter 177, HRS, and administered through rules of Chapter 166, Title 13, Administrative Rules, Hawaii. Permits from the Department of Land and Natural Resources are required if the plans for the area call for the development of ground water within the Malua Ground Water Control Area.

Very truly yours,

*Suzanne Dee*

SUZANNE DEE, Chairman  
Board of Land and Natural Resources  
and State Historic Preservation Officer

cc: Oceanic Properties

June 22, 1982

Department of Land Utilization  
City and County of Honolulu  
650 So. King Street  
Honolulu, Hawaii 96813

Gentlemen:

Thank you for the opportunity to review the EIS for the Kaeolua subdivision. We do have some comments to offer:

Recreation

The site has been identified by the City and County of Honolulu, Department of Parks and Recreation, as part of a 9.3 acre proposed expansion of Malua Bay Beach Park. The land acquisition for the park project has been given high priority in the State Recreation Plan.

Historic Sites

The proposed development will have an impact on site no. 1195, a fishing shrine, and the sites around it. The site cluster was placed on the Hawaii Register of Historic Places in 1972, but was removed in 1980 for practical reasons. The site was classified as valuable at the time it was placed on the state register.

We concur with Bishop Museum's recommendation for salvage excavations at the sites that will be destroyed by the development. A copy of the final archaeological report should be sent to our historic sites office at this address.

In addition, the developer is encouraged to take preservation measures at site no. 1195, such as restoring the collapsed portions of the wall, constructing a trail, landscaping the area, and placing a plaque at the site.

## Belt, Collins & Associates

Engineers, Planners, Land-use Architects  
Historic Preservation Consultants  
P. O. Box 621 Honolulu, Hawaii 96809  
Telephone: (808) 531-1341

Mr. Susumu Ono  
July 1, 1982 -- 82-1071  
Page Two

July 1, 1982  
82-1071

Mr. Susumu Ono  
Chairman, Board of Land and  
Natural Resources and State  
Historic Preservation Officer  
State of Hawaii  
P. O. Box 621  
Honolulu, Hawaii 96809

Dear Mr. Ono:

### Environmental Impact Statement for the Proposed Kawailoa Subdivision, Maialua, Oahu (TK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawailoa Subdivision, your June 22, 1982 letter to the Department of Land Utilization, City and County of Honolulu is being answered by us. We appreciate the time you and your staff spent reviewing the document. Point-by-point responses to your comments follow.

#### Recreation

The fact that the property has been designated as the preferred site (together with other adjoining land) for expansion of Maimea Bay Beach Park is thoroughly discussed on pages III-41 and 42, IV-3, and V-3 of the EIS. Oceanic Properties, Inc. has offered to enter formal discussions with the City regarding acquisition of the Kawailoa Subdivision site. Thus far, however, the City has not accepted this offer. Moreover, a memorandum dated June 10, 1982 from Mr. Robert M. Masuda, Director of the City and County of Honolulu, Department of Parks and Recreation to Mr. Michael H. McElroy, Director of the City's Department of Land Utilization states that while there exists "... a long-range plan to acquire and develop this parcel (and others) as an extension of Maimea Bay Beach Park," there are current fiscal shortages such that "... it appears unlikely that the City will be able to acquire this parcel in the immediate future." This recent statement more accurately represents the status of park plans for the site than does the expression of interest contained in the State Recreation Plan.

RA: LHM/Pringlet, James R. Will, Paul M. Hirota, Raymond F. Cam, Joseph Verra, Jr., Thomas P. Papandrew

#### Historic Sites

Copies of reports covering both of the Bishop Museum's field surveys of the project site have already been sent to the State Historic Sites Office. The information obtained from these investigations, as well as the Bishop Museum's recommendations for mitigating possible adverse impacts are described in Chapter III, Section 9 of the EIS.

As stated in the EIS, Oceanic Properties, Inc. believes that implementation of all of the recommendations made by the Bishop Museum would be extremely costly and that an attempt to recover those costs by increasing the selling price of the lots might make them unmarketable. Because of this, no commitment to implement these mitigation measures has been made at this time. However, Oceanic Properties, Inc. has indicated its willingness to attempt to negotiate a mutually satisfactory mitigation plan with City and State representatives as part of the SMA permitting process, and the Department of Land Utilization has asked the State Historic Preservation Officer (SHPO) to define the minimum acceptable preservation measures. It is expected that the SHPO's recommendations will be used as the basis for development conditions that would be attached to the SMA Permit.

#### Aquatic Resources

The proposed Kawailoa Subdivision is a relatively small residential project. Our preliminary analyses indicated that development of the site might impact the marine environment in two primary ways: (1) increasing soil erosion and consequent deposition in nearshore waters during periodic storm events, and (2) increasing the amount of wastewater from cesspools entering the ocean fronting the project. In both cases it appeared that fishes and other mobile fauna were under far less threat than benthic fauna. Hence, our analyses focused on the latter, and no fish counts were made.

Work offshore included a number of reconnaissance dives. During these, four 600-foot long transects were laid out by divers. Depths along each transect were determined with a diver's pressure gauge, and color photographs were taken with a Nikonos camera at 50-foot intervals. The divers reported that this photographic record provides a reasonably comprehensive portrayal of conditions offshore, particularly since conditions there are generally uniform.

A copy of relevant portions of the divers' report, including a map showing the location of the transects, is attached to this letter. Both of the individuals who conducted the survey are away from Honolulu at the present time. They are scheduled to return on or about July 12, 1982. As soon as they are back we will obtain from them copies of the photographs that were taken

Mr. Susumu Ono  
July 1, 1982 -- 82-1071  
Page Three

along the transects. These, together with a letter containing qualitative descriptions of any fish that may have been sighted will be submitted to you for review.

From a telephone discussion I had with Mr. Mike Yamamoto of the Aquatic Resources Division of your department on June 28, 1982, it is my understanding that the additional information identified above will satisfactorily answer the concerns regarding aquatic resources expressed in your letter. If further information is required, we would be happy to provide it.

Shoreline Access

The issue of shoreline access has been the subject of much discussion at Oceanic Properties, Inc. At present, the developer plans that the easement through lot 10 to the shoreline would be private, i.e., open only to the residents of the subdivision. They prefer a private easement for several reasons.

First, in view of the rockiness of the shoreline fronting the site, it seemed unlikely that a public right-of-way would receive much use. Hence, the cost of constructing an improved path, fences, and other facilities required for a public right-of-way did not appear to be justified. Moreover, the creation of a public right-of-way would carry with it several drawbacks that are avoided by the private easement:

- o It would invite persons unfamiliar with this shoreline to a rocky stretch which can be dangerous even when waves are of only moderate height;
- o It would tend to attract non-residents to the ko'a, thereby increasing the potential for damage to those archaeological remains; and
- o It could generate a flow of outside traffic that would decrease the value of surrounding lots.

Although these considerations have led Oceanic Properties, Inc. to propose a private easement for shoreline access, they realize this proposal is subject to review. The City and County Department of Land Utilization could require a public right-of-way as a condition of subdivision approval.

Mr. Susumu Ono  
July 1, 1982 -- 82-1071  
Page Four

Coastal Water Quality

Oceanic Properties, Inc. intends to follow all applicable ordinances and regulations governing the control of erosion on the project site. All reasonable efforts will be made to prevent excess sediment from reaching the ocean.

Water Resources

The fact that the Honolulu Board of Water Supply (BWS) system that provides potable water to the project site depends upon wells in the Malalua Ground Water Control Area is discussed on page III-38 of the EIS. The proposed project would not require development of any additional sources. Hence, we do not expect that it would lead either the BWS or the developer to seek a BWSA permit.

Other Remarks

Thank you again for the careful attention given to the EIS during its review by your Department. In particular Mr. Mike Yamamoto of the Aquatic Resources Division was most helpful in answering my questions regarding an appropriate response to the concerns that were expressed. If you have any additional questions, please call me at 921-5361.

Sincerely,

  
Perry J. White

PJW:lt

Attachment

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

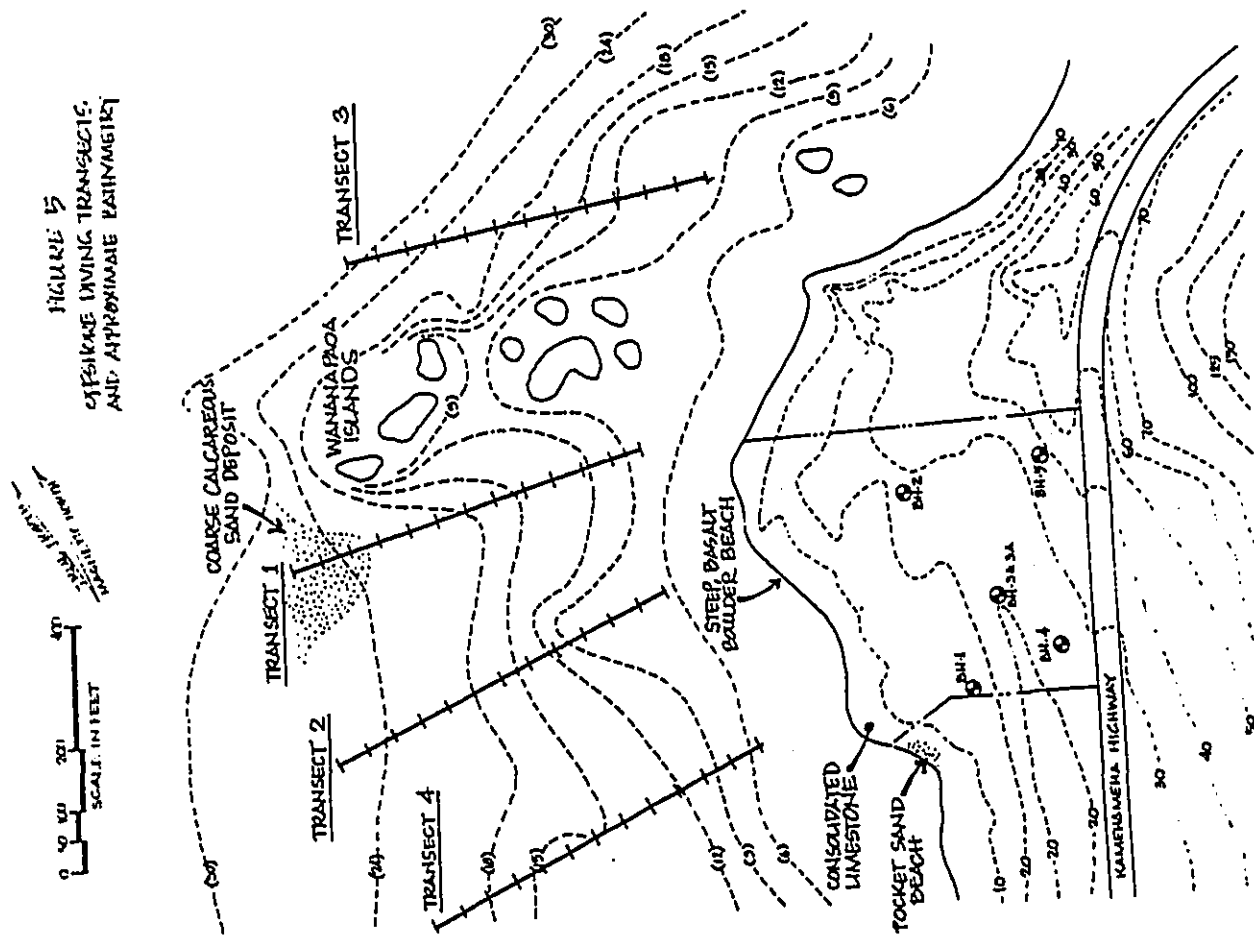
Work Offshore

Locations of the four offshore transects are shown on Figure 5. The bathymetry shown on this drawing reflects data of the transects, depth contours on the USGS "Waimea, Hawaii" quadrangle map, and some judgment. The use of judgment means the illustrated bathymetry only approximates actual depths.

The physiographic structure of the ocean bottom from the shoreline out to about 600 feet is quite homogenous. It consists of basalt flows and basalt boulders only sparsely covered with attached live and dead Porites corals. Coral cover amounts to perhaps five percent of the surface area, an estimate based on the photographs taken. Encrusting coralline algae are also quite limited, making the brown and black color of basalt the prominent color of the ocean bottom. Coarse sand and gravel can only be found in scattered, small pockets; their material is primarily calcareous, but basalt chips amount to 10 to 20 percent by volume in some of these deposits. In general, sediment deposits of sand-sized or smaller particles are extremely limited until about 800 feet offshore and depths greater than 25 feet. The offshore deposits are coarse sand and fine gravel, and their surfaces have steep ridges formed by the passage of waves.

Bathymetric relief offshore is comprised exclusively of surface variations of lava flows and large (12-ton and greater), rounded basalt boulders. Overhangs, caves, and other aesthetically interesting features such as can be found at Sharks Cove on the north side of Waimea Bay don't exist in the nearshore zone directly fronting the property. No feature creating significant relief in the nearshore waters is built of material of marine origin.

Annotations on Figure 5 identify several features which depart from the otherwise homogenous conditions offshore. The most visually obvious one is the steep boulder beach fronting the entire property which is comprised of rounded basalt stones. These boulders range in size from 100 pounds to ten or more tons. Logically, the source of the



boulders is the Waihanapa'ua Islands directly offshore. The islands are the remaining surface expression of the ridge which runs directly onshore and forms the south headland of Waimea Bay. Even larger boulders than found onshore, some more than 30 tons, can be found at the foot of the islands offshore.

A striking aspect of the boulder beach is the complete absence of fines. It attests to the great amount of wave energy which is focused onto the beach by the refraction effect of the submerged ridge. The combination of high, steep waves breaking onto the porous mass of basalt boulders provides no place for fine-sized particles to settle and accumulate. This same refraction and shoaling effect makes diving or swimming within 200 feet of the shoreline hazardous if the offshore swell height is three feet or more.

A consolidated limestone mass on the beach at the south end of the property forms a "mini-peninsula" there. Large chunks of the limestone have been broken off and thrown higher up onto the boulder beach. The limestone affords sufficient protection for a small pocket beach to have formed just beyond the property to the south.

Several dye "bombs" were released offshore to qualitatively define current drifts. These and the net drift of silts discharged on several occasions by Waimea River provided a general picture of currents. A relatively slow net drift south toward Haleiwa occurred as far out as 800 feet offshore on most days. Very close to the shoreline, wave surge and mass transport of breaking waves accelerate the southward drift. Movement northward toward Waimea Bay was never in evidence.



DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

GEORGE B. ANDERSON  
DIRECTOR  
MEMO BRADY  
FRANK SHERIDAN

BELT, COLLINS  
& ASSOCIATES  
Engineering - Planning  
Landscape Architecture

COPY

June 21, 1982

Ref. No. 6103

June 29, 1982  
82-1057

Mr. Michael M. McElroy  
Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. McElroy:

SUBJECT: Kawailoa Subdivision EIS  
Kawailoa, Waialua, Oahu

We have reviewed the subject environmental impact statement (EIS) and find that the concerns expressed in our October 14, 1981, letter have been adequately addressed.

Thank you for the opportunity to review the EIS document.

Sincerely,

*[Signature]*  
Hideteto Kono

cc: Oceanic Properties, Inc.  
c/o Perry J. White  
Belt, Collins and Associates  
606 Oriol Street  
Honolulu, Hawaii 96813

Mr. Hideto Kono, Director  
Dept. of Planning & Economic Development  
State of Hawaii  
P. O. Box 2359  
Honolulu, Hawaii 96804

Dear Mr. Kono:

Environmental Impact Statement for the  
Proposed Kawailoa Subdivision  
Waialua, Oahu (THK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawailoa Subdivision, your June 21, 1982 letter (reference No. 6103) to the Department of Land Utilization, City and County of Honolulu, is being answered by us. We are pleased that you found your concerns adequately addressed. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,  
*[Signature]*  
Perry J. White

PJW:gk

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

1440 Central Street, Honolulu, Hawaii 96813 Telephone: (808) 521-5101 Telex: H11111 7910374  
RCA EID Principals: James R. Bell, Paul M. Thomas, Raymond J. Cain, Joseph Verita, Jr., Thomas P. Papadew  
Founded in 1953 by Robert M. Bell and Walter A. Collins

GEORGE B. ANTONIO  
COMMISSIONER



STATE OF HAWAII  
ENVIRONMENTAL QUALITY COMMISSION  
516 HALEKUPALEA ST.  
ROOM 241  
HONOLULU, HAWAII 96813

ROY R. TARKENTON  
COMMISSENER  
TELEPHONE CO  
P.O. BOX 1815

BELT, COLLINS  
& ASSOCIATES  
IMPROVING • PLANNING  
LANDSCAPE ARCHITECTS

June 29, 1982  
82-1053

May 24, 1982

Dear Reviewer:

Attached for your review is an Environmental Impact Statement (EIS) that was prepared pursuant to Chapter 343, Hawaii Revised Statutes and the Rules and Regulations of the Environmental Quality Commission:

Title: Kawaiiloa Subdivision  
Location: Kawaiiloa, Matuaia, Oahu  
Classification: Applicant Action

Your comments or acknowledgement of no comments on the EIS are welcomed. Please submit your reply to the accepting authority or approving agency:

Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Please send a copy of your reply to the proposing party:

Oceanic Properties, Inc. c/o Percy J. White  
Belt, Collins and Associates  
606 Coral Street  
Honolulu, Hawaii 96813

Your comments must be received or postmarked by: June 22, 1982.  
If you have no further use for this EIS, please return it to the Commission.

Thank you for your participation in the EIS process.  
May 27, 1982 82:499

State Energy Division has no comments.  
  
Edward J. Greaney  
Chief, Conservation Branch

Mr. Edward J. Greaney, Chief  
Conservation Branch, Energy Division  
Department of Planning & Economic Development  
State of Hawaii  
250 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Greaney:

Environmental Impact Statement for the  
Proposed Kawaiiloa Subdivision  
Matuaia, Oahu (DMK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiiloa Subdivision, your note of May 27, 1982 to the Environmental Quality Commission is being answered by us. We understand you have no comments to offer. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,  
*Percy J. White*  
Percy J. White

PJH:gg

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

1000 Civic Street, Honolulu, Hawaii 96813 Telephone: (808) 521-1161 Telex: H11111 74 00174  
HAWAIIAN PHOTOGRAPHY, INC. 1000 Civic Street, Honolulu, Hawaii 96813  
Founded in 1951 by Robert A. Belt and Walter K. Collins



STATE OF HAWAII  
DEPARTMENT OF LAND UTILIZATION



STATE OF HAWAII  
DEPARTMENT OF LAND UTILIZATION  
June 10, 1982

FRANKLIN Y. SUNN  
DIRECTOR  
DEPARTMENT OF LAND UTILIZATION  
ALFRED K. SUGA  
DEPUTY DIRECTOR

**BELT, COLLINS  
& ASSOCIATES**  
Environmental Planning  
Landscape Architecture

June 29, 1982  
82-1054

Department of Land Utilization  
City and County of Honolulu  
650 So. King Street  
Honolulu, Hawaii 96813

Mr. Franklin Y.K. Sunn, Director  
Department of Social Services & Housing  
State of Hawaii  
1390 Miller Street  
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement - Kawaiiloa  
Subdivision, Waialua, Oahu

Environmental Impact Statement for the  
Proposed Kawaiiloa Subdivision  
Waialua, Oahu (TMK 5-1-03-26)

The Hawaii Housing Authority has reviewed the subject  
EIS and has no comments to offer relative to the proposed  
action.

Because Belt, Collins & Associates prepared the Environmental  
Impact Statement (EIS) for the proposed Kawaiiloa Subdivision, your  
June 10, 1982 letter to the Department of Land Utilization, City and  
County of Honolulu, is being answered by us. We understand you have no  
comments to offer. Thank you for the time spent by you and your staff  
reviewing the EIS.

Thank you for allowing us to comment on this matter.

Sincerely,

*Franklin Y.K. Sunn*  
FRANKLIN Y. K. SUNN  
Director

Sincerely,  
*Perry J. White*  
Perry J. White

cc: Oceanic Properties, Inc.  
Belt, Collins & Associates

PJM:gk  
cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

686 Grand Street, Honolulu, Hawaii 96813 Telephone: (808) 521-5161 Telex: HICHHI 2400274  
H. A. 100, P.O. Box 100, Honolulu, Hawaii 96813  
Founded in 1953 by Robert M. Belt and Walter K. Collins

**Belt, Collins & Associates**  
 Engineers, Planners, Architects, and Environmental Scientists  
 1000 Ala Moana Blvd., Suite 1000, Honolulu, Hawaii 96813  
 Telephone: (808) 551-1111

July 1, 1982  
 82-1033

Mr. Ryokichi Higashionna, Director  
 Department of Transportation  
 State of Hawaii  
 889 Punchbowl Street  
 Honolulu, Hawaii 96813

Dear Mr. Higashionna:

Environmental Impact Statement for the  
 Proposed Kawaihoa Subdivision  
 Maialua, Oahu (THK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaihoa Subdivision, your June 18, 1982 letter (reference STP 8.8347) to the Department of Land Utilization, City and County of Honolulu, is being answered by us. We appreciate the time you and your staff spent reviewing the document.

Determination of Adequacy of Intersection Sight Distance

In your letter you refer to the discussion of the proposed intersection of the Kawaihoa Subdivision entrance road and Kamehameha Highway presented on Page III-19 of the EIS and remark:

... the stated minimum desirable intersection sight distances are applicable for level cross road gradient conditions. Kamehameha Highway in the area of the development appears to be on an upgrade.

Both these observations are correct.

Because of the preliminary nature of the intersection design, only a first-level approximation was made of the sight-distance situation. It was that estimate which was presented in the EIS. Upon receipt of your letter, we examined the sight-distance requirements in more detail. The results of that analysis are presented below.

Calculations made using an accurate topographic map of the highway and field measurements indicate that the available sight distance toward Maiea Bay is 550 feet. The change in elevation over this approach is 26 feet giving an average grade of 4.7 percent. From Figure 6-8 in the Statewide Uniform Design Manual for Streets and Highways issued by the Highways Division of the State Department of Transportation (October 1980), the required sight distance along a major roadway at an intersection

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 889 PUNCHBOWL STREET  
 HONOLULU, HAWAII 96813

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 889 PUNCHBOWL STREET  
 HONOLULU, HAWAII 96813

STP 8.8347

June 18, 1982

RECEIVED  
 JUN 22 1982  
 CIV. ENGINE & ARCHT.

Mr. Michael McElroy, Director  
 Department of Land Utilization  
 City & County of Honolulu  
 650 S. King Street  
 Honolulu, Hawaii 96813

Dear Mr. McElroy:

KAWAIOLOA SUBDIVISION EIS

Thank you for the opportunity to comment on the subject EIS.

On Page III-19 Sec. 6.3, the stated minimum desirable intersection sight distances are applicable for level cross road gradient condition. Kamehameha Highway in the area of the development appears to be on an upgrade.

Please note also that any work within Kamehameha Highway requires Highway Division's review and approval.

Very truly yours,

*Ryokichi Higashionna*  
 Ryokichi Higashionna  
 Director of Transportation

Mr. Ryokichi Higashionna  
July 1, 1982 - 82-1033  
Page 2

with level approaches is approximately 400 feet for a speed of 40 miles per hour and 500 feet for a speed of 50 miles per hour. These estimates were calculated using the formula shown below (with "G" = 0):

$$d = 1.47 V (J + t_a) + G$$

where: d = minimum sight distance in feet

V = design speed on the major highway in miles per hour

J = sum of the perception time and the time required to begin to accelerate

t<sub>a</sub> = time required to clear the major highway pavement

G = additional stopping distance resulting from grade  
(in feet)

Taking into account the downgrade that exists on the Hale'iwa-bound approach to the Kawaihoa Subdivision entrance road gives the following estimates of the minimum required sight distances for speeds of 40 and 50 miles per hour:

$$d_{40} = (1.47) (40) (2.0 + 4.8) + 20 = 420 \text{ feet}$$

$$d_{50} = (1.47) (50) (2.0 + 4.8) + 35 = 535 \text{ feet}$$

Note: the value for "J" is taken from the Hawaii Statewide Uniform Design Manual for Highways, Figure 68, page 6-6. The value for "t<sub>a</sub>" is from Figure VIII-4, page 397 of AASHO's publication titled A Policy on Geometric Design of Rural Highways: 1965. The estimate of "G" is based on an interpolation of figures given in Table III-2 on page 139 of the same AASHO manual.

As stated at the beginning of this discussion, a sight distance of 550 feet is available. Hence, the proposed intersection appears to more than meet the applicable design standard.

Work Within Kamehameha Highway Right-of-Way

The need to obtain a permit to perform work within the state highway right-of-way is stated on page V-2 of the EIS. Thank you for confirming this permit requirement.

Sincerely,  
  
Perry J. Hude

PJH:qk

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

CLARENCE R. JANTZEN  
Governor



STATE OF HAWAII

OFFICE OF ENVIRONMENTAL QUALITY CONTROL

150 HALEKUAUWA ST.  
ROOM 201  
HONOLULU, HAWAII 96813

Jacqueline Parnell  
Director

TELEPHONE NO.  
548-9315

Mr. Michael McElroy  
June 21, 1982  
Page 2

impacts on the archaeological sites. EIS Regulation 1-42 i. specifically states that a description of any mitigation measures should be included to reduce significant, unavoidable adverse impact to insignificant levels. Until such measures are discussed in the EIS, the EIS is an inadequate document which does not meet the acceptance criteria.

4. List of Approvals

Although the EIS lists the necessary approvals, it should also list the status of each approval pursuant to the EIS Regulation.

Mr. Michael McElroy, Director  
Department of Land Utilization  
City and County of Honolulu  
Honolulu, Hawaii 96813

SUBJECT: Environmental Impact Statement for  
Kawailoa Subdivision, Maialua, Oahu

Dear Mr. McElroy:

We have reviewed the subject statement and offer the following comments for your consideration:

1. Chapter II

The EIS should discuss the State Environmental Policy Act, Chapter 344, Hawaii Revised Statutes and how it relates to the proposed action.

2. Page III-3

Although the EIS points out that the soil has a moderate to high shrink swell potential, it should be recognized that poor soil quality does not have to limit agriculture. Consideration can be given to "potted" type agriculture such as dendrobium plants.

3. Archaeological Impacts

Page III-38 indicates that the developer has not agreed to any recommendations. The EIS further states on page V-2 that the developer has not committed himself to undertake archaeological work and has taken the position, "... that no binding commitment should be made until the SMA permit application is being processed and there is no opportunity for public hearing." Consequently, there are no assurances nor feasible mitigated measures discussed to reduce the

We hope that these comments will be helpful to you in the preparing the revised document. We thank you for the opportunity to review the subject EIS. We look forward to the revised EIS.

Sincerely,

*Jacqueline Parnell*  
Jacqueline Parnell  
Director

Attachment

cc: Belt, Collins and Associates (with attachment)

# Belt, Collins & Associates

1700 Kalia Road  
Honolulu, Hawaii 96813  
Telephone: (808) 938-1111

July 1, 1982  
82-1072

Ms. Jacqueline Parnell, Director  
Office of Environmental Quality Control  
State of Hawaii  
550 Halekuanila Street, Room 301  
Honolulu, Hawaii 96813

Dear Ms. Parnell:

## Environmental Impact Statement for the Proposed Kawailoa Subdivision, Waialua, Oahu (TK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawailoa Subdivision, your June 21, 1982 letter to the Department of Land Utilization, City and County of Honolulu is being answered by us. We appreciate the time you and your staff spent reviewing the document. Point-by-point responses to your comments are presented below.

### 1. Chapter II

Chapter 344, Hawaii Revised Statutes, establishes an environmental policy for the State. The policy is intended to:

"... encourage productive and enjoyable harmony between man and his environment, promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, and enrich the understanding of the ecological systems and natural resources important to the people of Hawaii."

As befits a general policy statement, Chapter 344 speaks in extremely broad terms. Even the implementation guidelines contained in Section 4 of the Chapter are qualitative in nature. Because of this, a determination of whether or not a specific action such as the proposed Kawailoa Subdivision is consistent with the policies it expresses is extremely subjective. For this reason, no separate discussion of the project's relationship to the provisions of Chapter 344 was included in Chapter II of the EIS. However, all of the issues touched upon in the Chapter 344 guidelines are covered elsewhere in the report, thereby fulfilling the requirements of the law.

Principal: James R. Bell, Paul M. Hirota, Raymond J. Carr, Joseph Vavra Jr., Thomas P. Papadimitriou

Ms. Jacqueline Parnell  
July 1, 1982 -- 82-1072  
Page Two

### 2. Page III-3

Your observation that the site could be used for the cultivation of "potted" plants is correct. The section referenced in your comment discusses the effect of the project on productive agricultural land. Hence, it focuses on the quality of the existing soil rather than on the possibility that potted plants might be grown there in imported media. We believe this is consistent with the intent of the EIS regulations.

It is also noted in the EIS that irrigation water is not readily available on the project site. Hence, a landowner attempting to cultivate potted plants would be faced with the need to utilize expensive potable water from the City's domestic water supply system or to construct a separate irrigation water system. Neither of these alternatives is likely to be financially viable, and the latter would require permission from the Department of Land and Natural Resources under the provision of the Waialua Ground Water Control Area Regulations.

### 3. Archaeological Impacts

EIS Regulation 1:42 states:

The EIS shall, at a minimum, contain the following information:  
(i) Mitigation measures proposed to minimize impact. Description of any mitigation measures included in the action plan to reduce significant, unavoidable adverse impacts to insignificant levels, and the basis for considering these levels acceptable shall be included.

Chapter III, Section 9 of the EIS contains a detailed description of the archaeological remains that are present on the site and other information obtained during the Bishop Museum's two surveys of it. Because these surveys provide a great deal of previously unknown information about the site, they constitute a kind of mitigation measure in and of themselves, a positive step taken by the developer to alleviate adverse impacts. Means of further mitigating the project's impacts are clearly stated on pages III-32 through III-38 of the report.

As reported on pages III-36 and III-38 of the EIS, Oceanic Properties, Inc. has taken the position that the work required to complete all of the mitigation measures recommended by the Bishop Museum would be so costly that incorporation of this expense in the selling price of the lots would make them unmarketable. On this basis implementation of the full set of recommended mitigation measures was judged infeasible.

Ms. Jacqueline Parnell  
July 1, 1982 -- 82-1072  
Page Three

Therefore, it was noted in Section 9.3.3 of Chapter III that no additional archaeological work had been committed to at this time and that the amount of necessary further work was an unresolved issue. The developer intends to resolve with responsible City and State agencies what measures would be necessary "to reduce significant, unavoidable adverse impacts to insignificant levels." The City and County of Honolulu, Department of Land Utilization can require such measures as conditions to the State Historic Area (SMA) Use Permit and they have requested that the State Historic Preservation Office identify the minimum mitigating conditions that would be acceptable. Thus, we believe that the EIS discussion of archaeological resource mitigation measures, within the context that they are an unresolved issue, meets the acceptance criteria. Assurance that adverse impacts on archaeological resources are reduced would be provided through conditions of the SMA permit.

4. List of Approvals

The SMA Permit is the first approval that has been sought for the proposed project. Hence, no other permit application has yet been submitted. To make this clearer, the following has been inserted between the first and second sentences on page VI-1:

None of the permits listed have been applied for yet. This is because the EIS must be accepted before applying for a Special Management Area Use Permit (SMP), and the SMP must be obtained before any other permits can be issued.

Thank you once again for reviewing the EIS. If you have further questions or would like additional information, please call me at 521-5361.

Sincerely,  
  
Perry J. White

PJM:lt

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

**COPY**

**BELL, COLLINS  
& ASSOCIATES**  
ENGINEERS - ARCHITECTS  
LANDSCAPE ARCHITECTS

June 29, 1982  
82-1064

Mr. Kazu Hayashida  
Manager and Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, Hawaii 96813

June 21, 1982

**TO: MICHAEL M. MCELROY  
DIRECTOR  
DEPARTMENT OF LAND UTILIZATION**

**FROM: KAZU HAYASHIDA  
BOARD OF WATER SUPPLY**

**SUBJECT: ENVIRONMENTAL IMPACT STATEMENT FOR KAWAIILOA SUBDIVISION**

We have the following comments on the proposed project:

1. Section 2.4, page III-4: Instead of using the phrase "more permeable rock strata", the document should use the term "basalt". This is more descriptive of the geology underlying the thin soil cover.
2. Section 10.1, page III-38: The department's Waialua and Haleiwa Wells are both certified sources in the Waialua GWCA. Their respective preserved uses are 1.73 mgd and 1.00 mgd.

If you have any questions, please contact Lawrence Whang at 548-5221.

Very truly yours,  
*Kazu Hayashida*  
KAZU HAYASHIDA  
Manager and Chief Engineer

cc: -Oceanic Properties, Inc.  
MIS/LHYW:cs  
cc: K. Hayashida  
C. Lao  
G. Liu  
A. Koga  
L. Whang  
82-1240

Dear Mr. Hayashida:  
Environmental Impact Statement for the  
Proposed Kawaiiloa Subdivision, Waialua, Oahu (THK 6-1-03:26)

Because Bell, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiiloa Subdivision, your June 21, 1982 memorandum to the Department of Land Utilization is being answered by us. We appreciate the time you and your staff spent reviewing the document. Responses to your two comments follow.

We will change the phrase on page III-4 from "more permeable rock strata" to the term "basalt" as you requested. The third paragraph in section 10.1 (page III-38) will be replaced with the following:

The Board of Water Supply has two certified sources in the Waialua GWCA -- the Waialua and Haleiwa wells. Their respective "preserved uses" are 1.73 mgd and 1.00 mgd. In 1980, average pumping was 1.67 mgd (Honolulu, City and County of, Board of Water Supply, October 28, 1981). Hence, approximately one mgd of additional water is available from existing sources.

Thank you again for your comments. If you have any questions about the project, please call me at 521-5361.

Sincerely,  
*Robert J. White*  
Robert J. White

PJM:in  
cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

Environmental Impact Statement for the Proposed Kawaiiloa Subdivision, Waialua, Oahu (THK 6-1-03:26)  
Prepared by Robert M. Bell and Associates, Inc.  
Honolulu, Hawaii

**BELT, COLLINS  
& ASSOCIATES**  
INCORPORATED - Hawaii  
1414 Ala Moana Blvd., Suite 1000  
Honolulu, Hawaii 96813

June 29, 1982  
82-1055

PB 82-438

June 18, 1982

TO: MR. MICHAEL M. McELROY, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION

FROM: ROY H. TANJJI  
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT  
KAWAIIA SUBDIVISION  
THK: 6-1-03:26

We have no comment on the subject Environmental Impact Statement except that the document clearly addresses our concern that a portion of the project site is located within the Flood Hazard Area and that the structures will be designed and constructed to conform to the Flood Hazard District Ordinance.

ROY H. TANJJI  
Director and Building Superintendent

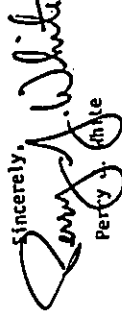
TH:10 Oceanic Properties, Inc.  
cc: J. Harada

Mr. Roy H. Tanjji  
Director and Building Superintendent  
Building Department  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Tanjji:

Environmental Impact Statement for the  
Proposed Kawaiia Subdivision  
Maialua, Oahu (THK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiia Subdivision, your June 18, 1982 memorandum (reference PB 82-438) to the Department of Land Utilization, City and County of Honolulu, is being answered by us. We understand you have no comments to offer except that the document addresses your concern regarding the flood hazard area. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,  
  
Perry J. White

PJM:gk

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

Approved: \_\_\_\_\_  
Honolulu, Hawaii  
1414 Ala Moana Blvd., Suite 1000  
Honolulu, Hawaii 96813



DEPARTMENT OF GENERAL PLANNING  
CITY AND COUNTY OF HONOLULU  
810 SOUTH KING STREET  
HONOLULU, HAWAII 96813



EILEEN B. ANDERSON  
40188

WILLARD T. CHOW  
CHIEF PLANNING OFFICER  
RALPH PORTNORE  
SENIOR CHIEF PLANNING OFFICER

DGP5/82-1821

June 18, 1982

Mr. Michael H. McElroy  
Page 2

estimate of the number of trucks to be used in the transport operation. Assessments may be necessary to evaluate fill/soil displacement at its source, truck emission of air pollutants along affected roadways, truck related noise generation, and interference with through traffic on Kamehameha Highway near the project site.

*Ralph Kawamoto*

RALPH KAWAMOTO  
Planner

APPROVED:

*W.T. Chow*

WILLARD T. CHOW

cc: ✓ Oceanic Properties, Inc.  
c/o Mr. Perry J. White  
Belt, Collins and Associates

MEMORANDUM

TO: Mr. Michael H. McElroy, Director  
Department of Land Utilization

VIA: Mr. Andrew I. T. Chang, Managing Director

SUBJECT: Environmental Impact Statement for the Kawaiiloa  
Subdivision

We have reviewed the subject EIS and offer the following comments:

1. There is insufficient information on the dry well to be situated adjacent to lot 8. The dry well would be used for disposal of stormwater runoff with well overflows to be directed to a swale along the boundary between lots 7 and 8. Not specified are the diameter/depth/capacity of the well, the percolation rate, and expected runoff from the well's service area. In addition, there is no information on whether a drainage easement (width and alignment) between lots 7 and 8 will be necessary.
2. While it is true that the site was designated for residential use on the North Shore Development Plan adopted by the City Council and vetoed by the Mayor, nonetheless that plan was simply one development proposal that was formulated. Revisions to that scheme may eventually materialize before a final plan for the North Shore area is adopted by ordinance. Our most recent proposal for the site designates an agriculture use, which differs from the intent of the proposed development.
3. There is no information on the amount and source of fill/soil to be imported to the site. Also missing is an

## Belt, Collins & Associates

Mr. Ralph Kawamoto  
Department of General Planning  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

July 1, 1982  
82-1069

Mr. Ralph Kawamoto, Planner  
Department of General Planning  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Kawamoto:

Environmental Impact Statement  
for the Proposed Kawaioa Subdivision  
Maialua, Oahu (TMK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaioa Subdivision, your June 18, 1982 memorandum (reference DGP 5/82-1821) to the Department of Land Utilization is being answered by us. We appreciate the time spent by you and your staff reviewing the document. Responses to your three specific comments are given below.

### 1. Dry Wells

If the stormwater disposal scheme described in the EIS is followed, it will require a drainage easement between lots 7 and 8. The exact width has not been determined as yet, but would be specified before final subdivision approval is sought.

EDP Hawaii, Inc., the civil engineers for the project, was asked to review your comment. Their response to it provides all of the information you requested and is reproduced below:

An alternative drainage disposal system is proposed in lieu of dry wells. The drilling of four (4) 9" diameter injection wells 50 ft. deep within the roadway area should provide sufficient disposal of the estimated 6 cfs of surface storm runoff to be collected by the roads' drainage system comprising of three drain inlets.

A water injection test was performed on the site using a 3-1/2" diameter hole drilled with a "10" casing to a depth of 48 ft. to estimate the inflow characteristics for storm water disposal studies. The test showed no noticeable change of the natural ground water level during the 20 and 35 minutes of continuous pumping of 80 gpm.

Mr. Ralph Kawamoto  
July 1, 1982 - 82-1069  
Page 2

Using the equilibrium or Thiem equation presented in Todd's "Ground Water Hydrology," two (2) 9" diameter wells, 50 ft. deep, should provide capacity for 6.5 cfs, as compared to 6.0 cfs required. Two (2) additional wells are proposed as a safety measure in case portions of a well become clogged. Prior to submittal of the SNP application, preliminary approval of this drainage scheme will be solicited from the Department of Public Works.

### 2. Development Plan Status

The discussion of the status of the North Shore Development Plan (NSDP) presented in the EIS focused on official milestones that had been passed in their processing. At the time the narrative was written, the Department of General Planning's (DGP) most recent draft of the NSDP had not been submitted to the Planning Commission. In view of the unofficial nature of the in-house draft and the numerous opportunities that existed for its revision, no discussion of the proposed NSDP following its veto by the mayor was included in the EIS.

As you note in your letter, the Kawaioa Subdivision site is designated for agricultural use on the Department of General Planning's latest (April 1982) version of the NSDP map. Hence, if the plan is adopted in its present form and the zoning adjusted accordingly, then construction of the proposed project would not be possible without first amending the NSDP. However, the actual situation with respect to the property is further clouded by the fact that the City and County of Honolulu Department of Parks and Recreation (DPR) has recently confirmed that it has long-range plans to acquire Oceanic's property for expansion of parking facilities serving Waimea Bay Beach Park but lacks the funds necessary to do so immediately.

It is unclear why the Kawaioa Subdivision site (which is currently zoned for single-family residential use and designated "Park" on the DLUR) has been designated Agriculture on the April 1982 version of the North Shore Development Plan map at the same time that it is designated "Park" on the Proposed Public Facilities map. If it is the City's intent to acquire the parcel and convert it to park use, it would seem more appropriate to indicate that on the Development Plan map. Such a designation would be more consistent with the Department of Parks and Recreation's announced plans, with the site's marginal suitability for agricultural use, and with the NSDP's Proposed Public Facilities map than is the Agriculture designation that DGP has proposed.

Hr. Ralph Kawamoto  
July 1, 1982 - 82-1069  
Page 3

3. Grading Activities

As described in the EIS, the proposed project involves the development of improved house lots only. The civil engineers estimate that it may be necessary to import approximately 1,000 cubic yards of fill material for the project's roadways. The cutting and filling undertaken during the construction of individual homes on these lots could require additional fill, the exact amount depending upon the specific house designs that are used. A rough estimate made by EDP Hawaii, Inc., of engineers for the project, suggests that it might be on the order of 2,000 cubic yards.

As is customary for a project of this scale, arrangements for acquisition of the necessary material will be made by the contractor performing the job at the time construction contracts are negotiated. Hence, it is impossible to specify a source for the material at this time. However, the relatively small fill volume makes it appear likely that no difficulties will be encountered in securing a supply of suitable material from a location where its extraction would not cause significant adverse environmental effects.

As indicated by the figures cited above, it will take relatively few truck loads of imported fill to complete the project. Assuming the use of 20-cubic-yard capacity trucks, earthmoving would generate only about 150 vehicle trips (equivalent to less than 10 vehicle trips per day over a one-month period). This is but a tiny fraction of the existing average daily traffic on Kamehameha Highway. Hence, detailed analyses of truck-related air pollution, noise emission, and traffic interference seems inappropriate.

Other

Thank you again for the time spent reviewing the EIS. If you have any further questions, please call me at 521-5361.

Sincerely,

  
Perry J. White

PJW:gk

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission  
EDP Hawaii, Inc.

**Belt, Collins & Associates**

Engineers  
1711 Kalia Road  
Honolulu, Hawaii 96813  
Telephone: (808) 531-1341  
Telex: 0010111 14071

**Dept. of Housing & Community Development**

1711 Kalia Road, 17th Floor  
Honolulu, Hawaii 96813

July 1, 1982  
82-1084

June 3, 1982

Mr. Michael M. McElroy, Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. McElroy:

Subject: Kawailoa Subdivision  
TRK: 6-1-03; 26  
Area: 4.69 acres  
Location: Kawailoa, Waialua, Oahu  
Proposal: 19 Lot Subdivision  
Approximate Price Per Lot: \$125,000  
Zoning: R-6 Residential

Thank you for forwarding the subject application for our review and comment.

We note that this is a conventional residential subdivision that will not be available to the low- and moderate-income and gap group families. In accordance with the Department's policy, we wish to request that at least 10 percent of all residential developments be set aside for these groups.

We will retain the EIS report in our files.

Sincerely,

JOSEPH K. CONANT

Original Signed

JOSEPH K. CONANT

cc: Oceanic Properties, Inc.  
c/o Perry J. White  
Belt, Collins & Associates  
606 Coral Street  
Honolulu, Hawaii 96813

Mr. Joseph K. Conant, Director  
Department of Housing &  
Community Development  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Conant:

Environmental Impact Statement for the Proposed  
Kawailoa Subdivision, Waialua, Oahu (TRK 6-1-03;26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawailoa Subdivision, your June 3, 1982 letter to the Department of Land Utilization is being answered by us. We appreciate the time you and your staff spent reviewing the document.

Regarding your request that 10 percent of all residential developments be set aside for low- and moderate-income and gap group families, Oceanic Properties has several comments. First, it is their position that all developments should not be required to meet an inflexible 10 percent standard, but rather that the overall record of developers in this regard should be weighed. Oceanic Properties and its parent company, Castle & Cooke, as developers have provided substantially greater percentages of housing for low- and moderate-income and gap group families in many of their projects. A recent example in the Waialua District is the 307-unit Paalaa Kai Subdivision which was sold entirely to these groups.

Second, they believe that the costs of developing the Kawailoa Subdivision site make it impractical to provide "affordable" housing here. Due to the high land value of almost all waterfront property, it is usually not appropriate for such housing. Oceanic Properties, Inc. feels this parcel can best be marketed as lots for custom homes.

Mr. Joseph K. Conant  
July 1, 1982 -- 82-1084  
Page Two

Finally, the property has R-6 zoning and would be developed under existing zoning and subdivision rules and regulations. Oceanic Properties, Inc. is not constructing any houses on this parcel. It seems that the policy of setting aside 10 percent of residential developments for affordable housing is more appropriately applied to house/lot combination developments.

If you have any questions about this matter or others, please call me at 521-5361.

Sincerely,  
*Perry J. White*  
Perry J. White

PJW:lt

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

DEPARTMENT OF LAND UTILIZATION  
CITY AND COUNTY OF HONOLULU  
630 SOUTH KING STREET  
HONOLULU 14, HAWAII 96813 • (808) 521-4211



EILEEN R. ANDERSON  
CLERK

MICHAEL M. McELROY  
DIRECTOR

81/SMA-82(SH)

June 21, 1982

Mr. Perry J. White  
Belt, Collins & Associates  
606 Coral Street  
Honolulu, Hawaii 96813

Dear Mr. White:

Draft Environmental Impact Statement (EIS)  
Proposed Kawaioa Subdivision  
Kawaioa, Maialua, Oahu  
Tax Map Key: 6-1-03: 26

We have reviewed the above and have the following comments to offer:

1. Reference: Page III-4.  
Comment: At the time of the submittal of the Special Management Area Use Permit (SMP) application, the applicant shall provide written documentation from the State Department of Health, City and County Departments of Public Works (DPW) and Board of Water Supply regarding the acceptability of cesspool disposal at the proposed project site.
2. Reference: Page III-6.  
Comment: At the time of the submittal of the SMP application, the applicant shall provide a preliminary drainage plan, depicting the drainage system and direction of runoff flows on-site. Preliminary approval of the drainage scheme by the DPW will also be required at that time.
3. Reference: Page III-21.  
Comment: What is the estimated amount of on-site cut and fill required for the roadways? Can a rough estimate for on-site grading other than the roadways be provided?

Mr. Perry J. White  
Page 2

4. Reference: Page III-41.  
Comment: The applicant will coordinate with the Department of Parks and Recreation (DPR) regarding the desirability of establishing a public vs. private easement adjacent to Parcel 10. Written documentation from DPR will accompany the SMP application.
5. Reference: Page III-42.  
Comment: A map from DPR showing the sites designated for the Waimea Bay Beach Park expansion is requested and would be helpful to EIS reviewers.  
A written response from DPR updating the status of the site selection and proposed acquisition of lands for expansion of Waimea Park shall be submitted prior to or concurrent with the request for an SMP.
6. Reference: Page III-28 to 38.  
Comment: Oceanic Properties does not totally agree with Bishop Museum's recommendation for extensive archaeological work. We are requesting that a written response from the Department of Land and Natural Resources, State Historic Preservation Office (SHPO), regarding the minimum mitigating conditions that SHPO would consider acceptable, be submitted prior to or concurrent with the request for an SMP.  
If there are any questions, please contact Sampson Mar of our staff at 523-4077.

Very truly, yours,

MICHAEL M. McELROY  
Director of Land Utilization

MMM:sl

**Belt, Collins & Associates**  
Landscape Architects  
1000 Ala Moana Blvd., Suite 400, Honolulu, Hawaii 96813  
Tel: 808-531-1000

Mr. Michael H. McElroy  
Page 2 - 82-1065  
June 29, 1982

June 29, 1982  
82-1065

Mr. Michael H. McElroy, Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. McElroy:

Environmental Impact Statement for the  
Proposed Kawailoa Subdivision  
Matalua, Oahu (TMK 6-1-03:26)

Thank you for your letter dated June 21, 1982, (reference 81/SMA-82 (SH)) regarding the Environmental Impact Statement prepared by this firm for the proposed Kawailoa Subdivision. We appreciate the time you and your staff spent reviewing the project.

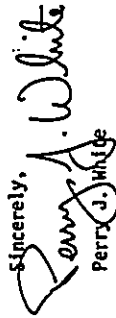
Of the six numbered comments in your letter, only two (numbers 3 and 5) asked that additional information be included in the EIS. The first of these, comment number 3, asks for a quantification of the cut and fill requirements of the project. After discussing this with EDP Hawaii, Inc., the civil engineers for the project, they have indicated that approximately 1,000 cubic yards of fill material would need to be imported in order to grade the roadways as shown in Figure 1-5 of the EIS. The amount of other on site grading that will be necessary depends entirely on the specific designs of the individual homes that lot-buyers construct on them. This can range from virtually zero in the case of some pole-house designs to 150 cubic yards per house or more if ground floors are carved out of the hillside on some of the more steeply sloping lots. EDP Hawaii, Inc., engineers for the project, have estimated that this would amount to approximately 2,000 cubic yards of fill for the entire parcel.

The second comment which asks for additional information is number 5. It asks for the inclusion in the EIS of a map showing the three areas studied as possible sites for expansion of parking facilities available to users of the Waimea Bay Beach Park. In response to your request, we are adding a map showing the alternative sites studied to the section 11.7 "Recreational Facilities" in Chapter III.

Your other comments identify additional documentation that is not required for the EIS, but that must be submitted prior to or in conjunction with the Special Management Area Use Permit (SMP) application. These are:

- o Written documentation from the State Department of Health, the City and County Department of Public Works, and the Honolulu Board of Water Supply regarding the acceptability of the proposal to dispose of wastewater via on-site cesspools;
- o A preliminary drainage plan depicting the proposed stormwater drainage system and the direction of runoff flows generated on-site together with a letter from the City and County Department of Public Works granting preliminary approval for the drainage plan;
- o A letter from the City and County Department of Parks and Recreation indicating their satisfaction with the provisions that have been made with respect to the ownership of the easement adjacent to Parcel 10;
- o A letter from the City and County Department of Parks and Recreation (DPR) indicating the status of their plans for expansion of parking facilities serving the Waimea Bay Beach Park;
- o A letter from the State Historic Preservation Officer regarding the minimum measures that would be considered adequate for mitigating the potential adverse effects on archaeological and historic resources will be submitted prior to or concurrent with the request for a SMP.

Thank you again for your thoughtful review of the EIS. If you have any further questions, please call me at 521-5361.

Sincerely,  
  
Perry J. White

PJM:st

cc: Environmental Quality Commission  
Oceanic Properties, Inc.  
EDP Hawaii, Inc.

DEPARTMENT OF PARKS AND RECREATION  
CITY AND COUNTY OF HONOLULU  
650 SOUTH KING STREET  
HONOLULU, HAWAII 96813

**Belt, Collins & Associates**

1100 KALANOA LANE, SUITE 200  
HONOLULU, HAWAII 96813  
TELEPHONE: 535-1100



EILEEN D. ANDERSON  
DIRECTOR

June 10, 1982

July 1, 1982  
82-1068

Mr. Robert K. Hasuda, Director  
Department of Parks and Recreation  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Hasuda:

MEMORANDUM

TO: MICHAEL H. McELROY, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION

FROM: ROBERT K. MASUDA, DIRECTOR

SUBJECT: REVIEW OF EIS FOR KAWAIILOA SUBDIVISION AS PROPOSED BY  
OCEANIC PROPERTIES, INC., AT WAIHEA BAY, TMK: 6-1-03: 26

We have no comments on the EIS for Kawaiiloa Subdivision. However, we must reiterate that the Department of Parks and Recreation has had a long-range plan to acquire and develop this parcel as an extension of Waimea Bay Beach Park.

Please refer to "Feasibility Study for Expansion of Parking Facilities at Waimea Beach Park," dated June 1977, as prepared by Urban Engineering Consultants, Inc., of Honolulu, Hawaii. On page 7 of this report, we have a schematic plan - Site "A," Proposed Parking Area, Waimea Beach Park.

Due to current fiscal shortages, it appears unlikely that the City will be able to acquire this parcel in the immediate future.

RKM:vc

cc: Oceanic Properties, Inc.

Environmental Impact Statement for the  
Proposed Kawaiiloa Subdivision, Matalua, Oahu (HK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiiloa Subdivision, your June 10, 1982 memorandum to the Department of Land Utilization is being answered by us. We appreciate the time spent by you and your staff reviewing the document.

The EIS discussed the proposals contained in the Urban Engineering Consultants, Inc. study referred to in your letter (see pages 111-41 & 42). It also summarized the Department's position as we understood it from our October 21, 1981 meeting with your staff. Your recent comments appear to confirm the accuracy of the discussion presented in the EIS with respect to this topic. However, in order to update the discussion, a figure showing the proposed parking sites has been added, and the fourth and fifth paragraphs on page 111-42 of the EIS have been revised to read as follows [brackets denote deleted material and underlining identifies new material]:

In addition, a meeting was held on October 21, 1981 with representatives of the Department to discuss the proposed subdivision as it related to any plans they might have for expansion of Waimea Bay Beach Park. The Department also received a copy of the draft EIS for review and comment.

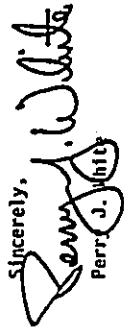
No written response to [As yet, no response has been received to the questions asked in] our letter of September 25, 1981 was received. However, at our October 21, 1981 meeting with staff of the Department of Parks and Recreation, we were informed that the area identified as "Site A" in the Urban Engineering Consultants, Inc. report (January 3, 1978) was tentatively scheduled for acquisition during the City's 1983-1984 fiscal year and that construction of a parking lot would be initiated as soon thereafter as funding permitted.



Mr. Robert K. Masuda, Director  
July 1, 1982  
Page Two

Oceanic Properties, Inc. expressed a willingness to enter discussions immediately regarding the terms of acquisition, but was told that the Department was unable to make any formal commitment concerning the property at [the present] that time. In view of this, the developer indicated that it would be necessary to continue with efforts to implement the proposed 19-lot subdivision. In response to a request for comments on the draft EIS, the Department of Parks and Recreation wrote to the Department of Land Utilization on June 10, 1982 indicating that they still plan to acquire and develop the Kaweloa Subdivision parcel but that owing to current fiscal shortages, it appears unlikely that the City will be able to acquire this parcel in the immediate future."

If you have any questions regarding the project, please call me at 521-5361.

Sincerely,  
  
Perry J. White

PJH:ln

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

DEPARTMENT OF PUBLIC WORKS  
CITY AND COUNTY OF HONOLULU  
650 SOUTH KING STREET  
HONOLULU 9, HAWAII 96813



HELEN M. ANDERSON  
CLERK

MICHAEL J. CHUN, Ph.D.  
DIRECTOR AND CHIEF ENGINEER  
WILLIAM A. DONNET  
SENIOR ENGINEER

ENV 82-213

June 8, 1982

MEMORANDUM

TO: MR. MICHAEL McELROY, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION

FROM: MICHAEL J. CHUN, DIRECTOR AND CHIEF ENGINEER

SUBJECT: EIS FOR KAWAIILOA SUBDIVISION (THK: 6-1-03: 26)

We have reviewed the subject EIS and have the following comments.

1. Positive drainage should be provided for lots 1, 2, 3 and 19. Covered drains in easements should be used instead of an overflow ditch.
2. Since capacity of dry wells could be very limited, their uses may not be feasible for heavy rainstorms.

*W. J. Chun*

MICHAEL J. CHUN  
Director and Chief Engineer

cc: Belt, Collins & Associates,  
Perry J. White

New Address:  
408 Coast Street  
Honolulu, HI 96813

**Belt, Collins & Associates**  
Engineers, Planners, Architects  
1415 Ala Moana Blvd., Suite 1002 Honolulu, Hawaii 96813  
Telephone: (808) 531-3361

June 30, 1982  
82-1075

Mr. Michael J. Chun  
Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Chun:

Environmental Impact Statement for the  
Proposed Kawaiiloa Subdivision  
Maialua, Oahu (THK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiiloa Subdivision, your June 8, 1982 memorandum (reference ENV 82-213) to the Department of Land Utilization is being answered by us. We appreciate the time you and your staff spent reviewing the EIS. Responses to your two comments follow.

1. Provision of Positive Drainage

In response to your first comment, EDP Hawaii, Inc., the civil engineers for the project, has informed us that it would be feasible to provide positive drainage using a paved swale along the southern boundary of Lots 1, 2, 3 and 4 to carry storm runoff to the ocean. Runoff from Lot 19 would be directed into the roadway drainage system. A preliminary drainage plan will be submitted to the Department of Public Works before the SMA permit application is officially submitted.

2. Feasibility of Dry Wells

In addition to the dry well system described in the EIS, EDP Hawaii, Inc., the civil engineers for the project, is exploring an alternative stormwater disposal system. According to their analysis:

In lieu of dry wells, constructing four (4) 9" diameter injection wells, 50 ft. deep within the roadway area should provide sufficient disposal of the estimated 6 cfs of surface storm runoff to be collected by the roads' drainage system comprising of three drain inlets.

A water injection test was performed on the site using a 3-1/2" diameter hole drilled with a "HQ" casing to a depth of 48 feet to estimate the inflow characteristics for storm water disposal studies. The test showed no noticeable change of the natural ground water level during the 20 and 30 minutes of continuous pumping of 80 gpm.

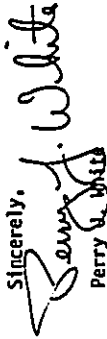
RAY, LTD., Principal; James R. Bell, Paul M. Hines, Raymond E. Carr, Joseph Vetter, Jr., Thomas H. Pajonik

Mr. Michael J. Chun  
Page 2 - 82-1075  
June 30, 1982

Using the equilibrium or Theim equation presented in Todd's "Ground Water Hydrology," two (2) 9" diameter wells 50 ft. deep should provide capacity for 6.5 cfs, as compared to 6.0 cfs required. Two (2) additional wells are proposed as a safety measure in case portions of a well become clogged. Prior to submittal of the SMP application, preliminary approval of this drainage scheme will be solicited from the Department of Public Works.

If you have any questions regarding our responses to either of these two comments, please call me at 521-5361.

Sincerely,

  
Perry U. White

PJM:st

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission  
EDP Hawaii, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES  
**CITY AND COUNTY OF HONOLULU**  
HONOLULU MUNICIPAL BUILDING  
650 SOUTH KING STREET  
HONOLULU, HAWAII 96813



THOMAS P. J. JAMES  
DIRECTOR

June 9, 1982

MEMORANDUM

TO: MICHAEL H. MCELROY, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION

FROM: ROY A. PARKER, DIRECTOR

SUBJECT: KAWAIILOA SUBDIVISION ENVIRONMENTAL IMPACT STATEMENT

We have the following comments on the environmental impact statement:

1. The report does not have a discussion on the available bus service and the impact of this project on this service.
  2. The assumptions used to develop project related traffic appears to be reasonable.
  3. This report should be transmitted to the State Department of Transportation since the project has access of Kamehameha Highway, which is under State jurisdiction.
- Thank you for providing us this opportunity to review and comment on the project.

ROY A. PARKER

cc: Oceanic Properties, Inc.  
c/o Perry J. White  
Belt, Collins and Associates  
606 Coral Street  
Honolulu, Hawaii 96813

**Belt, Collins & Associates**  
Engineers, Planners, Architects  
Landscape Architects  
Interior Designers  
1505 Kalia Road, Suite 405, Honolulu, Hawaii 96813  
Telephone: (808) 521-5560

June 29, 1982  
82-1060

Mr. Roy A. Parker, Director  
Department of Transportation Services  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Parker:

Environmental Impact Statement for the  
Proposed Kawaiiloa Subdivision  
Maialua, Oahu (THK 6-1-03:26)

Because Belt, Collins and Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiiloa Subdivision, your June 9, 1982 (reference TE 5/82-2079/PL-3012-82) memorandum to the Department of Land Utilization is being answered by us. We appreciate the time you and your staff spent reviewing the document. Responses to your three comments are given below.

1. Bus Service

The EIS focused on those things which might be significantly impacted by the proposed project. Our analysis indicated that the proposed subdivision would generate far too few bus-passenger trips to have a substantial effect on bus service in the area. Because of this we did not discuss the existing bus service in the EIS and do not believe that the inclusion of such information would contribute substantially to an understanding of the project's significant effects.

Only the around-the-island buses (Route 52) currently pass the site; they travel in both directions, circling the Ko'olau Range clockwise or counterclockwise. The first bus heading towards Kahuku passes through Haleiwa at 4:53 a.m. on weekdays (5:58 a.m. on Saturdays and 6:58 a.m. on Sundays), and the last at 9:18 p.m. every night. In the opposing direction, the first bus heading west past the site leaves the Kuliama stop at 5:10 a.m. on weekdays (at 6:00 a.m. on Saturdays and at 7:05 a.m. on Sundays) and the last one at 11:50 p.m. every night. The usual headway for both east-bound and west-bound buses is about 30 minutes except for the last few buses (after 7:30 p.m.) where the headway is 50 minutes or more.

Observations of the bus stops a short distance southwest of the project site, near Papailoa Road and Ikuwai Place, indicate that the proposed Kawaiiloa Subdivision would add no more than two or three person-trips to the bus's load during the peak hours.

PLA 1111 Principal: James R. Bell, Paul K. Linde, Raymond J. Carr, Joseph V. Vera, Jr., Thomas P. J. James

Mr. Roy A. Parker  
Page 2 - 82-1060  
June 29, 1982

2. We are pleased you found the traffic projections based on reasonable assumptions.
3. A copy of the Environmental Impact Statement was sent to the State Department of Transportation, and they have reviewed and commented on it.

Thank you again for the time spent reviewing the EIS. If you have any further questions, please call me at 521-5361.

Sincerely,

*Perry J. White*  
Perry J. White

PJH:st

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

RECEIVED  
JUN 7 1982

BELT, COLLINS & ASSOCIATES

BELT, COLLINS & ASSOCIATES  
Engineering - Planning  
Landscape Architecture

June 29, 1982  
82-1046

EFS-JS

June 2, 1982

TO: MICHAEL McELROY, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION  
FROM: FRANCIS KEALA, CHIEF OF POLICE  
SUBJECT: ENVIRONMENTAL IMPACT STATEMENT FOR THE KAWAIILOA  
SUBDIVISION, KAWAIILOA, OAHU, THK 6-1-03:26

We have reviewed the environmental impact statement for the proposed Kawaiiloa subdivision and have no objections to it or further comments on it at this time.

*Francis Keala*  
FRANCIS KEALA  
Chief of Police

cc: Oceanic Properties

IX-41

Chief Francis Keala  
Police Department  
City and County of Honolulu  
1455 South Beretania Street  
Honolulu, Hawaii 96814

Dear Chief Keala:

Environmental Impact Statement for the Proposed Kawaiiloa Subdivision, Kawaiiloa, Oahu (THK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kawaiiloa Subdivision, your June 2, 1982 memorandum (reference EFS-JS) to the Department of Land Utilization, City and County of Honolulu is being answered by us. We understand you have no further comments to offer at this time. Thank you for the time spent by you and your staff reviewing the EIS.

Sincerely,  
*Robert M. Bell*  
ROBERT M. BELL  
Per City White

RJM:ln  
cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

606 Coral Street, Honolulu, Hawaii 96813 Telephone (808) 521-5161 Telex BEL111 7410474  
BCA LTD. Principals: James R. Bell, Paul M. Hines, Raymond F. Cain, Joseph Verro, Jr., Thomas P. Papadimitriou  
Founded in 1953 by Robert M. Bell and Walter K. Collins

2  
22 June 1982  
Department of Land Utilization

RE: EIS, Kawaiioa

If this area is allowed to lie fallow and is not disturbed, at some future time undoubtedly, the unique ko'a will be segregated for proper preservation and study, since it is unique in the island.

Other undiscovered archeological finds which are indicated by Bishop Museum's report likewise remain to be studied.

3) Impact of cesspools--without a doubt, the river from Waimea is contaminated and contaminates Waimea Bay. Also, cesspools from the opposite side of Waimea Bay where there is housing undoubtedly percolate down into the water.

Despite the fact that cesspool contamination from Kawaiioa project would be small, this contamination would be additive to the other sources of contamination. This, of course, will make the Waimea Bay park area much less desirable in the long run, in addition to the impact on biota of the shoreline.

4) Traffic problem with entrance-exit into the project--this is a definite concern, at high density times especially. Left turn from Haleiwa into the project will definitely stop Kahuku-bound traffic, and additional thoughts should be given this.

There would be a definite problem of exiting from the project, as not everybody obeys the 35 to 40 mile speed limit that's imposed, and this would be a potential source of accidents.

On heavy duty days, like Sundays in mid-July, traffic is backed up to this general area, on occasion.

Some special entrance arrangement, such as a left turn lane or another solution, should be considered.

5) View plans in relation to scenic and dwelling heights--seem generally satisfactory.

However, if the project proceeds, we would suggest a covenant between the developer and purchasers of lots, restricting home to one story, with specific design guidelines which would make homes complement the landscape, rather than conflict.

The implication that the expense of the lot will infer expensive homes and good taste is a point well taken but does not necessarily hold true.

In summary, the project appears to be well-conceived, and a person owning a home here would be indeed fortunate in his view and surroundings.

22 June 1982

Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Gentlemen:

RE: EIS, Kawaiioa Subdivision

Specific questions and comments brought up in our letter, October 27, 1981, are addressed and partially answered in the EIS prepared by Bell, Collins and Associates.

Most points are satisfactorily answered. Some of the solutions given may not be for the best of the community at large.

After review of the EIS, "Kawaiioa," the following thoughts in reference to our questions are submitted, plus some general comments.

It has been the stated intent of the City and County authorities, the General Plan, and it is the feeling of the Northshore Neighborhood Board which represents the members of our community, that the Northshore remain rural, and remain as a source of beaches and parks for members of the island who live in urban areas.

Additional urbanization in this area does not fall within this concept. To make clusters of houses on hills, beach areas, and other desirable areas which might be used for recreation, as has been done in California, does not fit this concept.

The fact that the land is there and can be developed does not mean that it has to be developed at this time, but can be allowed to lie fallow for future park, development, archaeological excavations and research, and just open space for the sake of beautiful untrammeled scenery, as opposed to housing. There is no compelling need for additional increased population above that designed in the General Plan, and we've already surpassed that number in this area.

With the above thoughts, the following specific comments are submitted:

- 1) Surface runoff water--explanation and comments seem quite satisfactory.
- 2) Adjacent and intermingled archeologic sites and evaluation of sites--the solution offered by the EIS seems unsatisfactory, as they state that without development, it would have been unlikely for additional research to be done.

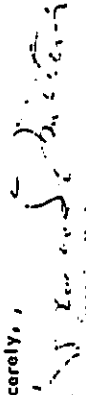
3  
22 June 1982  
Department of Land Utilization

RE: EIS, Kavalloa

Unfortunately, the project would detract from the goals of the City and County and community in some respects.

It causes further overcrowding of the highway and diminishes available space for future parks and recreation for the urbanized population of the island.

Sincerely,

  
Rodman B. Miller, Member  
Northshore Neighborhood Board

cc: Oceanic Properties, Inc.  
c/o Perry J. White  
Belt, Collins and Associates  
606 Coral Street  
Honolulu, Hawaii 96813

## Belt, Collins & Associates

1000 Kalia Road, Suite 1000, Honolulu, Hawaii 96813  
Telephone: 535-1100

July 1, 1982  
82-1073

Mr. Rodman B. Miller, M.D.  
Member, Northshore Neighborhood Board  
61-661 Kanehameha Highway  
Haleiwa, Hawaii 96712

Dear Dr. Miller:

Environmental Impact Statement for the Proposed  
Kavalloa Subdivision, Maialua, Oahu (TK 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact Statement (EIS) for the proposed Kavalloa Subdivision, your June 22, 1982 letter to the Department of Land Utilization is being answered by us. Your comments were unusually thoughtful, and I appreciate the time you spent reviewing the document and composing your letter. I am pleased to know that most points were satisfactorily answered. Specific questions and issues raised in your letter are discussed on a point-by-point basis below.

### Urbanization of the North Shore

In general, your statement that City and County policy calls for the North Shore to retain its rural character is accurate. However, your conclusion that, "Additional urbanization does not fall within this concept," is not supported by the available evidence. All of the drafts of the North Shore Development Plan that have been circulated to date call for a modest amount of additional residential growth within the Planning Area. Substantial growth certainly could occur on the vacant land which currently has State urban and County residential zoning.

In view of this, we believe that small in-fill developments on residentially zoned land such as the project site are consistent with the City's overall growth targets for the area. Whether or not it is consistent with the City's plans for this particular piece of property is another question, one that cannot be answered until the Development Plan for the North Shore Planning Area is finally adopted by the City Council and signed into law.

It should be noted that the only other specific use that has been proposed for this shoreline site is as a supplementary parking lot for Maimea Bay Beach Park. Many planners would argue that development of such an urban,



this, we cannot agree with your conclusion that the small amount of wastewater that would find its way into the ocean from the project would "... make the Waimea Bay park area much less desirable in the long run." To the contrary, it is much more probable that it would have no measurable effect there. For the same reasons, as well as the fact that the organisms inhabiting the affected area are hardy ones adapted to survival in a high-stress environment, the proposed project is not expected to have a significant effect on marine biota.

#### Traffic Impacts

As indicated in Section 6.0 of Chapter III of the EIS, peak traffic generation of the project is expected to be on the order of 15 to 20 vehicle-trips per hour. During the hour when other traffic on Kanehameha Highway is greatest, the number of trips generated by the subdivision would be somewhat lower. Hence, even under the worst conditions only one car every four to five minutes would have to merge with or cross through traffic. This is too small a volume to be of concern. Note that only about half the cars must turn across opposing traffic; the others would be able to make free right turns.

By way of example, I would like to call your attention to several existing roadways that intersect Kanehameha Highway in the same general area and which carry higher volumes than would the proposed access road to the Kawaiiloa Subdivision. These roads, together with estimates of the number of vehicle trips they now carry during their peak hour are:

- o Papailoa Road -- 35 vph
- o Ikuwai Place -- 35 vph
- o Punalau Place -- 30 vph

All of these volumes are at least 50 percent higher than would be generated by the Kawaiiloa Subdivision, yet they create no significant problems. Turning vehicles will, of course, cause momentary delays, but that is typical of conditions on two-lane rural roadways such as Kanehameha Highway. Special turning and acceleration/deceleration lanes are always preferable, but are not justified by the projected traffic volumes.

#### Protection of View Planes

At this time Oceanic Properties, Inc. does not plan to include covenants regarding views or design characteristics in deeds for the lots. Such limitations could be added before the lots are sold, however.

intensive-use facility would be a wasteful use of scarce oceanfront land. Certainly it would have no less (and in many respects much greater) impact than the proposed subdivision.

#### Archaeological Resources

The EIS accurately reports the findings of the Bishop Museum's archaeological survey of the project site, including their recommended mitigation measures, i.e., intensive survey and salvage of selected sites. Implementation of these measures and exclusion of the ko'a from the development area would prevent the loss of significant archaeological resources as a result of the proposed subdivision.

On page III-36 of the EIS we noted in passing that, "... it is unlikely that the research value of any of the sites would be realized if the subdivision is not implemented." It was not our intention to make a major issue of this point. It is true that (1) the sites' primary value is in the information which scientific study of them might reveal, and (2) that such research is much less likely to be conducted (and, therefore, the scientific value realized) if development does not occur. Certainly the parcel could be left in its present state in the hope that someone might eventually undertake these investigations. However, experience elsewhere in Hawaii suggests that the parcel would probably never be explored farther in the absence of any development pressure. As evidence of this we need only look to the ko'a that straddles the boundary of the parcel; it received no attention between the time it was mapped by McAllister in the 1930s and the Bishop Museum's survey in 1980.

Finally, please note that the City has the power to specify what additional archaeological work needs to be done before development may proceed. Hence, it is reasonable to believe that all significant archaeological issues will be satisfactorily resolved before construction activities can begin.

#### Impact of Cesspools

As you recognize in your letter, the Waimea River is the major influence on water quality in the vicinity of the proposed subdivision. Seepage from existing cesspools may have a deleterious effect on water quality in the vicinity of Waimea Bay (clearly it could not be positive), but such a relationship has not been demonstrated. The amount of wastewater that would find its way into nearshore waters from the Kawaiiloa Subdivision would be small, it would be dispersed over a wide area by the groundwater flow before entering the ocean, and the prevailing ocean currents would carry possible contaminants away from, rather than towards, Waimea Bay Beach Park. In view of

Mr. Rodman B. Miller, M.D.  
July 1, 1982 -- 82-1073  
Page Four

Closing Remarks

Once again let me thank you for the effort you put into your review. Your questions were well taken and clearly stated. I hope our responses have answered them adequately. If you need any additional information, please call me at 521-5361.

Sincerely,  
*Percy J. White*  
Percy J. White

PJM:lt

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission



University of Hawaii at Manoa

Water Resources Research Center  
100 Hahaione Hall 201 - 2510 Dole Street  
Honolulu, Hawaii 96822

24 June 1982

Dept. of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement for the  
Proposed Kawaihoa Subdivision, Kawaihoa, Oahu  
TK# 6-1-03:26, April 1982

We have reviewed the subject EIS and have no comment to offer  
except that potential buyers of the taumai prone lots should be  
made aware of the hazard.

Thank you for the opportunity to comment. This material was  
reviewed by WRMC personnel.

Sincerely,

Edwin T. Murabayashi  
EIS Coordinator

ETH:jm

cc: Oceanic Properties, Inc.  
Y.S. Fok  
H. Gee

**BELT, COLLINS  
& ASSOCIATES**  
Engineering • Planning  
Landscape Architecture

June 30, 1982  
82-1086

Mr. Edwin T. Murabayashi  
EIS Coordinator  
Water Resources Research Center  
University of Hawaii  
2540 Dole Street, Room 283  
Honolulu, Hawaii 96822

Dear Mr. Murabayashi:

Environmental Impact Statement for the  
Proposed Kawaihoa Subdivision  
Maialua, Oahu (TK# 6-1-03:26)

Because Belt, Collins & Associates prepared the Environmental Impact  
Statement (EIS) for the proposed Kawaihoa Subdivision, your June 24, 1982  
letter to the Department of Land Utilization, City and County of Honolulu  
is being answered by us. We appreciate the time you and your staff spent  
reviewing the document.

In response to your comment, Oceanic Properties, Inc., has indicated  
to us that sales documents for the lots fronting the ocean would inform  
prospective buyers of the presence of a coastal flood hazard zone. If  
you have any further questions regarding this project, please call me  
at 521-5361.

Sincerely,  
*Perry J. White*  
Perry J. White

PJM:st

cc: Oceanic Properties, Inc.  
Department of Land Utilization  
Environmental Quality Commission

406 Canal Street, Honolulu, Hawaii 96813 Telephone (808) 521-5161 Telex BELH11 7410474  
BCA LTD. Principals: James R. Bell, Paul M. Hirata, Raymond F. Cain, Joseph Varra, Jr., Thomas F. Papadimitriou  
Founded in 1951 by Robert M. Belt and Walter K. Collins

AN EQUAL OPPORTUNITY EMPLOYER